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Dacy and Kunreuther, The Economics of Natural Disasters: Implications for Federal Policy

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BOOK REVIEWS

The Economics of Natural Disasters: Implications for Federal Policy

By

DOUGLAS C. DACY and HOWARD KUNREUTHER

New York: The Free Press. 1969

Pp. xvii, 270. $8.50

This pioneering study offers a wealth of data on economic behavior in disaster situations, a critique of current federal policy toward disaster victims and a proposal for a thorough revision of that policy.

The book begins with a statistical description of the toll of American disasters during the 1925-65 period, clearly displaying the contrasting tendencies of increasing average annual property damage and declining average annual fatalities over time. Peak property damage of $1.4 billion was experienced in 1965, while annual fatalities have rarely exceeded 1,000. Only property damage is considered for the remainder of the book.

Federal and Red Cross roles in disaster relief are described in Chapter 2. The increasingly extensive range of government activities undertaken by various agencies upon the Presidential declaration of a disaster, as provided by the Federal Disaster Act of 1950, is emphasized. Since the passage of this statute, the Red Cross has been largely confined to aiding persons without property and those property owners whom Federal officials regard as poor credit risks, implying that the government provides aid mostly to disaster victims who are relatively able to help themselves.

A short theoretical chapter prefaces a detailed empirical analysis of economic behavior under disaster conditions. General insights into post-disaster information problems and the economics of charity are presented, along with a sketchy discussion of the determinants of the rate of long-term recovery. The recovery rate is believed to be first constrained by the absence of functioning transportation and communications networks and later (in wealthy nations) by labor scarcity. The authors have established the possibility of making economic generalizations about disaster behavior, though much theoretical work remains to be done.

For empirical evidence, heavy reliance is placed on the 1964 Good Friday earthquake in Alaska. Among the important findings are that emergency disaster plans and early warning systems can lessen post-impact organizational difficulties, that spontaneous mass charity has always prevented food shortages from developing following American disasters, that prices and rents charged for food and shelter rarely advance and occasionally fall. Public statements concerning the extent of property damage are often initially exaggerated. Federal aid and private insurance payments normally provide adequate financing for recovery. Post-disaster in-migration sometimes swamps out-migration, thus reducing the pressure on the labor supply. Recovery is usually complete within three years. The authors assert that there are often post-disaster improvements which would not otherwise have occurred, though the evidence is not convincing. However, the case study of Seward, Alaska, does indicate that a disaster will hasten the decline of an already declining community.

In their critique of federal policy, which occupies three chapters, the authors do not question the extensive programs for restoration of damaged federal facilities, but rather restrict their attention to the costs and welfare effects of those programs aimed at private parties. At present, only property owners suffering uninsured damage are eligible for most kinds of federal aid, which chiefly takes the form of income tax relief and a variety of low interest loans offered by the Small Business Administration and other agencies. These programs cost non-victims about $1 billion during 1953-65, a huge sum but small when compared with overall federal receipts of $1 trillion for the period. Since any disaster relief program would have some social costs, the burden of the critique rests heavily on violations of certain widely accepted welfare criteria which are allegedly induced by current policy. Specifically, it is said that the Federal Disaster Act provides a disincentive for individuals to bear the full costs of their activities and that thriftless persons are benefited more than the thrifty. Inasmuch as current federal policy apparently obviates the need for voluntarily purchased disaster insurance and instead shifts the burden to society as a whole, the implication is that disaster-prone regions may become overdeveloped because the social costs of development exceed the costs which must be borne by private individuals under present law. Thrift is discouraged due to a violation of the equity canon which requires that the government not disturb the pre-disaster ordering of relative asset positions. For example, the man with a mortgage who does not bear the burden of paying for private insurance becomes eligible for a debt-retirement loan from the Small Business Administration at a relatively low interest rate and thereby receives a "rate differential windfall." Thus federal policy favors high debt-equity ratios, shifts risk bearing from individuals to society as a whole and discourages the development of private markets for disaster insurance, and possibly encourages excessive development of disaster-prone regions.

The authors contend that a private disaster insurance market is feasible, and they believe that steps should be taken to encourage its development. They suggest that comprehensive disaster insurance policies be marketed at premiums reflecting the risks involved. Because of the obvious risks to insurance companies, the government would act as reinsurer. Although property owners would not be required to buy comprehensive disaster insurance, it is anticipated that lending institutions would require that such coverage be purchased by their borrowers. Congress would eliminate all government subsidization of private post-disaster reconstruction.

This proposal is thought provoking. However, its basis rests heavily on static welfare theory and on value criteria which are not universally shared. The future role of flood control and other collective disaster-inhibiting projects is left rather vague, though the authors do assert that these projects are complementary rather than competitive with private disaster insurance. The possible redistributive effect toward those with ownership equity in insurance companies, the possible negative effects on economic growth and the probably enlarged role of private charity are other questions which deserve more consideration than they receive in this book.

Despite these shortcomings, this volume makes a valuable contribution to our understanding of disasters and opens our eyes to an alternative approach to living with nature's destructive acts. It is important reading for anyone interested in these problems.

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