

Key Issue Form

1. Title: **Preparing Youth for Productive Futures**

2. Description:

The future economic health, vitality and productivity of NH is dependent upon a well prepared workforce, which includes not only ensuring youth receive a basic education, but guaranteeing they develop the core abilities necessary for employable futures. These essential skills include working productively, learning effectively, communicating clearly, working cooperatively, acting responsibly, valuing self positively, and thinking critically and creatively. Technological change, volatile financial markets, and globalization introduce the need for new workforce and workforce preparation strategies.

3. Public Value:

“A skilled workforce is at the heart of the country’s economy and will determine our future growth. Strengthening our workers’ skills is critical to creating good-paying jobs here at home and thriving in a global economy.”ⁱ

4. Identify and summarize key data that help make the case that this is a key issue

New Hampshire students are at risk for poor outcomes if they fail to graduate; lack basic academic skills in reading, language, mathematics and science; and/or lack basic “people skills”, thinking skills, and personal responsibility. The National Academy of Sciences report, *Rising Above the Gathering Storm* (2006), speaks to the urgent need to enhance academic and vocational experiences in science, engineering, and technology. American inventiveness and competitiveness in the global marketplace are at risk as student interest and performance in science, engineering and technology (SET) disciplines declines at the same time that SET literacy and mastery expectations rise (Business Roundtable, 2005). The increasing pace and complexity of life in the technological age demands engaged, innovative, and cooperating citizens (Silliman, 2007). Data from the New Hampshire Department of Education provides cause for concern:

- The first New England Common Assessment Program (NECAP) science test was administered to students in grades 4, 8, and 11 in May 2008, measuring what students know and are able to do in the areas of Earth & Space Science, Physical Science, Life Science, and Inquiry. This 2008 standardized testing found **approximately three-fourths of NH’s 8th and 11th grade students did not demonstrate proficiency in science**. In grades eight and eleven, 26% and 22% of students (respectively) demonstrated proficiency in science. Fifty-one percent of New Hampshire students tested scored proficient or better in science at grade 4. The NECAP Science Assessment evaluates the way students make connections between science content knowledge and the nature of science and scientific thinking – an important 21st century skill. The assessment focuses more on how students can use their understanding of science concepts rather than on what students can remember (facts and figures).ⁱⁱ
- The most recent data from the NH Department of Education reflects a 3.2% annual dropout rate for the 2006-07 school year. This is the percentage of students that drop out during a one year period. The cumulative rate, an estimate of the percentage of high

school students who will drop out before completing high school, is 12.2%. **Schools having a rate greater than 20%** include Hillsboro and Raymond at 24.5%, Hindsdale at 23.2%, Spaulding at 21.9%, Manchester Central at 21.3%, and Manchester West and Mascoma at 20.3%. The 2006-07 rate **represents 2,185 of 67,384 high school students** dropping out. Demographic statistics for New Hampshire show young men have a 14.1% dropout rate, while the rate for young women is 10.3%. The county rates are: Grafton 10.8%, Rockingham 8.2%, Merrimack 11.7%, Cheshire 16.7%, Belknap 11.8%, Coos 10.2%, Hillsborough 13.8%, Strafford 15.0%, Carroll 12.8% and Sullivan 17.6%.ⁱⁱⁱ

- The Alliance for Excellent Education estimates that high school dropouts from the Class of 2006-07 will cost the U.S. more than \$329 billion in lost wages, taxes and productivity over their lifetimes. Nationwide, nearly one in three U.S. high school students drops out before graduating. In total, approximately 1.2 million students drop out each year – about 7,000 every school day, or one every 26 seconds. Low graduation rates affect the entire nation.^{iv}
- In 2007, NH special education students accounted for 14.6% of regular school enrollment. A total of 32,274 students (14.6%), ages 3-21, were identified with one or more disabilities, including 40.2% of these students with a specific learning disability, 18.1% with a speech/language impairment, 16.1% with other health impairments, 8.3% with emotional disturbance, 7.2% with developmental delay, and 4.1% with autism.^v These students present a special challenge in preparing them for the workforce.

5. How does/would addressing this issue tie into UNHCE mission?

A well prepared future workforce is key to our mission “*to strengthen youth, families and communities, sustain natural resources, and improve the economy*”. New Hampshire 4-H Youth Development is uniquely positioned as part of the University of New Hampshire Cooperative Extension and the University’s Land, Sea and Space Grant programs. Through collaboration with appropriate university faculty, staff and students we can establish or enhance comprehensive programs that strive to achieve the important outcome of preparing the youth of NH for productive futures.

6. What Extension programs/activities, if any, currently address this issue? For each, describe how the program/activity addresses the issue.

The 4-H Youth Development program has a long history of providing youth with experiential learning in science-based projects and leadership opportunities in areas that build their skills for the future. 4-H has the capacity to address many of the broad workplace skills developed by the Secretary’s Commission on Achieving Necessary Skills (SCANS).

