



Mission: Research

C. Michael Moriarty
Interim Vice President for Research

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Purpose of Briefing

- University Research
 - What it is and why do we do it?
 - Some issues that must be dealt with.
 - How are we organized to provide the required oversight?
 - How do we compare with others?
 - How do we grow?





Guiding Principles

- **Vision Statement:** “FAU aspires to be.....internationally acclaimed for its contributions to creativity and research.”
- **Mission Statement:** “...FAU fulfills its mission through excellence and innovation in.....outstanding research and creative activities....”



Guiding Principles (continued)

- **Strategic Plan (Goal 3):**
 - “ FAU will develop academic and research programs of the highest caliber to support Florida’s strategic engagement in building an economy based on high technology and to foster a culture based on scholarly inquiry.”





A Different Perspective

- Creation of new knowledge is the one characteristic that distinguishes a research university from all other educational outlets.



A Quick Mind Game

- Think of five of the top U.S. educational institutions.

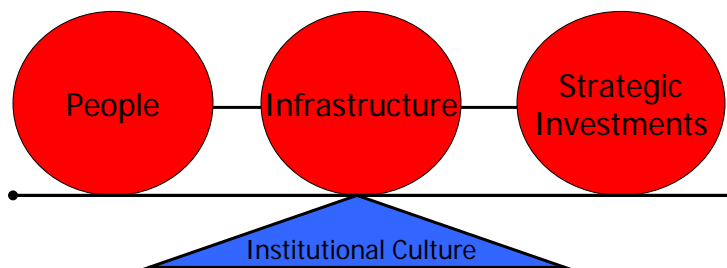


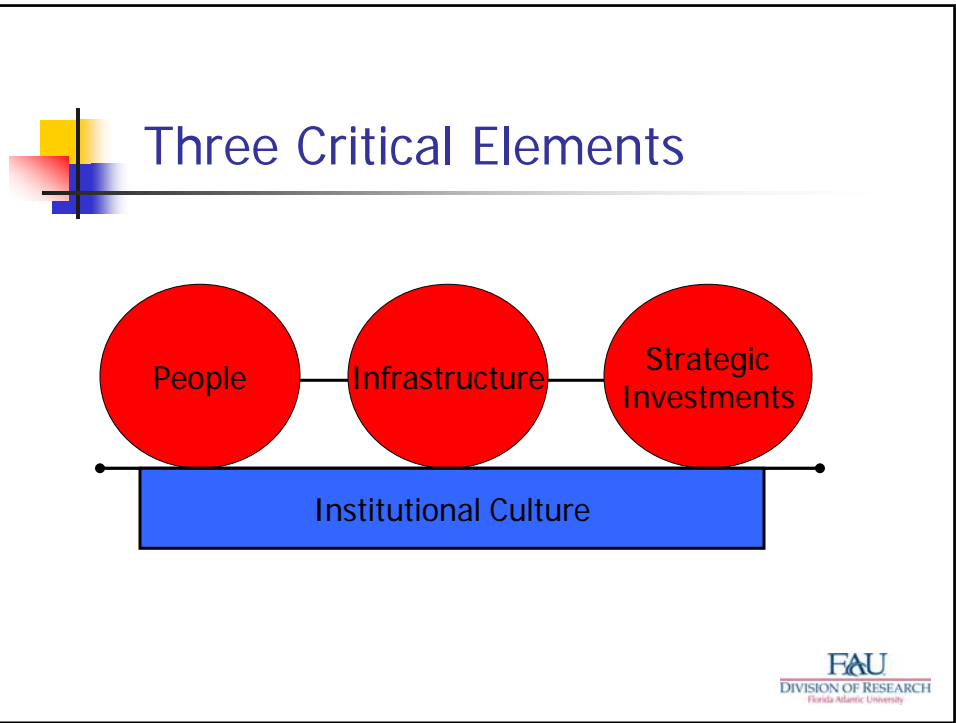
Foundation of a Research University

- A strong research university rests on an institutional culture where research is openly valued, rewarded and, importantly, expected.
- It must, in effect, become part of our institutional DNA.
- This does not imply that it transcends teaching.



