

**ANDREWS, Annie Dale (Biddle).** December 13, 1885–April 14, 1940.  
UNIVERSITY OF CALIFORNIA (BA 1908, PhD 1911).

Annie Dale Biddle was born in Hanford, California, the youngest of seven surviving children of Achsah A. (McQuiddy) (b. 1848) and Samuel Edward Biddle (1845–1908). Her parents were both from Tennessee, married there in 1870, and went to California and settled in Tulare County in 1874. Her father was a grain dealer, later bank president and manager, and active in public service in Hanford. The surviving children were three sons and four daughters: Tolbert Vance (1871–1954), Eliza Jane (b. 1874), Samuel Edward Jr. (1876–1946), Reta H. (1879–1972), Wallace Jefferson (1882–1961), Kate Justina (1884–1984), and Annie Dale.

Biddle attended the University of California in Berkeley where she was a member of Delta Gamma social sorority. After receiving her bachelor's degree in 1908, she was a University fellow in mathematics there in the academic years 1909–10 and 1910–11. As a student of pure mathematics she took courses in Synthetic Projective Geometry, the area of her research, with D. N. Lehmer; Theory of Functions (of a real variable, of a complex variable, and elliptic); Theory of Equations; Logic of Mathematics; Theory of Substitutions and Groups of Polyhedra; Theory of Invariants; Differential Geometry; and the Theory of Numbers. Her minor subject was English literature, and a faculty member from that area served on the committee for her final examination for the PhD. Biddle's 1911 doctorate was the third granted by the California mathematics department, the first to a woman.

The year after completing her work for the PhD, Biddle served as instructor of mathematics at the University of Washington in Seattle. She then returned to the Berkeley area and married, on October 7, 1912, William Samuel Andrews (1883–1952), a native of California and an attorney who had received his LLB degree from the University of California in 1906. A daughter, Wilhelmina Dale, was born on September 4 the following year, and a son, William Samuel Jr., was born six years later on July 20, 1919.

Annie D. B. Andrews continued her association with the University of California mathematics department after her marriage and taught while holding titles of teaching fellow 1914–16, assistant in mathematics 1916–17, associate in mathematics 1920–23, and instructor 1924–33. In 1933 Andrews was one of six junior faculty notified that they would not be reappointed because the department had decided to concentrate more on its graduate program. As this was during the Great Depression, the department considered whether the loss of the position would produce a significant hardship. Andrews, who was married to a practicing attorney, was the only one of the six who lost her job as of July 1, 1933. While she was on the faculty, Andrews was involved with the Women's Faculty Club, Torch and Shield, and Town and Gown. Her husband noted soon after her death that "during the last few years of her life in addition to running her home and doing mathematical research she took an active interest in public affairs and charitable work" (Owens questionnaire 1940).

After an illness of two years, Annie Andrews died in Oakland, California, in 1940 at fifty-four. Her body was cremated.

**Organizational affiliations:** AMS, Phi Beta Kappa, Sigma Xi.

**Dissertation:**

**1911** [Biddle, A. D.] Constructive theory of the unicursal plane quartic by synthetic methods. PhD dissertation, University of California, Berkeley, directed by Derrick Norman Lehmer. Printed version, 1912, reprinted from *Univ. California Publ. Math.* 1:27–54.

**Publication:**

**1912** [Biddle, A. D.] Constructive theory of the unicursal plane quartic by synthetic methods. *Univ. California Publ. Math.* 1:27–54. Published version of PhD dissertation. Review: *Rev. semestr. publ. math.* 34, pt. 1: 52 (D. J. Struik).

**Abstract not listed above:**

**1933** The space quartic of the second kind by synthetic methods. *Bull. Amer. Math. Soc.* 39:205–06 #104. Presented to the AMS, Palo Alto, CA, 18 Mar 1933.

**References to:** AmMSc 4–7, [BioWMath](#).

**Other sources:** Owens questionnaire 1940 (prepared posthumously by her husband); Bancroft Library, University of California, Berkeley; Eugene L. Menefee and Fred A. Dodge, *History of Tulare and Kings Counties California* (Los Angeles: Historic Record Company, 1913); Moore, *Mathematics at Berkeley*; US Census 1880, 1900, 1910, 1920, 1930 CA.

Last modified: October 31, 2008.