



**Development
Services Agency**

John R. Kasich, Governor

David Goodman, Director



Third Frontier
Innovation Creating Opportunity

www.OhioThirdFrontier.com

Annual Retreat

September, 16 & 17

Day 1 Agenda

10:00	Welcome	David Goodman/ Mark Collar Bill Demidovich
	Retreat Orientation	
	<ul style="list-style-type: none">• Introductions• Review Agenda & Ground Rules	
10:15	Environment & Context	
	<ul style="list-style-type: none">• Administration Priorities• Year in Review/OTF Funding Status• Metrics/ Ohio Third Frontier Analysis of Performance	Ben Kanzeg Norm Chagnon Keith Jenkins/ Battelle
11:30	Review of Progress on CY 2013 Strategic Consensus Document	All
12:30	Lunch	

Day 1 Agenda (continued)

1:15	OTF: Structural Assessment <ul style="list-style-type: none">• Key Findings• Discussion	Norm Chagnon All
1:45	McKinsey/JobsOhio	TBD
2:30	Moving Forward for CY 2015-16 <ul style="list-style-type: none">• Future Opportunities/Directions• Consensus on Key Decisions<ul style="list-style-type: none">• Break @ 3:30	All
5:30	Adjourn	
6:00	Dinner	

Retreat Orientation

Environment & Context

Administration Priorities

Year In Review

General

- Requests For Proposals were released for all programs planned for CY 2014 and tracked with the established schedule
- In the period from December 11, 2013 to June 30, 2014, a total of \$106.7 M was awarded

Year In Review

Commercialization

- Of that \$106.7M, \$46M was awarded to the first two Technology Commercialization Centers (UH and OSU)
- Two additional rounds of the Technology Validation & Start-up Program (now on round 6) have provided \$0.9M to 19 university validation projects and \$1.6M to 16 Ohio start-ups
- Industrial Research and Development Center Program made an award of nearly \$5M to the Edison Welding Institute to create the American Lightweight Materials Manufacturing Innovation Institute and \$1.5 million to the Cleveland Clinic for the establishment of the National Center for Accelerated Innovations

Year In Review

Commercialization

- IPP, both OTF staff and the National Academies review panel feel that we've exhausted the platform concept in that the market of candidate platforms has been sufficiently saturated
- TAG has gotten off to slow start. There have been 6 LOIs submitted and only two proposals. However, the one proposal that was funded as a very impressive initiative and ground breaking approach to open innovation across large companies.

Year In Review

Capital

- Beginning with 4 deals approved in December 2013 totaling \$6.5M, the Commercial Acceleration Loan Fund (CALF) to date has approved 16 deals totaling \$22.7M. Seven additional deals totaling \$7.3M were approved through the Targeted Investment [Loan] Program.
- The Pre-seed Capitalization Fund Program awarded over \$26M to 10 Funds. Two new Fund Managers (Impact Angel Fund and Bizdom) successfully competed for funding in this round. Work is progressing to manage this program more as a Fund-of-Funds.

Year In Review

Innovation and Entrepreneurship

- The former Edison Technology Incubators (11) were provided their first Oho Third Frontier funding in the amount of \$4.4M to support their operations through CY 2014.
- ONE Fund supported four accelerators at nearly \$1M with one new accelerator (Flashstarts, Inc.) successfully competing for funds.
- Successfully launched an RFP for a unified program to provide two-year (2015-16) funding for entrepreneurial support to each of the six regions. This includes the Entrepreneurial Signature Program (ESP) organizations, Incubators, Accelerators, and other regional partners.

OTF Funding Status

Third Frontier Bond Funds	(In millions of dollars)	(In millions of dollars)
Total Third Frontier Bond Funds*	1140	
Total Funds Awarded Through CY 2013	617	
Total Funds Awarded To Date In CY 2014	109	
Commercial Acceleration Loan Fund		22.7
Technology Validation & Start-up Fund		2.5
Industrial R&D Center Program		6.5
Technology Commercialization Center Program		46.0
Pre-seed Fund Capitalization Program		26.0
Incubators		4.4
ONE Fund		1.0
Projected Additional CY 2014 Awards	104	
Commercial Acceleration Loan Fund		17.3
Technology Validation & Start-up Fund		1.0
Innovation Platform Program		15.0
Industrial R&D Center Program		10.0
Technology Commercialization Center Program		21.0
Entrepreneurial Signature Program (CY 2015-16)		50.0
Balance of Third Frontier Bond Funds	300	

* Excludes \$60M in earmarks to Ohio Board of Regents



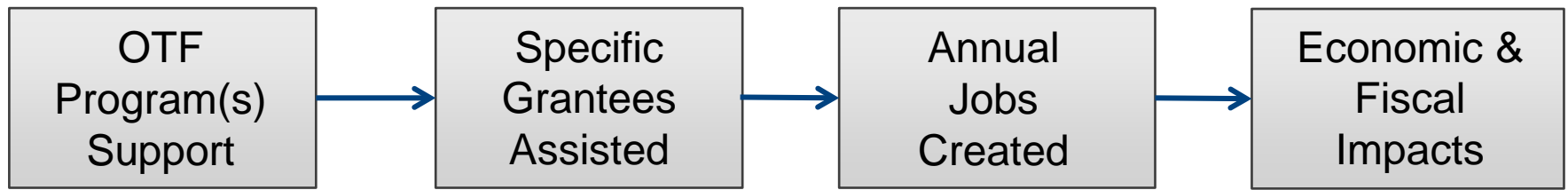
Mitch Horowitz
Vice President & Managing Director
Battelle Technology Partnership Practice

Ohio Third Frontier: Analysis of Performance

September 2014

Methodological Approach and Issues

- **The update of economic and fiscal impact uses direct job creation figures tracked by OTF from 2009 through 2013 (calendar years).**
 - This differs from earlier SRI and subsequent OBRT analysis that were based on OTF's associated spending and leverage.
 - If a business is helped by multiple OTF programs, the job numbers are only counted once – so all duplicate jobs from multiple grants are removed.
 - For each year, the actual jobs created by companies assisted from 2009 to 2013 are measured, so can either grow or decline over time.
- **Approach to measuring economic and fiscal impacts use the well-regarded IMPLAN input-output model for Ohio.**
 - The impacts of jobs reported based on the industry of each company. This allows for greater specificity in terms of the indirect and induced modeling algorithms.
 - The fiscal (state and local government revenues) impacts are estimated based on state and local government revenues derived from the IMPLAN model. This varies from the original analysis conducted by OBRT which relied on broad assumptions, not specific IMPLAN modeling.



Two Primary Inputs Used to Analyze OTF ROI for 2009 through 2013

- **OTF Spending**

- In addition to the spending that occurred during the five year period, the cumulative figures also include 2007 and 2008 spending on programs generating impacts in 2009 and beyond

- **Direct Jobs** being reported by grantees as having been created/retained for each year from 2009 to 2013 as a result of OTF investments
 - Duplicate jobs that were reported as a result of funding or assistance from multiple grants were removed

	2009	2010	2011	2012	2013
Annual OTF Spending	\$144,949,333	\$136,610,312	\$162,582,596	\$118,429,122	\$109,968,495
Cumulative OTF Spending*	\$235,520,772	\$372,131,084	\$534,713,680	\$653,142,802	\$763,111,297
Cumulative Direct Jobs	1,463	3,561	5,002	6,936	7,932
Annual Change in Direct Jobs	1,463	2,098	1,441	1,934	996

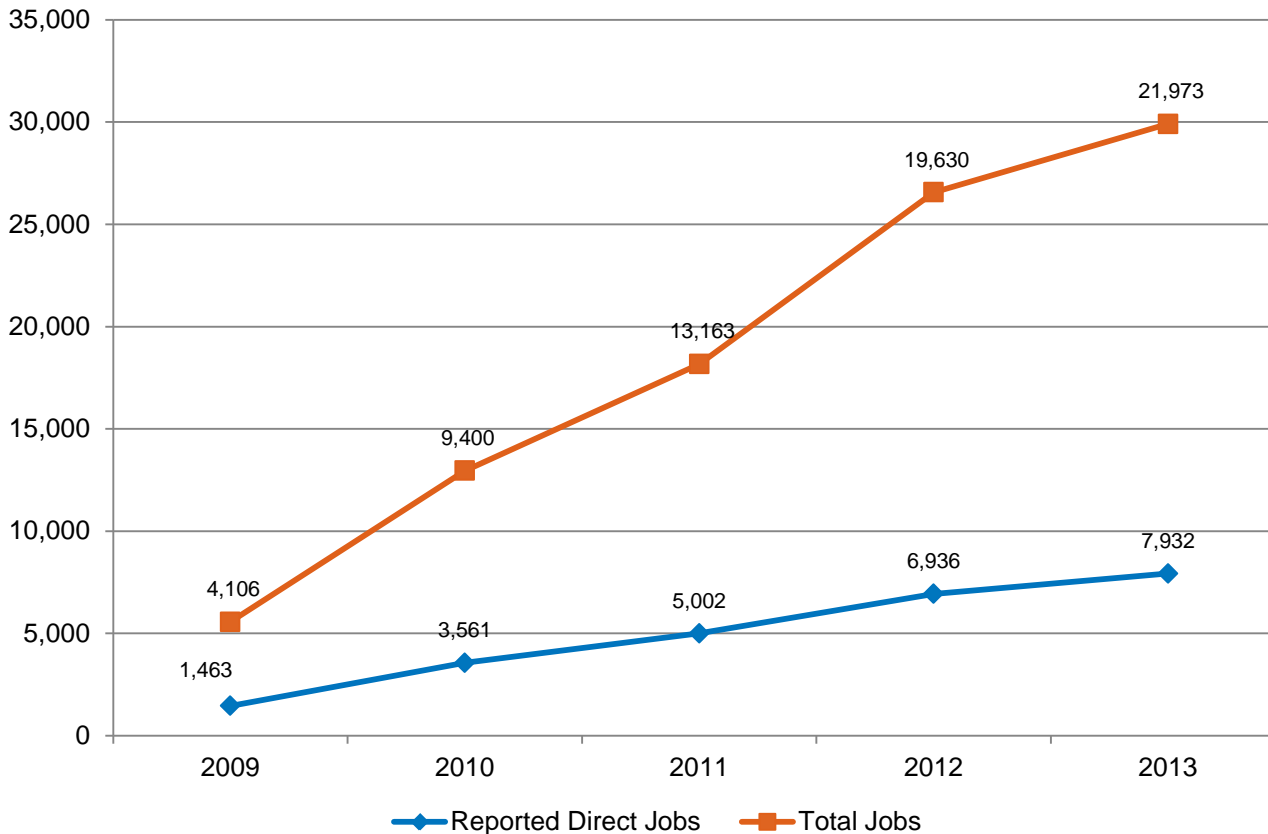
* Includes 2007 and 2008 spending on programs generating impacts in 2009 and beyond.

Source: Ohio Third Frontier Semi-Annual Reports

OTF Total Jobs Created/Retained Continues to Rise

- By 2013, OTF program investments from 2009-2013 resulted in nearly 8,000 direct jobs and 22,000 total jobs

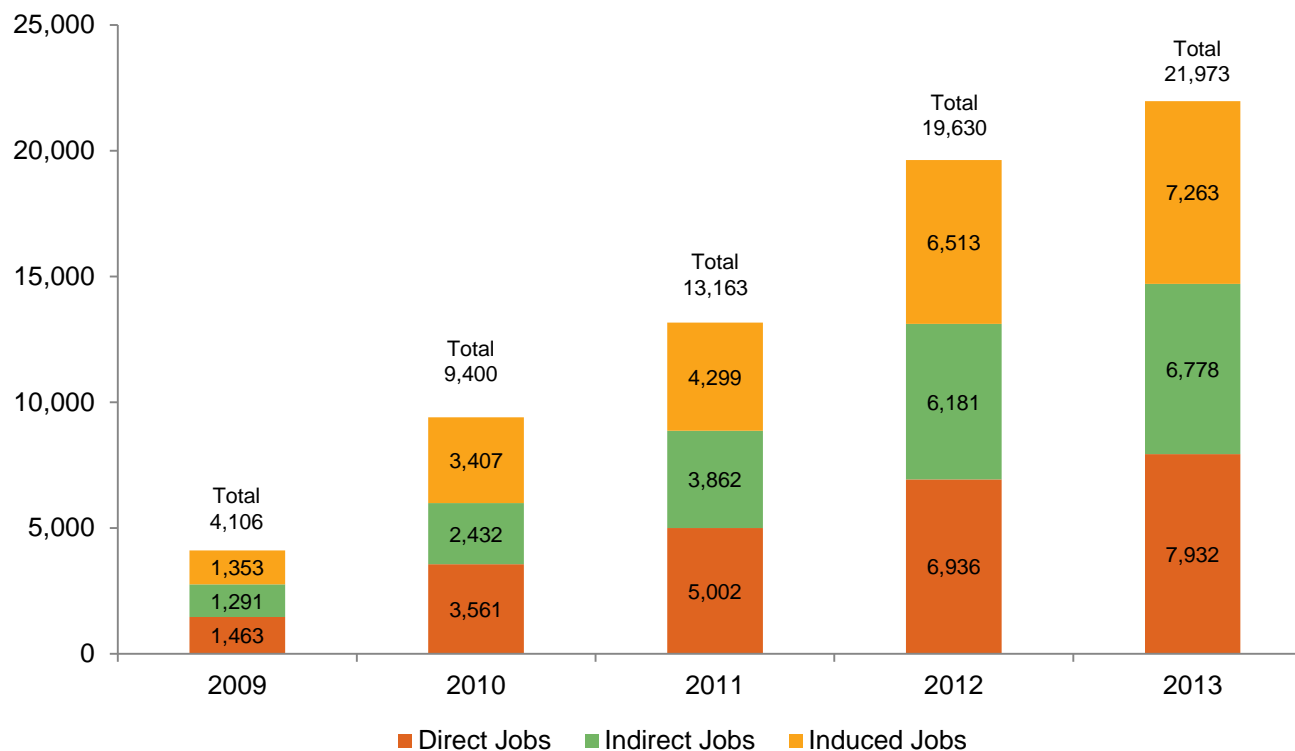
Annual Jobs Each Year from all OTF Assisted Companies from 2009 to 2013



Total Employment Composition, Overall

- Direct jobs represents approximately 35% of total jobs across the time period.

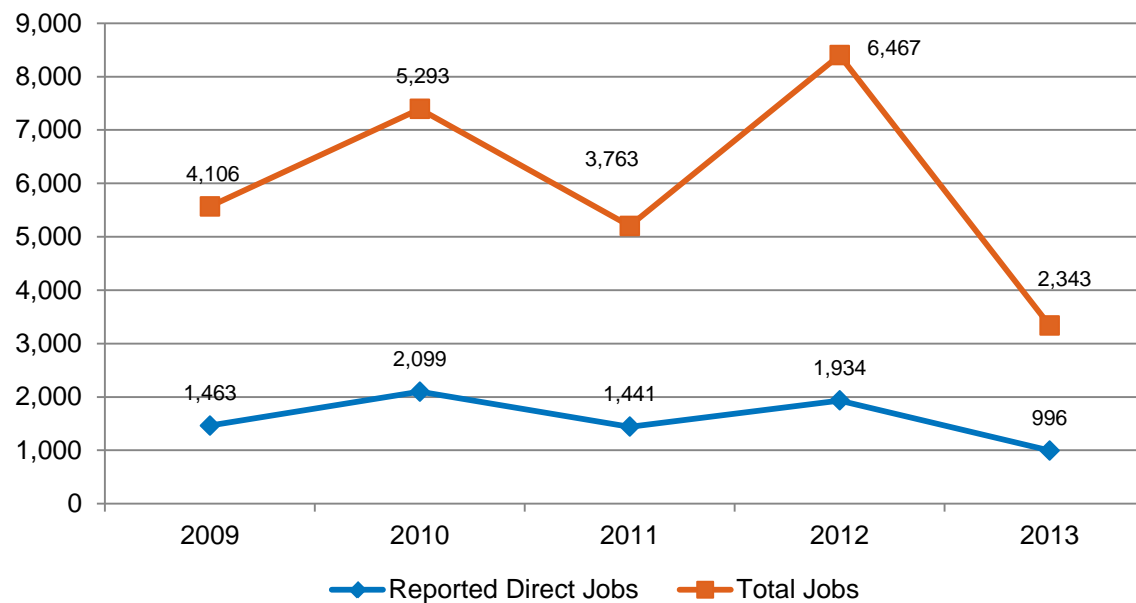
Break Out of Components of Job Impact Each Year from OTF Assisted Companies



Annual growth in employment continues to grow, though the pace slowed significantly in 2013

- The cumulative decline in OTF annual expenditures over the period may be one contributor for the slower pace of direct job growth in 2013
- The spike in direct jobs in 2012 is predominantly due to significant program investments in TIA, which concentrated in advanced manufacturing activities that have a high multiplier