Three Critical Elements





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- The diagram, titled "People", features a bulleted list of three points. The title is in a large blue font, and the list items are in a smaller black font. A decorative graphic of overlapping yellow, red, and blue squares is in the top-left corner. The FAU logo is in the bottom-right corner.
- Faculty: recruit and retain the best. We compete in a national market so there are real costs and competitive pressures.
 - Students: Particularly graduate students. The best are highly competitive and they form the cornerstone of a strong research program.
 - Staff: Skilled and trained support staff are critical to provide strong laboratory and administrative support.
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Infrastructure

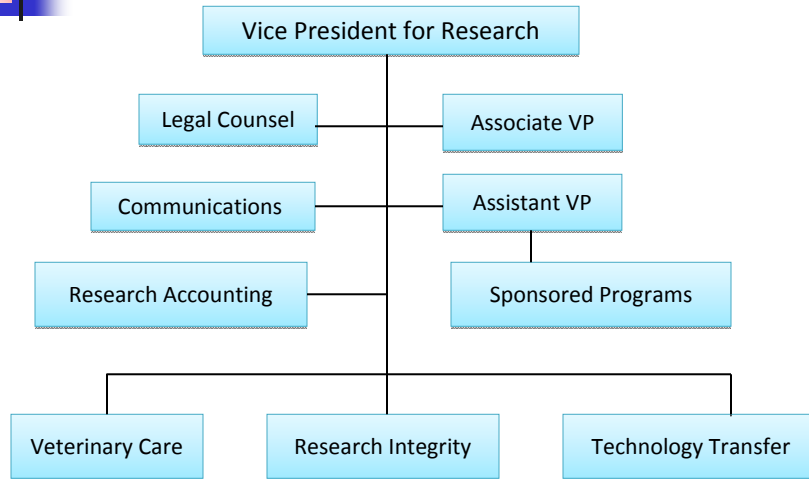
- To support and enhance the technical aspects of all research efforts.
- To insure institutional compliance with federal requirements.
- To assist in the administrative aspects of research.



Strategic Investments

- Relationship to local, state and/or national needs.
- Availability of a source(s) of sustaining funding in order to leverage the investment.
- Exploit niches to gain a competitive advantage.
- Emphasize multidisciplinary or cross college efforts.
- Identify leaders with a "fire in the belly".

Research Administration at FAU



Sponsored Research

- Contractual relationship between sponsor and university for a specific scope of work.
- Federal, state, industry, non-profits.
- Usually follows competitive review of submitted proposal.



Office of Sponsored Programs

- Unit in the Division that works closely with faculty in submission of a proposal.
- Staff assigned to specific colleges.
- Unit also responsible for negotiating with sponsors to insure that terms and conditions are acceptable to FAU.



Office of Research Accounting

- Accepted awards are processed and a specific auditable account is set up for the investigator(s) to use.
- Responsible for overseeing all aspects of financial compliance with funded projects.
- Invoice sponsor for payments since most awards are cost reimbursable.



Direct vs. Indirect Costs

- Direct costs are those costs that are specifically related to one project (salaries, supplies, equipment, travel, etc).
- Indirect Costs: (also known as overhead or F&A) are other required costs of doing the research but are not assignable to a specific project (utilities, electricity, HR, payroll, library, etc)



Indirect Costs (Overhead)

- Negotiated with the federal government usually every 3-5 years.
- Amount is calculated as a percentage of the direct costs. Our current rate is 42.5%.
- Represents our break-even point.



Office of Research Integrity

- Federal R&D funding to universities is approaching \$30B annually and this makes up about 2/3 of a university's R&D funding.
- With the federal money comes the federal requirements: both financial and programmatic.
- Two examples (out of many): Protection of Human Subjects and Animal Care and Use.



Office of Research Integrity

- Protection of Human Subjects extends to all research protocols involving humans not just medically invasive projects.
- Oversight committee (IRB) has wide discretion and reviews and approves all protocols.
- Primary goal is to minimize risk and insure informed consent.



