

**Dakota State University provides learning that integrates technology and innovation to develop graduates ready to contribute to local, national and global prosperity.**



# **A View of DSU**

**Dakota State University**

**South Dakota Legislature Joint Appropriations Committee**

**José-Marie Griffiths, Ph.D., President**

**February 3<sup>rd</sup>, 2016**



# Dakota State University – Past 1881-2015

# DSU's Original Mission

In 1881, the Dakota Territory established The Madison State Normal School to **educate teachers** for Territory schools



*Photo from late 1800's*

# DSU's Mission Change

1984 – South Dakota legislation:

*“The primary purpose of Dakota State College, at Madison in Lake County, is to provide programs in computer information systems, electronic data processing, computer education and other undergraduate courses and programs...”*



# DSU's Mission

## Technology-degrees

Examples:



**Computer Science (BS) & Math for Info Systems (BS)**



**Network & Systems Administration (B.S.)**



**Computer & Network Security (B.S.) & Cyber Operations (B.S.)**



**Computer Game Design (BS)**

## Technology-infused degrees

Example: All DSU teaching degrees = teaching degree PLUS a K-12 Technology endorsement



**Elementary Education (BS Ed)**



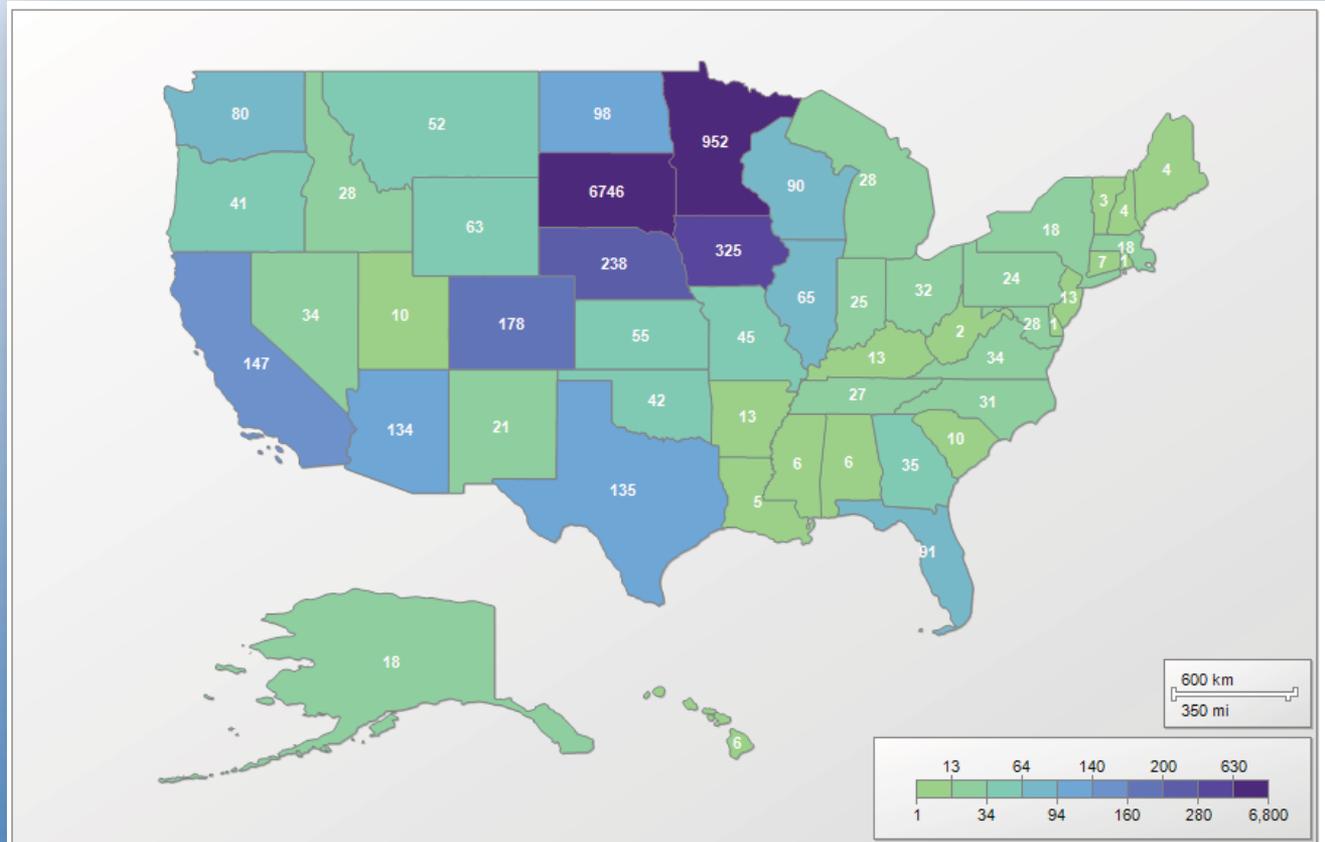
**K-12 technology endorsement – can teach computer classes**

**PLUS**

# DSU Continues to Fulfill Its Mission

Over 18,000 students have graduated from DSU since its beginning

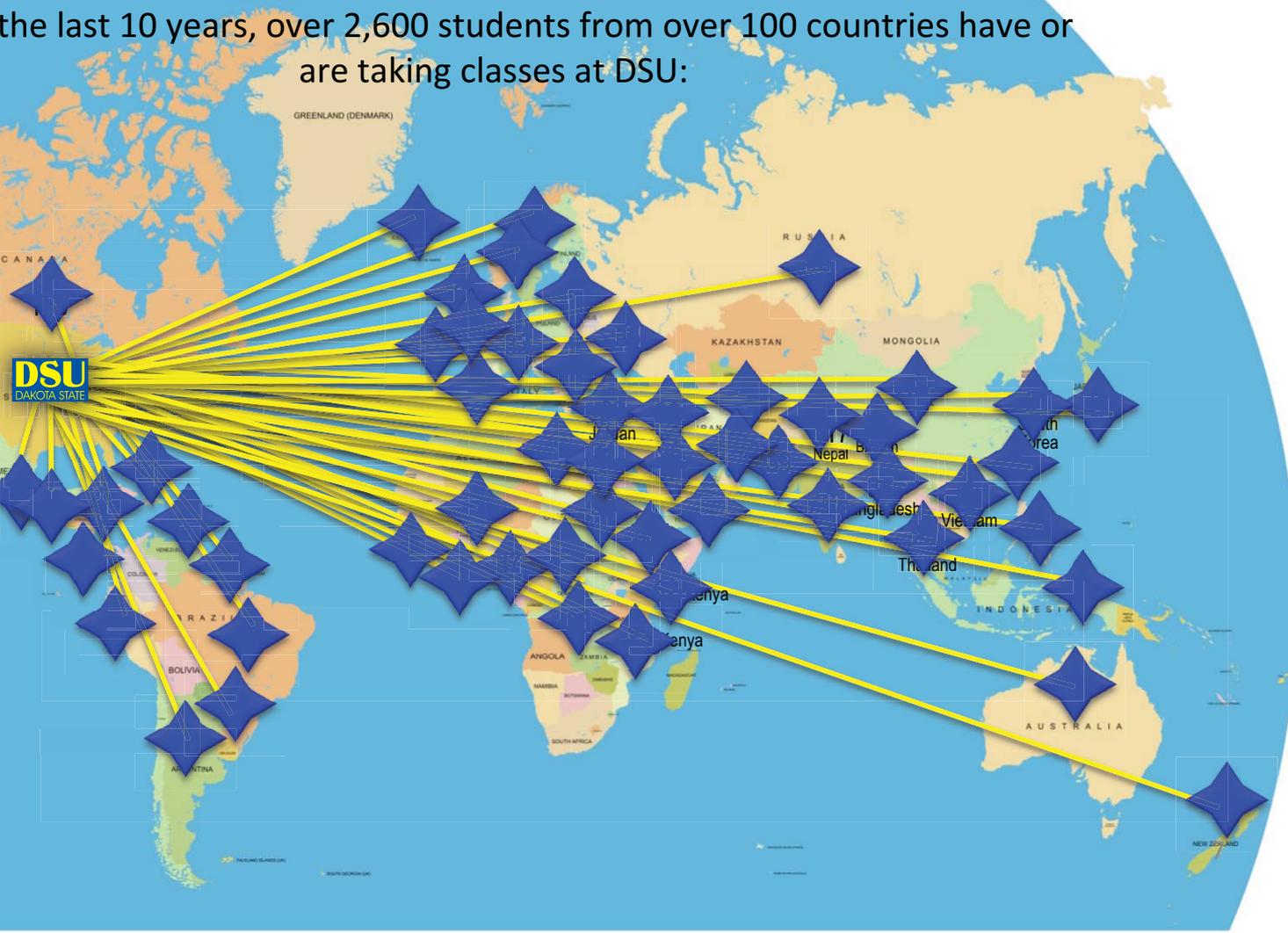
*Dakota State Living Alumni by State (January 2016)*