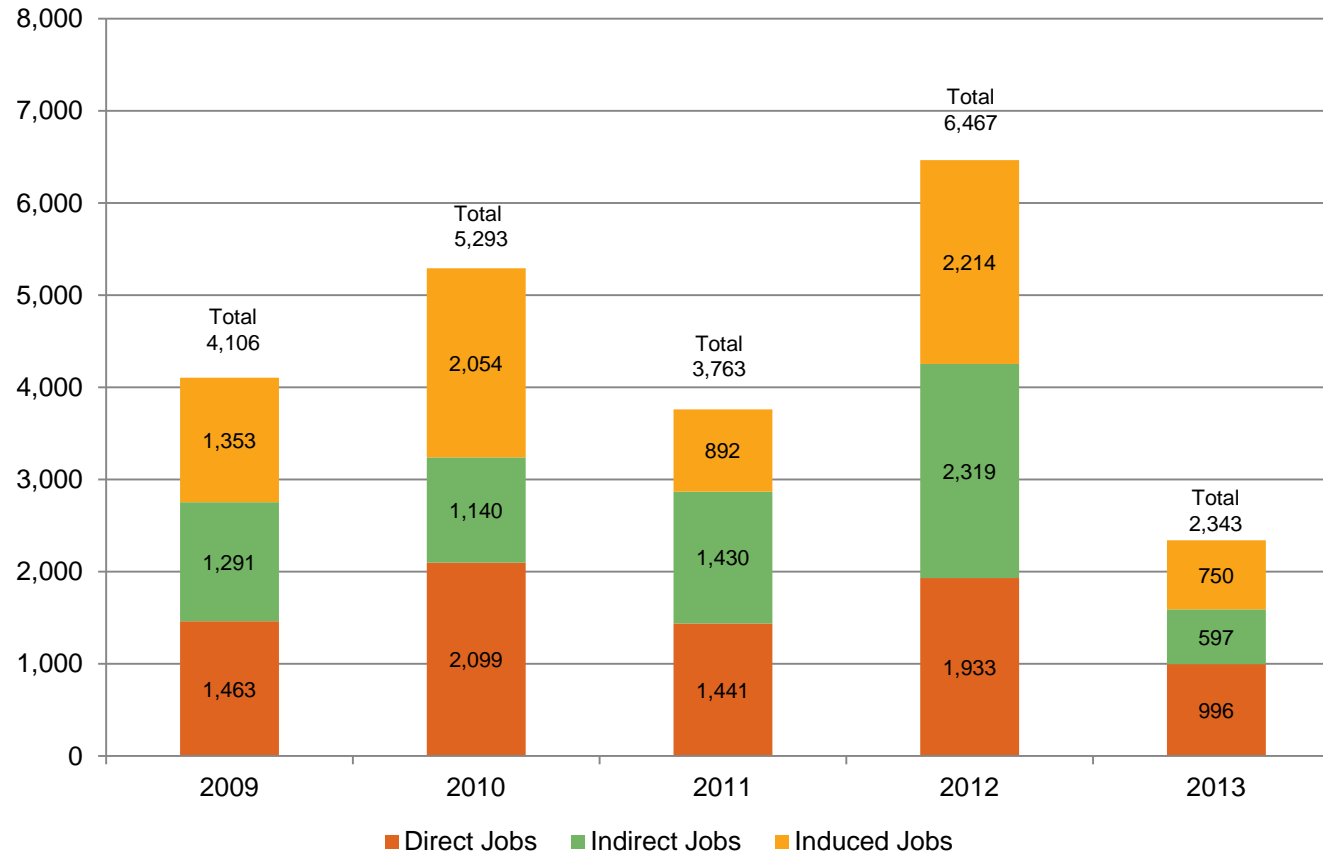
Growth in Jobs Each Year from OTF Assisted Companies



Total Employment Composition, Annual Change

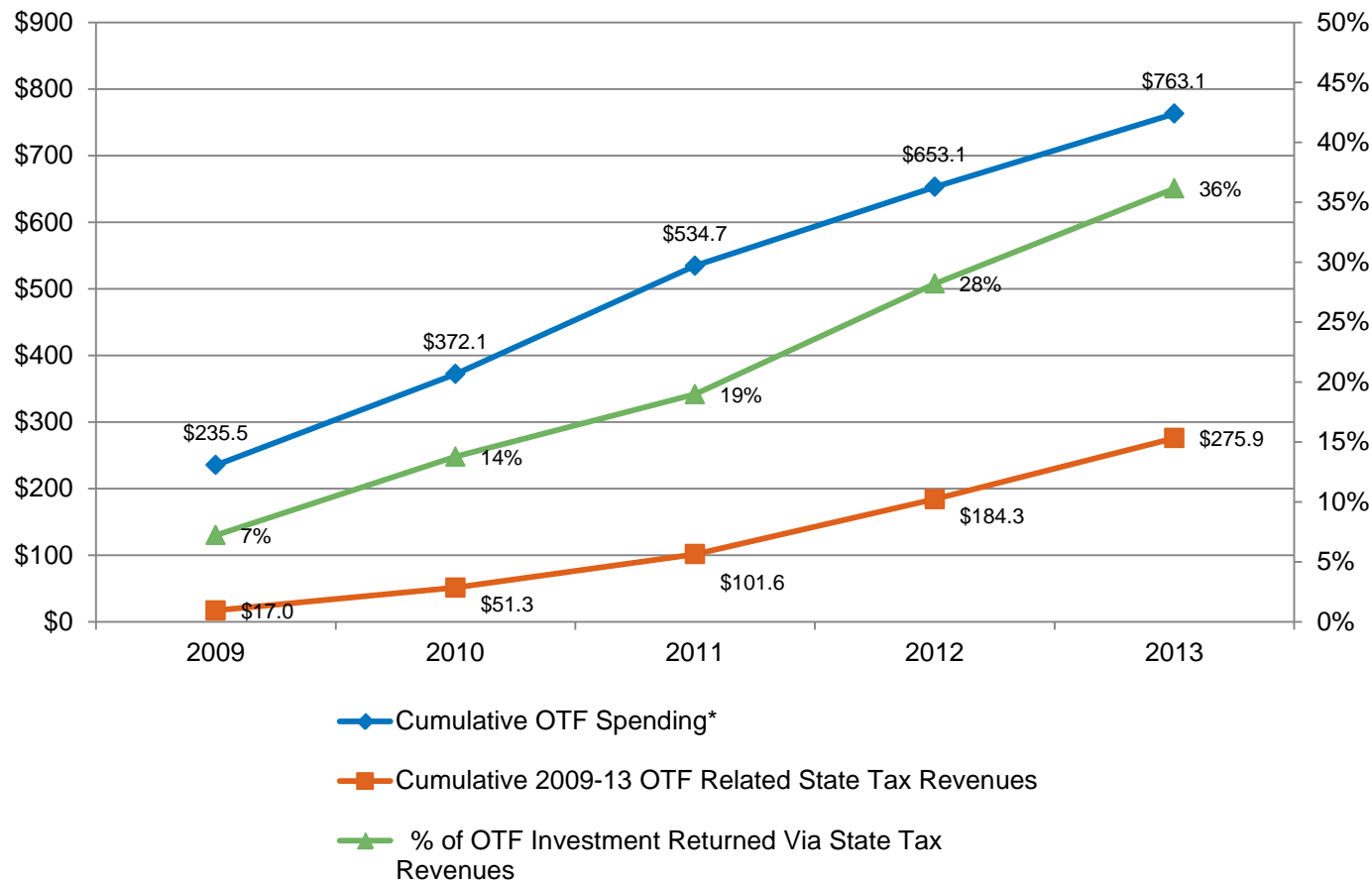
- Direct jobs represents approximately 43 percent of total jobs in 2013

Break Out of Components of Job Change Each Year from OTF Assisted Companies



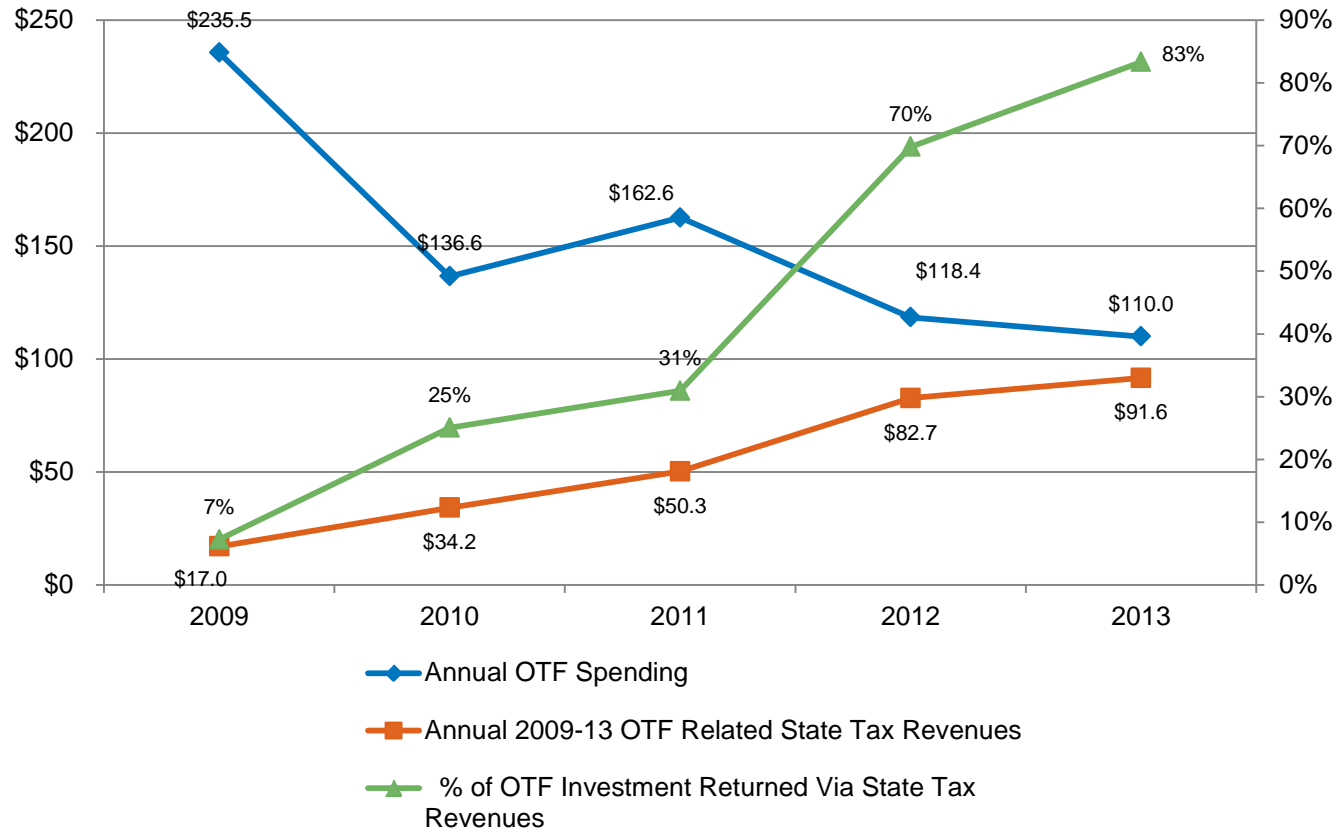
State Tax Revenue Return, Cumulative

- Through December 2013, more than 1/3 of the cumulative OTF investments had been returned via State tax revenues.



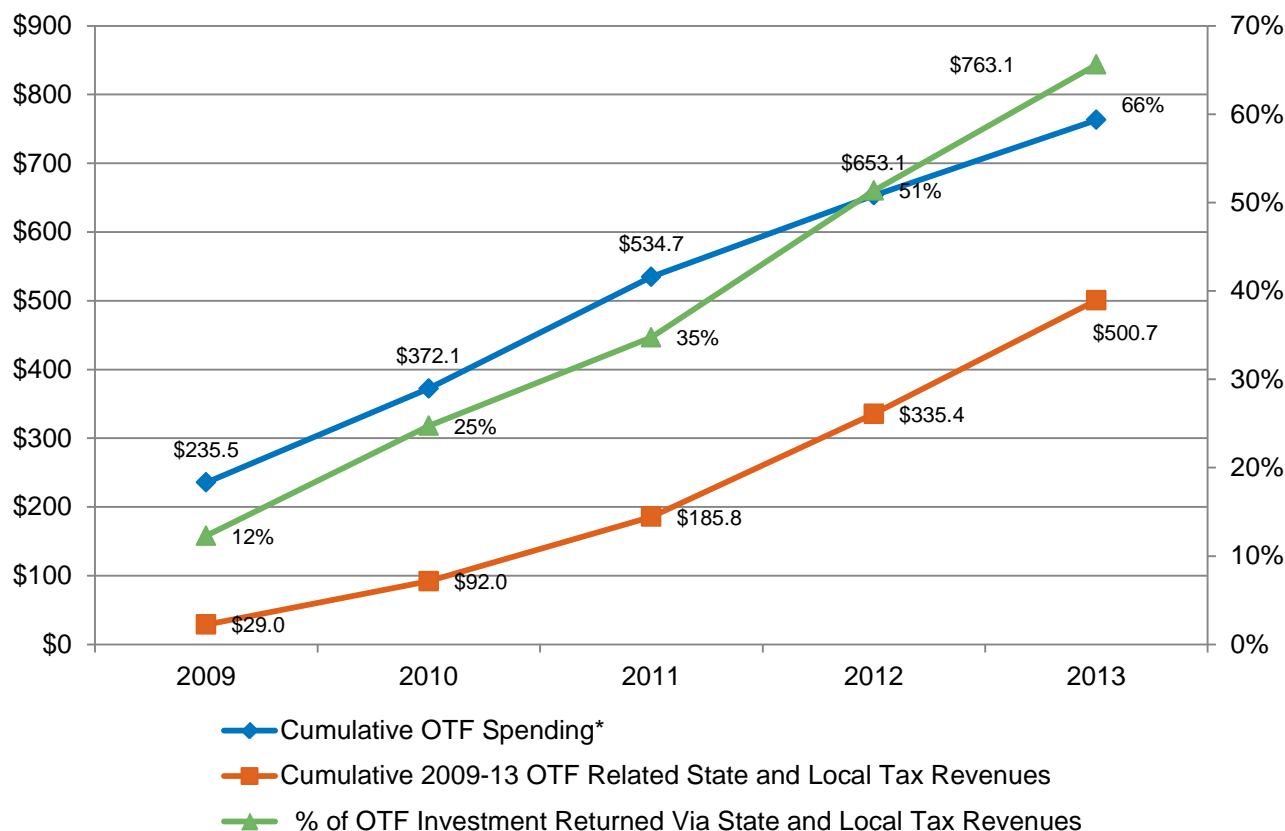
Annual State Tax Revenue Return

- In 2013, State tax revenues returned nearly matched OTF investments for the year.



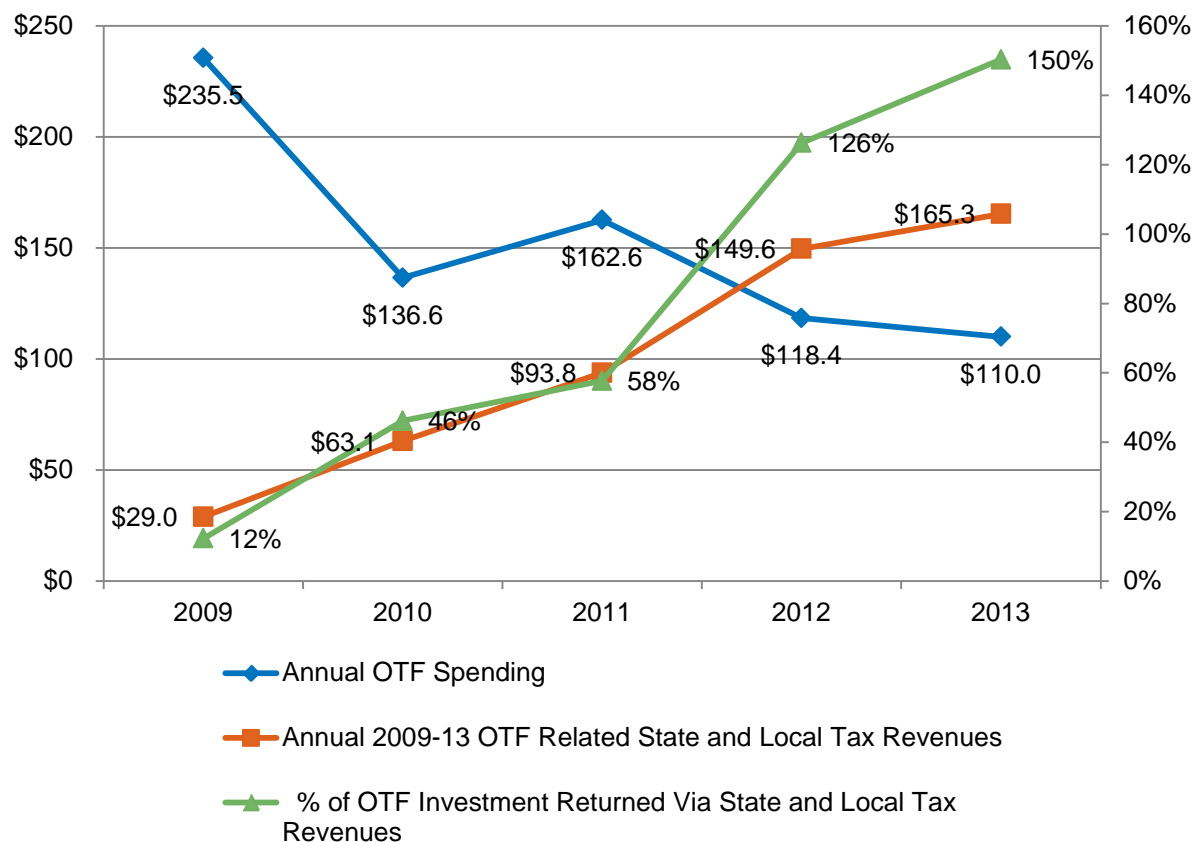
State & Local Tax Revenue Return, Cumulative

- Through December 2013, 2/3rds of the cumulative OTF investments had been returned via State & Local tax revenues.



Annual State & Local Tax Revenue Return

- In 2013, State and Local tax revenues returned were 1.5 times the OTF investment for the year.