Office of Research Integrity

- The oversight for the use of animals in research is similar to that of human subjects.
- Each area has strict mandates, wide discretion, reviews all protocols and maintains continual oversight.
- Currently, these groups oversee more than 800 new or active protocols.



Office of Technology Transfer

- Manages and protects the intellectual property (IP) arising from research discoveries.
- Deals with outside entities interested in licensing our IP and/or forming a start-up business.
- Revenues generated are shared with inventor.



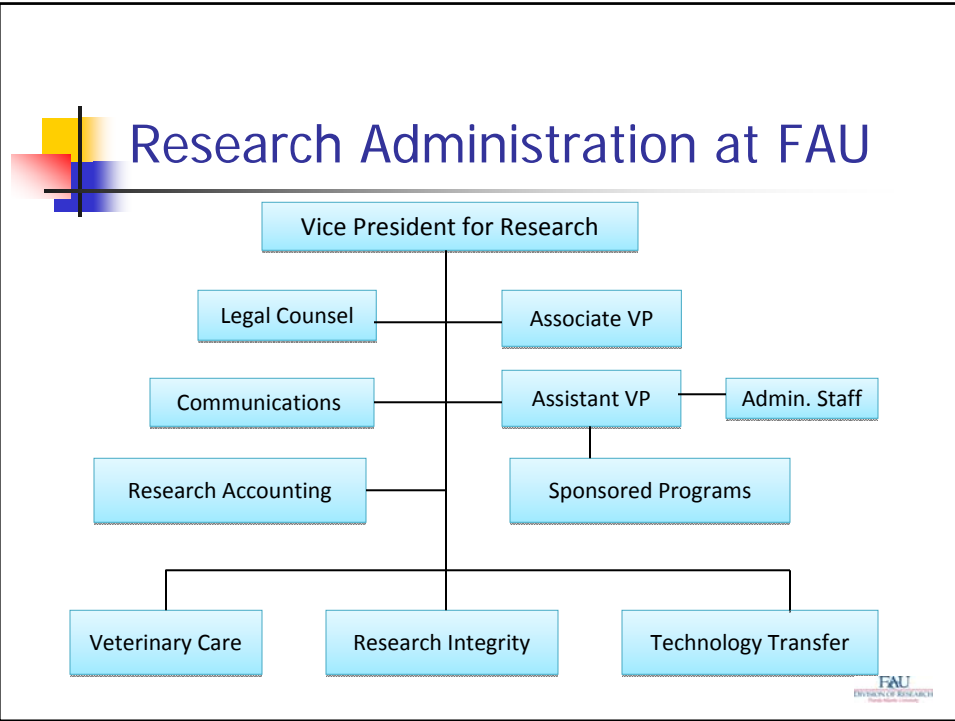
Realistic Expectations for OTT

- It can be a significant revenue generator to the university IF we hit a home run like reverse transcriptase at UC or Google at Stanford.
- Important that we be viewed as *AN* engine of economic development and not *THE* engine.



Office of Research Communications

- Responsible for disseminating news and information to the media and both internal and external audiences.
- Works with OCM to coordinate efforts.
- Assists faculty with special events related to research, media requests, arranges interviews, manages web site, etc.



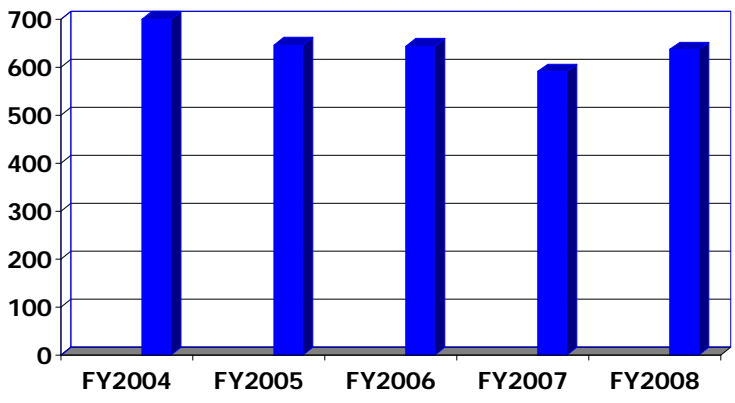
- ## Vice President for Research
- Similar to the conductor of the symphony.
 - Must divide time between the three critical areas: people, infrastructure and strategic investment.
 - Important: VPR should think strategically and take the lead in creating new initiatives and collaborations.
 - VPR also takes the lead in working with Florida's Congressional delegation to secure earmarks and plus-ups.
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Bottom Line: How are we Doing?

