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The Political Economics of California's Proposition 65

Tim T. Phipps, Kristen Allen, and Julie A. Caswell

California is notorious for supplying the country with presidents, fruits, nuts, and vegetables, and propositions with numbers like 13, 65, or 103 that are either proclaimed as portending the policy wave of the future or the end of life as we know it. Proposition 65, which led to the Safe Drinking Water and Toxic Enforcement Act of 1986, continues that tradition.

Proposition 65, or the act, is really two pieces of legislation with some interesting twists on legal standing and burden of proof. The pieces are a required warning prior to public exposure to certain carcinogens and reproductive toxins, and a prohibition against knowingly endangering drinking water by discharging such chemicals. In this paper we review the act, discuss implementation, analyze the warning and water discharge provisions, and discuss the relation between federal and state authority in regulating health risk from toxic chemicals.

The 1980s have seen a rising concern about hazardous chemicals in the environment. In 1986 the time was ripe in California for activist groups to take action against the perceived failure of state and federal regulators to protect the public from chemical hazards. The Environmental Defense Fund (EDF) and the Sierra Club designed a controversial initiative known as Proposition 65. The initiative received strong support from consumer and environmentalist groups and vociferous opposition from industry. Proposition 65 passed by a wide margin, 63% to 37%, in November 1986.

While Proposition 65 will probably bring about neither the demise of California business nor everlasting health, it will change the way people do business in California and could signal a nationwide trend. Several other states, including Massachusetts, New York, Hawaii, and Maine have considered similar legislation. Nor is its impact limited to states—in November 1989 a federal warning will be required on alcoholic beverages alerting drinkers to the dangers of fetal alcohol syndrome and driving while intoxicated.

The Scientific Advisory Panel and the "List"

The California State Health and Welfare Agency (HWA), with support from several other state agencies, has primary responsibility for implementation. In February 1987, Governor Deukmejian set up a twelve-member scientific panel to advise the state and announced the first list of 26 carcinogens and 3 reproductive toxins. The panel has drawn from the lists of other groups such as the International Agency for Research on Cancer (Kizer et al.). By July 1989, the list had grown to 261 carcinogens and 35 reproductive toxins, with an additional 26 carcinogens to be considered in October 1989.¹ Once chemicals are on the list they are referred to as being "known by the state to cause cancer or reproductive toxicity" and become subject to the warning requirement and discharge prohibition.

The Warning Requirement

"No person in the course of doing business shall knowingly and intentionally expose any

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¹ Communication with Carmen Milanes, California Health and Welfare Agency.

individual to a (listed chemical) without first giving clear and reasonable warning to such individual, . . .” (California Health and Safety Code (HSC) S. 25249.6). Perhaps the most visible provision of the act, the warning requirement, puts businesses on notice that the California public must be informed when they are exposed to a “significant risk” of cancer from a listed chemical or if the chemical would cause an “observable (reproductive) effect” at levels “one thousand times the level in question.” The warning requirement becomes effective twelve months after a chemical is listed and is required at the point of exposure.

The Discharge Prohibition

“No person in the course of doing business shall knowingly discharge a (listed chemical) into water or onto land where such chemical passes or probably will pass into any source of drinking water, . . .” (HSC S. 25249.5). The discharge provision prohibits the discharge of listed chemicals into sources or potential sources of drinking water unless it will not result in a “significant amount” of the chemical entering drinking water and the discharge is in “conformity with all other laws and with every applicable regulation, permit, requirement and order (HSC S. 25249.9).” A significant amount is defined to be “any detectable amount,” unless the level would pose no “significant risk” from cancer, or will cause no observable reproductive effects at levels “one thousand times the level in question.” The discharge prohibition goes into effect twenty months after a chemical is listed.

Enforcement

The most innovative and controversial features of Proposition 65 are its enforcement provisions. The act provides civil penalties of up to \$2,500 per violation per day for businesses that knowingly violate either the warning or discharge provisions. Enforcement is encouraged by the so-called bounty hunter provision which gives legal standing to any California citizen, whether the citizen was the harmed party or not, to bring suit. The citizen is required only to give the Attorney General (or district attorney) the option to press the case and to wait 60 days to see if public action is taken. The eventual prosecutor, whether

public attorney or private citizen, is entitled to 25% of the proceeds from a successful lawsuit.

