

# Understanding the Role of Local Agency in Broadening High-Potential, Rural Students' STEM Participation and Achievement

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What are some reasons there is reluctance to focus on high-ability students?



College Enrollment Rates For High-ability Students By Level of Engagement in School



## FOUNDATIONAL BEST PRACTICES

- Assessment
- Gifted Education
- STEM Education
- Rural Education

Informal STEM Learning for Rural Students with High Potential

## CONTEXT

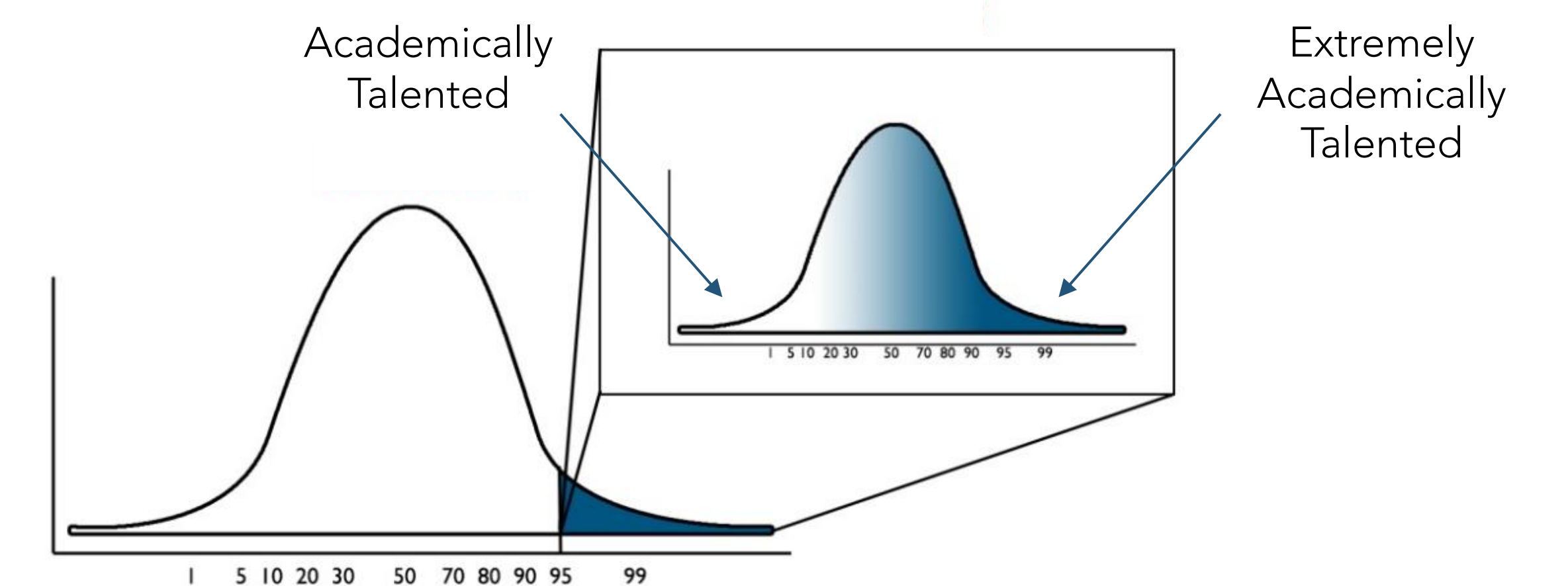
- 10 Districts
- 349 Students (gr. 6-8)
- 34 Educators
- 96 Hours of out-of-school STEM instruction

## Research Questions:

1. What are the key characteristics of informal STEM learning environments that best support high-potential students' STEM learning outcomes and teacher practice in rural schools?
2. How does long-term participation in informal STEM learning environments impact STEM and academic learning outcomes for rural, high-potential students?

## BROADENING THE NET

Who are the bright rural students we are leaving behind?



## THEMES

- Community
- Increased Student Aspiration and Achievement
- Recognition
- Awareness

One of the biggest outcomes of STEM Excellence and Leadership is the sense of community that has developed at each school for program students and educators.

"They have inquired about different careers, like oohh what kind of job would I get to do this in all the time? . . . It's helped the students become more aware not only of their strengths but of their interest then in math and science."

"I am kind of broadening the net, I guess, so to speak, every now and then with specific kids for specific standards."

"...some kids even in sixth grade deciding between SEAL and like, club football. ... scheduling for those seventh and eighth grade years will be interesting to see how that shakes out."

"I can be myself now!"

In the face of geographic isolation & turnover, how can informal STEM programs maintain community to change rural school culture?