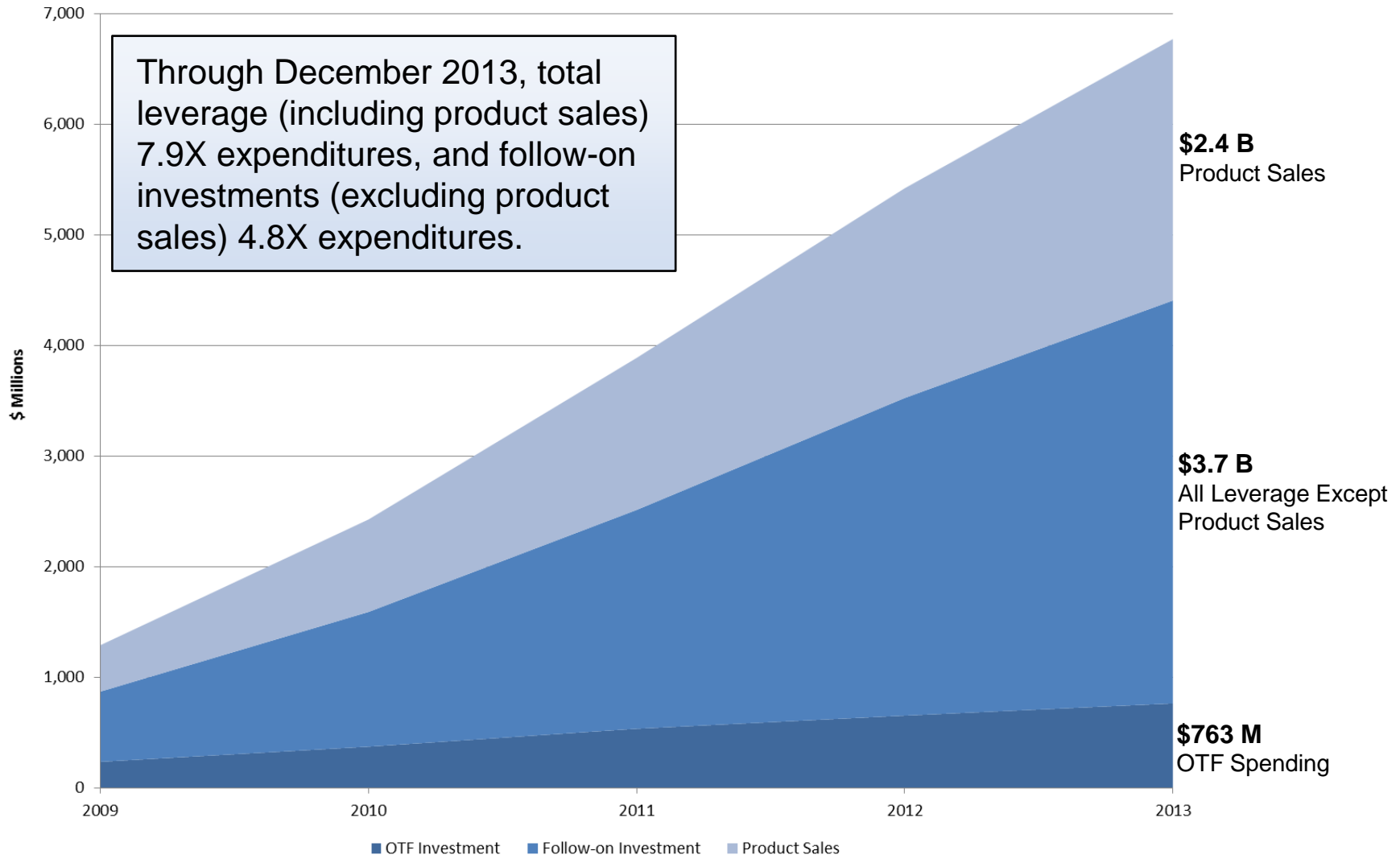
Overall Economic Impact of OTF Investments – Positive Outcomes for the State of Ohio

- As of 2013, OTF investments were generating \$4.7 billion in annual output, also often referred to as business volume.
 - For every \$1 in cumulative OTF spending, the State of Ohio was realizing \$6.22 of annual output.

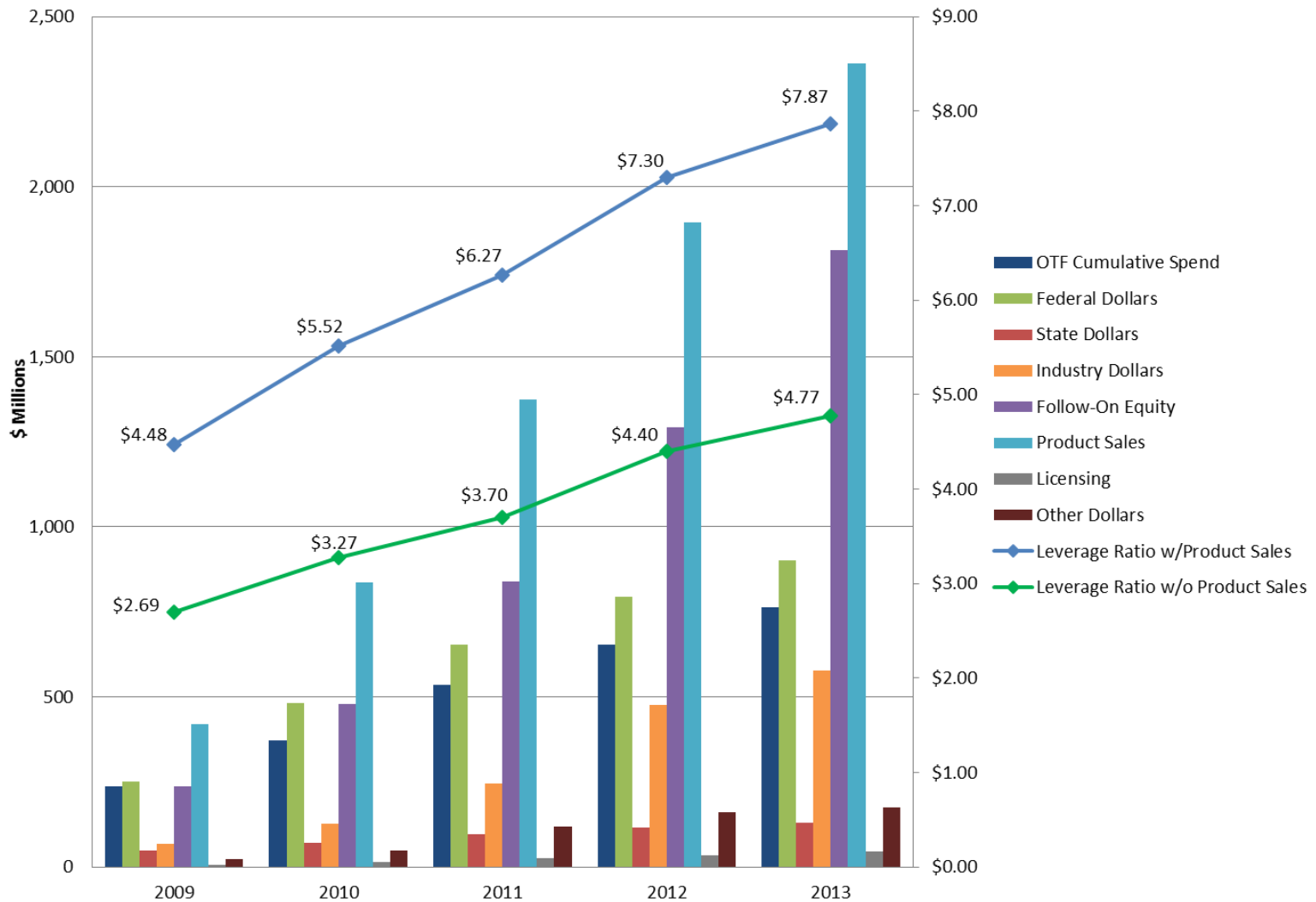
	2009	2010	2011	2012	2013
Total Economic Impacts					
Output	\$738,394,002	\$1,613,021,097	\$2,469,930,682	\$4,301,566,206	\$4,747,652,111
Labor Income	\$223,548,880	\$510,537,566	\$748,829,646	\$1,211,316,047	\$1,379,412,180
Employment	4,106	9,400	13,163	19,630	21,973
State and Local Government Revenue	\$28,961,725	\$63,065,625	\$93,808,256	\$149,587,147	\$165,305,034
Estimated State Government Revenue	\$17,047,937	\$34,228,457	\$50,299,108	\$82,684,604	\$91,610,861
Estimated Local Government Revenue	\$11,913,788	\$28,837,168	\$43,509,148	\$66,902,543	\$73,694,173
Annual Output per Cumulative OTF \$ Spent	\$3.14	\$4.33	\$4.62	\$6.59	\$6.22

Source: OTF, Battelle, IMPLAN

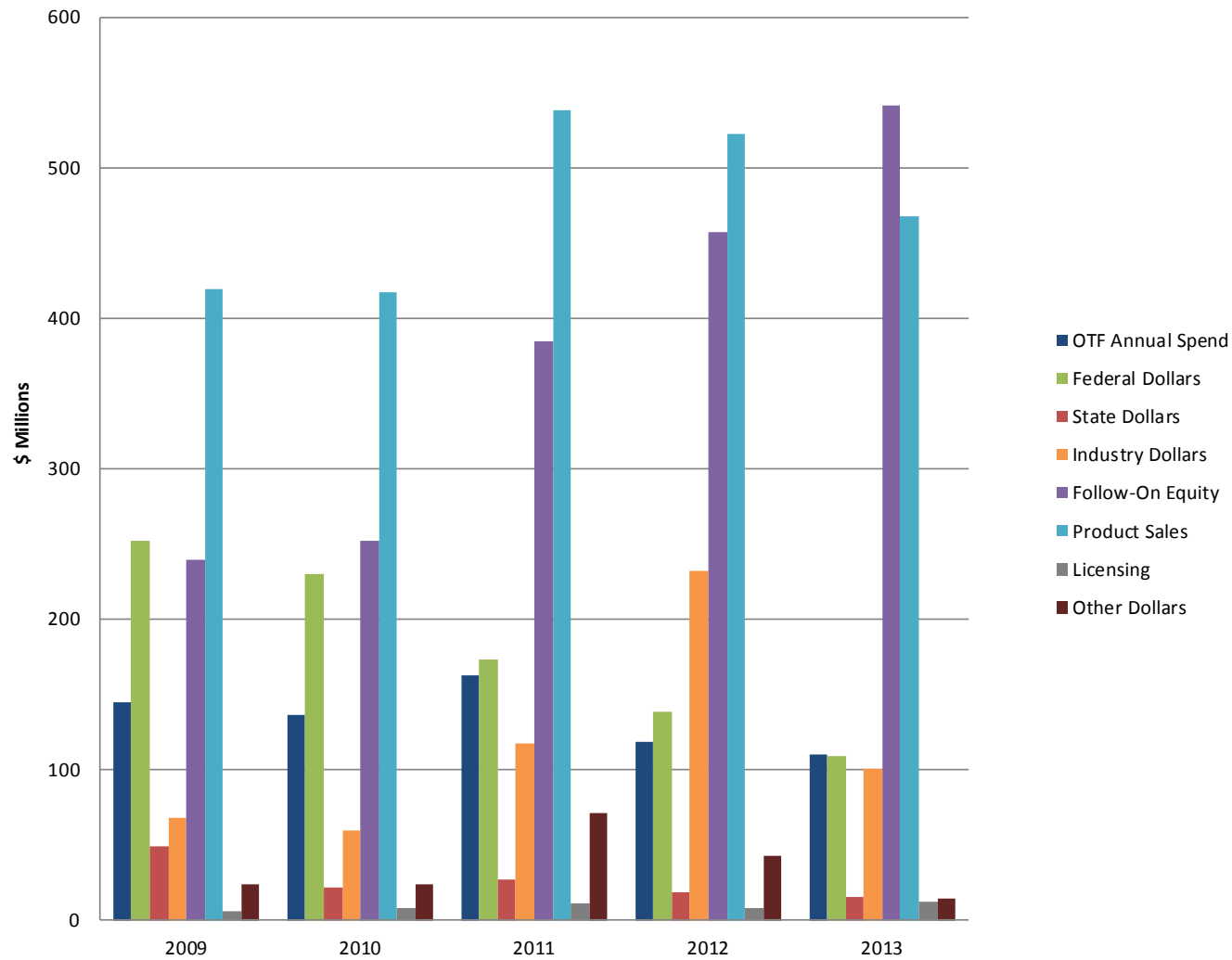
OTF Portfolio Attracts Growing Follow-On Investments and Encompasses Sizeable Product Sales



On a Cumulative Basis, Leverage Returns are Growing



On an Annual Basis, Follow-On Equity is Increasing



APPENDIX

Background

Prior Analysis of Performance:

- The Ohio Third Frontier Commission and Advisory Board engaged SRI International, in partnership with Georgia Tech, to complete an economic impact study of the Ohio Third Frontier (OTF). The findings from this analysis were released in September 2009.
- As a result of the data presented in the SRI report, members of both the Commission and Advisory Board felt that there were opportunities to further explore quantitatively the impact of the Ohio Third Frontier on the State's economy. This work was undertaken in partnership with the Ohio Business Roundtable (OBRT) and presented in December 2009.
- In 2013, Battelle was engaged to conduct a quantitative analysis of the performance of OTF for the time period January 2009 to December 2012 to better understand how the program has performed since the prior studies. Battelle also reviewed prior methodological techniques and made improvements to the analysis where possible.

Purpose of Current Analysis of Performance:

- To update the economic and fiscal impacts associated with OTF for the time period January 2009 to December 2013. Note – revised estimates of jobs created and leverage obtained were provided by ODSA staff for Calendar Year 2012 which has altered last year's findings.

Input-Output Methodology as a Tool to Calculate Economic Impact

- Estimation of job creation makes use of an input-output model to represent the interrelationships among economic sectors through the use of multipliers.
 - Input-output multipliers are based on the flow of commodities between industries, consumers and institutions in a regional economy.
 - Premise is that every dollar spent in the economy (the direct impact) is re-spent on the purchase of additional goods or services generating additional economic activity and impact (the multiplier – indirect and induced effect).
- This analysis was performed using a Ohio-specific input-output model from the Minnesota IMPLAN Group (IMPLAN).
 - The IMPLAN model is the most widely used model in the nation and is based on the U.S. Bureau of Economic Analysis (BEA) data.
 - The model also includes information for each sector on employee compensation; proprietary and property income; personal consumption expenditure; federal, state, and local expenditure; inventory and capital formation; and imports and exports.

Input-Output Methodology as a Tool to Calculate Economic Impact

- The trade flows built into the IMPLAN model permit estimating the impacts of one sector on other sectors. These impacts consist of three types:
 - **Direct** - the specific impact of the sector(s) in question
 - **Indirect** - the impact on suppliers to the focus industry
 - **Induced** - the additional economic impact of the spending of these suppliers and employees in the overall economy
 - **Total** - the aggregated direct, indirect, and induced impacts

Input-Output Methodology as a Tool to Calculate Economic Impact

- The IMPLAN model was used to estimate four types of impacts:
 - **Output**, also known as business volume, is the total value of goods and services produced in the economy;
 - **Labor Income** is the total amount of income, including salaries, wages and benefits, received by workers in the economy;
 - **Employment** is the total number of jobs created – on a headcount – not Full Time Equivalent (FTE) – basis; and
 - **Government Revenues** includes the estimated revenues of state and local governments from all sources as a result of the impacts estimated. These were decomposed in their estimated state and local government components based on U.S. Bureau of the Census State and Local Government Finances data.

Total Cumulative Economic Impacts of Entire Portfolio of Companies and Spending by Total, Direct, Indirect, and Induced

	2009	2010	2011	2012	2013
Total Economic Impacts					
Output	<u>\$738,394,002</u>	<u>\$1,613,021,097</u>	<u>\$2,469,930,682</u>	<u>\$4,301,566,206</u>	<u>\$4,747,652,111</u>
Direct	\$420,680,670	\$924,982,874	\$1,407,578,926	\$2,542,730,698	\$2,785,437,835
Indirect	\$164,844,787	\$314,760,971	\$551,811,348	\$976,584,894	\$1,070,277,600
Induced	\$152,868,545	\$373,277,252	\$510,540,408	\$782,250,614	\$891,936,676
Labor Income	<u>\$223,548,880</u>	<u>\$510,537,566</u>	<u>\$748,829,646</u>	<u>\$1,211,316,047</u>	<u>\$1,379,412,180</u>
Direct	\$114,950,215	\$266,330,687	\$392,008,365	\$588,419,918	\$682,619,705
Indirect	\$58,069,388	\$118,624,546	\$190,350,306	\$354,374,805	\$391,155,643
Induced	\$50,529,277	\$125,582,334	\$166,470,975	\$268,521,324	\$305,636,833
Employment	<u>4,106</u>	<u>9,400</u>	<u>13,163</u>	<u>19,630</u>	<u>21,973</u>
Direct	1,463	3,561	5,002	6,936	7,932
Indirect	1,291	2,432	3,862	6,181	6,778
Induced	1,353	3,407	4,299	6,513	7,263
State and Local Government Revenue	<u>\$28,961,725</u>	<u>\$63,065,625</u>	<u>\$93,808,256</u>	<u>\$149,587,147</u>	<u>\$165,305,034</u>
Direct	\$9,706,799	\$24,208,588	\$38,188,736	\$59,749,172	\$64,964,001
Indirect	\$8,484,355	\$15,045,626	\$23,166,397	\$42,081,753	\$45,984,820
Induced	\$10,770,575	\$23,811,414	\$32,453,122	\$47,756,222	\$54,356,210
Estimated State Government Revenue	<u>\$17,047,937</u>	<u>\$34,228,457</u>	<u>\$50,299,108</u>	<u>\$82,684,604</u>	<u>\$91,610,861</u>
Direct	\$5,892,782	\$13,724,879	\$21,079,161	\$33,664,874	\$36,853,503
Indirect	\$4,956,882	\$8,125,555	\$12,454,686	\$23,329,754	\$25,516,949
Induced	\$6,198,276	\$12,378,025	\$16,765,260	\$25,689,978	\$29,240,407
Estimated Local Government Revenue	<u>\$11,913,788</u>	<u>\$28,837,168</u>	<u>\$43,509,148</u>	<u>\$66,902,543</u>	<u>\$73,694,173</u>
Direct	\$3,814,017	\$10,483,709	\$17,109,575	\$26,084,298	\$28,110,498
Indirect	\$3,527,473	\$6,920,071	\$10,711,711	\$18,751,999	\$20,467,871
Induced	\$4,572,299	\$11,433,389	\$15,687,862	\$22,066,244	\$25,115,803
Annual Output per Cumulative OTF \$ Spent	\$3.14	\$4.33	\$4.62	\$6.59	\$6.22

