

AMS Pre-College Teacher Professional Development Courses: A hands-on exploration of the dynamic Earth System

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AMS DataStreme Courses

The American Meteorological Society's DataStreme Project has over a decade of experience in pre-college teacher enhancement. The AMS Education Program has developed four courses, DataStreme Atmosphere (ATM), DataStreme Ocean (OCE), DataStreme Water in the Earth System (WES), and the newest DataStreme Earth's Climate System (ECS). These courses have assisted more than 16,000 teachers in developing Earth system science competency through the use of telecommunicated Earth system information, in large part from NOAA and NASA websites. AMS trained teachers, in turn, have provided learning experiences for colleagues and their students based on this Internet data and the understandings they have gained from the courses.

DataStreme courses are offered by the Local Implementation Team (LIT), typically three members who are master teachers, educators, or scientists, including many NOAA personnel. They serve as mentors to the teachers whom they recruit. Course content is provided by a custom text and investigations manual coordinated by the AMS Education Program. The text and the initial portions of the investigations are provided to the participants at the beginning of the semester while weekly investigation completions, based on current environmental data, are delivered via the course websites. The LIT conducts several in person meetings and provides weekly mentoring as participants work toward content mastery. Participants become resource teachers of Earth system science for their colleagues.

**More than 16,000
K-12 Educators
Trained!**

- *DataStreme Atmosphere*
- *DataStreme Ocean*
- *DataStreme Earth's Climate System*
- *DataStreme Water in the Earth System*

