



# **Third Frontier Commission Meeting**

**October 23, 2008**



# Performance Metrics Update

## Performance Metrics 1/08 – 6/08

Performance Criteria	As of 12/31/07	As of 06/30/08	Percentage Change
State Funds Awarded	\$637,944,547	\$873,462,907	36.9%
State Funds Expended	\$291,397,713	\$343,299,994	17.8%
Cost Share Reported	\$759,436,761	\$891,522,131	17.4%
Leveraged Dollars	\$2,406,888,869	\$3,075,785,242	27.6%
Leverage Ratio*	8.3 : 1	8.9 : 1	8.0%
Direct Jobs Created and Retained	5,641	6,795	20.5%
Companies Created, Attracted, Capitalized	383	466	21.7%
Average Salary	\$67,277	\$64,237	-4.5%
Cost Per Job**	\$51,657	\$50,520	-2.2%

\* Leveraged dollars without cost share/state funds expended.

\*\* Funds expended/jobs.

# Ohio Third Frontier Awards

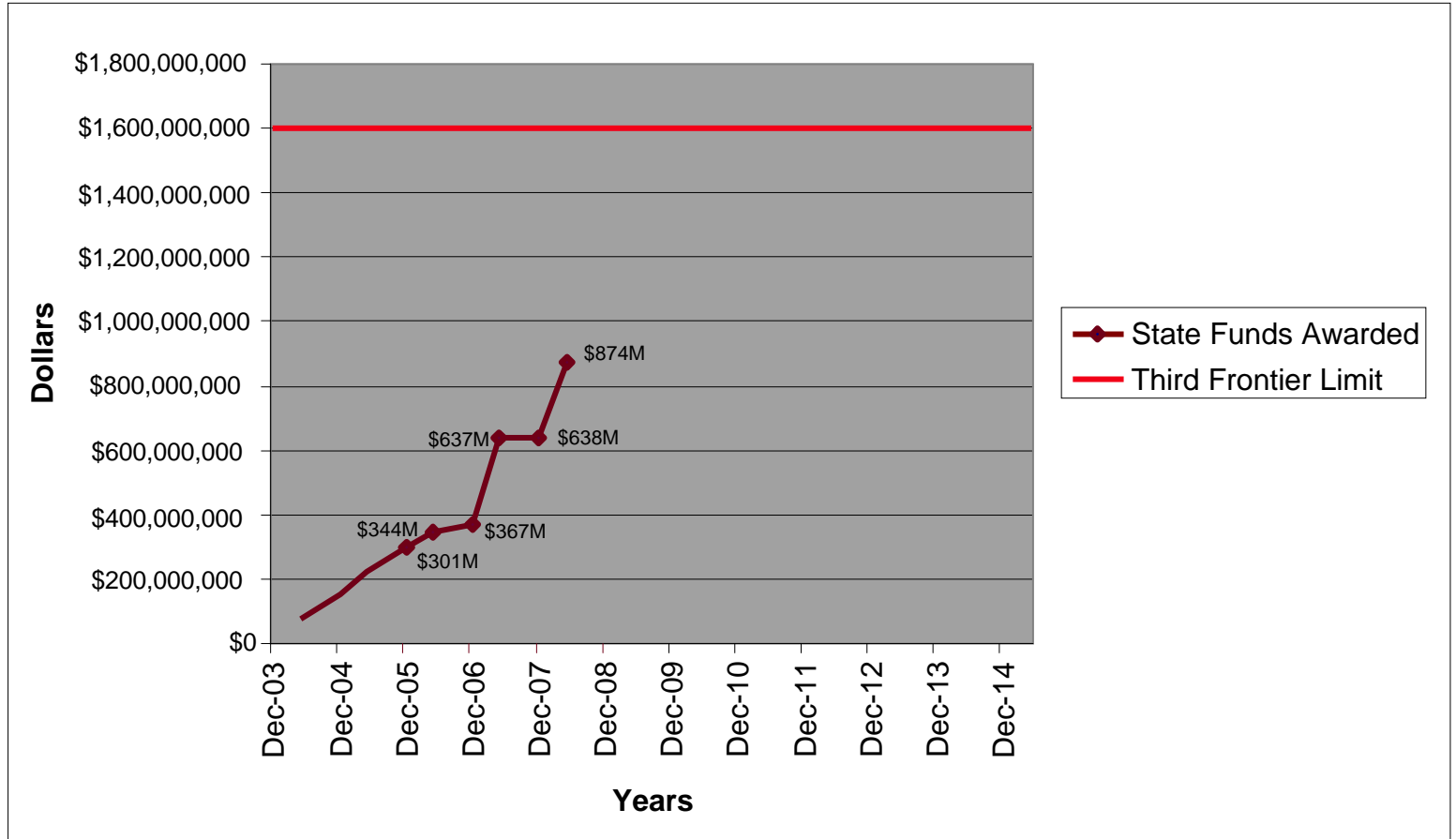
Ohio Third Frontier is a 10 year, \$1.6B program.

State funds awarded for previous years:

- Dec 05: \$301M
- Jun 06: \$344M
- Dec 06: \$367M
- Jun 07: \$637M
- Dec 07: \$638M
- Jun 08: \$874M

Number of grants for previous years:

- Dec 05: 96
- Jun 06: 127
- Dec 06: 137
- Jun 07: 175
- Dec 07: 176
- Jun 08: 241



# Ohio Third Frontier Leverage Ratio

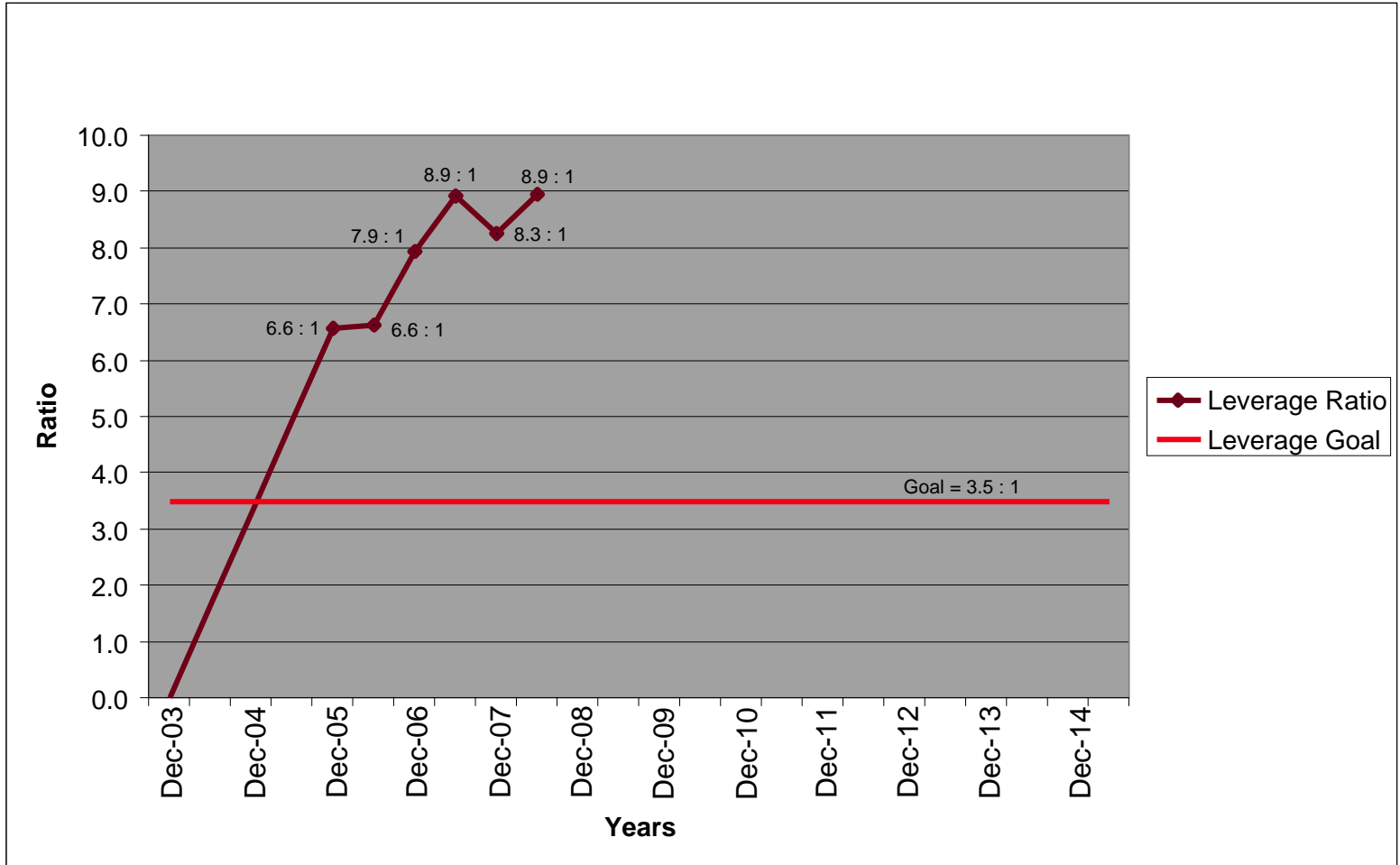
3.5 : 1 equals BRTT  
Commission and  
OPEC estimated  
leverage

