The DSX Project: A First Look at Data Science Education on Spelman and Morehouse Campuses

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Talk Outline

• Institutions at a glance
• Framing data science
• Curriculum infusion approach
• Student exposure and impact
Institutions at a glance
Institutions At A Glance

Spelman College

• Approximately 2,300 students

• 70% major in the arts, social sciences or humanities, 30% major in the sciences

• 76% 6-year graduation rate

• 33% of our graduates enter graduate or professional school immediately after college graduation
Institutions At A Glance

Morehouse College

• Approximately 2,200 students

• 22% major in business, nearly 30% major in science and engineering

• 52% of graduates enroll in graduate or professional school within five years of graduation
Framing data science
Framing data science

• liberal-arts education

• private institutions

• baccalaureate colleges

• mathematics departments, computer science departments

• no statistics departments, but statistics course offerings
Framing data science

• Q. How do we share the importance and power of data in context?

• Q. How do we increase the access, participation and inclusion practices of data science for Spelman and Morehouse students?

Enter Data Science eXtension....

• focus on faculty — impact students through the faculty
Curriculum infusion approach
Curriculum infusion approach

• Embedding data science into existing curriculum

• *Interdisciplinary-centered* — DSX engages 20 STEM and Business faculty at both colleges across 2 cohorts.

• *Competency-building* — Faculty participants learn more about the data science field and share pedagogical strategies through a 10-day summer workshop and 8 monthly seminars.

• *Knowledge transfer to students* — Faculty participants design and deliver domain-specific data science curriculum enhance and deliver at least one data science infusion within the next two semesters.
Curriculum infusion approach

- Challenges
  - Requires faculty in-house development in data science
  - Technological and computing infrastructure
  - Availability of relevant course offerings
  - Sustainability planning of courses
Curriculum infusion approach

• Opportunities

• Exposure occurs in core, cognate, elective courses

• Reach students across sophomore, junior and senior year

• Applicability to a variety of disciplines

• Incentivize students and faculty to examine career opportunities in data science
Thanks for your time and attention!