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Longitudinal voice source and acoustic analysis of English girl
cathedral choristers

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Since 1998, the authors have been recording girl choristers who sing at Wells Cathedral in England to enable a longitudinal quantitative exploration of voice development for girls aged between 8 and 16 who are involved in professional choral singing on a daily basis. The recordings are made of their acoustic output and the output from an electrolaryngograph for a series of vocal tasks including speaking and singing. Changes have been observed on a longitudinal basis for larynx closed quotient (the percentage of each cycle for which the vocal folds remain closed), long-term average spectra as well as in the overall spectral coverage in terms of frequency and dynamic ranges. Evidence of observations will be presented and their implications will be discussed with reference to source-filter interaction as appropriate.