Performance to-  
date far exceeds  
goals

Dollar value of  
*leverage* is \$3.1B

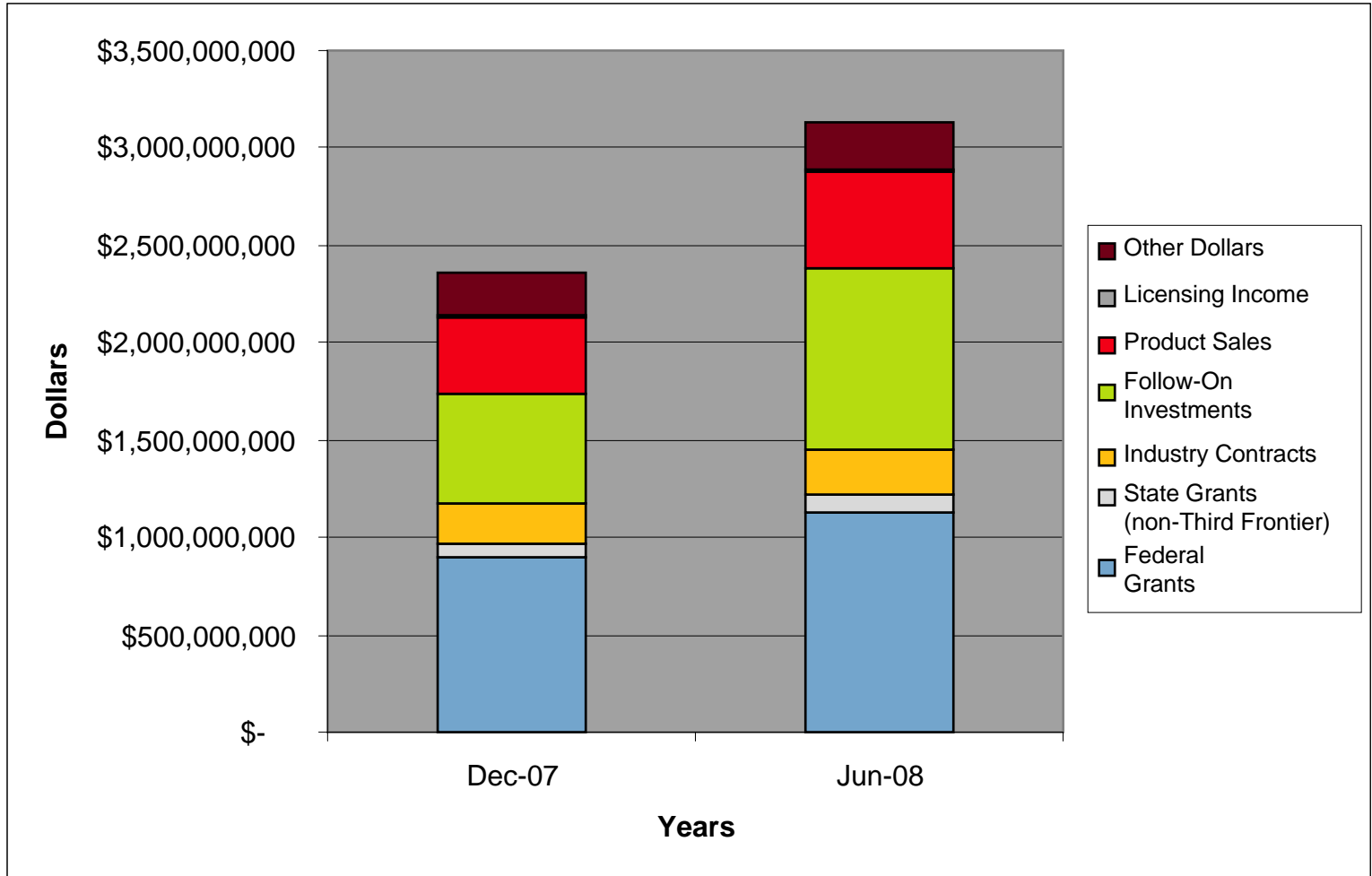
Dollar values of  
*sales* for previous  
years:

- Dec 05: \$52M
- Jun 06: \$168M
- Dec 06: \$221M
- Jun 07: \$331M
- Dec 07: \$397M
- Jun 08: \$491M



# Ohio Third Frontier Leverage by Category

Leverage:  
Dec 07: \$2.4B  
Jun 08: \$3.1B



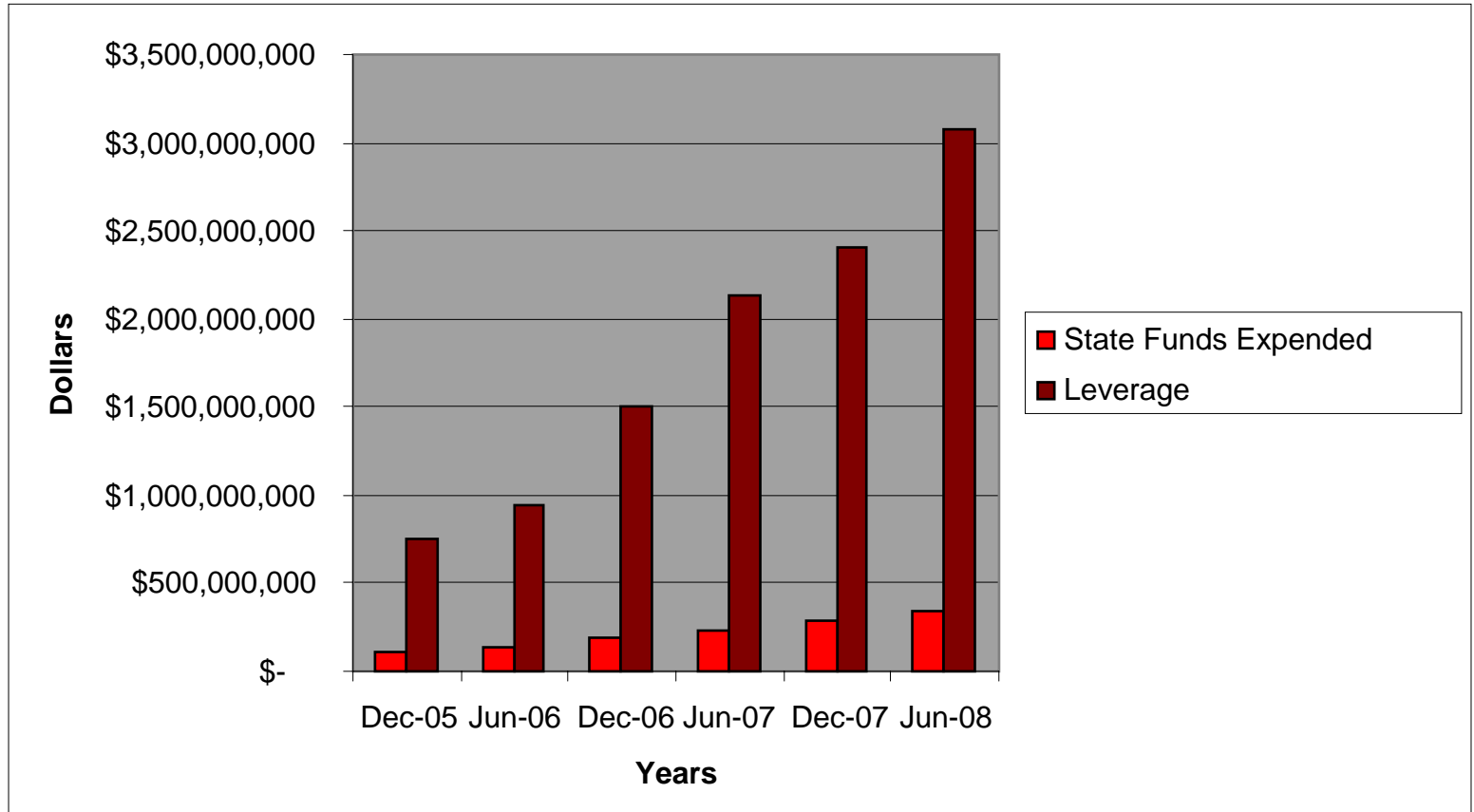
# Ohio Third Frontier Funds Expended & Leverage

Expenditures:

Dec 05: \$115M  
 Jun 06: \$143M  
 Dec 06: \$190M  
 Jun 07: \$239M  
 Dec 07: \$291M  
 Jun 08: \$343M

Leverage:

Dec 05: \$756M  
 Jun 06: \$947M  
 Dec 06: \$1.5B  
 Jun 07: \$2.1B  
 Dec 07: \$2.4B  
 Jun 08: \$3.1B



## Ohio Third Frontier Direct & Indirect Jobs

Goal equals value estimated by OPEC.

Job growth will lag awards made because of spend down rates and the commercialization cycle.