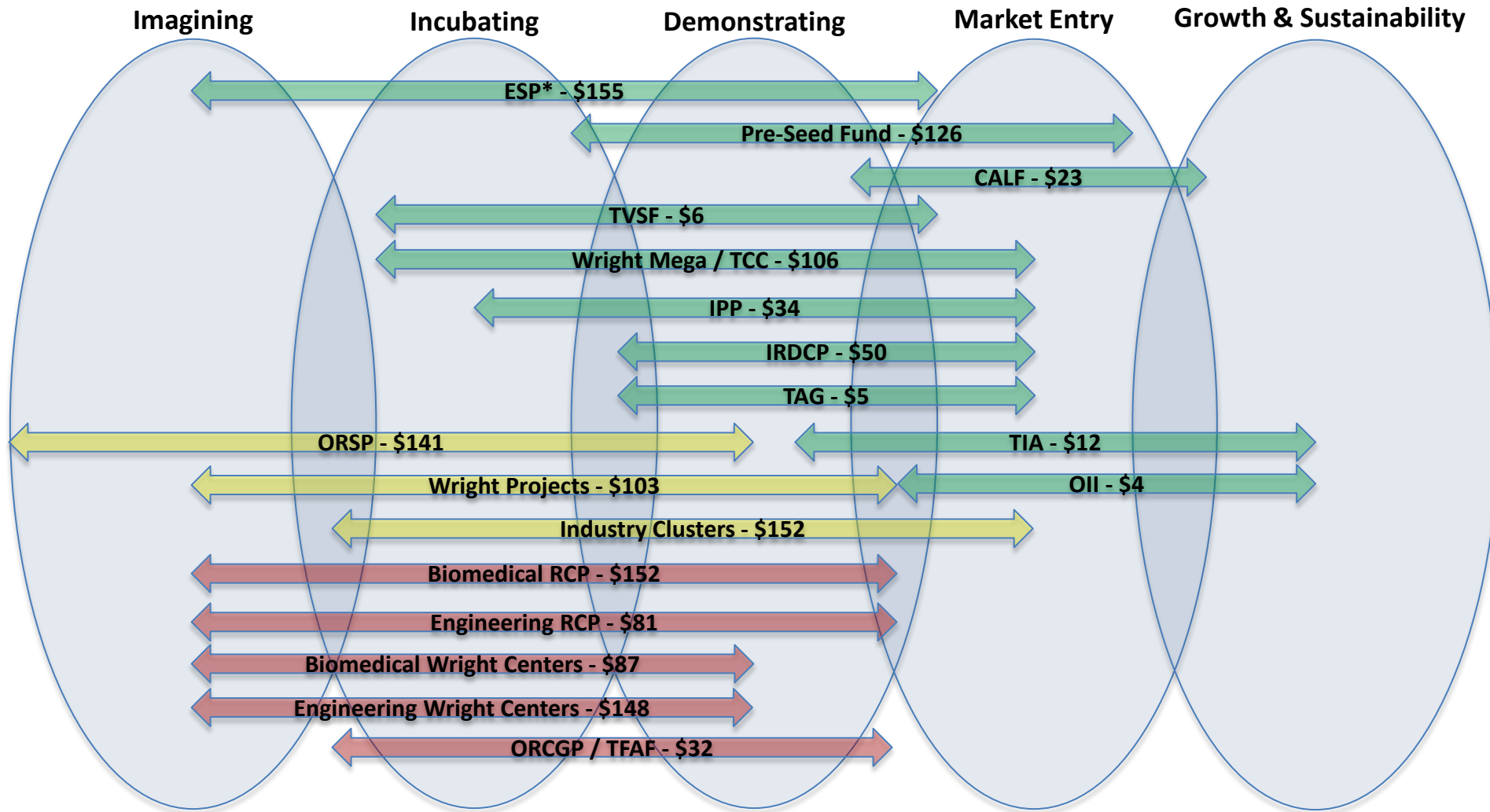
Metrics Overview

- Historical Metrics by Program
- Portfolio Review
 - Active vs. Older Programs
 - Startup vs. Mature Companies
 - Technology Focus Areas
 - Regional Analyses
- Summary

Historical Metrics – by Program as of 12/31/13

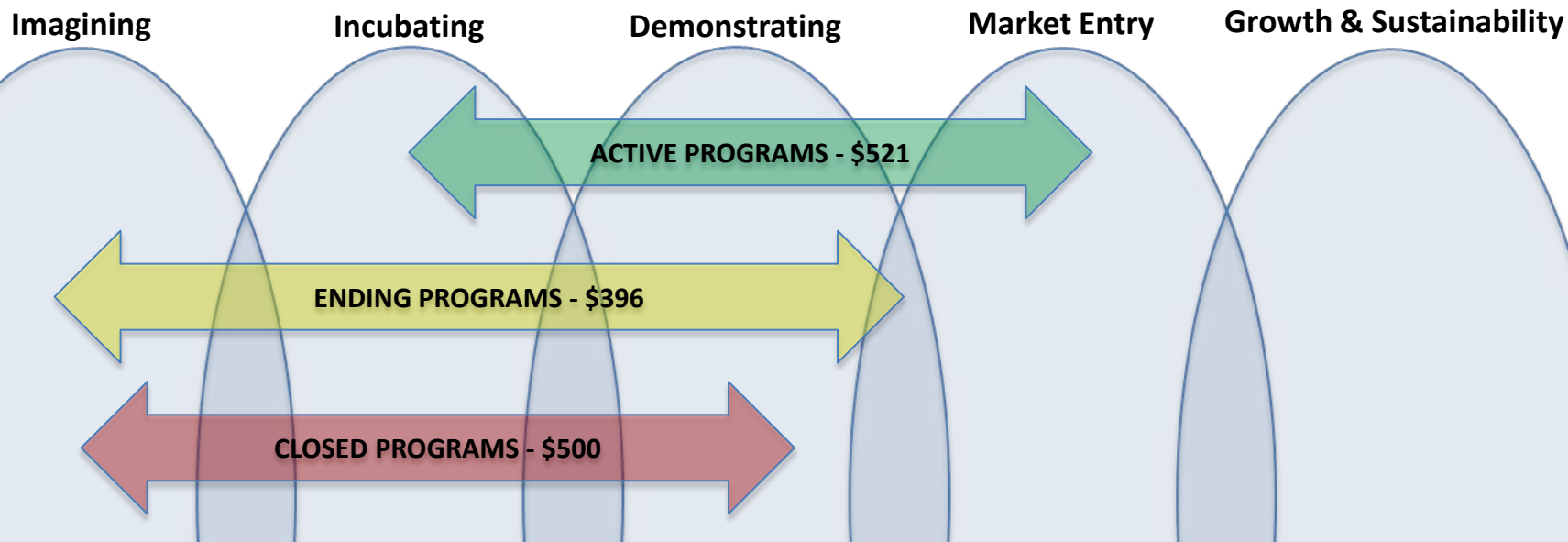
Ohio Third Frontier Program	State Funds Awarded	State Funds Expended	Cost Share Reported	Leverage	Jobs Created for Profit	Jobs Created Not for Profit	Jobs Retained	Jobs Total Created/Retained
Advanced Energy Cluster Program	\$ 41,499,968	\$ 38,650,892	\$ 39,176,378	\$ 164,586,046	231	24	115	370
Advanced Imaging Cluster Program	\$ 13,542,470	\$ 8,559,503	\$ 13,045,940	\$ 52,781,360	91	6	49	146
Advanced Materials Cluster Program	\$ 14,579,672	\$ 14,173,460	\$ 18,754,199	\$ 43,294,366	48	5	42	95
Advanced Sensors Cluster Program	\$ 8,977,738	\$ 8,668,696	\$ 10,149,350	\$ 10,754,255	34	0	57	91
Biomedical Cluster Program	\$ 12,960,148	\$ 10,257,523	\$ 15,506,892	\$ 43,391,008	99	2	48	149
Biomedical Research Commercialization Program	\$ 151,749,921	\$ 150,941,465	\$ 218,530,080	\$ 1,048,044,934	255	678	716	1,649
Engineering Research Commercialization Program	\$ 80,677,370	\$ 80,414,188	\$ 99,887,003	\$ 399,741,132	384	40	213	637
Entrepreneurial Signature Program	\$ 148,189,449	\$ 124,860,663	\$ 77,294,544	\$ 2,346,725,019	2,710	22	2,342	5,073
Fuel Cell Cluster Program	\$ 50,762,794	\$ 50,141,942	\$ 40,632,227	\$ 219,623,120		14	148	366
Innovation Platform Program	\$ 34,166,078	\$ 1,100,219	\$ 2,263,915	\$ 6,288,434	20	13	41	74
Industrial Research & Development Center Program	\$ 40,316,258	\$ 12,161,762	\$ 84,684,566	\$ 51,901,619	153	12	248	413
Oho Third Frontier Internship Program	\$ 8,034,755	\$ 5,430,632	\$ 1,836,269	\$ 3,470,266	0	0	0	0
Open Innovation Incentive	\$ 3,864,663	\$ 712,846	\$ 100,000	\$ 181,058	0	0	0	0
ONEFund	\$ 1,785,000	\$ 1,785,000	\$ -	\$ 13,024,600	190	0	40	230
Ohio Research Commercialization Grant Program	\$ 13,327,588	\$ 13,145,330	\$ 6,566,056	\$ 209,227,949	202	0	84	286
Ohio Research Scholars Program	\$ 137,585,334	\$ 90,261,876	\$ 99,465,390	\$ 117,264,360	27	220	84	331
Photovoltaics Cluster Program	\$ 10,239,702	\$ 10,139,345	\$ 9,084,109	\$ 10,273,861	36	1	12	49
Pre-Seed Capitalization Fund	\$ 73,128,682	\$ 64,979,522	\$ 208,937,489	\$ 3,004,575,731	3,904	3	946	4,853
Third Frontier Action Fund	\$ 18,582,343	\$ 18,582,863	\$ 33,284,792	\$ 138,494,215	279	15	134	429
Targeted Industry Attraction Program	\$ 12,610,000	\$ 12,610,000	\$ 15,105,378	\$ 25,562,280	406	0	381	787
Technology Validation & Startup Fund	\$ 6,008,485	\$ 1,000,240	\$ 458,192	\$ 4,854,751	12	6	14	31
Wright Centers of Innovation - Biomedical	\$ 87,302,967	\$ 87,302,967	\$ 183,401,015	\$ 441,747,211	227	324	199	750
Wright Centers of Innovation - Engineering	\$ 148,094,300	\$ 139,777,880	\$ 283,701,523	\$ 984,467,640	819	518	135	1,472
Wright Mega Center of Innovation	\$ 59,999,086	\$ 39,228,064	\$ 115,484,375	\$ 434,422,541	335	13	0	348
Wright Projects Program	\$ 103,571,597	\$ 90,632,986	\$ 154,026,187	\$ 253,254,162	390	183	136	708
Grand Totals	\$ 1,281,556,368	\$ 1,075,519,863	\$ 1,731,375,869	\$ 8,100,492,339	8,014	2,072	4,277	14,364
** Leverage and job totals are adjusted for companies reported in multiple programs; row totals will not sum								

All Programs by Status – Technology Commercialization Framework



* includes Incubators & ONEFund

All Programs by Status – Technology Commercialization Framework

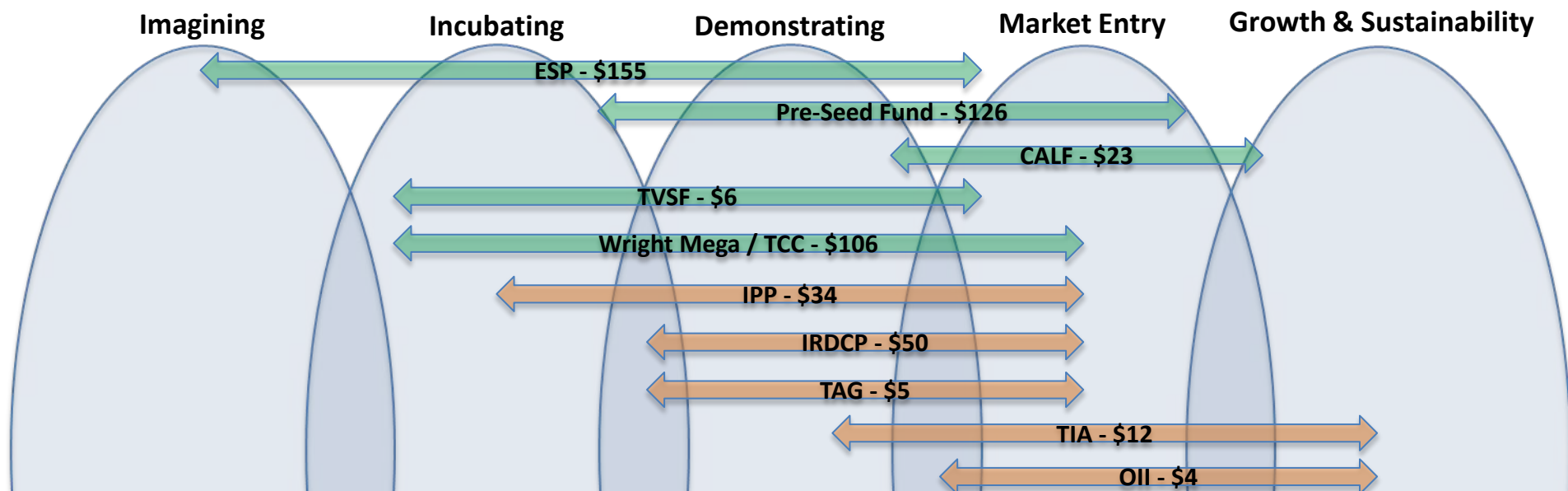


	Active	Ending	Closed	TOTAL
Total \$ Awarded	\$521*	\$396	\$500	\$1,417
Jobs Created / Retained	6,838	2,303	5,223	14,364
Follow-on Equity \$M	\$1,977	\$157	\$309	\$2,443
Product Sales \$M	\$1,483	\$170	\$941	\$2,594
Federal Research \$M	\$271	\$343	\$1,462	\$2,076
Total Leverage \$M**	\$3,958	\$917	\$3,224	\$8,100

* Includes ~\$136M recently awarded for which metrics have not yet been reported

** Includes all other sources

Active Programs – Technology Commercialization Framework



	Early Stage	Mature	TOTAL
Total \$ Awarded	\$416	\$105	\$521
Jobs Created / Retained	5,564	1,274	6,838
Follow-on Equity \$M	\$1,966	\$11	\$1,977
Product Sales	\$1,471	\$12	\$1,483
Federal Research \$	\$265	\$6	\$271
Total Leverage \$*	\$3,874	\$84	\$3,958

* Includes all other sources

Technology Focus Areas

- Dollars awarded by calendar year for all programs

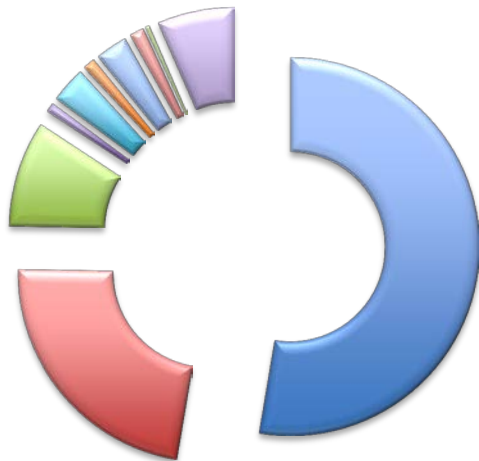
	CY09	CY10	CY11	CY12	CY13	CY14	09-13 Total
Medical Technology	\$30.6	\$23.6	\$21.6	\$38.1	\$28.4	\$69.8	\$212.1
Advanced Materials	\$28.5	\$12.8	\$14.9	\$14.8	\$19.7	\$3.0	\$93.7
Software Applications for Business & Healthcare	\$4.2	\$2.9	\$14.5	\$19.6	\$12.9	\$8.7	\$62.8
Fuel Cells & Energy Storage	\$15.7	\$4.5	\$7.6	\$2.7	\$1.3	\$0.2	\$32.0
Solar Photovoltaics	\$5.9	\$0.1	\$9.2	\$0.9	\$0.3	\$0.1	\$16.5
Sensing & Automation Technologies	\$1.9	\$3.4	\$4.9	\$3.0	\$6.7	\$0.7	\$20.6
Aeropropulsion Power Management	\$0.0	\$0.4	\$0.0	\$12.6	\$0.0	\$0.1	\$13.1
Agbiosciences	\$1.0	\$2.9	\$4.9	\$2.7	\$0.0	\$0.2	\$11.7
Situational Awareness & Surveillance Systems	\$3.1	\$1.6	\$0.3	\$1.0	\$6.1	\$0.1	\$12.2
Other	\$3.6	\$0.1	\$1.3	\$11.1	\$5.5	\$8.0	\$29.6
Total	\$94.5	\$52.3	\$79.2	\$106.5*	\$80.9	\$90.9*	\$504.3

* Does not include Pre-Seed awards in these years

Technology Focus – by Program Status

- Active programs are much more concentrated in medical technology and IT

Active Programs - \$462*



Ending & Closed - \$896



- Medical Technology
- Fuel Cells & Energy Storage
- Aeropropulsion Power Management
- Other

- Software Applications for Business & Healthcare
- Sensing & Automation Technologies
- Situational Awareness & Surveillance Systems
- Advanced Materials
- Solar Photovoltaics
- Agbiosciences

* Does not include ~\$59M in Pre-Seed and Incubators funds that, because they are yet to be deployed, cannot be categorized