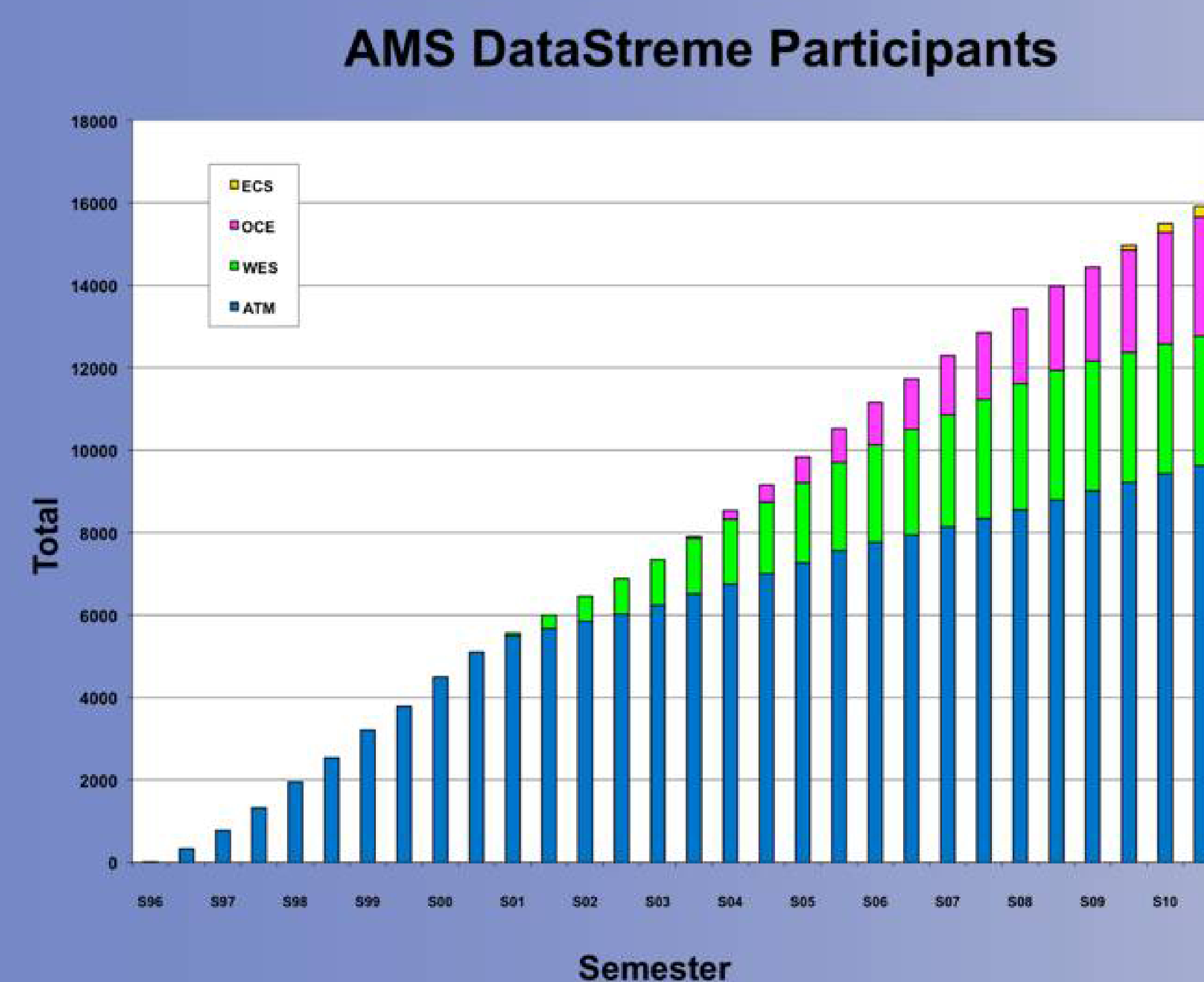


Figure 1: Number of DataStreme participants enrolled by semester (through Fall 2010)