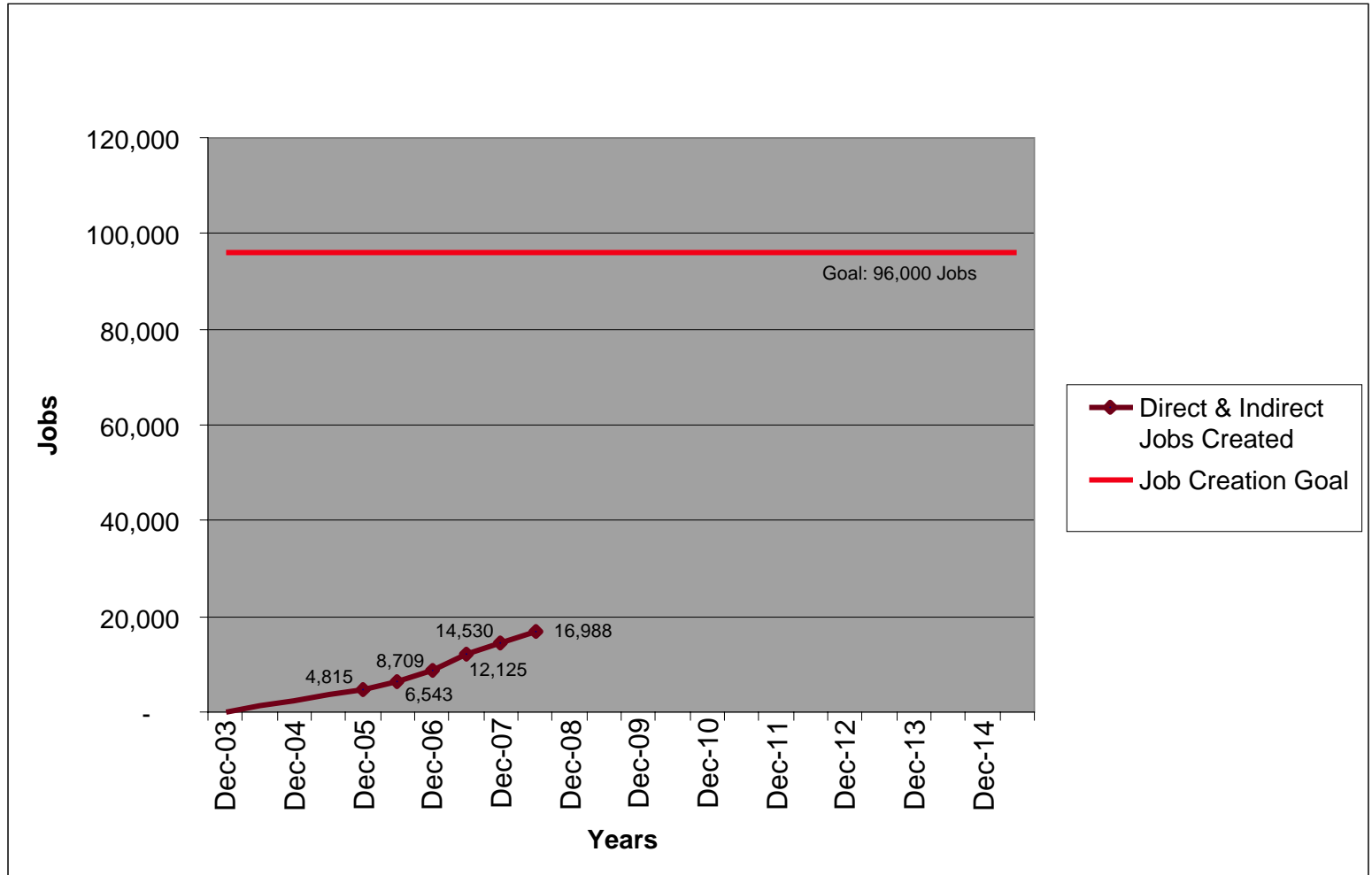
Job creation for previous years:

Dec 05: 4,815  
Jun 06: 6,543  
Dec 06: 8,709  
Jun 07: 12,125  
Dec 07: 14,530  
Jun 08: 16,988

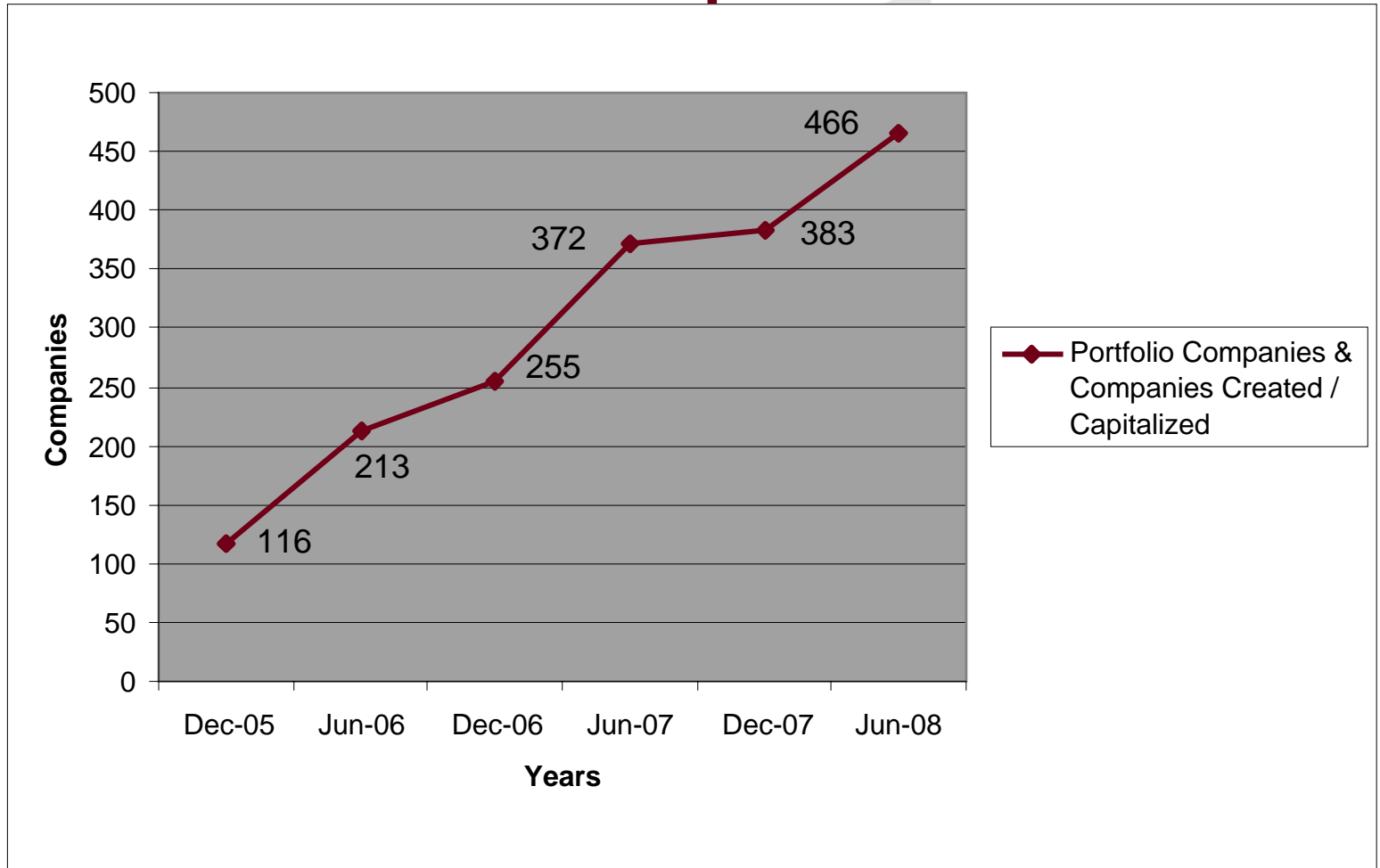
6,795 direct jobs.

Types of direct jobs:

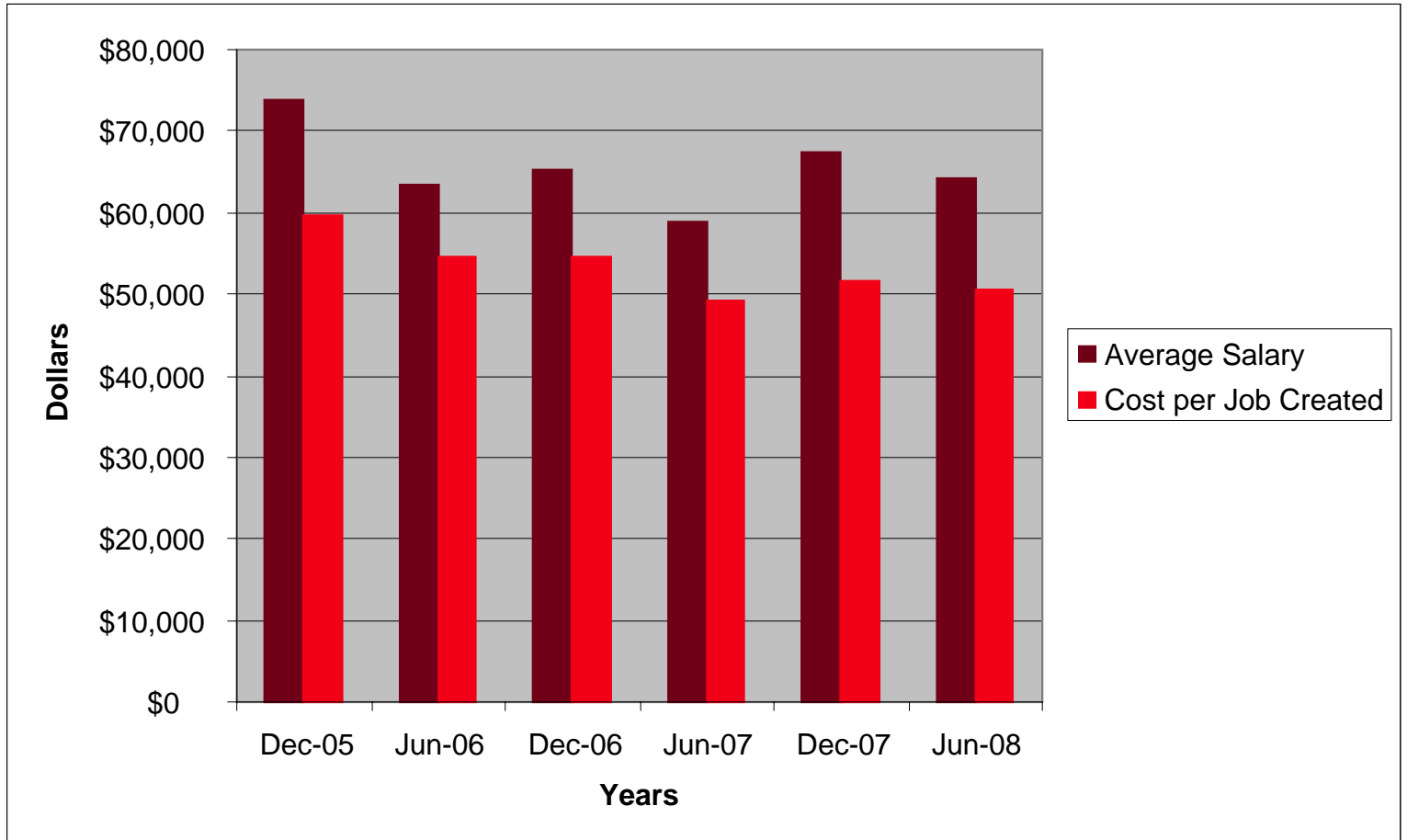
Prod/Mfg: 24.2%  
R&D: 54.5%  
Admin/Other: 21.3%