Technology Focus – by Active Programs

- Early stage programs are also concentrated in medical technology and IT

Early Stage - \$357



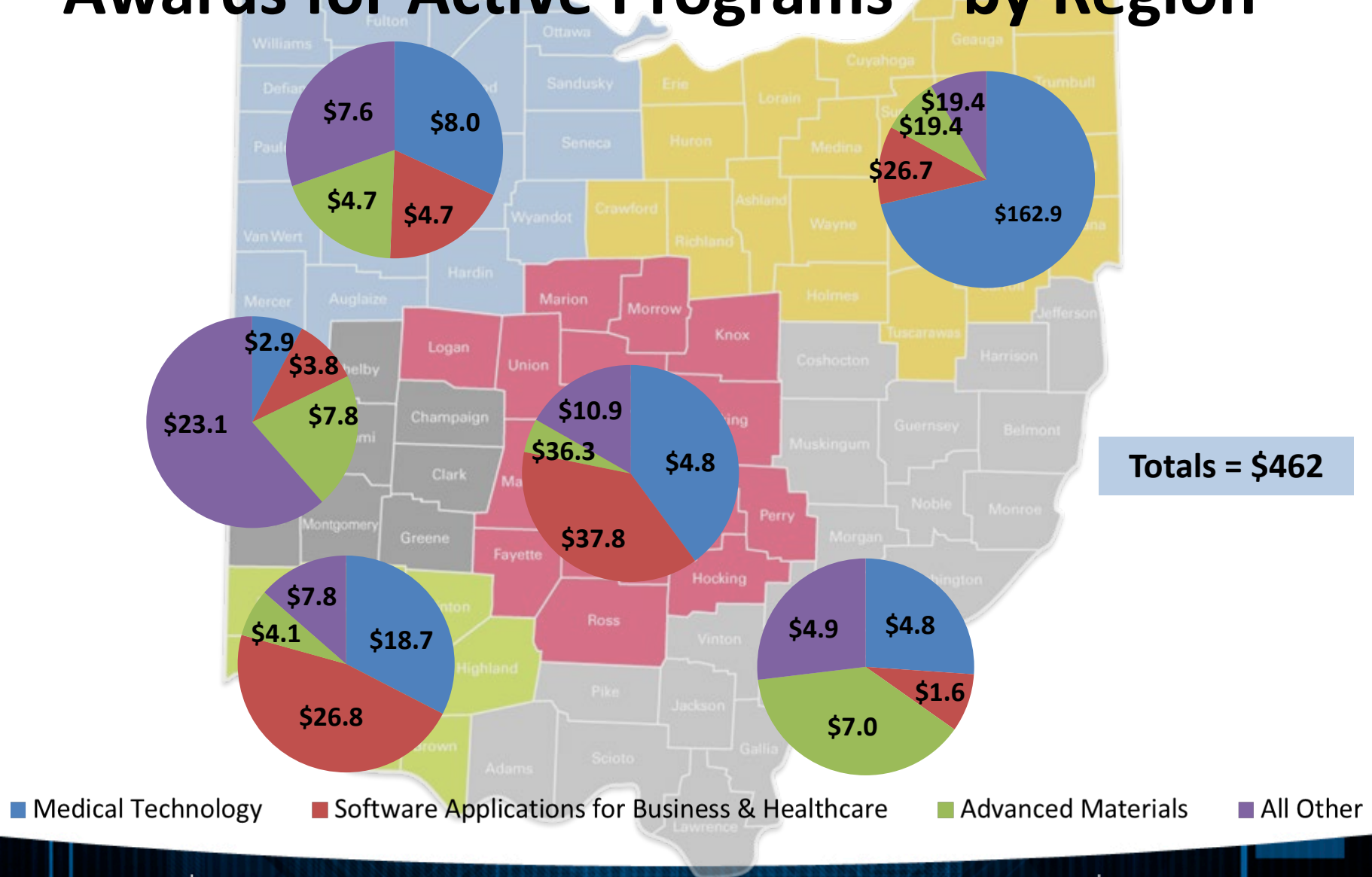
Mature - \$105



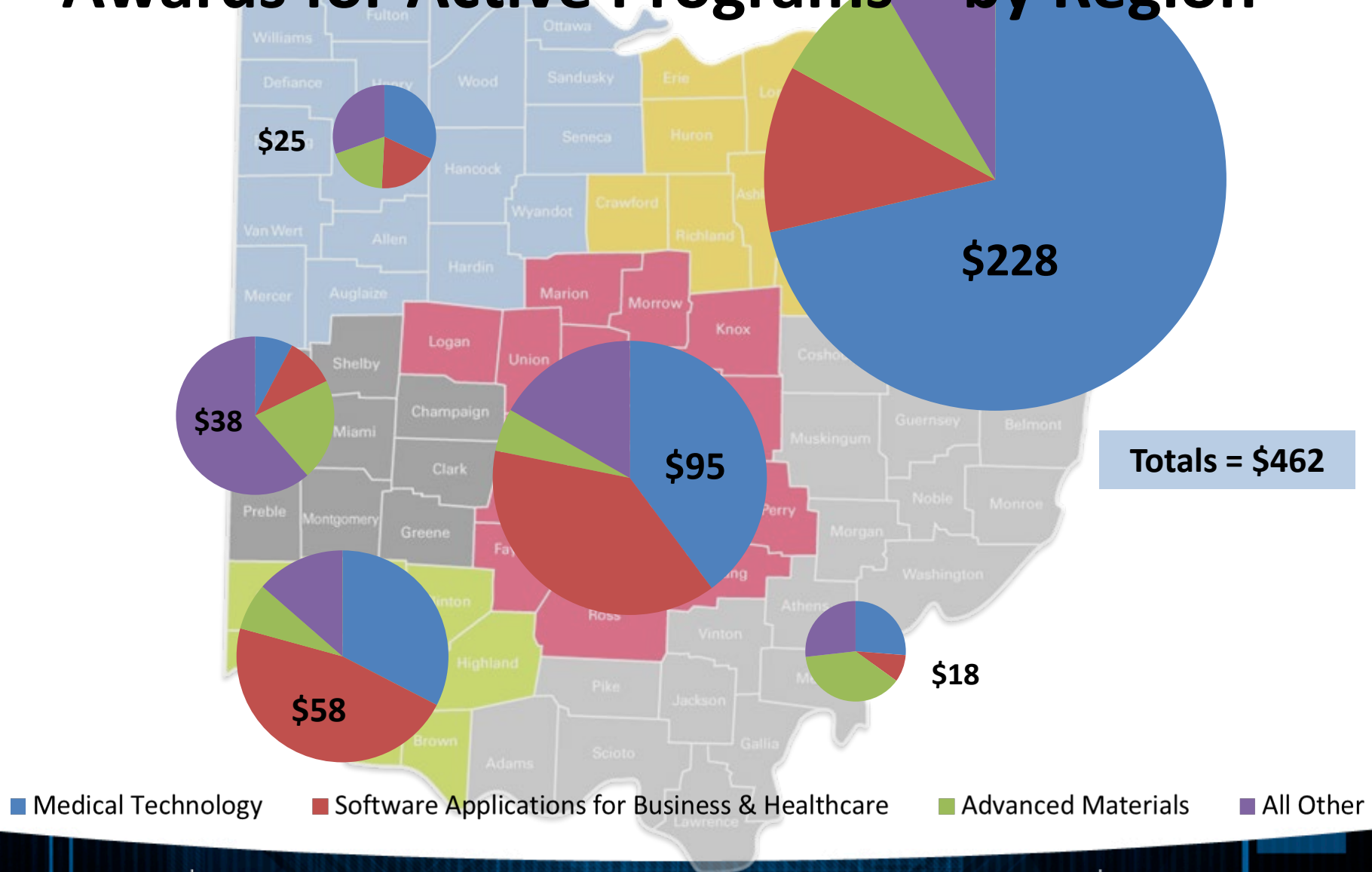
- | | | |
|---|--|--|
| <ul style="list-style-type: none"> Medical Technology Fuel Cells & Energy Storage Aeropropulsion Power Management Other | <ul style="list-style-type: none"> Software Applications for Business & Healthcare Sensing & Automation Technologies Situational Awareness & Surveillance Systems | <ul style="list-style-type: none"> Advanced Materials Solar Photovoltaics Agbiosciences |
|---|--|--|

* Does not include ~\$59M in Pre-Seed and Incubators funds that, because they are yet to be deployed, cannot be categorized

Awards for Active Programs – by Region



Awards for Active Programs – by Region



Summary

- Majority of recent awards directed towards early stage programs and companies
- Major concentration of funding for active programs has been in medical technology and IT/software
- Size and makeup of spending varies considerably by region

Questions?

Review of CY 2013 Strategic Consensus Document

- Prioritize metrics development/ Develop analytics and intelligence
- Assess potential capital gap
- Focus on the portfolio
- Align university resources with industry
- Improve marketing/ Delivery of programs
- Maintain the technology focus areas

OTF: Structural Assessment

Technology Focus Areas

- There is clear data to show that the major concentration of funding and investment in recent history has been in two areas: biomedical and software/IT
- Advanced Materials has some concentration but is a distant third along with most of the other Ohio Third Frontier focus areas defined with the assistance of Battelle

OTF: Structural Assessment

Technology Focus Areas

- Biomedical is the largest in dollar volume, has the most interrelationships among major Ohio Third Frontier programs, and is growing rapidly
- All Technology Commercialization Center awards and proposals submitted to date are in biomedical
- Two-thirds of the CALF awards to date are biomedical

Biomedical

BioEnterprise: Local biomedical companies raised \$97.7 million in the first half of 2014

CRAIN'S
CLEVELAND
BUSINESS

CINCINNATI.com
A GANNETT COMPANY

Atricure boosts Mason's bioscience corridor

Cleveland's biomedical industry growing by billions

cleveland.com
COVERING NORTHEAST OHIO

How a Biomed Tech Company Raised \$35.7 Million Before Going to Market

Entrepreneur

SPR Therapeutics receives \$2.9 million grant from the National Institutes of Health

CRAIN'S
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Minimally Invasive Devices expects sales boost with new product, Mitsubishi distribution deal

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Software IT

Cincinnati startup hopes for mouse magic in Disney Accelerator

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Local tech scene is getting quite a jolt from recent megadeals

CRAIN'S
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Oracle buying TOA Technologies of Beachwood, region's most successful tech startup

cleveland.com
COVERING NORTHEAST OHIO



Cincinnati startup lands \$3.5M investment

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TIME

Roadtrippers

Cincinnati startup named one of Time's 50 best websites of 2014

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ChinaCache to Announce Cooperation with Innobly to Improve Chinese Mobile Internet User Experience

OTF: Structural Assessment

Major Business Lines

Start-up and Early-Stage Companies

Programs: TCC, TVSF, ESP, PCFP, CALF

Assessment:

- Holistic strategy; logical pipeline of programs that are highly interconnected
- Critical mass of effort;
 - 50% of OTF funding awarded has gone directly to or to the benefit of start-up and early-stage companies
- Growing level of program and funding emphasis in this business line
 - 80% of the funds awarded or expected to be awarded in CY 2014 has been directly to or for the benefit of start-up and early-stage companies

OTF: Structural Assessment

Major Business Lines

Start-up and Early-Stage Companies

Programs: TCC, TVSF, ESP, PCFP, CALF

Assessment:

- Large and concentrated company portfolio
- High yield on major OTF metrics
- Strong evidence that OTF funding has been transformational
- Top tier competitor relative to other states
- Nationally visible

Start-up and Early Stage

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The Branderly named a Top 10 accelerator

Cincinnati angel capital group ranked
among nation's best

**CINCINNATI
BUSINESS COURIER**

Case: Start-ups pave roads beyond Silicon Valley

 **USA TODAY**
A GANNETT COMPANY

For Tech Investors, The Midwest Is Flyover Country
No More



EXCLUSIVE: Boston VC firm settles on
Cincinnati after two-year search

**CINCINNATI
BUSINESS COURIER**



TechColumbus is Recognized by
NBIA for Incubator Leadership

OTF: Structural Assessment

Major Business Lines

Mature Companies

Programs: TAG, IPP, IRDCP, OII

Assessment:

- Some strong individual projects
- Limited strategy, largely driven by one-off opportunities
- No critical mass of effort
- Declining level of program and funding emphasis in this business line

OTF: Structural Assessment

Major Business Lines

Mature Companies

Programs: TAG, IPP, IRDCP, OII

Assessment:

- Relatively small and fragmented company portfolio
- Modest yield on OTF metrics
- No strong evidence that OTF funding has been transformational
- Not a top tier competitor relative to other states
- Limited national visibility

OTF: Structural Assessment

Access To Capital

- Pre-seed
- Commercial Acceleration Loan Fund
- ESP/Fund Feedback

Questions Posed to Partners

- Strategies and tactics that have been effective in assisting companies raise capital
- Number of companies receiving capital and amount raised since 2012
- Percentage of capital from outside Ohio
- Up to three examples of companies that raised significant capital since 2012
- Up to three examples of companies that were unsuccessful in raising needed capital since 2012
- Strategies and tactics the Ohio Third Frontier could support to increase success in accessing capital

Capital Raised Since 2012

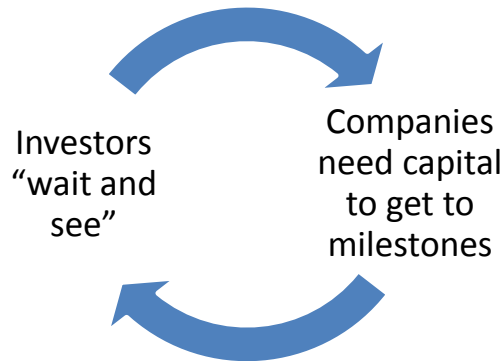
- Professional investment capital raised
 - Total: \$855M
- Percentage of capital from outside Ohio
 - Average: 50%

What's Working Well

- Building relationships and trust with investors aligned with the types of companies supported
- Brokering connections to investors
- Educating entrepreneurs
- Preparing companies for investment
 - Developing capital access plans
 - Filling gaps, such as management team
 - Investor presentations and “pitch practice”
- Syndicating investments

Other Observations

- Takes longer to raise series A capital



- Fewer funds and less “reserve” capital
- Investor preference for local deals
- Risk aversion to capital-intensive sectors

Strategies Employed by Regions

- Syndicating to form bridge to series A
- Beginning to raise regional series A funds
- Building relationships with corporate strategic investors

Examples of what the state can do

- Consolidate marketing efforts across the state
- Recruit top talent
- Encourage syndication and cross-regional investments
- Allow flexibility to raise larger Pre-seed funds to participate in Seed+ and Series A as material co-investors
- Fly in investors
- Support presence of Ohio companies at national venture and strategic events

McKinsey & Co./JobsOhio



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Moving Forward for CY 2015-16



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Innovation Creating Opportunity

Day 2 Agenda

7:30	Breakfast	
8:30	Review of Day 1 Results	All
9:30	Priorities for CY 2015-16	All
10:30	Finalize Consensus Document	All
11:30	Wrap-up/ Next Steps	Bill Demidovich
12:00	Adjourn	

[Lunch available]

Review of Day 1 Results

Priorities for CY 2015-16

Finalize Consensus Document

Wrap-up/ Next Steps

Commission Meeting Agenda

12:30	Call to Order <ul style="list-style-type: none">Approval of 06/11/2014 Meeting Minutes (Vote)	David Goodman (Chair)
12:40	Targeted Industry Attraction (Vote)	Anthony Howard/ Taratec
1:00	Industrial Research and Development Center Program (Vote)	Anthony Howard/ Taratec
1:20	Technology Commercialization Center Program	AnthonyHoward/ YourEncore
1:50	Commercial Acceleration Loan Fund (Vote)	Diane Chime
2:00	Entrepreneurial Signature Program: Preliminary <ul style="list-style-type: none">CY 2015-16 Funding Evaluation	Mihaela Jekic/ UVG
3:25	Other Business	All
3:30	Adjourn	

Targeted Industry Attraction Program



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Targeted Industry Attraction Program

- Attract new-to-Ohio companies, or new divisions of existing Ohio companies, to the state.
- Typically smaller companies, smaller attractions, or earlier stage companies for which traditional incentives don't fit but the company compliments existing Ohio capabilities.
- Past TIA grants have ranged from \$100k to \$1M typically covering move and setup expenses, with company cost share required.
- Attract senior research/entrepreneurial talent, compliment Ohio with niche expertise/capabilities, and create jobs.

Smithers-Rapra

- **Project/Company Description**

- Smithers-Rapra Pharmaceutical & Medical Device Testing Division.
- Smithers Group HQ in Akron w/ 6 divisions and 660 employees (148 in Ohio), Smithers Rapra is one of those divisions.
- Smithers Rapra Pharm. & Med. Device Testing Division specializes in testing for leachables/extractables in pharmaceutical & food packaging, and medical devices.
- Current Pharm. & Med. Device Testing Division location is Great Britain.
- Can either expand current location or set up a new location in Akron near other Smithers-Rapra offices and the Smithers Group HQ.

- **Project Costs:** \$2M

- **TIA Request:** \$100,000 **Smithers Rapra Commitment:** \$1.89M

- **Job Commitment:** 14 jobs

Smithers-Rapra

Recommendation

TIA award to Smithers-Rapra of **\$100,000** conditioned on:

- Located in Akron and a \$1.89M spend by Smithers-Rapra.
- Creation of 14 new, full-time Ohio jobs.

Xerion Advanced Battery Corporation

- **Project/Company Description**

- XABC move HQ from Colorado and laboratory from Illinois to Dayton.
- 4 year old start-up with 14 employees.
- Developing Lithium Ion batteries based on tech licensed from Univ. of Illinois.
- Unique among other battery technologies for very high rate of charge/discharge.
- Funding to date: Series A, DOE US Advanced Battery Consortium, and NASA SBIR.
- Future plans: Series B to build and staff pilot plant to produce at commercial scale, targeting military, portable electronic device, and hybrid auto applications.

- **Project Costs:** \$1.1M

- **TIA Request:** \$495,400 **XABC Commitment:** \$607,000

- **Job Commitment:** 52 (8 immediately and 44 later)

Xerion Advanced Battery Corporation

Recommendation

TIA award to XABC of **\$495,400** conditioned on:

- Located in Dayton and a \$607,000 spend by XABC.
- Closing B Series/Building plant & Creation of 52 new, full-time Ohio jobs.

Reimbursements tranching:

- 1st \$250k after receipt of local grant, completion of move, creation of first 8 jobs, and signing of 7 year lease.
- 2nd \$245.4k after launch of series B with credible leads.

Industrial Research and Development Center Program



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Industrial Research and Development Center Program

- Attract large R&D centers to Ohio that have national designations.
- Support centers that:
 - conduct value-added applied R&D at direction of/in collaboration w/ Ohio industry,
 - perform industry-directed or industry-oriented problem solving, or
 - develop technologies that are commercializable with an Ohio for-profit company.
- Increase the reputation/visibility of Ohio R&D in targeted technologies.
- Attract senior research/entrepreneurial talent.
- Create jobs.
- Awards up to 15% of primary sponsor funding, not to exceed \$5 million.

