Grace Wahba is a pioneer in methods for smoothing noisy data. Best known for the development of generalized cross-validation and "Wahba's problem", she has developed methods with applications in demographic studies, machine learning, DNA microarrays, risk modeling, medical imaging, and climate prediction.

She was educated at Cornell (B.A. 1956) and University of Maryland, College Park (M.A. 1962). She worked in industry for several years before receiving her doctorate from Stanford in 1966 and settling in Madison in 1967. She was elected to the United States National Academy of Sciences in 2000 and received an honorary degree of Doctor of Science from the University of Chicago in 2007.