# Ohio Third Frontier Company Creation/Capitalization



# Ohio Third Frontier Average Salary & Cost Per Job Created



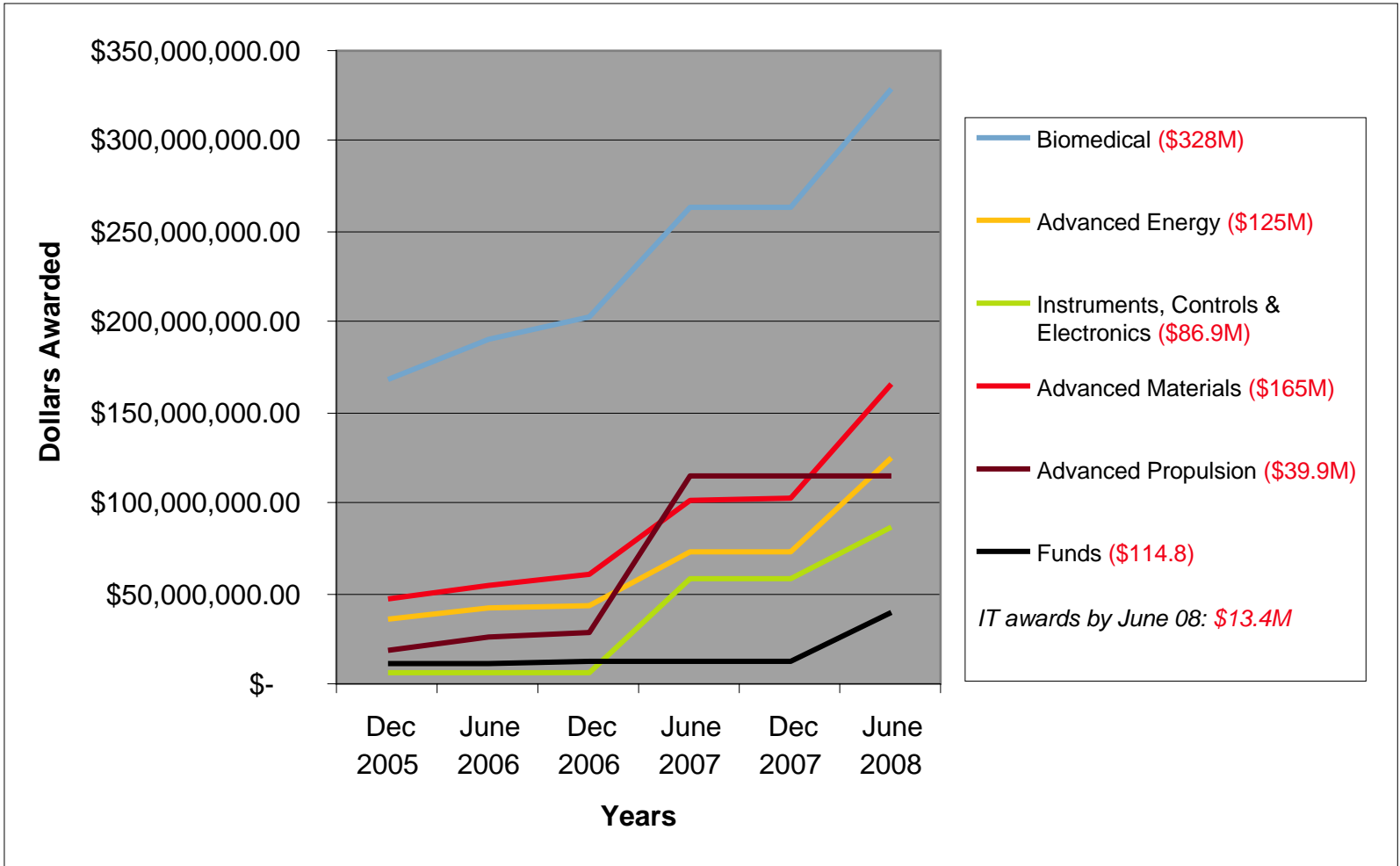
Average salary of direct jobs created is well above state average salary \$38,100

Average annual salary exceeds cost per job created



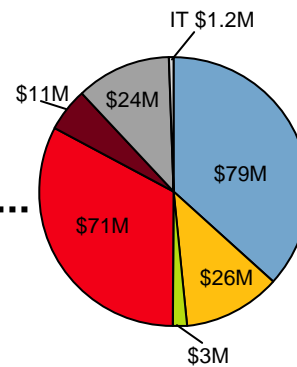
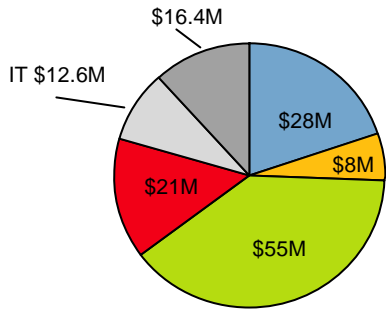
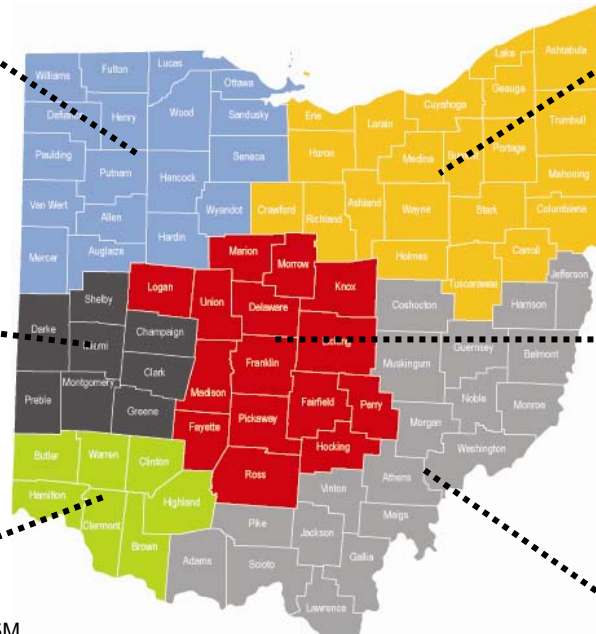
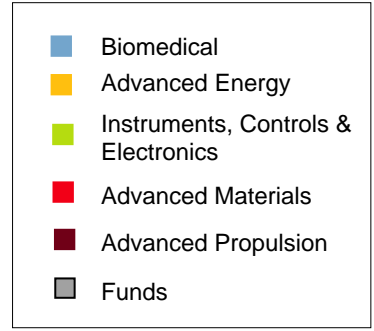
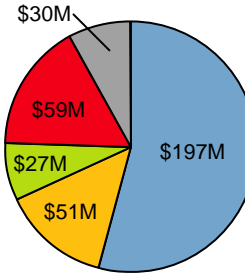
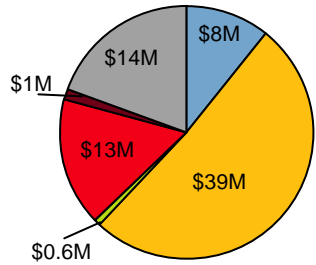
Program Name	State Funds Awarded	State Funds Expended	Cost Share and Match to Date	Leverage	Jobs Created / Jobs Retained	Companies Created & Capitalized	Leverage Ratio	Cost per Job Created	Average Salary
Biomedical Research Commercialization Program	\$128,440,644	\$82,868,101	\$137,930,104	\$735,432,367	1,365	36	9 : 1	\$60,727	\$59,297
Engineering Research Commercialization Program	\$61,713,451	\$12,161,863	\$19,833,427	\$50,805,378	161	3	4 : 1	\$75,586	\$65,400
Entrepreneurial Signature Program	\$84,800,000	\$17,810,225	\$22,478,847	\$70,096,395	332	63	4 : 1	\$53,597	\$67,831
Fuel Cell Program	\$35,612,657	\$19,793,010	\$16,462,294	\$84,879,106	242	6	4 : 1	\$81,789	\$63,348
Ohio Research Commercialization Grant Program	\$11,243,637	\$6,547,648	\$1,417,885	\$99,773,256	209	23	15 : 1	\$31,328	\$51,016
Ohio Research Scholars Program	\$143,810,334	\$0	\$0	\$0	0	0	0 : 1	\$0	\$0
Pre-Seed and Seed Funds	\$28,803,682	\$23,236,357	\$186,883,436	\$1,058,419,595	1,944	202	46 : 1	\$11,951	\$65,546
Third Frontier Advanced Energy Program	\$10,749,252	\$0	\$0	\$0	12	0	0 : 1	\$0	\$51,167
Third Frontier Action Fund	\$17,961,452	\$16,432,026	\$27,842,421	\$120,257,369	399	54	7 : 1	\$41,183	\$51,476
Wright Centers of Innovation (Biomedical)	\$87,313,123	\$71,984,816	\$215,646,532	\$406,027,281	811	20	6 : 1	\$88,815	\$93,439
Wright Centers of Innovation (Engineering & Physical Sciences)	\$148,094,300	\$60,731,807	\$205,808,428	\$323,205,194	928	27	5 : 1	\$65,423	\$50,905
Wright Mega-Center of Innovation	\$60,000,000	\$3,796,781	\$2,632,156	\$15,396,500	32	13	4 : 1	\$118,649	\$89,000
Wright Projects	\$52,220,375	\$27,937,360	\$54,586,601	\$111,492,801	361	19	4 : 1	\$77,488	\$61,340
<b>Totals:</b>	<b>\$873,462,907</b>	<b>\$343,299,994</b>	<b>\$891,522,131</b>	<b>\$3,075,785,242</b>	<b>6,795</b>	<b>466</b>	<b>8.9 : 1</b>	<b>\$50,520</b>	<b>\$64,237</b>

