




2012 - 2013 Research Report to UKRF Board of Directors

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Vice President for Research

08 May 2013



2012 – 2013 Highlights

- **New F&A rates negotiated**

	FY2013	FY2014	FY2016
Research (on-campus)	48.5%	50.0%	50.5%
Research (off-campus)	26.0%	26.0%	26.0%
Instruction (on-campus)	45.0%	46.0%	46.0%
Ag Research (on-campus)	39.0%	40.0%	40.0%
Other (on-campus)	33.9%	31.5%	31.5%

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2012 – 2013 Highlights

- **PHS Financial Conflict of Interest rule (42 CFR Part 50) fully implemented**
- **AR 7:2 now extends annual financial disclosure requirement to all UK investigators**
- **Launched new occupational health program in animal care and use**

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Current Initiatives

- **OVPR & Provost's Office: grant-writing workshops Summer 2013**
- **Developing training program for investigators in Responsible Conduct of Research (RCR) for Fall 2013**
- **SPA refining a new report format to help PIs better manage grants**



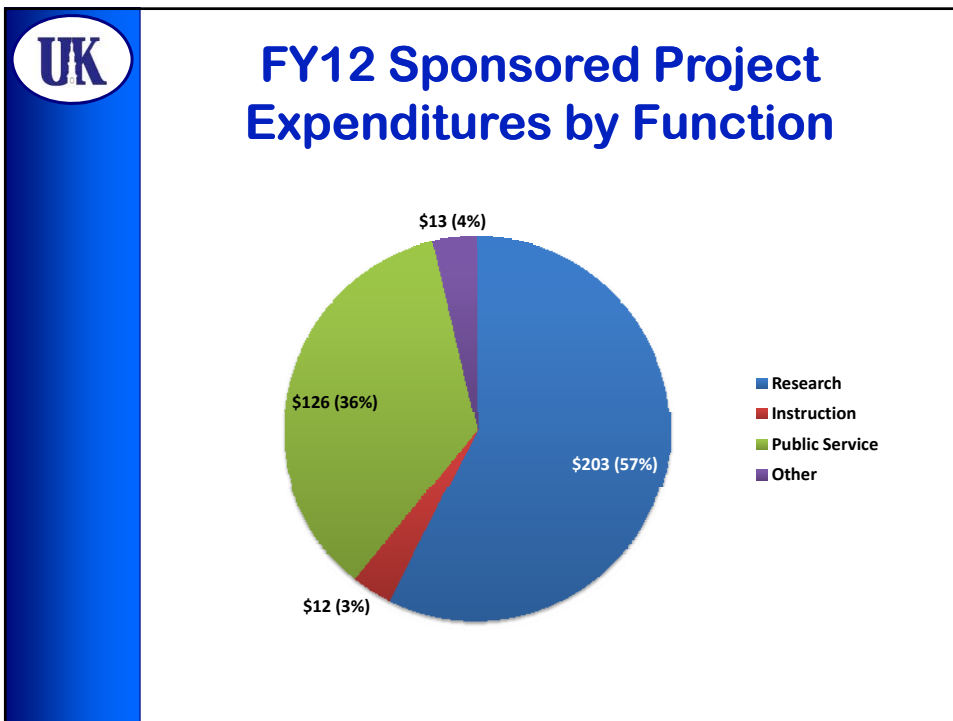
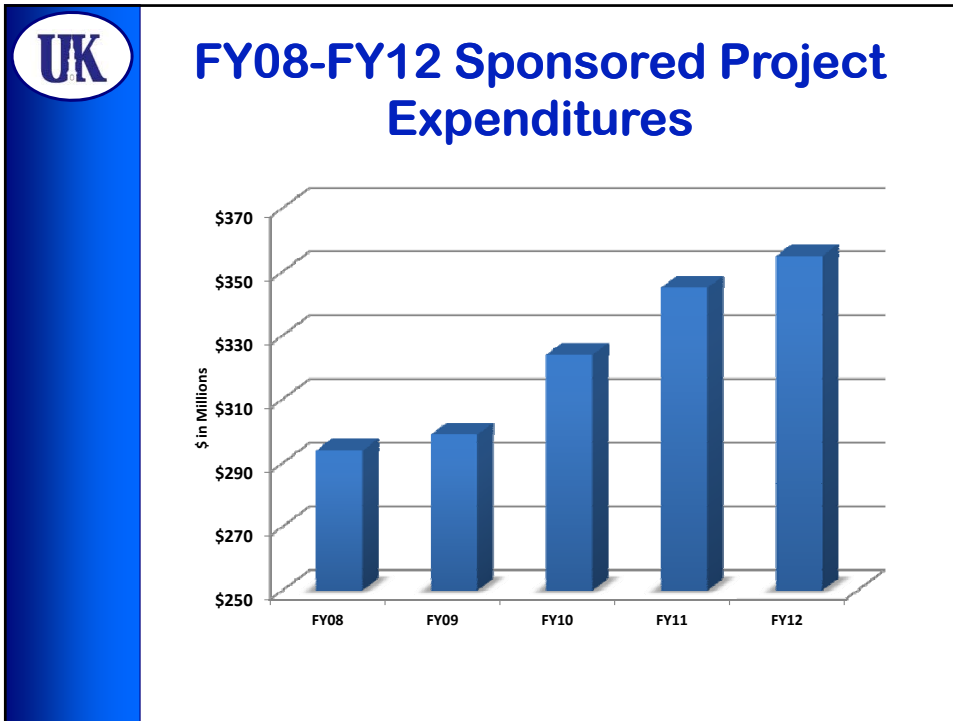
2012 – 2013 Highlights

