A Historical Note on the Harvard College Observatory Announcement Cards: Elizabeth L. Scott at the Intersection of Statistics and Astronomy

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Abstract

The Harvard College Observatory Announcement Cards, also known as the Harvard Announcement Cards (HAC), were for 39 years (1926-1964) an important statistical data system used in the western hemisphere for astronomical observations that needed to be reported quickly because they involved objects having transient characteristics. Astronomical announcements of 'current interest' were comets, certain asteroids, new stars, and 'similar matters'. The late statistician Elizabeth L. Scott's first publications were among the 1,674 HAC, including 11 communications over an eight-year period beginning in 1939. The purpose of this historical study is to provide a focused description and review of the HAC as a professional communication system that linked statistics and astronomy in the early 20th century, as evidenced by the participation of Elizabeth L. Scott in the system. This will include describing the function of the HAC and describing and analyzing the reporting content of Scott's HAC. While we could find some brief references to HAC in a few published books and articles, we could find no article in the published literature that focused on them, and likewise no article that described Scott's participation in the system. The HAC were unique for three reasons. First, they provided systematic observational data to astronomers that focused on the transient class of objects rather than the stable class of objects that changed little over time. Second, the HAC system, although primitive by most modern standards in terms of data recording, promoted internationalization of data capture and sharing. Finally, the HAC system highlighted the existence of different classes of astronomical observation and data, as well as the long-term need for more and better record linkage systems in astronomy at the dawn of the electronic computer age.

Key Words: Data system, observational data, international data sharing, record linkage