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Economic Efficiency vs. Distributive Equity: BLM'S Use of Economic Analysis in Fact and Fiction

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In a recent paper in this Journal entitled "Economic Efficiency vs. Distributive Equity: The Sagebrush Rebellion" Obermiller provides misleading evidence about the role of efficiency criterion in land use allocations by the Bureau of Land Management (BLM). In using this "evidence" he comes to conclusions that miss other important economic explanations for the so-called Sagebrush Rebellion. A reader unfamiliar with the actual economic analyses performed by BLM might be led to believe that the field offices' active use of efficiency as a decision criterion to implement the Federal Land Policy and Management Act (FLPMA) is one explanation of the origin of the Sagebrush Rebellion. Evidence is presented herein that shows little or none of the efficiency analyses implied by an economist's reading of FLPMA and BLM's Planning Regulations (Department of Interior, 1979) have ever been implemented, let alone used by area and district managers to make decisions. Rather, arguments are presented that show it is generally not in these managers' self interest to place emphasis on efficiency. An alternative explanation of the source of the Sagebrush Rebellion is presented that relies on the notion of property rights.

In a previous volume of this Journal, Obermiller asserted that overemphasis on efficiency criteria by the BLM at the expense of distributive equity was a major cause of the Sagebrush Rebellion.

In this paper I demonstrate that emphasis on economic efficiency by BLM was an unlikely cause of the Sagebrush Rebellion. Rather, a property rights view of the origin of the Sagebrush Rebellion is presented. This demonstration rests on documenting the following:

1. An economist's reading of the Federal Land Policy and Management Act of 1976 (FLPMA) may see effi-

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ciency analysis; BLM directors and managers have not. It is shown that almost none of the BLM directives implementing FLPMA even mention efficiency analysis, but rather only refine BLM's previous efforts to analyze regional economic effects. It is shown that few incentives existed, before or after FLPMA, for managers to place emphasis on efficiency at the expense of equity.

2. Several sections of FLPMA redefine property rights in a manner that reduces rights of traditional users such as ranchers and miners.
3. Other federal acts, court decisions prior to FLPMA, and FLPMA itself represented a shift in control over property rights from local users and managers to technical specialists in the executive and legislative branches of government in Washington, D.C.

A Property Rights View of the Sagebrush Rebellion

National Environmental Policy Act

Even before FLPMA, acts of Congress such as the Clean Water Act, Endangered Species Act and National Environmental Policy Act redefined the property rights over control of federal lands. The National Environmental Policy Act (NEPA), combined with several court interpretations, provided legal standing for affected parties regardless of their location of residence (Nelson). The first movement of authority away from local users-managers came in Natural Resources Defense Council versus Morton. Here the Natural Resources Defense Council successfully curtailed BLM from making any "significant investments" on rangelands until an environmental impact statement was prepared (Nelson). In 1977, then Assistant Secretary, Martin directed that the environmental impact statements emphasize the allocation of vegetative resources (Martin). This determination of allocation of forage between cattle and wildlife could be interpreted as an attempt to redefine the historic property rights ranchers felt they had acquired.

Federal Land Policy and Management Act

The passage by Congress of FLPMA in 1976 redefined the legitimate uses and users of BLM land. Disposal of lands was terminated (Sec. 102), BLM was given law enforcement authority (Sec. 33), and Multiple Use Advisory Councils established (Sec. 309). New official land classifications such as wilderness were created (Sec. 603). For any lands classified as wilderness by Congress, the legally allowed uses are restricted. The possibility of wilderness designation alarmed ranchers, as many of them erroneously thought that wilderness did not allow livestock grazing or range improvements at all (Martin). In addition,

BLM was mandated to "protect" ecological, environmental, scenic, historical, and archeological values (Sec. 8a). The 1872 Mining Law was modified to require recording of mining claims and documentation of assessment work. Failure by a miner to do so would result in any rights to the claim being abandoned (Sec. 314(a), (c)).

These redefinitions of property rights augmented the shift in control of land use decisions away from traditional local users or managers. Specifically in FLPMA, Congress established:

1. A 12.1 million acre California Desert Conservation Area where emphasis was to be on multiple use (broadly defined) and maintenance of environmental quality (Sec. 601(b)).
2. The right for the Committee on Interior and Insular Affairs of either the House of Representatives or the Senate to require the Secretary of Interior to withdraw land from entry so as "to preserve values that would otherwise be lost" (Sec. 204(e)).
3. Multiple Use Advisory Councils made up of "persons who are representative of the various major citizen's interests" (Sec. 309(a)).

The appearance of a significant redefinition of property rights seems clear. De facto rights to graze their historic number of cattle were under fire (Natural Resources Defense Council vs. Morton). The amount of land available for mining and other traditional uses was being redefined by Congress, and nontraditional users were gaining rights.

