Bismarck State College

Building workforce to drive the economy
7:2:1 RATIO of the 21st Century Workplace

7
Associate Degree of Industry-Recognized Certification Holders

2
Bachelor Degree Holders

1
Graduate Degree Holder
Current biennium accomplishments (2019-21)

• Launched BSC as North Dakota’s Polytechnic Institution
• Drove additional workforce in High Priority Occupations
  • Instrumentation & Control
  • Cybersecurity
  • CDL program established
  • Phlebotomy program
  • Emergency CNA program for NDDoH
• BSC Health Sciences – $8.9M
  • Increased program capacity enrolling more students - need stat on up/down students)
  • Added new programs
    • Sonography
  • Expanded hands-on learning in simulated hospital environment
  • Enhanced P3s
Current challenges

• Ability to move at the speed of industry and advancements in technology
  • Internet of Things (IoT) - changing all occupations (Industry 4.0)
  • Build the workforce to meet needs for expanding ND economy

• Increasing and expanding pathways with K12
  • Mobile apps
  • Cybersecurity

• Current funding formula
  • Insufficient funding for career and technical programs
  • New polytechnic program start-up costs (state funding delayed for 4 years)

• Capital facility and equipment needs
  • Align with industry sector demands
## 2019-21 Base Budget compared to 2021-23 Needs-Based Budget (all funds and FTE)

<table>
<thead>
<tr>
<th></th>
<th>2019-21 Base Level</th>
<th>Requested Adjustments</th>
<th>2021-23 SBHE Needs-Based Budget</th>
<th>Executive Recommendation</th>
<th>Difference from 2019-21 Base Level</th>
<th>Difference from SBHE Needs-Based Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campus Operations</td>
<td>$98,743,682</td>
<td>$(1,280,982)</td>
<td>$97,462,700</td>
<td>$94,833,161</td>
<td>$(3,910,521)</td>
<td>$(2,629,539)</td>
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<tr>
<td>Capital Assets</td>
<td>$1,922,561</td>
<td>$0</td>
<td>$1,922,561</td>
<td>$1,922,561</td>
<td>$0</td>
<td>$0</td>
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<tr>
<td>Plant Improvement Carryover</td>
<td></td>
<td></td>
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<tr>
<td>Capital Projects - Non-State Funded</td>
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<tr>
<td>Capital Projects - Non-State Carryover</td>
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<tr>
<td>Operating Carryover</td>
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<tr>
<td>Total Appropriation</td>
<td>$100,666,243</td>
<td>$(1,280,982)</td>
<td>$99,385,261</td>
<td>$96,755,722</td>
<td>$(3,910,521)</td>
<td>$(2,629,539)</td>
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<tr>
<td>General Fund</td>
<td>$31,068,227</td>
<td>$(2,405,428)</td>
<td>$28,662,799</td>
<td>$26,358,629</td>
<td>$(4,709,598)</td>
<td>$(2,304,170)</td>
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<tr>
<td>Special Funds</td>
<td>$69,598,016</td>
<td>$1,124,446</td>
<td>$70,722,462</td>
<td>$70,397,093</td>
<td>$799,077</td>
<td>$(325,369)</td>
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<tr>
<td>Total Funding Sources</td>
<td>$100,666,243</td>
<td>$(1,280,982)</td>
<td>$99,385,261</td>
<td>$96,755,722</td>
<td>$(3,910,521)</td>
<td>$(2,629,539)</td>
</tr>
</tbody>
</table>
Impact of Executive Budget with no change to existing funding formula

• Potential $4.7 million reduction for BSC creates dramatic changes
  • BSC position reductions
    • 65% of operating expenses are employee wages and benefits
  • High priority programs delayed or reduced (high operating cost/high demand)
    • Cybersecurity
    • Agriculture
    • Energy
    • Healthcare
    • Manufacturing/Automation
• Lack of skilled talent creates negative economic impact to ND
  • Results in delayed economic growth due to fewer companies expanding or locating in ND
  • A loss in economic opportunity
Challenges of COVID

