

1-19-2019

## Where Science and Culture Meet: Extending the Reach of Collegiate Aeronautical Education to Nebraska Native American Children

Hank R. Lehrer

*Embry-Riddle Aeronautical University Professor, retired*

Brent D. Bowen

*Embry-Riddle Aeronautical University*

Follow this and additional works at: <https://commons.erau.edu/ni-s1-intro>

---

### Scholarly Commons Citation

Lehrer, H. R., & Bowen, B. D. (2019). Where Science and Culture Meet: Extending the Reach of Collegiate Aeronautical Education to Nebraska Native American Children. , (). Retrieved from <https://commons.erau.edu/ni-s1-intro/2>

This Article is brought to you for free and open access by the Funding Agencies, Grants, and Activity Focus at Scholarly Commons. It has been accepted for inclusion in Introduction by an authorized administrator of Scholarly Commons. For more information, please contact [commons@erau.edu](mailto:commons@erau.edu).

## **Where Science and Culture Meet: Extending the Reach of Collegiate Aeronautical Education to Nebraska Native American Children**

In 1996, the NASA NE Space Grant began a minority outreach initiative with the state's Native American reservation educational community. The main thrust of the effort was to improve the science, technology, engineering, and mathematics (STEM) skills of elementary, secondary, as well as collegiate students

The sad state of affairs in educational achievement by Nebraska Native American students attending rural reservation schools (Omaha Nation, Walthill, Santee Sioux, and Winnebago) is outlined in data from the Nebraska Department of Education. These data indicate that while approximately 65% of all Nebraska 4<sup>th</sup> and 8<sup>th</sup> grade students meet or exceed standard score on national mathematics tests, only 8.3% of 4<sup>th</sup> grade reservation school students and 18.96% of 8<sup>th</sup> grade students in the same schools achieve like results. The same dismal results are mirrored in the national reading test results. Considering that there is a significant Native American population residing on Indian reservations in rural Nebraska and keeping in mind the results stated above, the NASA Nebraska Space Grant and EPSCoR aggressively pursued an educational intervention in an attempt to overcome this situation. The administration, faculty, and staff of the Aviation Institute of the University of Nebraska at Omaha organized and delivered a far-reaching outreach program that would ultimately touch each and every one of the state's reservation educational institutions.

Over the next seven years and beginning with upper elementary aged children approximately 11-12 years of age, this program consisted of two primary activity tracks. These were Families United in the Discovery (FUN) of Science (Family Science) which focused on elementary and secondary age children and Native Image (Institute for Managing Applications in Geoscience Education and Extension) that focused on upper elementary and college-age individuals.

January 19, 2019