

LB 657



2015 — 2016 INITIAL EVALUATION

NEBRASKA DEVELOPING YOUTH TALENT INITIATIVE

NEBRASKA

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DEPT. OF ECONOMIC DEVELOPMENT

2015 – 2016 Initial Evaluation

Nebraska Developing Youth Talent Initiative

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The Manufacturing and Information Technology sectors are changing rapidly due to innovation. Next generation workers will require advanced skill sets and knowledge to help companies compete in the global economy. Meeting workforce demands requires innovative approaches to develop a youth talent pipeline.

In September, 2015, Governor Ricketts announced the first recipients of the Nebraska Developing Youth Talent Initiative pilot program, which specifically targets the youth talent pipeline within those industries.

Eligible Applicants are private, for-profit businesses, or a consortium of businesses working in partnership with a public school system. Applying businesses were required to outline their goals to proactively and creatively consider future needs of their workforce and create awareness and excitement among 7th and 8th grade students about those industries. Criteria used to evaluate the applications included:

- Sustainability
- Impact
- Statement of need
- Goals and Outcomes
- Evaluation plan
- Budget
- Timeline

The program's initial recipients included Flowserve of Hastings and Hollman Media of Kearney. Highlights from the initial year are listed below.

Awardee: Flowserve Consortium

School: Hastings Middle School

Grant fund amount: \$125,000

Flowserve is the leading business of a consortium of approximately 40 Hastings- area manufacturers that began working together in partnership with Hastings Public Schools to articulate, plan and address how they were going to proactively meet the ongoing challenge of a diminishing workforce. Locally, manufacturing jobs are

projected to increase by 6% over the next ten years, which is significantly higher than the national growth projection of 2.1%.

While Flowserve's original outreach plan included students at Hastings High School, the NDYTI grant allowed the consortium to target 7th and 8th graders at Hastings Middle School at an accelerated rate. As a result, businesses were prepared to actively participate in classroom activities, as well as financially contribute to equipment and programmatic needs beyond grant funding and the school district's responsibilities. The program also encouraged business leaders' participation in different aspects of curriculum and evaluation planning.

The district's commitment to hire additional middle school faculty demonstrates sustainability in the program. The new teacher will lead the nascent "Skills USA" chapter in the middle school, which was initiated by the high school chapter advisor and student leaders.

Short -Term Goals Include:

- Increase total hours of representation of local industry in the classroom and at Hastings Middle School from 9 hours per year to 100 hours per year
- Meet no less than 85% of the demand for the 7th and 8th grade construction courses
- Sustain volunteer-instructed robotics courses (The school currently turns away 20% of applicants).
- Double the enrollment of 9th grade female students in Skills and Technical Science (STS) foundation courses

Long - Term Goals Include:

- Establish a middle school "Skills USA" chapter of 20 students and work to double participation by Year 3
- Test out 8th grade STS program completers at a 90% proficiency or advanced rate in the knowledge and skills identified for the courses
- Increase the number of 9th grade students enrolled in STS foundation courses by 30%

- Increase 9th grade female enrollment to 10% of total enrollment in STS foundation courses
- Increase high school graduates from total STS foundation courses
- Sustain and work to increase high school graduates from Advanced Manufacturing Pathways program

Examining the metrics of students exposed to the program through actual hands-on activities was more qualitative than quantitative during the program's pilot year. Developing curriculum, hiring faculty, and investing in new equipment and classroom renovation consumed this initial phase. Project leaders also worked with the evaluator to establish baselines for various metrics, which included tracking students' excitement about hands-on learning opportunities. For the upcoming school year, an additional 35 8th grade students enrolled in STS foundation course work.

Awardee: Hollman Media

School: Kearney's Horizon & Sunrise Middle Schools

Grant fund amount: \$119,307

Hollman Media continues to experience a need for crucial IT workers, not only in the Kearney area, but statewide.

Hollman Media had been working in partnership with Kearney High School and the University of Nebraska-Kearney to begin the development of an IT pipeline to meet educational needs in this industry. As they worked on this endeavor, it became clear that the pipeline into the high school levels was lacking. NDYTI grant funding provided both schools with an opportunity to significantly impact that challenge with direct, hands-on opportunities and mentoring for 6th through 8th graders in Horizon and Sunrise Middle Schools. Thus began the development of career readiness skills within the middle schools' education plans, while also creating excitement for IT.

Short- Term Goals Include:

- Immediately expose more than 1,000 KPS students to careers in IT each year to create measurable excitement for those career pathways.

During the pilot period, a total of 1,179 Horizon and Sunrise students participated in exposure activities. This included all students in grades 6 and 7 taking required IT courses and 8th grade students taking IT as an elective. Positive gains were shown in the percentage of students who “strongly agreed” or “agreed” to having strong knowledge of jobs or career in the IT field - 40.28% (pre-test) to 50.29% (post-test). This was consistent with feedback from participating teachers.

- Strengthen the fundamental career readiness skills of the students (e.g. communication, critical thinking, problem-solving, and critical thinking).

Via pre and post-testing, there was marked and consistent improvement in the perception of each of the four career readiness skills areas by participating students. Teachers cited that several of the hands-on activities included a strong focus on the development of these skills.

- Immediately provide KPS educators with experiences needed to mold curriculum to match industry needs.

Hollman staff actively involved faculty in hands-on trainings with students. School faculty jointly planned ‘intentional’ curriculum and created ‘worksheets’ for future use when mentors weren’t physically present in classroom.

It should be noted that this program provided valuable outcomes for faculty in juxtaposition to student exposure. They learned of the vast array of occupations within the IT industry, saw firsthand the critical importance of career readiness skills in this industry, and experienced the students’ excitement of engagement in the activities. All ranked the program from an 8 to 9.5 on scale of 1 to 10. Teachers viewed the past year as a demonstration or pilot period, and each seemed genuinely enthusiastic about building upon the project.

- Provide Hollman employees with an opportunity to help build useful digital technology for KPS while working with 8th grade students.

Interactions between the business and teachers were most impactful. Faculty identified the 'eye-opening' Beacon Project and Shark Tank as an opportunity to implement alternative teaching methods. Coordination by Hollman was of significant benefit to the teachers. This included scheduling visits with industry leaders, purchasing equipment and coordinating other aspects of the project

Long- Term Goals Include:

- Provide a seamless pipeline from middle schools to a related Kearney High School program.

The project contained several instructional strategies to assist with seamless transitions from the middle school into related secondary school programs of study. Faculty Installed a CNC Router, beacons and other technology within the middle schools, which are similar to those being used within the high school. Doing so allowed teachers additional familiarity with these systems.

- Create positive and long-term measurable gains in post-graduation IT pathways.

Post-graduation data is not yet available, but as baselines are established, it will be easier to track project performance toward this goal in coming school years.

- Within the three-year exposure period, increase enrollment into technology-related electives.

The number of 226 eighth grade students taking IT courses as an elective during the 2016 Spring Semester will be used as a baseline metric for future comparative purposes.