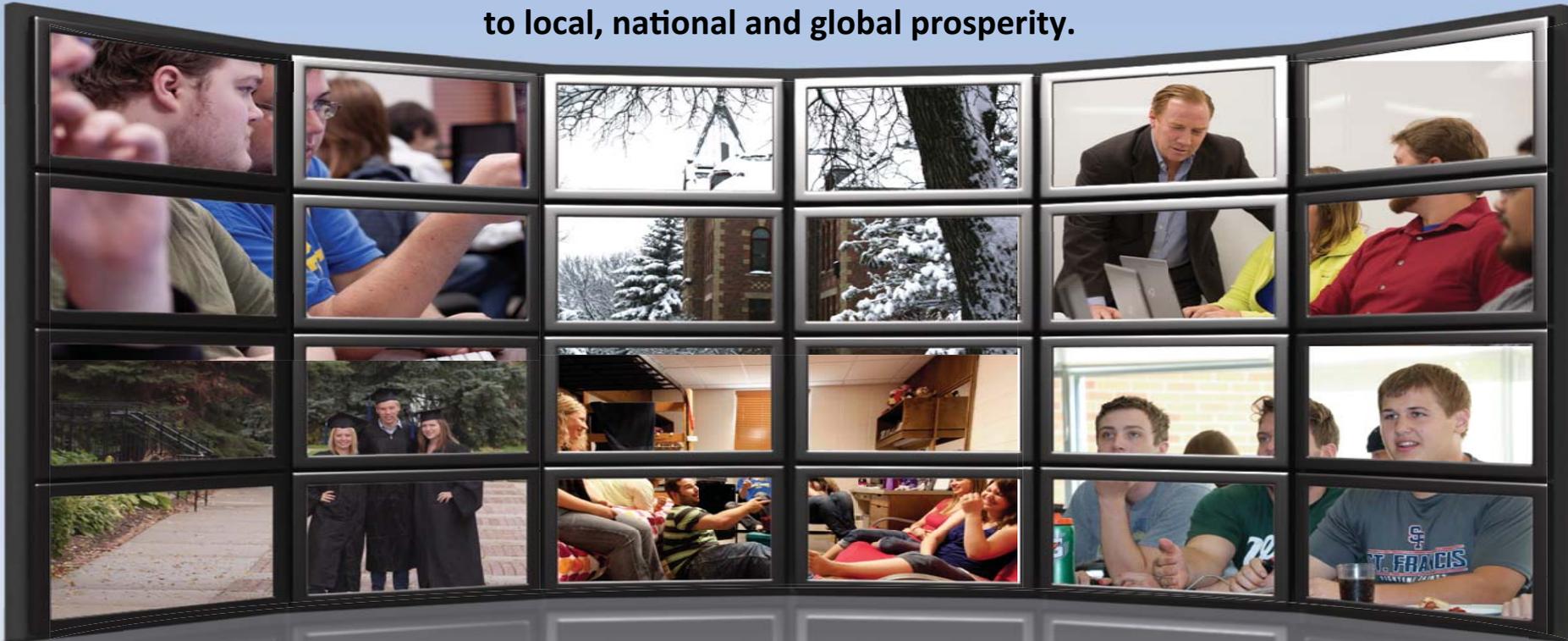
# DSU Continues to Bring the World to South Dakota

Over the last 10 years, over 2,600 students from over 100 countries have or are taking classes at DSU:

Afghanistan, Argentina, Armenia, Australia, Austria, Bahamas, Bangladesh, Barbados, Belarus, Belgium, Bhutan, Bosnia & Herzegovina, Brazil, Bulgaria, Burkina Faso, Burma, Burundi, Cambodia, Cameroon, Canada, China, Colombia, Congo, Republic of the, Costa Rica, Croatia, Cte D'Ivoire (Ivory Coast), Democratic Repub of the Congo, Ecuador, Egypt, El Salvador, Eritrea, Estonia, Ethiopia, France, Gambia, Germany, Ghana, Greenland, Guatemala, Guinea, Haiti, Honduras, Hong Kong, Iceland, India, Iran, Iraq, Israel, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Korea, Demo People's Republic, Korea, Republic of, Liberia, Lithuania, Malaysia, Mexico, Moldova, Morocco, Nepal, Netherlands, New Zealand, Nicaragua, Nigeria, Norway, Pakistan, Peru, Philippines, Poland, Romania, Russia, Rwanda, Saint Lucia, Saudi Arabia, Serbia, Singapore, Somalia, Sri Lanka, Sudan, Sweden, Switzerland, Tanzania, United Republic of, Thailand, Togo, Trinidad & Tobago, Turkey, Uganda, Ukraine, United Kingdom(Great Britain), United States of America, Unknown Country, Uzbekistan, Venezuela, Vietnam, West Indies, Zaire, Zambia, Zimbabwe



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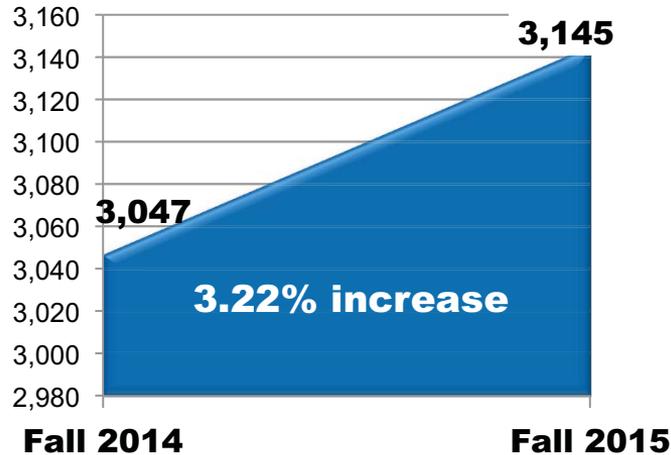


