

Agricultural Science Education in the U.S.A: Past, Present, and Future

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The Morrill Act of 1862

1. Previously colleges offered an elitist, liberal arts education.
2. Created Colleges focused on agricultural, mechanical, and military arts.
3. 30,000 acres per member of congress.



The Hatch Act of 1887

1. Established agricultural experiment stations.
2. Dissemination of research led to teaching students below college level.
3. Director A.C. True promoted agricultural education in public schools.

The Smith-Lever Act of 1914

1. Established the Cooperative Extension Service.
2. Partnership of federal, state and county Government.
3. Extends research-based knowledge to the people.

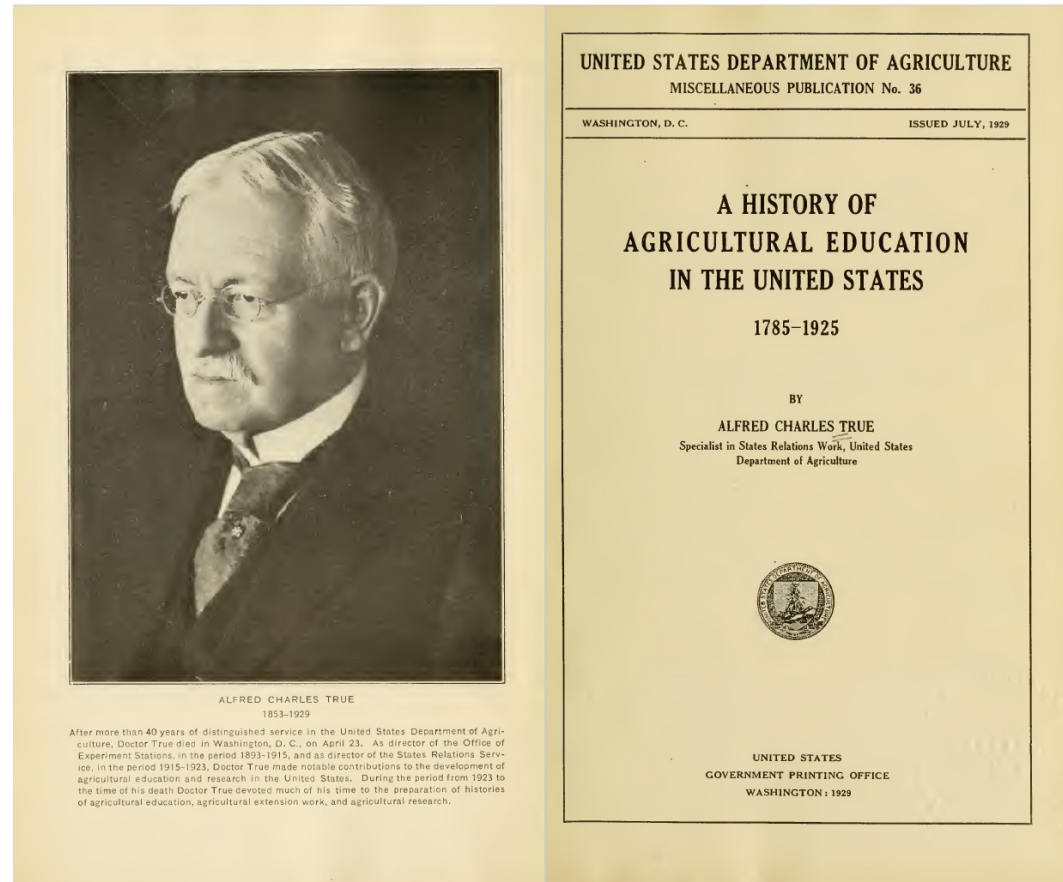


Key decisions

1. Recognition that land-grant colleges alone would not be able to meet the need for agricultural science education.
2. How should secondary level agricultural education be delivered? (local high school, county, district, etc.)
3. Where and how would teachers be trained?

Secondary Ag Ed in 1916

1. 3,675 institutions.
2. 73,000 students.



The Smith-Hughes Act of 1917

1. Led to uniformity.
2. Key points:
 - a. Preparation for employment on the farm.
 - b. Less than college grade.
 - c. Students at least 14 years old.
 - d. Only in public schools.
3. Funded teacher salaries, teacher training, and supervision.

Smith Hughes Act Centennial Celebration Video

Other Milestones

1928 Future Farmers of America established.

1935 New Farmers of America established.

1963 Vocational Education Act of 1963.

- Expanded vocational agriculture beyond farming.
- Eliminated the requirement for students to have farm projects.
- Supervisors became consultants.