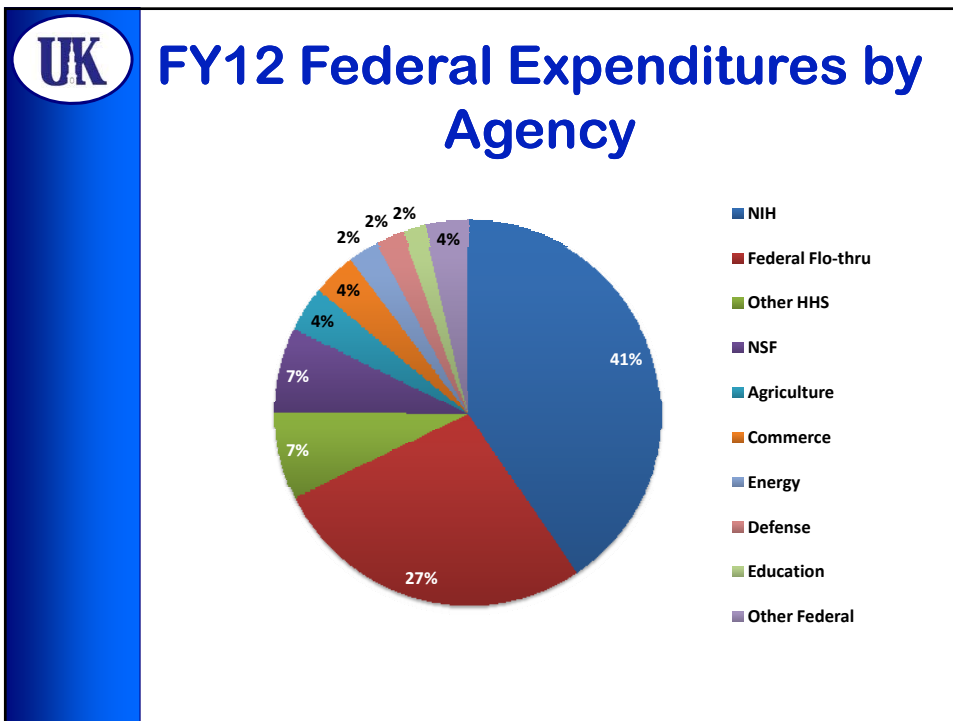
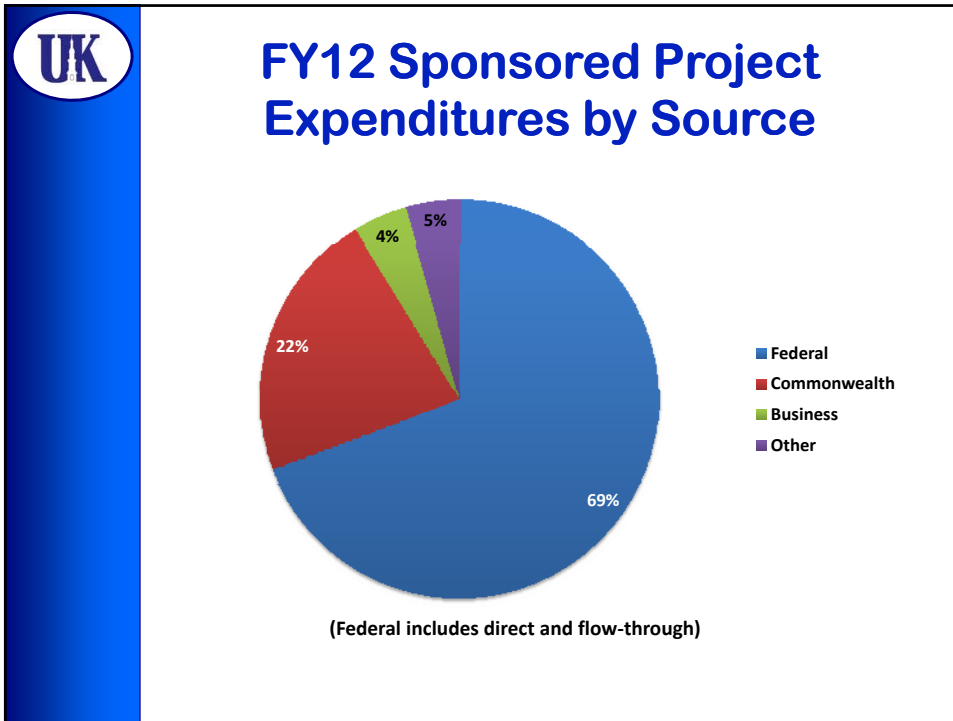
- Ongoing national advocacy for university-based R&D
- Reveal: UK Research Media
<http://www.research.uky.edu/reveal/>
a collaboration between Research Communications, the Vis Center, and UK PR

