

**WSRI Response  
Let's Talk Forum - October 3, 2017  
Faculty Questions**

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WSRI Executive Director and WSARC CEO  
October 31, 2017**

## **Overall Summary of Why WSRI and Why do We Have a WSARC**

The number of research partnerships between corporations and universities has increased dramatically over the past 20 years. In response, research institutes (ex. Wright State Research Institute [WSRI]) and applied research corporations (ex. Wright State Applied Research Corporation [WSARC]) have been developed to create a central pathway for outside partners to contract with public universities in a cost effective and efficient process that is similar to DOD industry contracting; and according to the timeframe that commercial and government customers demand.

Applied research institutes and corporations provide significant organizational flexibility. In a competitive and fast-paced applied research environment, these entities enable universities to be nimble and to react quickly to new opportunities, in a way that academic departments are not able or designed to do. They allow the institution to engage in new opportunities without committing long-term resources required for formal departments. Applied research institutes and corporations can also adapt to change very rapidly and have the ability to quickly draw together a team of diverse researchers to respond to requests for proposals or applications.

The intention of the applied research institutes and corporations is not to exist outside of the university's academic mission, or in competition, but rather to bridge the gap between basic research and the marketplace. This separate structure provides a mechanism for collaborating with these partners on proprietary and/ or classified projects and allows the University to be part of much broader classified conversations that, in and of themselves, generate additional research opportunities that the University wouldn't be aware of without that access.

Applied research institutes and corporations also focus on translational projects that extend beyond basic university research boundaries and cast a much broader net, for example proprietary short- and long-term research projects for industry and commercial development efforts that result in new products and processes.

These structures allow University faculty and students to participate in research that targets real-world, national problems. And for the State and the region, the research institute can provide an economic engine where technologies are being designed, developed, and eventually commercialized in the region and throughout the state.

In a recent article, the US Air Force's new civilian leader expressed the need for renewed investments in basic and applied research that will enable them to better partner with academia and corporations to innovate better and bring technology forward faster. The phrases commonly used in the new era are "fail fast" and "working with the velocity of business".

The Wright State Research Institute (WSRI) is the applied research division of Wright State University. At WSRI, we work with corporate and government clients to develop advanced technology solutions and large-scale system prototypes to address the most difficult problems in national security, economic development, and overall human betterment.

The Wright State Applied Research Corporation (WSARC) is the contracting entity for the Wright State Research Institute, a department of Wright State University (the "University"). WSARC has been granted the tax-exempt status according to the provisions of Section 501(c)(3) of the Internal Revenue Service.

WSARC is governed by a board of directors (the "Board"). The Board includes the University president (or his/her designee), two individuals appointed by the University president, a representative of the University's board of trustees and a maximum of nine elected directors who are independent and unrelated to the University.

Each day, WSRI's science and engineering expertise is used to turn ideas into workable solutions for our customers. WSRI's renowned researchers combine science, engineering, and technical expertise to solve complex problems for the U.S. federal government, state and industry. We take the best ideas, often co-developed with our Wright State academic partners, and turn them into systems applications that provide a significant technological advantage over other approaches. We develop highly effective, practical solutions that we put into action.

As a non-profit research institute, we are an objective partner who delivers workable solutions and transitionable products. Our highly specialized and interdisciplinary research team allows us to bring the right mix of talent, experience and creativity to every project. WSRI has worked hard to bring together the best experts in human performance research and related business disciplines, and more importantly, we have studied the future trends and interests of the federal laboratories and other government agencies to be ready to address those needs. The Ohio Federal Research Network is one example of this transformation.

As an integral part of Wright State University, WSRI's customers get access to not only a leading research and development organization, but they have an open door to the vast intellectual resources of one of America's evolving research universities.

WSRI and WSU combine the best of both applied and basic research to solve the innovation equation on behalf of clients. This combination provides unsurpassed expertise, technical solutions, and new levels of capability for our armed forces, our federal and state sponsors, our industry partners, and those with whom we collaborate worldwide.

The following are our answers to the Let's Talk Questions. We have regrouped the Questions to combine ones that were the same or similar. We also attempted to provide a logical flow in the responses where possible.

**Q29: WSRI and WSARC are almost always spoken of in the same breath. Why there are two entities and what is the difference between each relationship with WSU? Why are both needed? Is OFRN another separate entity with its own employees? Is this also under WSARC? The average member of the Faculty is very unclear on all of this. Please be very clear.**

**Q30: What is the purpose of WSRI (and WSARC) and how does that benefit WSU?**

Wright State Research Institute (WSRI) is a department of Wright State University that reports through the Vice President of the Research and Sponsored Programs Office (RSP).

The Wright State Applied Research Corporation (WSARC) operates as an affiliated entity modeled after best practice at the Georgia Tech Applied Research Corporation (GTARC) of the Georgia Tech Research Institute (GTRI).

The two entities were created to support the University in a comprehensive manner in terms of research cost recovery and contract compliance issues, yet the governance and operations are distinct as illustrated in Table 1.

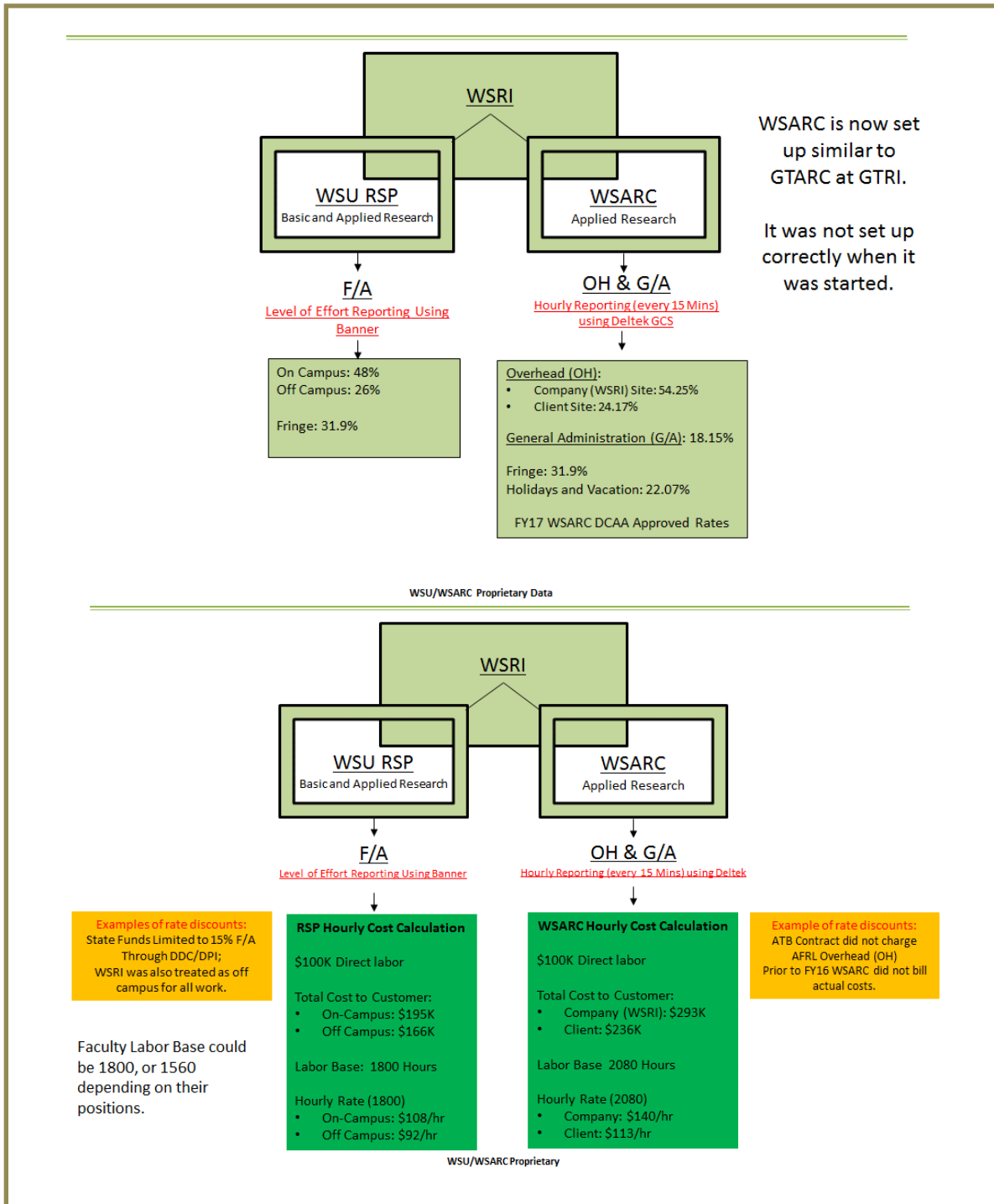
As a 501(c)(3) Corporation, WSARC has a separate governing Board of Directors and follows the Office of Management and Budget (OMB), Uniform Guidance Super Circular (2 CFR-200), and federal costing principles of OMB Circular A-122, whereas the University is subject to OMB Circular A-21 for its costing principles. The different financial and operational regulations result in different indirect cost rates and structures. Figure 1 shows hypothetical examples of how these different OMB Circulars impact actual rates that are assigned and used to calculate the total cost for our clients through the Office of Research and Sponsored Programs (RSP) and WSARC, respectively.

RSP and WSARC missions are not the same, but rather are designed to complement each other. The alignment of RSP and WSARC's primary responsibilities and operational activities, as summarized in Table 2, indicates the duties performed by each, but this doesn't mean those duties are exclusive to the organization.

WSARC operating procedures now require subcontracting projects and awards directly to the University, for all faculty research that is completed through WSARC contracts. This allows the faculty to receive the appropriate research credit, and for the University to recover appropriate indirect F&A costs.

**Table 1: Distinct Operations of WSRI/RSP and WSRI/WSARC**

	<b>WSRI/RSP</b>	<b>WSRI/WSARC</b>
<b>Date of Creation</b>	October 9, 2006 Division or unit of WSU	March 31, 2011 501(c)(3) Code of Regulations attached in Self-Study
<b>Policy and Regulations</b>	University Policy	University Policy SOPs Code of Regulations
<b>Employees</b>	WSU employees Hired on special contracts; compensation covered by direct charge to contracts/grants and/or by WSRI or WSARC overheads	None WSRI staff are contracted wholly or partially by WSARC to perform administrative and operations support and execution of WSARC contracts
<b>Governance</b>	Executive Director reports to the VPR (prior to September 2015 the WSRI director reported to the Provost)	Chief Executive Officer (CEO) reports to WSARC Board of Directors
<b>Grant and Contract Management</b>	See Table 2 below	See Table 2 below
<b>Security</b>	TS Clearance with no cleared facilities or laboratories.	TS, TS/SCI, SAP and SECRET cleared clearances with cleared facilities and laboratories.
<b>ITAR</b>	Limited controlled areas to stand alone systems. CaTS cannot support International Traffic in Arms Regulations (ITAR) contracts.	Entire computer network and the facility is ITAR controlled. Full support for ITAR contracts and research.
<b>Role(s)</b>	Provides innovative, customer-focused solutions through collaborative partnerships to facilitate technology development, job creation, and the economic revitalization of the region and state, and providing a portal for applied research solutions generated by the campus community as a whole.	Provides contracting and other support and applied research services to WSU, WSRI, and the State of Ohio that include business development, total cost accounting, and recovery, Federal Acquisition Regulations (FAR)-based contracting support, security support for classified contracts, classified facilities and laboratories, and special facilities compliant with ITAR to support ITAR performance-based contracts.
<b>Budget</b>	No base budget support from the University. Retention of F&A revenue generated by WSRI based projects. Operations budgeted to be less than anticipated F&A revenue. A proportion of indirect cost returns is provided directly to faculty directors and colleges.	No base budget support from the University. Indirect cost rates adjusted per Defense Contract Audit Agency (DCAA) to ensure full cost recovery for operations. Sub-contracts to WSU are provided with full indirect cost recovery for the University.
<b>Cognizant Agency</b>	DHHS WSU negotiated F&A rates Rates Approved every 5 years.	DCAA DCAA approved G&A and Overhead rates Rates approved as required based on actual or projected costs.
<b>Finance and cost accounting</b>	2 CFR-200 (Uniform Guidance) Subject to A-21	2 CFR-200 (Uniform Guidance) Subject to A-122
<b>OFRN</b>	Competitive bids via COEs and University collaborators to win Ohio Federal Research Network (OFRN) funding.	Fiscal agent for OFRN directly with ODHE. WSARC leadership not involved in grant proposal review or funding decisions. See FRN summary in Self-Study.
<b>Research Expenditures</b>	Managed by RSP	Managed by WSARC; reported to University for inclusion in WSU Research Expenditures for HERD Survey. Overseen by DCAA and WSARC Board of Directors
<b>Legal</b>	WSU General Counsel	Independent external law firm (TAFT)
<b>Intellectual Property</b>	University Policy Some ability to negotiate ownership on non-federal grants or contracts	University Policy Greater ability to negotiate ownership on non-federal grants or contracts



**WSU RSP**  
Basic and Applied Research

**WSARC**  
Applied Research

**F/A**

Level of Effort Reporting Using Banner

**OH & G/A**

Hourly Reporting (every 15 Mins) using Deltek

**Examples of rate discounts:**  
State Funds Limited to 15% F/A Through DDC/DPI;  
WSRI was also treated as off campus for all work.

**RSP Hourly Cost Calculation**

\$100K Direct labor

Total Cost to Customer:

- On-Campus: \$195K
- Off Campus: \$166K

Labor Base: 1800 Hours

Hourly Rate (1800)

- On-Campus: \$108/hr
- Off Campus: \$92/hr

**WSARC Hourly Cost Calculation**

\$100K Direct labor

Total Cost to Customer:

- Company (WSRI): \$293K
- Client: \$236K

Labor Base 2080 Hours

Hourly Rate (2080)

- Company: \$140/hr
- Client: \$113/hr

**Example of rate discounts:**  
ATB Contract did not charge AFRL Overhead (OH)  
Prior to FY16 WSARC did not bill actual costs.

Faculty Labor Base could be 1800, or 1560 depending on their positions.

**Figure 1: WSU RSP F&A as compared to WSARC OH and G&A Federal Government financial model, with a hypothetical example of how a specific cost calculation would result under each model.**

**Table 2: WSU Grant and Contract Management Offices.**

Wright State University Grant and Contract Management Offices:	
RSP (Faculty + WSRI)	WSARC (WSRI, Faculty, + State of Ohio)
<p style="text-align: center;"><u>CATEGORIES</u></p> <p>Basic Research (6.1 +)</p> <ul style="list-style-type: none"> <li>• <u>Federal and State Grants</u> <ul style="list-style-type: none"> <li>• Examples : NSF, NIH, AFOSR, ARO, NRL, ONR, AFRL, NASA, NAMRU-D, etc</li> </ul> </li> <li>• Industrial Research Programs</li> <li>• Foundations</li> <li>• Clinical Trials Research Alliance</li> </ul>	<p style="text-align: center;"><u>CATEGORIES</u></p> <p>Applied Research 6.2-6.4</p> <ul style="list-style-type: none"> <li>• <u>Federal Contracts</u> <ul style="list-style-type: none"> <li>• Examples: DARPA, IARPA, AFRL, HSARPA, ONR, HSAPRA, LCMC, NASA, NAMRU, NASIC, NSA, CIA, DIA, etc</li> </ul> </li> <li>• Industrial Research Programs</li> <li>• Classified Programs</li> <li>• Ohio Federal Research Network</li> </ul>

**Note:** Contract awards managed by WSARC that involve Faculty, or other WSU resources, require execution of a formal subcontract between WSARC and WSU (via RSP) prior to initiation of any work.

**Is OFRN another separate entity with its own employees? Is this also under WSARC?**

The Ohio Federal Research Network (OFRN) was created by the Defense/Aerospace Workforce Development Initiative funded through Ohio House Bill 64 of the 131st General Assembly. This initiative is referred to as the Ohio Federal Research Network (OFRN), and was designed to build collaboration between Ohio’s research universities, industry; while supporting the research mission and priorities of the labs at Wright Patterson Air Force Base including the Air Force Research Lab (AFRL), the Naval Medical Research Unit – Dayton (NAMRU-D), the National Air and Space Intelligence Center (NASIC); and the National Aeronautics and Space Administration – Glenn Research Center (NASA-GRC). Ohio’s key federal laboratories.

Driven by the requirements of the national laboratories, the OFRN investments are intended to grow federal research spending in Ohio;

- a. advance research initiatives aimed at emerging Department of Defense and NASA requirements;
- b. enhance university collaborations with Ohio-based small and medium size companies to engage them in innovation;
- c. create jobs in Ohio for government and industry-related activities; and
- d. most importantly have a broad and significant impact on Ohio’s economy.

The OFRN is not a separate entity of WSARC or WSRI and is overseen by a totally independent external review team as directed by the Ohio legislature. The WSARC is the executive agent for the OFRN. See the answer to Question 2 below for details of OFRN structure.

**Q34: What changes have been made by WSRI and WSARC in regards to budget activities, affairs, and personnel matters since Dr. Narayanan was placed on administrative leave? Ryan Fendley said that the main benefit to WSU faculty for WSRI was the difference between WSRI and RSP in regards to grant overhead rates. What is the WSRI and WSARC do for WSU faculty now?**

See answer to Questions 29 and 30 above.

**The OVPR 360 Report recommends: (emphasis added)**

**Recommendation 3: Create a focused communications strategy around WSRI and WSARC. To assure transparency, this strategy should include both the value and services provided by these units, but also a complete financial picture of all investments in and payments out. It should also include complete information about WSARC’s activities in the Ohio Federal Research Network (OFRN), about which there appears to be considerable suspicion and misinformation on the part of WSU faculty.**

**Q1: What has been done to satisfy OVRP 360 review recommendation 3?**

As shared during the “Let’s Talk” forum, after Dennis Andersh assumed the role of executive director of WSRI in September 2015, but prior to the OVRP 360 report being released, we had taken significant corrective actions centered in the areas of transparency, compliance, hiring, self-sufficiency, operational efficiency and effectiveness.

As background, prior to this reorganization, WSRI and WSARC had a bifurcated reporting structure through the Provost’s Office, with no involvement or oversight from the Vice President of Research. See Figure 2 for the WSRI and WSARC organizational structure prior to September 2015.

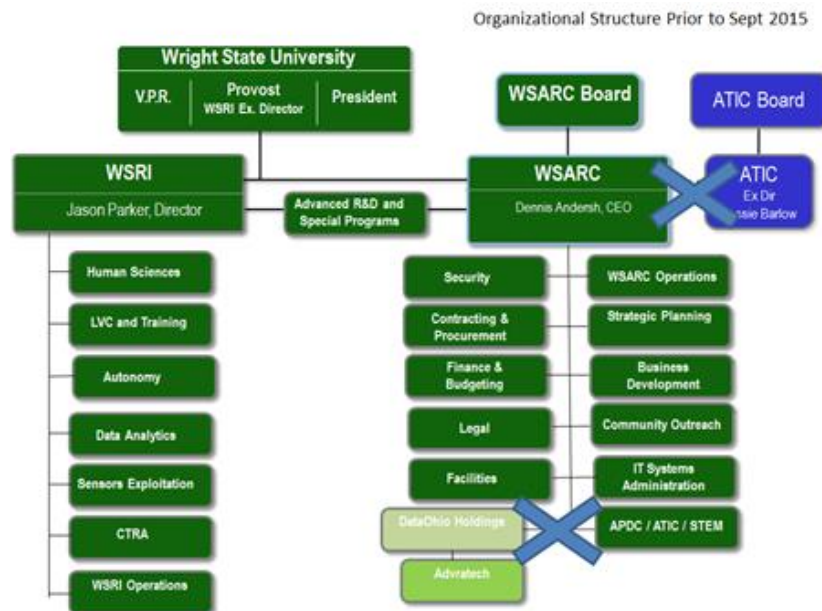


Figure 2. WSRI and WSARC Organizational Structure prior to September 1, 2015. X's were eliminated.



With the consolidation of WSRI/WSARC leadership in September 2015, Mr. Andersh and the staff immediately set about reorganization of functions and reporting within WSRI to ensure 100% compliance with University Policy to improve efficiency and maximize focus and effectiveness through the development of standard operating procedures, and hardwiring in a system of checks and balances. As a result the organizational structure today is shown in Figure 3.

FY18 WSRI / WSARC Organization

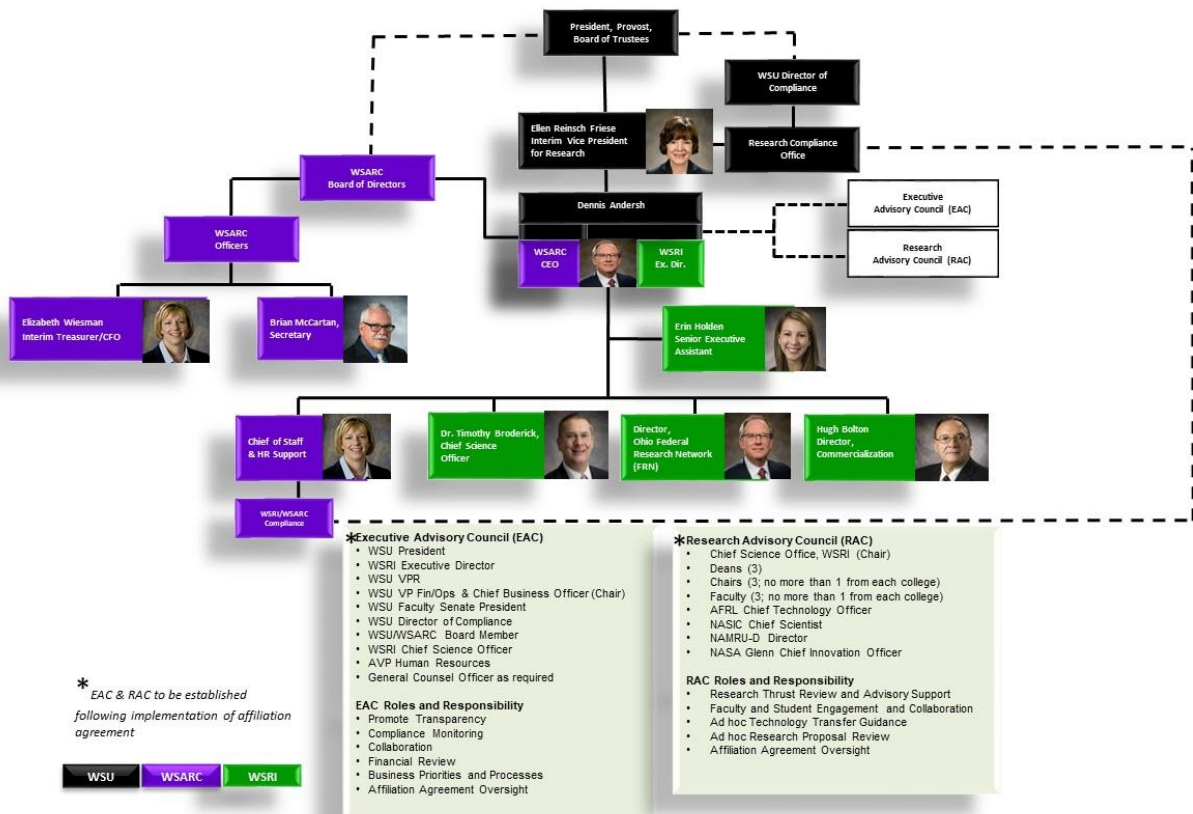


Figure 3. Current FY18 WSRI and WSARC Organizational Structure.

Since the reorganization, the team has taken significant corrective actions centered in the areas of transparency, compliance, operational procedure development, operational efficiency and organizational effectiveness. This work was completed with full collaboration and transparency with the WSU President and Provost as well as the WSU Board of Trustees and the WSARC Board of Directors so WSRI could create a new path forward to engage key University stakeholders, faculty members, elected officials, community leaders, and the research sponsors as well as faculty researchers across the State of Ohio.

A summary of all the changes made as a result of those steps taken, are provided below and was shared on the President's website on October 3, 2017.

## **Transparency**

- Eliminated all affiliated entities including DaytaOhio, Advratech, Regional STEM Collaborative and ATIC.
- Modified the structure and composition of the WSARC Board of Directors to achieve transparency and compliance with WSU policy and mission. The Board now includes a WSU Board of Trustee's Member; and others from outside WSU to mitigate conflicts of interest.
- Established WSARC Executive Committee to provide timely oversight of new contracts and expenditures consistent with updated policy on signing limits in WSARC allowing WSARC to move at the speed of business while also complying with WSU policy.
- Established WSARC Finance Committee as part of the checks and balances to provide financial oversight by assisting in setting financial goals and ensuring adherence to the budget.
- Established WSARC Audit Committee to provide a system of internal controls and compliance with laws and regulations.
- Creating a WSU/WSRI Executive Advisory Council that will be chaired by the WSU Vice President for Finance and Operations and Chief Business Officer resulting in improved transparency with university leadership.
- Identifying split appointment funding opportunities with university colleges and schools creating funding and research proposal opportunities through effective collaboration.
- Established a 100% contract review focused on accuracy, tracking of income and expenses.
- Developed employee utilization data and executed staffing reductions to align revenue streams with individual employees and manage individual contribution to organization rates.

## **Compliance**

- Developed new internal controls, policies and standard operation procedures to manage daily compliance requirements; track employee utilization data to align revenue streams with individual employees and manage individual contribution to organization rates.
- Documenting and tracking annual Significant Financial Interest (SFI) Disclosures that are required for all staff to ensure compliance at every level.
- Reviewed all contracts twice to adhere to all statutory and regulatory requirements.
- Reviewing all H1B Visa and Green card work to ensure 100% compliance. Re-aligned departmental policy to adhere to University Policy, unless bona-fide business needs determine the need for policy augmentation.
- Ensuring compliance with all Personnel Security Clearances sponsored by WSARC.
- Enhanced HR Management, including participating in the WSU compensation study; establishing new hiring process compliant with WSU policy, eliminated the use of WSARC named in grant hiring process; established mandatory new hire

and ongoing employee training program; and developed roles and responsibilities for every position.