- **Academic skills** are addressed through our science-based curriculum and a new **4-H SET initiative** (science, engineering, technology) and include reading, writing, mathematics, speaking and listening. Our work can further enhance experiences in the application of those skills in real-world situations while incorporating new technology, science and engineering.
- **People skills**, including leadership and teamwork are hallmarks of the 4-H program. 4-H clubs, camps and after-school programming provide young people with intense

opportunities to learn and practice social skills. Areas for increased emphasis include cultural diversity and negotiation skills.

- **Personal qualities** necessary for success in the workforce include self-esteem, self-management, and responsibility. These are enhanced through mentoring of 4-H youth by well-trained volunteers and by opportunities to participate in meaningful projects and community service learning activities.
- **Thinking skills** are the foundation of those 4-H activities that provide youth with opportunities to design their own learning and share their knowledge with others. They include creative thinking, problem-solving, decision making and visualization.

Specific program efforts related to current trends include:

- The NH 4-H SET plan (Science, Engineering, Technology) is being introduced with support from the National 4-H Council in collaboration with many university, state and community partners. The program will focus on 4 main curricula areas: Animal Science, Technology and Engineering, Environmental Science, and Earth and Space Science – areas identified through a prior needs assessment including educator, youth and university input. Plans are to build on existing programs in animal and plant science by integrating SET into traditional 4-H events, activities and project areas. There is a commitment to engaging youth in programs, curriculum and resources that ignite their passion and leadership skills in the defined science areas through the continual and varied exposure to the defined curricula areas. Further work in relating the SET knowledge and skills to workforce preparation could further strengthen the public value of the plan.
- CYFAR projects in Seabrook and Hillsboro are incorporating SET education using two different approaches in out-of-school time programs – a “sampling” approach where youth have an opportunity to explore various technologies, gravitating to areas of interest; and a more structured 8-week single topic / curriculum approach. Youth participants are developing interest in learning, understanding of science, and meeting people working in a variety of SET careers. Further work in finding effective methods of incorporating SET in a variety of settings and programs is needed.
- Youth As Partners is a 4-H program designed to increase the capacity of youth and adults to share civic leadership in communities, schools, organizations, boards and governing bodies. Youth gain important leadership, communication, and civic participation skills while adults gain an understanding of the value of having “youth at the table”. All ages learn skills for effectively working together.
- Teens as Teachers is a common practice of engaging youth as volunteer leaders in working with younger 4-H members. The experience leads to workforce skills including decision making, teamwork, communication, setting goals, solving problems, getting along with others, identifying career choices, and finding and using resources.

- 4-H youth are encouraged to participate in the NH Jump\$Start Coalition’s financial literacy programs teaching personal finance. NH schools participate in the High School Financial Planning Program®. Both programs are supported through the UNHCE Family & Consumer Resource staff and help youth gain important thinking, planning and resource management skills for the future.

7. Other organizations currently addressing this issue

The NH Department of Education programs include Vocational and Technical Education that promote career and technical education. It also oversees the Workforce Investment Act Title I program, providing employment and training services to economically disadvantaged youth possessing specific barriers to employment. Junior Achievement of NH is a non-profit organization dedicated to preparing tomorrow’s leaders with economic education programs that teach students how business works. The Joan and James Leitzel Center at UNH works to improve education in elementary and secondary schools across the state in the areas of mathematics, science and engineering. A variety of programs have been developed for teacher training and support of inquiry-based instructional practices.

8. If UNHCE doesn’t currently address this issue, how might we address it in the future?

“We need new strategies for success that will ensure that America’s next generations can compete successfully and enjoy a rising standard of living.”^{vi}

4-H staff, volunteers, collaborating partners, and teen leaders would benefit from increased collaboration with university faculty and interns to impart the latest knowledge and innovative practices that will equip youth for the rapidly changing jobs and careers. Campus-based experiences could foster an increased public understanding of the value of the university in preparing our youth for productive futures in this state and region. Programs sensitive to changing demographics and diversity, including youth with disabilities are also critical areas for program enhancement.

ⁱ Baucus, Council on Competitiveness, 2008.

<http://www.compete.org/news/entry/474/council-calls-for-national-workforce-skills-agenda/>

ⁱⁱ http://www.ed.state.nh.us/education/News/NECAP_Science.htm

ⁱⁱⁱ <http://www.ed.state.nh.us/education/News/dropout06-07.htm>

^{iv} <http://www.ed.state.nh.us/education/News/DropoutPreventionGrantAnnouncement.htm>

^v NH Dept of Education, Bureau of Special Education, October 17, 2008.

<http://www.ed.state.nh.us/education/doe/organization/instruction/SpecialEd/documents/AgMatrixforState1201079170803.pdf>

^{vi} Council on Competitiveness, 2008. <http://www.compete.org/news/entry/474/council-calls-for-national-workforce-skills-agenda/>