**Dakota State University – Present**

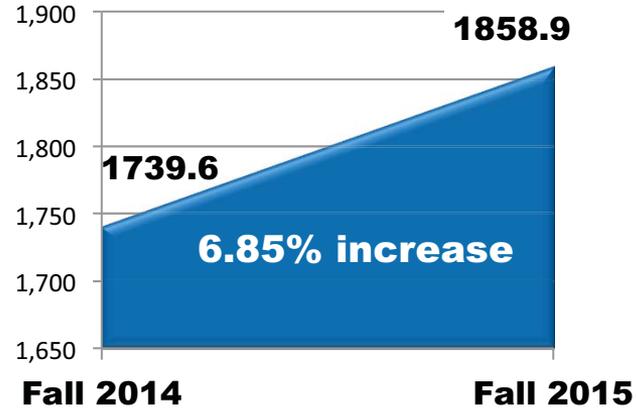
# ENROLLMENT

## DSU Enrollment is Up

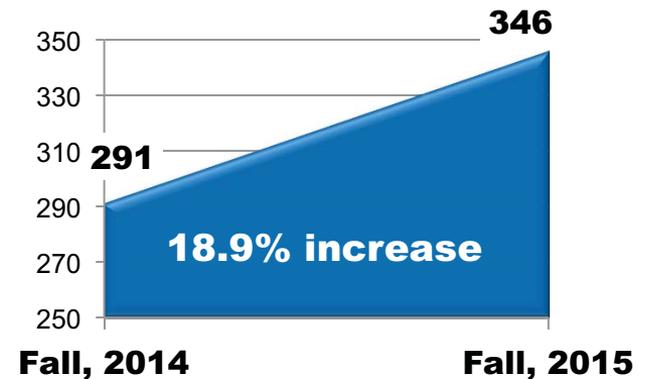
Dakota State Headcount  
(# of Students Enrolled)  
Fall, 2014 to Fall, 2015



Dakota State  
Full-Time Equivalent Enrollment  
Fall, 2014 to Fall, 2015

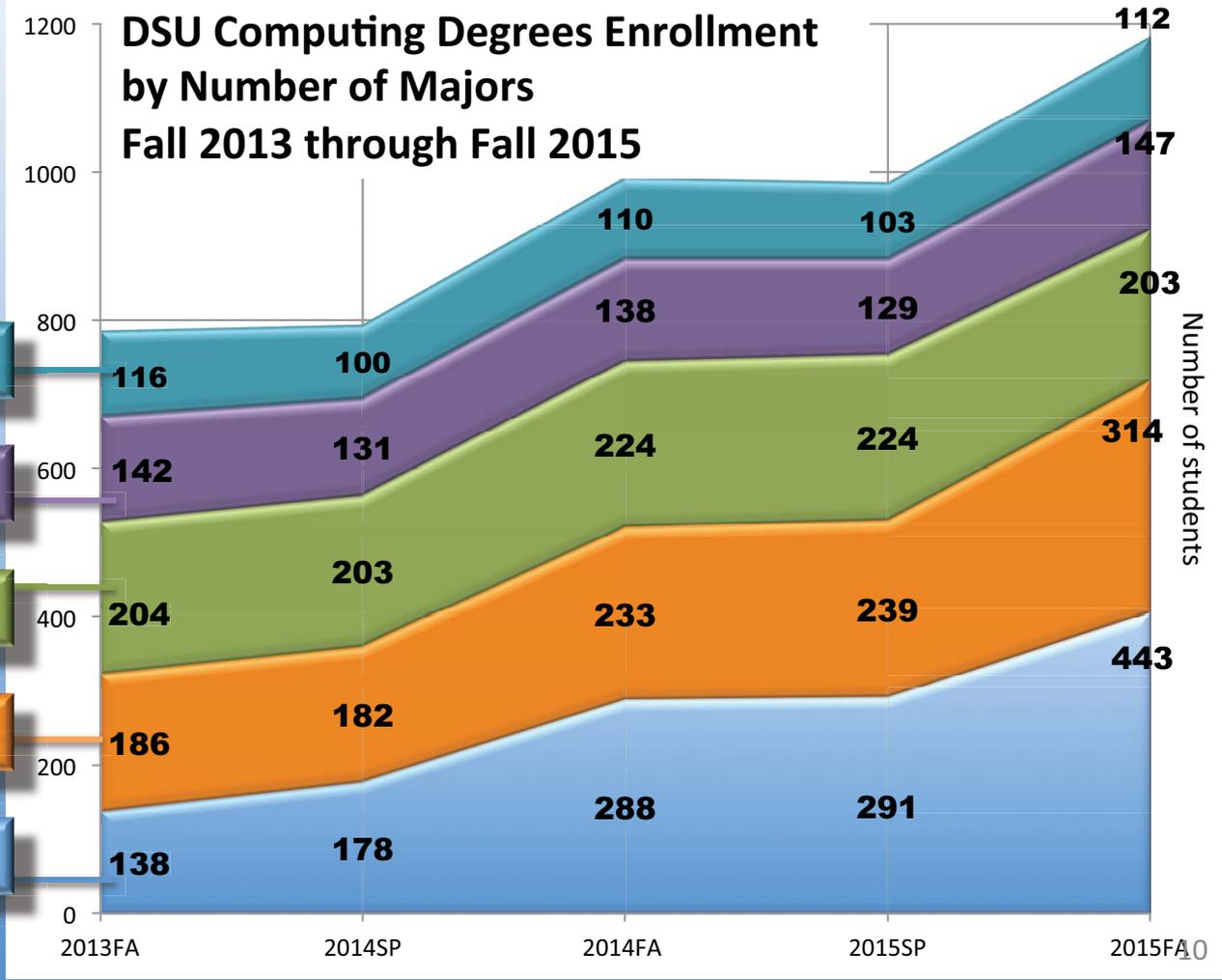


Dakota State Freshman  
Enrollment  
Fall 2014 compared to Fall 2015



# ENROLLMENT

All computing degree programs have enrollment increases



Computer Game Design

Digital Arts & Design

Information Systems

Computer Science

Cyber Operations

Number of students

# DSU has made good use of State Investment

Example: SB236 from the 2013 Legislative Session, \$900,000 appropriation to DSU to expand computing-related programs at DSU

	Actual		Revised Projections as of Jan. 2016	
	Year 1	Year 2	Year 3	Year 4
	FY14	FY15	FY16	FY17
<b>Projected Expenses:</b>				
Faculty Salary Total	\$164,663	\$180,399	\$339,252	\$352,822
Benefits	\$40,545	\$46,174	\$90,741	\$101,541
Total Personal Services Cost	\$205,208	\$226,572	\$429,993	\$454,363
Operating Expenses	\$264	\$332	\$849	\$6,000
<b>Total Expense Projection by Fiscal Year</b>	<b>\$205,472</b>	<b>\$226,904</b>	<b>\$430,842</b>	<b>\$460,363</b>

