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James McLaughlin* (jmclaughlin2@wcupa.edu), Math. Dept., West Chester University, 25 University Avenue, West Chester, PA 19383. *Certain general Double-Sum Identities and variations of WP-Bailey Chains.*

We consider a number of general double-sum identities and their implications. These double-sum identities, when restricted in a certain way, lead to various new Bailey-type transforms. These new Bailey-type transforms in turn lead us to consider some variations/extensions of WP-Bailey chains of Andrews and others, which in turn lead to new basic hypergeometric identities and new proofs of some existing identities. (Received September 06, 2012)