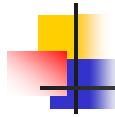
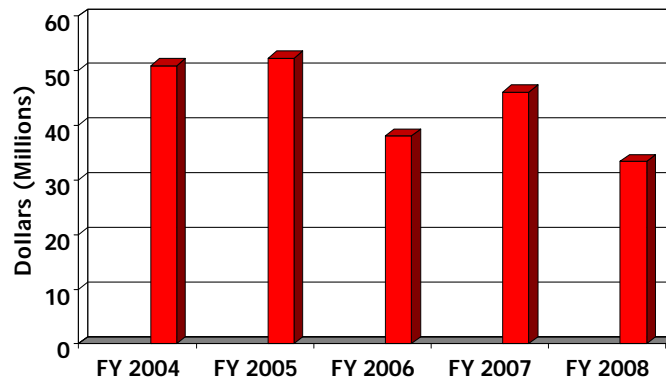


Number of Proposals Submitted





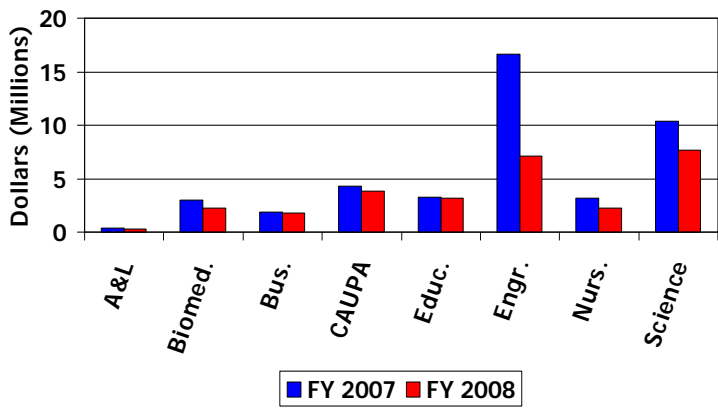
Research Funding Trend



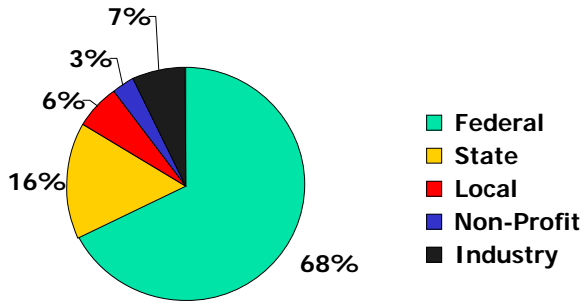
Explanations

- Increasingly competitive funding (e.g. NIH ~15%)
- Loss of some quality faculty.