- Created several key roles to better focus and improve organizational effectiveness and security: Director of Security; ISSM (Information Systems Security Manager); Director of IT and FAR Certified Contracts Manager.
- Separated Contracting and Finance Functions for better oversight and established the Contracts & Procurement Department
  - Drafted and implemented the Contract Management System, the Contract Action Report and worked with Finance to implement the Purchase Order process.
  - Created standard and centralized contract/NDA/TA/Subcontracting Templates which reduced processing time for contracts/subcontracts awards.
  - Created a Basic Ordering Agreement/Task Order structure for all major programs with AFRL.
  - Created protocols and procedures for determining if RSP or WSARC pursues a research opportunity.

## **Operational Improvements**

- Developed employee utilization data and executed staffing reductions to align revenue streams and manage individual contribution to organization rates. To date we have eliminated 40 positions and reduced our operating budget by 41%.
- Eliminated previously documented audit “Material Weakness” related to recognition of contract revenue. Now have 2 consecutive clean audit opinions with no material weaknesses noted.
- Centralized WSARC/WSRI operational support to the execution of business functions and improve efficiencies.
- Established facilities working group to synchronize operations cost across the enterprise which directly resulted in the reduction of facilities maintenance and janitorial services.
- Created business processes and templates which significantly improved the proposal quality and win ratio which lead to a significant improvement to the WSARC bottom line for 2015.
- Created protocols to de-conflict WSRI and WSU research opportunity pursuits.
- Discovered and communicated with university financial officer’s a flaw in current DHHS negotiated F&A rate with respect to excluded WSRI omitted indirect cost. Correction to be made during next University Cost Proposal submission which will result in increase in recoverable rate for all University research awards.
- Managed due diligence procedure in an abbreviated time frame to evaluate the financial viability of the investment of WSU BSOM in Clinical Trial company purchase - resulting in saving university over \$3,000,000.
- Standardized allocation policy of F&A payments to colleges and Faculty Directors and eliminated over 3 year’s backlog of WSRI F&A College and Faculty Director Payments.

- Coordinated with University office of Risk Management the review of all WSARC Insurance coverage to eliminate the duplication of coverages.

Since the reorganization, we have communicated these changes and the new operating processes through various channels. These include presentations for and discussions with Faculty Senate; Research Council; College and department faculty meetings; all-hands meetings of WSRI staff and faculty directors; Board of Trustees, “Lunch and Learn” sessions; and many individual and small group discussions. Input from these sessions has been incorporated into WSARC operations.

Table 3 provides more information on several WSARC meetings that have been conducted prior to Let’s Talk. The Let’s Talk forum was one more step in providing additional transparency for the entire University. We continue to be committed to ongoing communication and will continue our comprehensive efforts to share information.

One of the key steps taken after September 2015 was to reconstitute the WSARC Board of Directors and create new fully transparent financial and compliance processes and procedures with the insight and guidance of that newly appointed board.

The WSARC Board of Directors also play a key role in overseeing our efforts and ensuring financial self-sufficiency and compliance with all WSU, State and Federal laws, and requirements, as well as ensuring the WSARC is following all policies and procedures. The WSARC Board meets once a quarter and has Executive, Audit, and a Finance committees that meet regularly. The WSARC Board comprises The WSU president, one WSU Board of Trustees member, two directors that are affiliated with WSU and appointed by the WSU President, and nine external members. Each board and committee meeting have a thorough set of minutes and active action item tracking.

**Table 3: WSRI Meetings**

Meeting Title	Frequency	Purpose	Constituencies	Strategic/Operational
Multidisciplinary University Research Initiative (MURI) Coordination Meeting	Bi-Weekly	A one-hour team teleconference occurs every other Tuesday at 4:00 pm to discuss PHITE MURI progress and future direction, which is essential to the success of this high-profile program.	Faculty involved include Dr. Kadakia, Dr. Markey, Dr. Craig, and Dr. Raymer.	Operational
**Pipeline	Bi-Weekly	WSRI and WSU researchers collaborate, capture, and track solicitations and opportunities with lead times between one month and one year to decide which to pursue. Teaming opportunities are also discussed to prevent WSRI and WSU from competing for the same projects.	The attendees for this meeting are WSRI researchers, WSU Deans, WSU Research Council, and Engineering Researchers. The next meeting is scheduled for TBD. Meeting invites are provided well in advance of the meeting.	Operational
Contract Review	Quarterly	Once a quarter, all WSARC and RSP contracts involving WSRI employees are reviewed by WSARC leadership, RSP representatives, and Program Managers (PM).	The faculty PMs that attend these meetings are Dr. Subhashini Ganapathy, and Dr. Sherif Elbasiouny	Operational
All Hands Meeting	Quarterly	Every employee is invited to attend this meeting. This is an opportunity for leadership to demonstrate transparency, provide status updates, celebrate wins, and increase employee engagement. .	All employees and WSU faculty that work with WSRI are invited	Strategic
Dr. Minnery's Project Reviews	Weekly	Dr. Brad Minnery regularly meets on campus with PIs for three separate projects: OFRN, LAPSES, and the "Diversity" project. The OFRN meeting is every other Wednesday; LAPSES and "Diversity" meet every Friday.	OFRN Faculty participants: Dr. Michael Raymer, Dr. Thomas Wischgoll, Dr. Derek Doran, and Dr. Pascal Hitzler. LAPSES Faculty participants: Dr. Assaf Harel and Dr. Ion Juvina. Diversity Faculty participants: Dr. Valerie Shalin and Dr. Amit Sheth, occasionally.	Operational

### **Composition of WSARC Board of Directors:**

At all times, the number of elected Directors independent of and unrelated to WSU will exceed the number of Directors who are related to WSU.

The WSARC Code of Regulations currently provides that the Board of Directors of WSARC will consist of the following:

- The President of WSU, or their designee;
  - Two individuals appointed by the President of WSU;
  - A representative of the WSU Board of Trustees appointed by the Chair of that Board; and
  - A maximum of nine elected Directors who are independent of and unrelated to WSU.
- Permanent Members
- Dr. Cheryl Schrader, President
  - Appointed by WSU
    - Ms. Ellen Reinsch Friese, Acting VP of Research
    - Dr. Margaret Dunn, Dean of Boonshoft School of Med
  - Board of Trustees
    - Lt Gen (Ret) C.D. Moore (Dayton Aerospace)
- Elected Members
- External
    - Jeff Hoagland (Dayton Development Coalition)
    - Tim Hull (Think Patented)
    - Al Wofford (CDO Technologies)
    - Lloyd Fields (Bastech)
    - Mary Margret Evans (Former DOD AT&L Executive)
    - Roger Furrer (BradyWare, LLC)
    - Tawyna Darlington (Former Pricewaterhouse Auditor)
    - + TBD
    - + TBD

In addition, we have met with faculty members within each college to assess possible research interests to ensure those interests are being captured during our team's search for opportunities within GovWin IQ, a Federal Opportunity search tool.

To date, the invitees for the Pipeline meeting have included WSU Deans, WSU Research Council, and WSU researchers together with WSRI staff and researchers. The meetings are open and anyone interested in presenting, following, or learning about opportunities is welcome to attend. Currently, the primary invitation list includes Deans and members of the research council and meeting invitees are provided well in advance of the bi-weekly meeting. However, the meetings are open to all faculty, with the hope those on the list would share the meeting details to other colleagues.

The WSU invitees included:

- Dean – College of Education and Human Services Admin
- Dean – College of Engineering and Computer Science
- Dean – College of Business Administration
- Dean – College of Liberal Arts
- Dean – School of Professional Psychology
- Associate Dean for Research Affairs Boonshoft School of Medicine (BSOM)
- Associate Dean for Research & Graduate Studies – CECS
- Chair/Professor – Sensor Systems Research – CECS
- Executive Director, Kno.e.sis/Professor – CECS
- Professor – Physics and Electrical Engineering
- Professor – Leadership Studies in Education
- Member of Research Council/Lake Campus Science & Mathematics
- Member of Research Council/Professor, CECS
- Member of Research Council/Assoc. Professor, Earth & Env. Sciences
- Member of Research Council/Associate Professor, SOPP
- Associate Professor – College of Nursing & Health

The Pipeline meetings were put on hold several months ago due to cuts in staff resources. However, we have also taken this time to look at improving the Pipeline meeting process. Our new process will include measures to protect confidentiality of the projects we discuss and will feature a post meeting overview that includes a list of attendees, projects discussed and next steps and key decisions made. Again, the meetings will be open to any faculty interested in presenting, following, or learning about opportunities.

The goal is to restart these meeting in the first quarter of 2018.

With the completion of the WSARC's affiliated entity review as required by WSU Board of Trustees, together with WSU, we are starting the process to implement a WSRI Executive Advisory Council (EAC) and Research Advisory Council (RAC). This group will be an integral part of the overall WSU Research enterprise and will help to ensure that WSRI's business and research activities are aligned with the University's mission.

The role of the EAC is to improve communication, build greater collaboration and provide transparency of ongoing work at WSRI across the WSU campus. The proposed members, roles, and responsibilities of the EAC are:

#### **Executive Advisory Council (EAC)**

- WSU President
- WSRI Executive Director
- WSU VPR
- WSU VP Finance/Ops & Chief Business Officer (Chair)
- WSU Faculty Senate President
- WSU Director of Compliance
- WSU/WSARC Board Member
- WSRI Chief Science Officer
- AVP Human Resources
- General Counsel Officer (as required)

### **EAC Roles and Responsibility**

- Promote Transparency
- Compliance Monitoring
- Collaboration
- Financial Review
- Business Priorities and Processes
- Affiliation Agreement Oversight

The RAC would operate in conjunction with the EAC to advise the overall research direction of WSRI and ensure it continues to support the WSU Research Enterprise. The RAC will advise in the prioritization of WSRI efforts and the pursuit of funding from other state and federal agencies, the commercialization of developed technologies and the engagement of WSU faculty, staff and students within the framework of the affiliation agreement between WSU and WSARC. Specifically, the RAC will consist of the following and the roles and responsibility are summarized below.

### **Research Advisory Council (RAC)**

- Chief Science Office, WSRI (Chair)
- Deans (3)
- Chairs (3; no more than 1 from each college)
- Faculty (4; no more than 1 from each college)
- AFRL Chief Technology Officer
- NASIC Chief Scientist
- NAMRU-D Director
- NASA Glenn Chief Innovation Officer

### **RAC Roles and Responsibility**

- Research Thrust Review and Advisory Support
- Faculty and Student Engagement and Collaboration
- Ad hoc Technology Transfer Guidance
- Ad hoc Research Proposal Review
- Affiliation Agreement Oversight

While the plans have been in place for some time, these review groups could not be established until after the affiliated entity review was complete and memorandum of agreement was signed between WSU and the WSARC. Now that this is complete we have started the process of forming these two groups. Implementation of the WSRI EAC and RAC will be our highest priority over the next 60 days, with a goal of having both constituted and ready to meet regularly after January 1, 2018.

In addition, we have created a new website where documents about WSRI and WSARC will be available on November 13, 2017, as well as all the materials supplied in this response. This website will be updated monthly. <http://www.wsri.wright.edu>

Current information regarding the OFRN program is located at <http://www.ohiofrn.org>

The Let's Talk forum and this follow up communication is another step in our continuing efforts for fully transparent communication with the entire University community. We welcome other ideas from the faculty and staff regarding how we might better communicate with one another.



**Q22: Mr. Andersh stated that a WSARC goal was to provide opportunities for faculty to bolster research and a specific goal to increase faculty research by 15%. Why is this the first I am hearing of this? How are they providing opportunities and reaching out to faculty?**

This was presented at Let's Talk as one way of communicating this effort, and as detailed above, will be better communicated once the EAC and the RAC are implemented. This specific set of WSRI goals and objectives were established and approved by the WSARC Board of Directors.

Below is a summary of all the FY18 WSRI Research Goals and Objectives.

**WSRI Goals/Objectives:**

**GOAL 1: Accelerate basic scientific research into innovative solutions that address critical challenges.**

Objective 1: Collaborate to advance scientific discovery and national security capability.

Objective 2: Protect, restore, and augment human health and performance.

Objective 3: Promote recognition of Wright State research and researchers.

Objective 4: Deliver high impact research results to clients and sponsors.

**GOAL 2: Enhance commercialization programs to expand University research.**

Objective 1: Target unmet commercial needs with disruptive, protectable concepts and technologies.

Objective 2: Develop multi-tiered funding sources to support promising commercializable concepts and technologies at Wright State.

Objective 3: Collaborate to enhance the regional commercialization ecosystem.

Objective 4: Establish a mentor/partnership with WSU faculty to establish pathways to identify and support faculty commercializable research.

**GOAL 3: Provide a Responsive, Customer-Focused, Compliant, and Transparent R for D Process as the Ohio Federal Research Network Executive Agent.**

Objective 1: Facilitate University and Industry Collaborations in support of the research requirements of key Federal Entities located across Ohio.

- Create Integrated Challenge Problems with regional and national focus with matching funds from regional and national sponsors.
- Develop Project, Contracting and Technical Management leadership for All OFRN funded projects and challenge grant projects.
- Tie into Regional commercialization ecosystems where possible.

Objective 2: Establish Aggressive Business Development model wherein OFRN supports enhancing the procurement skills of university researchers as well as takes the lead for initiatives that integrate key players across the state, regional and nation.

- Establish pathways to identify and support Statewide Industry Sponsored research and to secure access to key university assets.

Objective 3: Foster and promote systems of systems engineering educational and research

opportunities for students and faculty alike – skill sets that will make our college graduates more work place ready and in turn strengthen our state’s national competitiveness.

Objective 4: Take the lead in working to gain recognition for OFRN as a key requirements-driven, solutions-oriented partner for the US Government

- For example: UARC, MSERC, S&T Center, MSERC, etc.

**GOAL 4: Act in the best interest providing contracting services to federal and state research programs at Wright State University, Wright State Research Institute, and related entities.**

Objective 1: Provide support for the completion of a broad range of federal, state, and industry grants and contracts.

Objective 2: Ensure that the research enterprise of Wright State University is based on research performed by faculty, staff, and students from all of WSU’s academic and research units, colleges, and schools.

- Establish pathways to meet and discuss research focus areas and opportunities with Faculty, Staff and Students.

Objective 3: Provide applied research services to the University and Research Institute that include business development, cost recovery and accounting, adherence to Federal Acquisition Regulations support for large contracts, security support, and compliance to ITAR-performance based contracts.

Objective 4: Accurately document the nature and scope of the affiliation between Wright State University and the Wright State Applied Research Corporation.

**The WSRI FY18 Business Plan metrics are summarized below:**

**GOAL 1: Accelerate basic scientific research into innovative solutions that address critical challenges.**

- Grow AFRL business by more than 15% in FY18.
- Grow DARPA/ONR/IARPA/OSD/NAMRU/NASA by more than 20% in FY18 (\$5M a year is base from FY17).
- Grow Industry Sponsored Research to achieve a funding level of at least \$1M per year including SBIR and STTR Funding (\$0.6 M is base for FY17).
- Grow WSU Faculty Sponsored Research by 15% (Base is currently \$1M per year).

**GOAL 2: Enhance commercialization programs to expand University research**

- Launch at least two new startup companies based on University concepts and technologies addressing unmet commercial needs.
- Develop at least \$1M in multi-tiered funding sources to support promising commercializable concepts and technologies.
- Generate sustainable funding sources as follow-on to the DOD OEA grant to support the regional commercialization ecosystem.
- Establish pathways to identify and support WSRI and faculty commercializable research and secure at least 2 funded I-Corps Teams (NSF, Ohio, OFRN...).

- Establish or partner on Entrepreneurial Competitions for faculty and Students, using AFRL and community judges, leveraging VC/Seed sponsorship and invitee lists.
- Provide tailored entrepreneurial training, mentoring programs, and partnerships to support University researchers.
- Implement recommendations from the 2017 VPR&GS 360 review.

**GOAL 3: Provide a Responsive, Customer-Focused, Compliant, and Transparent R for D Process as the Ohio Federal Research Network Executive Agent**

- Secure State Funding for the Ohio FY18-19 Operational Budget ~\$7M.
- Secure Federal Matching Funding for the FY-18 Defense Budget ~\$10M.
- Provide agile and responsive services in support of the OFRN and related entities.
- Create Integrated Challenge Problems with National focus with at least 1 to 1 matching funds from National Sponsors.
- OFRN win at least \$75M (Total funding) of New Awards Statewide.

**GOAL 4: Act in the best interest providing contracting services to federal and state research programs at Wright State University, Wright State Research Institute, and related entities.**

- The Affiliation Agreement and related Standard Operating Procedures are critical and will be a focus to complete no later than the end of Q2.
- Budget plan execution for FY18 overseen by the WSARC Board Finance Committee is a must.
  - Must meet Client and Company Site FY18 OH/GA rates.
  - Must pay University in 60 days or less after invoicing.
  - Must pay back at least \$200K in FY18 for the Advanced Technical Intelligence Center.
  - Must recoup at least another \$1.0 M of RDCAP Funding in FY18.
- Establish agile and responsive automated workflows in the areas of Finance, Contracts, Security and Human Resources accessible by WSU and WSRI personnel which improve communication and reduce workload while ensuring transparency and compliance with applicable law, regulation or other guidance.
- Provide DFARS Compliant ITAR support as required to WSU.
- Provide Secret, Top Secret and TS/SCI facilities for WSU and WSRI.

These objectives, goals and business plan expectations will be reviewed regularly with the creation of the EAC and RAC. For information on the EAC and RAC see answers in Question 1.

**Q17: How is open and transparent evaluation of opportunities conducted? In 2015, there were scheduled opportunity reviews (via Jason Parker and Mike Deis), but these appear to have been canceled when and since Mr. Andersh took over as director.**

See answer to Question 1 on page 8.

**Q18: Every WSRI organization charts since 2015 have included faculty representatives on advisory boards. Why have no faculty ever been seated on these boards? Do Faculty refuse to participate or is there some reason why management does not want Faculty involved? Years of inaction on this after stating that this is faculty-focused is seen as either incompetent or a direct attempt to “say one thing” to mollify the faculty yet “do another”. What has happened here, and why? When will this be addressed?**

See Answer to Question 1 on page 8.

**Q2: The original “earmark” in the state budget for the Federal Research Network was for \$25M (see attached). WSARC took \$5M off the top for its own operations, and \$2M was allocated for commercialization and workforce development. This left only \$18M for other activities. The current state budget for the Federal Research Network is only \$6.9M (see attached). How will it be allocated?**

The original earmark for the Ohio Federal Research Network was for \$5M directed to the Ohio State University in FY17. See Legislative Language below.

FY 16-17 Am. Sub. H.B. 64

### **SECTION 369.473. WORKFORCE AND HIGHER EDUCATION PROGRAMS**

Of the foregoing appropriation item 235616, Workforce and Higher Education Programs, \$5,000,000 in fiscal year 2017 shall be allocated to The Ohio State University to collaborate with Wright Patterson Air Force Base, NASA Glenn Research Center, Ohio's research universities, and the private sector to align the state's research assets with emerging missions and job growth opportunities emanating from the two federal installations, strengthen related workforce development and technology commercialization programs, and better position the state's university system to directly impact new job creation in Ohio. A portion of the foregoing appropriation item shall be used to support the growth of small business federal contractors in the state and expand the participation of Ohio businesses in the federal Small Business Innovation Research Program and related federal programs.

Appropriation: \$5,000,000 in FY17

In addition, there was an earmark for the WSARC Workforce Development program for the support of the OFRN. The Governor's office, the Ohio General Assembly, and the Ohio Department of Higher Education (ODHE) direct the use these funds.

Below is the funding and FY16-17 legislative language provided to the WSARC and how it was to be used to fund the OFRN and specific tasks related to APDC.

**FY 16-17 Am. Sub. H.B. 64**

**SECTION 369.455. DEFENSE/AEROSPACE WORKFORCE DEVELOPMENT INITIATIVE**

The foregoing appropriation item 235668, Defense/Aerospace Workforce Development Initiative, shall be used by the Applied Research Corporation to collaborate with the aviation, aerospace, and defense industries, to strengthen job training programs, equip Ohio's workforce with needed skills, and strengthen and grow research and educational linkages among Ohio's defense and aerospace aviation industry, federal agencies, state-assisted Ohio universities, and the University System of Ohio. A portion of these funds shall be used to support the Aerospace Professional Development Center to establish processes necessary to link underemployed or unemployed persons to job openings in these industries. The funds appropriated in this appropriation item shall be matched by private industry or educational partners or federal agencies in the aggregate amount of \$4,000,000 over the FY 2016–FY 2017 biennium

Appropriation: \$10,000,000 in each fiscal year.

The Ohio Federal Military Jobs Commission (OFMJC) provided oversight of these funds and the plans developed as a part of Statewide Report regarding support for Ohio Federal installations. Attached is OFMJC final report (*December 31, 2015 Final Report, file named Commission Report 1.22.16*) that contains the detailed plans and background for the OFRN.

The attached documents provide the funding allocation and review history of the OFRN. First are the full presentations to the Ohio Federal Military Jobs Commission (OFMJC) on July 17, 2016 (*file named: Chapter 1 Team Update July 17*) and Sept 11, 2017 (*file named: OFMJC Brief Sept 11 -- DJAfinal*) documenting how the State funding was to be allocated. It was reviewed and approved by the OFMJC, on Sept 11, 2016, see enclosed minutes (*file named: 091115-minutes*).

Figure 4 is a FY16-17 budget summary slide that has used at almost all OFRN reviews and University meetings statewide. See [www.ohiofrn.org](http://www.ohiofrn.org). You can see that the funds all had specific purpose and was all approved by the OFMJC, and then by the OFRN Executive Review Board (ERB) as well as the Ohio Governor's office and ODHE.

The expenditure plans and funds status are all reviewed with the Governor's office and ODHE at least once a quarter and at the OFRN ERB meetings throughout the year.



## FY16 -17 FRN Funding Allocation - Update

<b>Total State Operating Funding for FY 16 and 17 = \$25,000,000</b>		<b>\$ 25 M</b>
▪ Aerospace Workforce Development Legacy Programs	(\$1.5M/Yr)	\$( 3 M)
▪ FRN Admin., Financial, and Organizational Support	(\$1M/Yr)	\$( 2 M)
<b>Funding Available for 6 COEs' Research and Business Plans</b>		<b>\$20 M</b>
▪ Tech Commercialization/Workforce Development Support (LCCC/CSU)		\$(2.1 M)
▪ Round 1 Proposal Funding Allocation = \$7,143,645 – Avg. Project Award - \$695k		\$(7.2 M)
▪ HPHS (WSU)	\$1,493,922	
▪ OCPP (OSU)	\$2,000,000	
▪ M&M (UD/UDRI)	\$1,999,997	
▪ PRESIDES (CWRU)	\$1,649,726	
▪ Round 2 Funding Allocations = \$8,698,287 – Avg. Project Award - \$1M		\$(8.7 M)
▪ C4ISR (OSU/WSU)	\$1,200,000	
▪ C2PNT (OU)	\$2,286,251	
▪ OCPP (OSU)	\$1,999,838	
▪ M&M (UD/UDRI)	\$1,097,197	
▪ HPHS (WSU)	\$2,115,001	
▪ I-Corps@Ohio Funding Allocations = \$40,000 - Awarded Per Team - \$5k		\$(0.04 M)
▪ PRESIDES (UDTeam/CWRUTeam/UATeam)	\$15,000	
▪ OCPP (OSUTeam)	\$5,000	
▪ C2PNT (WSRITeam/WSUTeam)	\$10,000	
▪ M&M (CWRUTeam/UTTeam)	\$10,000	
▪ OFRN Challenge Problem Set-Aside = \$2M		\$(1.9M)

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Figure 4. OFRN FY16-17 Budgetary slide breakout approved by OFJMC and OFRN ERB. .

The current budget breakout for FY18-19 summarized in Figure 5 and is available on the [www.ohiofrn.org](http://www.ohiofrn.org) website and was presented publicly at the Midwest UAS conference. These funds are not in the WSU budget but are in the budget for OSU for the OFRN. The \$5M in FY16-FY17 was also in the OSU budget line and was provided to WSU/WSARC as a subcontractor per the direction and oversight of the state for execution.



## FY18 - FY19 Budget Plan

\$6.9M from FY18-FY19 State Budget  
\$1.9M left over from past budget  
\$8.8M Total Available

- \$3.5M for the challenge problem(s).
  - Garner \$3.5 to \$6.5M of Federal Cost Share
  - Set Aside \$1M for Test and Integration Team.
- \$3.5M for Round 3 Research projects supporting the challenge problems.
  - 18 month projects funded between \$500K to \$1M
    - Cost share of 1 to 1 Required
- \$1M total for 2 years of Admin Support (Was \$2M for 2 years)
  - Augment with Federal Funds if available.
- \$600K for Commercialization, SBIR/STTR and Industry Sponsored Research Support (Was \$2M for 2 years).
  - Current funding runs out on current C&W team -1 Jan 2018
- \$200K for follow-on OFRN I-Corps, proposal training, and sponsored on-site research support with Federal partners.

2

Figure 5. OFRN FY18-19 Budgetary slide breakout approved by the ERB.

Below is the budget language for the OFRN in FY18-19.

