Strategic Investments and Outcomes
Value of Strategic Investment

Norman Campus Research Expenditures, FY 2004 - 2013

Source: Norman Campus Financial Support Services
Strategic Initiative in Defense, Security and Intelligence

• Funded Projects
  – Norah Dunbar IARPA contract ($10.7M)
  – Guifu Zhang Phase I SBIR with MDA ($150K)
  – Keith Brewster USAF/TAC sole-source contract ($80K)
  – Zhisheng Shi AFOSR contract ($1M)

• Visits and Planning
  – Visit to Scott AFB
  – Visit to NNSA Kansas City Plant
  – Visit from airborne SAR group at Sandia National Laboratory
  – Visit to sensors group at AFRL, Dayton, OH
  – Visit to Booze Allen, Dayton, OH
  – Visit from NSWC-Crane
  – Visit to CGI in Lawton, OK
  – Discussions with MDA regarding MSTAR program
  – Development of SOW for Raytheon Intelligence & Info Systems
  – Joint response with LMCO to FAA MPAR program
Strategic Focus on Defense/Security/Intelligence via Competitive Grants and Contracts

Norman Campus Defense Department Expenditures, FY 2004 - 2013

Classified research is about to begin
Federal Research is Growing and Diversifying

Norman Campus Research Expenditures Directly from Federal Agencies, FY 2004-2013
Winning Bigger Awards

Comparison of 5-Year Periods in Large Projects Awarded

- FY 2004-2008
- FY 2009-2013

Source: Office of the Vice President for Research

Office of the Vice President for Research
NORMAN CAMPUS AND NORMAN CAMPUS PROGRAMS AT OU-TULSA

The UNIVERSITY of OKLAHOMA
University Strategic Organizations

- Chosen competitively – flagship efforts core to institutional priorities
- VPR Office provides $150K/year for five years (renewable)
- High degree of accountability; high expectations, with focus on submitting nationally competitive center proposals
- Eight current USOs
  - Atmospheric Radar Research Center
  - Center for Analysis and Prediction of Storms
  - Center for Applied Social Research
  - Institute for Early Childhood Education (OU-Tulsa)
  - K20 Center for Education and Community Renewal
  - OU Biomedical Engineering Center
  - South-Central Region Climate Science Center
  - Cooperative Institute for Mesoscale Meteorological Studies
- Depending upon budgets, a solicitation for additional USOs may occur in FY15 or FY16
University of Oklahoma - Norman Campus

FY13 NC Expenditures: $96.2 Million (+ $3 Million)

4-Year Growth: 23%

ALL OU Expenditures in FY94: $92.2 Million

FY13 Requested: $403 Million

The Money
Selected Book Awards

Emily Johnson
Antsiferov Award

Stamatios Kartalopoulos
Choice Outstanding Academic Title

Kyle Harper
James Henry Breasted Prize

Michael Kramer
NCA Book of the Year Nominee

Jennifer Saltzstein
Huntington Library Fellowship

David Wrobel
Wrangler Award

Kathleen Crowther
Gerald Strauss Book Prize

Stephen Norwood
Booklist Editor’s Choice

Robert Goins
Non-Fiction Oklahoma Book Award

Laurie Vitt
Grand Prize, Hamilton Book Awards

Alan McPherson
SCLAS A.B. Thomas Award
Selected Prestigious Honors/Grants

Kyle Harper, Guggenheim, AHA Breasted Prize, CAMWS Best Pub

S. Lakshmivarahan, IEEE Life Fellow

Mike Boettcher, 2 Emmy Nominations

Kim Milton, Simons Fellowship

Edgar Heap of Birds, US Artists Fellowship

Kevin Butterfield, Huntington Foundation Fellowship, Residential NEH Fellowship and Summer Institute Grant

Tyrrell Conway, American Academy of Microbiology Fellow

Allen Hertzke, Pontifical Academy of Social Sciences

Yun Wang, Fellow of American Physical Society
<table>
<thead>
<tr>
<th>Award</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fulbright Scholars</td>
<td>27</td>
</tr>
<tr>
<td>NSF CAREER Awardees</td>
<td>16</td>
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<tr>
<td>AAAS Fellows</td>
<td>5</td>
</tr>
<tr>
<td>NEH Fellows</td>
<td>2</td>
</tr>
<tr>
<td>ACLS Ryskamp Fellows</td>
<td>4</td>
</tr>
<tr>
<td>Guggenheim Fellows</td>
<td>2</td>
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<tr>
<td>Rome Prize Winners</td>
<td>2</td>
</tr>
<tr>
<td>PECASE Awardees</td>
<td>2</td>
</tr>
</tbody>
</table>
Recent Large Grants/Centers

$4M (Federal Climate Science Center)

$75M (Weather/Climate)

$26M (Rural Education)

$7.7M (Biocorrosion)

$10M (Cattle Production Resilience & Climate)

$9.7M (Health)

$10M (Social Sciences and Risk)

$20M (Human and Ecological Impacts on Climate)

$3.7M (Bioenergy)

$10.7M (Bias in Interrogation)
Recognition Program for Exceptional Achievement in Research and Creative Activity

- Launched 1 July 2012
- VPR office provides monetary support (bonus or discretionary) for achievement of significant national recognition
- **Awards range from $2,500 to $100,000**
- Mechanism for differential reward and reaching higher
- Bar is set by AAU and Center for Measuring University Performance
- **Categories**
  - Lifetime Achievement/Career Tier
  - Highly Prestigious Tier
  - Prestigious Tier
  - Major External Funding
  - Multi-College External Funding
  - Federal Laboratory Collaboration
  - Centers and Large Projects
  - Books, Exhibits, Performances, and Media
We Still Have Miles to Go...

FY 2003 - 2012 Research Expenditures Growth
With selected peers • Amounts in thousands

Source: National Science Foundation
*FY 2003-09 data based on all USC campuses, with branch campus expenditures negligible during this period.
**Separate campus data combined FY 2010 onward.
We Still Have Miles to Go...

FY 2008 - 2012 Research Expenditures Growth
With selected peers · Amounts in thousands

Source: National Science Foundation
*Separate campus data combined FY 2010 onward.
**FY 2003-09 data based on all USC campuses, with branch campus expenditures negligible during this period.
Conveying Excellence

President's Monthly Research and Development Highlights

New Doppler Radar Unveiled at AMS

Enterprise Electronics Corporation (EEC) in partnership with ARRC members Robert Pullower, Boon Leng Chong, Yan Zhang and Redmond Kelley, recently unveiled an innovative low-cost polarimetric Doppler weather radar at the national American Meteorological Society conference in New Orleans, LA. The next phase of this $1.8M State of Oklahoma EDGE project is to develop an assembly facility in Norman to manufacture and globally market the radars to government and commercial entities.

Publications

- Cambridge University Press has published Slavery in the Late Roman World, AD 275-425 by Kyle Harper (Classics & Letters). This book has been awarded the Classical Association of the Middle West and South’s Outstanding Publication Award.
- Cambridge University Press has published Transatlantic Literary Studies, 1660-1830 by Eve Tavor Bannet (English) and Susan Manning.
- Broadview Press has published Emma: Corbett Or, The Miseries of Civil War by Eve Tavor Bannet (English).

Recognition

Tassie Katherine Hirschfeld (Anthropology) was recently elected Secretary of the Board of the American Orthopsychiatric Association.

NORMAN CAMPUS AND NORMAN CAMPUS PROGRAMS AT OU-TULSA
• Approximately weekly lunches with faculty
• 2 meetings each semester with the VPR Advisory Committee
• Monthly meetings with the Research Council
• Lunch with every dean during the academic year
• Attendance at Provost Advisory Staff, Council of Deans Meeting
• Annual State of the Norman Campus Research Conversation
• Regular meetings with the Research Liaisons
• Participation in New Faculty Orientation
• Regular meetings with the Associate Deans (of Research) (discontinued)
• Numerous informal meetings with deans/chairs/directors.faculty as requested or needed
• Attendance at Faculty Senate meetings
Seizing the Opportunity for Leading Transformative Change in Research and Creative Activity on the Norman Campus

A Transition Document for Interim Senior Vice President and Provost Kyle Harper

from

Office of the Vice President for Research
University of Oklahoma Norman Campus

11 June 2014
Understanding the OVPR Budget
VPR Budget: Investing in Research

FY13 VPR Expenditures

- Research Support: 75%
- VPR Operating Support: 16%
- University Operating Support: 9%
The VPR budget, roughly $19M/year, is arbitrarily set equal to the amount of indirect cost reimbursement from externally sponsored grants and contracts.

Must understand IDC to appreciate the:

- Importance of external funding for providing internal support to ALL DISCIPLINES on the Norman Campus.
- Challenges facing us if Federal research agency budgets are reduced by sequestration/other means.
Facility and Administrative (F&A) Costs: What and Why Are They?

• Real costs of supporting sponsored research that cannot easily be assigned to a given project

• Research involves “mutuality of interest” of sponsor and OU, and thus costs are shared between sponsor and OU

• Facilities
  – Building depreciation
  – Equipment depreciation
  – Interest
  – Operations and maintenance
  – Library

• Administration
  – General administration
  – Sponsored Programs administration
  – College and departmental administration

• The Norman Campus is unable to recover about $10M/year in IDC
Why is F&A Important?

- Because the OU VPR budget is set equal to IDC recovery, the more IDC grows, the more the VPR Office budget grows and the more money we have to invest in faculty scholarship across all disciplines.
Recall VPR Budget...

FY13 VPR Expenditures

- Research Support: 75%
- University Operating Support: 9%
- VPR Operating Support: 16%
VPR Budget: Investing in Research

FY13 Research Support + Operations

- VPR Operations + Campus Support
  - SRTF Bond: 12%
  - Audit & Reserve Fees: 0%
  - Strategic Initiatives: 10%
  - Main Campus Support: 9%
  - ORS: 7%
  - SRTC: 1%
  - CRPDE: 2%
  - Core Labs: 2%
  - Master Lease: 5%
  - Space Rental & Renovations: 7%
  - Grant Match: 5%
  - Misc Other Support: 10%
  - Programmatic: 23%
  - Start-Up & Retention: 3%

- SRI, GLC, Recognition Program, Research Council, JFF, FTAP, AHFF, USOs

Office of the Vice President for Research
Norman Campus and Norman Campus Programs at OU-Tulsa
A Constrained Budget

- Approximately $19M per year of appropriated E&G (education and general) funds
- Amount is arbitrarily set equal to indirect cost (F&A) reimbursement
- Pay down inherited obligations down while investing to grow research

- Of the $19M budget
  - 70-75% is directed toward “perpetual” commitments
    - $2.0M for strategic initiative faculty salaries
    - $1.5M for EPScO biofuels faculty, numerous retentions, lab techs, administrative supplements, budget cuts
    - $2.1M for Stephenson Research and Technology Center debt service
    - $3.7M for VPR operations (ORS, VPR staff)
    - $5.0 M for George Lynn Cross Research Professors, SRI, Research Council, Research Liaisons, Facility Rent, core facilities, other
  - 20-25% for discretionary programmatic investment
    - $1.4M/year for bond payments on equipment from faculty start-up
    - $2.0M/year for cost sharing of grants and contracts
    - $1.0M/year for University Strategic Organizations
    - Other for one-time needs such as retention, renovation, special programs
The University of Oklahoma Research Campus
- **277 acres** adjoining the Norman Campus
- Formal WWII Naval Air Station
- Now being developed as a **transformative environment** for research, engagement and economic development
- Nearly **1 million square feet developed** in less than a decade anchored by the National Weather Center
- Nearly a **dozen private companies** on site + sovereign Indian Nation
- More than **1700** tenants overall
  - More than **450** private sector employees
  - Currently more than **300** Federal government employees
  - May add **80** new Federal employees in the next 1-2 years

*Office of the Vice President for Research*

*Norman Campus and Norman Campus Programs at OU-Tulsa*
**University Research Campus**

**Academic Programs and Areas**

- Weather and Climate Programs
- Robotics
- Chemistry and Biochemistry
- Genomics and Proteomics
- Remote Sensing
- Ecological Forecasting
- Medical Imaging
- Biomedical Engineering
- Supercomputing (Center)
- Center for Applied Social Research
- Cognitive Psychology and Human Behavior
- K20 Center
- Center for Spatial Analysis
Private Industry Tenants

- Agio Technologies
- Atkins North America
- Atmospheric Technology Services, Inc
- CGI Federal, Inc.
- Enterprise Electronic Corp/Weather Services Intl
- MSCI
- Vieux and Associates
- Weather Decision Technologies, Inc
- Weathernews Americas, Inc
- NextThought
Research Campus Since 2004

Stephenson Research and Technology Center

National Weather Center

Stephenson Life Sciences Research Center

Radar Innovation Laboratory (opened April, 2014)
University of Oklahoma
President David L. Boren
invites you to the

Dedication of the Radar Innovations Laboratory

1:30 p.m.
Wednesday, October 22, 2014

3190 Monitor Ave.
Norman, Okla.

Please respond by calling the Office of Public Affairs at (405) 325-3784 or by emailing specialevents@ou.edu, or click here to RSVP online.

Parking is available in the lots adjacent to
One Partners Place.

For additional information or for accommodations on the basis of disability, please call (405) 325-3784 or email specialevents@ou.edu.
Under Construction

Five Partners Place
(opens January/February 2015)
Spotlight on the University Research Campus

University of Oklahoma Research Campus

2013 Outstanding Research Park
presented by
ASSOCIATION OF UNIVERSITY RESEARCH PARKS
Creating Communities of Innovation
## Research Campus Rent Recovery

### FY08

<table>
<thead>
<tr>
<th>Group</th>
<th>Building</th>
<th>F Only FY08</th>
<th>F&amp;A FY08</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3RC (formerly C-SHOP)</td>
<td>Marshall/Cross</td>
<td>194.23%</td>
<td>388.81%</td>
</tr>
<tr>
<td>Medical Anthropology / D. Warren &amp; K. Anderson</td>
<td>SRTC</td>
<td>91.47%</td>
<td>190.57%</td>
</tr>
<tr>
<td>CSA</td>
<td>2PP</td>
<td>87.27%</td>
<td>181.81%</td>
</tr>
<tr>
<td>ACGT / B. Roe</td>
<td>SRTC</td>
<td>81.56%</td>
<td>169.52%</td>
</tr>
<tr>
<td>CBME / D. Schmidtke</td>
<td>SRTC</td>
<td>74.14%</td>
<td>154.47%</td>
</tr>
<tr>
<td>IE / T. Trafalis</td>
<td>SRTC</td>
<td>64.72%</td>
<td>134.82%</td>
</tr>
<tr>
<td>IEG / J. Zhou, Z. He, L. Wu, C. Hemme, K. Xue, &amp; J. Van Nostrand</td>
<td>SRTC</td>
<td>42.56%</td>
<td>88.67%</td>
</tr>
<tr>
<td>Botany/Micro / T. Conway</td>
<td>SRTC</td>
<td>40.64%</td>
<td>84.68%</td>
</tr>
<tr>
<td>CS / A. McGovern, A. Fagg, D. Hougren (S. Commuri reflected from FY08-FY10)</td>
<td>SRTC</td>
<td>31.43%</td>
<td>65.48%</td>
</tr>
<tr>
<td>ECE / H. Liu</td>
<td>SRTC</td>
<td>29.79%</td>
<td>62.05%</td>
</tr>
<tr>
<td>K20</td>
<td>2PP</td>
<td>19.85%</td>
<td>41.30%</td>
</tr>
<tr>
<td>AME / R. Gan</td>
<td>SRTC</td>
<td>18.07%</td>
<td>37.64%</td>
</tr>
<tr>
<td>RIL</td>
<td>1PP</td>
<td>10.27%</td>
<td>21.39%</td>
</tr>
<tr>
<td>Zoology / R. Hewes</td>
<td>SRTC</td>
<td>9.83%</td>
<td>20.07%</td>
</tr>
<tr>
<td>IE / B. Starly</td>
<td>SRTC</td>
<td>1.84%</td>
<td>3.84%</td>
</tr>
<tr>
<td>*Ding/Wenger</td>
<td>2PP</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ecolab / Y. Luo &amp; S. Niu</td>
<td>SRTC</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>EOMF / X. Xiao &amp; E. Bridge</td>
<td>SRTC</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Molecular Anthropology Lab / C. Lewis</td>
<td>SRTC</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cybercommons</td>
<td>SRTC</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**FY08 Total Aggregate Recovery**
- F Only: 39.07%
- F&A: 81.39%

