Operating Budget Authority FY17

- **$341.2M in operating authority:**
  - $276.1M University Proper
  - $45.5M Agricultural Experiment Station
  - $19.6M SDSU Extension
- **Revenue sources %:**
  - 26 tuition and fees
  - 21 state funds
  - 17 federal funds
  - 5 room and board
  - 7 other fund expenditure authority to be cut
  - 25 other funds
    - $6.5M SDSU Bookstore
    - $4.4M Animal Disease Research and Diagnostic Lab
## Enrollment and Graduates

### Enrollment

<table>
<thead>
<tr>
<th></th>
<th>Fall 2012</th>
<th>Fall 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>10,968</td>
<td>10,799</td>
</tr>
<tr>
<td>Graduate &amp; Professional</td>
<td>1,615</td>
<td>1,814</td>
</tr>
<tr>
<td><strong>Total Enrollment</strong></td>
<td><strong>12,583</strong></td>
<td><strong>12,613</strong></td>
</tr>
</tbody>
</table>

### Graduates

<table>
<thead>
<tr>
<th></th>
<th>2011-2012</th>
<th>2015-2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>1,920</td>
<td>2,050</td>
</tr>
<tr>
<td>Graduate &amp; Professional</td>
<td>423</td>
<td>475</td>
</tr>
<tr>
<td><strong>Total Graduates</strong></td>
<td><strong>2,343</strong></td>
<td><strong>2,525</strong></td>
</tr>
</tbody>
</table>
Student Success
First to Second Year Retention, %

<table>
<thead>
<tr>
<th>Year</th>
<th>Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>74.7%</td>
</tr>
<tr>
<td>2013</td>
<td>75.9%</td>
</tr>
<tr>
<td>2014</td>
<td>77.7%</td>
</tr>
<tr>
<td>2015</td>
<td>76.1%</td>
</tr>
<tr>
<td>2016</td>
<td>78.6%</td>
</tr>
</tbody>
</table>
Accredited, Certified or Approved Programs

<table>
<thead>
<tr>
<th>Baseline</th>
<th>2016 Status</th>
<th>2018 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>39</td>
<td>42</td>
</tr>
</tbody>
</table>

- 4 more projected for 2017
- 5 more projected for 2018
- Improves competitiveness
Agreements and Partnerships

<table>
<thead>
<tr>
<th>2013 Status</th>
<th>2016 Status</th>
<th>2018 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>104</td>
<td>150</td>
</tr>
</tbody>
</table>

• **Build connections and provide access to a four year degree**
  Examples include:
  • Ag Science and Construction Management Area – Lake Area Technical Institute (LATI)
  • Dairy Science - Nebraska College of Technical Agriculture (NCTA)

• **Continue building strong relationships with tribal colleges**
  • Assist with accreditation
    • Enhance faculty academic credentials
    • Assist with institutional accreditation self studies

• **Important to enhance relationships and recruitment opportunities**
Job Placement

• Examples
  • Near 100% placement in many programs to include: Nursing, Engineering, Pharmacy, Dairy Science, Exercise Science, Physics, Interior Design and Medical Lab Science
  • In Fall 2016, 47 pre-professional students (medical, dental, veterinary etc.) accepted into professional schools - acceptance rate 70% of those applying
Achieving Efficiencies

Average Cost of Producing One Student Credit Hour
SDSU vs Peer Institutions, FY15

Research Intensive Peers: $294.39
SDSU Peers: $279.56
SDSU Instructional Budgetary Resources: $221.24

79.1% of SDSU Peers

Costs and Resources per Student Credit Hour

- Research Intensive Peers
- SDSU Peers
- SDSU Instructional Budgetary Resources
Collaboration

Example: School of Design

• Strategic partnership achieved by bringing together
  • Five programs as one under one umbrella
    • 450 students
    • 27 faculty
    • 4 departments
• Professional school will foster
  • Accreditation
  • Recruitment
  • Development of faculty
  • Engaged learners – experiential learning
Stewardship of State Resources
Maintenance & Repair Funding

- $9.6M all sources
- Classrooms Enhancement Initiative
  - Multi phase project
  - 42 classrooms improvements completed (50% of the academic inventory)
- Improving Energy Efficiency and Infrastructure
  - Chiller Plant – central unit provides chilled water for air conditioning
  - Aging storm sewer infrastructure improvements
  - Roofs – 20 year cycle
    - Over the last 10 years we have replaced all or a portion of the roofs on 11 academic buildings.
    - Replaced an average of 23,200 sq. ft.
    - Spent an average of $351,000 on roof replacement
Total Grant and Contract Expenditures
FY16 - $46.8M