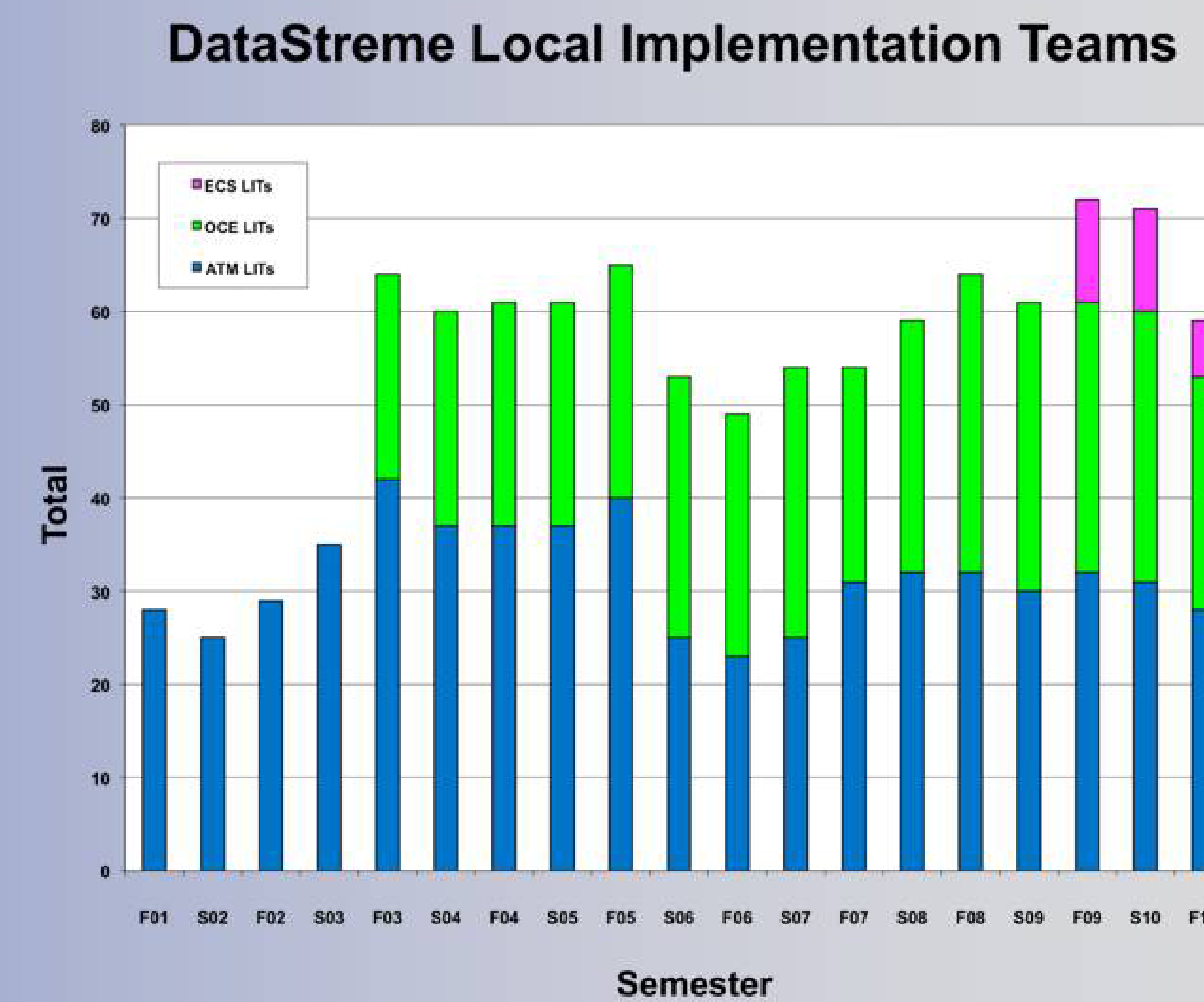


Figure 2: Number of DataStreme Local Implementation Teams (LITs) nationwide each semester (through Fall 2010)

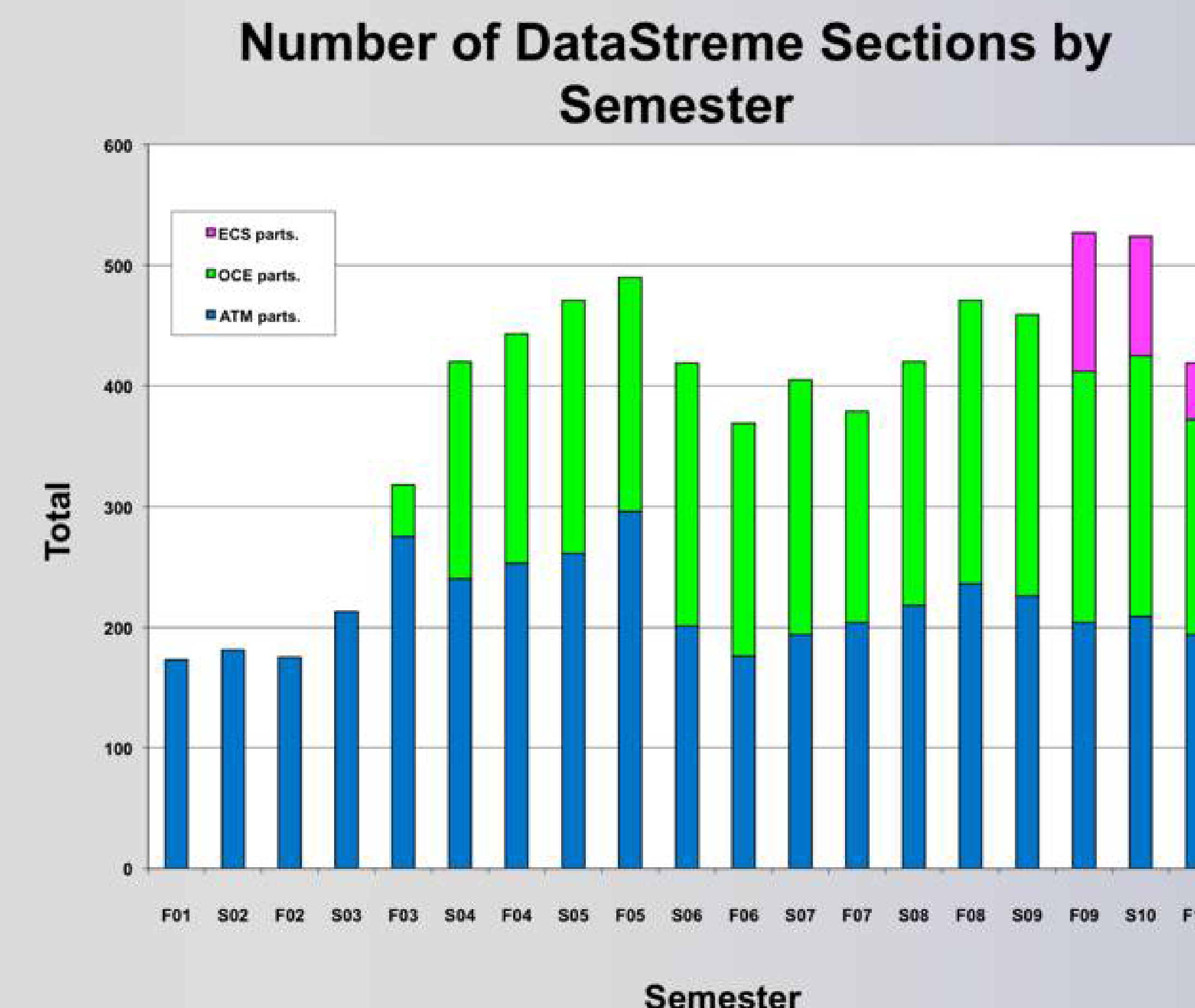


Figure 3: Number of DataStreme Atmosphere, Ocean, and Earth's Climate System sections by semester (through Fall 2010)