The act also encourages enforcement by inverting the burden of proof. Once a chemical is listed, the user must either prove that its use is safe or comply with the act. Avoiding the warning requires proof that the level of exposure to a carcinogen poses no significant risk, or that exposure to levels 1,000 times greater would not produce an observable reproductive effect. For water discharge the law effectively prohibits use of a listed chemical if a detectable amount will reach water, unless the user can prove the level meets the warning exemption.

The bounty hunter provision and inverted burden of proof act to decentralize or privatize enforcement.

Implementation

While industry continues to fight Proposition 65—there have been several constitutional challenges and attempts to invoke federal preemption—implementation has softened many of the potential effects on agriculture and industry. To begin with, the act applies only to firms employing more than ten employees and exempts federal, state, and local agencies and, ironically, public water utilities. Second, the act is terse and contains a number of undefined terms.

An early task of the HWA was defining “significant risk” for cancer. They settled on anything greater than one excess cancer in 100,000. This is one order of magnitude more lenient than the 10^{-6} rule of thumb commonly used at EPA and the FDA. However, the rule makers were not given any latitude to interpret significant risk from reproductive toxins. The limit for reproductive toxins was specified in the act and as discussed above is quite stringent. The reproductive toxin tolerance level is so stringent that it could require warning labels for products containing minute quantities of alcohol, such as orange juice and vanilla ice cream (Russell).

The HWA has attempted to give businesses a compliance target by setting acceptable standards for some listed chemicals. As of March 1989, fifty standards had been set and more are being developed. HWA has also temporarily adopted FDA standards for carcinogens and reproductive toxins in food, drugs, cosmetics, and medical devices. If fu-

ture risk assessment results in the HWA setting stricter tolerances than FDA, the California standard will prevail.

The HWA has allowed food retailers to meet the warning requirement with a toll free number consumers can call to find out if a certain product contains a listed chemical. Warning labels have been required for tobacco products not covered by federal regulations, for reproductive risks from alcohol, and for environmental and workplace risks.

Performance

It is too early to evaluate the performance of the discharge prohibition because it only went into effect in October 1988 and does not apply to a particular chemical until twenty months after it is placed on the list. The warning requirement, however, has been in effect for some chemicals since early 1988. Despite claims by opponents that it would lead to a flood of law suits, only seven suits have been brought to date.

One suit, brought unsuccessfully by the Grocery Manufacturers Association, charged that Proposition 65 was an unconstitutional impediment to interstate commerce. Another suit, brought by the California Attorney General and EDF, charged that the toll free number constituted insufficient warning for non-cigarette tobacco products. The case was settled when the tobacco manufacturers agreed to label their products and pay \$37,500 each to the Attorney General and EDF (Carrick).

Analysis

We will analyze Proposition 65 from two perspectives. The first involves the politics of risk management. The second, on which we will spend more time, is the economics of risk management.

It is relatively easy to criticize Proposition 65 on economic efficiency grounds. To critique the act purely in efficiency terms, however, does not do justice to the act or the two-thirds of California's voters who supported it. Proposition 65 must be viewed as an attempt to reform the way we manage the risk from toxic chemicals in the United States.

The preamble to the act indicates that supporters of the initiative felt that the public needed protection from toxic materials in food

and the environment, and that the regulatory process had failed to provide that protection.² The causes of that perceived failure include the slowness of the regulatory process in assessing the risk from toxic chemicals and removing them from the market and a loss of public confidence in the ability and willingness of regulators to protect consumers.

These concerns are dealt with in several innovative ways by Proposition 65. The first involves the scientific panel and the list. The list is designed to end the seemingly endless regulatory debates about whether a chemical should or should not be banned. Once the panel puts a chemical on the list, the debate is over—it is “known” by the state of California to cause cancer or birth defects. Second, the regulatory process is expedited both by privatizing decisions about whether a chemical should be withdrawn from the market or left in the market with a warning label attached and by decentralizing enforcement.³ Industry has economic incentives to cease using listed chemicals to avoid the direct and indirect costs of the warning requirement or the threat of fines for water discharge.⁴

Enforcement was decentralized by giving any citizen in the state legal standing to bring suit. By itself, legal standing would not have worked. High transactions costs are associated with bringing suits, and most citizens do not have the equipment or expertise to detect listed chemicals and to prove that exposure constituted a significant risk. Proposition 65 dealt with the high costs of bringing suits with the bounty hunter provision. The need for testing equipment and sophisticated risk assessment was dealt with by inverting the burden of proof.

