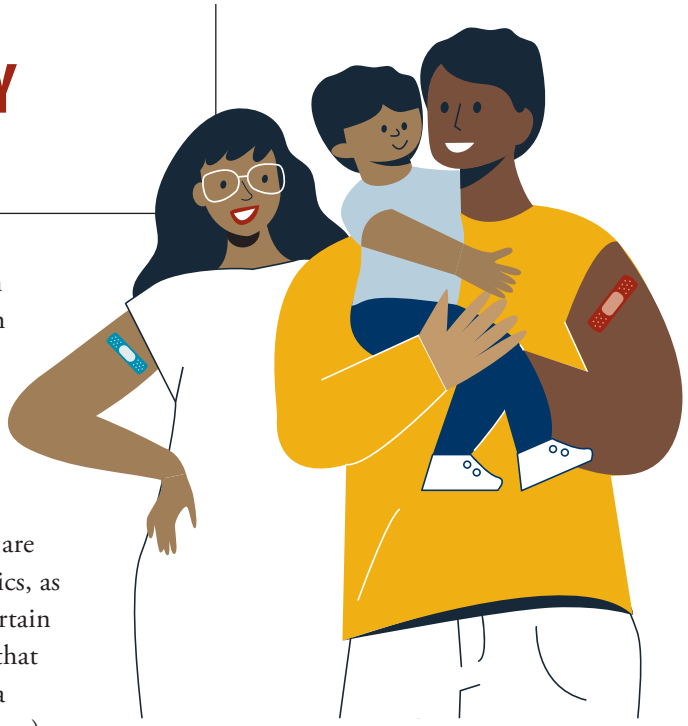
A LESSON IN THE
ECONOMICS OF EXTERNALITY

BY ROBIN HENAGER



As we think about community, many things come to mind from the last few months of the COVID-19 pandemic. Isolation from the community, community spread of the virus, reconnecting with the community as the vaccines became available are just a few examples.

As an economist, where I focus mainly on microeconomics, I see individuals as they make up the whole. For example, firms make decisions, but it is the people inside the organization who are actually involved in the decision-making process. Microeconomics, as a social science, studies consumer and firm behavior and why certain decisions are made. A major element of economic theory holds that people respond to incentives, for example. Employees work for a paycheck, and students work to get a grade (and to learn, of course).

Another element of economic theory defines something called an externality. Incentives (or lack thereof) play a role in this concept, as well. The definition of an externality is the *impact of one person's actions on the well-being of a bystander*. Externalities can be either positive or negative.

The classic example of a *negative* externality is pollution. It is classified as market failure since there is no incentive for the "polluter" (usually a firm, though it can also be an individual) to change a behavior even though it is harmful to others. This includes manufacturers who may pollute in the process of production (in the air or downstream in rivers or other bodies of water) and exhaust from cars on the road. Smoking cigarettes in public also creates a negative externality for secondhand smoke that can affect bystanders.

Classic examples of *positive* externalities include education and innovation in technology and medicine. Education is a positive externality as the general public benefits from a more productive and innovative society. Research into new technologies provides a positive externality because it creates knowledge and efficiencies that benefit society. Medicine creates a positive externality because it provides for a healthy population. A healthier population is more productive, GDP increases, and the standard of living is improved for all.

In the presence of an externality or market failure, well-designed public policy can enhance economic efficiency. This happens by "internalizing the externality" and is done by creating incentives so people pay attention to the external effects of their actions.

For a negative externality, in the case of pollution or exhaust from cars, public policy sets pollution limits for manufacturers and emission standards for cars. Eventually, we limited smoking in public places due to secondhand smoke damage.

For a positive externality, being vaccinated against contagious diseases protects not only you but others around you, creating a positive externality. Public policy has achieved this outcome in the past by requiring vaccinations in schools to protect children and their families from sickness and death. This has saved lives, protected families, and kept people healthy. This sustains our ability to work and keeps our economy running.

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