



# **Establishing the Stratospheric Workforce**

- Academics
- Enrollment Trends
- Research
- Other Observations

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# John D. Odegard School of Aerospace Sciences

#### Space Studies

- Space and Extraplanetary Habitability
- Additive Manufacturing and Space Suits
- Space Policy and Law

#### Aviation

- Commercial Aviation/Aviation Management
- Air Traffic Management
- UAS Operations
- Aerospace Physiology

#### Atmospheric Science

- Weather Balloons
- Earth Systems Science & Policy











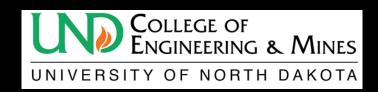




# College of Engineering & Mines

- Electrical Engineering\*
- Mechanical Engineering\*
- Aerospace Engineering
- Computer Science
- Data Science
- Cyber Security
- Chemical Engineering
- Energy Engineering





## **College of Arts & Sciences**

#### 19 Departments, including:

- Physics & Astrophysics
- Chemistry
- Math
- Psychology

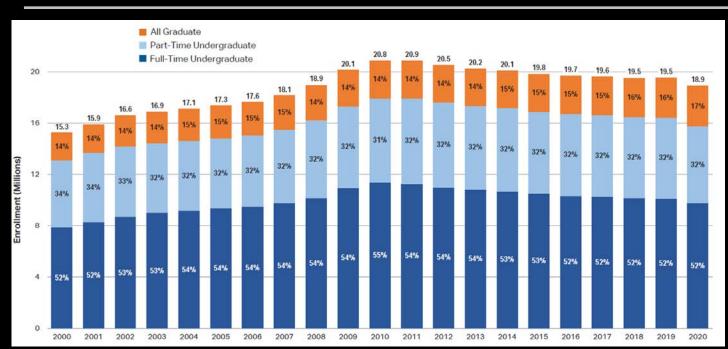








#### National Enrollment Trends



- U.S. Citizens age 25 years or older
- **2005-2009 = 27.5%**
- **2010-2014 = 29.3%**
- **2015-2019 = 32.1%**

Source: U.S. Census Bureau: Number of Americans With A Bachelor's Degree Continues to Grow – Feb 2021

Source: The College Board, Trends in College Pricing and Student Aid 2022, Figures CP-16 (research/collegeboard.org/trends)



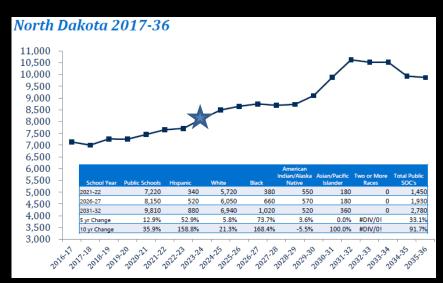
### **High School Graduates**

#### National 2010-2032

# Projected change in millions 3.60 3.55 3.50 3.40 3.35 3.30 3.20 2010- 2011- 2012- 2013- 2014- 2015- 2016- 2017- 2018- 2019- 2029- 2021- 2022- 2023- 2024- 2025- 2025- 2028- 2029- 2031-

Source: Looming Enrollment Crisis – The Chronical of Higher Education

#### **North Dakota 2017-2036**



Source: WICHE – High School Data – Knocking Door



## **Research & Discovery**

- Autonomous Systems
- Data Supply Chain & Cyber Security
- Policy
- Electromagnetic Compatibility
- Materials
- Energy Storage/Battery Development
- Hydrogen
- ITAR & Export Controls
- North Dakota Space Grant Consortium
- NASA EPSCoR















#### **Other Observations**

- Center for Innovation
  - Developing Ideas
  - Driving Innovation
- Entrepreneurship
- Small Business Development
- Riipen Project Based Learning
- Accelerate to Industry (A2i)
- Internships/Coops
- Local Partnerships















# Summary/Contacts



- Introduction
- Aerospace
- Engineering
- Research
- Other Observations



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