FY 2007 & 2008 Funding by College

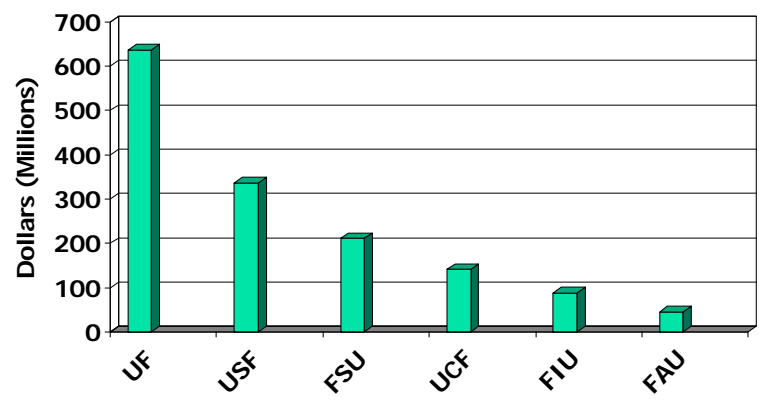


Sources of FY 2008 Research Funding

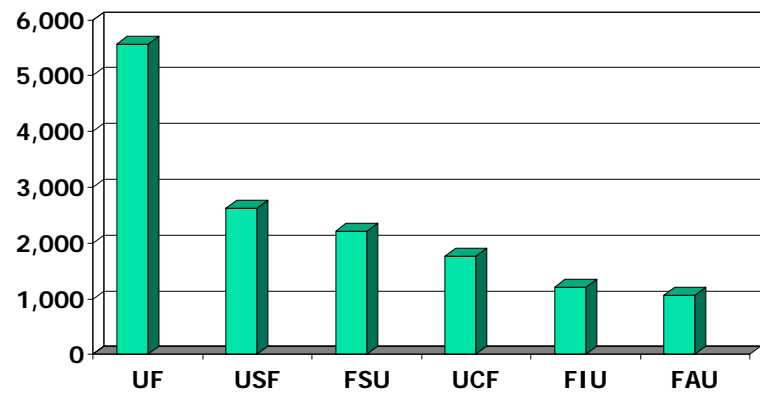




NSF Expenditure Data: FY 2007



SUS FTE Faculty: 2007





Some Important Dates in FAU History

- First Ph.D. degree awarded in 1987.
- Division of Research established in 2001.
- First permanent Vice President for Research hired in 2001.
- Conclusion: we've come a long way in a short time.



Build a University Slowly and Continually

Set institutional expectations for research

- Recruit good faculty.
- Provide an effective and efficient infrastructure to support them.
- Make careful strategic investments.
- Provide incentives & rewards: both financial and recognition.





We do have some unique resources

- Scripps Florida
- Torrey Pines Institute for Molecular Studies
- Max Planck Institute
- Oregon Health & Science University's Vaccine and Gene Therapy Institute
- FAU medical school still developing



What is Reasonable to Expect?

- You should anticipate a non-compounded rate of growth of at least 10% per year – if (1) we focus on the three critical elements and (2) we continually reinforce the institutional culture.
- For comparison, for 6 years at UGA, we grew at 10% per year and over my 12 years at Auburn we averaged over 12% annual growth.
- It can be done, but “non compounded” means the goal posts move every year and you have to do it all over again.



Recommendations: No Cost

- President and BOT publicly emphasize the importance of research to FAU's mission.
- Provost to encourage deans to make budget decisions strategically with one important consideration being future research growth.



Recommendations: Low Cost

- The VPR and the Division of Research must provide leadership to initiate and nurture targeted, strategic efforts in selected areas where FAU can be highly competitive.
- Consider implementing a salary incentive program that will stimulate and encourage submission of proposals. (Also assists in faculty recruitment and retention).



Recommendation: Modest Cost

- Stealing an idea:

FAU Peaks of Excellence



Strategic Investments

- Relationship to local, state and/or national needs.
- Availability of a source(s) of sustaining funding in order to leverage the investment.
- Exploit niches to gain a competitive advantage.
- Emphasize multidisciplinary or cross college efforts.
- Identify leaders with a “fire in the belly”.



Wrap Up

- Referring only to the calendar, FAU is a young and maturing research university.
- FAU's recent research funding is, at best, stable but is not growing.
- We have a base of talented, competitive researchers but significant research growth will require additional faculty in strategically selected areas.



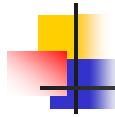
Wrap Up (continued)

- There is considerable unrealized potential and opportunities that can lay the groundwork for growth.
- VPR and the administration must risk being unpopular by setting research priorities. No one has the resources to grow across-the-board.



Convergence with Clearwire

- Increase contract/grant funding.
- Start up funding for new faculty.
- Upgrade major core research equipment.
- Supplement grad student stipends in selected areas.
- Establish cost sharing fund for proposals targeting major research equipment.
- Fund for patent applications for promising technologies.



Finally

- You are currently doing a national search for a permanent VPR. This is a very critical hire for the future of FAU.
- Current economic times are, admittedly, challenging but planning can (and must) precede the actual investment.