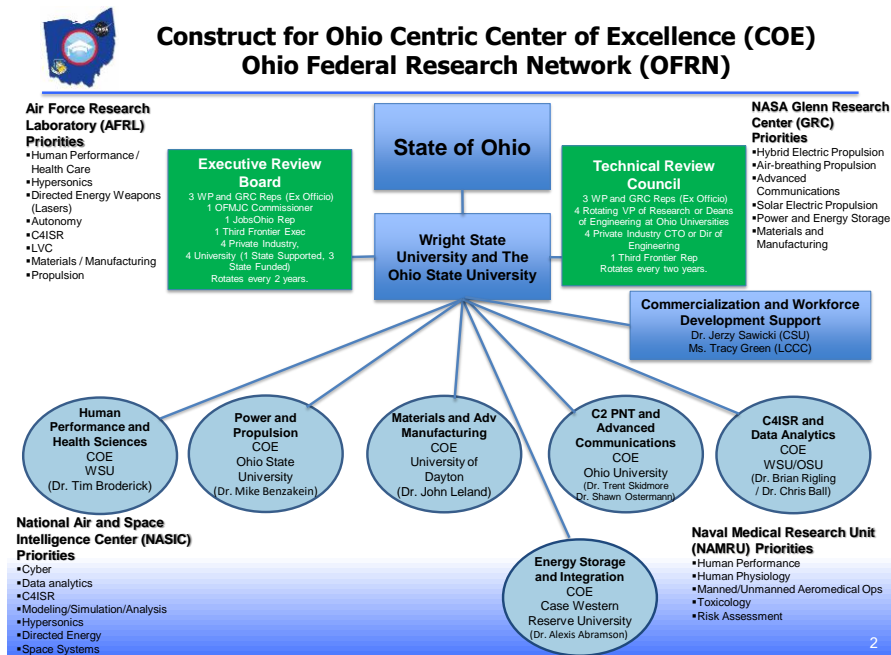
**FY 18-19 Am. Sub. H.B. 49**

**SECTION 381.440. FEDERAL RESEARCH NETWORK**

The foregoing appropriation item 235654, Federal Research Network, shall be allocated to The Ohio State University to collaborate with federal installations in Ohio, state institutions of higher education as defined in section 3345.011 of the Revised Code, private nonprofit institutions of higher education holding certificates of authorization under Chapter 1713. of the Revised Code, and the private sector to align the state's research assets with emerging missions and job growth opportunities emanating from federal installations, strengthen related workforce development and technology commercialization programs, and better position the state's university system to directly impact new job creation in Ohio. A portion of the foregoing appropriation item 235654, Federal Research Network, shall be used to support the growth of small business federal contractors in the state and to expand the participation of Ohio businesses in the federal Small Business Innovation Research Program and related federal programs.

Appropriation: \$3,450,000 in each fiscal year.

The overall organizational and management structure for the OFRN is included in Figure 6.



**Figure 6. OFRN Organizational Structure.**

The composition of the executive review teams are the current OFRN Executive Review Board and the Technical Review Council shown in Figure 7.



## Reviewer (ERB and TRC) Composition

Executive Review Board	Designee	Technical Review Council	Designee
Cleveland State President	Dr. Ron Berkman	UT VP of Research	Dr. Frank Calzonetti
OSU Dean of Engineering	Dr. Dave Williams	UC Dept Head AEEM, OAATC	Dr. Paul Orkwis
WSU President Emeritus	Dr. Dave Hopkins	OU Dean of Engineering	Dr. Dennis Irwin
LCCC President Emeritus	Dr. Roy Church	CWRU VP of Research	Dr. Suzanne Rivera
OFMJC	Gary O'Connell	UDRI	Dr. John Leland
NASA Glenn Director	Dr. Janet Kavandi	OFMJC	Don Campbell
AFRL	Jack Blackhurst	NASA Glenn	Sandra Reehorst
NASIC	Curt Rowland	AFRL	Frank Albanese
NAMRU-D	Dr. Richard Arnold	NASIC	Mark Brown
Jobs Ohio	Glenn Richardson	NAMRU-D	Dr. Richard Arnold
Ohio National Guard	Maj Gen Mark Bartman	Ohio National Guard	Brig Gen Gregory Schnulo
Ohio Third Frontier	Karen Conrad	Ohio Third Frontier	Paul Jackson
Industry 1 Chair	Ricky Peters, Ascend	Industry 1, Chair	Dr. Carlos Grodsinsky
Industry 2	Salvatore Miraglia, Jr.	Industry 2	Ed Morris
Industry 3	James Haywood	Industry 3	Dr. T. S. Sudarshan
Industry 4	TBD	Industry 4	Dr. Darren McKnight
		Industry 5	Dr. Suguna Rachakonda

Items in green are in their Corporate review process.

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Figure 7. OFRN Current ERB and TRC Composition.

The charters and roles and responsibilities of these groups are provided at [www.ohiofrn.org](http://www.ohiofrn.org).

To provide additional context, the ODHE annual (2016 and 2017) reports that provide the details of the OFRN budget breakout, work efforts and products to date are available. These are also available on the OFRN website that is publically available at [www.ohiofrn.org](http://www.ohiofrn.org).

A summary of the results to date for the OFRN are provided in Figure 8.

### Ohio Federal Research Network (OFRN) \$31.9M of State Funding Total for FY16-19 Growing Ohio's Economy by Leveraging Research and Development 2,500 new jobs, \$350 million in new federal research contracts over five years

#### WPAFB/NASA Glenn Priorities

**AFRL** Human Performance/ Health Sciences

- Hypersonics
- Directed Energy Weapons (Lasers)
- Autonomy
- C4ISR
- LVC
- Materials/ Manufacturing
- Propulsion

**Naval Medical Research Unit**

- Human performance
- Human physiology
- Manned /unmanned aeromedical ops
- Toxicology
- Risk assessment

**NASA Glenn**

- Hybrid Electric Propulsion
- Air-breathing Propulsion
- Advanced Communications
- Solar Electric Propulsion
- Power and Energy Storage
- Materials and Manufacturing

**NASIC**

- Cyber
- Data analytics
- C4ISR
- Modeling/Simulation/Analysis
- Hypersonics
- Directed Energy
- Space Systems

#### Centers of Excellence Aligned with Federal Partners

#### Impact to Date

- Collaboration and Proposal Quality is increasing dramatically - yet requires continued support and focus**
  - Projects required a lead university, 2 partner universities, and at least one industry sponsor and Federal sponsor.
- 11 of 13 Ohio Research Universities**
  - won competitive funding from Round 1 and Round 2 - \$17.7 million in awards
  - Worked with Kent State and BGSU to improve their success going forward.
- 56 Business Partners engaged**
  - half are small businesses - \$1.6 million awarded to industry
  - Industry Days and regional meetings held throughout the state
- Multiple Universities Across State Pursuing Joint Efforts Across DoD**
  - Joint Proposals in Excess of \$200M are now in the Pipeline across Ohio
  - \$100M already submitted and in source selection.
  - Universities have won \$45M+ in new awards from DARPA, ONR, AFRL, NASA, and IARPA

#### Next Steps

- Ohio FY18-19 Budget included \$3.45M / Yr for OFRN**
  - Have \$1.9M remaining from previous budget cycle.
- Launching Challenge Grant designed to foster integrated solutions**
  - OFRN will invest \$3.5M –working to secure a 1.5 to 1 match from Federal Partners -- \$7M to \$10M total budget
- Plan to Release RFP for Round 3 Research Topics in January 2018**
- Information available at [www.ohiofrn.org](http://www.ohiofrn.org)**

Figure 8. Summary of OFRN progress to date.



The full briefing on the results of the OFRN are also on [www.ohiofrn.org](http://www.ohiofrn.org).

One point of note is that because of the effectiveness of the OFRN, more funds were available for competition than originally approved by the OFMC on Sept 11, 2016. The OFRN was able to put \$20M out for competition versus the \$18M originally approved.

**Q9: The original OFRN plan promised the state that the \$25M investment would create 2500 NEW jobs and \$350M in NEW federal research contracts to Ohio institutions and companies over 5 years. This is presumably over and above new hires and new contract awards that would have occurred anyway. After 2.5 years, how many NEW jobs and how much in NEW contract awards have occurred specifically due to the OFRN?**

See answer to Question 2 and see below.

The funding for the OFRN was not available until the beginning December 31, 2015 because of the delays at ODHE.

As a result, the effort has only been funded for 22 months and many of the new OFRN Round 1 contracts did not begin work until June 2016, so the results to date only encompass 16 months of funded efforts. The analysis of the OFRN job creation is underway and other detailed results of the effort to date are summarized in the ODHE annual reports.

Overall, there have been \$45M of new awards, with over \$200M in new proposals in the pipeline. As you can see, these are very impressive statewide research results and it continues to grow. See brief at [www.ohiofrn.org](http://www.ohiofrn.org) for details on these submits awards.

We have recently completed the jobs and economic impact of the previous budget adds for the AHEAD program, which was a precursor to the OFRN program, and those results are provided as a part of the answers to Question 11.

**Q11: What exactly did WSARC spend \$22.6 million on between FY 2012 and 2016? A full itemization of where that phenomenal sum of money went, what is different now, and the metrics for success of those expenses are be necessary to make Faculty feel that ongoing support of those units is warranted. What positive impact did the University receive for those efforts?**

The funding received in FY16 is summarized above in the OFRN Questions.

The total funding received in FY12-F15 was \$22M.

Below is the breakout of funds received in FY14-FY15 and FY12-13 and the associated legislative language.

**ODHE FY14-15 Funding Line Item.** BOR Fund 5JCO

**SECTION 363.485. DEFENSE/AEROSPACE WORKFORCE DEVELOPMENT INITIATIVE**

The foregoing appropriation item 235668, Defense/Aerospace Workforce Development Initiative, shall be used by the Defense/Aerospace Graduate Studies Institute, to collaborate with the aviation, aerospace, and defense industries, to strengthen job training programs, equip Ohio's workforce with needed skills, and strengthen and grow research and educational linkages among Ohio's defense and aerospace aviation industry, federal agencies, state- assisted Ohio universities, and the University System of Ohio.

A portion of the foregoing appropriation item 235668, Defense/Aerospace Workforce Development Initiative, shall be allocated to develop a strategic plan to align the University System of Ohio's research and workforce development assets with the workforce needs of public and private sector employers. A portion of these funds shall be used to support the Aerospace Professional Development Center to establish processes necessary to link underemployed or unemployed persons to job openings in these industries. The funds appropriated in this appropriation item shall be matched by private industry or educational partners or federal agencies in the aggregate amount of \$4,000 000 over the FY 2014-FY 2015 biennium.

**ODHE FY 12-13 Am. Sub. H.B. 153**

**DEFENSE DEVELOPMENT ASSISTANCE**

On July 1 of each fiscal year, or as soon as possible thereafter, the Director of Budget and Management shall transfer \$5,000,000 in cash from the Economic Development Projects Fund (Fund 5JCO) used by the Board of Regents to the Ohio Incumbent Workforce Job Training Fund (Fund 5HR0) used by the Department of Development. The transferred funds are hereby appropriated in appropriation item 195622, Defense Development Assistance.

The foregoing appropriation item 195622, Defense Development Assistance, shall be used for economic development programs and the creation of new jobs to leverage and support mission gains at Department of Defense facilities in Ohio by working with future base realignment and closure activities and ongoing Department of Defense efficiency initiatives, assisting efforts to secure Department of Defense support contracts for Ohio companies, assessing and supporting regional job training and workforce development needs generated by the Department of Defense and the Ohio aerospace industry, and for expanding job training and economic development programs in human performance related initiatives. These funds shall be matched by private industry partners or the Department of Defense in an aggregate amount of \$6,000,000 over the FY 2012-FY 2013 biennium.

Appropriation to ARC: \$3,000,000 in each fiscal year

**Funding Source through Development Planning Inc. (DPI).**

**DPI FY 14-15 Am. Sub. H.B. 59**

**DEFENSE DEVELOPMENT ASSISTANCE**

The Director of Budget and Management shall transfer up to \$5,000,000 in cash in each fiscal year from the Economic Development Programs Fund (Fund 5JC0) used by the Board of Regents to the Ohio Incumbent Workforce Job Training Fund (Fund 5HR0) used by the Development Services Agency. The transferred funds shall be used for appropriation item 195622, Defense Development Assistance, for economic development programs and the creation of new jobs to leverage and support mission gains at Department of Defense facilities in Ohio by working with future base realignment and closure activities and ongoing Department of Defense efficiency initiatives, assisting efforts to secure Department of Defense support contracts for Ohio companies, assessing and supporting regional job training and workforce development needs generated by the Department of Defense and the Ohio aerospace industry, and for expanding job training and economic development programs in human performance related initiatives. A portion of these funds shall be matched in the aggregate amount of \$5,000,000 by either public or private industry partners, educational entities, or federal agencies.

Of the foregoing appropriation item 195622, Defense Development Assistance, \$3,000,000 shall be used by Applied Research Corporation to support education or research projects conducted by public-private partnerships in Ohio that seek to develop and train the workforce of Ohio in all industries.

On July 1, 2014, or as soon as possible thereafter, the Director of Development Services may request that the Director of Budget and Management reappropriate any unexpended, unencumbered balance of the prior fiscal year's appropriation to the foregoing appropriation item 195622, Defense Development Assistance, for fiscal year 2015. The Director of Budget and Management may request additional information necessary for evaluating the request, and the Director of Development Services shall provide the requested information to the Director of Budget and Management. Based on the information provided by the Director of Development Services, the Director of Budget and Management shall determine the amount to be reappropriated, and those amounts are hereby reappropriated for fiscal year 2015.

Appropriation to ARC: \$3,000,000 in each fiscal year

**FY12-13 DPI Funding Line Item.** BOR Fund 5JCO

**SECTION 371.50.65. AIR FORCE INSTITUTE OF TECHNOLOGY -  
DEFENSE/AEROSPACE GRADUATE STUDIES INSTITUTE**

The foregoing appropriation item 235668, Air Force Institute of Technology – Defense/Aerospace Graduate Studies Institute, shall be used by the

Defense/Aerospace Graduate Studies Institute to strengthen regional job training, equip Ohio's workforce with needed skills, and strengthen the research and educational linkages among Department of Defense facilities in Ohio, institutions of higher education in Ohio, and available industry jobs in Ohio.

These funds shall be matched by private industry partners or the Department of Defense in the aggregate amount of \$2,500,000 over the FY 2012 - FY 2013 biennium.

**Detailed Breakout of FY12-FY15 Funding.**

The detailed use of the funds over this time period are summarized in the November 2014 brief to the Dayton Regional Legislatures, local Universities and local business leaders. There are details in this brief on how the funds were allocated and there is a summary on the return on investment. *File name is Legislature Brief Nov 14 (2).*

An update to the summary of the contracts awarded and jobs impacted around Ohio as a result of AHEAD are summarized in Figure 9.

Job Name	Domain	Client	POP	Ceiling	Direct Engrs / Scientist / Yr
Analyst Test Bed	Defense	AFRL	15-Sep-12 thru 15-Jan-17	\$7,899,849.00	9
LVC Tech Support	Defense	AFRL-RHC	01-Sep-12 thru 31-Dec-15	\$982,174.00	3
NMI all 668281	Defense	AFRL	20-Dec-10 thru 30-Dec-15	\$5,247,129.00	5
L-3 WARFIGHTER	Defense	AFRL	31-Dec-11 thru 31-Dec-16	\$250,000,000.00	150
RPA F#668749	Defense	AFRL	01-Jan-12 thru 14-Oct-19	\$ 12,495,833.00	12
RIIT WSRI	Defense	AFRL	20-Dec-10 thru 29-Dec-19	\$2,799,930.00	5
RIIT Ball	Defense	AFRL	20-Dec-10 thru 29-Dec-19	\$25,000,000.00	20
MIDLE	Defense	AFRL-RHC	31-Dec-16 thru 31-Dec-18	\$3,499,999.00	8
LVC M&S (APTIMA)	Defense	AFRL	20-Dec-15 thru 29-Dec-29	\$15,000,000.00	20
HIRT Contract (Ball)	Defense	AFRL	20-Dec-16 thru 29-Dec-20	\$25,000,000.00	24
RAAST (IST)	Defense	AFRL	20-Dec-15 thru 29-Dec-20	\$45,000,000.00	40
HIRT Contract (IST)	Defense	AFRL	20-Dec-16 thru 29-Dec-20	\$25,000,000.00	24
L-3 WARFIGHTER	Defense	AFRL	31-Dec-16 thru 31-Dec-21	\$250,000,000.00	150
Trust in Autonomy	Defense	AFRL	15-Feb-16 thru 15-Feb-21	\$42,000,000.00	40
Biosensing	Defense	AFRL	31-Dec-16 thru 31-Dec-18	\$45,000,000.00	75
State Investment	STATE	Ohio	1-Jul-12 thru 30-Jun-15	\$22,000,000.00	25
HMT (ATB Follow-on)	Defense	AFRL	15-Feb-15 thru 15-Feb-20	\$42,000,000.00	40
				<b>\$818,924,914.00</b>	<b>483</b>

**Figure 9. Summary of the Human Performance Consortium and AHEAD Program results to date.**

Included is the 2016 report to the State Legislature on how these funds impacted the entire state Ohio with projection for the OFRN statewide. *File name is Legislature Brief Mar 16.* Figure 10 is a summary slide of the impacts statewide is provided below.



# AHEAD Collaboration Across Ohio

711<sup>th</sup> Human Performance Wing Annual Funding \$85M / Year  
~\$74M Now Stays in Ohio Because of AHEAD

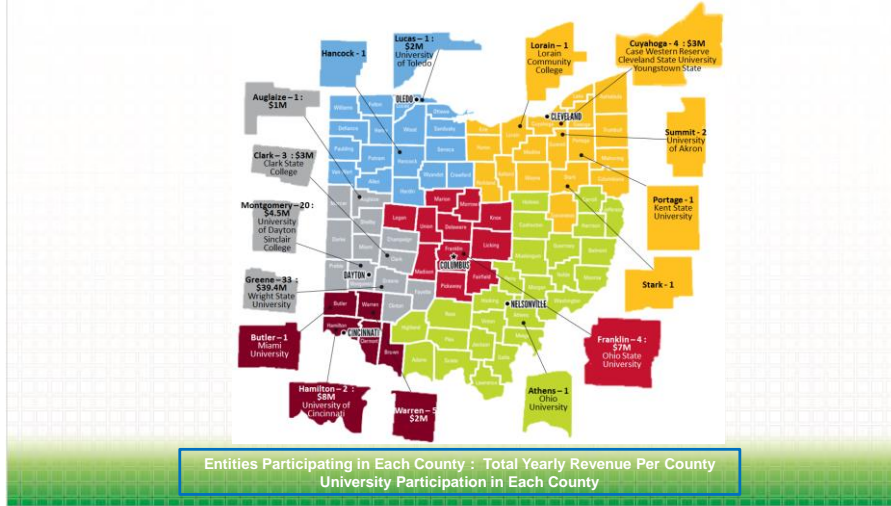


Figure 10. Summary of OFRN progress to date.

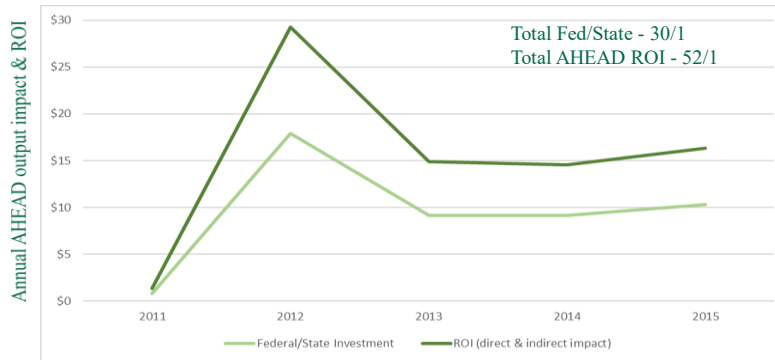
In addition, Cleveland State University (Center for Economic Development Maxine Goodman Levin College of Urban Affairs Cleveland State University) recently completed a full analysis of the impact of these Human Performance focused funds. This is summarized in the AHEAD Impact 8-7-17. As you can see in Figure 11 the impact has been quite pronounced for this region and Ohio. *File name is AHEAD impact\_8-2-17.*



Maxine Goodman Levin College of Urban Affairs

## ECONOMIC RETURNS ON \$1 OF SEED STATE INVESTMENT:

RATIO OF FEDERAL TO STATE FUNDING AND  
AHEAD IMPACT PER 1\$ OF STATE FUNDING



- Every dollar invested by the State generated \$30 of federal funding for research in Ohio
- Every dollar invested by the State is generating \$52 as AHEAD impact
- The impact is produced directly by companies/industries where federal investment was made and by their supply chain (direct and indirect impact)

Figure 11. Summary of AHEAD ROI since 2011.

**Q7: For the most recent month easily accessible, what is the monthly WSARC and WSRI payroll? It appears that repayment is delayed on payroll expenses for 60-days? If so, is the University providing a 60-day line of credit at no cost (i.e., interest-free)?**

The WSARC does not have employees nor would they be paid via the University payroll. The University should invoice WSARC the amount of the WSRI payroll as soon as the 5<sup>th</sup> business day of the following month (can be later) for the payroll from the prior month. WSARC then in turn invoices its' customers according to the WSARC contracts.

WSARC has an agreement with the University to remit payment to the University within 60 days from date of invoice. For example, On September 19, 2017, WSARC received an invoice for August WSRI employee payroll in the amount of \$572,068 and based on University policy, this must be paid before November 19, 2017. In addition, WSRI-WSARC also invoices the University for Items identified as allocable to the University for RSP managed contracts.

This is a common business practice amongst corporate entities that share resources; for example, an Engineer who performs work on a WSRI-RSP Grant (50%) and also performs work on a WSRI-WSARC Contract (50%) is paid by the University. The University would in turn invoice WSRI-WSARC for 50% of the work, and if leave was taken in any given month a pro-rata share of those costs are also allocated in line with the split effort. This is similar to a common business practice, used by corporations with subsidiaries that share common resources and staff, to keep the cost allocations clearly delineated between the two programs.

As for interest expense, we are not providing interest payments on the funds we owe the University as a part our 60-day payment agreement or on the funding owed as a part of the ATIC payment plan. Similarly, the University does not pay interest on funds owed to the WSARC.

**Q10: What administrative services does WSRI still obtain from WSU for their reduced indirect costs to contract? Who manages WSRI benefits and human resources, who does its purchasing, who does its IRB work, accounting, and research compliance? We suspect that WSRI is not truly functioning as an off-campus entity, but merely claiming to be one in order to be more cost competitive. Are the primary RSP and IRB needs of the campus faculty given priority to these services provided (for free?) to an affiliated entity? Does this make WSRI more cost competitive in comparison to WSU faculty, forcing them to work with WSRI to receive the same deal?**

As a WSU department, WSRI utilizes the same administrative services as any other department of the University. While I am not clear, what is meant by "reduced indirect costs to contract," WSRI-WSARC does not use WSU services or indirect staff resources to subsidize our indirect rate or contracts. However, we do use the supply procurement process and HR hiring practice policies mandated by the University.

WSRI's HR Business Partner is Latricia Milhouse – WSRI employees are Unclassified Special Contract University employees with benefits under WSU. WSRI follows University Policy with regards to employee recruitment and consults with WSU HR, however, WSRI conducts the interviews, does reference checks, etc. All WSRI employees are enrolled in all the same benefit plans as University employees and are subject to the same qualifying standards and costs.

As required by University Policy, WSRI makes purchases following University Policy via Wright Buy, or pro cards. WSRI-WSARC uses the Procurement system “Wright-Buy” however again, all the employee effort to source the material from vendors, obtain quotes, expediting, tracking vendor performance etc., are performed by WSARC-WSRI personnel. In addition, because of adding more departments together for procurement, WSU benefits from contractual volume savings.

WSRI contracts executed through RSP are managed through RSP for IRB, accounting, and compliance purposes. The University receives the F&A under these contracts to support the costs of those services and support. The IRB Board is maintained by WSU. The leg work involved in preparing what is required by the IRB board i.e. Responses to IRB board Questions, report preparation for review, etc. is also performed by WSRI-WSARC personnel. WSRI-WSARC program managers ensure that research compliance is maintained per the Statement of Work (SOW) we have contractually agreed to with our customer.

Support functions for WSRI contracts executed through WSARC are managed through internal WSRI finance and contracts staff. WSU accounting employees do not assist/participate in processing AR, AP, General Ledger, and financial statement preparation etc. for WSRI-WSARC. External audit costs relative to WSRI-WSARC are also invoiced separately and paid for by WSARC.

WSRI cannot comment on the work prioritization process for RSP in terms of workflow and work prioritization.

Because WSRI-WSARC is providing Applied Research services to our customer, the end customer pays actual costs. There is no subsidizing from WSU of any consequence to reduce costs to our end customer.

**Q15: Mr. Andersh mentioned that he had moved the ATRC research program out of WSRI and back to CECS for business reasons. This explanation is vague, and as we understand that the sensors-related research associated with ATRC was likely the largest and most successful instance of faculty collaboration with WSRI personnel, is there a more specific rationale for this move?**

The ATRC program was supported by both the SIRCUS and CLOWN contracts which were managed through WSARC. The decision to move the program was based on three factors: 1) In late 2016 and early 2017 WSRI re-evaluated the programs managed for continuity of mission and research direction; 2) The programs under the SIRCUS and CLOWN contracts were performing well, and operated on their own with little opportunity for additional



collaboration with other WSRI programs; 3) The CLOWN/SIRCUS supported employees all worked on campus or on the customer site and were not in WSRI HQ facilities.

In addition, due to a change in University Policy, in 2017 WSRI was no longer able to provide Dr. Rigling with a stipend as a faculty program director and it was his desire to also move the programs back to CECS.

A large part of the ATR Center program also involved supporting the ATR summer internships and the Image Truthing research program. These programs employed hundreds of students over the course of 6 years and many came from other institutions. It was confusing to the students to interact with WSRI for employment, the EE department for housing and travel and AFRL personnel for mentoring and research direction. In addition, it proved difficult for them to travel to WSRI if necessary to complete paperwork. Moving the summer internship program back to campus provides clarity and convenience for the students involved in these programs.

Due to these circumstances, it became clear that the CLOWN contract was set up to perform well going forward and it made sense to move the contract back over to campus, where the PI, Dr. Rigling, could access the full benefits of the contract.

WSRI transitioned a successful, well-run, well documented program back to campus.

**Q23: To what extent, historically, do Wright State Faculty members continue to work on WSRI projects beyond the first year?**

The slide shown in Figure 12 and presented at the Let’s Talk summarizes the current faculty working with WSRI. Many of these have been working with WSRI beyond the first year and have a solid collaborative relationship with current WSRI team members.