Proposition 65, then, has strengthened toxic chemical policy in California in a manner that transfers most of the costs of and responsibility for risk management from the regulatory system to producers, consumers, and the courts. Whether or not the instruments—the warning and discharge provisions—are economically efficient is explored below.

² The preamble to the act states, “The citizens of California find that hazardous chemicals pose a serious threat to their health and well being, (and) that state government agencies have failed to provide them with adequate protection, . . .” (HSC S. 25249.5).

³ Privatized decision making only applies to chemicals that appear on the list but are not already banned by other regulatory authority. Numerous banned chemicals, such as DDT, also appear on the list.

⁴ The writers of Proposition 65 have stated that the purpose of the warning requirement is to encourage industry to stop using the listed chemicals.

Economic Efficiency

The policy instruments chosen by Proposition 65 could improve the efficiency of risk management if they replace a current regulation at lower cost or if they correct a market or government failure not addressed by current regulations, and the benefits of correction exceed the costs.

The warning requirement does not meet the first criterion because it does not replace regulation with warnings. It superimposes the warnings onto the regulatory system. It may, however, meet the second criterion.

The warning requirement may address an information market failure. To see how, it is useful to review a paper by Darby and Karni. Darby and Karni present three qualities of consumer goods: search, experience, and credence. Search qualities may be determined prior to purchase; experience qualities may be determined only through use; and credence qualities are not determined by the consumer even after purchase and use. A consumer must rely on expert opinion to discern credence qualities. Examples used by Darby and Karni are the purchase of automotive services and health care. Chronic health risk from ingesting small quantities of toxic chemicals can also be viewed as a credence quality. Ingesting a particular toxic material combines in a highly stochastic fashion with other factors such as ingestion of or environmental exposure to other toxins, lifestyle, and genetic predisposition to produce chronic illnesses such as cancer.

Because the uninformed consumer cannot detect credence qualities, there may be a role for warnings or public provision of information. This role depends on the benefits and costs of intervention and whether or not private markets in information would arise in the absence of intervention.

To generate health benefits, the warning requirement must provide information not already available. It must also lead risk-averse consumers to shift consumption away from foods or activities with high probability risks, toward foods and activities with lower risks. Unfortunately, the form of the warning may prevent it from generating these benefits.

The particular warning recommended in the regulations is not informative about actual or relative health risks. For consumers to reduce dietary health risk, they need not only information about the risks from toxic chemicals in

a particular food, they also need to know the health benefits of that food and the risks and benefits of alternatives. There is a considerable risk that the warning requirements will cause consumers to avoid consumption of foods containing listed chemicals but that constitute a small overall health risk while at the same time increasing consumption of alternative foods that have a higher overall level of health risk but are exempt from the warning. An example of the latter is foods that are high in saturated fats but contain no listed chemicals. The use of strong warnings for small risks may also reduce the effectiveness of warnings for high probability risks (Viscusi). As argued frequently by scientific panel member Bruce Ames, a society concerned with reducing overall health risk is foolish to ignore large-scale risks such as smoking or driving while intoxicated while spending considerable sums to avoid risks that are several orders of magnitude lower.

The warning requirement will, however, generate real costs. The costs will be borne by taxpayers, industry, and consumers. Taxpayer costs include administrative costs and uncompensated court costs. Industry costs include costs of testing and labeling, costs of lost sales from reduced consumption of a labeled product or withdrawal of a product to avoid the warning, and increased production costs from altering technology to eliminate the listed chemical. Consumer costs include higher prices as producers pass some of their costs to the consumer, and losses in consumer surplus from consumers who would prefer cheaper food with a higher health risk and from reduced product availability in California as some products are withdrawn.

Finally, it is important to ask whether or not a free market will respond to the public's demand for safety in the absence of regulation. It seems unrealistic to expect industry voluntarily to supply warnings about workplace and environmental exposure to toxic chemicals unless the warnings reduce the expected costs of future liability suits. With food risk, however, the story may be different. If consumers will pay more for foods that are certified to be free of certain chemicals, under certain conditions we would expect markets to evolve to supply those foods. The conditions are that the costs of supplying the "safe" food, which include testing, higher production costs, and the creation of new market channels such as branded fresh produce, are low enough to allow pro-

ducers to make a profit.

There is evidence that in certain regions, including California, markets in food safety and risk information are arising. Examples are the use of a private testing service by a supermarket chain to certify that produce meets pesticide residue standards, and the growing market for certified organic produce. It seems likely that market evolution in California will supply what the designers of Proposition 65 have attempted to legislate for food.