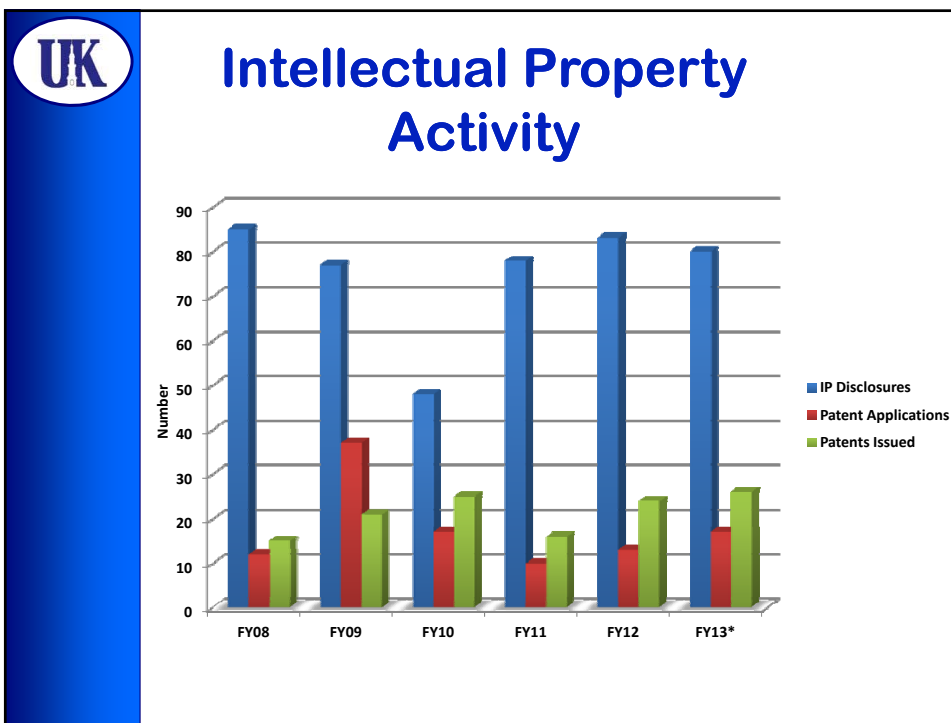
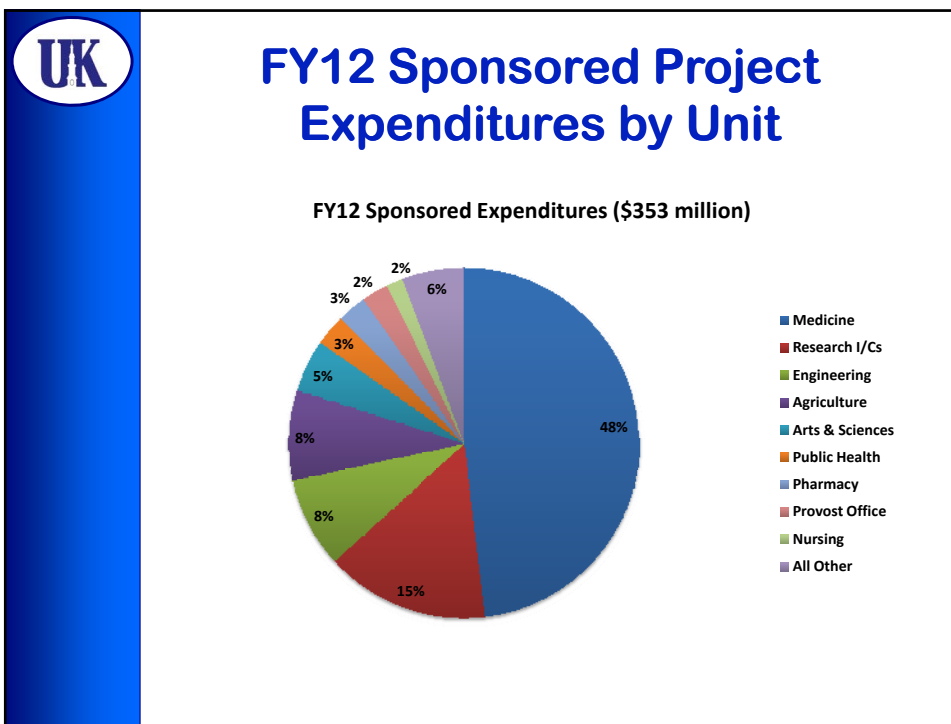