Examples of State Research Investment:

• Biochemical Spatio-temporal NeTwork Resource (BioSNTR)
  • Creation of Center to support bioscience research
  • 5 year state funding = $11.8M

• Translational Cancer Research Center (TCRC)
  • Collaborative cancer research program
  • 5 year state funding = $2.25M

Other Research Examples:

• Engineering and Geospatial Sciences – Landsat, earth observation
• Rural telehealth and rural enhancement of Mathematics and Science teachers
Return on Investment
Reported in Economic Impact of the SD Public University System

• **South Dakota State University**
  • $963 million in annual economic impact
  • 2,372 full time jobs in South Dakota
  • 7,554 full time jobs resulting from our economic activity
Optimizing the State Investment in Higher Ed

• **Committed to Continuous Improvement**
  • Accreditation
  • Shared curriculum
  • Increased student success
  • Faster turnaround of Comprehensive Annual Financial Report (CAFR)
  • SDSU clean audit

• **High Economic Impact**
Reach

Statewide goal: 65% of South Dakotans age 25-34 attains some level of post secondary credential by 2025

To attain this goal, a needs based scholarship is needed to bridge Pell eligibility
SDSU FTE Utilization

Utilized FTE: Unutilized FTE

<table>
<thead>
<tr>
<th>Year</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilized FTE</td>
<td>93.5%</td>
<td>95.4%</td>
<td>95.4%</td>
<td>98.4%</td>
</tr>
</tbody>
</table>
Legislation

• Senate Bill 17: SDSU Natural Resource Research & Support Facility
• Senate Bill 18: Stanley J Marshall Center Additions & Renovation
• House Bill 1008: Purchase Improved Real Property Adjacent to SDSU
Animal Disease Research and Diagnostic Lab

• Construction project on North Campus Drive
  • Addition of 80,763
  • Renovation of 54,763 sq. ft.

• Protects:
  • $7.63 billion state livestock industry
  • Human health, wildlife, and companion animals
  • Bio Safety Level 3 is industry standard
  • Statutory responsibility

• Planning expenses to date: $2,742,000
  • $1,167,000 from Animal Disease Research and Diagnostic Lab
  • $1,575,000 from the livestock disease emergency fund

• Remaining need for project: $58,638,704
SDAES Mission

Research to build and stabilize the statewide agriculture economy

Some new initiatives:

- Turning data into $$ - application of precision agriculture technologies to profitable farming systems
- Soil health and sustainably profitable farming systems

BOR Budget Brief, pages 30-32
Research Generates $$ for SD

FY13 - FY16 Grant Awards

~42% Increase
Impacts of State Investments

Center for Drought Tolerance Biotechnology (est. 2006)

- Led to major initiatives:
  - Understanding molecular basis of drought tolerance
  - Precision agriculture, USDA Challenge grant
  - USDA funded ag sustainability programs

- Future economic stability
- New research initiatives
  - Plant and animal microbiome
  - Fungal and insect diseases
  - Pollinator health
  - Soil health
Swine and Cow/Calf Education and Research Facilities

Swine Facility Funding ($6.9M)
- State General Funds ($2,037,000)
- Higher Education Facility Funds ($1,000,000)
- Donations ($3,263,000)

Cow/Calf Facility Funding ($4.6M)
- Higher Education Facility Funds ($900,000)
- Revenue Bonds ($2,000,000)
- Donations ($1,327,500)
- Fire Insurance Proceeds ($405,000)

Impacts of investment
- Increasing economic development in South Dakota
- Improving producers’ profitability
- Attracting top quality scientists and faculty
- Increased research $$ for SD
New Business: Prairie AquaTech

Investments of state funds led to:

• Bioprocessing upgrades plant-meal protein
• Patent, and license agreement in 2011
• Over 20 employees
• $5M in grants and $7M investor funding to date
• 2017 construction of 30,000 ton/year facility in Volga with SD Soybean Processors, 4 year expected ROI
• Value added economic development
SDSU & General Mills Collaboration

SDSU redirected resources with input from growers

Goal: Superior marketability and profitability

Economic development has already begun

- General Mills relocation and expansion of oat breeding research capacity at Brookings Innovation Center
- Strengthened seed and primary production industries
- Rotational benefits in sustainable cropping systems
AES FTE Utilization