Current Contracts	Sponsor	Faculty	Duration (in years)
Precision High-Intensity Training through Epigenetics (PHITE)	ONR-MURI	Kadakia, Markey, Craig, Raymer	5
Human Performance and Health Sciences COE (HPS-COE)	OFRN	Raymer, Doran, Hitzler, Ganapathy	2
Mission-Directed Learning Environment (MIDLE)	AFRL	Ganapathy	2
Calamityville Operational Test Range	AFRL	Raymer	1.5
Advanced Cadaveric Training with Operational Realism (ACTOR)	AFSOC	Guthrie	3
Hybrid Forecasting Competition (HFC)	IARPA	Juvina, Ganapathy	4
Lapses of Attention Predicted in Semi-structured Ecological Settings (LAPSES)	ONR	Juvina, Harel	3
Maximizing the Collective Intelligence of a Network Using Novel Measures of Socio-Cognitive Diversity	ARO	Sheth, Shalin	3
Integrated Sense, Assess and Augment (ISAA)	AFRL	Elbasiouny	2
ACE-EM	AFRL	Sharma, Barton	1
<b>Pending Opportunities</b>			
Mixed-Initiative Goal Reasoning for Autonomous Team Engagements (MIGRATE)	AFRL/AFOSR	Gallimore, Harel, Doran, Houpt, Juvina, Ganapathy, Raymer, Hitzler	5

**Figure 12. WSU Faculty Members working with WSRI.**

**Q13: What assurances are there that WSRI/WSARC's priority is to build faculty**



**research? How is this visible in the metrics by which their performance is measured? What are the metrics for success and what levels is the performance considered success or failure?**

See answer to Questions 1 and 22.

Our strategic plan details our goals and objectives moving forward and how our performance will be measured by the WSARC Board, and the review councils based on those goals and objectives. It is also important to note that WSRI reports through University VPR and supports the department's mission in building University research.

In terms of employees, WSRI employees use the same performance appraisal system as all University employees to measure performance metrics.

**Q14: How is WSRI/WSARC planning to work with faculty moving forward? Is it true that all or almost all faculty that have worked with WSRI/WSARC for any significant period of time have ceased that relationship? Why?**

See answer to Questions 1, 22, and 23.

Some faculty members discontinued their relationship with WSRI when the old WSRI faculty director program ended. As a part of the faculty director program, faculty members received an extra stipend for working with WSRI.

Our experience has shown that most programs based on financial incentives to drive collaboration are not successful, the incentive needs to be value added collaboration. Currently 15 faculty members, as listed in the table summarized in Question 23, represent value added collaborations.

Dr. Subashini Ganapathy is one example. She was a WSRI faculty director for 3 years and she continues to work with WSRI very closely even though her stipend compensation has ended.

**Q16: Is it true that WSARC/WSRI no longer engages faculty directors in supervision of its research staff and programs? If the answer is by subcontract, then how is WSRI/WSARC different from a local company or nonprofit that also work with faculty by subcontract? What benefit does the university see from the subcontract arrangement, especially given that faculty will be charged a pass-through cost in addition to university F&A? Also, at least some examples of successful faculty-WSRI collaboration that were cited at the forum were through RSP, and not through a WSARC subcontract? Which of those examples were through RSP versus WSARC?**

The only Faculty Director that was a supervisor of WSRI staff was Dr. Rigling. Staff were hired using state funds and WSARC funds to support Dr. Rigling's research areas and they were all a part of the ATRC. When Dr. Rigling's programs were transferred back to campus, the staff was also transferred back to campus as is shown in Table 4.

Staff transferred back to CECS are shown in Table 4.

**Table 4. ATRC employees hired for Dr. Rigling and transferred to CECs on June 30, 2017.**

<b>SIRCUS CLOWN TEAM UNCLASSIFIED STAFF TEAM</b>				
Name	Position	Hire Date	Method	AA/OEI #
Fogle, Ryan	Engineering Researcher Senior Research	6/13/2011	Named in Grant	11G123
Dungan, Kerry	Engineer	4/8/2014	Named in Grant	14G082
Gogineni, Sandeep	Research Engineer Senior Research	11/1/2012	Competitive Posting	12P190
Mossing, John	Engineer Senior Research	12/15/2016	Competitive Posting	16P059
Nehrbass, John	Engineer	5/1/2014	Named in Grant	14G090
Qureshi, Tariq	Research Engineer	9/21/2015	Competitive Posting	15P238
Rosencrantz, Stephen	Research Scientist	9/19/2016	Competitive Posting	16P174
Scherreik, Matthew	Research Engineer	1/15/2015	Named in Grant	15G091
Setlur, Pawan	Research Engineer	1/25/2013	Competitive Posting	12P190
Short, David	Software Engineer	1/5/2015	Named in Grant Internal Promotion	15G083

The reason WSARC was created is to offer support to WSRI and WSU and so WSARC is similar to any other defense business in the community. See answer to Question 1.

There are no extra charges for subcontracting to the University faculty. When the WSARC subcontracts with the University/RSP, there is no pass-through charge. That is very different from how businesses operated in the defense industry. Most businesses locally charge anywhere from 3% to 20%. This includes other nonprofits like Battelle.

With any subcontract from WSRI/WSARC to WSU/RSP, the faculty gets full research credit and the campus then gets full F&A on each award.

See answers to Question 23 regarding collaborations that are working as discussed at the forum. These contracts are all through WSU RSP.

**Q32: During the forum, Mr. Andersh commented at one point that WSRI/WSARC no longer "hired for grant" personnel. A few minutes later when questioned by Tom Rooney about a recent, apparently "hired for grant" person, Dennis said that yes, they were still "hiring for grants" but doing it differently now (in compliance with WSU rules). Without that correction, everyone would have left the forum with an understanding of something that was, apparently, completely incorrect. Is there anything else said during the forum that need be similarly retracted?**

Mr. Andersh was clarifying that his original comment was regarding the "old named in grant process." WSRI continues to hire "named in grant" as the circumstances fall under University Policy and are approved by OEI, HR, and the Provost.

Previously, WSRI hired “named in grant” through a contract between WSARC and the University, without that extra oversight. This past practice has been eliminated and the intent of Mr. Andersh’s statement was to communicate that fact. If there were any other misunderstandings of the panelist’s statements, we are available to help clarify them as necessary.

**Q3: Bennett mentioned in the forum that Mr. Andersh had offered to support faculty research financially through WSARC-funded IR&D. Given that WSRI/WSARC income sheets still seem to show annual operating loss, how will this be funded?**

Independent Research and Development (IRAD) is an allowable cost used by companies to initiate and conduct research and development (R&D) projects of potential interest to DoD, and is reimbursed through overhead cost rates. This is built into the G&A rates and \$125K of IRAD has been budgeted in the WSARC FY18 rates. This is the first year we have been able to do so because we are now fully living within our rates, and we are able to make this a part of our WSARC business model.

The concept of the IRAD is:

WSRI-WSARC seeks to promote the WSU research enterprise by offering WSU faculty the opportunity to perform WSRI-WSARC focused and funded independent research and development (IRAD) projects in support of DOD research initiatives. It is not intended that faculty activities under the IRAD program include, or replace, the research projects or other University responsibilities, normally managed via the faculty member’s academic department and Research and Sponsored Programs (RSP). WSARC sponsored IRAD will be administered through a formal contract between WSARC and the University RSP office.

WSRI-WSARC sponsored IRAD projects:

1. Interested faculty may request consideration for IRAD support through the annual call for white papers process. This vetting process will take place annually in the March timeframe of each fiscal year. These projects will then be reviewed by WSRI staff and awarded as funds are available in the next fiscal year. Our first call for these white papers will be 1 March 2018 with subsequent calls each year as funds are available.
2. An IRAD project can start at any point throughout the WSARC fiscal year (1 July to 30 June) depending on the requirement and time criticality of performing the specific IRAD research project. Projects, however, can not run from one fiscal year to the next year. This means each project must be accomplished in the timeframe from 1 July to 30 June of a given fiscal year. A project that requires work over the summer will need to be broken into two separate projects. The Faculty member time and efforts associated with IRAD projects will normally not exceed more than one day (8 hours) per week.
3. The responsibilities of the faculty receiving the IRAD project awards are summarized here. The faculty member and/or students will:
  - a. Work collaboratively with a WSRI researcher to complete the work and ensure it meets the DoD requirements of the IRAD program.

- b. Provide the time and effort required for successful execution of their WSRI - WSARC sponsored IRAD project.
  - c. Promote transparency, always act ethically, ensure compliance, and collaborate across our University.
  - d. Provide IRAD deliverables specified by the IRAD contract.
4. Compensation: WSARC will fund awarded IRAD projects through the WSU Office of Research and Sponsored Programs (RSP). RSP will manage any faculty and or student(s) compensation associated with an IRAD project utilizing standard RSP processes and procedures for outside sponsored research programs.

Criteria for receiving IRAD funding:

- 1. Research in this program must be focused on WSRI - WSARC research areas and led by a WSRI researcher or program manager with emphasis on developing new research and development capabilities to better support WSRI DOD customers.
- 2. Faculty members must obtain approval from their respective College/School Dean prior to participation in this program.
- 3. If the Dean approves the IRAD, the Executive Director of WSRI will review and provide written documentation back to the faculty member and Dean regarding approval.

Definition: Independent Research and Development (IRAD) is a DFAR allowable cost that enables companies to initiate and conduct research and development (R&D) projects of potential interest to DoD, and is reimbursed through overhead cost rates.

**Q4: How can the Faculty, and the public, see detailed (open records) financial reports that show how (A) incoming funds are used to benefit the University budget, (B) University resources are spent on WSARC/WSRI (including salary value of time spent on WSARC matters by personnel on the WSU payroll, including the VPR, CEO of WSARC, WSRI personnel, HR, procurement, legal, financial, etc.), (C) Indirect rates and how these rates differ from faculty contracts, (D) detailed flows of income and expense to/from the University.**

Wright State Research Institute (WSRI) is a department of Wright State University that reports through the Research and Sponsored Programs Office (RSP) and that oversight and information sharing operates like any other University department. In addition, The WSARC Board of Directors oversees financial self-sufficiency and compliance with all WSU, State and Federal laws, and requirements as well as ensuring the WSARC is following all policies and procedures.

The public and faculty can review our annual audited financial statements available at <https://ohioauditor.gov/AuditSearch/search.aspx>. These are prepared by an independent third party and the WSARC Board has the oversight for these financials and compliance. As a part of the EAC and RAC oversight, there will also be regular reports moving forward. (See Question 1).

We continue to work to ensure our ongoing communications will provide opportunities for the faculty to continue to learn more about the projects and ask specific questions outside the annual audit report.

Item B of your question is addressed in our response to Question 7.

In the case of how indirect rates differ, the WSU indirect rates are negotiated in advance and are “locked in” over several years, whereas WSARC rates are negotiated and approved annually with the government. This means they can be adjusted accordingly to meet actual costs. In addition, the majority of WSARC contracts are considered “Cost Type” and can be adjusted & billed for additional indirect costs; which is not the case for WSU grants, which are “locked in for at least a 4-year period.”

For Item D of this question, we have answered this in Question 7 on Page 30.

**Q5: What evidence is there that WSRI and WSARC are self-supporting? We have been told this many times, but financial reports show a net loss nearly every year. 2016 appears to be a profit, but this appears to be due to the University’s write off of \$4.5 Million appearing as income; if so, that year also shows a loss of approximately half a million? Do the Trustees and President have confidence in WSARC financial stability, business plan, and management?**

We understand the concerns and we will continue to focus on building confidence through transparency, compliance and meeting our goals. The \$4.384M write-off on June 30, 2016 was for an accumulated loss dating back to 2009. On the audited financial reports, this was shown as an asset change at the bottom line per the direction of the University. It is challenging because the write off documentation could lead to misinterpretation. It is a loss and the cumulative write-off and how it was calculated is shown in Figure 13.

WSARC Due to/From WSU		
As of June 30, 2016		
WSARC due to WSU, per WSU		
Billed AR	\$ 10,678,813.78	
Unbilled AR	705,706.30	
Total		\$ 11,384,520.08
WSARC 06/30/2016 payments received by WSU after yearend		
WSARC check 5490	\$ (950,133.52)	
WSARC check 5492	(192,857.20)	
Total		\$ (1,142,990.72)
Payment discrepancies between WSU and WSARC <sup>note 1</sup>		9,133.38
Adjusted WSARC due to WSU <sup>note 2</sup>		\$ 10,250,662.74
Offset for invoices unpaid by WSU		
WSU due to WSARC	\$ (955,455.49)	
WSU Mkt due to WSARC	(238,915.86)	
WSU NURS due to WSARC	(298,631.18)	
WSU WSRI due to WSARC	(4,197.91)	
WSU SOM due to WSARC	(178,166.00)	
Subtotal	\$ (1,675,366.44)	
Other invoices	(140,512.41)	
Total		\$ (1,815,878.85) <- amount to be offset against WSARC due to WSU
Balance WSARC Due to WSU		\$ 8,434,783.89
WSU write off of unbillable WSARC contract balances		
FY16 Unbillable due to old contracts (WBI)	\$ (253,134.75)	FY16 Unbillable from old WBI contracts.
FY10 to FY15 Cumulative	(4,131,325.00)	
Total		\$ (4,384,459.75) <- amount to be written off as bad debt
Adjusted WSARC due to WSU		\$ 4,050,324.14

**Figure 13. Due to and Due from WSARC as of June 30, 2016.**

The funds due to WSARC from WSU are detailed in Figure 14. This was an accumulation of unpaid WSU expenses due to WSARC, dating back to 2013.


 <b>WRIGHT STATE APPLIED RESEARCH CORPORATION</b>		Billing Date: July 15, 2016 Billing #: STATEMENT
To: Wright State University 3640 Colonel Glenn Hwy Dayton, OH 45435	From: W Applied Research Corp 4035 Colonel Glenn Hwy Dayton, OH 45431	
Account Number: 0121-WSUEDU		
	<u>Invoice</u>	<u>Amount Invoiced</u>
<u>WSU</u>		
FY14-RDCAP Buildout	WSUEDU-18	908,646.00
FY14-EM Operating Expenses	WSUEDU-11	141.00
FY15-CORBUS Bldg electric, light, etc	WSUEDU-17	7,783.00
FY15-Shingedecker	WSU-19	2,068.18
FY15-CORBUS Phone Expenses	WSUEDU-17	13,580.00
FY15-Telecommunications Install	WSUEDU-08	23,237.31
<b>Total</b>		<b>955,455.49</b>
<u>WSU-WSRI</u>		
FY14-Operating Expenses	WSUEDU-15	125,273.00
FY14-Phone Expenses	WSUEDU-15	3,642.86
FY15-Operating Expenses	WSUEDU-16	110,000.00
<b>Total</b>		<b>238,915.86</b>
<u>WSU-MARKETING</u>		
FY14-Marketing Operating Expenses-pt2	WSUEDU-11	96,928.82
FY15-Marketing Operating Expenses	WSUEDU-12	110,000.00
FY16-Marketing Operating Expenses	WSU-21	91,702.36
<b>Total</b>		<b>298,631.18</b>
<u>WSU-NURSING</u>		
FY14-Nursing Operating Expenses	WSUEDU-11	4,197.91
<b>Total</b>		<b>4,197.91</b>
<u>WSU-SOM</u>		
FY15-SSD Legal Fees for Midwest & CLEAT	WSUEDU-14	28,166.00
FY14-Midwest Clinical Research	WSUEDU-13	150,000.00
<b>Total</b>		<b>178,166.00</b>
<b>Total Amount Due</b>		<b>\$ 1,675,366.44</b>
<u>Other Invoices</u>		
FY13-Heddleston Support	MISC-005-1 & MISC-005-2	26,666.64
Interlocking Strategies	MISC-015-1 thru MISC-015-6	113,845.77
		140,512.41
		<b>1,815,878.85</b>
<b>STATEMENT</b>		

Figure 14. Funds due to WSARC from WSU as of June 30, 2016.

Figure 15 summarizes the details of the cumulative WSARC contract write offs due to overruns and not fully recovering indirect costs. This figure shows what efforts these write-offs were tied to.

<b>WSARC Cumulative Contract Losses</b>		
2009-2015		
As of 30-Jun-16		
<b>Itemized Source of Unbillable Indirect</b>	<b>Contract Loss</b>	<b>Corrective Actions.</b>
A) Unbillable Indirect Related to MISC (No F/A; 2009-2015)	(\$147,965)	Billed full rates FY16 Forward
B) Unbillable Indirect Related to WBI/AFRL (15% F/A CAP; 2009-2015)	(1,011,552)	Contract ends in FY17
C) Unbillable Indirect Related to CECS project (No F/A; 2013-2015)	(25,482)	Contract ended in FY16
D) Unbillable Indirect Related to Nursing (No F/A; 2013-2015)	(1,078)	Billed full rates FY16 Forward
E) Unbillable Indirect Related to COP (15% F/A CAP; 2010-2015)	(129,941)	Contract ended in FY16
F) Unbillable Indirect Related to ATB & LVC (No WSARC OH; 2012-2015)	(269,716)	Contract ended in FY16
G) Unbillable Indirect Related to DDC DPI (15% F/A CAP; 2012-2015)	(782,458)	Contract ended in FY16
H) Unbillable Indirect Related to other contracts (No F/A; 2012-2015)	(227,495)	Billed full rates FY16 Forward
I) Unbillable Indirect Related to Advratech (15% F/A CAP; 2103-2014)	(41,701)	Billed full rates FY16 Forward
J) Unbillable Indirect Related to ATIC (No F/A; 2014-2015)	(415,808)	Billed full rates FY16 Forward
<b>Subtotal Unbillable Indirect</b>	<b>(3,053,198)</b>	
<b>Itemized Source of Cost Overrun</b>		
Labor Cost Overrun	(219,805)	Reduced OH/GA Staff
ODC Cost Overrun	(634,112)	Billed full rates FY16 Forward
Indirect Cost Overrun	(225,210)	Reduced OH/GA Staff
Subtotal Cost Overrun	(1,079,127)	
<b>Grand Total Contract Profit (Losses)</b>	<b>(\$4,132,325)</b>	

**Figure 15. Funds due to WSU from WSARC as of June 30, 2016.**

The WSARC was supposed to provide total cost recovery and in the past, that was not done. WSU made the decision to write off the \$4.384M in 2016 because there was no way to recover those costs. (See page 9 of the 2016 Annual Audit Report, by Crowe Horwath)

However, future gains and losses will be added to or taken from WSARC's Net Asset Value presented on the WSARC Balance Sheet and not consolidated or transferred to WSU.

The year-end Unrestricted Net Asset balance for the Fiscal Year ending June 30, 2017 for WSARC will be \$5.022M.

It is important to note that simply adding the income statements year to year is not an accurate measure of the financial picture. Year to year income statements are cumulative, and taking the bottom line from year to year and simply adding them up does not reflect the actual state of the company. To get a complete picture requires a look at the balance sheet and income statement together. We have provided both in these responses.

In addition, from a financial perspective, WSRI differs from other University departments in that we are required to be completely self-sufficient and we receive zero base budget from the University. All other departments receive base budgeting, and the F&A they generate is in addition to their base budget. All research work on campus operates according to that set budget and sponsors are invoiced or federal grant funds are drawn down to pay for expenses.

Over the past two years, WSRI has significantly reduced our indirect costs. This includes eliminating 47 (indirect or unfunded) positions over the past 18 months and we have a 41% reduction in costs from FY17 to FY18. A detailed FY18 budget for WSRI was provided to WSU as a part of the University wide FY18 budget remediation efforts.

Since all WSRI staff uses a total time accounting system (Deltek CostPoint), any time a WSRI employee spends time supporting WSARC it is automatically charged to WSARC. Therefore, WSU and the WSRI F&A do not pay or subsidize anything that benefits WSARC.

WSU, as enacted by RSP, and WSARC have two different cognizant agencies which determine their indirect cost rates. WSRI projects executed through RSP, use the University F&A rate.

- A. WSU uses F&A rates negotiated through DHHS. Current on-campus rate is 50% of MTDC (off-campus is 26%). These negotiated rates are established every few years, subject to a detailed analysis by DHHS and are typically in place for 3-5 years.
- F&A recovery is handled centrally at the University, and a funding stream, representing some portion of that revenue (historically about 21%), is provided via the University budget each year (handled by the VPR) to the units that generate the actual F&A revenue. Note that BSOM retains 100% of their grant F&A revenue but pays WSU for specific services.
  - The original business plan design for WSRI included an agreement with the University that WSRI would retain 100% of the F&A revenue generated from its grants and contracts executed through RSP. Table 12 shows the total WSRI F&A revenue since 2009 (second line from bottom). However, because WSRI has made significant payments in direct support of faculty and college research (via F&A return to college and faculty directors and stipend payments to researchers) in reality, WSRI only retained on average about 80% of its generated F&A.
  - In FY18, WSRI will only retain enough F&A to cover essential costs ~\$150K plus enough to pay back the F&A owed to Dr. Rigling and Dr. Ganapathy and their respective college units for FY17 (~\$180K). The remaining F&A will stay with the University.
  - In June of 2016, the WSRI F&A reserves of \$1.1M were taken back by the University. This left WSRI without F&A retained funds that were sufficient to pay the FY16 F&A owed to Dr. Rigling and Dr. Ganapathy. As a result, those payments were made using the FY17 F&A pool. As a result, it created the need to pay the FY17 F&A due to Dr. Rigling and Dr. Ganapathy using our FY18 F&A pool.
  - Figure 16 shows that in some years as much as 36% of WSRI's F&A revenue was returned to campus. Since 2009, WSRI has returned more than \$2.25M directly back to the University, from a total F&A generation of ~\$11M.



WSRI Total F&A Distributions										
College/ Unit Allocations	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17*	Grand Total
CECS	\$ 62,414	\$ -	\$ 65,620	\$ 126,062	\$ 185,054	\$ 196,590	\$ 389,056	\$126,608		\$ 1,151,404
COSM	9,030	-	27,923	-	11,855	23,109	1,851	0		\$ 73,768
NCMR	-	-	50,485	-	11,482	-	-	0		\$ 61,967
CTRA (now BSOM)	-	-	-	-	-	5,007	23,642	21,531	9,881	\$ 60,061
<b>College/ Unit Totals</b>	<b>\$71,444</b>	<b>\$0</b>	<b>\$144,028</b>	<b>\$126,062</b>	<b>\$208,391</b>	<b>\$224,706</b>	<b>\$414,549</b>	<b>\$148,140</b>	<b>\$9,881</b>	<b>\$1,347,201</b>
<b>Faculty Director F&amp;A RIF Awards</b>										
Narayanan, Sundaram	\$ -	\$ -	\$22,751	\$17,478	\$45,674	\$33,209	\$45,285			\$ 164,396
Ganapathy, Subhashini								16,094		\$ 16,094
Rigling, Brian D.	-	-	8,027	20,989	37,994	42,098	64,399	110,514		\$ 284,021
Doug Petkie	-	14,075	-	15,550	1,540	-	-	-		\$ 31,165
<b>Faculty Director F&amp;A Awards</b>	<b>\$ -</b>	<b>\$ 14,075</b>	<b>\$ 30,778</b>	<b>\$ 54,017</b>	<b>\$ 85,207</b>	<b>\$ 75,307</b>	<b>\$ 109,684</b>	<b>\$ 126,608</b>	<b>\$ -</b>	<b>\$ 495,676</b>
<b>Faculty Director Stipend Funding</b>										
Narayanan, Sundaram	\$19,166	22,408	\$ 1,667	\$ 20,454	\$ 24,999	\$ 25,500	\$ -			\$ 114,194
Rigling, Brian D.	6,000	8,086	7,500	15,300	15,606	15,606	19,700	24,000	18,000	129,798
Doug Petkie	6,000	2,000	-	-	8,427	-	-	-	-	16,427
Zachariah Fuch	-	-	-	-	-	-	-	-	-	-
Luther Palmer	-	-	-	-	-	-	-	-	-	-
Michael Saville	-	-	-	-	-	-	75,596			75,596
Subhashini Ganapathy								6,000	4,500	10,500
John Gallagher,								6,000	1,500	7,500
Marty Emmert (John M)								6,000	1,500	7,500
Ryan Fendley		16,206								16,206
Kazmierczuk, Marian		15,361								15,361
Srinivasan, Raghavan	6,000									6,000
Trischer, Simon		1,250								1,250
Wysong, Mark		11,853								11,853
<b>Faculty Director Stipend Funding</b>	<b>\$ 37,166</b>	<b>\$ 77,164</b>	<b>\$ 9,167</b>	<b>\$ 35,754</b>	<b>\$ 49,032</b>	<b>\$ 41,106</b>	<b>\$ 95,296</b>	<b>\$ 42,000</b>	<b>\$ 25,500</b>	<b>\$ 412,185</b>
<b>Total WSRI returns to Campus</b>	<b>\$108,610</b>	<b>\$91,239</b>	<b>\$183,973</b>	<b>\$215,833</b>	<b>\$342,631</b>	<b>\$341,119</b>	<b>\$619,529</b>	<b>\$316,748</b>	<b>\$35,381</b>	<b>\$2,255,062</b>
<b>Total WSRI F&amp;A Revenue</b>	<b>\$ 422,870</b>	<b>\$ 661,061</b>	<b>\$ 1,173,247</b>	<b>\$ 1,384,602</b>	<b>\$ 1,364,049</b>	<b>\$ 1,231,809</b>	<b>\$ 1,695,768</b>	<b>\$ 1,962,538</b>	<b>\$ 2,031,897</b>	<b>\$11,927,840</b>
<b>% Directly Returned to Campus</b>	<b>25.68%</b>	<b>13.80%</b>	<b>15.68%</b>	<b>15.59%</b>	<b>25.12%</b>	<b>27.69%</b>	<b>36.53%</b>	<b>16.14%</b>	<b>1.74%</b>	<b>18.91%</b>

\* Year to date through FY17  
 No Return to Colleges or Directors have been made yet in FY17. Plan to distribute ~\$185K  
 Note: Total WSRI F&A revenue doesn't include CTRA

Figure 16: WSRI/RSP F&A Revenue and Distribution to Campus Researchers and Colleges, 2009-Present

- The F&A revenue retained by WSRI is required to cover all operational expenses (IT, marketing, business development, HR hiring and staff development, security, white paper and proposal generation, travel, etc.) for WSRI and its research programs. WSARC’s overall operational budget, as approved by the WSARC Board of Directors, is supported entirely by the OH and G&A recovered by WSARC contracts. The budget is very detailed and is developed in a way that it ensures that all operational costs are assigned to the correct funding code (F&A, Overhead and / or G&A). As a result, WSRI has a total budget that is set up to be self-sustaining and without any base budget support from the University. The Board provides the approval and holds the team accountable for that budget and performance to it.
- B. WSRI research programs, using WSARC rates, established through DCAA, are designed to generate full cost recovery for operations as shown in Figure 1. WSARC can modify its rates, as needed, to adjust for actual costs at least on an annual basis.
- C. For Example, Georgia Tech’s (GT) research institute (GTRI) subcontracts with GT for all work, so the University always recovers its established F&A rate. GT then always subcontracts to GTRI to also allow GTRI to fully recover its operational costs and provide a fiscal firewall between the two organizations. Currently this isn’t how it operates here. WSARC now subcontracts all WSU work back to the campus, so the faculty and campus

get all their F&A returned and the next step is to have all WSU work with WSARC subcontracted, as is the best practice modeled at GT and GTRI.

