

## Indirect Financial Impact on Homeowners and SMEs

Like the government, SMEs can suffer significant economic loss from the indirect effects of disaster, usually totaling more than their losses from direct damages. Interruptions to business can arise from direct damage to the business' property, or from damage to infrastructure or other business operations along the supply chain. Following the 1999 Marmara/Ismit earthquake in Turkey, for example, businesses in the affected area reported being unable to resume production operations for 35 days on average. In addition, these facilities did not return to operating at roughly pre-disaster capacity levels until 18 months after the earthquake (Munich Re 2013a). Business interruption decreases GDP growth, stalls recovery, and hurts the local economy.

Natural disasters can also cause significant reductions in household income and investment in human capital. A recent study found that average household incomes in the Philippines declined by 6.6 percent in the year following a typhoon across all households exposed to average typhoon wind speeds (Anttila-Hughes and Hsiang 2013). The same study identified reductions in household spending and found particularly severe reductions in critical human capital investments such as education (13.3 percent) and health care (14.3 percent).



















