1125-39-2357   **Rajendra B Dahal***, rdahal@coastal.edu, and **Christopher S Goodrich**, cgood@prep.creighton.edu. *An Almost Sharp Monotonicity Result for Discrete Sequential Fractional Delta Differences.*

We consider a monotonicity-type result for functions $f : \mathbb{N}_a \to \mathbb{R}$ satisfying the sequential fractional difference inequality

$$\Delta^{\nu}_{1+a-\mu}\Delta^{\mu}_a f(t) \geq 0,$$

for $t \in \mathbb{N}_{2+a-\mu-\nu}$, where $0 < \mu < 1$, $0 < \nu < 1$, and $1 < \mu + \nu < 2$. A comparison between the sequential and non-sequential settings is provided, and we note that nontrivial dissimilarities exist between the two settings. We demonstrate, in addition, that, in a certain sense, our results are almost sharp. Finally, some numerical examples are provided in order to clarify our results. (Received September 20, 2016)