	FY14	FY15	FY16	FY17
<b>Projected Expenditure of Special Appropriation<sup>2</sup>:</b>				
Beginning Balance of Special Appropriation	\$900,000	\$694,528	\$467,624	\$36,782
Expenditure from Special Appropriation	\$205,472	\$226,904	\$430,842	\$36,782
Ending Balance of Special Appropriation	\$694,528	\$467,624	\$36,782	\$0

	Actual			Projected
	FY14	FY15	FY16	FY17
	Number of Additional Faculty (cumulative)	3	4	5

Enrollment Growth in All IT Programs:	Base	Actual			5% Projected Growth
	Fall 12	Fall 13	Fall 14	Fall 15	Fall 16
Number of Undergraduate students in IT	692	770	852	978	1027
Number of Graduate students in IT	155	169	209	221	232

All IT programs = Cyber Operations, Computer Network Security, Information Systems, Digital Game Design, Digital Arts and Design, other computer science-related majors.

# DSU nurtures high school student interest

Example:



## GenCyber Camps



July 2015 GenCyber: Girls in Cyber Security, 100 students from 10 states

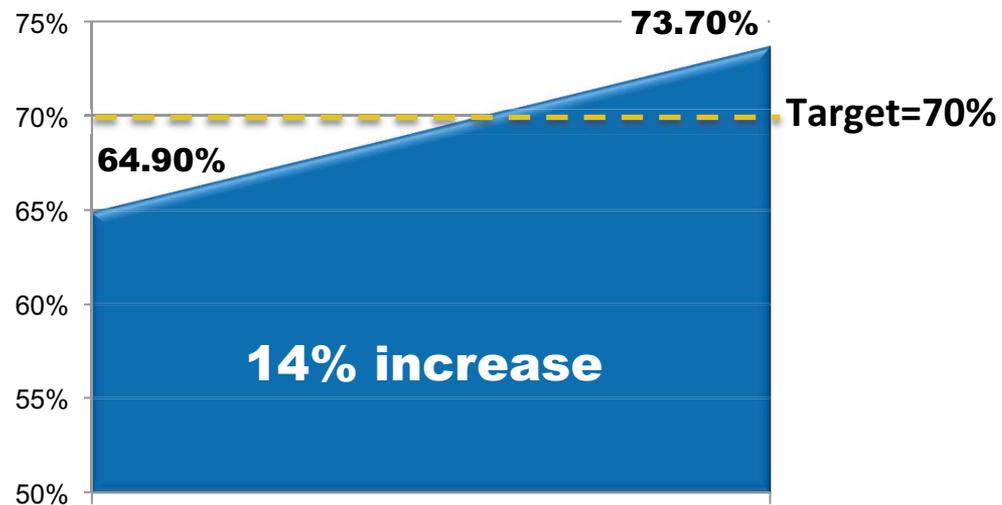


June 2015 GenCyber co-ed camp with 200 students from 23 states

# RETENTION

## DSU Freshman Retention is Up

Dakota State Student Retention  
Freshmen, 2013 to Freshmen, 2014



**Freshman Fall, 2013  
registered for Fall, 2014**

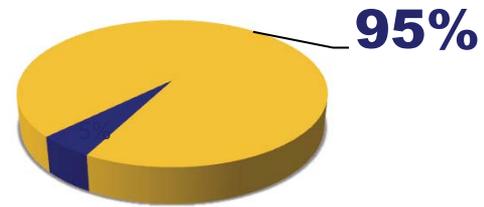
**Freshman Fall, 2014  
registered for Fall, 2015**

# PLACEMENTS

## DSU Graduates Get Jobs



### Dakota State University 2014 Graduates Average Job Placement Percentage



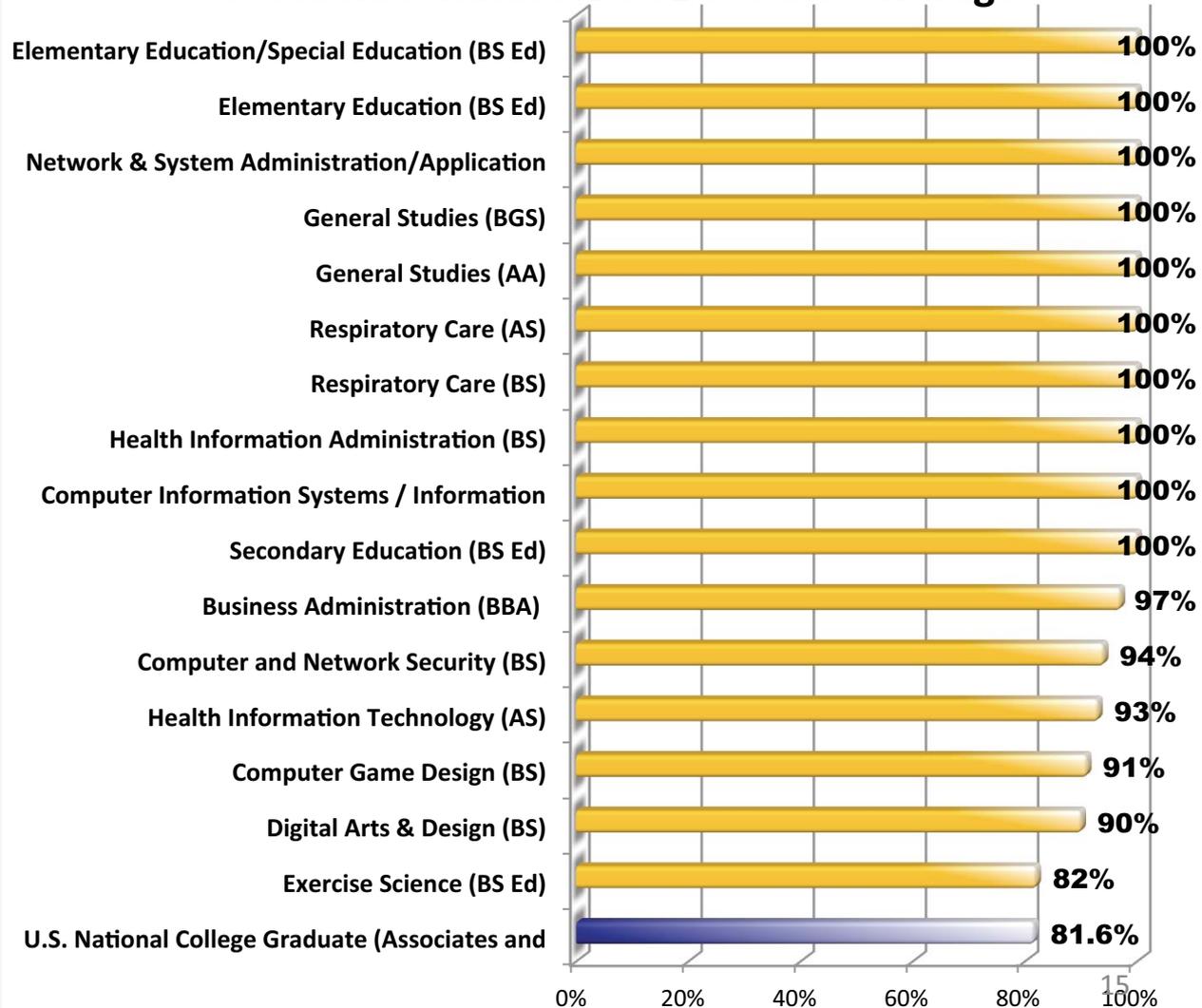
### U.S. College 2014 Graduates Average Placement Percentage (National Center for Education Statistics)