AMS DataStreme Course Overview:

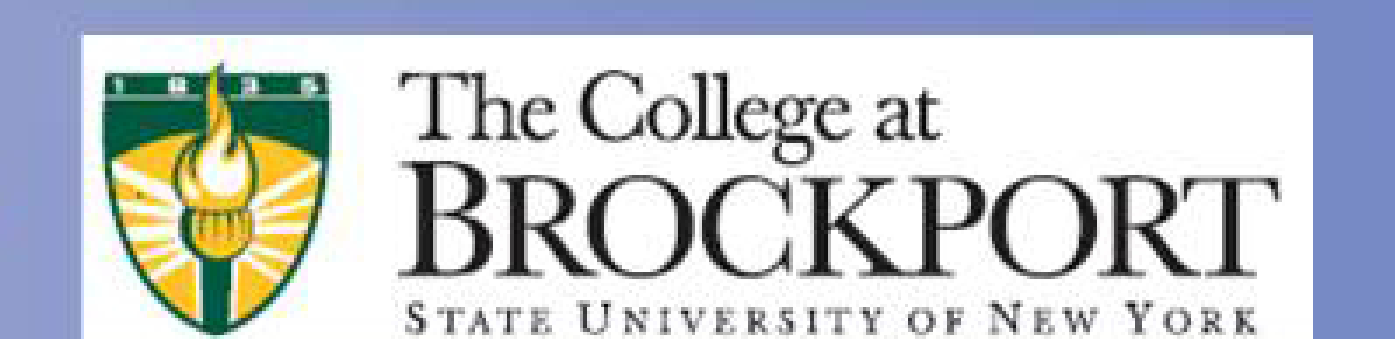
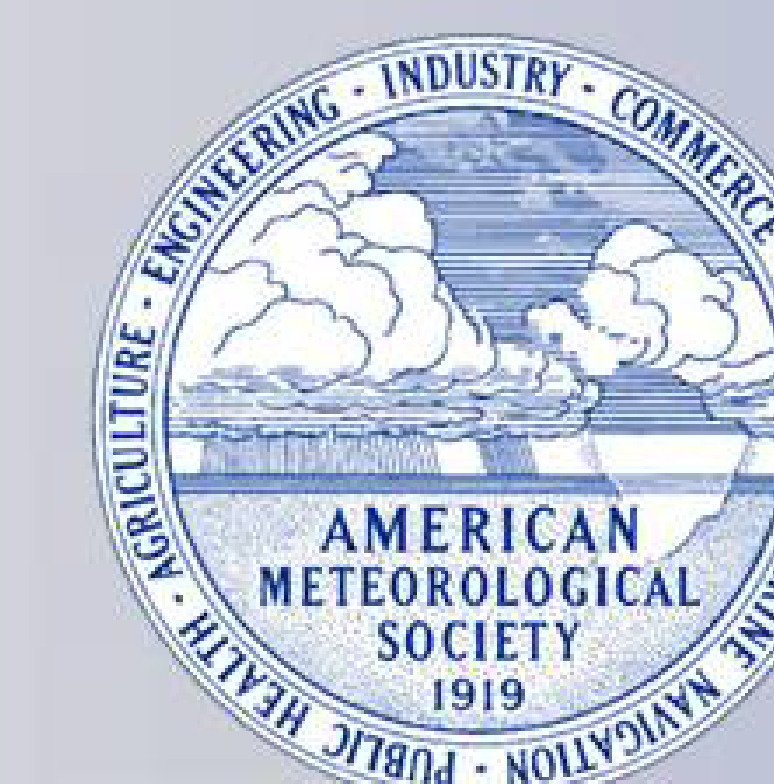
- 13-week content-rich courses
- Offered nationwide twice each year
- Near-real time, Internet-delivered content
- 1000 teachers trained annually
- Free graduate credits in Earth Science

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