

CASE STATEMENT: SAN BERNARDINO COUNTY'S CRITICAL NEEDS

- ***Employers must have access to a readily available, educated, and skilled workforce.*** More than 40% of employers are dissatisfied with today's graduates' abilities to apply knowledge to the real world of work – the ability to problem-solve and analyze workplace situations. An educated and skilled workforce creates long-term advantages for San Bernardino County's jobs and economy.
- ***Only 18% of San Bernardino County residents have achieved a bachelor's degree by age 25.*** This is lower than the state average at 30% and the national average at 29%.
- ***Disengaged and underperforming students fuel high drop-out rates, low college going rates, and create a largely unqualified workforce.*** Dropouts in the region in 2010 totaled approximately 27,700 students, who, as underemployed workers, cost the region billions of dollars in investment and unrealized state and local tax revenues.
- ***Remediation of students costs time and money.*** Many local students don't graduate from high school ready for college or career. In California, Community College remediation costs more than \$500 million dollars annually.
- ***Two out of three students are economically disadvantaged.*** Economically disadvantaged students are six times more likely to drop-out than their more affluent peers.
- ***San Bernardino County receives a fraction of the funding necessary to build and sustain better systems of education and workforce preparation.*** Foundation funding for San Bernardino County is approximately \$5 per capita; substantially less than California's statewide average of \$149 per capita.

THE SOLUTION: *To establish a transformative countywide plan that influences all students' educational experiences, leading to a successful path to college and career as stated in the County of San Bernardino's Countywide Vision. A regional organizational structure supports the goal of the Vision, emphasizing the effort of supporting children from cradle to career by partnering with all sectors of the community for the success of every child.*

HOW: *The San Bernardino County Superintendent of Schools' Alliance for Education will provide the regional organizational infrastructure to build an educated and skilled workforce to fill the skills gap businesses demand. This solution is the fundamental key to a healthy and thriving regional economy and an improved quality of life for all residents.*



Through dedicated partnerships with local business, labor, government, community- and faith-based organizations, parents and education, the San Bernardino County Superintendent of Schools' Alliance for Education is committed to producing students prepared for college and career.

By promoting rigorous academic achievement and applying relevance in work-based learning, the Alliance for Education is addressing the needs of local employers through **STEM** (Science, Technology, Engineering and Math) programs across the county. Research indicates that STEM educated students are better prepared to enter the workplace with increasingly advanced knowledge and skills.

Engagement of a critical mass of key stakeholders is essential to ensure the success of our future goals and objectives.

1. *Create a highly skilled and educated local workforce with a focus on STEM through Linked Learning.*

The Alliance serves as a resource to districts developing quality education pathways with educational pipeline programs beginning as early as elementary school and leading to college.

A study by the U.S. Department of Education Institute of Education Sciences recommended four essential components to achieve college and career readiness for all students. These components align with the work being done in San Bernardino County by providing challenging academics integrated with demanding technical education, connections between school and the workforce, and student support services. This series of interconnections is known as **Linked Learning**.

Linked Learning is an approach to education that transforms the traditional high school experience by bringing together strong academics, a demanding technical education, and real-world experience to help students gain an advantage in high school, post-secondary education and careers. Students can choose among industry-themed pathways in fields such as engineering, arts and media, and biomedicine and health.

STEM education programs use technology and engineering design principles to help students:

- Think critically and solve problems
- Innovate and invent
- Think logically
- Demonstrate technological literacy

Linked Learning offers students:

- Personally-relevant, wholly-engaging and rigorous academic and technical curricula combined with exposure to real-world professions
- Exposure to previously unimagined college and career opportunities

- Preparation to enter a two- or four-year college or university, an apprenticeship or formal job training

Indicators of Success:

- Increased number of Linked Learning pathways for careers in STEM-related fields including *healthcare, bio-medical, advanced manufacturing, engineering, transportation and logistics*
- Increased availability of Linked Learning pathways in participating high schools across San Bernardino County to include approximately 50% of each participating school's students within seven years
- Increased student work-based learning opportunities by 10% each year through internships, job shadowing, mentoring and guest speakers
- Increased number of female students in STEM programs and college majors by 5% each year
- Increased number of districts participating in the STEM initiative by three districts each year to include all 33 districts within seven years

2. Impact Academic Relevance in Education

"When am I ever going to use this?" is the question asked by students every day in class. **Applications by Business and Labor for Educators (ABLE)** provides students with relevant, hands-on learning opportunities provided by business and labor partners that apply academics to the world of work.

ABLE allows students to apply their academic and technical knowledge and skills *in real-world situations*, allowing them to better prepare for college and career success. A collaborative effort between education and business, labor, and community partners exists in each region to provide student learning experiences that apply knowledge within authentic, real-world contexts through:

- Industry projects in the classroom that provide students with problem-solving experiences in real-world situations through partnerships with business and labor
- Field studies at business and industry sites that provide students with hands-on learning and academic applications to work-place tasks
- Classroom speakers' bureau that provide classroom demonstrations of their academic standards found in the work place
- Student summer camps and forums that inspire and engage all students, especially underserved and female students, to study and enter STEM related fields

Indicators of Success:

- Increased number of students by 10% annually, especially underserved and female students, enrolled in STEM pathways at the high school level and entering and persisting in college and/or technical degree STEM programs

3. *Empower families and communities to provide learning environments that prepare all students for college and career success.*

Family workshops provide opportunities for developing a support structure that nurtures and sustains student achievement in education, work and life. Parents will be given the resources needed to assist and support their children and navigate the educational system while learning

- Parenting skills
- Communication skills
- Conflict resolution skills

Indicators of Success:

- Increased college/university or technical education enrollment by 10% annually
- Increased student and family awareness of college and career opportunities in STEM related fields by 10% annually
- Increased family education events and activities by 10% annually in each region of San Bernardino County

OUR STEM-BASED SUCCESSES TO DATE:

- *Currently, 24 schools in 12 of the 33 San Bernardino County School's districts have STEM programs in place*
- *Total student enrollment and participation in STEM programs (in-and out-of-school) totals almost 5,000 students annually and growing*
- *An initial survey of randomly selected STEM student graduates indicated 83% attend a university with 57% of those entering STEM majors*
- *Female enrollment in STEM programs has increased by 31% since 2002*
- *A diverse student population is enrolled in STEM programs: 50% Hispanic/Latino; 6% African America/Black; 35% Caucasian White; and 11% Other*
- *More than 1,000 families have been educated on how to create a positive learning environment at home for their students and prepare them for college and career*
- *More than 1,500 committed business, labor and community partners are willing to assist in transforming our county*

OUR FUTURE:

The County of San Bernardino's Countywide Vision includes the critical effort of supporting children from cradle to career by partnering with all sectors of the community for the success of every child. Children from pre-kindergarten through high school, and especially those students who are



economically disadvantaged, deserve access to a quality education preparing them for advanced learning in a college, university, or a technical/certification degree program.

Your investment in this initiative will turn a potential burden on our economy – as represented by tens of thousands of underserved young people - into a pipeline of qualified, creative, skilled and motivated employees that will contribute to a growing, vibrant local economy.

Your business will profit when San Bernardino County Superintendent of Schools' Alliance for Education intensifies the efforts to scale-up STEM-related programs to create the educated workforce needed to fill the pipeline in fields such as healthcare, advanced manufacturing, engineering, transportation and the next generation of innovative industries.

**FOR MORE INFORMATION CONTACT
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