# Ohio Third Frontier Funds Awarded by Sector





# Ohio Third Frontier Funds Awarded by Sector

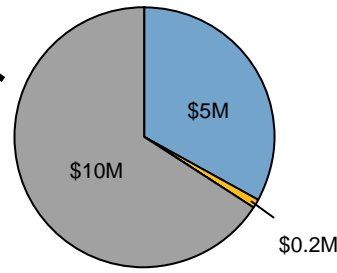
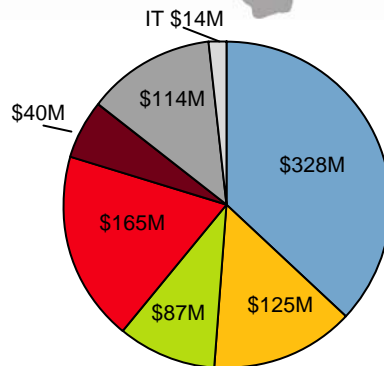
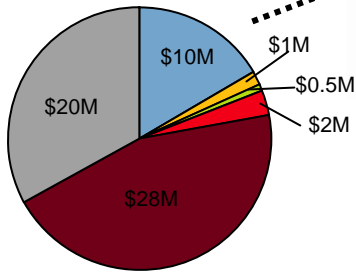


**Awards Per Region:**

Northeast: 105  
 Central: 58  
 West Central: 37  
 Northwest: 23  
 Southwest: 15  
 Southeast: 3

**Total State Funds Per Region:**

Northeast: \$364M  
 Central: \$215M  
 West Central: \$141M  
 Northwest: \$76M  
 Southwest: \$62M  
 Southeast: \$15M



Ohio Third Frontier Totals



**Discussion With  
Speaker of the House  
and  
President of the Senate**



# **FY 2009 Program Plan Progress Report**

**Product Development Assistance**

**105 LOIs**  
**52 Proposals**

**Advanced Energy Program**

- **Continue**

- **\$7 million TFRDF, \$4 million TFAF, \$2 million WCF**

History (in millions of dollars)

2003	2004	2005	2006	2007	2008	2009
-	-	-	-	-	12.0	13.0

Schedule

RFP Open	RFP Close	Review Period	Award Date
<b>July 28</b>	Sept	Sept-Dec	Dec

**Product Development Assistance**

**44 LOIs**  
**16 Proposals**

**Third Frontier Fuel Cell Program**

- **Continue**
- **\$9 million TFAF, \$2 million WCF**

History (in millions of dollars)

2003	2004	2005	2006	2007	2008	2009
3.6	2.8	4.1	6.4	9.0	8.9	11.0

Schedule

RFP Open	RFP Close	Review Period	Award Date
July 28	Sept	Sept-Dec	Dec

Research and Commercialization Collaborations

**57 LOIs**

**Biomedical RCP**

- **Continue**
- **\$21 million CF, \$2 million WCF**

History (in millions of dollars)

2003	2004	2005	2006	2007	2008	2009
7.9	15.7	18.3	28.6	3.5	26.0	23.0

Schedule

RFP Open	RFP Close	Review Period	Award Date
<b>August 25</b>	December	Dec-Mar	April

Research and Commercialization Collaborations

**104 LOIs**

**Engineering & Physical Science RCP**

- **Continue**
- **\$21 million TFRDF, \$1 million WCF**

History (in millions of dollars)

2003	2004	2005	2006	2007	2008	2009
-	-	-	-	37.6	26.0	23.0

Schedule

RFP Open	RFP Close	Review Period	Award Date
<b>August 25</b>	December	Dec-Mar	April

Research and Commercialization Collaborations

Wright Projects

- Continue

- \$18 million WCF, \$3 million TFRDF


History (in millions of dollars)

2003	2004	2005	2006	2007	2008	2009
11.6	3.0	10.5	7.4	-	21.0	21.0

Schedule

RFP Open	RFP Close	Review Period	Award Date
Oct 22	Jan	Feb-Apr	May

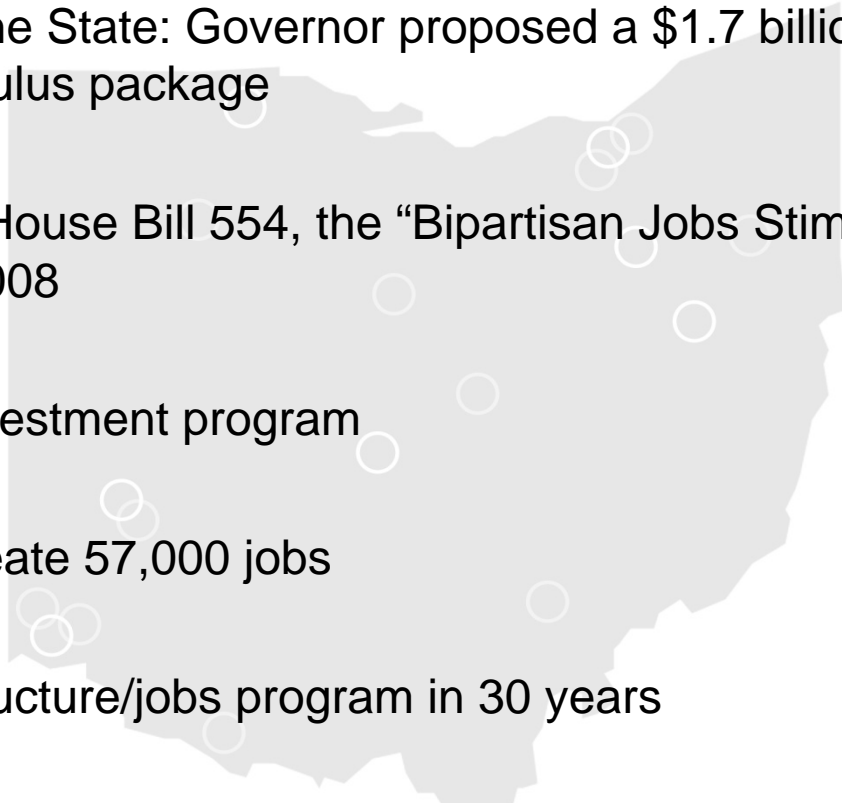
## Outline of FY 2009 Strategic Planning Activities

- 
- Impact Study of the Ohio Third Frontier (November - May)
  - Regional Stakeholder Meetings (November)
  - Third Frontier Commission/ Advisory Board Retreat (Feb 25-26)



# **Bipartisan Jobs Stimulus**

## Background

- 2007 State of the State: Governor proposed a \$1.7 billion “Building Ohio Jobs” jobs stimulus package
  - Established in House Bill 554, the “Bipartisan Jobs Stimulus Program” passed May, 2008
  - \$1.57 billion investment program
  - Projected to create 57,000 jobs
  - Largest infrastructure/jobs program in 30 years
  - Funded through primarily existing/anticipated revenue sources, less on new bonds.
- 

## Investments, Timing and Source of Funds

	Total Available	2009	2010	2011
Advanced Energy	\$150 Million	Bond capacity spread over 3 years		
<i>Funded through Coal Development Funds &amp; Facilities Establishment Loan Fund</i>				
Biomedical	\$100 Million	\$40 million	\$40 Million	\$20 Million
Funded through Tobacco Settlement Funds				
bioproducts	\$50 Million	\$20 Million	\$20 Million	\$10 Million
Funded through Tobacco Settlement Funds				
Logistics/Distribution	\$100 Million	\$50 Million	\$25 Million	\$25 Million
Funded through Facilities Establishment Loan Fund				

## Clean Ohio


- Clean Ohio Fund:
  - Total: \$400 Million
    - Clean Ohio Revitalization Fund for brownfield remediation
      - \$200 Million
    - Green Spaces (Ag Farmland, Natural Resources Trails and Public works, Greenspace)
      - \$200 Million
- Issue 2 on ballot in November, 2008.