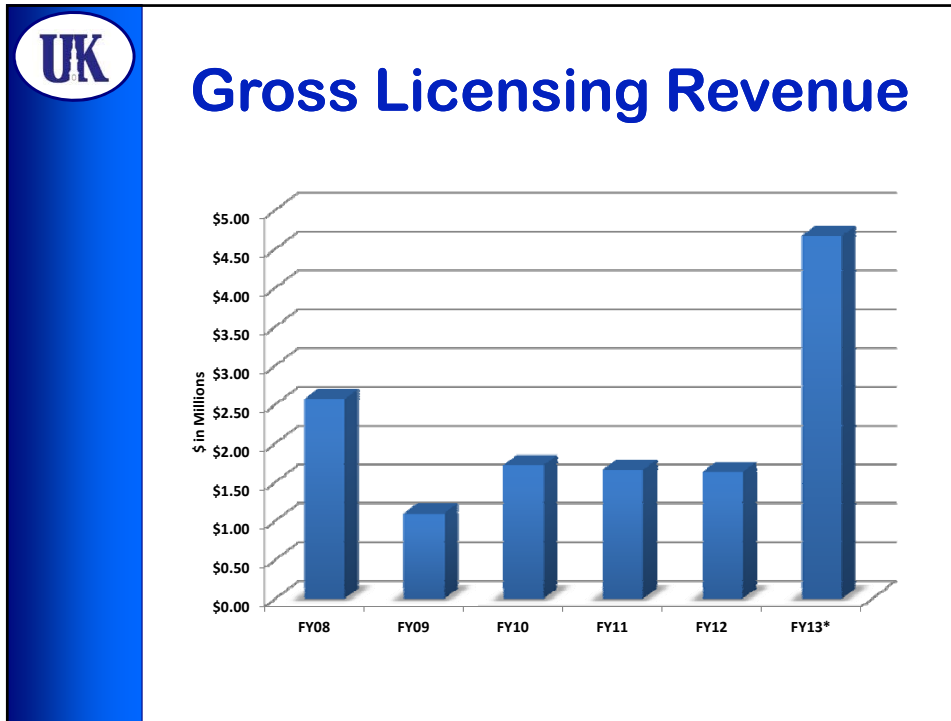
National Science Foundation Higher Education R&D Survey

- Tracks R&D expenditures at 912 institutions
- Latest HERD survey is for FY2011
- UK reported \$373 million R&D expenditures
- UK ranks:
 - #59 among all institutions
 - #38 among public institutions
 - #17 among public land-grant institutions









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FY13 (through April 30) Licenses by Revenue

1. Niadyne, Inc.	\$3,231,773
2. Pioneer, Inc.	\$ 560,000
3. New Ace Res. Co.	\$ 343,977
4. ATMI	\$ 147,511
5. Boehringer Ingelheim	\$ 73,502
21 others	\$ 311,076

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FY2011 AUTM* Licensing Survey

- 157 universities participated
- \$1.79B in gross licensing revenue
- Northwestern: \$191.5M mostly from one license (pregabalin, Lyrica®)
- Top 20 universities = 79% of revenue
- UK: \$1.54M (#71)

*Association of University Technology Managers

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Federal Budget Sequestration

- Threat to higher education R&D
- March 1st: \$85.3B in across-the-board cuts to discretionary spending in Federal FY13 (by September 30th)
- The reduction is *permanent*.
- Future reductions of \$109B each year through FY2021
- The Science Coalition estimates the cumulative impact on university R&D will be >\$94B.