1965 Merger of Future Farmers and New Farmers.

1969 Membership in FFA opened to girls.



Secondary Ag Ed in 2009

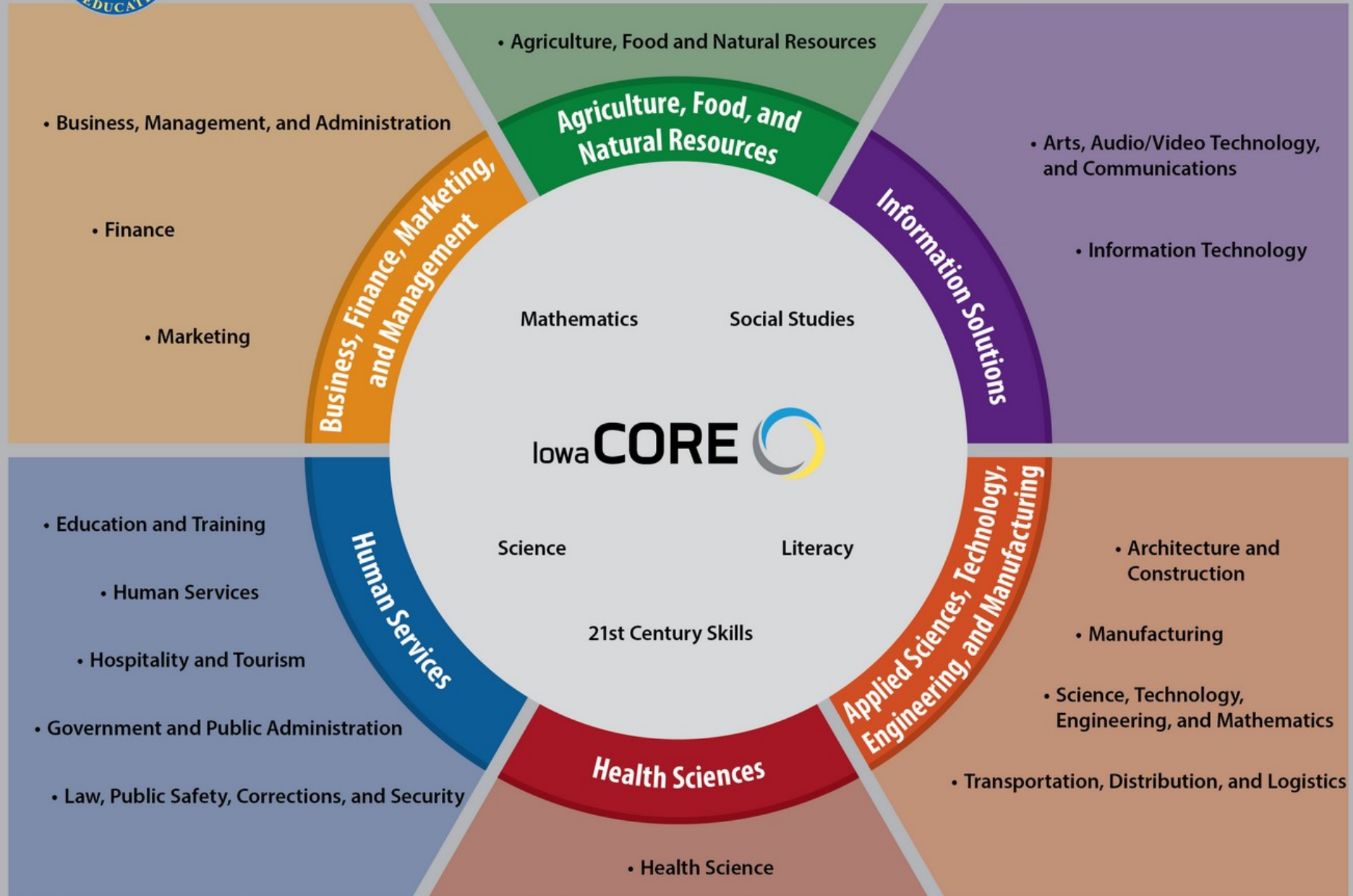
Number of students	1,300,000
Number of teachers	11,322
Number of schools	8,038
Percent of students who were male	60
Percent of teachers who were male	72
Percent of high schools offering agriculture	52
Percent of high school students who studied agriculture	9.3

Iowa Career and Technical Education Rules

1. 3 sequential units; 1 occupational cluster; 4/6 service areas.
2. Competency based instruction.
3. Articulated with postsecondary programs of study.
4. Reinforce academic skills.
5. Utilize an advisory council.



Iowa's Career and Technical Education Service Areas



**CLASSROOM/
LABORATORY**

Contextual, *INQUIRY-BASED*
Instruction and Learning
through an interactive
classroom and laboratory.



**School
Based
Agricultural
Education**



FFA

Premier Leadership, Personal
Growth and Career Success through
ENGAGEMENT in FFA, PAS
or NYFEA programs and activities.