Emerson Innovation Center

- **Applicant/Sponsor:** Emerson Climate Technologies – Sidney, Ohio
 - Worlds largest producer of components for the heating, ventilation, air conditioning, and refrigeration (HVAC&R) market.
- **Emerson Commitment:** \$34.5M
- **IRDCP Request:** \$5M
- **Ohio Collaborators:** The University of Dayton
- **Job Commitment:** 100 jobs (35 at the Emerson Innovation Center and 65 at the existing Sidney, Ohio operation)

Emerson Innovation Center

Purpose of the Center

A 36,000 square foot environmental simulation facility housing five completely outfitted and stand-alone product development modules:

- Residential Home
- Light Commercial Office Space
- Commercial Food Service Kitchen
- Supermarket
- Data Center

Additional unique features:

- All controls, automation, networking, sensing, materials as applied to HVACR.
- Evaluate performance/efficiency in different settings in different climates.
- Smart systems development.
- Education facilities – 500 - 600 per yr. training, 300 - 400 per yr. conferences.

Emerson Innovation Center

Recommendation

IRDCP award to Emerson Climate Technologies of **\$5,000,000** conditioned on:

- Located in Dayton and a \$34.5M spend by Emerson.
- Creation of 100 new, full-time Ohio jobs at Emerson during the project period.

GE Aviation Additive Development Center

- **Applicant/Sponsor:** GE Aviation
- **GE Aviation Commitment:** \$137M
- **IRDCP Request:** \$2.5M
- **Ohio Collaborators:** The University of Cincinnati
- **Job Commitment:** 53 new jobs and the retention of 87 existing jobs.

GE Aviation Additive Development Center

Purpose of the Center

An existing 150,000 square foot existing facility (TBD) that will be built out to include offices, laboratories, prototype production equipment, training facilities, conference rooms, and a “Customer Experience Center” that, collectively, will constitute the GE Aviation Additive Development Center.

Consolidation of all R&D around additive manufacturing for GE Aviation. R&D relative to development of parts, processes, machines, and materials.

Potentially the world’s largest metal 3-D printing facility.

The ADC will develop production level 3-D printing of engine components. Initial emphasis on jet fuel nozzles.

GE Aviation Additive Development Center

Recommendation

IRDCP award to GE Aviation of **\$2,500,000** conditioned on:

- Located in West Chester and \$137M spend by GE Aviation.
- Creation of 53 new, full-time Ohio jobs at GE ADC and retention of 87 existing Ohio jobs during the project period.

Technology Commercialization Center Program



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Innovative Results through Proven Expertise

Technology Commercialization Center Program

**Proposal: JumpStart, Inc.
Occeleator**



4350 Glendale-Milford Rd., Suite 110
Cincinnati, OH 45242
www.yourencore.com

P: 513.794.9777
F: 513.794.9781

Occelerator

Applicant Overview

- Occelerator is a for-profit company focused on “sustainability and Ohio job growth, through orthopedic commercialization success.”
- Orthopedics market is large and growing, and many technologies within this space offer favorable timelines and investments, given lower regulatory hurdles as compared to most other life sciences segments.
- Occelerator is centered around orthopedic surgeons/inventors, many of whom will serve as investors and advisors, though the majority of them are not Ohio-based.
- An Ohio ecosystem, dubbed OcelOhio, would be created for development and manufacturing of orthopedic devices; commitment levels uncertain
- Lead applicant is JumpStart, emphasizing the focus on entrepreneurship and creating healthy start-up organizations, but lacking world-class orthopedic stature.
- If successful, will create a new center of orthopedic excellence intended to compete with the orthopedic ecosystem in Warsaw, IN.
- State grant funds would be a preferred equity investment in Occelerator and placed in a sustainability trust; returns on investment would be re-deployed in Occelerator to sustain operations on an evergreen basis.

Proposal Details

Funding sources

- Requesting \$21.04 million from the State, with an intended 2:1 match
 - *Total potential commitments of more than \$44 million in cash cost share*
 - *Potential investment from venture capital sources of between \$23-30 million, would need to be significantly discounted in the proposed budget, consistent with past TCCP proposals*
 - *Non-Ohio surgical groups: \$9.85 million*
 - *Occelerator leadership (Ohio and non-Ohio sources): \$1.2 million*
 - *Ohio-based sources: \$3.7 million (Cleveland Clinic \$900k, OrthoNeuro \$2 million, BioEnterprise \$600k, JALEX \$200k)*
 - *Total non-venture commitments close to \$15 million, well short of a 1:1 match*
- Letters received from University Hospitals, Austen BioInnovation Institute in Akron (ABIA) and Case Western expressing interest and offering resources, but no cash commitments
- JumpStart will receive \$1 million of state funds to administer the grant, attract talent, provide finance/accounting support for new companies, deal flow management, deal analysis, etc.

Proposal Evaluation

Promise of the Proposal

- Commitments from private orthopedic groups around the country affirms the need for this type of accelerator
 - *Large groups from Ohio, Florida, Arizona and North Carolina*
- Market Advisory Board (MAB) will provide clinical value assessments to help inform investment decisions
 - *18 members selected, may grow to 25-30*
 - *Diverse thought leaders in orthopedics: clinicians, industry experts, investors*
- MAB members are also investors in Occeleator
- Board leadership is strong, governance processes appear sound
- Pipeline will be robust from the outset, as the various orthopedics groups have IP ready to submit for consideration
- Orthopedic market is large and in need of a disruptive innovation force
- Timelines, investment requirements, regulatory pathways and risks are all favorable, generally, in orthopedics

Proposal Evaluation

Areas of Concern

- The cash cost share is not in place – venture capital commitments have to be discounted to account for the conditional nature of the commitment
 - *If discounted appropriately, matching funds gap could easily be in excess of \$15 million*
- JumpStart is a valuable participant in the program but not the ideal lead applicant, which should have both the resources and expertise of a world-class orthopedics organization, as specified in RFP
 - *JumpStart's selection as lead applicant occurred in the past few months*
- Involvement of Cleveland Clinic via the Innovations group and the \$900k commitment is important, but overall concerned about lack of high-profile, large-dollar Ohio commitments
- OcelOhio, the development and manufacturing ecosystem, is well-described in the proposal but seemingly future-state
 - *It appears Third Frontier money is needed to catalyze Ohio-based commitments, rather than commitments catalyzing Third Frontier support*
- On balance the proposal has a bold vision that addresses a market need, but which appears to still be under development and will require significant additions and modifications to meet the RFP criteria

Next Steps

- The review team has identified significant gaps in the proposal
 - *Some gaps, such as obtaining additional Ohio-based commitments might be filled*
 - *Others, such as the lead applicant lacking world-renown for work in orthopedics, cannot*
 - *Even if additional funding can be obtained it is unlikely to achieve a full 2:1 match, meaning program scope would have to be reduced*
 - *The vision of an ecosystem is not sufficient without specific commitments and capabilities mapping to demonstrate how the parts work together to create a cohesive whole and create a competitive advantage*
- Commission input is requested – does the commission see enough promise to carry the review forward to a due diligence phase?



Visit our website at: www.yourencore.com

Technology Commercialization Center Program

TCC Program activity to date

- Two awards after both Stage 1 and Stage 2 reviews:
 - ✓ University Hospitals – Harrington Discovery Institute
 - ✓ OSU – Neurotechnology Innovations Translator
- Current proposal under consideration at Stage 1:
 - JumpStart – Ohio Orthopedic Accelerator (“Occeleator”)
- Two other letters of intent received:
 - Cleveland Clinic Orthopedics Center (inactive)
 - University of Akron Polymers Center

Commercial Acceleration Loan Fund



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Ohio Third Frontier - Commercial Acceleration Loan Fund

Company Name	County	Industry	Project Amount	Loan Award	CALF Project Funding Percentage	New Jobs Created
Smartcrowdz, LLC	Franklin	IT - Business	\$2,363,000	\$1,000,000	42%	20

Company Name	Market	Technology/ Product	Intellectual Property	Legal	Business Model	Financial Review	Management Team		Evaluator(s) Recommendation	
SmartCrowdz	OB	OB	OB	OB	DEA	DEA	DEA	OB	DevFi	DEA

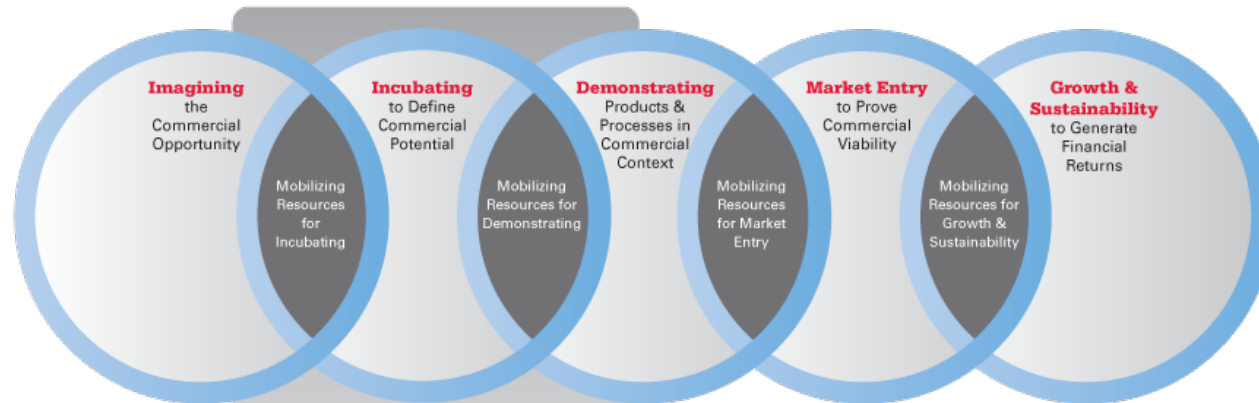
Diperna Economic Development Advisors (DEA), Michael Diperna
 OrangeBoy (OB), Sandy Swanson

Entrepreneurial Signature Program

2015-16

Innovation and Entrepreneurship

Technology Commercialization Framework



Valley of Death

ONE Fund (Accelerators)

- Intensive mentorship during "boot camps"
- Business concept development and fast adjustments
- Access to customers and investors

Entrepreneurial Signature Program

- Entrepreneurial assistance
- Access to customers and investors
- Entrepreneurs-in-Residence

Incubation Program

- Entrepreneurial assistance
- Access to customers and investors
- Cost-competitive facilities

Pre-Seed Fund Capitalization Program

- Investment capital
- Marketing to third-party investors
- Recruitment of talent and Board of Directors

Goals

- Fill gaps in the regional entrepreneurial system (talent, capital, customers, mentor networks, inclusion)
- Provide high-value services to advance Ohio technology-based companies
- Create Ohio jobs, attract capital and generate product sales
- Build a pipeline of quality technology-based companies
- Identify the high-performers and accelerate growth
- Attract venture capital investment
- Foster regional collaboration and increased alignment among support organizations for the purpose of advancing the entrepreneurial system, efficiency, sustainability, and accessibility to entrepreneurs

Funding

- **Funding:**
 - Up to \$50 million for Calendar Years 2015-16
- **Cost Share:**
 - Cost Share 1:1
 - Minimum 75% in Cash
 - Up to 25% in Donated Services
 - High-value services to Clients from professional firms (e.g. legal, tax, accounting, marketing)
 - Documented number of hours at hourly rates that are verifiable and auditable



\$4.00M



\$19.47M



\$2.82M



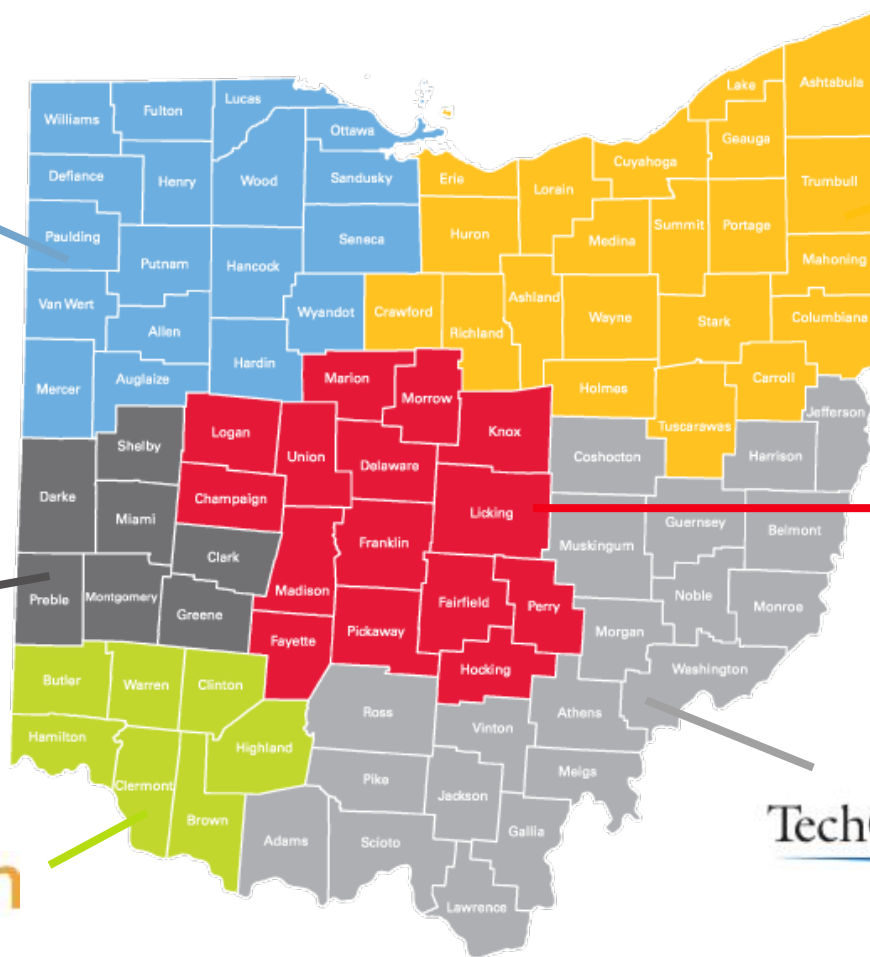
\$9.17M



\$9.15M

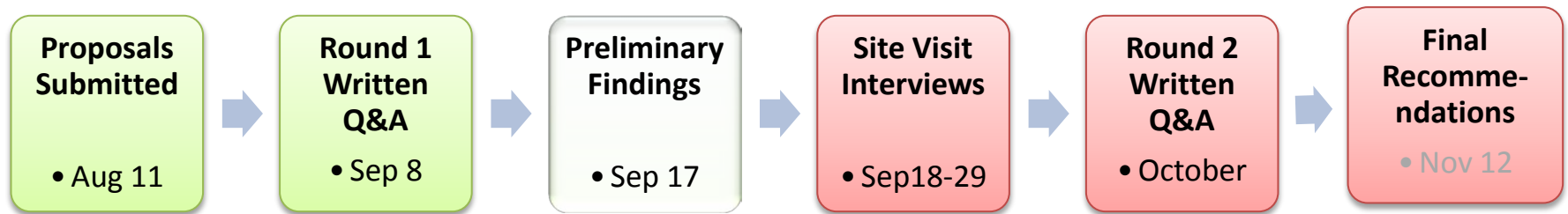


\$3.70M



TOTAL: \$48.3M

Timeline



External Evaluators: **Urban Venture Group**



Entrepreneurial Signature Program Evaluator's Preliminary Findings

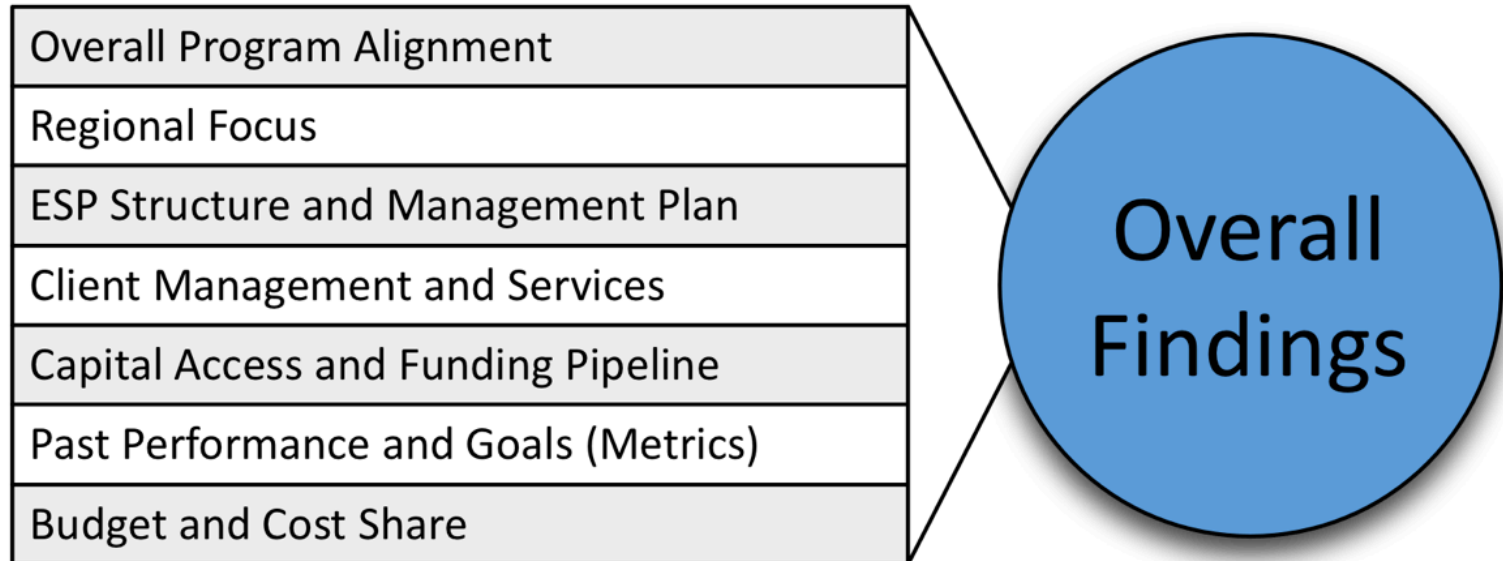
Preliminary Results and Status
Presentation to the Ohio Third Frontier Commission
September 17, 2014



Agenda

- Preliminary Stack Ranking
- Preliminary Findings for Each ESP
- Summary and Discussion

Evaluation Criteria



- Independent teams of reviewers evaluate each of the evaluation criteria for each proposal. The evaluations are then combined into overall recommendations.