## Historic Preservation Tax Credit

- Extends program for two years.
  - \$120 Million total
    - \$60 Million per year in FY 2010 and 2011.
  - \$45 Million reserved in each year for projects “in the queue.”
    - Per project awards capped at \$5 Million.
    - First \$3 Million credit refundable.
  - Director to consider economic impact and geographic balance in making awards.
- 

## Workplace Coop / Internship Programs at Colleges and Universities

- To encourage internships and co-ops at Ohio businesses for Ohio university students
  - Through the University System of Ohio
  - \$250 million over five years
    - FY 2010 through FY 2014
    - \$50 million per year
- 

## Local Infrastructure Improvement

- Ohio Public Works Commission
    - Total: \$400 Million
    - Local Infrastructure Development Fund
      - \$80 Million
    - State Capital Improvements Fund
      - \$120 Million
    - Local Transportation Improvement Program Fund
      - \$200 Million
- 

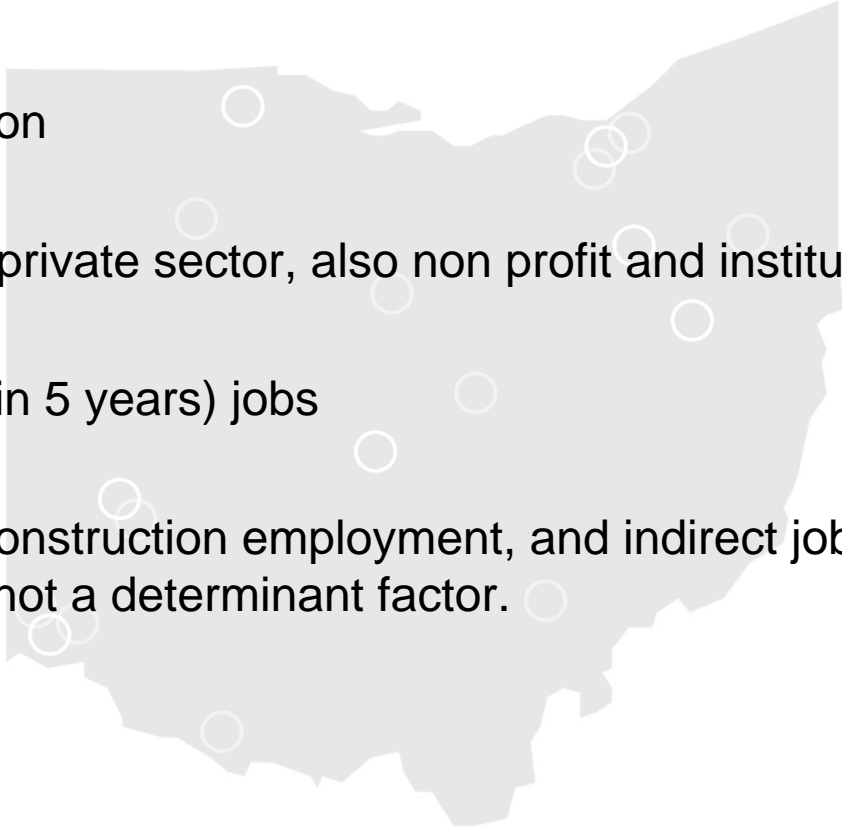
## Strategic Investments

- Leverage existing strengths and build on existing infrastructure
  - Position the state as a leader in key industries
  - Make investments that grow industries and that have value beyond the impact of individual projects that contribute to long-term job creation and the growth and sustainability of the industry cluster
  - Develop public/private partnerships
  - Support regional economic strengths
- 

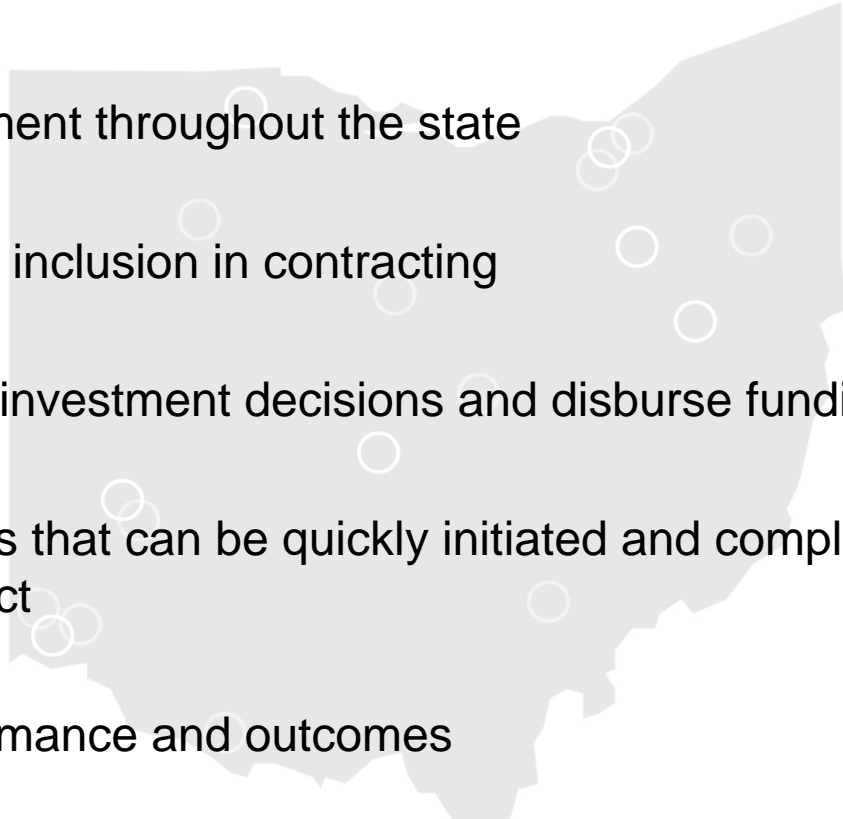
## Emerging and Growing Industries

- **Biomedical:** In 2006, the total economic impact of Ohio's Bioscience and Healthcare industry was \$146 Billion, 17.6% of the state's economic output.
- **Bioproducts:** Ohio is a leader in the agricultural, polymer, chemical, and advanced materials industries. By aligning these sectors, the state is poised to be the world leader in a new market – products made from biobased materials.
- **Advanced Energy:** Ohio's Renewable Portfolio Standard provides a unique opportunity to grow the advanced energy industry. Ohio is also a leading state for wind components, fuel cells, solar cells and instrumentation, and biofuels.
- **Logistics and Distribution:** Ohio has a central location reducing transportation costs, with 80 public airports, eight interstate highways, 36 freight railroads & 25 waterfront ports and 10 Foreign Trade Zones

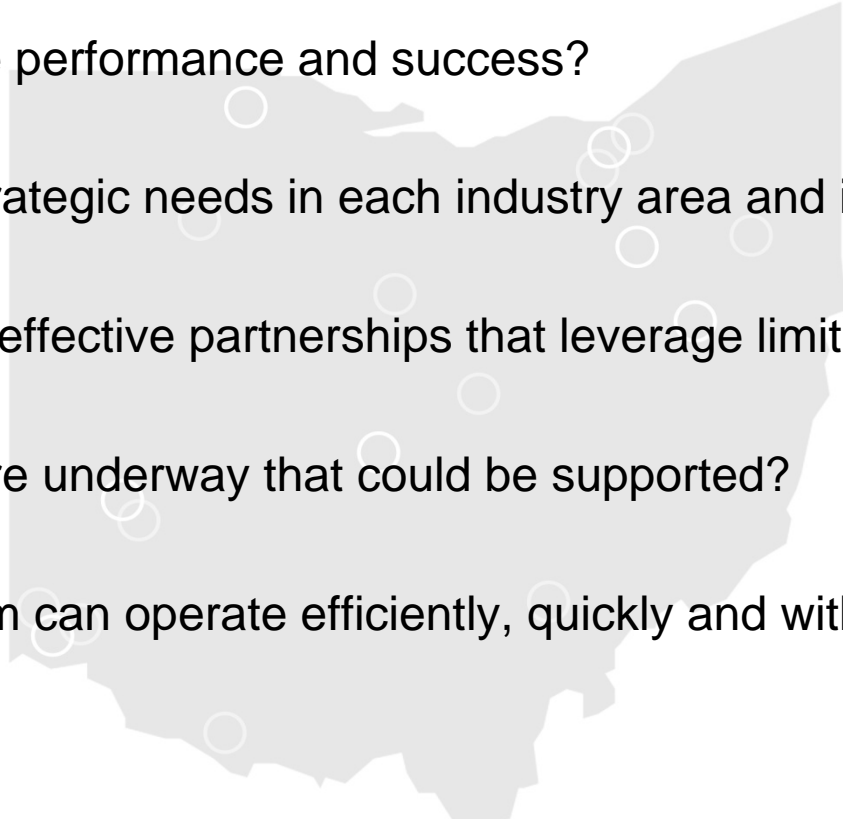
## Create Near Term Jobs for Ohio Citizens

- 
- New jobs creation
  - Primarily in the private sector, also non profit and institutional
  - Near term (within 5 years) jobs
  - Job retention, construction employment, and indirect jobs will be a factor in evaluation, but not a determinant factor.

## Invest Taxpayers Dollars Wisely

- 
- Support investment throughout the state
  - Assure minority inclusion in contracting
  - Make informed investment decisions and disburse funding quickly
  - Support projects that can be quickly initiated and completed and have a near-term impact
  - Measure performance and outcomes
  - Operate with efficiency, transparency, and accountability

## Key Questions

- How to measure performance and success?
  - What are key strategic needs in each industry area and in each region?
  - How to develop effective partnerships that leverage limited resources?
  - What projects are underway that could be supported?
  - How the program can operate efficiently, quickly and with accountability to the taxpayers?
- 



**Biomedical JS Program**

## Biomedical JS

### Funding:

- Source - Tobacco Settlement Fund
- \$100M
  - \$40M in FY 09; \$40M in FY 10; and \$20M in FY 11
- Funding tied up in Tobacco Settlement litigation; time to resolution uncertain
- Current JS legislation defines the expiration date for any remaining funds as the end of FY 2011