SAE

Experiential, Service and/or
Work-Based Learning through the
IMPLEMENTATION of a Supervised
Agricultural Experience Program.



CASE

Curriculum for Agricultural Science Education



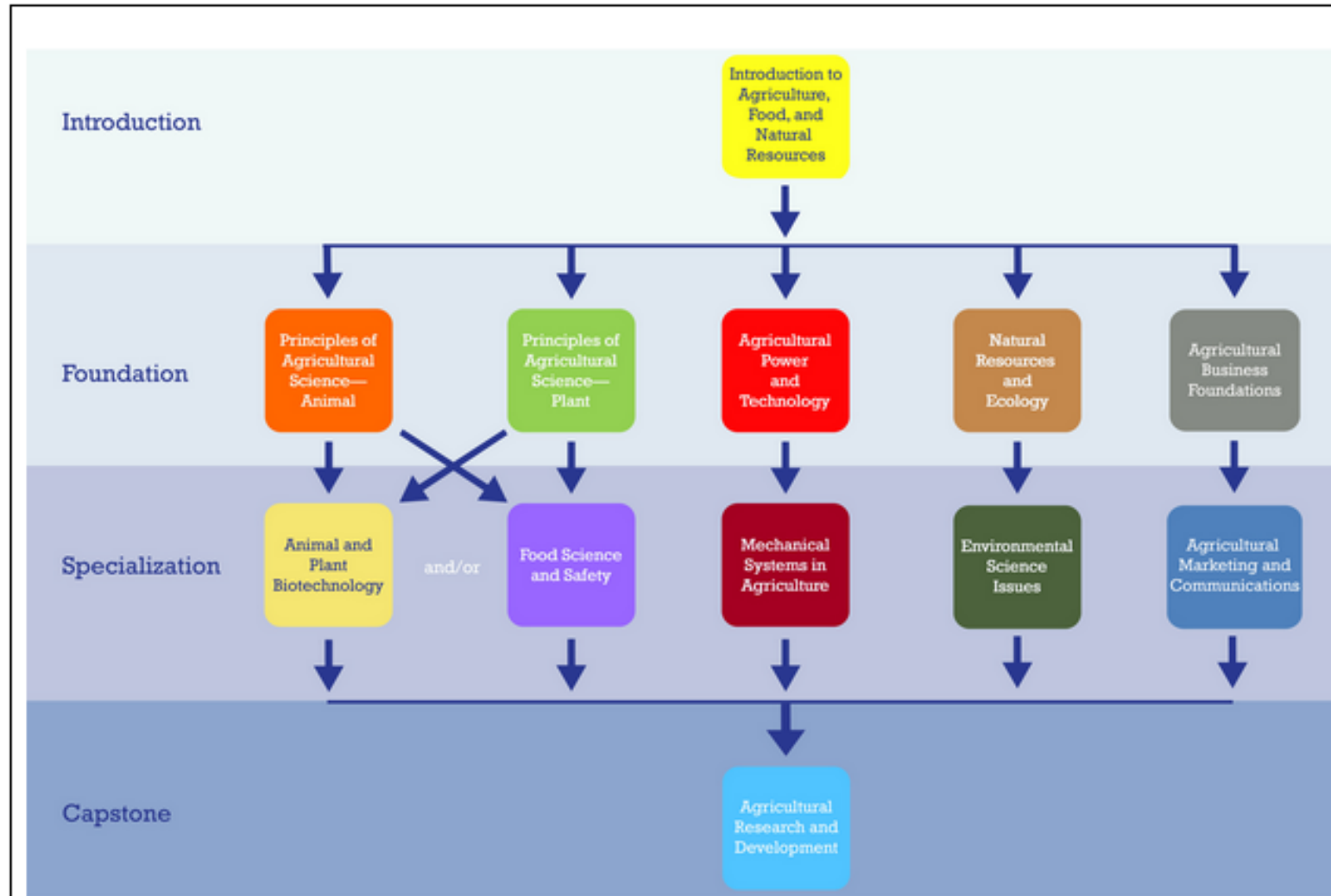


Figure 1. CASE Sequence of Courses

Major Changes During My Career

1. Organizational name changes.
2. More women.
3. Advances in agricultural production technology.
4. Advances in computers and communication technology.
5. Changes in teacher contracts.

Predictions

1. Secondary level agricultural education will continue to be important.
2. Changes will be influenced by broader societal changes and technological advances.
3. We will likely continue to teach about: plants, animals, economics, human relations, and mechanics.

Primary References

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3. Talbert, B. A., Vaughn, R., Croom, D. B., & Lee, J. S. (2014). Foundations of agricultural education. Prentice Hall.
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