# PLACEMENTS

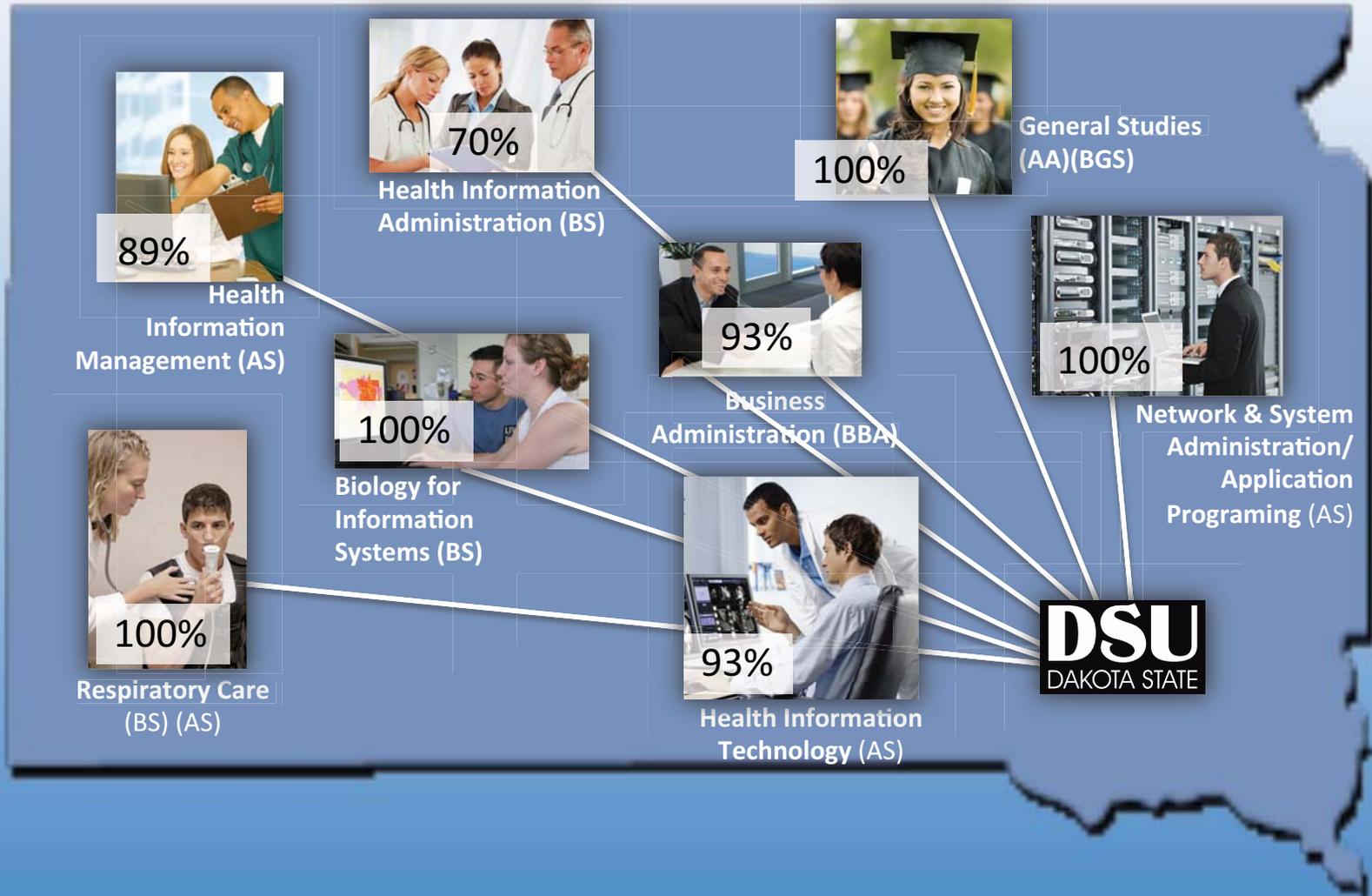
DSU graduates get jobs at a rate ABOVE the national average for U.S. college graduates