Utilized FTE

Budgeted FTE

- 276.5
- 284.5
- 284.5
- 284.5

- 206.2
- 200.3
- 189.5
- 190.3

FY13 FY14 FY15 FY16

29
SDAES Mission

Research to build and stabilize the statewide agriculture economy

Some new initiatives:

• Turning data into $$ - application of precision agriculture technologies to profitable farming systems

• **Soil health and sustainably profitable farming systems**
Dakota Lakes Research Farm
Located 17 Miles East of Pierre
Dakota Lakes Research Farm

Partnership between SDAES and Dakota Lakes Research Farm Corporation to develop sustainable, profitable farming systems

- Impacts over 25 years for central SD agriculture
  - $1.6B inflation adjusted increase in crop production
  - Cleaner water, more wildlife, and healthier soils

- Innovations developed
  - No-till farming practices and crop rotations
  - Integration of cover crops and livestock systems
  - Soil health initiative for long term productivity
Increased Research Capacity and Management Continuity for SD Agriculture

Current staff
• 1 research scientist and manager
• 3.5 support personnel

New initiative
• More new solutions for sustainable farm profitability
• Management succession or continuity

BOR proposal for $120,286
Base enhancement
• Researcher, collaborator: $80,692
• Technical Support: $39,594

BOR proposal for $75,000 one-time faculty start-up funds

BOR Budget Brief, pages 31 and 32
SDSU Extension Mission

To serve as a source of unbiased, objective and relevant new knowledge generated from research discoveries

Empower citizens to be competitive in a growing global economy

Uniquely engaged and supported in a three way partnership with federal, state & county government

BOR Budget Brief, pages 27-29
Impact

Grant Productivity in FY16
• $2.6 M

Expanded Food & Nutrition Education Program
• Savings of $9M in health care and $2M in food costs

Dakota Food Hub
• 1st Producer Owned Food Hub in South Dakota
• 26 local food producers
• New Food Hub Manager
• Expansion of local food markets, growing the local economy
• National Award Recognition
Impact

5,674 individuals trained in commercial and private pesticide application certification

69 swine producers trained in the Common Swine Industry Audit (CSIA) for improved management of 165K+ hogs for greater food safety, reduced antibiotic use, and better overall animal well-being

12 community-based wellness coalitions formed to target obesity reduction for children, youth, and families
Quality Education

South Dakota Soil Health Coalition

• Formed as a collaboration with 160 producer members to increase sustainable agricultural production through diversification and improved soil health
• Modeled after Grasslands Coalition formed 15 years ago
• New project coordinator hired
• $58,000 in applied research funds to conduct soil health education in FY16

SDSU Extension Master Gardeners

• Certified volunteers, trained by University faculty and staff, deliver unbiased, research-based best practices in horticulture and gardening
• $332,492 – the value of horticulture education contributed to communities through 16,387 hours of volunteer leadership in 2016
Quality Education

South Dakota 4-H

- 9,441 youth enrolled in traditional 4-H club programs
- 36,793 youth engaged in educational outreach programs
- 3,838 registered adult & youth volunteers
- 25% membership growth in Pennington County in FY16
  - 487 to 621 youth in club membership
- $522,297 – the value of volunteer coaching and mentorship
  - Shooting Sports, the largest 4-H project area
    - 26,580 hours contributed
- 220 youth enrolled in Robotics and STEM workforce development
Efficiencies & Effectiveness

500 farm publications use iGrow.org as a trusted source of information

- Among these are Drovers (250K readers), Dakota Farmer (25K readers), Farm Forum (35K readers), and National Hog Farmer (18K readers)

208 countries have accessed content from iGrow.org

As the virtual learning platform for SDSU Extension, iGrow.org features the expertise of faculty, field specialists and staff. Professional credibility and prestige of faculty and staff has been elevated, resulting in state, regional and national recognition.
# Efficiencies & Effectiveness

## iGrow.org Usage

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Page Views</td>
<td>563,864</td>
<td>926,014</td>
<td>971,786</td>
<td>1,094,936</td>
</tr>
<tr>
<td>Visitors</td>
<td>228,115</td>
<td>593,559</td>
<td>643,072</td>
<td>758,462</td>
</tr>
</tbody>
</table>

46.13% of content viewed from mobile devices
SDSU Extension FTE Utilization

- FY13: Utilized FTE = 177.4, Budgeted FTE = 200.4
- FY14: Utilized FTE = 168.4, Budgeted FTE = 200.4
- FY15: Utilized FTE = 156.2, Budgeted FTE = 200.4
- FY16: Utilized FTE = 153.0, Budgeted FTE = 200.4

Utilitarian FTEs in FY13 to FY16.