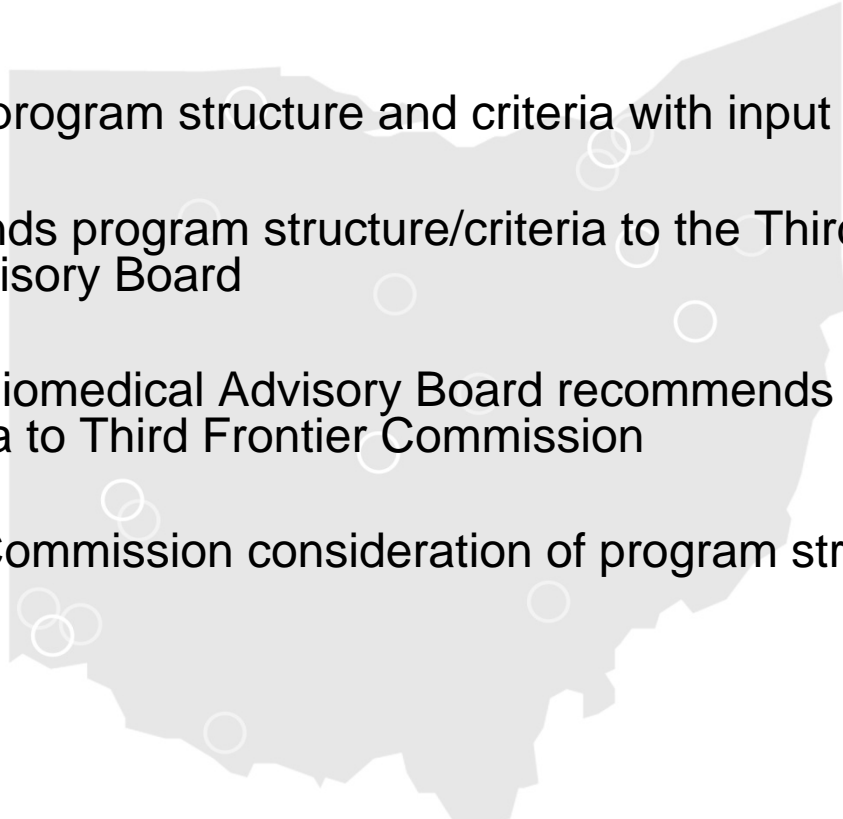
## Biomedical JS Governance

- **7 member Third Frontier Biomedical Advisory Board created by statute**
  - Appointments to Advisory Board by Governor, Speaker, Senate President, Director of Development
  - Role in defining strategy, programs, budget, and metrics
- **9 member Third Frontier Commission created by Third Frontier statute**
  - Approval authority for Biomedical JS strategy, programs, budget and award of funds
- Shared roll of Advisory Board and Commission in monitoring progress and performance
- Development staff presents recommendations to Third Frontier Commission for approval
- Project funding disbursed and monitored by Development

## Biomedical JS Advisory Board Appointees

- Mark Barbash, Chief Economic Development Officer, Ohio Department of Development
- Tony Dennis, PhD, President, BioOhio (Chair)
- William Hicks, MD. Professor of Clinical Medicine, OSUMC
- David Kay, MD, Crystal Clinic
- Kenneth Preston, Assoc. VP for Research and Director Technology Center, UA
- Baiju Shah, President and CEO, BioEnterprise
- David Scholl, PhD, President and CEO, Diagnostic HYBRIDS, Inc.

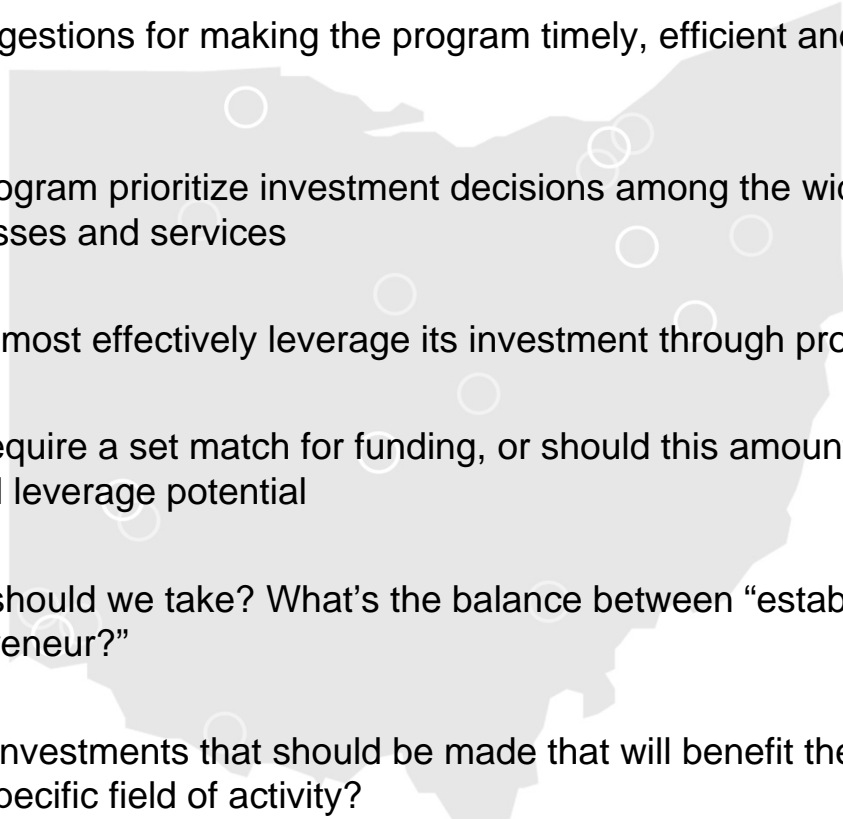
## Biomedical Program Development

- Staff develops program structure and criteria with input from stakeholders
  - Staff recommends program structure/criteria to the Third Frontier Biomedical Advisory Board
  - Third Frontier Biomedical Advisory Board recommends program structure/criteria to Third Frontier Commission
  - Third Frontier Commission consideration of program structure/criteria
- 

## Biomedical Questions

1. How can we accelerate the success of the targeted industry cluster and promote job growth?
  2. What are the key obstacles and competitive threats to success?
  3. How can we identify investment opportunities that are complementary to strategies in your region that are directed at advancing one or more of the targeted industries?
  4. What do you think are some of our key leverage points, statewide or regionally, in each of the targeted industries?
  5. In addition to job creation, are there other important measures of success?
- 

## Biomedical Questions

- 
6. What are your suggestions for making the program timely, efficient and responsive in its operation?
  7. How should the program prioritize investment decisions among the wide range of different areas of products, processes and services
  8. How can the state most effectively leverage its investment through project selection?
  9. Should the state require a set match for funding, or should this amount vary by project based on public benefits and leverage potential
  10. What level of risk should we take? What's the balance between "established corporate" and "innovative entrepreneur?"
  11. Are there specific investments that should be made that will benefit the biomedical industry as a whole, beyond a specific field of activity?



**Third Frontier Biomedical  
Advisory Board  
Recommendations**

**Biomedical Job Stimulus  
Program Plan and Budget**

## Ohio Biomedical Growth Fund

(a new name will be identified with Communication's help)

- The Ohio Biomedical Growth Fund would be established to support high job creation potential attraction and expansion opportunities that would accelerate the growth of Ohio's biomedical cluster
- The focus would be on companies that enable the commercialization of technologies in specific areas of Ohio strength (e.g., cardiovascular, medical imaging, neurobiology) and include co-location opportunities with major Ohio biomedical research organizations

## Ohio Biomedical Growth Fund

- Company attraction would focus on proactive efforts to identify a small number of high impact, high visibility deals for which larger incentive packages would be offered. Target opportunities in this category would include:
  - Anchor companies that would become a magnet for additional attraction, company formation or otherwise promote supply chain expansion in Ohio
  - Major R&D, manufacturing or service operations (excl. health care delivery) of existing companies

## Ohio Biomedical Growth Fund

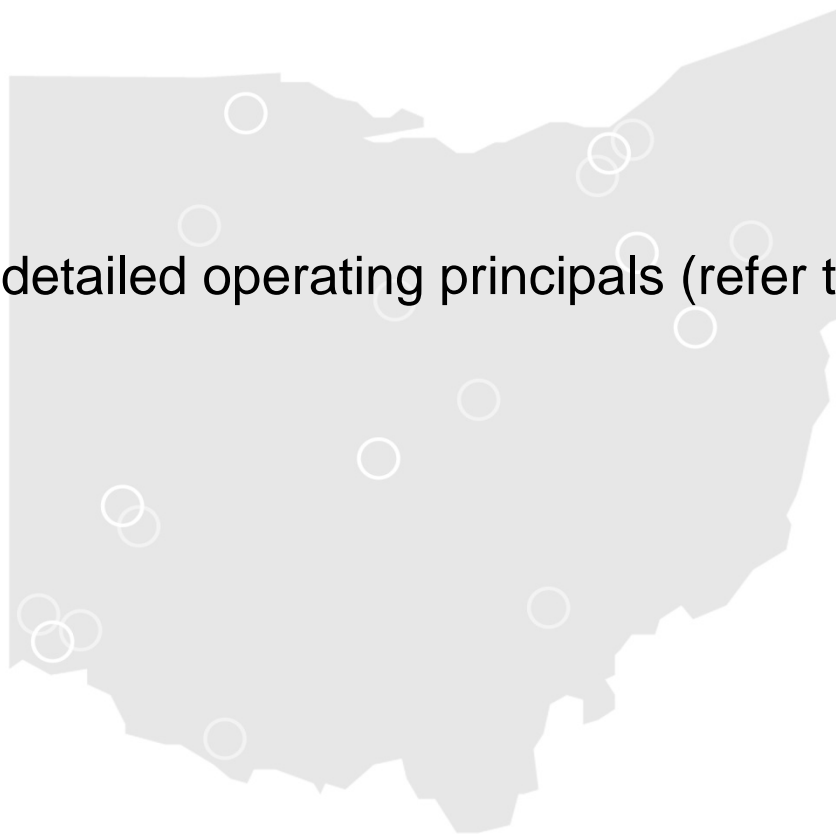
- Company expansion could also include larger deals but would also consider a greater number of smaller opportunities, especially companies that are progressing through the commercialization pipeline as a result of previous investment by the Third Frontier and its early-stage capital funds. Target opportunities in this category would include:
  - Medium to large size existing Ohio biomedical firms committed to a major expansion or acquisition **of activity in-line with program target opportunities.**
  - High growth early-stage companies with near to market product opportunities that have been validated by acquisition of significant **private** investment capital.
  - Companies that would increase the number of bioemical product subcomponents manufactured in Ohio.