## Dakota State University 2014 Graduates - Placement Rates ABOVE the U.S. Average

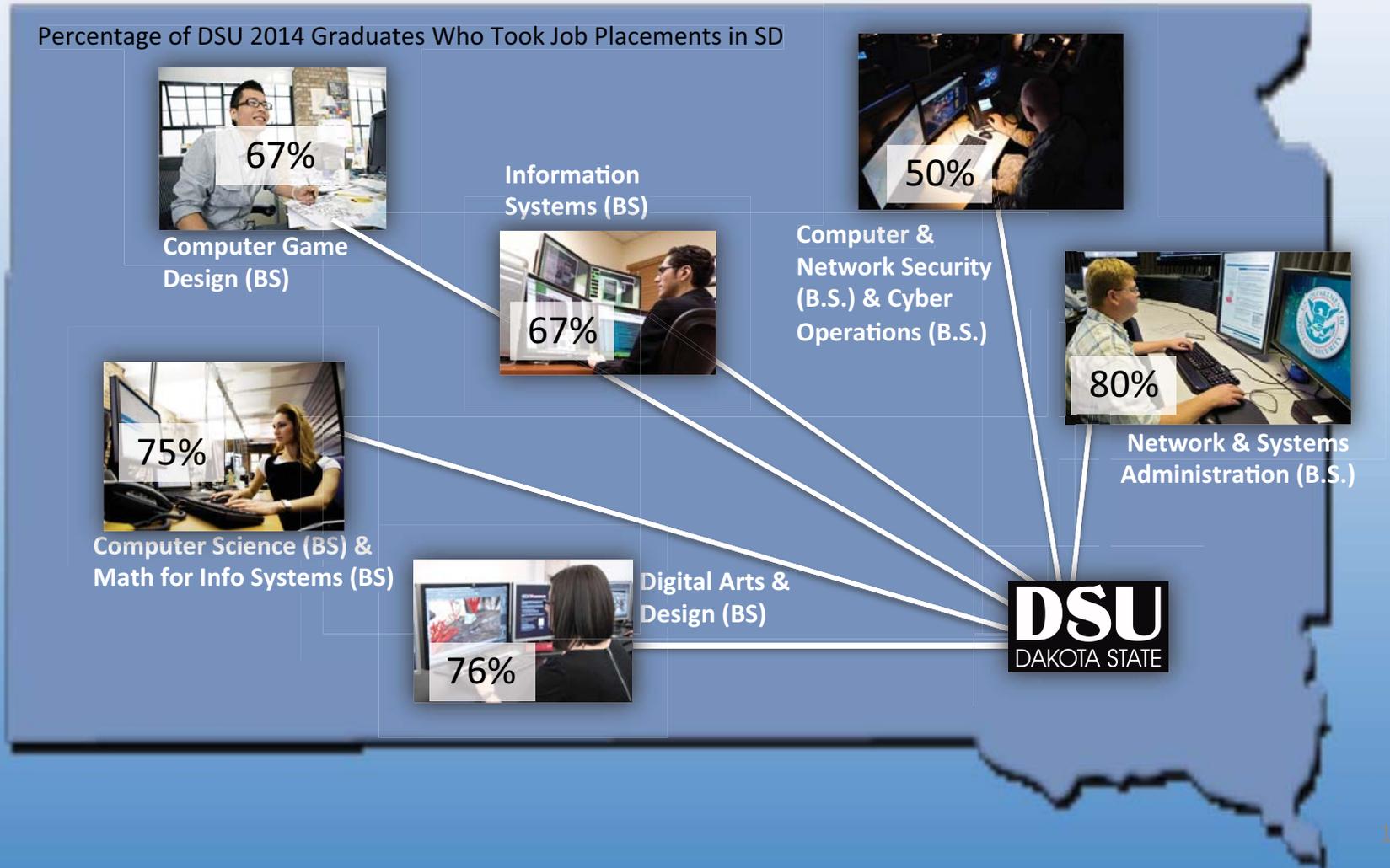


# DSU Graduates Stay to Work in South Dakota

Examples: Percentage of DSU 2014 Graduates Who Took Job Placements in SD:



# But South Dakota faces stiff competition for many computing degree graduates - many fewer take jobs in South Dakota



# DSU Serves South Dakota's K-12 School Systems

Percentage of DSU 2014 Teaching Graduates Who Stayed to Teach in South Dakota:

100%



Exercise Science (BS Ed)

Elementary  
Education  
(BS Ed)



95%



88%

Secondary  
Education  
(BS Ed)

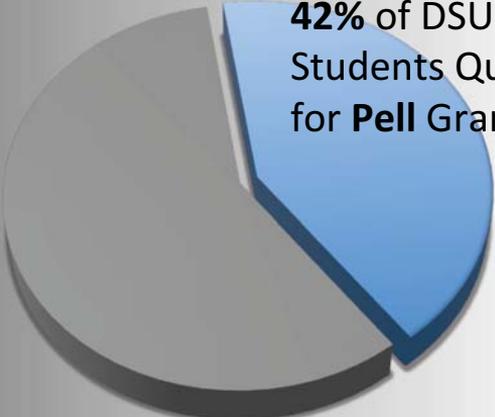
Elementary/  
Special Education  
(BS Ed)



86%

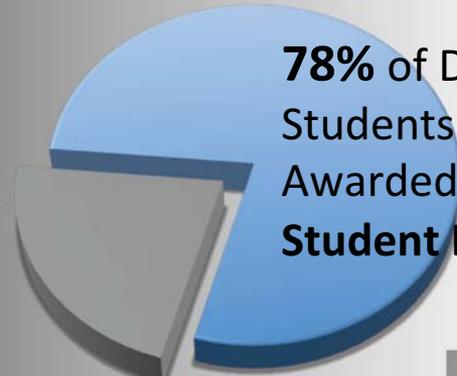
**DSU**  
DAKOTA STATE

# Tuition freeze and need-based scholarship endowment will assist DSU students



**42%** of DSU Students Qualify for **Pell Grants\***

*Pell grant requirement is generally that family income is below \$23,000 a year.*



**78%** of DSU Students Are Awarded **Student Loans**



**98%** of DSU Students Receive Some Type of **Financial Aid**

# DSU Innovates to Ensure Student Success

## Example: First Year Residence Experience - FYRE



In-hall Tutoring



Community Development Activities

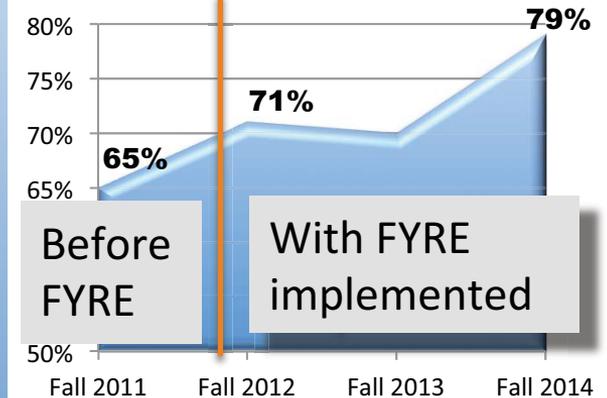


StrengthsQuest  
career planning,  
leadership skills, etc.



Dedicated residence  
halls/floors  
for FYRE students

Retention Improvement with  
FYRE, 1<sup>st</sup> to 2<sup>nd</sup> year



# DSU Innovates to Ensure Student Success



Online students

- Enhanced process to facilitate earlier admittance of online students
- Interactive assessment for students to decide if online study will work for them
- Easier process for students to do “online chat” with DSU staff/faculty
- Partnerships between new and transfer online students



Students with Disabilities

Consistent easy access for the disabled on DSU’s Madison Campus



All Students

Process and incentives for DSU faculty, students or staff to propose and receive implementation support for signature student success initiatives

# DSU is winning grant support

Awards and grants awarded to DSU in the last year include:



NATIONAL SECURITY AGENCY



Great Plains Education  
Foundation, Inc.



# DSU finds innovative ways to cut costs

## Example: The Information Assurance (IA) Lab



- Faculty create, test and replicate multi-use, multi-platform labs
- Serves over 900 students per semester in 15 different programs

Also hosts research projects for undergraduate and graduate students and faculty



Due to its security, also houses DSU's High Performance Computing/ Hadoop "big data" environment.



DSU's design has been used by multiple different organizations to design their labs, including the **National Security Agency**, the **Naval Post Graduate School**, **Northeastern University** and the **University of Cincinnati**.

## State M&R funding helps DSU maintains facilities to improve use

### Examples include:

- Classroom remodeling
- ADA compliance
- Energy and electrical upgrades
- Window replacement and attic insulation