Service Quality and Regional Coordination

- Significant differences noted among applications in quality of services, regional coordination, and vision





Applicant Merit Evaluations

Applicant*	Overall	Regional Focus	Management Plan	Services	Capital Access	Metrics	Budget and Cost Share
JumpStart	↑	↗	↗	↑	↑	↗	→
CincyTech	↗	→	→	↗	↑	↗	→
TechColumbus	↗	→	→	↗	↗	→	↗
TechGROWTH	→	→	→	↘	↘	↗	↘
Accelerant	↘	→	↘	↘	↘	↘	↘
Rocket Ventures	↘	↘	↓	↘	→	↘	↘

* Applicant names listed are trade names, which may not be the Lead Applicant's name.

Preliminary Evaluation Summary

1. **JumpStart** combines strong services with regional cohesion and collaboration
 - The most flexible, scalable of the regional ESPs
 - Broadest scope and capacity for economic impacts for Ohio
2. **TechColumbus and CincyTech** provide high quality services
 - Emphasize intense service offerings and high-potential companies
 - Less emphasis on regionally collaborative networks of service providers
3. **TechGROWTH** has a strong regional awareness and collaborative orientation
 - Magnitude of impacts are limited by regional economic dynamics
4. **Rocket Ventures and Accelerant** struggle to provide high quality services and manage collaborative networks of resources



Quantitative Comparison of ESP Metrics

ESP	Cost of Supporting Clients	Investment Leverage	Revenue Leverage
JumpStart	3 rd – \$26,000/client	2 nd – 30:1	1 st – 27:1
CincyTech	2 nd – \$21,000/client	3 rd – 28:1	2 nd – 26:1
TechColumbus	4 th – \$33,000/client	1 st – 41:1	3 rd – 25:1
TechGROWTH	1 st – \$17,000/client	6 th – 2:1	4 th – 22:1
Rocket Ventures	5 th – \$36,000/client	4 th – 4:1	5 th – 21:1
Accelerant	6 th – \$54,000/client	5 th – 3:1	6 th – 18:1

- Job Totals and Cost-per-Job figures are essential to developing a complete picture of ESP performance. The data analysis is still in process.
 - We are working with each ESP to fully understand their impacts and analyze the data.



JumpStart

Overall	Regional	Mgmt	Services	Capital	Metrics	Budget
↑	↗	↗	↑	↑	↗	→

- Strengths:

- Services are well-aligned with regional strengths and gaps
- A true regional network of entities
- Well-supported by a diverse set of regional stakeholders
- Effective management of service delivery
- Magnifies impact of State Funds
 - Low cost per active client, consistently high leverage
- Strong, diverse capital pipeline, especially in pre-seed stage

JumpStart

Overall	Regional	Mgmt	Services	Capital	Metrics	Budget
↑	↗	↗	↑	↑	↗	→

- Weaknesses

- Weaker in later-stage capital options
- Improved data stewardship could clarify impacts and metrics



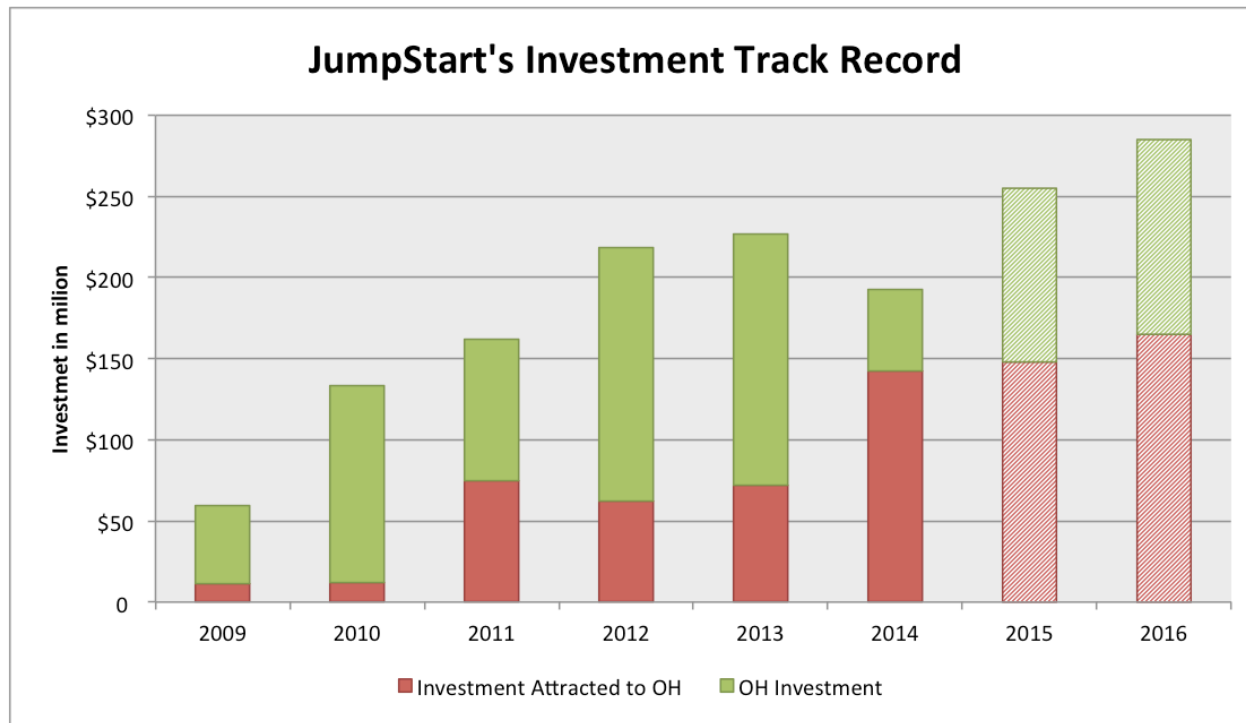
JumpStart: Leverage and Cost Structure

Metric	Mean 2009-2014	Median 2009-2014	Projected 2015-2016
Investment Leverage	30:1	27:1	29:1
Revenue Leverage	27:1	30:1	24:1
Average Cost per Client	\$26,000		\$27,000

- **Investment leverage** is **2nd** among ESPs
- **Revenue leverage** is **1st** among ESPs
- **Cost per client** is **3rd** among ESPs
 - (two ESPs are less expensive)

JumpStart: Professional Investment

- JumpStart's investment track record supports future goals
 - Past professional investment average is >\$165M per year
 - Increase in attraction of investors from outside Ohio may be aggressive, UVG will explore further





Key Questions for JumpStart

- How can lessons learned from JumpStart be replicated statewide?
- Could state funding in NE Ohio achieve greater impacts with more focus and selectivity in selecting clients?
- Need to demonstrate cost share eligibility to support funding recommendation; working to address outstanding issues with applicant.
- Need to resolve questions and clarify data around metrics and performance.

Overall	Regional	Mgmt	Services	Capital	Metrics	Budget
↗	→	→	↗	↑	↗	→

- Strengths:

- Significant leverage, economic impacts, intensity of services
- Impressive national reputation around startups
- Deep, highly engaged mentor network
- Strong alignment with regional strengths in consumer products, health care, and IT
- Robust capital pipeline from pre-seed to growth
 - Cintrifuse fund of funds a significant factor

Overall	Regional	Mgmt	Services	Capital	Metrics	Budget
↗	→	→	↗	↑	↗	→

• Weaknesses

- Lack of clear regional identity and cohesion
 - More a collection of independent entities rather than an coordinated, interdependent network
- Over-reliance on The Brandery for deal flow
- Little evidence of relationship with JobsOhio

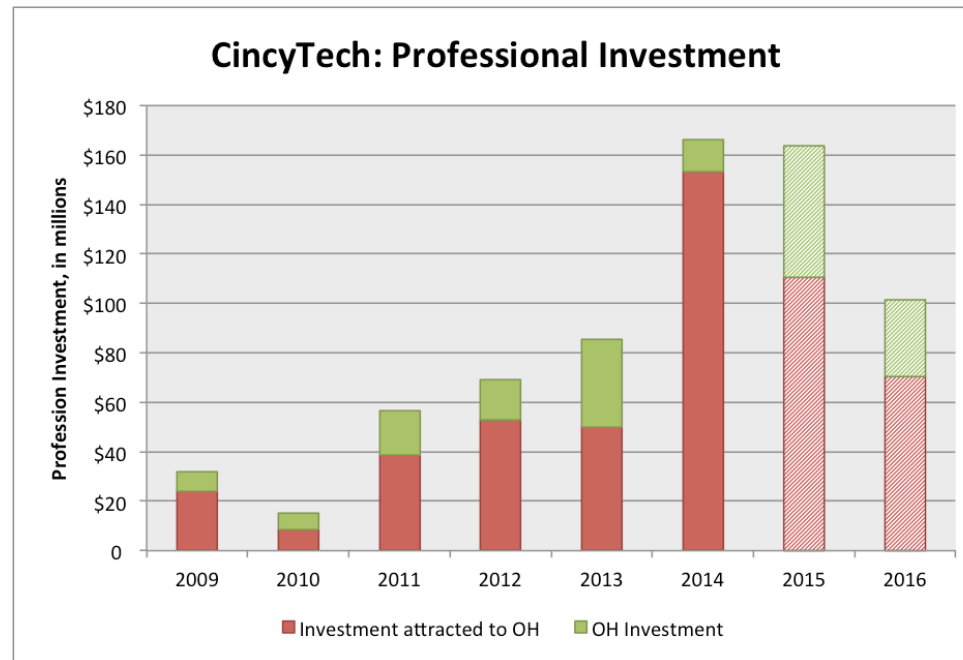
CincyTech: Leverage and Cost Structure

Metric	Mean 2009-2014	Median 2009-2014	Projected 2015-2016
Investment Leverage	28:1	31:1	29:1
Revenue Leverage	23:1	12:1	37:1
Cost per Client	\$21,000		\$16,000

- **Investment leverage** is **3rd** among ESPs.
- **Revenue leverage** is **2nd** among ESPs.
- **Cost per client served** is **2nd** among ESPs.
 - (one ESP is less expensive)
 - CincyTech projection of a significant reduction in cost per client is based on the increase in the number of Active Clients for 2015 – 2016.

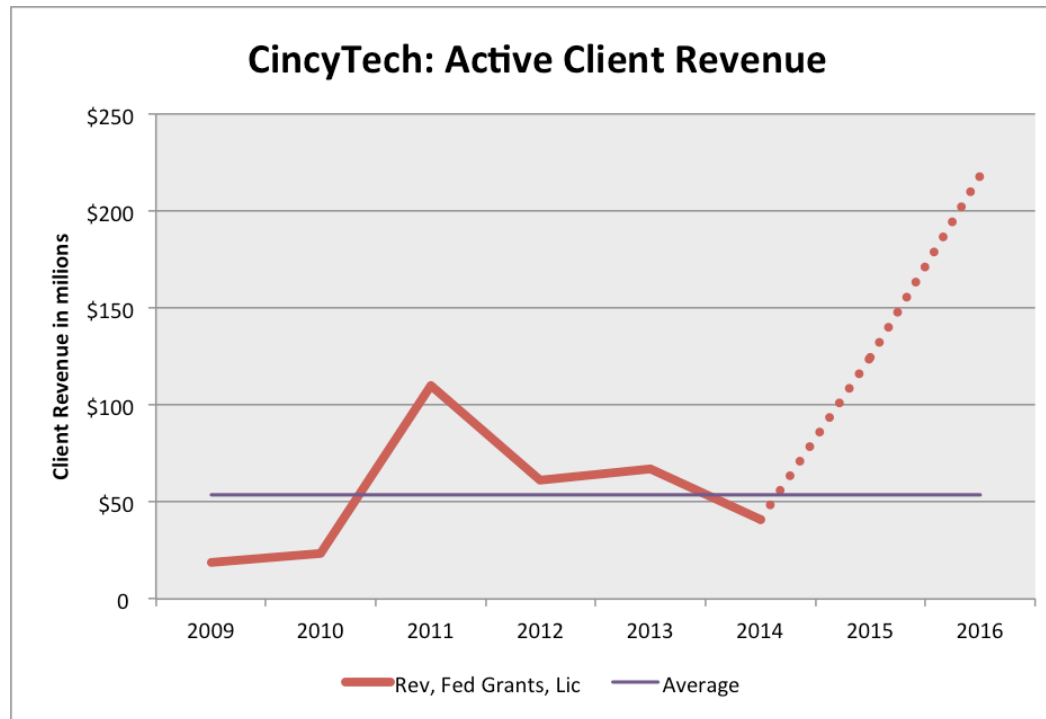
CincyTech: Professional Investment

- Professional investment predominantly from outside Ohio
- Future projections lower than past performance
 - Stated purpose of Cintrifuse is to increase available capital
 - Need explanation for reduced projections



CincyTech: Client Revenue

- CincyTech is projecting a very large revenue increase (quadrupling) during program period
 - CincyTech clients have averaged over \$50 million per year for the five years 2009 to 2014 (purple line)
 - Further support will be sought to validate projections





Key Questions for CincyTech

- How can SW Ohio entities work together to produce greater economic impacts and greater return on State investment?
- Need to better understand the regional perspective on deal flow management.
- Need to understand basis of professional investment goals/projections.
- Questions remain about cost share eligibility and documentation. Seeking to address/confirm with applicant.

TechColumbus

Overall	Regional	Mgmt	Services	Capital	Metrics	Budget
↗	→	→	↗	↗	→	↗

- Strengths:

- Strong, diverse capital sources for early stage companies (although weaker for growth-stage firms)
- Excellent breadth of programs to attract and retain active clients
- Established relationships with regional dealflow sources (OSU, Nationwide Children's, Ohio Health, etc.)
- Proactive in addressing budget and cost share issues identified during review

TechColumbus

Overall	Regional	Mgmt	Services	Capital	Metrics	Budget
↗	→	→	↗	↗	→	↗

- Weaknesses

- Plans for addressing talent gap lack focus and clarity
- Unclear intensity and alignment of mentor network with client companies
- Less emphasis on broad marketing and company attraction
- Comparatively high cost per client compared with other high-performing ESPs (1.3x JumpStart, 1.5x CincyTech)



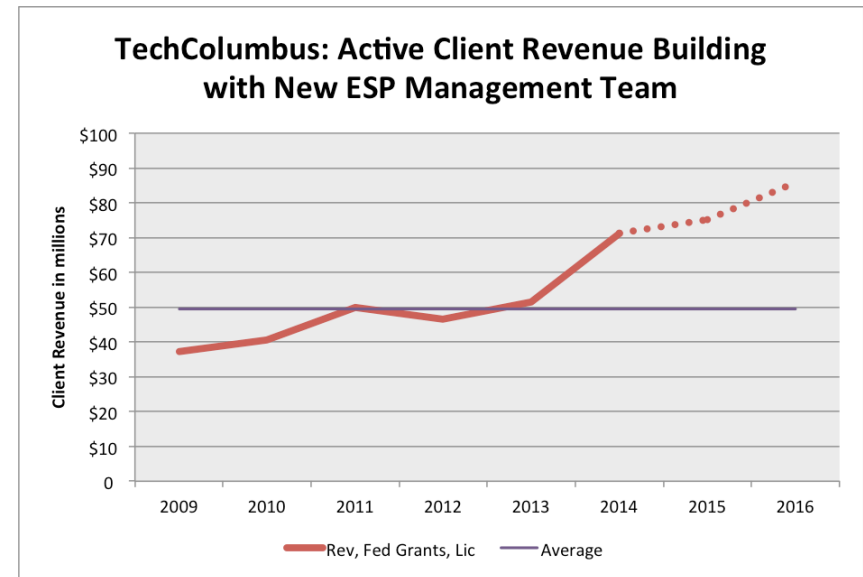
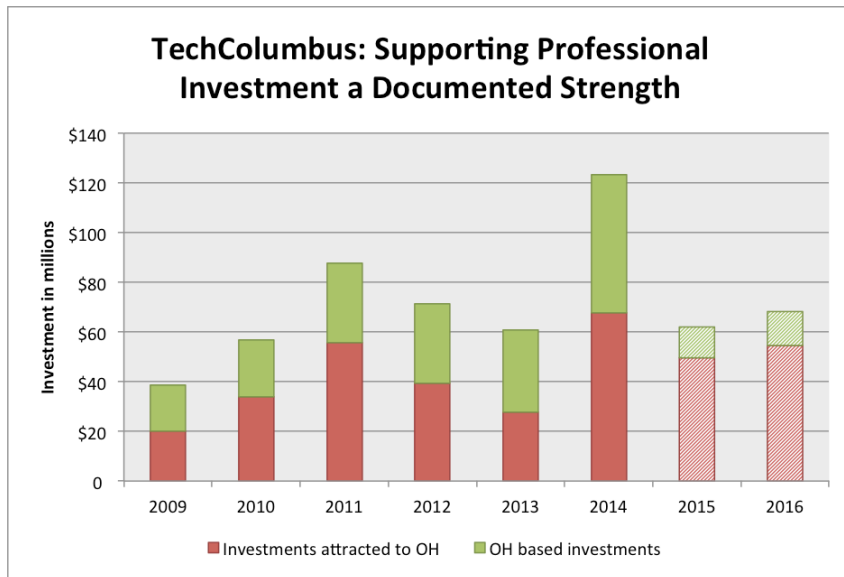
TechColumbus: Leverage and Cost Structure

Metric	Mean 2009-2014	Median 2009-2014	Projected 2015-2016
Investment Leverage	41:1	49:1	33:1
Revenue Leverage	25:1	32:1	23:1
Cost per Client	\$33,000		\$33,000

- **Investment leverage** is **1st** among ESPs.
- **Revenue leverage** is **3rd** among ESPs.
- **Cost per client served** is **4th** among ESPs.
 - (three ESPs are less expensive)

How do 2014 results guide goals?