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Impact on R&D Agencies In Federal FY13

- **NIH: \$1.55B reduction of \$31B budget**
 - Each Institute has discretion to make cuts
 - May reduce number/scope of awards
 - NIH remains under Continuing Resolution
 - Continuing grants funded at $\leq 90\%$
- **NSF: \$350M reduction of \$7.25B**
 - Will maintain existing grants; no layoffs at NSF
 - Est. 500 fewer new grants in FY13

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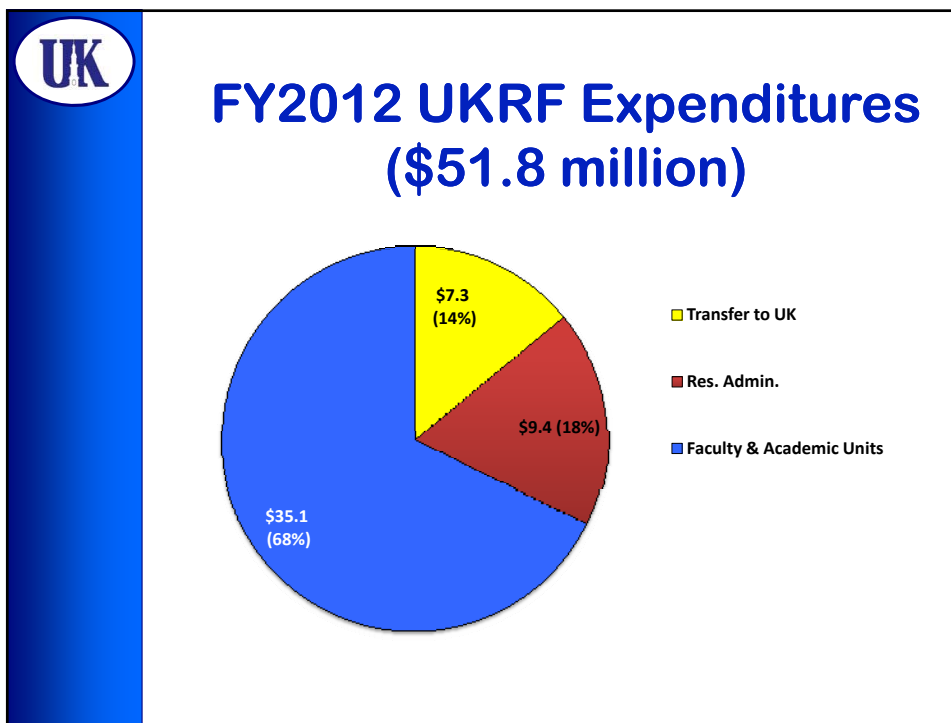
Federal Budget Outlook

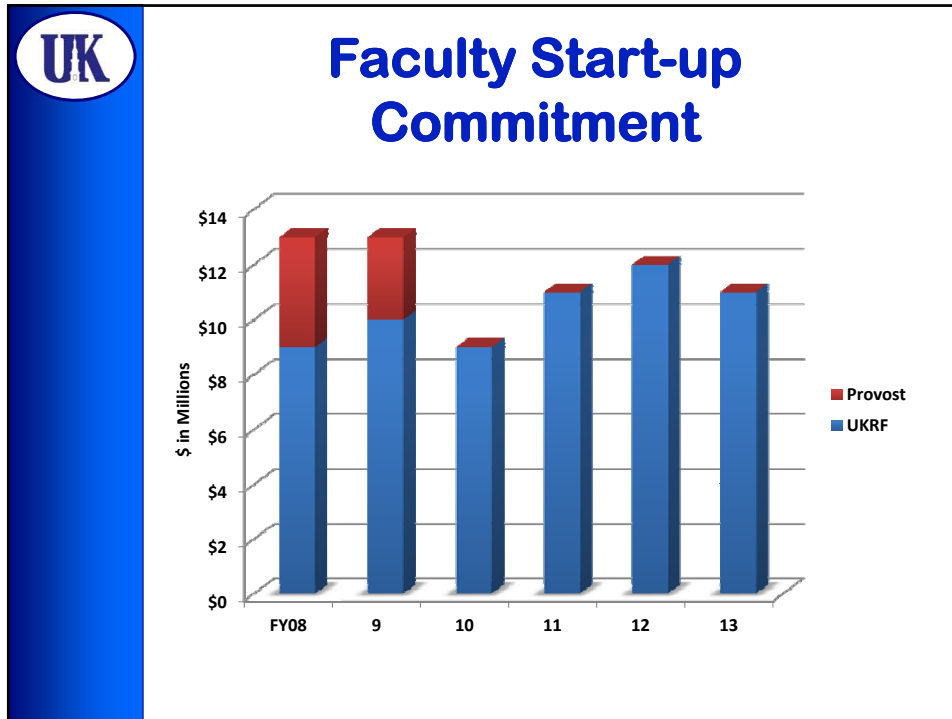
- President Obama delivered FY2014 budget request to Congress on April 10.
- Budget battle looming in Congress
- FY2014 will likely start with a Continuing Resolution
- No relief in sight for R&D

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UKRF Budget

- UKRF budget = realized F&A income
- Federal funds \approx 90% of F&A income
- NIH funds \approx 50% of F&A income
- F&A income is not realized until direct costs are spent.

