Past as Prologue 24-1 introduces George J. Stigler’s role in developing economic theories of information. This bonus material includes biographical information and additional details on his contributions to the evolution of economic thought.

George J. Stigler (1911–1992) was the second Nobel Prize winner from the modern Chicago school. He received a B.B.A. degree from the University of Washington, an M.B.A. from Northwestern, and a Ph.D. from the University of Chicago. Theodore Schultz (bonus materials for Chapter 23), then at Iowa State, invited Stigler to join that faculty in 1936. From there Stigler went to Minnesota, Brown, and Columbia, before arriving back at Chicago as a professor in 1958. The Department of Economics had approved an offer to Stigler a dozen years earlier, but the university’s president, apparently unimpressed with his interview with Stigler, failed to approve the department’s recommendation.

Stigler confined his study to microeconomics, once stating, “[I] know very little macroeconomics, and I thank God for it every day, because it changes once a year.” Within microeconomics, his contributions were far-reaching. He wrote extensively on the history of economic thought. He contributed to several aspects of the field of industrial organization; for example, taking issue with the view that economies of scale can rightfully be considered a barrier to entry, establishing a theory of oligopoly, and marshaling evidence against the kinked demand theory of oligopoly. Stigler was the first to propose the survivor principle, which suggested that researchers could assess economies of scale in various industries by observing the sizes of plants and firms that expand their market share in the marketplace. His “The Optimal Enforcement of Laws” is a classic article in the field of law and economics. He used economic principles to analyze such unusual topics as addiction (whether it be to fine music or heroin) and the relationship between general economic conditions and the outcomes of national elections. In 1982 Stigler won the Nobel Prize in economics for his work. Two contributions cited by the Nobel committee merit particular attention.

**THE ECONOMICS OF INFORMATION AND SEARCH**

The theory of perfect competition in product and resource markets implies a single price for goods or resources of homogeneous quality. Yet price and wage surveys and product and labor market studies reveal a variance in prices and wage rates even within narrowly defined product and occupational groupings. In the early
1960s Stigler wrote two important articles that helped explain this evidence. He observed that the one-price (one-wage) market will occur only where the cost of information about the prices (wages) offered by buyers and sellers is zero. In most situations information is scarce and costly to obtain, and therefore it can be thought of as an economic good. Acquiring information entails costs and yields benefits, just as does obtaining all other economic goods. Because of this reality, market equilibrium will be characterized not by a single price but rather by a distribution of prices (wages) whose variance is related to the cost of searching for information. People and firms will judge it too costly to search for all of the information required to eliminate price (wage) variability. The greater the search costs, other things equal, the greater the dispersion of prices.

Stigler was the first to develop a formal model of optimal economic search, which he applied to the product and resource markets. An explanation of search in the labor market will establish the general principle. Evidence indicates that those seeking employment recognize that wages paid for similar work vary among employers. Suppose that workers know the variance of the wage distribution and can at least roughly estimate its mean, but they do not know which employer is offering which wage. Therefore, they find it in their interest to search for the best job offer. Do they search until they have received every offer possible, therefore eliminating all but the highest one? asked Stigler. If not, what determines the optimal length of their search?

Figure 24B-1 derives from Stigler’s thinking on this subject. The vertical axis measures the marginal benefit (MB) and marginal cost (MC) to a hypothetical person of successive days of job search. The horizontal axis shows the number of days devoted to searching (N).

Search costs are of two types. The first are the direct costs, which include “for hire” notices, resume costs, postage, and transportation costs. These expenses tend to rise with additional search. Normally, the person begins the search closest to home, where the costs of obtaining job information are lower. As the search broadens, these costs tend to rise. The second cost is the opportunity cost of using one’s time to search for a better offer. Once an offer is in hand, the person could accept it and presumably immediately begin earning income. By continuing to search, these earnings are sacrificed. This opportunity cost is particularly large in those situations where the offer cannot be “stored”; that is, where the recipient of the offer must either accept it or reject it within a short period. In either case, a significant cost of continued job search is the earnings foregone by not taking the previous best opportunity. As the searcher receives and fails to accept higher wage offers, the marginal cost (MC) of additional days of search rises.

The marginal benefit curve (MB) in Figure 24B-1 slopes downward and to the right. A job search increases the likelihood of discovering better wage opportunities, but there are diminishing marginal benefits to the number of days devoted to job search. The present value of the increased income expected from an additional day of search falls as more information is gathered and more days go by.

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2 Another condition here is that the transaction costs are the same for all of the possible trading partners. We will confine our focus to aspects of this phenomenon that involve information costs.
As seen in the graph, the optimal length of job search for this individual is $N_1$, for here the marginal benefit and cost of search are equal. Job search, said Stigler, is but another human economic activity that lends itself to analysis by way of the marginal calculus. “Frictional” or “job search” unemployment results from imperfect information and the desire by those unemployed to spend an optimal amount of time searching for a job.

Because Stigler’s theory of information and search admits that wages and prices for similar commodities or services do not equalize under competitive pressures, it may appear to fall within the tradition of the imperfect competition theories of Robinson and Chamberlin (Chapter 17). These theories challenged the competitive model and implied that greater government involvement was needed in the economy. But this interpretation is misleading, if not incorrect. Stigler’s theory indicates that the existence of price and wage variability for similar goods and resources is not only compatible with economic efficiency, where there are positive costs of acquiring information, but is necessary to achieve economic efficiency under these conditions. His theory therefore attempts to show that unregulated markets normally produce society’s maximum well-being.

**THEORY OF REGULATION**

According to Stigler, regulation also can be analyzed as an economic good supplied and demanded because of potential gains to the parties involved. Those regulated gain through the direct subsidies, entry controls, price fixing, and so forth that regulation confers. This gain may exceed the costs of adhering to the rules and meeting the standards set by the regulators. Political leaders and regulators,
on the other hand, are willing to supply regulation because they benefit from the endorsements, campaign contributions, and votes that politically effective coalitions can provide. Winning elections provides continued employment, both for those elected and those appointed to government positions.

Rather than promoting an efficient allocation of resources, regulation tends to serve the interests of those regulated at the expense of the broader public. Groups who have intense and focused interest tend to “capture” the regulatory system and use it for their own self-interest. The big gains to the coalitions are paid for through losses to others. These losses individually are small but collectively exceed the gains to those regulated. Because the individual losses are small and the transaction costs of organizing large numbers of people are large, the losers may not have sufficient incentive to express their opposition. Those firms, occupational groups, or other interest groups who have much to gain through control of the regulatory process will tend to prevail.

The politician and the regulator thus are endogenous elements in Stigler’s system. Rather than being the outside referees maintaining rules that promote efficiency, elected officials and their appointees tend to be captured by those they regulate. The policy implication of this theory is that, in many cases, less regulation, as opposed to more, is likely to improve economic well-being.³

Selected Readings