GTARC, the contracting arm for GT’s Research Institute <http://www.gtarc.gatech.edu/> is the benchmark model, upon which programs like WSARC are based. Other examples include the Virginia Applied Research Institute at the University of Virginia, <http://www.uvaari.org/site/>; and the Penn State Applied Research Laboratory, <https://www.arl.psu.edu/index.php/>. An ARC provides many advantages to its host university, most importantly increasing the research portfolio and research funding of the university. Other advantages include; full cost recovery, DFARS-compliant timekeeping, secure facilities, security compliance (to include ITAR and EAR), efficient contracting and financial reporting.

WSRI will keep enough of the FY18 F&A generated to cover costs, and remain DCAA compliant with total time accounting.

- WSRI contracts executed through RSP must be used to cover the associated WSRI RSP F&A indirect costs.
- WSRI contracts executed through WSARC must pay for indirect costs captured in the WSRI/WSARC OH/GA pools. These two cannot mix, or it will be non-compliant with total cost accounting requirements of an A-122 organization.

The WSRI-WSARC and WSRI- RSP Budget Summary for FY18 are included in Figure 17 and 18. As illustrated in Figure 17, there were significant budget reductions in WSRI admin costs (F/A) from FY17 to FY18. As previously shared, this was accomplished by the reduction of indirect positions at WSRI. The change in the FY17 budget decrease for “other budget line” of Figure 17 represents the budget line used to pay Faculty Directors F&A transfers and stipends in FY17 with no payments planned in FY18 since the faculty director program of the past had been eliminated.

INDIRECT COSTS	WSRI/WSARC						WSRI/RSP	
	Client		Company		G&A		17 Projection	18 Budget
	17 Projection	18 Budget	17 Projection	18 Budget	17 Projection	18 Budget		
Indirect Labor	\$48,153	\$60,299	\$297,125	\$351,799	\$279,555	\$451,304	\$1,172,479	\$57,404
PTO Fringe	\$9,614	\$12,114	\$59,323	\$70,676	\$55,815	\$90,667	\$234,094	\$11,532
Travel & Food	170	0	18,620	28,000	3,400	0	18,716	0
IT & Comm	700	0	2,400	25,000	97,912	77,712	35,494	0
Supplies	0	0	2,600	2,500	3,600	1,500	3,400	0
Consulting	0	0	227,800	288,000	153,950	101,583	0	0
Prof Dev	0	8,000	0	5,400	0	3,600	965	0
Promotions	0	0	0	0	0	0	1,134	0
Other	0	0	150	130,000	800	0	397,355	0
Facilities	54,359	2,619	366,160	273,373	0	0	0	0
Finance	0	0	0	0	0	0	0	0
Legal	0	0	2,500	0	236,852	175,479	0	0
ATIC_LS	0	0	0	0	0	0	0	0
BLDG	0	0	263,439	514,643	42,490	52,832	242,194	92,923
SHARED	127,043	133,907	203,741	253,134	22,300	0	209,823	41,450
LAB	0	0	65,696	68,821	0	0	0	0
OH_SC	360,622	223,793	398,726	423,053	0	0	0	0
BIDS Labor	13,357	19,026	138,338	256,405	151,694	275,431	0	0
IRAD Labor	0	0	0	33,308	0	33,308	0	0
B/I PTO Fringe	2,667	3,822	27,620	58,203	30,287	62,026	0	0
BIDS Other					24,800	62,000	0	0
IRAD Other					0	85,000	0	0
<b>Subtotal Indirect Costs</b>	<b>600,660</b>	<b>440,731</b>	<b>1,908,280</b>	<b>2,434,400</b>	<b>1,103,456</b>	<b>1,472,442</b>	<b>2,315,654</b>	<b>203,310</b>

Figure 17. WSRI Indirect Budget for FY18 as compared to FY17.

Figure 19 illustrates the FY18 direct labor budget plan for WSRI RSP and WSARC. This was the projected direct labor and other direct contract charges across WSRI RSP and WSRI WSARC contracts. This budget was built and implemented prior to July 1, 2017 and is the measurement baseline for FY18.

COSTS	WSRI/WSARC						WSRI/RSP	
	Client		Company		G&A		17 Projection	18 Budget
	17 Projection	18 Budget	17 Projection	18 Budget	17 Projection	18 Budget		
<b>DIRECT COSTS</b>								
Direct Labor	1,472,080	1,825,506	1,627,622	3,450,889	3,099,702	5,276,396	4,488,703	565,079
PTO Fringe	293,912	366,744	324,967	693,284	618,878	1,060,028	896,202	113,524
Travel & Food					89,346	416,531	168,250	0
IT & Comm					0	15,000	780	0
Supplies					193,075	19,050	64,900	0
Consulting					144,579	410,036	704,200	0
Finance					0	0	0	0
Other					235,840	413,741	35,750	0
Facilities					2,300	28,270	300	0
Subcon \$25K					346,807	593,873	1,571,207	0
Subcon > \$25K					10,448,288	14,531,905	752,230	0
ATIC_ED								
CWD					0	0		
DLVC					8,625	5,760		
NCMR					60,199	110,039		
MTEC					86,428	199,537		
UAV					2,678	0		
<b>Subtotal Direct Costs</b>	<b>\$1,765,992</b>	<b>\$2,192,251</b>	<b>\$1,952,589</b>	<b>\$4,144,173</b>	<b>\$15,336,746</b>	<b>\$23,080,166</b>	<b>\$8,682,523</b>	<b>\$678,603</b>

Figure 18. WSRI Direct Budget Summary for FY18 as compared to FY17.

Figure 19 and Figure 20 are the actual financial results as of FY17 for WSRI RSP contracts and WSRI WSARC contracts.

WSRI Consolidated Statement of Activity			
FOR THE PERIOD ENDING 30-JUN-2017			
DIVISION	WSRI-WSARC	WSRI-RSP	CONSOLIDATED
<b>Revenue</b>			
Contract & Grant Revenue	20,048,161	13,600,192	33,648,353
Commercial Revenue	409,001	0	409,001
	<b>20,457,162</b>	<b>13,600,192</b>	<b>34,057,354</b>
<b>DIRECT COSTS</b>			
Direct Labor	2,966,705	6,178,195	9,144,900
Travel	130,890	233,491	364,381
Maintenance & Supplies	196,192	549,478	745,670
Subcontract Costs	13,480,883	4,422,380	17,903,263
Other Direct Cost	760,412	121,868	882,280
	<b>17,535,083</b>	<b>11,505,412</b>	<b>29,040,494</b>
<b>COST OF OPERATIONS</b>			
Fringe benefits	994,202	0	994,202
Overhead*	1,895,479	2,007,253	3,902,732
General & Admin	1,073,053	87,528	1,160,581
	<b>3,962,735</b>	<b>2,094,781</b>	<b>6,057,515</b>
<b>GROSS PROFIT FROM OPERATIONS</b>	<b>(1,040,656)</b>	<b>0</b>	<b>(1,040,656)</b>
<b>OTHER INCOME/EXPENSE</b>	56,267	0	56,267
Other Unallowable Exp/Income	(126,838)	0	(126,838)
<b>Change in Net Assets</b>	<b>(857,550)</b>	<b>0</b>	<b>(857,550)</b>
<b>*Depreciation Expense</b>	<b>637,167</b>	<b>0</b>	<b>637,167</b>
<b>Change in Net Assets (Excluding Depreciation)</b>	<b>(220,383)</b>	<b>0</b>	<b>(220,383)</b>

Figure 19 . WSRI's Income Statement Performance Results as of June 30, 2017.

Wright State Applied Research Corp				
			Page 0 of 2	
<b>Balance Sheet</b>			10/24/17	
Organization: 1 Consolidation			04:32 PM	
As of 06/30/17				
<b>Assets</b>				
<b>Current Assets</b>				
Cash	12,025,251.00			
Billed Receivables	2,117,596.00			
Unbilled Receivables	2,178,473.00			
Due from WSU	1,011,637.00			
Prepaid Expenses	56,112.00			
Other Receivable	28,190.00			
	17,417,259.00			
<b>Fixed Assets</b>				
Land	751,085.40			
Buildings	2,167,474.19			
Equipment	1,493,574.47			
Furniture & Fixtures	1,155,636.84			
Computer Hardware/Software	2,715,163.41			
Less Accumulated Depr & Amort	-3,799,910.58			
	4,483,023.73			
<b>Other Assets</b>				
Other Assets	1,603,000.00			
	1,603,000.00			
	23,503,282.73			
<b>Liabilities &amp; Equity</b>				
<b>Current Liabilities</b>				
Accounts Payable & Accrued Expenses	4,112,896.10			
Due to WSU	2,954,955.00			
Deferred Revenue	11,413,365.00			
Deferred Revenue	0.00			
Other Current Liabilities	0.00			
	18,481,216.10			
<b>Stockholders Equity</b>				
Net Assets - Unrestricted	5,022,066.63			
	5,022,066.63			
	23,503,282.73			

Figure 20. WSARC Balance Sheet as of June 30, 2017

To ensure that WSRI lives within the WSARC and University rates, it is critical that we aggressively fill all direct funded positions on current and recently awarded contracts. We are required to end FY18 operating within our projected and approved rates. As a result, the following actions have been taken to ensure we accomplish this objective:

- WSRI worked aggressively to fill the 10 direct contract positions by the end of FY17. All of these new staff hires were done following the University HR hiring process.
  - Hired 4 direct charge PhD's
  - Hired 6 other direct staff members
  - These hires generates ~\$200K per month of OH and G&A
- WSRI further reduced overhead by eliminating 6.25 FTE's
  - Cost savings of ~\$100K per month
- WSRI adjusted the WSARC rates to recover all costs for WSARC before the end of the FY17. As a result, our final FY17 income statement and balance sheet was shown in Figures 18 and 19.

Figure 21 is a summary of the due to and due from WSU and WSARC as of September 30, 2017. As is illustrated in Figure 21, the WSARC is reducing the “due to WSU” and is meeting the net 60 payments terms to WSU. Figure 22 is our current operational performance as compared to our FY18 Budget. Figure 23 is our FY18 balance sheet as of September 30, 2017.



Current Due To/From WSU/WSARC  
Trends since July 2016

WSARC Due To/From WSU As of 31-Jul-16		WSARC Due To/From WSU As of 30-Sep-17	
<b>WSARC due to WSU</b>	4,050,324	<b>WSARC due to WSU*</b>	4,427,014
WSU Marketing Rent	0	WSU Marketing Rent*	230,216
WSRI Building/Shared Svs	0	WSRI Building/Shared Svs*	631,582
<b>Unpaid from WSU</b>	<b>0</b>	<b>Due from WSU</b>	<b>861,798</b>
<b>Balance WSARC Due to WSU</b>	<b>4,050,324</b>	<b>Balance WSARC Due to WSU</b>	<b>3,565,216</b>
Contracts Billed FY15	0	Current Billed due from WSU- Contracts	138,455
Contracts Billed FY16	0	Current Unbilled due from WSU- Contracts	236,350
<b>Subtotal Contracts</b>	<b>0</b>	<b>Subtotal Contracts</b>	<b>374,805</b>
<b>WSARC Total Debt Balance</b>	<b>4,050,324</b>	<b>WSARC Total Debt Balance-Net</b>	<b>3,190,411</b>
<b>Unpaid WSU affiliate to WSARC</b>		<b>Unpaid WSU affiliate to WSARC</b>	
WSARC Due to WSU for ATIC Bills	(1,335,171)	WSARC Due to WSU for ATIC Bills	(830,805)
<small>•ATIC/ATIC Classes to pay back over five years</small>		<small>•ATIC/ATIC Classes to pay back over five years</small>	
<b>WSARC Total Net Debt balance</b>	<b>2,715,153</b>	<b>WSARC Total Net Debt balance</b>	<b>2,359,606</b>

The due to WSU amounts at this time are timing of payments from Federal Contract invoices for the WSARC.

WSARC paid WSU ~\$215K in FY17.

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Figure 22. Actual Results as of September 30, 2017 for Due to and Due From WSARC/WSU.

Organization: 1 WSRI				
	07/01/17 09/30/17	Budget	Actual As A Percent of Revenue	YTD Variance
<b>Revenue</b>				
Government Revenue	8,388,835.74	7,157,858.76		1,230,976.98
Commercial Revenue	119,708.25	0.00		119,708.25
Other Revenue	0.00	0.00	0.00%	0.00
	8,508,543.99	7,157,858.76	100.00%	1,350,685.23
<b>Direct Costs</b>				
Direct Labor	1,257,254.45	1,555,210.74	14.78%	297,956.29
Travel	46,326.79	104,132.76	0.54%	57,805.97
Equipment & Materials	320,573.28	3,750.00	3.77%	-316,823.28
Maintenance & Supplies	806.38	4,762.50	0.01%	3,956.12
Subcontractors	5,302,459.85	3,735,485.25	62.32%	-1,566,974.60
Other Direct Costs	149,549.48	180,829.26	1.76%	31,279.78
	7,076,970.23	5,584,170.51	83.18%	-1,492,799.72
<b>Gross Margin</b>				
<b>Cost of Operations</b>				
Fringe Benefits	287,668.12	381,674.61	3.38%	94,006.49
Overhead	684,311.86	500,796.15	8.04%	-183,515.71
Facilities	126,749.45	13,208.01	1.49%	-113,541.44
G&A	431,748.55	194,244.51	5.07%	-237,504.04
B&P	47,130.02	105,607.74	0.55%	58,477.72
IR&D	0.00	8,327.01	0.00%	8,327.01
Unallowables	32,122.96	14,250.00	0.38%	-17,872.96
	1,609,730.96	1,218,108.03	18.91%	-391,622.93
	-178,157.20	355,580.22	-2.09%	-533,737.42
<b>Gross Margin</b>				
<b>Other Expenses</b>				
Other Income/Expense	2,510.07			
<b>Net Income Before Taxes</b>	<b>-180,667.27</b>			
Add Depreciation	183,350.07			
<b>Net Income Excluding Depreciation</b>	<b>2,682.80</b>			

Figure 22. WSRI Actual Results as of September 30, 2017 as compared to our FY18 Budget.

<b>Wright State Applied Research Corp</b>		Page 0 of 2
<b>Balance Sheet</b>		10/24/17
Organization: 1 Consolidation		06:46 PM
As of 09/30/17		
<b>Assets</b>		
<b>Current Assets</b>		
Cash	10,543,645.16	
Billed Receivables	2,555,127.29	
Unbilled Receivables	703,344.95	
Due from WSU	1,155,691.71	
Prepaid Expenses	70,517.11	
Other Receivable	0.00	
	15,028,326.22	
<b>Fixed Assets</b>		
Land	751,085.40	
Buildings	2,167,474.19	
Equipment	1,493,574.47	
Furniture & Fixtures	1,155,636.84	
Computer Hardware/Software	2,821,413.71	
Less Accumulated Depr & Amort	-3,983,260.65	
	4,405,923.96	
<b>Other Assets</b>		
Other Assets	1,595,500.00	
	1,595,500.00	
	21,029,750.18	
<b>Liabilities &amp; Equity</b>		
<b>Current Liabilities</b>		
Accounts Payable	4,085,253.40	
Accrued Salaries	70,052.52	
Due to WSU	4,427,014.00	
Deferred Revenue	7,598,718.26	
Other Current Liabilities	0.00	
	16,181,038.18	
<b>Stockholders Equity</b>		
Net Assets - Unrestricted	4,848,712.00	
	4,848,712.00	
	21,029,750.18	

**Figure 23. WSARC Balance Sheet as of September 30, 2017.**

In summary, the current finances show self-sufficiency and also demonstrates that WSRI and WSARC operate within our rate structure, adhering to the agreements made with WSU in July 2016 for FY17 fiscal year and beyond.

**Q6: Even with write-offs to the University's Reserves, WSRI/WSARC appears to be operating at a loss. Costs to our reserves are ultimately costs to our students. If these costs don't bring research opportunities for students and research products into the classroom (where we accept this loss as a teaching expense), then how is this a wise relationship on the part of the University?**

See all previous answers to Questions 1 and 5.

Any future losses or gains from WSARC are reduced or added to WSARC's Unrestricted-Net Asset position represented on the WSARC Balance Sheet. For the year ending June 30, 2017 that WSARC net asset amount is \$5.022M.

As previously shared, WSRI directly supports multiple students and a summary of the impacts of WSRI's support for students and research is illustrated in Questions 1 and 22 and a cumulative student utilization is summarized below in Figures 24 and 25.



#### Students Supported Analysis

- **83** Students/GRAs Employed on various WSRI programs from 2011 to present.
- **18** Students/GRA currently employed by WSRI.
  - 8 GRAs
  - 10 Student Employees
- **3** Students hired into full time positions as extensions of these student employment positions.
- **4** student employees transitioned from student employment to GRA position upon entering WSU graduate programs.

In addition to the 83 WSRI students:

- WSRI hired/supported **101** Image Truthing employees from 2011 to 7/2017. At the time of transition back to CECS, there were **12** student employee truthers working the program.
- WSRI hired/supported **314** ATR Center summer interns from 2010 to 2017.
- WSRI Hired and support **47** summer interns for the Summer At the Edge program from 2011 to 2013.
- WSRI Hired and supported **14** summer interns for the GRILL program in year 2014-2015.
- WSRI Hired and supported **8** Wright Scholars program participants in 2013.

In total there have been **567** students supported in student employment, graduate research assistantships, and summer internships through WSRI from 2011 to 2017.

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**Figure 24. Students and GRAs support by WSRI since 2011.**



Graduate Research Assistants				
Name	Supervisor	Program	Program of Study	Advisor
Caine Barber	Dr. Dave Gross	TEAS	Egr Innov & Entrprnship	D. Frank Ciarallo
Vahid Eyorokon	Dr. Mike Cox	SAMURAI/MIDDLE	Computer Science	Dr. Mike Cox
Venkat Gogineni	Dr. Mike Cox	Goal Driven Autonomy Missions	Computer Science	Dr. Mike Cox
Sravya Kondrakunta	Dr. Mike Cox	Goal Driven Autonomy Missions	Computer Science	Dr. Mike Cox
Andrew Montgomery	Todd Norell	HAPTIX	Biomedical Engineering	Dr. Sherif Elbasiouny
Mohamed Hisham Mousa	Todd Norell	HAPTIX	Engineering	Dr. Sherif Elbasiouny
Timothy Williams	Dr. Mike Cox	MIDDLE	Computer Science	Dr. Mike Cox
Pratyusha Yalamanchili	Dr. Mike Cox	SAMAURI	Computer Science	Dr. Mike Raymer

Student Employees Supported			
Name	Supervisor	Program	Program of Study
Deanna Baber	Erin O'Brien	ABC Course	Mass Communication
Andrew Bautista	John Owen	OEA	Psychology
Natalie McDonald	Dr. Mike Cox	MIDDLE	English
Kyle Min	John Owen	OEA	Finance
Morgan Oldham	Erin Holden	Operations	Biomedical Engineering
Daniel Palmer	John Owen	OEA	Business Economics
Samuel Schmitz	Dr. Mike Cox	MIDDLE	Computer Engineering
Hannah Steingass	Dr. Dave Gross	RPA	Computer Science
Jordan Umphrey	Erin Holden	Operations	Rehabilitation Counseling
Victoria Underwood	Erin O'Brien	ABC Course	International & Comparative Politics

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**Figure 25. Current Students and GRAs supported by WSRI.**

In summary, over the past 6 years WSRI has employed approximately 184 students via student employment opportunities and graduate assistantships supporting our customers in industry as well as internal projects and programs. These are real-life, real-work learning opportunities for Wright State students. In addition, WSRI has supported multiple summer internship programs, including both WSU students and interns from other universities. These programs highlight Wright State on a regional and national level as a flourishing research facility, exposing countless students to AFRL research labs, creating cohort relationships and networking opportunities amongst students from varied academic, economic, and disciplinary backgrounds.

**Q8: What is the financial situation of WSRI and WSARC? Is either receiving any support from WSU still? How much? In what forms (e.g., financial, HR functions, IRB committee use?) If not, when did it stop? Are they operating in the red still? This is an organization that utilizes public resources subject to open records. Transparency is critical to trust. Why has this information not been made available?**

As addressed in the Questions 1 and 5, we have provided the financial data for the WSARC and WSRI for last year as well as the current information.

Bottom line, WSRI and WSARC are not receiving financial support from WSU. We received a base budget of \$200K from WSU from 2009 through June 30, 2016. This support was a part of the original startup agreement when WSRI was established, but that support ended at the end of FY 2016. See Question 5 for in depth details.

WSRI does follow the WSU HR practices and uses the HR functions and that of the IRB committee, and that has been addressed previously. Likewise, WSRI provides security

support, proposal support and pricing, and in the past hiring support for WSU that also was not and has not been reimbursed.

By finalizing a complete financial firewall between all WSARC and WSU efforts, which is best practice, this will provide safeguards and will demonstrate that we are covering our total costs. This will also allow others to review funds transfer back and forth enabling a clearer identification and evaluation of all cost transactions going forward. This will be complete in FY18.

**Q33: IS WSU the landlord for WSRI? Balancing the books can be fudged by not paying rent, or receiving landlord benefits not granted to WSU. For example, WSRI has working toilets and windows and a roof that does not leak. WSRI has plush furniture, printers, office supplies, upgraded security, and persistent lighting. WSU does not uniformly provide these resources to its faculty. How was rent determined to be fair-market value, what services are included, and is WSRI current on its rent?**

It is actually the reverse. The WSARC owns the WSRI Building at 4035 Colonel Glenn Highway and all associated equipment and assets of the facility. Tenants of the building pay rent, although the WSU Marketing and Communications department, which occupies the majority of the third floor (including furniture), has not paid rent to WSARC since occupation of the facility in 2013. The WSU Marketing and Communications department does pay some operational costs associated with occupancy of their space (utilities, internet, and a pro-rated share of the facility management labor). Rather, the University Controller's office has chosen to write off the value of the rent expense against any due to balances from the WSARC to the University.

The WSARC pays for all maintenance to the building independently and does not utilize any University resources to support this asset. The University to date has not paid WSARC for the WSU Marketing and Communications operational costs for FY17. This is part of the "due from WSU" to WSARC shown in Figure 22.

The University also houses the Alternate Emergency Operations center for the WSU Office of Emergency Management in the WSARC owned facility. In the event of an emergency, WSARC would provide space to essential University operations. This includes access to office space, phones, servers, and internet services. The initial set-up costs to prepare the site were approximately \$6,365. WSARC continues to provide these services and access to the 2371 sq. feet of facilities through no formal agreement at an estimated rental value of \$42,678 per year. This has been in place since March of 2013, so a rough estimate of costs to WSARC to provide this essential and required service and support for the University is \$168K to date.

Additionally, at no additional costs, WSARC space is available for use for other campus entities when requested in advance and in compliance with our security procedures.

The WSARC building has been and continues to be a positive and unique asset for the University and has historically provided a value to the University community, and at no cost to the University.

**Q27: We understand that, under past management, WSRI/WSARC incurred significant losses by underbidding on contracts. Ultimately, when WSRI/WSARC could not reimburse the University for expenses, the University accepted millions of losses to its reserves. Does the University now have approval authority over all WSRI/WSARC contracts to prevent future financial risk of this sort? If so, what is the process by which the university reviews WSARC agreements to protect its financial interests?**

In the beginning, WSRI bid large contracts using the University rate structure and the 15% discounted rate for local companies and Ohio partners. Unfortunately, this locked WSRI into multi-year contracts at rates that did not allow for full cost recovery for the actual OH and GA costs. We aren't sure why the prior management made this choice, but the ability for full cost recovery as a 501c3 is one of the primary purposes of the WSARC. Since 2015, we have asserted actual rates, approved by DCAA, and now execute contracts at full cost recovery, eliminating the exposure for unrecoverable costs.

The \$4.384 million write off was an accumulation of losses over a period of 6 years, and much of that was from those initial contracts bid using University rates and contracts that did not charge the clients overhead. See Figures 20 – 22 and Question 5 for further details.

As part of the changes we have made to ensure compliance and financial sustainability, it is a requirement that the WSARC Board and WSARC Finance Committee review all contract actions and assess the financials on a monthly basis. Members of the WSARC Board include the WSU President, two directors named by the President, and a WSU Board of Trustee member. This provides transparency and allows greater oversight for the University on all WSARC matters. In addition, the more extensive FY17 BKD audit report will also provide a complete review of all the WSARC practices and results. We expect that report later this year. In the meantime, we have included current financial data and the past Audit reports which are available at <https://ohioauditor.gov/AuditSearch/search.aspx>.

**Q26: Does there exist any current practice of WSRI or WSARC which negatively impacts either the revenue or the reserves of WSU? If so, how and when will this practice be terminated?**

No, the new processes and oversights put in place over the past two years ensure that we do not negatively impact the reserves or the revenue of WSU. In fact, as shown in Figure 26 you can see where WSRI through the WSARC has had a very dramatic and positive impact on the University total research portfolio and research expenditures.