- Investment goals appear to treat banner 2014 as a singular event
- Revenue goals treat revenue increase in 2014 as a new foundation



- What is the underlying explanation for this difference?



Key Questions for TechColumbus

- What is the basis for the investment goals (especially the drop from 2014 levels)?
- How will past relationships with VCs be maintained?
- TechColumbus represents a much more centrally-controlled regional model than JumpStart and CincyTech. Discuss the merits of this approach. What lessons can be learned from other regions relative to managing regional assets.
- TechColumbus seems to place emphasis on selection of the highest potential firms. Would like to better understand how selectivity influences both overall impacts and program efficiency.

TechGROWTH

Overall	Regional	Mgmt	Services	Capital	Metrics	Budget
→	→	→	↘	↘	↗	↘

- Red Flags:
 - Significant questions about ability to grow and retain high-performing companies (“gazelles”)
- Strengths:
 - Clear, accurate characterization of region, awareness of unique strengths and weaknesses
 - Strong administrative capabilities, including client onboarding and data stewardship
 - Highly responsive (if ad hoc) service structure
 - Able to attract dealflow based on service availability
 - Lowest cost per client served of ESPs

TechGROWTH

Overall	Regional	Mgmt	Services	Capital	Metrics	Budget
→	→	→	↘	↘	↗	↘

• Weaknesses

- Low likelihood of meeting qualified dealflow goals
- Regional focus areas selected based on dealflow volume rather than regional strength/capability
- Lessons learned lack specificity and actionable plans
- Lack of available capital, ecosystem required to retain gazelles
 - Client companies lack track record in raising later-stage funding
 - Talent gap exacerbates problems with gazelle retention



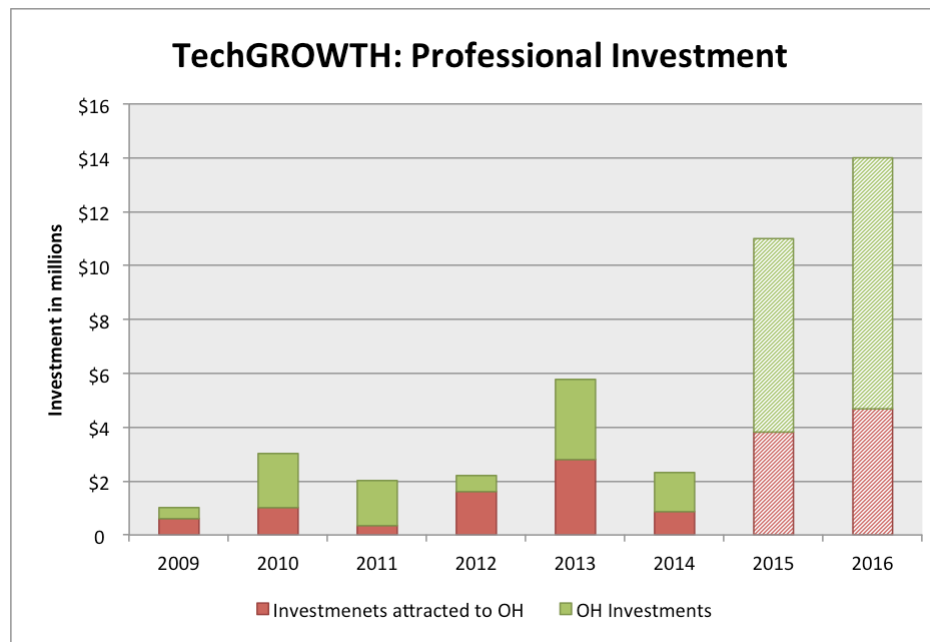
TechGROWTH: Leverage and Cost Structure

Metric	Mean 2009-2014	Median 2009-2014	Projected 2015-2016
Investment Leverage	2:1	2:1	3:1
Revenue Leverage	22:1	22:1	26:1
Cost per Client	\$17,000		\$16,000

- **Investment leverage** is **6th** among ESPs
- **Revenue leverage** is **4th** among ESPs.
- **Cost per client served** is **1st** among ESPs
 - (least expensive)

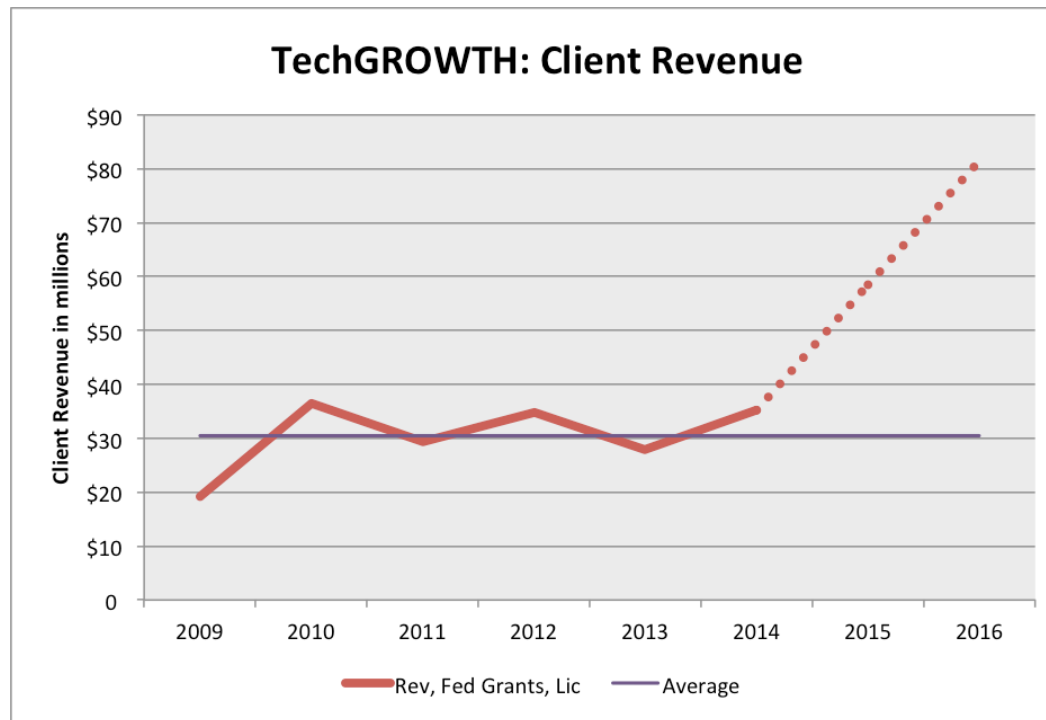
TechGROWTH: Professional Investment

- TechGROWTH investment projections far exceed historical performance
 - Most years \$2 million raised, with a peak in 2013 at \$6 million raised
 - Future projections of \$10 million in 2015 and \$14 million in 2016 represent a substantial increase
- UVG will explore the applicants' reasons and confidence in their investment projections



TechGROWTH: Client Revenue

- TechGROWTH is projecting very large revenue growth (tripling) during the program period
 - TechGROWTH clients have averaged over \$30 million per year for the five years 2009 to 2014 (purple line)
 - Further support will be sought to validate these projections





Key Questions for TechGROWTH

- Can TechGROWTH build and retain high-performing companies, or is it only equipped to support moderate-potential firms?
- Both investment and revenue targets are several times greater than previous trends. Additional support is necessary to substantiate the stated projections.
- Later stage capital access is a weakness. Need more defined roles and plans to address this gap.
- Budget justification lacks sufficient detail to evaluate appropriateness. Will address with applicant.

Accelerant

Overall	Regional	Mgmt	Services	Capital	Metrics	Budget
↘	→	↘	↘	↘	↘	↘

- Red Flags:

- Accelerant appears to emphasize its early-stage fund over other critical aspects of ESP, such as client services
- Lack of clear, substantial regional support for ESP, as evidenced by low cost share commitments and low level of regional partner engagement
- Highest cost per Client served (2x JumpStart, 3x TechGROWTH)

- Strengths:

- Good awareness of regional gaps and poor past performance coupled with clear intention to address those gaps
- Strong emphasis, early success in raising early-stage capital fund
- Substantial increase in deal flow (rising from 8 in 2013 to over 200 in 2014)

Accelerant

Overall	Regional	Mgmt	Services	Capital	Metrics	Budget
↘	→	↘	↘	↘	↘	↘

• Weaknesses:

- Overall low economic impacts, leverage compared with other ESPs
- Lack of later-stage capital
 - Lack of relationships with VCs and no effective plans to build relationships
- Lack of planning detail casts doubt on team's ability to successfully address the regional gaps identified
 - Plans for developing mentor network lack detail
 - Unclear sources of deal flow
 - Inadequate scope of talent attraction, focused only on CEOs
- Health care/IT focus seems to be in response to dealflow inquiries rather than regional capabilities
- Low allowable cost share has resulted in a reduced funding request
 - Incubation facilities may be most negatively impacted



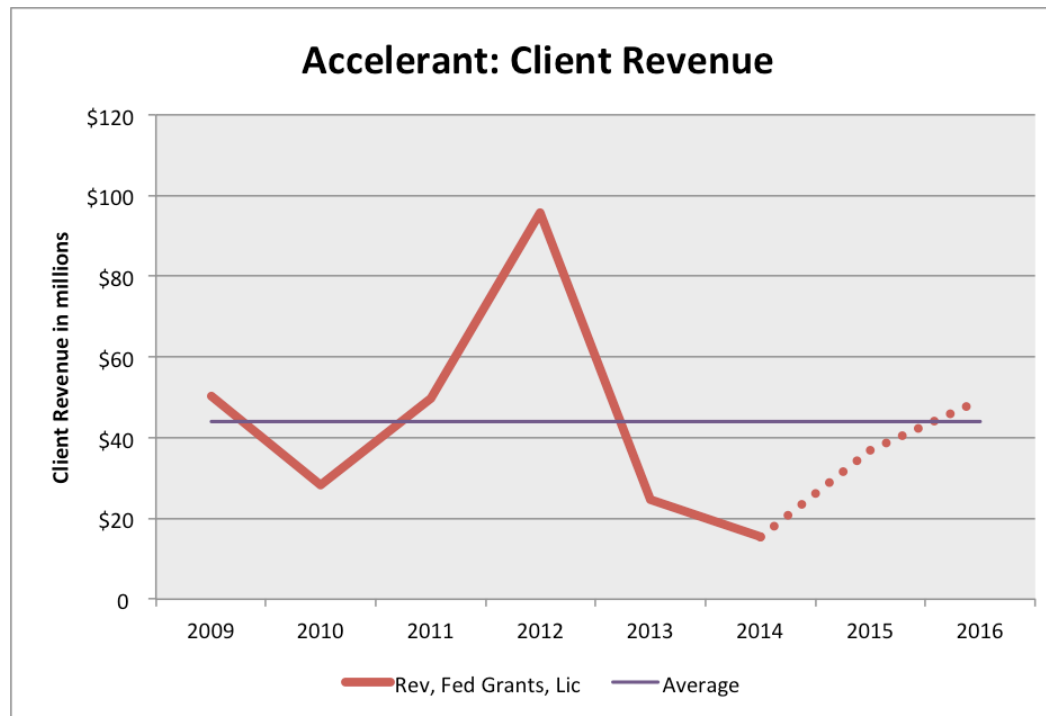
Accelerant: Leverage and Cost Structure

Metric	Mean 2009-2014	Median 2009-2014	Projected 2015-2016
Investment Leverage	3:1	3:1	3:1
Revenue Leverage	27:1	18:1	26:1
Cost per Client	\$54,000		\$55,000

- **Investment leverage** is 5th among ESPs
- **Revenue leverage** is 6th among ESPs
- **Cost per client served** is 6th among ESPs
 - (most expensive)

Accelerant : Client Revenue

- Client Revenue is a historical strength of the Dayton region
- Accelerant's goal is to return to its previous average
 - \$40 million per year by the end of the program period.
- UVG will work to substantiate its ability to achieve this goal



Key Questions for Accelerant

- Are detailed, thoughtful plans available describing how regional gaps will be addressed?
- Does the region have sufficient sources of deal flow to support its IT/Health Care focus and deliver sufficient ROI to the state?
- Need to understand Accelerant's intent on and ability to service advanced materials firms.
- Need additional detail on the plan for increasing dealflow. Having partners is not the same as having dealflow.
- Accelerant emphasizes the importance of mentors. Execution details are needed to judge their ability to address this need.
- Need to define who manages the relationship between Accelerant and TEC.

Rocket Ventures

Overall	Regional	Mgmt	Services	Capital	Metrics	Budget
↘	↘	↓	↘	→	↘	↘

- Red Flags:

- Inadequate detail around ESP structure, management, and coordination of regional assets
 - Inadequate detail to substantiate how ESP goals will be met
- Performance Goals lack substantiation in terms of detailed plans and past performance
- High cost of client services
 - Adjacent region (JumpStart) has 40% lower cost per client
 - Rocket Ventures has second highest cost per client of all ESPs

Rocket Ventures

Overall	Regional	Mgmt	Services	Capital	Metrics	Budget
↘	↘	↓	↘	→	↘	↘

- Strengths:

- Co-location and coordination with JobsOhio
- Partnering with JumpStart to source talent and deal flow
- Well designed funding progression
 - Multiple pre-seed fund options, although historical investments do not align well with ESP's stated future focus areas

- Weaknesses

- ESP vision and goals not well substantiated
 - Gaps and history well identified, but corresponding lessons learned and action plans not well presented
 - Deal flow goals do not appear attainable

Rocket Ventures

Overall	Regional	Mgmt	Services	Capital	Metrics	Budget
↘	↘	↓	↘	→	↘	↘

- Weaknesses, cont'd

- Management plan and client service structure lacking in detail
 - Team roles not well defined
 - Service offerings appear to be ad hoc
 - EIR expertise not well substantiated; client goals may exceed EIR capacity
 - Leadership roles and organizational structure not well defined
- Budget (use of funds) lacks detail, especially for external recipients of funds

Rocket Ventures: Leverage and Cost Structure

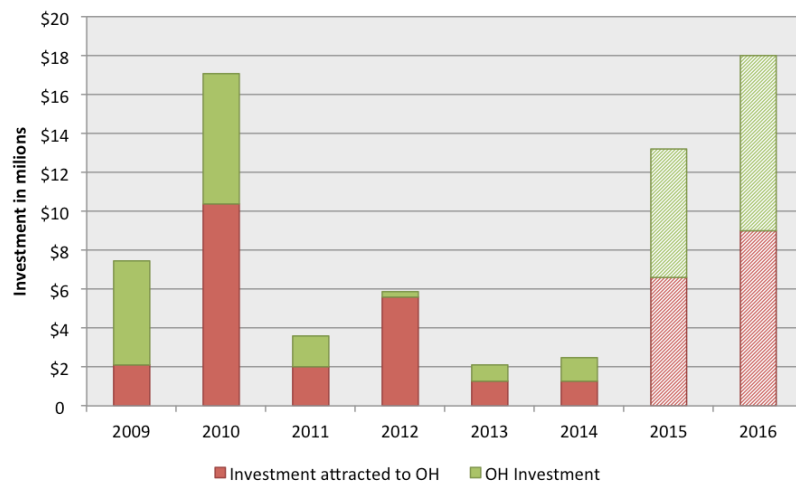
Metric	Mean 2009-2014	Median 2009-2014	Projected 2015-2016
Investment Leverage	4:1	2:1	5:1
Revenue Leverage	21:1	22:1	28:1
Cost per Client	\$36,000		\$35,000

- **Investment leverage** is 4th among ESPs
- **Revenue leverage** is 5th among ESPs
- **Cost per client served** is 5th among ESPs
 - (five ESPs are less expensive)

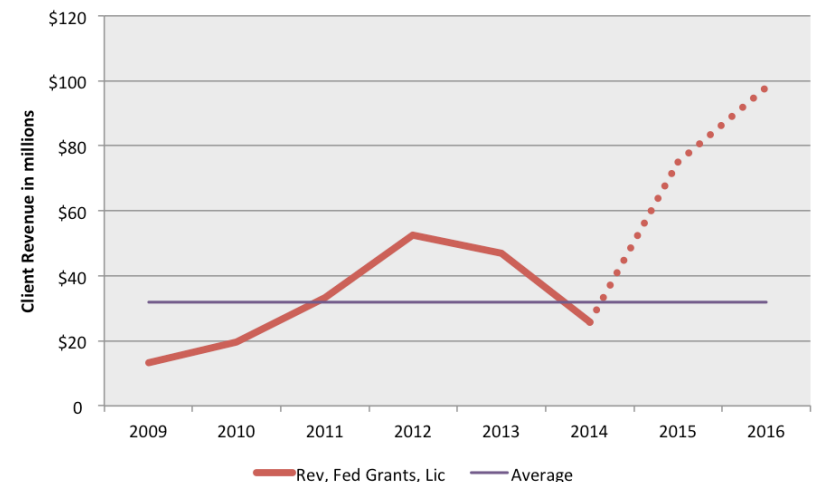
Substantial Increase in Proposed Metrics

- Rocket Ventures proposes a five-fold increase in professional investment over recent years
- Rocket Venture's revenue goal is quadruple 2014 revenue as well as five-year average

Rocket Ventures: Professional Investment



Rocket Ventures: Active Client Revenue





Key Questions for Rocket Ventures

- Need additional detail around service intensity, service structure, and resources available to support service intensity.
- Need justification and rationale for performance goals. Goals seem aspirational.
- Lacks capacity and a clear plan for customer access. Need to explore.
- Similar lack of capacity and plan for developing and maintaining an effective, aligned mentor network.
- Need detail on incubation facilities and other technical assets available to support the regional technology focus areas and clients companies.
- How active will Rocket Ventures be in supporting company fund raising? Proposal seems to place onus on clients.
- Questions remain about cost share eligibility and documentation. Seeking to address/confirm with applicant.

Conclusions and Next Steps

- Site Visits and additional round(s) of Q&A will be critical in confirming or revising initial impressions
- Q&A and Site Visits will help clarify qualitative and quantitative conclusions
- Budget and cost share issues were identified with each applicant
 - Some applicants have acted aggressively to address, while others have not
- Final recommendations will be delivered at a future Commission meeting