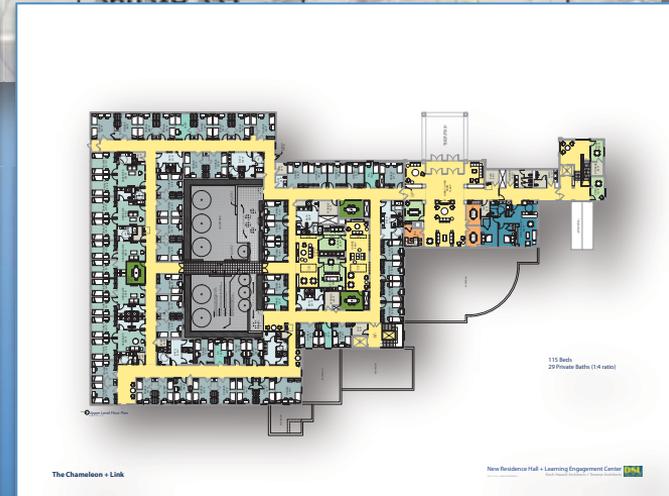
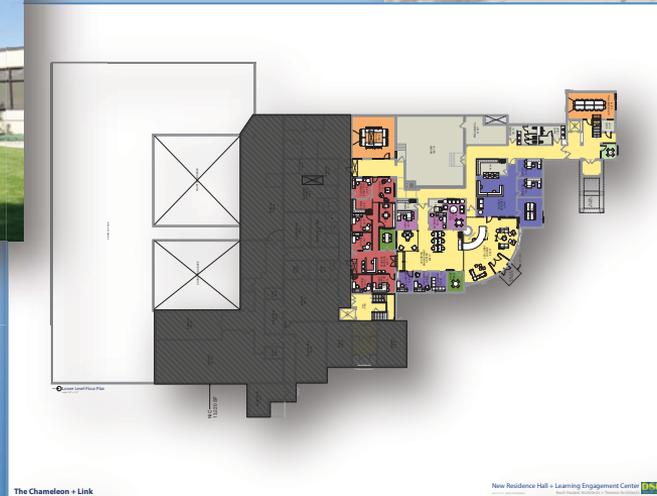
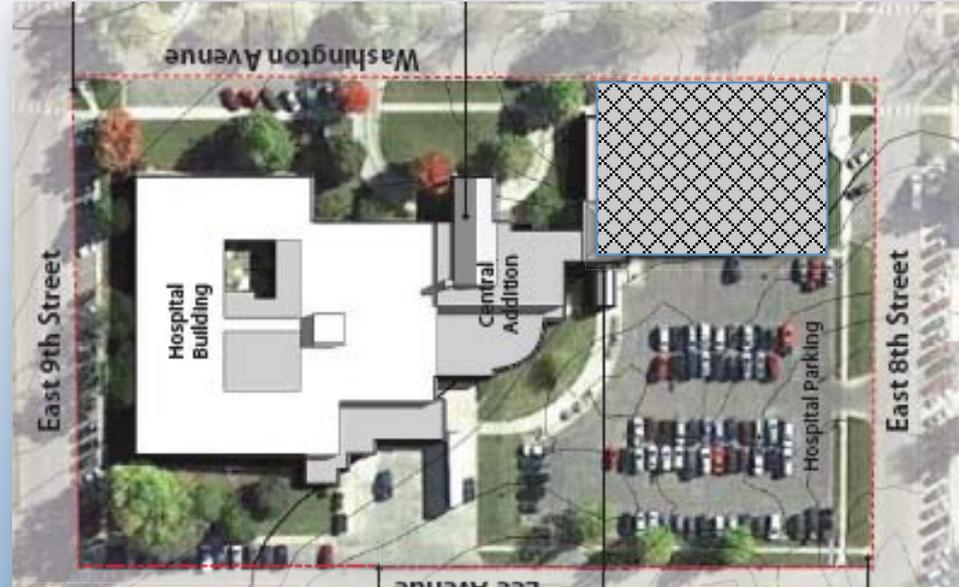
M&R funds are especially critical at DSU because:

- Age of buildings
- Heavy IT implementation



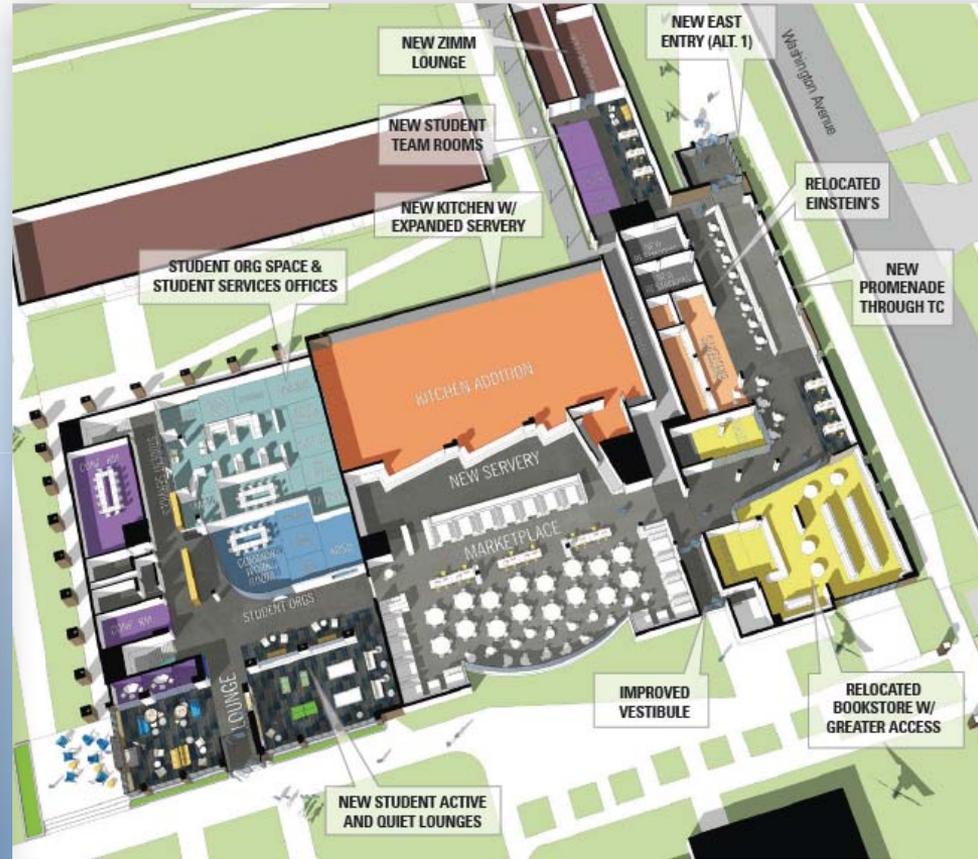
# DSU is Improving Campus Facilities

DSU has purchased the old Madison Hospital and it will be renovated as a new student residence hall with student activity spaces.