See also the responses to all other Questions.

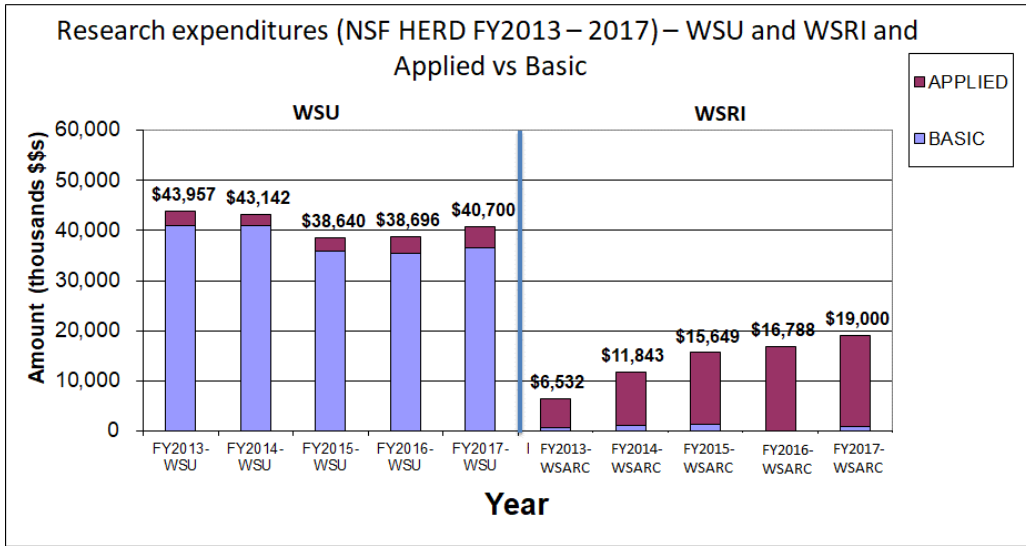


Figure 26. WSU Research Expenditure for CY 13 to CY17.

**The OVRP 360 Report recommends: (emphasis added)**

**Recommendation 20: Consider how faculty may become more involved in the types of research that are currently administered through WSARC. In our visit, few, if any, faculty had much knowledge of the function of WSARC and how they might use it to build their research.**

**This relationship needs to be developed – otherwise faculty will just see WSARC as a competitor, not an opportunity.**

and

**Recommendation 30: WSRI researchers and staff should never compete with the WSU faculty for a given funding opportunity. WSRI should seek participation from faculty researchers as appropriate and not indulge in “Project Director” or other such hires that exclude possible roles for WSU faculty. It is anticipated that in response to a given contractual opportunity, WSU faculty may not have expertise to offer. In such cases, WSRI will need to participate in a contract competition on its own, after careful evaluation of WSU faculty strength. Regardless of who does such an evaluation, it will need to be open and transparent.**

**Q12: What has been done to satisfy OVRP 360 review recommendation 20 and 30?**

See answer to Question 1 and 7 and see Figure 27 below.

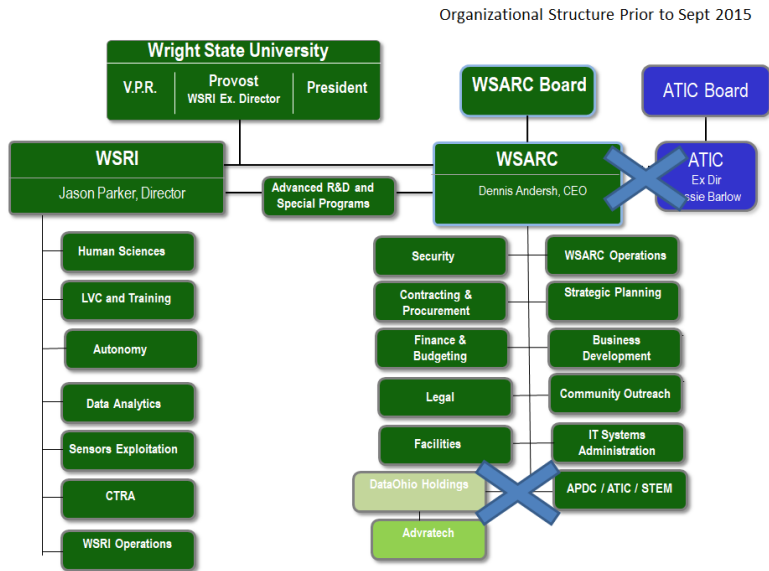
We agree more needs to be done to build relationships and collaborations. Over the past 18 months we have significantly improved the participation of WSU faculty and these partnerships have been key to the successful performance of these contracts. We continue to have strong collaborations with several faculty members and we look forward to growing those relationships in the future.

Current Contracts	Sponsor	Faculty	Duration (in years)
Precision High-Intensity Training through Epigenetics (PHITE)	ONR-MURI	Kadokia, Markey, Craig, Raymer	5
Human Performance and Health Sciences COE (HPS-COE)	OFRN	Raymer, Doran, Hitzler, Ganapathy	2
Mission-Directed Learning Environment (MiDLE)	AFRL	Ganapathy	2
Calamityville Operational Test Range	AFRL	Raymer	1.5
Advanced Cadaveric Training with Operational Realism (ACTOR)	AFSOC	Guthrie	3
Hybrid Forecasting Competition (HFC)	IARPA	Juvina, Ganapathy	4
Lapses of Attention Predicted in Semi-structured Ecological Settings (LAPSES)	ONR	Juvina, Harel	3
Maximizing the Collective Intelligence of a Network Using Novel Measures of Socio-Cognitive Diversity	ARO	Sheth, Shalin	3
Integrated Sense, Assess and Augment (ISAA)	AFRL	Elbasiouny	2
ACE-EM	AFRL	Sharma, Barton	1
Pending Opportunities			
Mixed-Initiative Goal Reasoning for Autonomous Team Engagements (MIGRATE)	AFRL/AFOSR	Gallimore, Harel, Doran, Houpt, Juvina, Ganapathy, Raymer, Hitzler	5

Figure 27. Current WSU faculty working with WSRI Research Teams.

**Q19: There were two Faculty members as part of the panel, including Dr. Bennett who has only been with WSU for a year. They seemed silent on questions regarding WSRI/WSARC? Are these the most knowledgeable Faculty on this issue? Are there no standard BUFM Faculty with a line of sight on these issues of interest to the Faculty?**

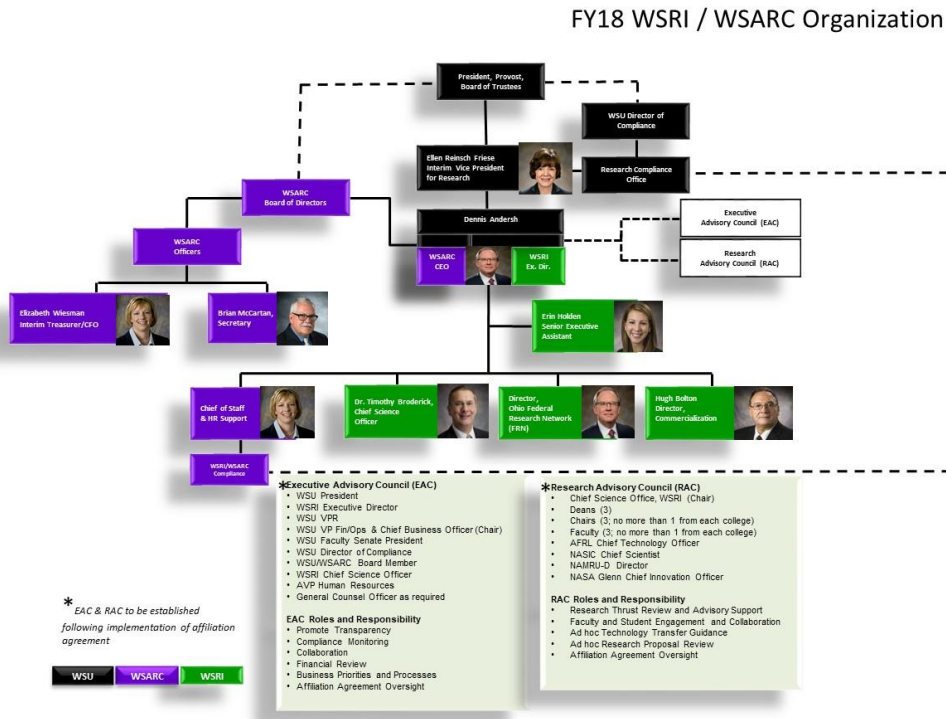
Mr. Andersh assumed the role of executive director of Wright state Research Institute in September 2015. See Figure 26 for the WSRI and WSARC organizational structure prior to September 2015. Prior to this reorganization, WSRI and WSARC had a bifurcated reporting structure through the provost's office, with no involvement or oversight from the Vice President of Research.



**Figure 28. WSRI and WSARC Organizational Structure prior to September 1, 2015. X's were eliminated.**

With this consolidation of WSRI/WSARC leadership in September 2015, Mr. Andersh and the staff immediately set about reorganization of functions and reporting within WSRI to ensure 100% compliance with University policy to improve efficiency and maximize focus and effectiveness through the development of standard operating procedures, and hardwiring in a system of checks and balances.

The organizational structure today is shown in Figure 29.



**Figure 29. Current FY18 WSRI and WSARC Organizational Structure.**

Since the reorganization, the team has taken significant corrective actions centered in the areas of transparency, compliance, and operational efficiency and effectiveness. (See Question 1) This work was completed with full collaboration and transparency with the WSU President, Provost, WSU Board of Trustees and the WSARC Board so WSRI could create a new path forward to engage key University stakeholders, faculty members, elected officials, community leaders, the research sponsors as well as faculty researchers across the State of Ohio.

As discussed at the Let's Talk and during the Q&A, all panel members for the Let's Talk were chosen to give a variety of points of views and covered leadership, board, research and faculty. Dr. Bennett was on the panel to share his story of how the relationship can work between faculty and WSRI. Although Dr. Bennett is not funded by WSARC, he is a department Chair and his researchers do work closely with WSRI. He has had direct experience working with WSRI in the business development and proposal process over the past year and his positive experience with WSRI is a reflection of who we are today versus who we were in the past.

Now that the Affiliation agreement is in place, together with WSU, we are starting the process to implement a WSRI Executive Advisory Council (EAC) and Research Advisory Council (RAC). These groups will be an integral part of the overall WSU Research enterprise and will help to ensure that WSRI's business and research activities are aligned with the University's mission. One of the roles of the RAC is to improve communication, build greater collaboration and provide transparency of ongoing work at WSRI across the campus with faculty, staff and students.

**Q20: How do faculty in a particular discipline (like Nursing, for example) know if local agencies are clients and if we are seeking proper channels to advance our research/scholarship. For example, is Premier health (a leading employer) their client and how are nursing faculty involved?**

WSRI tracks and reports on all current and closed contracts. Those details will be reviewed with the EAC and RAC. Faculty members with a particular interest in a potential synergy of research opportunities, are encouraged to contact Dr. Timothy Broderick, Chief Scientist to set up a discussion.

With regard to the example given with nursing faculty in particular, there are currently not any synergistic research relationships. WSRI transferred the Clinical Research Trials Alliance (CTRA) back to the BSOM on January 1, 2017. In addition, Dr. Broderick wears two hats - he is the WSRI Chief Science Officer and he also serves as the Associate Dean of Research in BSOM. Through this role, he works to ensure that there is a shared understanding of the opportunities and activities.

With the transfer of the CTRA back to BSOM, there is little to no interaction between WSRI and Premier Health as well as other health care providers. If there are healthcare related discussions, Dr. Broderick is always involved.

If there are suggestions or concerns, please contact us so that we can address them. WSRI would also encourage all faculty interested to participate in the Research Advisory Council as it is formed and we will share information on how to participate.

**Q21: There are multiple faculty who claim that WSRI uses the reputation of Wright State Faculty members to secure a grant and then shunts them aside, with claims that the PM has requested a budget reduction and their removal is necessary. How often has this happened?**

WSARC exists to support WSU's pursuit, execution, and management of applied R&D contracts from the Department of Defense, Intelligence Community (IC), the State of Ohio, and industry. WSARC is managed by a team of experienced business professionals and researchers with the common goal of increasing and diversifying WSU's sponsored research portfolio.

WSARC provides a multitude of dedicated resources that enhance WSU's research enterprise. Ultimately, the goal is to put together research teams that are capable of identifying, bidding for, winning, and then delivering what the sponsor requires for their applied research programs. Therefore, it is not a question of overlap in areas of VPR, academic, units, or faculty research programs as these are all complementary parts of the same broad research infrastructure.

WSRI actively tries to engage the faculty. This was not always the case prior to September 2015. Many of the comments and legacy concerns about competing with faculty are indeed related to WSRI leadership practices from the Institute's inception to the timeframe WSU made changes to the WSRI leadership and reporting structure in September 2015.

Actually, if there was a detailed analysis of the WSRI/WSARC portfolio of active and pending projects it will show that they are all either in collaboration with faculty or are in fields where there is no commensurate strength with the current WSU faculty.

Additionally, since September 2015, RSP and WSARC regularly review all bid opportunities to ensure that there are no competing bids across WSU.

WSARC also possesses additional distinctive internal resources that are required to improve and increase the overall success rate and number of awarded contracts for applied research. Such resources include a dedicated and experienced BD team with a fully developed proposal management process that collaborates in a cross-functional synergistic environment with University faculty and staff to submit proposals that would otherwise be overlooked or simply missed opportunities. The BD team has established and created very successful relationships with multiple customers including the AFRL, DARPA, IARPA, ONR, ARO, AFOSR, SOCOM, NASIC, NAMRU-D, NASA as well as specific defense contractors and research universities nationwide. The University simply does not have this breadth of capability for BD and related proposal support in its internal infrastructure, especially for efforts to engage the broad campus community and not just individual elements in specific areas. WSARC takes on the additional burden of the myriad of processes that are required for successful competitive prime bids within this applied research domain. Inclusive of that process, WSARC provides dedicated program management functions to meet the complexity of federal contract deliverables and the multitude of financial reporting requirements under Federal Acquisition Regulations (FAR) and Defense Federal Acquisition Regulations (DFARS) compliance.



This includes regular meetings with all levels of the government customers to grow and enhance additional or parallel opportunities to increase contact award values that meet or exceed the total value of the project. Additional functions include strategic governance, performance management, schedule and financial management, risk issues and scope management, resource, quality, communications, and supplier management. All these functions are dedicated to enhancing the WSU research enterprise.

In the last 3 years, WSRI and WSU faculty have written multiple research proposals together with that were selected for funding. These have led to productive research collaborations which serve as a model for how WSRI and WSU faculty can work together moving forward to grow the university’s research enterprise. For several of these awards – in particular the ONR MURI, the ONR LAPSES project, and the ARO Socio-Cognitive Diversity project – the majority of funds go to faculty, yet WSRI took the lead in identifying and pursuing these opportunities. When WSRI learns of a research opportunity that might fit for WSU faculty, WSRI makes that connection even when there is not role for WSRI. At least one of these interactions resulted in direct AFRL funding for a faculty member in the Department of Psychology (with no funding for WSRI). The following list in Table 5 provides examples of ongoing collaborative research that includes WSU faculty located on campus and WSRI.

**Table 5. Current Faculty member’s collaboration with WSRI on multiple new contracts.**

Current Contracts	Sponsor	Faculty	Duration (in years)
Precision High-Intensity Training through Epigenetics (PHITE)	ONR-MURI	Kadokia, Markey, Craig, Raymer	5
Human Performance and Health Sciences COE (HPHS-COE)	OFRN	Raymer, Doran, Hitzler, Ganapathy	2
Mission-Directed Learning Environment (MIDDLE)	AFRL	Ganapathy	2
Calamityville Operational Test Range	AFRL	Raymer	1.5
Advanced Cadaveric Training with Operational Realism (ACTOR)	AFSOC	Guthrie	3
Hybrid Forecasting Competition (HFC)	IARPA	Juvina, Ganapathy	4
Lapses of Attention Predicted in Semi-structured Ecological Settings (LAPSES)	ONR	Juvina, Harel	3
Maximizing the Collective Intelligence of a Network Using Novel Measures of Socio-Cognitive Diversity	ARO	Sheth, Shalin	3
Integrated Sense, Assess and Augment (ISAA)	AFRL	Elbasiouny	2
ACE-EM	AFRL	Sharma, Barton	1
<b>Pending Opportunities</b>			
Mixed-Initiative Goal Reasoning for Autonomous Team Engagements (MIGRATE)	AFRL/AFOSR	Gallimore, Harel, Doran, Houpt, Juvina, Ganapathy, Raymer, Hitzler	5

In terms of changes to faculty on grants, there is one ongoing project within the DARPA TNT program, where WSRI won an award and during negotiations the DARPA Program Manager significantly modified the proposed effort. Modifications included the removal of several faculty members from several universities including WSU. This included the removal of neural stimulation modeling proposed by Harvard Medical School Dr. Jeffrey following; removal of EEG work proposed by WSU Dr. Assaf Harel; removal of fMRI work proposed by Vanderbilt University Dr. Isabel Gauthier and former WSU researcher Dr. Jason Parker; and moving genomic and bioinformatics work proposed by WSU Dr. Madhavi Kadokia and Dr. Michael Raymer to an option. This was not the result of any action or suggestion by WSRI, rather the DARPA Program Manager removed similar modeling, EEG, and fMRI research from multiple projects that he selected for award.

In fact, this was an example of how WSRI was able to assemble a strong interdisciplinary

research team for this project that included WSU faculty. WSU researchers were not alone in being removed from this effort, other world class researchers from Harvard and Vanderbilt did not receive funding based on the path which the DARPA program manager decided to take. Importantly, organizations such as DARPA and IARPA value research team members whose reputations and experience are key to program execution across all contract awards under a particular Broad Area Announcement. It is also important to note that “Experience and Expertise” is one of the major proposal evaluation criteria, and as such these organizations will frequently include a key personnel clause in their contracts precisely to prevent such a bait-and-switch. Several members of WSRI’s senior research team are themselves former DARPA/IARPA program managers and can attest that any request to remove a key academic collaborator is strongly scrutinized and often rejected.

The WSRI lead team continues to perform well on this project, and based upon our success recently hosted the DARPA Director and TNT Program Manager at WSU. We also continue to work with the Program Manager to fund the WSU option tasks. Recently, additional funding for Dr. Kadakia was found to generate preliminary data that supports the genomics research that has not yet been funded by DARPA. If there is any question regarding the value of recent collaboration, please contact Drs. Harel, Kadakia, Juvina and Raymer to discuss our collaborative interdisciplinary research in multiple funded projects.

Overall, WSRI through the WSARC functions and works diligently and collaboratively to enhance, support, and seek opportunities to grow the University’s research programs in a non-competitive environment that strive to bring future opportunity and growth to the University research enterprise. Figure 30 is an example of the recent research awards accomplished through the WSARC, WSRI and WSU partnerships. Figure 31 shows the current research opportunities in the pipeline at WSRI, many of which have WSU faculty participation.



**Multiple New Contracts in the Pipeline have been selected for award and Awarded**

❖ **WSRI/WSARC New Awards in Past 30 Days**

- CERDEC – CLEAR VR testbed research and evaluation tool. SBIR \$100K
- Battelle-National Guard Training, \$1.6M, awaiting Subcontract
- DARPA Ground Truth \$3.7M, in negotiations
- Aptima SBIR Phase II PMAA Collaboration, \$149K, awaiting subcontract
- AFOSR GATARS, \$379K, \$126K funded
- HMT TO-02 Increase in funding \$300K
- HMT TO-06 Increase in funding \$445K
- IST RAST TO-12, \$2M, \$25K funded
- IARPA HFC - Letter of Subcontract for \$99K
- Navy Pythia \$150K
- DARPA LEAP Option II \$1.5M, \$450K funded
- NASIC TAG 055, Increase in funding \$2K
- Riverside Research IDIQ/TO \$Ceiling \$300,000.00 Funded \$212,420.00 awarded 7/31/2017
- RPA Subk from WSU \$3,150,420.00 awarded 8/1/2017
- Green County Sheriffs Office Cleat \$20,000.00 Awarded 8/1/2017

❖ **WSRI/WSARC Awards in Past 120 Days**

- AFRL Calamityville Operational Test Range, \$2.5M, \$636K funded
- NASIC TAG 055, \$210K
- Riverside NASIC A&AS IDIQ
- IST RAST TO-9, \$139K, \$25K funded
- Greene County Sheriff’s Office \$20K
- RPA Subk from WSU \$3.1M, \$388K funded
- HMT TO-02 increase in funding \$300K
- HMT TO-03 increase in funding \$55K
- HMT TO-05 Increase in funding \$450K
- HMT TO-06 \$7.9M, \$135K funded
- RAST TO-02 decrease in funding (\$14K)
- RAST TO-05 increase in funding \$110K
- RAST TO-06 increase in funding \$12K
- RAST TO-10 increase in funding \$29K
- Ball ISAA increase in funding \$44K

\*Got approval for \$1M for the Dayton Regional STEM School to move the AFRL GRILL to the STEM School.

**Figure 30: WSRI Contract Awards.**

- ❖ **Multiple new proposals in pipeline**
  - ARO Grant (Minnery) \$600,000.00 Submitted 8/31/2017 (WSRI)
  - AFRL RH RIIT – Ceiling increase of \$1.4M and two year extension to December 2019 (WSRI)
  - Aptima ASAART \$100K Submitted (WSRI)
  - USAMRAA DHA JPC-6 DoD Precision Trauma Care Research Award program – Full Proposal Requested, submitted June 15 (BSoM)
  - AFRL/ RY ALAS (\$47M) Proposal Upcoming Q1 FY18 (WSRI and WSU)
  - Biotechnology to Optimize Operator Cold Water Performance - \$1.7M White Paper to be added to RIIT (Broderick/Norell)
  - MIGRATE delivered to AFRL – HMT Center of Excellence proposal for \$1M/year for 5 years with WSU (Cox/CECS)
  - ARO Neuromodulation to Enhance Decision-Making Under Stress - \$600k full proposal submitted 9/2/17 (Paczynski/Minnery)
  - NASA Bion M2 Multigenerational Epigenetics – White Paper submitted (Broderick)
  - Two white papers delivered to OSD customer for \$1M new starts (Howard, Howard)
  - Epigenetics Advanced Study – DARPA (Broderick)
  - NAKFI FHL September 19-25 (Broderick)
  - DARPA A-Teams follow on white paper (Minnery/Cox)
  - NAKFI Beyond Boundaries submission (Broderick)
  - SOCOM S&T Developing the Performance Enhancer MTB1 – (Broderick)
  - Defense Health Agency (DHC) – ECCCHO STTR \$50K
  - TIER1 STTR HUSCC \$49,501.00 Submitted and won. Awaiting subcontract.
- ❖ **Congressional Funds Secured in FY17 Defense Budget**
  - ONR/NAMRU-D Warfighter Sustainment- \$2.9M (OFRN Project with NAMRU-D)
  - AFRL/RY Aerospace Sensors Cyber- \$4M (Joint WSU CECS and Univ of Akron Project as a part of OFRN)
- ❖ **Congressional Funds Being Pursued in the FY18 Defense Budget**
  - ONR/NAMRU-D Warfighter Sustainment- \$5M (OFRN Project with NAMRU-D)
  - Joint Effort with the Institute of Human Machine Cognition in Florida through SOCOM- \$5.4M
  - Submitted a \$15M Federal Request in FY18 Defense Budget for AFRL
    - Working with entire Ohio Federal House and Senate legislative delegation.
    - Cost share with the State funding.
    - Got \$10M in House Appropriations and Authorization bill for AFRL.

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**Figure 31: Current WSRI Pipeline.**

**Q28: The Faculty have not been convinced that WSRI/WSARC bring unique benefits to WSU. Specifically, what benefits does the University realize from conducting this work through WSARC that it would not realize from partnering with a non-affiliated organization (such as the non-profit like Battelle)? What are the metrics for its benefits? Number of students trained? Amount of Intellectual Property generated? Patents awarded? Does pass through money aid the University in any way?**

The number of research partnerships between corporations and universities has increased dramatically over the past 20 years. Research institutes – like WSRI - were created by universities to help facilitate the partnership between industry and academia to solve more of the immediate applied research requirements of the Government, industry and commercial business.

These organizations like WSRI and UDRI allow university based researchers and scientists to work more effectively with external partners on applied research and are not competitive with faculty for basic research. These entities actually provide more opportunities for faculty and allow industry and other partners to have access to the best researchers to help them solve challenging technical problems, and transition technologies into application at the speed of business. In general, applied research corporations like WSARC and GTARC, are developed to create a central pathway for outside partners to contract with the public universities.

In areas such as compliance, facility security, financial management, and grant and contract administration, WSARC has significantly reduced its overhead costs by carefully aligning its resources with contractual requirements and avoiding redundancy or overlap.

A good example of consolidation and integration is in Technology Transfer and Commercialization; WSARC resources for commercialization activity, including significant external funding through an OEA grant, are fully leveraged by VPR/TTO to support faculty endeavors. (See the Intellectual Property (IP) Section for Examples).

WSRI through the WSARC, also pursues activities that cannot and have not been pursued by WSU previously, including management of OFRN, as well as the ONR MURI, DARPA, ARO, NASA, NASIC, NAMRU-D, SOCOM and classified programs as summarized in Figures 30 and 31.

An analysis of the WSRI/WSARC portfolio of active and pending projects shows that the projects are either in collaboration with faculty or are in fields where there is no commensurate strength on the faculty. WSARC also works with the legislatures, at both state and federal levels, on behalf of the faculty to significantly enhance WSU research much more extensively and more in depth than the University can, resulting in wins for the faculty (e.g., recent assistance to secure \$4M for Dr. Emmert from AFRL/Ry).

The following are details of the major differences between the WSARC and WSU RSP programs.

