Demographic Signatures of Migration Systems: Population Recovery after Hurricanes Katrina and Rita

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ABSTRACT

Recent studies suggest that Hurricanes Katrina and Rita altered the structure and dynamics of the U.S. migration system in ways that ultimately promoted (or are in the process of promoting) population recovery in disaster-affected areas. If so, then these changes should be reflected in the underlying demographic signature of the U.S. migration system, which is defined in this paper as the stable equivalent distribution of a population that is implied from an observed set of migration flows. We develop and test this idea by comparing the stable equivalent distribution of the U.S. population that is implied from the observed system of migration flows in the period after Hurricanes Katrina and Rita (the recovery period) to the distribution that is implied from the system of migration flows before these disasters (the pre-disaster period). In further incorporating insights gleaned from two recent studies of differential population recovery for disaster-affected coastline counties in the wake of Hurricanes Katrina and Rita, we then test to see whether changes to the underlying demographic signature of the U.S. migration system between the pre-disaster and recovery periods exhibit patterning consistent with, what we call, a *vulnerability gradient*. We close by replicating the steps above for each year within the recovery period in an effort to determine whether population recovery in disaster-affected areas has accelerated (ramped up) or decelerated (tapered off) over time.