



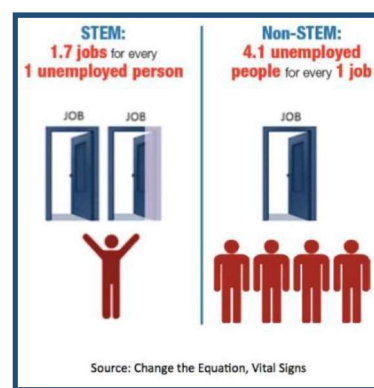
United States Department of Agriculture Agricultural Research Service

BlueSTEM AgriLearning Center

Grazinglands Research Laboratory, El Reno, Oklahoma

May 2017

Rationale: Science, technology, engineering, and mathematics (STEM) are necessary components in the American workforce to sustain American competitiveness in the global economy. The interest in STEM careers are on the decline, while STEM positions in the workforce are on the rise. There are currently 1.7 STEM jobs for every unemployed individual. The US Department of Education (USDE) reports that the percentage of bachelor's degrees in STEM fields have declined in the past decade. A STEM education not only creates more opportunities for involvement in STEM careers, it also nurtures critical thinking and problem solving skills that equip learners to be adept citizens. The BlueSTEM AgriLearning Center is a collaborative effort between the US Department of Agriculture (USDA)-Agricultural Research Service-Grazinglands Research Laboratory (GRL) and Historic Fort Reno, Inc (HFRI) which strives to connect research and historic preservation to the greater community.



Objective: The BlueSTEM AgriLearning Center (BALC) serves to strengthen the STEM pipeline by enhancing STEM educational opportunities for students K-12 through graduate school, engaging students in future STEM careers, and strengthening and diversifying the work force of the next generation.

What we are doing:

ERPS Experiential Research Class: El Reno Public School High School students attend an Experiential Research Class at Grazinglands Research Laboratory in which they take part in primary research under the mentorship of USDA-GRL scientists. Students earn a high school science credit for taking this class. Students that take part in this class for the second year will be concurrently enrolled at Redlands Community College and will earn 3 credits in Applied Science each semester.

Teacher Professional Development: BALC provides various teacher professional development opportunities throughout the year including topics in water education, environmental education, soil science, native plant identification, and natural history.

STEM Day Camps: These educational opportunities are offered during the summer months to students from K-6th grade.

Family Science Nights: Various Family Science Nights are offered throughout the summer including Firefly Night, Go Batty! (Bat Night), and Pollination Ecology.

Future Proposed Projects:

- Citizen Science Programs
 - Education Garden
 - School Pilot Programs
 - Online Curriculum
 - Traveling STEM Labs
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