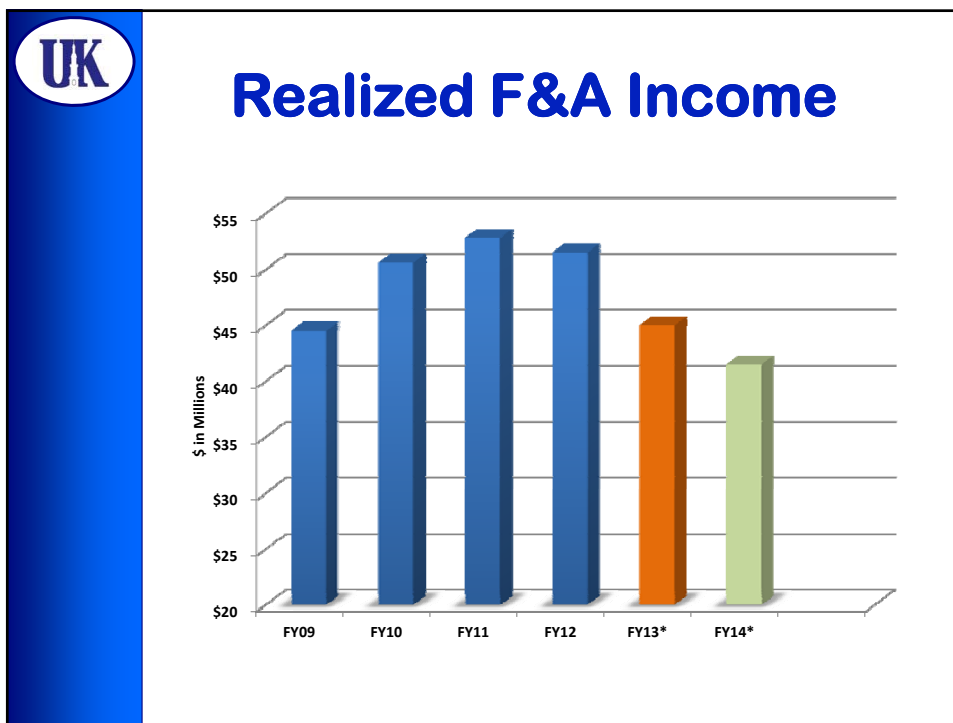
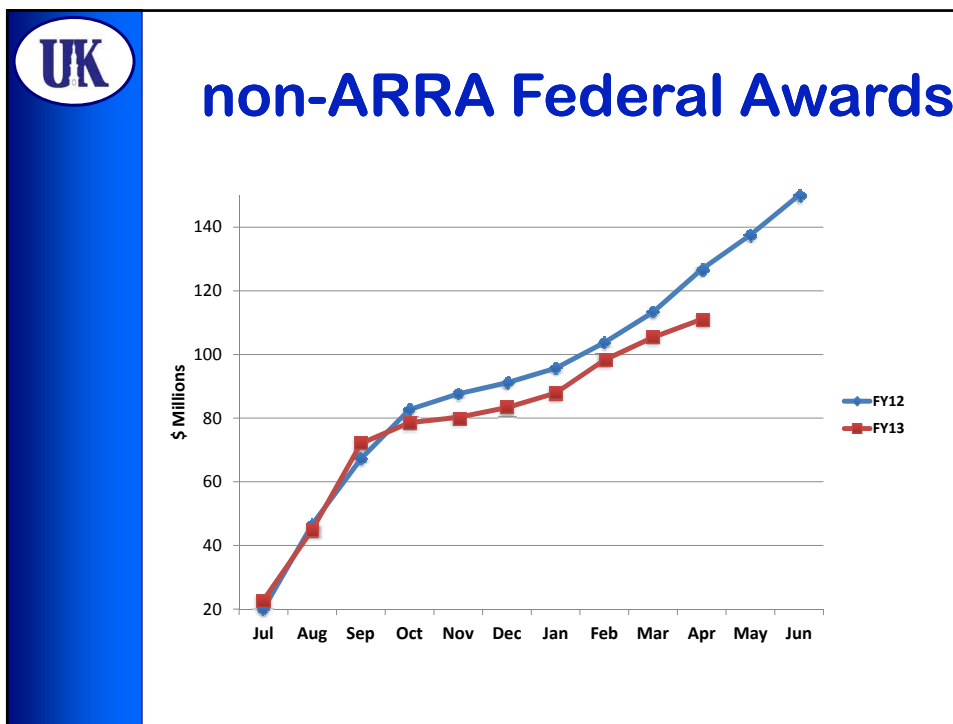




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Where are we now?