## Ohio Biomedical Growth Fund

- Job Stimulus funding could be used for a wide variety of purposes including but not limited to the following:
  - Finalizing product certification and testing
  - Finalizing product designs **for a market verified prototype**
  - Establishing manufacturing scale-up capacity **for an approved or on-market product**
  - Providing working capital to support **company growth**
  - Supporting customer based demonstrations **for products that have entered into the regulatory approval process**
  - **Scale up of sales and marketing**
  - **Support of strategic acquisitions**

## Ohio Biomedical Growth Fund

- Discussion of detailed operating principals (refer to concept paper)




## Technology Commercialization

Feeding the commercialization pipeline with viable technologies and product concepts is critical to the growth of the biomedical industry in Ohio. Historically, state support for that has come from the Biomedical Research and Commercialization Program (BRCP)

- The BRCP provides funding for commercialization of platform biomedical technologies. This Ohio Third Frontier program represents important funding that helps advance early-stage research to viable product concepts
- The BRCP (and its predecessor program) have been offered since 2001 with funding from the Tobacco Master Settlement Agreement. As of June 30, 2008, BRCP awards totaled \$128 million. With nearly 70% of those funds expended, projects have generated the following metrics:
  - \$138 million in cost share
  - \$735 million in additional leverage of non-state funds
  - 36 portfolio companies created or attracted
  - 3412 direct and indirect jobs with an average salary of \$60,000

## Technology Commercialization

- Committed support for the BRCP is available through FY 2009
  - It is proposed that the program plan and budget for the Biomedical JS include a placeholder in 2010-11 for support of activities in the general category of technology commercialization
- 

## Uncommitted Funds

- As the program plan is formulated in 2009, it is recommended that \$10 million remain uncommitted through year 1
- As initial program activities progress, the Third Frontier Biomedical Advisory Board can continue to assess needs of Ohio's biomedical cluster and determine whether additional programming could be implemented to address those needs
- This reserve would also enable the Advisory Board and Commission to identify **and fund** unique opportunities supportive of the Job Stimulus program but not clearly within the scope of either the Biomedical Growth Fund or Technology Commercialization

## General Administrative Considerations

- It is important to recognize that there are no administrative funds available for the Biomedical Job Stimulus program. Therefore, activities such as proposal evaluation and diligence, administrative functions such as media campaigns, and other outreach activities must be performed by leveraging existing activities, programs, resources, and entities as outlined above. As constituted through current legislation, the Biomedical Job Stimulus program must use funds for external projects not administrative support, studies, or services.

## General Administrative Considerations

- The tobacco settlement funds to support the Biomedical JS Program are tied up in litigation and the timing of the resolution of this court action is uncertain. It is expected that planning and administrative preparations for program implementation continue to progress. In the near term this would include preparation to issue a NOFA for the Biomedical Growth Fund. However, the NOFA would not be publicly released until funding is actually available. Absent this certainty, it would be untenable for companies to plan an expansion or attraction project reliant on this source funding.

## General Administrative Considerations

- With no administrative funds associated with the Biomedical JS Program, **creative approaches** will need to be pursued to engage experts that can support the competitive evaluation of proposals. Whatever the approach it must be recognized that the evaluation process has to be timely and conducted in a manner that ensures avoidance of any conflicts of interest.

## General Administrative Considerations

- It is well recognized that workforce development at many levels is critical to the accelerated growth of the biomedical cluster in Ohio. However, it is important to note that the elements of the Job Stimulus Package related to targeted industry support, such as biomedical, were not conceived to be a workforce initiative. The Advisory Board expects that it will identify workforce needs in the course of overseeing the investments of these Job Stimulus Funds, and proposes to provide those insights to other appropriate state agencies and programs (e.g. Regents' Skills Bank) for possible action.

## Budget Plan

	FY 2009	FY 2010	FY 2011	TOTAL
BIOMEDICAL GROWTH FUND	\$16 MM	\$20 MM	\$20 MM	\$56 MM
TECHNOLOGY COMMERCIALIZATION		\$17 MM	\$17 MM	\$34 MM
UNCOMMITTED FUNDS				\$10 MM
TOTAL	\$16 MM	\$37 MM	\$37 MM	\$100 MM
BRCP (OTF Committed)	\$23 MM			\$23 MM





**Preliminary Concepts  
for Bioproducts Job  
Stimulus Program**

## Third Frontier Bioproducts Governance

- 7 member Bioproducts Advisory Board created by statute
  - Appointments to Advisory Board by Governor, Speaker of the House, and Senate President
  - Role in defining job stimulus strategy related to bioproducts programs, budget, and metrics
- 9 member Third Frontier Commission created by Third Frontier statute
  - Approval authority for Job Stimulus strategy related to both ioproducts and biomedical programs, budget, and award of funds
  - Staff from Agriculture and Development presents specific project recommendations to Third Frontier Commission for funding approval
- Shared roll of Advisory Board and Commission in monitoring progress and performance

## **Third Frontier Bioproducts Advisory Board Appointees**

- Mark Barbash, Chief Economic Development Officer, Ohio Department of Development
- James Blank, Ph.D., Department Chair, Biological Sciences, Kent State University
- Robert Boggs, Director, Ohio Department of Agriculture
- Wayne Earley, President & CEO, PolymerOhio, Inc.
- Jack Fisher, Executive Vice President, Ohio Farm Bureau Federation
- David Jones, Director of bioproducts, Ashland Inc.
- John Lumpe, Executive Director, Ohio Soybean Association/  
Ohio Soybean Council

## Bioproducts Job Stimulus Funding

- Source - Tobacco Settlement Fund
  - \$50M - (\$20M in FY 09; \$20M in FY 10; and \$10M in FY 11)
  - Funding tied up in Tobacco Settlement litigation; time to resolution uncertain
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## Stakeholder Input

- On September 9, 2008 a stakeholder discussion on the Job Stimulus Package was held at the Ohio Department of Agriculture.
- On October 23, 2008 the Third Frontier Bioproducts Advisory Board met to begin developing the Bioproducts Job Stimulus Program
- A number of programmatic ideas resulted from both meetings and have been incorporated into the following preliminary concepts

## Questions

1. How can Ohio's existing bioproducts supply chain be strengthened?
2. How can investment opportunities that are complementary to strengthening the supply chain be identified?
3. What are your suggestions for making the program timely, efficient and responsive?
4. How can state investment most effectively accelerate the targeted commercialization of new bioproducts and production processes? How will jobs be created by these projects?
5. How can state investment most effectively build the overall infrastructure of Ohio's bioproducts industry? What new jobs will be created through such investment?
6. How can Ohio's aggregate biorefining capacity be expanded?
7. What proportion of funding should be directed to projects that build Ohio's overall bioproducts infrastructure versus projects that target the commercialization of new bioproducts and processes?
8. What are the metrics that should be used to gauge the overall impact of all bioproducts projects?
9. How can the state most effectively leverage its investment through project selection? Should the state require a set match for funding, or should this amount vary by project based on public benefits and leverage potential?
10. What level of risk should we take? What's the balance between "established corporate" and "innovative entrepreneur"

## Ohio Bioproducts Growth Fund

- The Ohio Bioproducts Growth Fund would be established to support high job creation potential attraction and expansion opportunities that would accelerate the growth of Ohio's Bioproducts cluster
- The focus would be on companies that enable the commercialization of technologies in specific areas of Ohio strength, and leverage the assets of major Ohio bioproducts research organizations

## Ohio Bioproducts Growth Fund

- Company attraction would focus on proactive efforts to identify a small number of high impact, high visibility deals for which larger incentive packages would be offered. Target opportunities in this category would include:
  - Anchor companies that would become a magnet for additional attraction, company formation or otherwise promote supply chain expansion in Ohio
  - Major R&D operations of existing companies

## Ohio Bioproducts Growth Fund

- Company expansion would include larger deals but would also consider a greater number of smaller opportunities, especially companies that are progressing through the commercialization pipeline as a result of previous investment by the Third Frontier and its early-stage capital funds. Target opportunities in this category would include:
  - Medium to large size existing Ohio bioproducts firms committed to a major expansion or acquisition
  - High growth early-stage companies with near to market product opportunities that have been validated by acquisition of significant investment capital

## Ohio Bioproducts Growth Fund

- Job Stimulus funding could be used for a wide variety of purposes including but not limited to the following:
  - Finalizing product certification and testing
  - Finalizing product designs
  - Establishing manufacturing scale-up capacity
  - Providing working capital to support company growth
  - Supporting customer based demonstrations
- A majority of the Bioproducts JS funding would be dedicated to the Growth Fund over three years.

## Ohio Bioproducts Capacity Building Fund

- The Ohio Bioproducts Capacity Building Fund would be established to support industry enabling infrastructure/ support opportunities that would accelerate the growth of Ohio's Bioproducts cluster.
- The end goal would be to make strategic investments that help to expand the capacity of Ohio's Bioproducts infrastructure to help develop the supply chain and strengthen Ohio's emerging industry cluster.

## Ohio Bioproducts Capacity Building Fund

- Job Stimulus funding could be used for a wide variety of purposes including:
  - Expanding agbiorefining capacity to meet the need for innovators to make large samples of new materials for pilot and pre-product scale runs of candidate agbiobased products
  - Initiating a network of development capabilities and associated technical management to qualify new agbiobased materials in various chemical/polymer applications in order to accelerate commercialization
  - Creating a Bioproducts Technology Center to foster the coordination and interaction of industry, academia, and the public sectors to foster knowledge, research, and the commercialization of technologies to advance the industry cluster in Ohio
  - Providing training programs for agbioproducts development and production

## Summary

Together, the two proposed programs would stimulate the growth and sustainability of the bioproducts sector in Ohio by providing assistance throughout the commercialization framework as follows:

