State of the University

RICE UNIVERSITY

President David W. Leebron

Sept. 24, 2014
As a leading research university with a distinctive commitment to undergraduate education, Rice University aspires to pathbreaking research, unsurpassed teaching and contributions to the betterment of our world. It seeks to fulfill this mission by cultivating a diverse community of learning and discovery that produces leaders across the spectrum of human endeavor.
I require that those who listen to my words should hold one faith with me. They must believe in the value of human reason; they must love beautiful things and consider them important; they must be enthusiastic for their fellow-man. They must believe that it is possible to learn and that it is also possible to teach.

— EDGAR ODELL LOVETT
Landscape
Key issues in higher education

- Questioning higher ed model and effectiveness
- Technological evolution/revolution
- Changing value proposition
- Access and affordability
- Financial sustainability (including research funding)
- Sexual assault and campus climate
- Athletics model under attack
- Rankings
» No. 19 best college (U.S. News)

» No. 5 best overall college (Niche.com)

» No. 5 biomedical engineering (U.S. News)

» No. 7 economic diversity (U.S. News)

» No. 11 students graduate with the least debt (U.S. News)

» No. 2 best quality of student life (Princeton Review)

» No. 6 happiest students (Princeton Review)

» Only top research university in top 10 of Princeton Review ranking on race/class interaction

» No. 3 best value (Kiplinger)

» No. 11 among most economically diverse colleges (New York Times)

» Baker Institute No. 11 university-affiliated think tanks in the world

» No. 7 best colleges to work for (Chronicle for Higher Ed)
Importance of Leadership

- Faculty
- Administration
- Student

Even more important to the success of the university today.

Artwork: “Black Ladder” by Stephen Dean (Anderson-Clarke Center)
New academic leadership

- Dean of Natural Sciences (Rossky)
- Newly hired department chairs (Merlo, Wetter)
- Newly appointed department chairs (10)
- Directors for Chao Center (Ryang) and Kinder Institute (Fulton)
- New vice provost for research (Shamoo)
- New dean of graduate and post-doctoral studies (Matsuda)
- Vice provost for academic affairs (Sanders)
- Vice provost for strategic partnerships (Carson)
- Strategic initiatives move to Office of the President (Levander)

Pending searches

- Provost

Stable administrative team

- Vice presidents/athletic director with average tenure of seven years
- New vice president for information technology to be appointed this year
Faculty leadership

Providing leadership and governance

- About 125 faculty:
  - Serving in the Faculty Senate as senators, speaker, deputy speaker and committee chairs
  - Serving as vice provosts, associate deans, department chairs, center and institute directors and college masters
  - Chairing university committees

Taking initiative

- Creating and funding new centers
- Developing new educational endeavors
- Building new Houston-focused collaborations and research
- Making more effective use of resources
- Solving social problems
- Building international collaborations and student opportunities
Priorities for the new century

- Strategic Academic Priorities
- Strategic School Investments
- Campus Infrastructure Investments
- Administrative Effectiveness & Efficiency
Second Century

Strategic Initiatives

- Enhancing Research
- Quality Teaching and Digital Learning
- TMC Relations and Biosciences
- Energy and Environment
- Arts Initiative
- International Engagement & Cultural Understanding
- Entrepreneurial University
This is a framing slide on education.
The whole time I have been here I feel that people have empowered me to do everything it is that I think is important and make a real difference in the community that I am a part of.

BEYOND THE CLASSROOM
EXTRAORDINARY OPPORTUNITIES

...the freedom to etch your own path, even in the case of fulfilling engineering degree requirements.

Through research opportunities... Rice has connected me to phenomenal people who are doing phenomenal things...

Quotes from 2014 Senior Exit Survey
Education: The changing value proposition

1985

- Classroom experience
- Research opportunities
- Mentoring
- Leadership: student clubs, extracurricular
- Civic engagement and community-based experience
- International

2025

- Entrepreneurial opportunities
- Digital education
- Civic engagement and community-based experience
- International
- Classroom experience
- Research opportunities
- Mentoring
- Leadership: student clubs, extracurricular

For illustrative purposes
The promise and evolution of the research university
Rice Undergraduate Research Symposium (RURS)

- 2011: 181 students, 75 judges, 1 award (Focus: ENG, NS)
- 2012: 256 students, 169 judges, 15 awards
- 2013: 278 students, 181 judges, 27 awards
- 2014: 380 students, 200 judges, 36 awards (Focus: ENG, NS, SS, HUMA)

Research opportunities
Student Association priorities

**Integration**
- Research experiences and internships part of a Rice degree
- Pursue innovation and entrepreneurial opportunities

**Enhanced learning**
- Personal development opportunities (experiential learning, civic engagement and entrepreneurship)
- Boost hands-on learning and real-world relevance
- Courses and mentorships by Houston leaders and entrepreneurs-in-residence

**Expanded resources**
- Repurpose spaces to encourage student ventures and activities
- Support student innovations and ventures
- Advise and mentor students interested in civic outreach, student-run businesses and other ventures
Commitment to teaching excellence

Classroom experience
• Student satisfaction
• Class size: adding instructors for more sections, faculty recruitments
• 6 SCALAR classrooms
• Center for Teaching Excellence
• Program in Writing and Communication
• Distinction in research

Learning outside the classroom
• Creation and expansion of OEDK
• Support for OwlSpark
• Engineers without borders
• Certificate in Civic Leadership

DeLange Conference 2014: Teaching in the University of Tomorrow
How are we doing?
Teaching evaluations

Course Evaluations:
Average Course Quality and Instructor Effectiveness
Fall 2007 & Fall 2013

Student Responses:
1. Outstanding
2. Good
3. Average
4. Fair
5. Poor
Lower numbers represent more favorable evaluations
Source: Registrar's data, IR analysis

TERM
- Fall 07
- Fall 13

Department (group)
- Architecture
- Engineering
- Humanities
- Music
- Natural Sciences
- Social Sciences
Means of Overall Satisfaction with the Quality of Educational Experience in Major
SES 2014, Majors
Values - 5=Very Satisfied, 1=Very Dissatisfied

Each bar represents a Major.
The color represents the School to which it belongs.

Source: Senior Exit Survey 2014
Classroom use vs. availability

Fall 2013 and Fall 2014

**Monday**

- Inventory
- 2013
- 2014

Fall 2013 and Fall 2014

**Tuesday**

- Inventory
- 2013
- 2014
Commitment to research

Awards were up in FY 2014: $115.3 million (+6%)

Challenges going forward:
• Strengthening our competitive position as federal funding is flat
• Supporting faculty efforts to write proposals
• Addressing facility and equipment requirements
• Improving and sustaining research infrastructure

Actions to date:
• Proposal writers in Office of Research to help faculty
• Electronic research system (Cayuse) has virtually 100 percent use
• Invested in research equipment (SEA endowment), clean room equipment replacement, high resolution transmission electron microscopy
• Faculty initiative funds and energy initiative grants

Plans:
• Making the most of the BRC
• Strengthening non-federal funding sources
FY 2012 reflects the end of stimulus funds including the NIST grant for the Physics building.
Research awards: $115.3 million in FY14

46% success rate in FY 2013 and projected for FY 2014
Books, prizes and awards

**Books published**
- Over 15 books published by Humanities and Social Sciences faculty

**Book prizes**
- 2014 James Broussard Best First Book Prize of the Society for Historians of the Early American Republic (McDaniel)
- 2013 Mexican History Book Prize of the Conference on Latin American History (Lopez-Alonso)
- 2014 Paul-Bunge Prize (Mody)

**Scholarly awards**
- Frisch Medal of the Econometrics Society (Cunha)
- NEH Fellowship (McGill)
- Woodrow Wilson Fellowship (Shimizu)
“The Nixon Tapes” (Brinkley)

“The First World War in the Middle East” (Ulrichsen)

“Predisposed: Liberals, Conservatives and the Biology of Political Difference” (Alford)

“Changing Texas: Implications of Addressing or Ignoring the Texas challenge” (Murdock)

“Intimate Activism: The Struggle for Sexual Rights in Postrevolutionary Nicaragua” (Howe)

“The Petropolis of Tomorrow” (Bhatia)

“Fires on the Border: The Passionate Politics of Labor Organizing on the Mexican Frontera” (Hennessy)

“Producing the Patient Through Film, Television, and Imaging Technologies” (Ostherr)
### Fall 2014 Entering Class by Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian</td>
<td>41%</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>14%</td>
</tr>
<tr>
<td>Asian American</td>
<td>30%</td>
</tr>
<tr>
<td>African American</td>
<td>9%</td>
</tr>
<tr>
<td>Other</td>
<td>6%</td>
</tr>
</tbody>
</table>

*“Other” includes Multiracial, Not Reported, Other, American Indian, and Native Hawaiian.*

### Geographic Origin

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>45%</td>
</tr>
<tr>
<td>US Non-Texas</td>
<td>43%</td>
</tr>
<tr>
<td>International</td>
<td>12%</td>
</tr>
</tbody>
</table>
Fall 2014 entering class

Geographic origin (949 matriculants)
- Texas 45%
- US Non-Texas 43%
- International 12%

Ethnicity (836 domestic matriculants)
- Caucasian 41%
- Asian American 30%
- Hispanic or Latino 14%
- African American 9%
- Other 6%

“Other” includes Multiracial, Not Reported, Other, American Indian, and Native Hawaiian.
Sources: IPEDS (2003) and 12th-day count rcvd 9/16/14 from Office of the Registrar (2014)
Freshmen Enrollment by Intended School*

* As indicated in application for admission to Rice

Source: Office of Enrollment Deposits as of 8-7-2014
Undergraduate/graduate mix: Rice

Fall 1999 to Fall 2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Undergraduates</th>
<th>Graduate Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>1,510 (35%)</td>
<td>2,810 (65%)</td>
</tr>
<tr>
<td>2004</td>
<td>1,922 (40%)</td>
<td>2,933 (60%)</td>
</tr>
<tr>
<td>2009</td>
<td>2,277 (59%)</td>
<td>3,279 (41%)</td>
</tr>
<tr>
<td>2014</td>
<td>3,891 (60%)</td>
<td>2,612 (40%)</td>
</tr>
</tbody>
</table>

Sources: Common Data Set and Fall 2014 12th Day Enrollment Census
Excludes students that are visiting or studying abroad
Rice & non-medical school peers: Fall 2013

- **MIT**: 41%
- **Cal Tech**: 45%
- **Carnegie Mellon**: 48%
- **Rice**: 60%
- **Princeton**: 66%
- **Notre Dame**: 71%
- **RPI**: 78%

Legend:
- Degree-seeking Undergraduate Headcount
- Degree-seeking Graduate* and First Professional Headcount**

**Source:** Common Data Sets

* Graduate: masters and doctoral programs
** First professional programs: completion of academic requirements to begin practice in the profession with a minimum of 6 academic years of college work (e.g. Dentistry-DDS, Law-JD, Veterinary Medicine-DVM)
Growth in graduate enrollment

Source: GPS (Fall 14)
Fall 2014: 276 entering doctoral students

- Applied Physics, 11
- Systems/Synthetic/Phys Biology, 9
- Management, 7
- Bioengineering, 24
- Chemical & Biomolecular Engr, 24
- Civil & Environmental Engr, 8
- Computational & Applied Math, 8
- Computer Science, 14
- Electrical & Computer Eng., 26
- Materials Science & NanoEng, 9
- Mechanical Engineering, 3
- Statistics, 7
- Biology, 9
- Social Sciences
- Business
- Engineering
- Humanities
- Music
- Natural Sciences
- Political Science, 3
- Economics, 9
- Anthropology, 4
- Physics and Astronomy, 11
- Mathematics, 6
- Earth Science, 10
- Chemistry, 26
- Biosciences, 16
- Music, 6
- Religion, 5
- Philosophy, 4
- History, 7
- English, 4
- Art History, 5
- Psychology, 6
Faculty diversity by ethnicity: How we compare

MIT
2003: 9% Asian, 3% Black, 6% Foreign National, 3% Hispanic, 3% Others, 9% White
2013: 11% Asian, 3% Black, 3% Foreign National, 3% Hispanic, 3% Others, 9% White

Princeton
2003: 8% Asian, 3% Black, 8% Foreign National, 3% Hispanic, 3% Others, 9% White
2013: 9% Asian, 3% Black, 6% Foreign National, 3% Hispanic, 3% Others, 9% White

Rice
2003: 7% Asian, 3% Black, 8% Foreign National, 3% Hispanic, 3% Others, 9% White
2013: 11% Asian, 3% Black, 5% Foreign National, 3% Hispanic, 3% Others, 9% White

Stanford
2003: 9% Asian, 3% Black, 6% Foreign National, 3% Hispanic, 3% Others, 9% White
2013: 12% Asian, 3% Black, 10% Foreign National, 3% Hispanic, 3% Others, 9% White

Vanderbilt
2003: 8% Asian, 3% Black, 3% Foreign National, 3% Hispanic, 3% Others, 9% White
2013: 7% Asian, 3% Black, 3% Foreign National, 3% Hispanic, 3% Others, 9% White

Wash U
2003: 9% Asian, 3% Black, 3% Foreign National, 3% Hispanic, 3% Others, 9% White
2013: 13% Asian, 3% Black, 3% Foreign National, 3% Hispanic, 3% Others, 9% White

“Asian” includes Asian American and Native Hawaiian or Other Pacific Islander
“Others” include American Indian, Multi-race, and (mostly) Unknown

Source: IPEDS HR downloaded 9-5-2014
Project completions
- Anderson Clarke Center (January 2014)
- George R. Brown tennis facility (September 2014)
- Jones College (August 2014)

Post 2015
(depending on fundraising)
- Moody Center for the Arts
- Klein Hall for Social Sciences
- Opera Theater
- Football facility
- Soccer and track facilities

Review underway
- RMC and student spaces
- Undergrad teaching labs
- Office space
- Allen Center parking facility
- Abercrombie
- Infrastructure requirements
Campus entrances, wayfinding, circulation and parking

Storm water management

Athletics, recreation and open space

Energy infrastructure
Financial update

Revenues: $596.3 million (preliminary FY 14)
• About 82 percent of operating revenues come from three sources:
  o Endowment distribution
  o Net tuition revenue
  o Grants and contracts

Expenses: $592 million (preliminary FY 14)
• About 62 percent of operating expenses support instruction and departmental and sponsored research

Endowment: $5.51 billion (preliminary as of June 30, 2014)
• 3-year endowment spending rate: 5.45% (6/30/14) and 5.38% projected for FY 2015

Bottom line
• Triple AAA rating on bonds reaffirmed in 2013 (both Moody’s and S&P) and in 2014 (S&P)
• Tighter operating margins
Growth of endowment
($ in billions)

Fiscal Years Ended June 30

<table>
<thead>
<tr>
<th>Year</th>
<th>Growth ($)</th>
</tr>
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<tbody>
<tr>
<td>1913</td>
<td>0.01</td>
</tr>
<tr>
<td>1923</td>
<td>0.01</td>
</tr>
<tr>
<td>1933</td>
<td>0.01</td>
</tr>
<tr>
<td>1943</td>
<td>0.02</td>
</tr>
<tr>
<td>1953</td>
<td>0.04</td>
</tr>
<tr>
<td>1963</td>
<td>0.10</td>
</tr>
<tr>
<td>1973</td>
<td>0.22</td>
</tr>
<tr>
<td>1983</td>
<td>0.60</td>
</tr>
<tr>
<td>1993</td>
<td>1.36</td>
</tr>
<tr>
<td>2003</td>
<td>2.94</td>
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<tr>
<td>2006</td>
<td>3.99</td>
</tr>
<tr>
<td>2007</td>
<td>4.67</td>
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<tr>
<td>2008</td>
<td>4.61</td>
</tr>
<tr>
<td>2009</td>
<td>3.61</td>
</tr>
<tr>
<td>2010</td>
<td>3.79</td>
</tr>
<tr>
<td>2011</td>
<td>4.45</td>
</tr>
<tr>
<td>2012</td>
<td>4.42</td>
</tr>
<tr>
<td>2013</td>
<td>4.82</td>
</tr>
<tr>
<td>2014</td>
<td>5.51</td>
</tr>
</tbody>
</table>
Rice endowment returns

(as of June 30, 2014 - preliminary and unaudited)
In the end: it is all about KNOWLEDGE & OPPORTUNITY.
Responsibility, Integrity, Community, Excellence

Values that define our culture and guide our behavior