• Most classes moved online
• Stressed workforce
  • Working from home, caring for family, online learning – all disrupted employees lives and their ability to serve our students
• To address challenges BSC used $4.2M state CARES funding to:
  • Install technology in classrooms ($1.9M)
  • Upgrade online learning environment for students ($550,000)
  • Make HVAC upgrades ($850,000)
  • Provide personal protective equipment (PPE) and sanitation ($460,000)
  • Provide other student-related COVID costs ($440,000)
    • Quarantine overflow costs - hotels
    • COVID case managers
Next biennium plans (2021-23)

• Advance North Dakota’s Polytechnic Institution

• Invest in students – they stick, they stay
  • In 2017, 81.4% of ND high school graduates who earned an associate’s degree from BSC stayed in the state for employment or re-enrolled in an NDUS school within one year of graduation.

• Investment will drive ND future digital economy
  • Design, develop and implement new cyber and digital 2- and 4-year degrees
  • Expand business and industry partnerships (P3s)
  • Advance ND’s economic development
    • Amazon, Bobcat, Cloverdale
Next biennium goals

• Build the highly-skilled talent for industry needs

• Expand P3s in order to:
  • Implement emerging and advancing technologies
  • Establish more career pathways for students in K-12
  • Design, develop and implement stackable certificates, two- and four-year degrees
    • Automation Management/Industrial Automation
    • Mechatronics Engineering
    • Supply Chain and Logistics Management
    • Process Control and Instrumentation
    • Other high priority degrees as defined by industry
BISMARCK STATE COLLEGE | North Dakota’s Polytechnic Institution

INTERNET of THINGS INDUSTRY 4.0

COMMUNICATIONS
- Global access
- Reduce costs and energy

INDUSTRIAL
- Smart Connected Products
- Quality Control

UTILITIES
- Demand management
- Response Applications

AUTOMOTIVE
- Streamline manufacturing
- Analyze vehicle behavioral data

MEDICAL
- Maintaining uptime of devices
- Remote monitoring

AGRICULTURE
- Soil quality
- Weather conditions

ENVIRONMENTAL
- Weather Analysis
- Reduce traffic congestion

MILITARY/DEFENSE
- Recognize/Identify targets
- Defense intelligence

RETAIL
- Personalized advertisements
- Automated checkouts

HOME
- Smart Temperature Control
- Optimized energy use

North Dakota’s Polytechnic Institution
polytechnic.

Hands-on learning. WORKFORCE READY.

At North Dakota’s Polytechnic Institution, learning is hands-on and grounded in the principles of STEAM (science, technology, engineering, the arts and mathematics). The curriculum is designed in collaboration with business and industry partners focusing on high-priority occupations. Students learn during internships, through cooperative projects and in state-of-the-art classrooms. Whether studying arts and sciences or pursuing highly technical programming, North Dakota’s Polytechnic prepares students to be workforce ready and succeed wherever their educational journey takes them.

STUDENT
You choose. You learn. You gain practical skills for the workplace and life.

EMPLOYER
You consult. You support. You design curriculum, enhance community, and help shape lives.

Maximize your potential at: bismarckstate.edu/polytechnic
Public Private Partnerships (P3s)

• Public private partnerships are economic force multipliers that advance innovation beyond what traditional partnership structures cannot achieve.
• Future economic development opportunities will require the public and private sector to operate outside of their silos.
Our request

1. Fund proposed changes to higher education funding formula for career and technical education and cybersecurity

2. Provide $5M for new polytechnic program startup investment to support 5-7 new BAS programs in high demand areas (Manufacturing/Automation, Cybersecurity, Energy, Agriculture, Healthcare)

3. Continue ND Challenge Grant program to secure matching funds for endowed scholarships

4. Support and fund BSC’s capital project needs
1. Fund proposed changes to higher education funding formula

- Increases funding for career and technical education and cybersecurity programs
  - Weight for Cybersecurity/Computer Science changes from 1 for freshman/sophomore classes to 2.5; and from 2 for junior/senior classes to 5.
  - Weight for Career/Technical changes from 2 to 3 or 5 (depending on program).