- **FY13 (July-April): F&A income is on budget (~\$45 million annualized).**
- **FY13 non-ARRA federal awards have been running ~8% below FY12 levels.**
- **Sequestration may lower FY13 awards by another \$5 to \$8 million.**
- **Future F&A income is imputed from recent awards.**





FY2014 Estimates

- **Anticipated F&A income:
\$40-\$42 million**
- **Obligations & Commitments as of
February 28, 2013: ~\$46 million**
- **Anticipated shortfall:
\$4 - \$6 million**
- **Adequate fund balance for FY14**



Proposed FY2014 Budget

Tab G

Update of FY 2011-2012 License Agreements

1. Minova North America Inc. for “improvements relating to cementitious compositions.” Minova is conducting research and development directed to commercializing the technology and is near market release of a product.
2. Kentucky Specialty Grains LLC for “early flowering chia.” Kentucky Specialty Grains is conducting field trials directed to establishing optimal growing conditions and has had limited commercial sales of chia from the field trials.
3. Direct i2i Technologies LLC for “long-range iris sensing.” Direct i2i is conducting research and development relating to the technology.
4. Kentucky Chia LLC for “early flowering chia for the equine field of use.” Kentucky Chia is attempting to raise funds for development of a market for chia in the equine field of use.
5. Pioneer Inc. for “full-length transcript (FLT) promoters from figwort mosaic caulimovirus (FMV).” Pioneer is utilizing the licensed promoters in crop development.
6. Biospherics Inc. for “use of d-tagatose as a lipid lowering agent.” Biospherics is conducting research and development relating to the technology.
7. PhylloTech LLC for “use of phylloplanins as antibiotics, selective fungicides, and in enhancing microbial resistance in crop plants.” PhylloTech is conducting research and development relating to the technology.
8. MosquitoMate Inc. for “transfected mosquito vectors.” MosquitoMate is conducting research and development relating to the technology.

FY 2012-2013 License Agreements

1. A license agreement with V.C. Equine Research Inc. for “diclazuril and related benzeneacetonitrile therapeutics in the treatment of fetal/congenital Toxoplasmosis syndrome” and “novel synergistic therapeutic actions of combined diclazuril/benzeneacetonitrile with Atovaquone/analogs in prevention and treatment of toxoplasmosis and other apicomplexan diseases” developed by Thomas Tobin (Veterinary Science, College of Agriculture) and Helieh Oz (Oral Health Research, College of Dentistry).
2. A license agreement with CoalTek Inc. for “coal briquetting” developed by Darrell Taulbee (Center for Applied Energy Research).
3. An inter-institutional agreement with the University of California-Oakland for “microfabricated surfaces for the physical capture of bedbugs and other insects” developed by Catherine Loudon, Robert Corn and Megan Szyndler (University of California-Oakland) and Kenneth Haynes and Michael Potter (Entomology, UK College of Agriculture).
4. A license agreement with Therix Inc. for “self-releasing tourniquet and/or alarm signal and IT communication” developed by Kathy Cisney (Patient and Family Services, College of Medicine).
5. A license agreement with Sepro Membranes Inc. for “membranes and their use for heavy metal sequestration” developed by Dibakar Bhattacharyya (Chemical and Material Engineering, College of Engineering).
6. A license agreement with University of California-Davis for “a method for screening for a tobiana coat color genotype” developed by Ernest Bailey and Samatha Brooks (Veterinary Science, College of Agriculture).
7. A license agreement with Therix Medical Inc. for “a circular scalpel” developed by David Atashroo (Surgery, College of Medicine).
8. A license agreement with iVeena Inc. for “diagnostics and therapeutics relating to macular degeneration” developed by Jayakrishna Ambati (Ophthalmology, College of Medicine).
9. An inter-institutional agreement with Vanderbilt University for “novel radio-sensitizers with synergistic anti-angiogenic properties” developed by Michael Freeman and Sekhar Konjeti (Vanderbilt University) and Peter Crooks (formerly UK College of Pharmacy).