There is a fundamental difference between the way Proposition 65 treats the risk from chemicals in drinking water and risk from chemicals in food or other environmental media. The act prohibits discharge of a listed chemical into drinking water but allows it in food as long as the buyer is warned. Like the warning requirement, the discharge prohibition does not replace current regulatory programs but creates an additional layer of regulation. The main differences between the approach of the act and other regulatory programs to regulating water discharge is that enforcement is decentralized and standards for reproductive toxins are set more strictly.

It is difficult to see how the discharge regulations could result in an improvement in the efficiency of risk management for drinking water, with the possible exception of the decentralized enforcement system. Decentralized enforcement may prove to be more efficient than the current system of centralized enforcement. Point source water pollution is already closely regulated by the Water Quality Act, and public sources of drinking water are regulated by the Clean Drinking Water Act. The major unregulated areas are private drinking water wells and nonpoint source water pollution.

Proposition 65 may strengthen control of point source pollution of private wells by giving well owners another option in addition to liability suits. For nonpoint source pollution of private wells, however, and nonpoint source pollution in general, Proposition 65 has little to offer.

To begin with, agriculture, a major nonpoint source polluter, is favored by the act and its regulations. The exemption for firms employing fewer than ten employees exempts most small to medium size commercial farms. The regulations governing water discharge contain several exemptions that favor agriculture. These include an exemption for discharge of listed chemicals that occur naturally in the soil

that results from unavoidable runoff of irrigation and a rebuttable presumption that pesticides used in compliance with federal and state restrictions will not enter drinking water.

More fundamentally, setting water quality standards coupled with fines for non-compliance is not sufficient to control nonpoint source pollution. By definition, nonpoint source pollution arises from many sources, none of them readily identifiable. Even with the bounty hunter incentive, legal action against nonpoint source polluters would be almost impossible. First is the obvious difficulty in determining the source and hence responsibility for the discharge. Second, any chemical discharged prior to the time the discharge prohibition takes effect is exempted. Because chemicals are not dated, it will be very difficult to sort out legal from illegal discharges.

Inverting the burden of proof, however, does add an important element to the enforcement problem. Just as it is nearly impossible to demonstrate that a chemical found in water was discharged from a particular nonpoint source, an accused polluter may find it almost impossible to prove that he or she did not discharge that chemical. If the courts take a hard line against nonpoint source polluters, fear of prosecution could lead to reduced use of listed chemicals by nonpoint sources and increased demand for alternative technologies that do not rely on listed chemicals.

State Regulation in a Federal System

As we have seen, Proposition 65 and its implementing regulations employ a mix of tools such as warnings, prohibitions, and fines to manage the risk from listed toxins in the environment. The law also makes choices about the distribution of the responsibility for risk management among individuals and local, state, and federal government. These latter choices are as critical as the former in determining the economic impact of the law.

Any state's ability to make independent decisions about management of toxins is limited by the commerce and supremacy clauses of the Constitution. Under the commerce clause, state laws can be challenged in the federal courts if they present an undue burden on interstate commerce. In such cases, the court weighs the burden on interstate commerce

against the interests of the state in protecting its residents' health and welfare.

Congress can, under the supremacy clause, use preemption to limit state regulatory actions. The clearest case is when federal law or regulations expressly preempt or restrict the scope of state regulation. Absent explicit preemption, the federal courts may find that state regulation is implicitly preempted if congressional intent to occupy the field to the exclusion of the state can be inferred, if there are conflicts between state and federal law that make compliance with both difficult or impossible, or if state regulation impedes the accomplishment of congressional goals (Pierce).

Because Proposition 65 spans several areas that have distinct regulatory frameworks at the federal level, the question of whether it is subject, in whole or in part, to invalidation in the courts or preemption is complex. Much depends on the implementing regulations. Much also depends on the actual economic and social impacts felt in the diverse areas it covers.

For industry, concern surrounds the regulatory tools used, the stringency of their application, and the degree of conflict or complementarity between state and federal law. Proposition 65-type legislation poses significant strategic problems in manufacturing and distribution for firms that operate across state and national lines. These problems are exacerbated if other states follow California by adopting similar, but not identical, requirements. For many firms and industry associations, Proposition 65 is a key test case where the distribution between state and federal government of responsibility for managing toxins will be decided. Given the proclivity for innovative state regulation in the 1980s, much of industry hopes to see this test end with the federal government reasserting its power to impose uniform national regulation.