### **Time Recording and Billing**

WSARC maintains cost accounting standards consistent with DFARS parts 230 and 242 and FAR part 30, permitting it to bid against those federal and defense solicitations where such standards are required and receive funding through multiple contract vehicle types (CPFF, T&M, etc.). This process is very similar to the Defense industry and provides for a better match of financial reporting and forecasting with industry.

WSARC contracts require employee's actual hours, down to 1/8<sup>th</sup> of an hour. They do this by requiring every employee to update their time daily in Deltek Costpoint Time and Effort Module, an industry and Defense Contract Audit Agency (DCAA)-recognized software package sold by Deltek specifically for project management and accounting solutions for government contractors. Each employee has specific charge codes that direct those hours to discrete contracts or other pools, such as vacation or holiday. Employees are required to record all of their hours, including time spent over the expected 40-hour work week; this is called Total Time Accounting (TTA). Supervisors are required to approve employee's hours twice every month. This time tracking allows the customers to be billed only for hours worked on their specific projects and ensured compliance with DCAA audit regulations.

In contrast, RSP does not have a system that allows hourly tracking of each employee's time. Instead, a percentage of an employee's time is charged to contracts. This percentage is determined prior to each month and is usually repeated every month unless specific action is taken to change that percentage of the time. This causes two major problems for customers. One, the time charged to a contract each month might not accurately reflect the employee's effort. Two, vacation time is included in the percentages of effort, meaning the customer is directly charged while an employee is on vacation.

Another very important distinction enabled by WSARC's TTA practices is that WSARC can charge an employee's actual rate. This includes a fee.

Even as a 501(c) (3), WSARC can legally charge a fee on contracts to ensure full recovery of actual rates. In contrast, RSP's rates are fixed and not able to recover an employee's actual rate on any contract. For instance, RSP's current WSU-site approved indirect cost rate is 50%, whereas their actual rate for this work is closer to 62+%.

In short, RSP contracts are not recovering their true costs. This discrepancy frequently leads people to believe that WSARC is more "expensive" than RSP. On the surface, this might be true; however, the major difference is because WSARC charges actual rates versus on all other RSP grants and contracts that are subsidized by other University resources.

Finally, WSARC is able to modify their rates, monthly, quarterly, bi-annually, or annually to adjust for fluctuations, both of those beneficial to the customer and those needed to remediate financials when forecasts were incorrect. RSP is only able to renegotiate every 4-5 years.

Below are some examples of why the WSARC is important for our customers:

1) The Intelligence Advanced Research Projects Activity (IARPA) contracts require financial monthly status reports from every performer by the 10<sup>th</sup> of every month, to include the summer months. The IARPA reporting template includes the prior month's actual financial data, the satisfaction of which necessitates reporting actual expenditures within nine (9) days of the end of the reporting period. Data requested for labor, travel, and other direct costs (ODC) includes Planned Expended (by month and cumulative) and Actual Expended (by month and cumulative). The data is used to determine which performers are not executing financially based on their plan. If there is not significant justification for a variance over 10%, the performer is at risk of losing funding. Program Managers (PM) are required to brief this information to the director every quarter. This type of reporting is a common requirement for industry. Accounting solutions like Costpoint exist so that government contractors can be responsive to the monthly reporting requirements of the government. WSARC, through TTA and daily hour-by-hour floor-check input to Costpoint from every employee, is able to respond to the required monthly financial demands of government customers.

2) DARPA contracts are similar in structure to IARPA contracts. DARPA has a dedicated financial team for each contract and each performer. It is their job to ensure that the financial reporting is up to date and accurate on behalf of the PM. They continually track commitment, obligation, and expenditure. Each PM is graded on how fast they can get funds obligated on contract and how fast they can expend those funds once allocated to a contract. PMs that demonstrate they can efficiently obligate and expend are more likely to get additional funds for option periods or in-scope modifications. Performer financial and contractual execution is second only to technical results with respect to the likelihood of follow-on funding.

### **Classified Facilities**

WSARC maintains secure facilities and Defense Security Service (DSS)-approved facility security clearances (FCL) necessary to perform classified research, store classified materials, and perform unclassified work on contracts where FCL and other security measures are a requirement of the contract, in accordance with National Industrial

Security Program Operating Manual (NISPOM) guidance. WSARC's facility at 4035 Colonel Glenn Highway maintains collateral and compartmented facilities to support all security constructs from SECRET through Special Access Program (SAP) and Sensitive Compartmented Information (SCI). Collateral, SECRET, and TOP SECRET storage processing and discussion take place in our secure labs, three separate rooms joined by a common hallway. This facility meets the closed-area requirements in Chapter 5 of the NISPOM. SCI and SAP activities are housed in our compartmented facility, which consists of five individual rooms sharing a common hallway. Each room has its own UL 2050 certified alarm and CDX-10 series lock and meets ICD 705 construction criteria for storage, processing, and discussion of SCI and SAP information.

WSU doesn't have classified facilities and this is an asset that only a few universities across the US of comparable size have such facilities.

Examples:

- 1) WSARC recently bid on the DARPA Causal Exploration program. One requirement of the BAA was the prime contractor to have classified facilities as well as personnel with the proper clearances. WSU faculty are on the team, however, but would not have qualified on its own to bid directly.
- 2) WSARC recently wrote a classified proposal in their facility and delivered to the customer. Negotiations are currently ongoing to perform this work in their secure facilities. WSU and RSP would not be able to write a classified proposal or perform the work.
- 3) Dr. Rigling (through RSP) subcontracted to a local company to participate in a bid for work under the DARPA TRACE program. In parallel, the local company contracted to WSARC to provide the classified storage and IT requirements of the Request for Proposal (RFP).

### **Security**

WSARC maintains policies, procedures, and resources to meet the compliance requirements of the National Industrial Security Program for all aspects of classified and sensitive contracting. These requirements ensure that WSARC's contracts meet the following demands:

- Prepublication review
- Physical separation of employees to exclude foreign nationals
- Inclusion of user activity monitoring on all networks(classified/unclassified)
- Foreign travel and foreign contact reporting requirements for cleared employees
- Export control/compliance
- Compartmented Security (SAP and SCI) increase restrictions and add complexity
- Exponential cost in construction and physical protection devices
- Inspectable space requirements create unusable space on the periphery
- Once accredited, secure facilities have only one use and cannot be easily or cheaply stood up or down to accommodate organizational needs
- Program Protection and Operational Security (OPSEC) requirements greatly increase in an academic environment which drives up costs for the institution and the customer

- Specialized contracting and finance restrictions

RSP has policies and procedures to meet security requirements specific to individual projects, however they do not include the more complex aspects of physical and information security needed for classified work. Classified work cannot be accomplished on campus due to a lack of classified facilities and information systems. Developing the facilities, IT systems and accompanying procedures needed to conduct classified work on campus would be too costly.

WSARC acquired the compartmented facility cost from the previous building owner who had spent in excess of \$1.2M to construct it. WSARC has both the mechanisms and the personnel with experience with specialized finance and contracting restrictions to support these programs.

### **International Traffic in Arms Regulations (ITAR)**

WSARC maintains policies, procedures, and facilities in accordance with Export Administration Regulations (EAR) and ITAR, consistent with federal statutes including the Arms Export Control Act, as amended, the Export Administration Act of 1979, and the US Patriot Act. WSARC's facility maintains a 100% ITAR-compliant network. In addition, WSARC maintains an Extranet SharePoint site designed to meet ITAR compliance for the sharing of ITAR information with their partners. Due to the nature of much of the Department of Defense (DOD) and IC work, being functional in an ITAR-compliant environment is critical to maintaining a competitive edge.

In contrast, WSU does not have an ITAR compliant network. They can process ITAR information, but only on stand-alone hardware or similar, not attached to a network.

Examples of contracts requiring ITAR support:

1) The MiDLE contract, recently awarded to the WSARC from AFRL, requires the use and production of ITAR environments. WSARC provides necessary programmatic firewalls and technology control plan tracking to ensure WSU faculty and students performing research on MiDLE (\$446K) are compliant with US EAR and ITAR regulations. Significant ITAR software development and integration take place in WSARC owned facilities and Deployable-Live Virtual Constructive (D-LVC) equipment, without which this contract would not have been awarded.

2) WSARC recently responded to AFRL's Open Mission Systems BAA. The response itself was covered by the ITAR. The proposal phase required sharing ITAR material with multiple subcontractors and providing real-time updating of information from partners across the country. WSU was a partner on the proposal. While technically RSP could have responded to the BAA, WSU policies and procedures do not permit the verification and enforcement of US citizenship or personhood in its IT department (CaTS) or other relevant supporting departments. As such, WSU could not have coordinated a multi-site ITAR friendly response with project specific ITAR-compliant servers for hosting proposal development activities.

### **Velocity of Business Requirements**

The best chance of success on an R&D contract is have a reputation as a high-quality program and to be responsive and flexible. The nature of these multi-year research

initiatives require flexibility and rarely stay on their original course. As such, a Principal Investigator (PI) needs to have the support of contracting and finance departments who can respond and work to address the needs that often arise such as new partners, equipment, or different staff resources. Once the decision is made, the response time is short and has to be comparable to the industry standard.

The processes developed for University operations are not designed to support this velocity for applied research. Universities develop applied research corporations like WSARC, to create a central pathway for outside partners to contract with the public universities at that speed of business.

Any delays that would traditionally occur within normal University operating processes, creates challenges to execute on a fast-paced R&D contract that is responsive to the customer. WSARC operating policies and procedures have been put in place and approved by the board and comply with all University policies.

For example,

1. The RPA contract recently needed to upgrade the portable ground stations for the Superbat 50 UAV system. The purchase request was submitted on November 29, 2016, in order to perform the upgrades in time for a scheduled flight test in February of 2017. Due to the legal review and complications with the terms and conditions, the PO for the upgrade was not finalized until the end of January 2017. The upgrade to the equipment was not able to be completed on time, and the flight test was ultimately canceled, which resulted in a loss of direct labor billable hours. The issue was indemnification clauses in the contract. WSARC, as a separate entity, does not have the same restrictions. These challenges are why ARC's like GTARC and WSARC were set up to address this common problem in working with industry.
2. WSRI personnel secured \$943K of funding through the RIIT contract. It took nearly nine months to add the subcontractor to the contract, causing delays in progress and financial execution. The issue again was indemnification clauses in the contract, and WSARC does not have the same restrictions. This is also why WSARC and GTARC were set up because this is a common problem in working with industry.

### **WSARC's Positive Impact on WSU Research**

With the signed affiliation agreement, now in place between WSRI/WSARC and WSU, WSARC research funding is counted toward WSU total research funding in national registers of such data, for instance, the NSF Higher Education Research and Development (HERD) survey.

Currently, Johns Hopkins University (JHU) is ranked highest by total research dollars is and it is important to note that, more than \$1B of the annual research funding flows through the their ARC, the JHU Applied Physics Lab (more than 65% of all JHU annual research). Many other universities with Applied Research Corporations benefit similarly from this type of arrangement.

Recently, WSU fell from an R2 to an R3 ranking in the Carnegie Classification of Institutions of Higher Education, despite an increase in WSU research funding. These rankings are hard to maintain. But with the Applied Research Corporation in place, WSU



is able to update its capabilities, policies, procedures, and infrastructure to accommodate contracts that require special security, time keeping, or accounting requirements. With WSARC's research funding added, this helps WSU's total annual research and could help regain its R2 ranking.

Through WSRI, WSARC has dedicated contracts, program control, and finance and security staff. Our contracts and financial departments are intentionally separate. This separation provides internal controls for financial auditing as suggested by the Sarbanes-Oxley Act of 2002.

The staff for dedicated contracts, program control, finance and security functions are available 24/7, 365 days of the year, to support our customers and internal WSRI staff. Our contracts and financial departments are intentionally separate departments, to provide internal controls for financial auditing as suggested by the Sarbanes-Oxley Act of 2002. This was not the case with WSARC three years ago and is one of the primary reasons for the problems that arose in WSRI and the WSARC since their inception.

With the new operating procedures and compliance checks put in place at WSRI and WSARC, and the oversight of the board and advisory councils, we can maximize success and minimize errors.

In summary, an Applied Research Corporation is a common practice at many top universities in the country. The benchmark example is GTARC, the contracting arm for GTRI, <http://www.gtarc.gatech.edu/>. The GTARC, since its founding, has received some 72,596 contracts for a total value of over \$9.79 billion. Other examples include the Penn State Applied Research Laboratory, <https://www.arl.psu.edu/index.php/>; the Virginia Applied Research Institute at the University of Virginia, <http://www.uvaari.org/site/>. An ARC provides many advantages to its host university, most importantly increasing the research portfolio and research funding of the university. Other advantages include DFAR-compliant timekeeping, secure facilities, security compliance (to include ITAR and EAR), efficient contracting, and financial reporting.

**Q36: IRB is understaffed at least partially because RSP staff have been devoting time to WSRI and WSARC and contracts such as Premier Health. How is the value of WSU staff time spent on such work repaid to WSU?**

WSRI transferred the Clinical Trials Research Alliance (CTRA) back to the WSU Boonshoft School of Medicine (BSOM) January 1, 2017 and CTRA accounted for the largest volume of IRB work. With that transfer of work back to WSU, WSRI no longer has human subject research with Premier. This is all being done through the BSOM and not WSRI and WSARC.

We agree the IRB is understaffed, and it is understandable given the volume of work required to process exempt, expedited and full Board protocols for University faculty, staff, and students (the latter of which make up 1/3 of a recent review of 100 studies) as well as serving as the IRB of record for the local VA and for Premier Health.

Again, CTRA has been a part of BSOM for the past year and while early clinical studies may have been handled by the WSU IRB staff, most are not aware that close to 100% of the industry-sponsored studies now undertaken by the CTRA are handled by external IRBs and are not contributing to the WSU IRB workload issues.

As WSRI continues to involve WSU faculty members (and vice versa) in research projects that involve human subjects, the WSU IRB will handle the review and approval process associated with that work, unless other arrangements are more appropriate. Three of the five currently funded projects that use human subjects in research and that list WSRI as the PI's department also include WSU faculty as Co-Investigators.

Expenses directly related to the IRB staff are used in the calculation of the University's federally negotiated Facilities & Administrative (F&A) rate agreement with the U.S. Department of Health and Human Services. Additional staff resources for IRB would be welcome, given the volume, the associated compliance requirements, and the transition to InfoEd, the software module used to manage human subjects' petitions. The staff time devoted to WSRI, WSARC and Premier Health is minor when compared to the handling of submissions for the rest of the University community.

**Q31: Several community partners, including program managers at AFRL, have expressed an unwillingness to work with WSRI/WSARC. This negatively impacts faculty ability to secure external funding from local partners. What steps are being taken to mitigate this damage to WSU's brand as a research institute?**

Without specifics, it is impossible to fully respond to this Question. We value each and every interaction and take our role as WSU community members very seriously and are proud of the reputation our team has with AFRL and throughout the national labs.

We all benefit from positive relations with AFRL so I think it is best that we all focus on the future and work together to improve our overall joint reputation because many of the issues that we are aware of, happened with the past WSRI management Team.

If anyone hears concerns from our partners at AFRL, about anyone affiliated with WSU, we would like to be informed because when we are working together everyone wins including our customers.

**Recommendation 32: The co-mingling of personnel and funds between WSU and WSARC should be carefully scrutinized. WSARC has a clear and important role to play and WSU leadership will need to guide WSARC functions (for example, by participating in the WSARC governing board, etc.) but there cannot exist a conflict of interest with the WSU mission while promoting the WSARC mission.**

**Q24: What has been done to satisfy OVRP 360 review recommendation 32?**

See answers to Questions 1 and 7.

**Q35: What changes have been made in response evaluation reports?**

**What changes have been made in regards to the recommendations contained in the External Review 360-degree review committee's report?**

**What changes have been made in regards to Plant-Moran's WSRI/WSARC Analysis Report dated October 3, 2016?**

**What was the outcome of the \$360,000 check that was not recorded on WSRI's balance sheet, referred to as Item 58 detailed in Plant Moran's report, detailed on Crystal Aja Ash's email dated November 25, 2016, apparently for an invoice dated November 30, 2011 for services performed before June 6, 2012?**

The events that are at issue in these and other questions asked, occurred most often without the benefit of legal counsel and at the direction of individuals who are no longer with the University. By contrast, in recognition of the issues raised by the various governmental investigations and the Plante-Moran report the University has changed the landscape in which research activities are now carried out in conformance with best practices and with extensive consultation, cooperation with and review by legal counsel. As a result of these findings the complete process and procedures used by WSRI-WSARC and WSU have been totally revamped to be compliant with multiple policies, procedures and cognizant regulations.

All the changes made at WSRI are as a result of internal as well as external reviews and the Plant-Moran report are summarized in the answers to Questions 25. These items are also available on the President Let's Talk website.

In addition throughout this document there have been multiple questions answered that address the concerns raised by this question. So our answer here are more specific to address item 58 in the Plante-Moran report.

In particular, the ATIC invoices referred here were incorrectly charged to certain funding sources by the previous leadership. The analysis shown in the report with regard to ATIC are also incomplete regarding the WSARC \$360K check leading to total of \$500K of payments to ATIC in September 2012.

- These WSARC payments (\$360K and ultimately \$500K) were linked to Hugh Bolton's bonus. In reviewing all the documentation regarding these transactions there was no linkage to Hugh Bolton's bonuses to these payments.
- The attached board minutes from ATIC and their financial data show that the WSARC payments totaling \$500K was owed to ATIC for work agreed to by Mr. Fendley in August 2011 to build out the analyst testbed (ATB) at ATIC. See Figure 32, 33, and 34.

- Mr. Fendley was late in paying this ATIC bill by 11 months (Oct 2011) and then he used State Biennium 2012- 2013 DAGSI WFD funds to pay for those costs. (See Figure 32, 33, and 34 Documents from ATIC, illustrating the aged AR and comments that this was to have been funded by Third Frontier RDCAP funds.)
- The real issue here is Mr. Fendley should have used the Third Frontier RDCAP funds but instead he used operational funds appropriated well after the time the work was performed by ATIC.

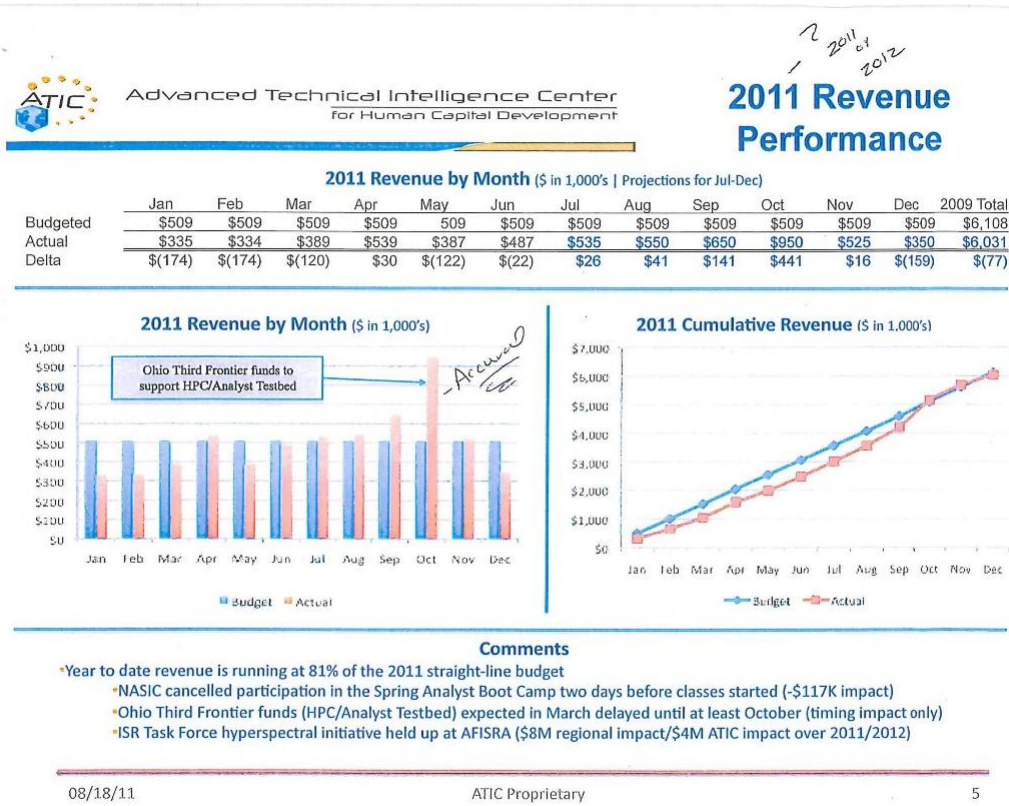


Figure 32. ATIC Board Summary Slide 1.



## 2011 YTD Highlights (Financial)

- ATIC operated at a net loss of \$87K through October
  - Improved from \$267K net loss through June
  - Still waiting for \$500K in State funds (~\$360K against incurred expenses)
- Cash position (~\$1.9M) has improved by ~\$837K year over year
  - Expect to close year with greater than \$2M in cash/equivalents
- Current (\$1M) credit instrument with 5/3<sup>rd</sup> Bank was good through 31 Oct
  - 5/3<sup>rd</sup> has offered to renew the entire \$1M line
  - First Financial offered an \$875K alternative

*Computer  
\$200K  
\$500K  
\$200K  
FF&E  
lease*

Figure 33. ATIC Board Summary Slide 2.



## 2011 Highlights (Research)



- ATIC to host Analyst Testbed
  - AFRL pushing as a 'National asset' supporting DCGS, AFSOC Manhunting Teams, NASIC Analysts
  - Includes Blue Devil System Integration Laboratory (SIL)
  - CAVE Automatic Virtual Environment or Huge Immersive Virtual Environment (HIVE)
  - Cyber Sphere
- Brings additional National customers and links into the building
- Generates direct sublease revenue
- Establishes Blue Devil subcontract with ATIC for special security, IT support, research, and training
- Provides DD 254 flow down to support special security and communications requirements
- \$500K State of Ohio funds identified through HPC to support capital requirements
  - Pay off FF&E lease and complete SAL build out to support Analyst Testbed requirements



Figure 34. ATIC Board Summary Slide 3.

**Q25: It was evident from the forum that many faculty remain distrustful of WSRI/WSARC. In part this may be attributed to the fact that several current or former WSRI personnel that were in leadership roles in the past remain with the university, and thus, it appears that a full accounting for past inappropriate behavior within WSRI has not yet happened. To give a few examples: Mr. Andersh who featured prominently in the Plante-Moran report while serving as Chief Operating Officer is now CEO of WSARC and Executive Director of WSRI. Mr. Grushon, who served as Director of Operations for WSRI until 2015 when there were obvious compliance issues, is now working as Director of Research Compliance. Mr. Bolton, who previously served as director of ATIC which owes the university substantial funds and where he received substantial and unusual payments per the Plante-Moran report, is now working as Director of Research Commercialization. How are observers to believe that such individuals in leadership or operations roles do not bear any responsibility?**

Certainly, we can all point to things that could have and should have been done differently. Once WSRI and WSARC were reorganized in 2015, and we were able to dig deeply into all the issues, we made the changes necessary to correct the compliance, transparency and financial issues.

The Plante-Moran report was a snapshot in time based on topics that were done as a part of the Federal investigation. While the report was labeled as an audit it was not a complete audit. It was more a report of certain topics as they came up in the Federal investigation. Running down all the details was not the purpose of this effort.

In our review of all the details, regarding each item addressed in the Plante-Moran report additional data has been identified that may have altered some of the conclusions about different activities at WSRI and WSARC.

Our additional data did not change the primary conclusion that WSRI and WSARC had major flaws in the execution of its business processes, however there was more information available that provided additional insight into each of the 10 areas of concern and also provided us the necessary information to put corrective actions in place.

One example of additional data was given in the answers to Question 35.

For example the Martinson issue as described in the Plante-Moran Report. This was the result of the action of the Provost's office independent of others at WSARC and WSRI. The Journal entry was originally recorded in rental income which was a holding point for this effort. It was later corrected to reflect this as contract account since it was a contract to provide CLEAT support through ATIC. However, to the best of our knowledge a

contract was never created between ATIC and WSARC for this work.

With Midwest Clinical Trials, the report does not completely address what transpired with Midwest. With the Midwest Clinical Trials acquisition the Provost's office followed improper process. For example, the due diligence was not accomplished by the Provost's Office prior to agreeing to purchase Midwest Clinical Trials. Additionally, Mr. Andersh and Sebaly Shillito and Dyer prevented this acquisition from taking place after doing their own due diligence. It was not done prior to transitioning the deal from the WSARC CEO Ryan Fendley to Mr. Andersh. If Mr. Andersh had not done his own the due diligence it would have cost the University far more if the deal had been finalized – an estimated \$7M+ if this acquisition was executed as planned.

The exit fee of \$150K was a small price to pay for what was a bad business deal for WSU that dated back to 2012 or longer.

**Below is a summary of all the fixes that have been accomplished at WSRI and the WSARC as a result of the Plante-Moran report and our Board's review of our process and procedures. This too was provided to the federal investigative team and the board of trustees. In review of materials below you can see that all of the issues in the Plante-Moran report have been corrected. This information has been provided on the President's Let's talk website.**

Dennis Andersh assumed the role of executive director of Wright state Research Institute in September 2015. Prior to this reorganization, WSRI and WSARC had a bifurcated reporting structure through the provost's office, with no involvement or oversight from the Vice President of Research. With this consolidation of WSRI/WSARC leadership, Mr. Andersh and the staff immediately set about reorganization of functions and reporting within WSRI to ensure 100% compliance with University policy and to improve efficiency, maximize focus and effectiveness through the development of standard operating procedures, and hardwiring in a system of checks and balances.

Since the reorganization, the team has taken significant corrective actions centered in the areas of transparency, compliance, and operational efficiency and effectiveness. This work was completed with full collaboration and transparency with the WSU Board of Trustees and the WSARC Board so WSRI could create a new path forward to engagement of key University stakeholders, faculty members, elected officials, community leaders, the research sponsors as well as faculty researchers across the State of Ohio. Detailed below are the significant actions taken.