FY 2012-2013 Top Five Licenses by Revenue

1. Niadyne Inc. - \$3,231,772.74
Inventors are Elaine Jacobson and Myron Jacobson (formerly College of Medicine and College of Pharmacy respectively). The technology is the use of niacin analogues in cosmetics and skin therapeutics.
2. Pioneer Inc. - \$560,000.00
Inventor is Indu Maiti (Kentucky Tobacco Research Center). The technology is full-length transcript (FLT) promoters from figwort mosaic caulimovirus (FMV).
3. New Ace Research Company Inc. - \$343,977.22
Inventors are Thomas Tobin and David Granstrom (Veterinary Medicine, College of Agriculture). The technology is a treatment for the equine disease EPM.
4. ATMI - \$147,511.11
Inventor is Alex Terentiev (formerly Physics, College of Arts and Sciences). The technology is a magnetic levitating stirrer.
5. Boehringer Ingelheim Inc. - \$73,502.42
Inventors are John Thompson and Stephen Brown (Allergy/Immunology and Internal Medicine respectively, College of Medicine). The technologies are antibodies.

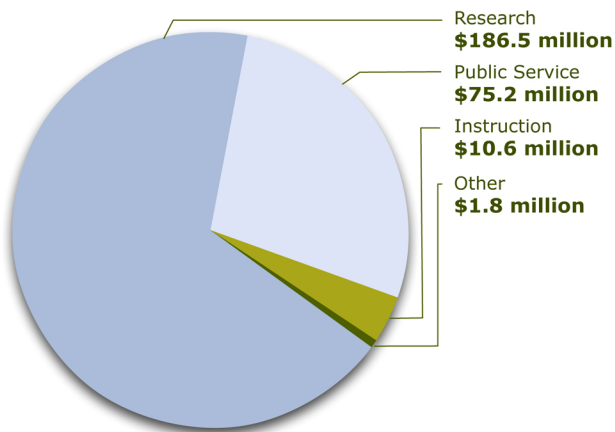
Plus 21 other licenses ranging from \$85 - \$62,000 YTD for FY 13 totaling \$311,076

Research 2012

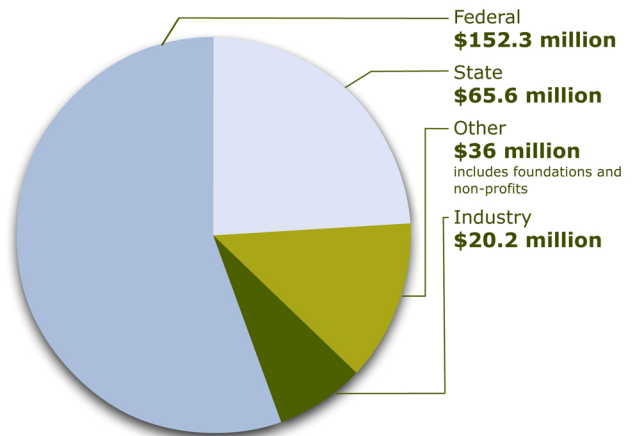
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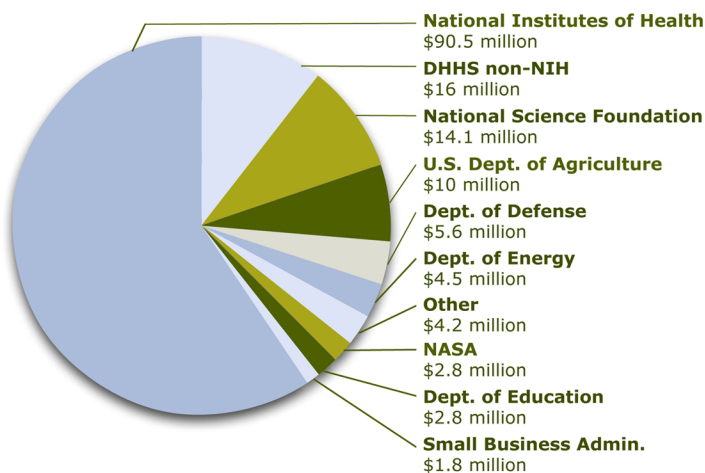
**University of Kentucky
Research Funding Categories**
FY 12 Grant & Contract Awards \$274.1 million



**University of Kentucky
Research Funding Sources**
FY 12 Grant & Contract Awards \$274.1 million



**University of Kentucky
Federal Grant & Contract Awards**
FY 12 \$152.3 million



Research Stats & Rankings

- Grant and contract awards totaled \$274,142,405
- Federal agencies awarded \$152.3 million
- State agencies awarded \$65.6 million
- Industry awarded \$20.2 million
- The National Science Foundation (NSF) ranks UK 35th among public universities and 58th among public and private universities (Based on FY 2010 research expenditures. NSF made significant changes to their reporting methodology for the FY 2010 survey.)