For society, the choice involves weighing the potential costs of state-to-state variation in regulation against potential welfare benefits gained by tailoring regulation to the preferences of state residents. Focusing on this tradeoff, Foote argues that federal law generally does and should provide a floor of minimum health and safety standards. States should be allowed to enforce stricter standards if those standards do not create an undue burden on interstate commerce. The concept of undue burden on interstate commerce places a ceiling on the scope of state regulation.

The discharge provision of Proposition 65 applies most directly to point source pollution. While efficiency in regulatory decision-making and equity arguments may be made for minimum federal regulation of such discharges, additional state regulations may be desirable where the effects of the regulation are largely in-state (Foote). Protection of drinking water in a large state like California may be such a case. While the regulation may be inconvenient or costly for industry and may cause some firms to relocate, it likely does not interfere fundamentally with interstate commerce. The regulations for Proposition 65 appear, in large part, to follow this reasoning (Ely). They recognize other federal and state law but also clearly impose additional regulation on discharges.

The requirement to warn before exposure to listed chemicals is quite broad. The law recognizes the supremacy of federal regulation by exempting exposures for which federal warning law preempts state authority. This in itself is not definitive because federal law often does not include explicit preemptive language, and preemptive intent must be inferred. Beyond this, in areas where state warning regulations are not preempted, Proposition 65 may yield to federal regulation by recognizing federal warning requirements as meeting the state's requirements or by stating that federal regulation insures that a particular exposure poses no significant risk for carcinogens or will have no observable effect for reproductive toxins.

The regulations distinguish among three types of exposure: through consumer products, the workplace, or the environment. Analysis of workplace and environmental exposure is similar to that for discharges. Workplace and, to a lesser extent, environmental exposures are site-specific with most of the impacts occurring in-state. State warning requirements, if not required to be attached to products (e.g., cleaning solvents used in plants), will likely have little impact on interstate commerce. Thus, for these two warning requirements, the state's interest in providing a more protective environment may outweigh the national interest in uniform regulation. As with discharge prohibitions, the regulations recognize federal law and, where not preempted, add further requirements for warning.

The requirement to warn of exposure to listed chemicals through consumer products presents a different case. Foote argues that state information requirements that affect the

product package are likely to burden interstate commerce because they affect economies of scale in production and distribution. Point-of-purchase or other separate information sources are not as likely to have this effect so the expected burden depends, at least in part, on how the information is required to be delivered.

The current regulations for consumer products eliminate a large source of possible conflict between federal and state law by deferring to FDA standards. The issue of federal preemption will resurface if and when the state moves to require warning labels for any of these products.

No exemption exists for other consumer products including alcohol and tobacco. The use of warning notices and the toll-free hotline constitute a point-of-purchase response which, following the prior analysis, is relatively unlikely to place an undue burden on interstate commerce. Should product labeling requirements spread to other products, a high degree of conflict will arise between state and federal law and between firms' strategic interests and the state's desire to provide protection.

Conclusion

Proposition 65 is an attempt to reform toxic chemical risk management in California and perhaps the U.S. as well. The privatization of decisions about use of listed chemicals and decentralization of enforcement constitute major innovations. Whether or not these innovations will also improve the efficiency of toxic chemical risk management, Proposition 65 is a bold experiment in political economy with California as the laboratory.

When we look at the particular policy instruments chosen by Proposition 65—the warning requirement and the discharge prohibition—we become less enthusiastic. Labeling coupled with regulation of toxins may be an effective combination for reducing the risks facing society. However, the warning label requirement of Proposition 65 is probably too strong given the generally low levels of risk covered by the act, and it fails to give consumers information about actual or relative risks. The discharge requirement largely duplicates existing water quality regulations for carcinogens, though it is much more strict (too strict?)

for reproductive risks. It also fails to improve regulation of the major source of water pollution that is currently unregulated: pollution from nonpoint sources.

Proposition 65 will likely increase the state's share of the responsibility for management of toxins in the environment. This added responsibility will probably be in areas where state regulation does not result in an undue burden on interstate commerce or the production and distribution strategies of national firms. Such regulation, however, does impose costs that must be weighed against health and welfare benefits at the state and national levels. Other state claims of responsibility, particularly in the area of consumer product labeling, may ultimately be repudiated by a reassertion of federal power in Congress or the courts. The political and economic challenge is to balance states' desires to manage toxins in a way that reflects residents' preferences with the benefits of a uniform national market for manufacturing and distribution.

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