**NOTE:** North Dakota needs highly-skilled, technical talent to respond to job growth demand. Without these investments the capacity to meet this demand will be severely delayed.
2. Provide $5M for new polytechnic program startup investment

• Supports 5-7 new BAS programs in high demand areas
  • Advanced Manufacturing, Mechatronics Applied Engineering, Digital, etc.
• Each new polytechnic program requires ≈$1M startup investment
  • Capital investment for equipment and program facility enhancements
  • Faculty with industry experience
  • Curriculum and content development
  • Instructional and lab supplies
  • Recruitment and partnership development
3. Continue ND Challenge Grant program

- Creates excellent public/private partnerships
- Leverages funding to support educational scholarships
- Incentivizes donors to support BSC students through matching funds
- BSC Foundation successfully obtained all eligible matches each biennium to invest in endowed scholarships
  - FY13-19: $2.5M investment provided $7.5M benefit to students
  - FY20-21: $950K investment provided $2.85M benefit to students
4. Support and fund BSC’s polytechnic capital project needs

- Integrating the arts and humanities into STEM programming (STEAM)
- Megalabs
- More instructional/lab space for hands-on-collaborative learning, equipment, classroom and project space
- More K-12 collaboration
- Better meet coding, cybersecurity, and digital skill demand
- Enhance public/private partnerships (P3s), opportunities and collaboration
  - Cyber Range, Emerging Digital Academy, Hour of Code
FY20 Total Revenue, Excluding Capital

Fiscal Year 2020
Total Revenue $44.5 million

Sources:
- Tuition and Fees: $13.4 million (30.1%)
- Grants and Contracts: $4.8 million (10.8%)
- Grants and Contracts-CARES Act: $0.7 million (1.6%)
- Sales and Services of Educ. Depts.: $4.1 million (9.2%)
- Auxiliary Enterprises: $4.3 million (9.7%)
- State Appropriations: $15.5 million (34.8%)
- Other: $1.7 million (3.8%)

Source: Audited NDUS Financial Statements, June 30, 2020
Fiscal Year 2020
Total Operating Expenses: $47.2 million

- Instruction, $20.1 million (42.6%)
- Academic Support, $2.7 million (5.7%)
- Scholarships and Fellowships, $1.3 million (2.7%)
- Physical Plant, $4.4 million (9.3%)
- Institutional Support, $6.6 million (14.0%)
- Student Services, $3.9 million (8.3%)
- Auxiliary Enterprises, $5.5 million (11.7%)
- Depreciation, $2.7 million (5.7%)

Source: Audited NDUS Financial Statements, June 30, 2020
Addendum
## Student profile – Fall 2020

### Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberal Arts</td>
<td>990</td>
<td>27%</td>
</tr>
<tr>
<td>Technical</td>
<td>1,583</td>
<td>43%</td>
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<tr>
<td>BAS</td>
<td>210</td>
<td>6%</td>
</tr>
<tr>
<td>Non-Degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early Entry</td>
<td>657</td>
<td>18%</td>
</tr>
<tr>
<td>Other</td>
<td>276</td>
<td>7%</td>
</tr>
</tbody>
</table>

### Mode of Education

<table>
<thead>
<tr>
<th>Mode</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face-to-Face</td>
<td>1,282</td>
<td>34%</td>
</tr>
<tr>
<td>Blended</td>
<td>1,053</td>
<td>28%</td>
</tr>
<tr>
<td><strong>Total on campus</strong></td>
<td>2,335</td>
<td></td>
</tr>
<tr>
<td>Distance/Online</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In North Dakota</td>
<td>828</td>
<td>22%</td>
</tr>
<tr>
<td>Out-of-State</td>
<td>553</td>
<td>15%</td>
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</table>