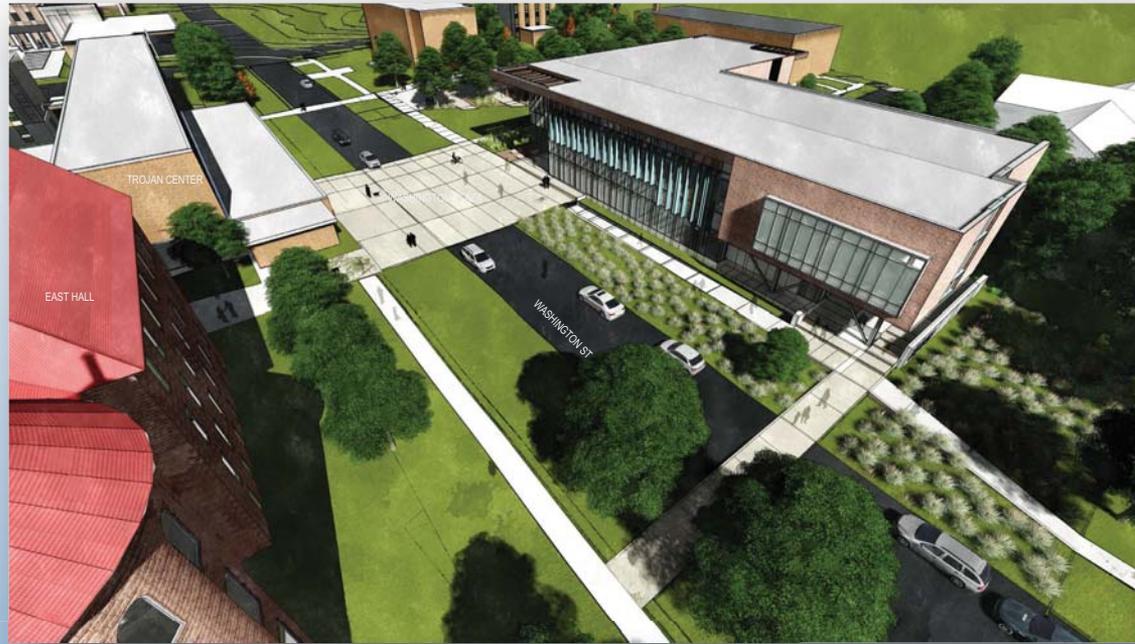
# DSU is Improving Campus Facilities

The Trojan Student Center will be undergoing a major renovation.



# DSU will add the first new academic building to its campus since the 1980's

DSU will be building its first new academic building since 1986 – a brand new state-of-the-art technology-forward academic building



*Senate Bill #11 passed so that DSU can acquire the part of the site (a portion of a parking lot) owned by the DSU Foundation.*



TROJAN CENTER

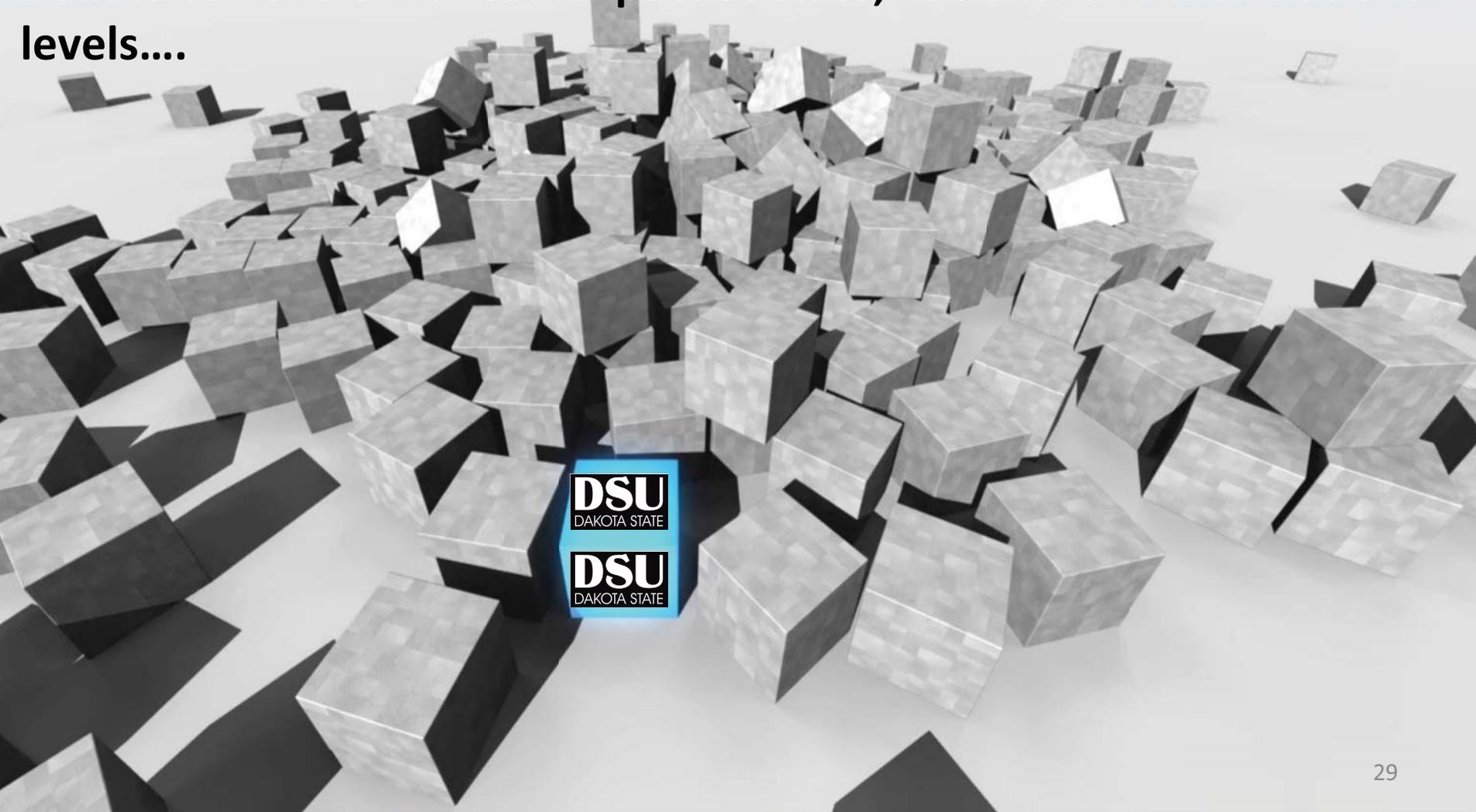
WASHINGTON PLAZA

EAST HALL

WASHINGTON ST

# Dakota State University – Future

**We have most of the building blocks needed for DSU and South Dakota to have enhanced impact at state, national and international levels....**



# Building blocks already at the DSU level include...

Increasing student interest/enrollment



Students are finishing degrees (retention)



Degree quality – grads are getting jobs (placements)



Tech-infused curriculum and degrees



Tech-savvy K-12 teachers to prepare SD students



DSU K-12 Data Center partnership with the State Dept. of Ed.



FIRST doctoral degree in cyber security



Center for the Advancement of Health Information Technology



# Building blocks already at the SOUTH DAKOTA STATE level include...

Geographically, culturally, economically – great place for IT work



Growing IT-centric health care, financial industry businesses



Existing state infrastructure sufficient to expand IT industry



South Dakota students – qualify for security clearances



DSU graduates want to stay in South Dakota



State government commitment to IT education



# Building blocks already at the U.S. NATIONAL level include...

Established unmet need for technology expertise in the workforce



DSU's degree programs - national recognition/ranking



NSA > DSU/SD  
1<sup>st</sup> Center of Excellence designation x3



NSA > DSU 1<sup>st</sup> partner for cyber security bachelors degree



# Building blocks already at the INTERNATIONAL level include...

The FVEY intelligence alliance –looking to educate IT security experts



International higher education providers interested in DSU



Needs of international students could be well met in SD



World is sending its students to the U.S.



# What are the MISSING building blocks?

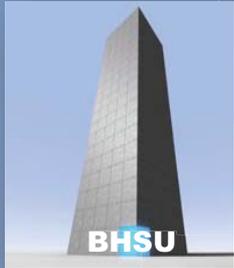
DSU level:





***DSU MISSION STATEMENT:  
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# South Dakota Towers of Excellence