#### **Organizational re-alignment of WSRI within the RSP structure to improve efficiencies and ensure transparency**

- WSARC management structure aligned with WSRI departmental leadership to improve WSU Office of the VP-Research visibility into WSARC operations.

- Clearly defined a transparent organizational structure for WSARC demonstrating WSARC's role in the facilitation of WSRI and WSU business functions and mission.
- Established clear oversight guidelines between WSARC and WSU legal enabling transparency and ease of communication.
- Modified the WSARC Board of Directors to Include WSU Board of Trustee's Member and improved diversification of board members from mitigating conflicts of interest and with WSU more outside WSU involvement increasing diversity of the WSARC Board and integration of key management personnel within WSU.
- Established WSARC Executive Committee to provide timely oversight of new contracts and expenditures consistent with updated policy on signing limits in WSARC allowing WSARC to move at the speed of business while also complying with WSU policy.
- Created a WSU/WSRI Executive Advisory Council that will be chaired by the WSU Vice President for Finance and Operations and Chief Business Officer resulting in improved transparency with University leadership and WSU Board of Trustees.
- Modified structure and composition of related and affiliated Boards to achieve transparency and compliance with WSU policy and mission.
- Developed employee utilization data and executed staffing reductions to align revenue streams with individual employees and manage individual contribution to organization rates.
- Split Appointment funding opportunities with University colleges and schools creating funding and research proposal opportunities through effective collaboration.
- Developing internal controls to manage daily compliance requirements.
- Established facilities working group to synchronize operations cost across the enterprise which directly resulted in the reduction of facilities maintenance and janitorial services.
- Established a 100% contract review focused on accuracy and the tracking of income and expenses.
- Established required initial and refresher employees training program.
- Compliance – completing 100% review of all compliance requirements for WSRI and WSARC.
  - Document and track annual Significant Financial Interest (SFI) Disclosures are required for all staff ensuring compliance at a departmental level.
  - Cleared staff will be required to take additional training to meet our customers' needs.
    - Annual Security Refresher Training
    - Insider Threat Training
    - SAP and SCI Refresher Training
  - Established WSRI policy and conducted an in-depth review to ensure all employees do not have possession of proprietary data from other companies.
  - Reviewing all contracts through WSARC and RSP to ensure we are meeting all our customers' statutory and regulatory requirements.
  - In depth review of all WSARC and RSP contracts quarterly
  - Training of all staff to ensure consistent understanding of compliance requirements.



- Reviewing all H1B Visa and Green card work to ensure 100% compliance.
  - Re-aligned departmental policy to adhere to University Policy, unless bona-fide business needs determine the need for policy augmentation. In those instances, specific departmental policies are drafted and vetted through appropriate University stakeholder groups. (HR, CATs, etc.)
- **Bottom line WSARC/WSRI will follow WSU Wright Way Policy.**
  - Augment Wright Way Policy as required.
- Roles and responsibilities developed for every position at WSRI/WSARC.
- To be completed by October 30th and then provided to each employee.
- Realigned Deltek and Banner to accurately reflect the individual's supervisors as the review/approval and Appraisal Review leads. Deltek Review/Appraisal Review Lead /Supervisor/Banner ensuring consistency of supervision for employees.
- Review of All Sponsorships, Marketing, and memberships required.
- Review salary and compensation for everyone to ensure equity and we are still participating in the University total compensation study.
- Review of all Personnel Security Clearances sponsored by WSARC.
- Ensured compliance with annual security awareness training.
- Reviewed all Wright State Credit cards, limits and approval process.
- Reviewing all on-site positions in relation to OCIs.
- Creating an Economy of scale of all services across the board.
- Rolled out WSARC and WSRI FY16 Budgets for WSU and WSRI leaderships. Providing regular updates.
- Established new hiring process, compliant with WSU policy; eliminated the use of WSARC grant for name in grant hiring process.
- PIs and PMs will use kick start form and supply to HR and then PeopleAdmin will be used for hiring routing.
- Restarted staffing review meeting.
- Existing staff orientations and staff re-training of everyone on everything.
- Following University strategic hire committee process for any non-direct charge position, per University policy.
- All interactions with State and Federal Political Staff and Office holders must be coordinated with WSRI Executive Director before proceeding.

**Completed an Affiliation Agreement between WSU and WSARC.**

- Affiliation agreement between WSU and WSARC that is now in place.

**Enhance HR Management, On-boarding and Orientations.**

- Established internal WSRI Orientation session.
- Established use of Mail Chimp system to streamline internal communications.
- Conducted Employee Communications Survey.
- Established weekly or Bi-weekly Strategic Staffing meetings to streamline and track hiring activities.
- Established monthly internal newsletter to improve internal communications.
- Established bi-weekly conference call meetings with key University HR staff.
- All new hires are required to attend University orientation sessions as part of on-boarding process.

## **Key hires to better focus and improve organizational effectiveness and security.**

- Director of Security
  - Implemented mandatory security awareness training.
  - Regular Security inspections.
  - Streamlined security operations for ATIC and WSRI.
  - Improved Counterintelligence reporting with Defense Security Service and FBI.
  - Further strengthened physical security within WSRI.
  - Instituted secure environment for the processing and storage of sensitive but unclassified information.
- ISSM (Information Systems Security Manager)
  - Implemented WSRI network security program.
  - Eliminated any virus's resident on network servers and PCs.
  - Established WSRI "Protect Yourself" information series to increase employee's cyber security awareness.
  - Developed cyber security policies and implemented 'least-privileged-user' changes to deployed PCs.
  - Developed a plan of actions and milestones to ensure WSARC IT services are compliant with DFARS 252.204-7012.
- Director of IT
  - Established HIPAA and ITAR compliance for IT systems.
  - Reduced supplier provider costs for WSARC telecommunications services.
- FAR Certified Contracts Manager
- Separated Contracting and Finance Functions.

## **Established the Contracts & Procurement Department.**

- Created a contracts department to initiate the pre-award and post award cradle to grave contracting/purchasing process.
- Support begins during proposal development and carries through contract closeout.
- Drafted and implemented the Contract Management System, the Contract Action Report and implemented a Purchase Order process within Deltek for subcontracts and CAs to ensure compliance with DCMA requirements.
- Created and implemented a process to purchase WSRI contract equipment and supplies through the Wright Buy Purchase System.
- Created business processes and templates which significantly improved the proposal quality and win ratio which lead to a significant improvement to the WSARC bottom line for 2015. Templates also reduced processing time for contracts/subcontracts awards, modifications and other contract actions.
- Enhanced coordination and communication between the contract department (3 staff) and the more than 20 internal project managers and 90 external government and subcontractor staff.
- Created a Basic Ordering Agreement/Task Order structure for all major programs with AFRL.
- Created standard and centralized contract/NDA/TA/Subcontracting Templates.

- Created and implemented a job authorization and risk management procedure.
- Created and implemented a procedure to track contract deliverables.
- Created and conducted self-inspections on contract records and files.
- Created a property system procedure to record and track all Government Furnished Property (GFP) and Contractor Acquired Property (CAP).
- Established facility working group
- Inventory Management was put in place.

#### **Centralized WSARC/WSRI operational support to the execution of business functions**

- Created protocols to deconflict WSRI and WSU research opportunity pursuits.
- Expanded staff levels to provide more effective segregation of duties.
- Initiated monthly salary reallocations (previously performed on a semi-annual basis).
- Standardized reallocation algorithms to “percentage of effort worked,” consistent with University practices.
- Initiated quarterly Deltek-to-Cognos assessments to ensure all personnel have been reallocated to the correct FOA.
- Standardized Procard Reconciliation process reducing processing time significantly.
- Connected Procard Reconciliations with Travel Reports to ensure accuracy in calculations and reduce administrative requirements.
- Established a process improvement working group to reduce redundancy and increase efficiency of WSRI business processes

#### **Realigned WSARC finance to aid in the reduction of costs and the accuracy of accounts receivable/payable actions**

- Reformatted project financials within IBOTS for program management review, while implementing procedures to be explicitly consistent with system of record cumulative values (Banner and Deltek).
- Upgraded Deltek from GCS to CostPoint, now utilizing Project Management module for program management reviews and reporting. Replaced IBOTS with Access Database for Banner related reporting.
- Instituted Deltek Charge Code to Banner FOAP correlation matrix to ensure accuracy between accounting systems.
- Segregated WSARC Activity onto separate funds under WSARC grant to exercise greater system management control of direct contract expenses and administrative expenses.
- Initiated Service Center usage procedures for WSARC assets including the MTEC and UAVs.
- Standardized IBOTS monthly program review data for all contracts for management review (PMRs), developed IBOTS to provide project history, including personnel support and other direct costs, to project managers, and to provide contract/grant contract funding history. Then upgraded Deltek from GCS to CostPoint, now utilizing Project Management module for program management reviews and reporting. Replaced IBOTS with Access Database for Banner related reporting.
- Standardized project permissions to ensure only authorized personnel support contracts/grants.

- Standardized procedures to request project budget modifications.
- Standardized procedures to initiate an execute subcontract actions.
- Provide monthly information on contract A/R history to project managers.
- Publish Deltek Chart of Accounts for common access to all administrative functions.
- Established “Watch List” database for daily review of new funding opportunities.
- Established “Opportunity Pipeline” database with common access to help track future funding opportunities and manage which opportunities to pursue.
- Standardized cost estimation process ensuring proposals are consistent and accurate with relevant costing components.
- Standardized bid & proposal request forms.
- Created employee utility reports to monitor employee activity on contracts.
- Developed infrastructure for Timecard Authorization Letters to information personnel of their budgeted hours for each project.
- Established financial “Book of Reports” to monitor key aspects of the organization’s health.
  - a) WSRI/WSARC Income Statements
  - b) Deltek Statement of Indirect Cost
  - c) WSARC Balance Sheet
  - d) WSARC Asset Depreciation
  - e) Cash Flow Forecast
  - f) Bank Account Reconciliations
  - g) Unbilled Accounts Receivable
  - h) Aged Accounts Receivable
  - i) Aged Accounts Payable
  - j) Semi-monthly check runs details
  - k) Financial Trend Report
    - i. Revenue Trend
    - ii. Direct Expense Trend
    - iii. Indirect Expense Trend
    - iv. Incurred Rates Trend
    - v. Contract Aged A/R Trend
    - vi. Employee Utilization Trend
    - vii. Indirect Labor Cost Trend
    - viii. Contract Funding & Balance Trend
  - l) Monthly Percentage of Effort Report
  - m) Budget-to-Actual Report
  - n) Contract Summary Report
  - o) New Contracts Awarded Report
- Implemented fully compliant Total Time Accounting Process.
- Created database for Deltek Floor Check (i.e. Timecard Failures) Reports.
- Standardized Timecard Correction Procedures.
- Created Subcontracts Management module for WSARC subcontracts.
- Invoicing/billing was up to 7-8 months in arrears on several contracts and expenses had been missed in the invoicing process. Now everything is invoiced within the new monthly closing process every month and is current with expenses.

- Implemented practices for outstanding receivables. Now most A/R is paid within 30-60 days (excluding ATIC and DPI).
- Created 'Contract Status' worksheet to highlight all awards within WSARC to:
  - a) quickly answer questions.
  - b) help facilitate invoicing to ensure no contract was missed.
  - c) act as a double check for when awards were ending.
- Additionally, added "Contracts Awarded" to spreadsheet showing the escalation from month-to-month throughout the year.
- Initiated emailing the PM's, Contracts Dept. and all of Finance team as well as other key personnel when awards have been processed in Deltek for their records.
- Initiated copying PM's on invoice submission to sponsors.
- Implemented and developed purchase requisition process and applicable form that is now completed before a PO is created in Deltek. This has formalized the purchasing process. Now Finance must approve all requests for purchase orders to ensure funding availability.
- Implemented procurement process and procedures identifying that only Subcontracts and Consulting agreements are to be processed in Deltek. All other types of purchasing are through Wright Buy and billed back to the ARC on the 668900 invoice from WSU. This ensures compliance with Wright Way Policy.
- Previously no official tracking monitored which progress/tech reports were being sent to sponsors. A tracking chart is now utilized to help follow up submission data.
- All invoices are now kept in electronic and paper form.
- Created readily available file of all 'Open A/R' so that anyone that has a question to what is outstanding can quickly look to see which invoices are not paid. This paper folder also helps to quickly produce the past due notices to ensure that the open A/R does not go beyond the 90 days.
- Send contracts department the contract status worksheet for its files at the end of the monthly close.
- Established process for newly awarded contracts to update Deltek within 2-3 business days.
- Added appropriate staff creating appropriate segregation of duties and enhancing Finance Team efficiency.
- Standardized the utilization of WSU Wright Way policies so WSARC can mirror the University and improve compliance.
- Established and documented standard monthly closing process increasing availability of critical financial data enhancing decision making.
- Eliminated previously documented audit finding related to recognition of contract revenue. Now have 2 consecutive clean audit opinions with no similar findings noted.
- Developed standardized Due To/From WSU analysis and documentation as part of monthly close process.
- Established open trustworthy and transparent dialog with University's key Division of Business and Finance.
- Nearing completion of financial transition of ATIC financial system to streamline and reduce cost associated with ATIC.

- Development of draft business relationship guidelines for all activities between WSU, WSRI and WSARC.
- Development of Finance Team blending staff with both industry and higher education experiences.
- Provided training material to all key WSRI staff for implementation of new Uniform Guidance Super Circular including WSATC Officers, Contracts Staff, Finance Team, Project Managers and Principal Investigators.
- Enhanced training opportunities for all of Finance Team members.
- Changed internal and external image of WSARC and WSRI to one of transparency. This is evidenced by the financial results and data now provided to both the WSARC Board and key University leadership.
- Discovered and communicated with University financial officer's flaw in current DHHS negotiated F&A rate with respect to excluded WSRI omitted indirect cost. Correction to be made during next University Cost Proposal submission which will result in increase in recoverable rate for all University research awards.
- Initiated integration of University SOS Program and International Travel Program for WSRI employees working on WSARC contracts and business development.
- Developed, submitted and gained approval of WSARC Asserted Indirect Rates for all WSARC grants and contracts.
- Implemented differential Indirect Overhead Rate structure to allow for more competitive balance for proposals recognizing the creation of differential cost pools based on employee location.
- Integrated NCMR into WSRI/ WSARC portfolio of proposal options.
- Provided funding at University request to MVRF and in doing so helped develop new documented and collateralized legal agreement transitioning from previous University uncollateralized methodology.
- Implemented invoice and approval process for all WSRI/ WSARC expenditures.
- Expanded Red Flag Training Program for all previously untrained Finance Team members.
- Developed and utilized new Salary and Wage workbook to track and measure all annual increases against Performance Review summary.
- Implemented comprehensive and integrated WSRI/ WSARC Budget Development Process.
- Assisted in comprehensive multiple month Forensic Audit providing over 1,000 document requests.
- Under a shortened timeline managed due diligence procedure to evaluate the financial viability of investment of WSU BSOM in Clinical Trial company purchase resulting in saving University over \$3,000,000.
- Coordinated with University office of Risk Management on the review of all WSARC Insurance coverage to eliminate the duplication of coverages.
- Transitioned the Proposal Process to mitigate contract risk for unrecovered Indirect Cost.
- Eliminate over 3 year's backlog of WSRI F&A College and Faculty Director Payments due.
- Standardized allocation policy of F&A payments to colleges and Faculty Directors.

- Quantified for transparent University review history of all contract decision shortfalls for WSRI and WSARC.
- Executing with University Planning and Engineering Office two approved state capital projects. One project for the development of the SCIF located at WSRI and a NCMR LVC related project.

**The following are extra materials are provided for your review based on other questions received at WSRI and WSARC over the past 6 months.**

**What are the financial risks to the University, and are they adequately addressed?**

**As the University fronts the costs of most WSARC operational expenses, there is an acknowledged cash flow risk, where the University will not be reimbursed for WSARC costs until WSARC themselves is paid by their sponsors. The only mitigation mentioned in the self-study document is monitoring of monthly cash flow. [Is this accurate? =>] An aggravating component of this risk is WSARC's ability to enter into contracts that will be executed by University employees without the requirement to consult with the University on contract terms. Structurally, this can lead to situations as experienced in the past where WSARC may not fully recover its costs and be unable to reimburse the University.**

As we shared, as of FY 16, WSARC's policy is that all new contracts will be bid with full rates, and whenever possible, with a fee. WSARC will continue to honor the agreement with the University of paying on net 60 (60-day) payment terms.

Our income statements as shown in Figures 19 and 22 includes depreciation expenses that impact our financial results, but depreciation does not impact cash flow. In addition, because we use asserted rates and most of our contracts are cost contracts, we can adjust our rates, if needed, to absorb all allowable costs ensuring that we have enough cash to meet our obligations. We intend to change our rates for FY17 to actuals at the end of the FY, after the budget remediation's mentioned above are implemented.

It is also important to point out that there is lag time in performing the work and receiving payment from our Federal sponsors. To ensure that contractual requirements are met, the research staff must be in place and working, so those expenses are salaries that have to be paid and subsequently invoiced to the sponsor so that WSARC can be reimbursed for their costs. Many Federal sponsors take 60+ days to pay these invoices. Thereby creating a funding lag.

The University initially pays these WSRI salary and benefits costs and invoices WSARC for the expenses. WSARC then pays back these salaries when the Federal sponsor pays WSARC invoices. In the past, WSARC fell behind in payments to the University by time periods much greater the 60 days. However, WSARC policy is now to paying all invoices within 60 days and has met that target for all of FY17.

WSARC has eliminated more than 47 positions, to reduce its overhead costs by 41% for FY18 (approximately a \$1.0M reduction in the budget); this is also reducing the A/P to the University to an average total of \$1.2M, roughly two months of WSRI staff salaries and benefits.



**Does the entity use University facilities or services, and if so, is proper reimbursement assured?**

**By virtue of WSARC's affiliation with the University, including leveraging of University employees, it makes extensive use of University services: human resources, payroll, purchasing, procurement, legal affairs, travel, business, and finance, etc. While WSARC reimburses for direct costs – such as salaries, benefits, and the actual cost of a purchase – they do not reimburse the University for the cost of the provided service. No overhead charge is added to WSARC's reimbursements to the University.**

Research institutes and Universities provide mutual benefit, WSRI employees identify many research opportunities for faculty, some of which we incur the cost and have no revenue benefit (i.e., Multidisciplinary University Research Initiative (MURI)). In numerous instances, WSARC will subcontract with the University, and we do not charge G&A, yet WSU gets F&A. Therefore, WSARC incurs costs on the WSU's behalf with no cost recovery.

We are working to gain an exemption from A-122 cost principles and are making significant progress in developing a DCAA compliant Purchasing system. This will allow WSARC to make approved purchases and that would decrease the volume of work in the research department. There are multiple tangible and intangible mechanisms in place to operationalize a functional relationship and synergy between WSU and WSARC. Some examples of the symbiotic relationship include:

A. Human Resources. All WSRI staff are WSU employees. The source of their compensation is either direct charge to WSU (RSP) administered WSRI grants or to WSRI/WSARC contracts, or, is charged to WSARC overheads (including WSRI indirect costs). A WSRI HR staff member does all the preparatory hiring and staff work, including entry into the University's PeopleAdmin system, creating job postings, setting up the interviews, coordination with equity and inclusion as well as salary and compensation, personnel reviews, personnel discipline, and staff on-boarding and off-boarding for WSRI. Campus HR provides oversight and review of the entire process for compliance. As a result, the WSRI HR Team is effectively responsible for almost the entire HR process. In one particular area, WSRI actually takes a very significant load off the University office – the processing and on-boarding of more than sixty summer interns each year in support of an USAF ATRC contract in CECS; campus HR is thus relieved of a significant administrative burden of the hiring, travel arrangements and off-boarding.

B. Technology Transfer and Commercialization. WSU's OTT under the VPR has been reduced to a single staff person, a level inconsistent with the volume and nature of work to be done. WSRI provides exceptional support amounting to more than 1.0 FTE at no cost to the University. This support is entirely funded by an external DOD OEA grant for Mr. Hugh Bolton and his team. Mr. Bolton has worked tirelessly with the OTT to win Ohio I-Corps funding for our faculty, develop training programs for commercialization and entrepreneurship, develop start-up companies based on WSU Intellectual Property, and providing connections for venture funding.

C. Facility Security and other Compliance. In all areas of compliance (including ITAR, COI, etc.) the VPR, University Facility Security Officer (FSO), University Research Compliance Officer, and the leadership of WSRI/WSARC (CEO, COO, CSO, FSO) work in a highly synergistic way, sharing services and information and support in order to be compliant with University Policy and Federal and State laws and regulations. This sharing adds value to both entities.

D. Until recently, RSP and WSRI shared an FTE post-award grants accountant; the position was eliminated because of budget cuts in July 2016.

E. RSP and WSRI share an FTE who supports the University's InfoEd platform for research administration and proposal submission and award tracking. This position is being eliminated in our current staffing cuts, and the work will be transferred to CaTS.

F. WSU administrators, staff and a Board Trustee's Member serve on the WSARC Board of Directors.

G. WSRI/WSARC supports the campus-based group's affiliation and leadership of the OFRN Centers of Excellence.

H. WSARC provides opportunity and cleared facilities, otherwise not available outside WPAFB, for WSU researchers to perform classified research programs ranging from SECRET to TS/SCI and SAP.

I. WSARC maintains the NCMR Calamityville facility, through and lease agreement with Double Bowler. WSARC covers all operational cost of NCMR in its overhead rates.

J. Other services – to be compliant with University Policy, WSARC and WSRI use the Wright Buy and other purchasing services of the University. However, WSRI does all the set-up and tracking of all these purchases.

K. WSARC has absorbed the cost of multiple faculty proposal developments. One example is the ONR MURI grant; \$7.5M for work at WSU Faculty and WSRI gets no financial benefit. Another example is for the recent DARPA \$9M LEAP win, WSARC covered 95% of the white paper, proposal, and post selection negotiation costs.

<b>Are there acceptable provisions for recovery of University investment?</b>
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WSU leadership, in 2010, agreed to make an investment of ~\$4M through WSARC that requires cost return and recovery, by accepting an Ohio Third Frontier \$5M R&D Capital (RDCAP) grant for capital investments to support WSRI and WSARC. WSU provided \$4M in funds that were used to purchase the mobile RPA trailer (MET), analyst testbed equipment for the AFRL ATB effort, and the WSARC building and laboratory facilities at 4035 Col Glenn Highway. The repayment to WSU of the \$4M is being made by the Ohio Third Frontier and is based upon an agreement that WSU would get reimbursed ~\$0.15 on the dollar for all dollars expended on the five AFRL contracts shown in Table 5. Table 5 represents the status of this repayment as of 31 January 2017. WSU is ultimately projected to collect \$4,000,000 directly from the Ohio Third Frontier as both WSARC and RSP bills against these five AFRL human effectiveness contracts as specified in the RDCAP grant. WSU has recovered \$3.2M as of September 30, 2017. We anticipate recouping another \$900K by June 30, 201. The remaining \$900K to be recovered from

the State after that will be provided back to WSARC to cover the cost of the modifications made to the 4035 Col Glenn building in 2013-2014. These funds will ultimately be used to offset accounts payable and future payables to WSU and other accounts.

**Table 5: RDCAP Information**

**\$5M of State Capital Funds Used to Purchase RPA Trailer, ATB Equipment and WSARC Laboratory Facilities**

													9/30/2017	
Job#	Job Name	Domain	Client	POP	Ceiling	Funded	Sub Expenses	Total		Paid	Overspent (cost share)	Ceiling	New	
								Expenses as of Sep 2017	Invoiced as of Sep 2017			Increase in Works.	Awards in Works	
11035	Analyst Test Bed	Defense	AFRL	15-Sep-12 thru 14-Jan-17	\$7,899,849	\$7,898,849	\$4,942,547	\$8,168,312	\$7,898,849	\$7,898,849	\$269,463	\$0	\$0	
11036	LVC Tech Support	Defense	AFRL-RHC	01-Sep-12 thru 31-Dec-15	982,174	982,174	656,685	1,017,285	982,174	982,174	35,111	0	0	
17015	NMI all 668281	Defense	AFRL	20-Dec-10 thru 30-Dec-15	5,247,129	4,351,936	2,007,892	4,351,936	4,351,936	4,351,936	121,813	0	0	
17018	RPA (668749)	Defense	AFRL	01-Jan-12 thru 14-Oct-19	12,495,833	7,375,752	2,488,470	6,683,392	6,649,554	6,638,885		0	5,000,000	
17022	RIIT (668333)	Defense	AFRL	20-Dec-10 thru 29-Jun-18	1,399,965	1,103,332	406,674	1,094,832	1,103,332	1,102,055		1,399,000	0	
<b>TOTAL</b>					<b>\$28,024,950</b>	<b>\$21,712,043</b>	<b>\$10,502,268</b>	<b>\$21,315,758</b>	<b>\$20,985,845</b>	<b>\$20,973,899</b>	<b>\$426,387</b>	<b>\$1,399,000</b>	<b>\$5,000,000</b>	

**• Ongoing Milestones**

- RDCAP end date per agreement is now Dec 31, 2018.
  - Have recovered \$3.2M from the RDCAP so far. After we recover \$4.1M the University is completely paid back.
    - Expect that payback by Dec 31, 2018
    - Remaining dollars of \$900K are for WSARC's prior investments for facility upgrades
- RIIT period of performance (POP) extended from Dec 31, 2015 to June 30, 2018
- RIIT ceiling Increase of \$1.4M and POP extension in works to Dec 2018 by June 30th.
- RPA contract will have and additional \$3M to \$5M added by February 2018.

**Must Spend \$33M on only these contracts  
to fully Recover \$5M**

**Footnotes to the Table:**

- i.) In summary, RDCAP is basically a pass-through transaction. A detailed explanation of the RDCAP is provided later in the self-study document.
- ii.) In FY16, WSU transferred the Cyber Lab and LVC assets to WSARC. These assets were WSARC's assets as a result of the Ohio Capital budget, and WSU was utilized as the state agency to transfer the funds to WSARC. This is a normal activity for the State. WSU is merely the pass through; otherwise, these funds would not have come to WSU.