### Financial Aid

<table>
<thead>
<tr>
<th>Aid Type</th>
<th>Count</th>
</tr>
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<tbody>
<tr>
<td>Offered Aid</td>
<td>1,685</td>
</tr>
<tr>
<td>Any Federal Aid</td>
<td>1,266</td>
</tr>
<tr>
<td>Pell Grant</td>
<td>462</td>
</tr>
<tr>
<td>Supplemental Grant</td>
<td>195</td>
</tr>
<tr>
<td>Federal Loan</td>
<td>531</td>
</tr>
<tr>
<td>Work-Study</td>
<td>78</td>
</tr>
<tr>
<td>Indian Scholarship/Tribal Grant</td>
<td>19</td>
</tr>
<tr>
<td>Other ND Grant/Scholarship</td>
<td>819</td>
</tr>
<tr>
<td>BSC Scholarship/Waiver</td>
<td>350</td>
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<tr>
<td>Other Grant/Scholarship/Waiver</td>
<td>468</td>
</tr>
<tr>
<td>Other Loan</td>
<td>92</td>
</tr>
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</table>
### Destination of ND high school graduates

<table>
<thead>
<tr>
<th>Fall 2020</th>
<th>Total first-time freshmen</th>
<th>Total first-time freshmen from ND*</th>
<th>% of first-time freshmen from ND with total first-time freshmen</th>
<th>Number of ND first-time freshmen HS Grad Past Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSC</td>
<td>795</td>
<td>748</td>
<td>94.09%</td>
<td>620</td>
</tr>
<tr>
<td>NDSU</td>
<td>2307</td>
<td>809</td>
<td>35.07%</td>
<td>750</td>
</tr>
<tr>
<td>UND</td>
<td>1614</td>
<td>674</td>
<td>41.76%</td>
<td>535</td>
</tr>
<tr>
<td>NDSCS</td>
<td>683</td>
<td>371</td>
<td>54.32%</td>
<td>301</td>
</tr>
<tr>
<td>MiSU</td>
<td>396</td>
<td>235</td>
<td>59.34%</td>
<td>208</td>
</tr>
<tr>
<td>WSC</td>
<td>283</td>
<td>197</td>
<td>69.61%</td>
<td>147</td>
</tr>
<tr>
<td>LRSC</td>
<td>181</td>
<td>145</td>
<td>80.11%</td>
<td>114</td>
</tr>
<tr>
<td>VCSU</td>
<td>195</td>
<td>134</td>
<td>68.72%</td>
<td>120</td>
</tr>
<tr>
<td>DSU</td>
<td>224</td>
<td>136</td>
<td>60.71%</td>
<td>104</td>
</tr>
<tr>
<td>DCB</td>
<td>122</td>
<td>74</td>
<td>60.66%</td>
<td>51</td>
</tr>
<tr>
<td>MaSU</td>
<td>142</td>
<td>77</td>
<td>54.23%</td>
<td>64</td>
</tr>
</tbody>
</table>

*Not reported: % of all ND high school graduates enrolling directly from high school*
### 4th week enrollment Fall 2020

<table>
<thead>
<tr>
<th></th>
<th>Fall 2018</th>
<th>Fall 2019</th>
<th>Fall 2020</th>
<th>2019-20 Change</th>
<th>2019-20 % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enrollment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PT headcount</td>
<td>1738</td>
<td>1706</td>
<td>1761</td>
<td>+55</td>
<td>+3.2%</td>
</tr>
<tr>
<td>FT headcount</td>
<td>2040</td>
<td>2033</td>
<td>1955</td>
<td>-78</td>
<td>-4%</td>
</tr>
<tr>
<td>Total Headcount</td>
<td>3778</td>
<td>3779</td>
<td>3716</td>
<td>-63</td>
<td>-1.7%</td>
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<tr>
<td>FTE</td>
<td>2645</td>
<td>2598</td>
<td>2558</td>
<td>-40</td>
<td>-1.6%</td>
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<tr>
<td>Total Credit Hours</td>
<td>39,167</td>
<td>38,971</td>
<td>38,372</td>
<td>-599</td>
<td>-1.6%</td>
</tr>
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</table>
BSC student enrollment 4th week Fall 2020 – U.S.