Women made up the majority of the membership from an early stage, but were forbidden from active participation until the 20th century. While the majority of teachers were women, school administrators were primarily men, and it was the administrators who directed the Association. The creation of the Department of Classroom Teachers in 1912 was the first attempt to address the problems faced by those teachers, though its status within the Association can be inferred from the fact that the Department had no permanent headquarters until 1940. There is a series of records from the Department of Classroom Teachers that contains biographies of significant individuals, minutes, resolutions, and publications. It can be found here. Although women rarely made it into the ranks of school administrators, there were a few and a there was also a department within NEA to serve their needs. In 1979, a Committee on Women's Concerns was created.

In 1910, Ella Flagg Young became the first woman to hold a position of authority when she became president. Other prominent women include Charl Ormond Williams, a key figure in women's suffrage and youngest president of NEA; Elizabeth Duncan Koontz, the first African-American NEA president; and Hazel Davis, who led the Research Division to focus on teachers' salaries.