### FY12

<table>
<thead>
<tr>
<th>Group</th>
<th>Building</th>
<th>F Only FY12</th>
<th>F&amp;A FY12</th>
</tr>
</thead>
<tbody>
<tr>
<td>RIL</td>
<td>1PP</td>
<td>345.4%</td>
<td>719.7%</td>
</tr>
<tr>
<td>CSA</td>
<td>2PP</td>
<td>217.8%</td>
<td>453.7%</td>
</tr>
<tr>
<td>EOMF / X. Xiao &amp; E. Bridge</td>
<td>SRTC</td>
<td>124.3%</td>
<td>259.0%</td>
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<tr>
<td>CSRC</td>
<td>2PP</td>
<td>117.1%</td>
<td>243.9%</td>
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<td>IEG / J. Zhou, Z. He, L. Wu, C. Hemme, K. Xue, &amp; J. Van Nostrand</td>
<td>SRTC</td>
<td>95.6%</td>
<td>207.5%</td>
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<td>ACGT / B. Roe</td>
<td>SRTC</td>
<td>90.2%</td>
<td>200.4%</td>
</tr>
<tr>
<td>Cybercommons</td>
<td>SRTC</td>
<td>92.7%</td>
<td>193.1%</td>
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<tr>
<td>CSRC (formerly C-SHOP) Marshall/Cross</td>
<td>SRTC</td>
<td>68.3%</td>
<td>142.4%</td>
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<td>124.1%</td>
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<tr>
<td>AME / R. Gan</td>
<td>SRTC</td>
<td>59.0%</td>
<td>123.0%</td>
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<td>Botany/Micro / T. Conway</td>
<td>SRTC</td>
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<td>Ecolab / Y. Luo &amp; S. Niu</td>
<td>SRTC</td>
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</tr>
<tr>
<td>Molecular Anthropology Lab / C. Lewis</td>
<td>SRTC</td>
<td>38.2%</td>
<td>79.6%</td>
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<tr>
<td>K20</td>
<td>2PP</td>
<td>36.1%</td>
<td>75.7%</td>
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<tr>
<td>*Ding/Wenger</td>
<td>2PP</td>
<td>26.4%</td>
<td>55.0%</td>
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<td>ECE / H. Liu</td>
<td>SRTC</td>
<td>26.0%</td>
<td>54.1%</td>
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<td>IE / B. Starly</td>
<td>SRTC</td>
<td>23.1%</td>
<td>48.2%</td>
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<tr>
<td>CBME / D. Schmidtke</td>
<td>SRTC</td>
<td>21.8%</td>
<td>45.4%</td>
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<td>Zoology / R. Hewes</td>
<td>SRTC</td>
<td>11.2%</td>
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<td>IE / T. Trafalis</td>
<td>SRTC</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Medical Anthropology / M. Foster, D. Warren &amp; K. Anderson</td>
<td>SRTC</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

**FY12 Total Aggregate Recovery**
- F Only: 80.9%
- F&A: 166.5%
Opportunities
Reflections: Have We Changed?

- Bold Strategic Investments
- Seeking/Landing Bigger Projects
- Larger/More Flexible Internal Funding and Rewards Programs
- Broader/Deeper Assistance
- More Engagements, Agencies on Campus
Our Strategies for Excellence

- Continue **investing strategically** in strongest research programs
- Grow **other programs** in **close alignment** with them (social sciences)
- Focus on **people** and their strengths/leadership capabilities
- Accelerate **DSI, Applied R&D and Classified work**
- Work with OU Libraries on **large data and open access** efforts
- Continue **recruiting** outstanding faculty and expand use of **cluster hires** to deepen existing capabilities and initiate new areas
- Develop the **next generation** of faculty leaders -> early career
- Pursue **large initiatives and centers**, links with **Federal laboratories**
- Broaden and deepen engagement with **private industry, HSC**
- Enhance **International Presence** via Offices In Country
- Significantly enhance diversity via Research **Diversity** initiative
- Enhance **undergraduate research** and **STEM** education as core components of the residential/placed-base learning experience
Reflections: Are We Finished Changing?

Be Bold

Incentivizing and Resourcing, Investing in Strengths

Removing Barriers

International Engagements

Undergraduate Research and STEM Education

Broader/Deeper Engagements with Industry

Broadening Participation

Ensuring Integration
Think BIG & LEAD the Way