In these circumstances, state management was seen as a way to recapture the economically valuable property rights once held. State management of current state lands is legally required to place emphasis on traditional commodity uses that generate revenue (often for schools) rather than on environmental protection and recreation (State of Utah vs. Andrus).

Efficiency as the Missing Ingredient in BLM Planning

While it may be difficult to choose between the property rights hypothesis concerning the origin of the Sagebrush Rebellion and Obermiller's efficiency hypothesis on the data provided thus far, this section shows that little or no economic efficiency analysis was ever implemented by BLM from 1976 to 1982, let alone used in making management decisions. The term "economic efficiency analysis" is generally defined as techniques and decision rules that, when applied, will indicate which project generates the largest difference between the benefits of what is produced and the cost of inputs used (Haveman and Margolis; Herfindahl and Kneese). Benefits and costs are defined with respect to consumers' and producers' willingness-to-pay as reflected by their demand and supply curves, respectively (Harberger; Herfindahl and Kneese). The accounting stance of efficiency analysis is national (Hanke and Walker); that is, benefits and costs are measured "to whomsoever they accrue" (U.S. Interagency Committee on Water Resources).

While economists' reading of FLPMA and other official BLM documents might lead one to conclude that since 1976 the efficiency objective has predominated, the opposite is the case in practice. The missing ingredient in BLM plans and environmental statements in Utah, Nevada, New Mexico, Montana and other western states is economic efficiency—not distributive equity. Documentation for this conclusion draws on the author's experience as an economist for BLM (1977-80); personal communication with other BLM economists (1977-83); training sessions the author has presented to teach efficiency analysis to BLM personnel (1981-82); and instruction memorandums Obermiller cited (some of which this author helped write), and other instruction memorandums not cited. Documentation starts with

a discussion of BLM's wilderness-study policy, continues with analysis of the range environmental impact statements procedures Obermiller reviewed, and concludes with a look at actual implementation of BLM's "new" land and resource planning process.

Wilderness Study

If an economist read BLM's Wilderness Study Policy (Department of Interior, 1982), they would conclude that a benefit-cost analysis was being done for each area. Criteria such as "evaluation of wilderness values," "multiple resource benefits," and "resource values foregone" lead one to believe that efficiency analysis was being used. An economist would think equity was being served by two planning "standards" which require a discussion of local and regional socio-economic effects, as well as consistency of BLM's plan with plans of state and local governments. The term "local and regional socio-economic effects" refers to changes in the county's employment, income, and tax base due to some action. Such analysis looks only at the gains or losses in local economic activity of the study area. The gains or losses in economic activity outside of the study area are ignored and the economic efficiency of the action is not addressed.

Implementation of economics has focused almost solely on local and regional effects because non-economist managers in BLM did not feel that efficiency analysis was what was meant in identifying benefits or values. Utah State Office Instruction Memorandum 81-295 equates economic analyses with regional economics and input-output techniques. What is particularly interesting is that this instruction memo draws from work done earlier by the Utah state office economist which included a discussion of efficiency analysis. However, the instruction memo, as it was finally issued, omits any discussion of efficiency analysis or techniques for efficiency analysis.

The Moab District Bulletin provides an outline of the content of site-specific analysis of wilderness study areas (BLM, 1982). Efficiency analysis is not present. The resource managers have provided definitions of values in which economics is not even mentioned. Socioeconomic analysis that is performed in Utah looks only at output levels of market and nonmarket goods in physical terms, and in terms of the percentage of the local industrial-employment base. This bulletin refers economists to IM-UT-81-295, the instruction memorandum discussed earlier, for more details on economics. Personal communication with a district economist in Utah indicates that these memorandums for field implementation implicitly meant no efficiency analysis was wanted. He included a discussion of efficiency in one wilderness study area technical report but the discussion was later deleted from the final site-specific report by the Utah State Office.

A much publicized wilderness versus minerals trade-off in Utah's Deep Creek Mountains during 1980 illustrates how even in the few cases where efficiency analysis was performed, the State Director's decision was more influenced by *local* political considerations. In particular, the U.S. Geological Survey had concluded no favorable indications of mineral deposits, let alone deposits economical to develop, were present in the Deep Creek Mountains. The special benefit-cost analysis done by the Utah state office economist indicated a net present value of wilderness at 1.29 million dollars (Sieg). However, on the minerals side was U.S. Senator Orrin Hatch's legislative aide for energy and environmental matters, Jim Black. Black had been a consultant to Atlas Minerals who was the mineral claim holder in the Deep Creek Mountains (Rayle). The net result was a recommendation by the State Director of Utah to allow emergency withdrawal protection to lapse, and the *de facto* wilderness area

to be opened for mineral exploration. This decision was neither economically efficient nor equitable to non-motorized recreationists.

Environmental Impact Statement Procedures

BLM's planning process is no better than the wilderness study policy with regard to efficiency analysis. Obermiller (p. 261) quotes BLM's planning regulations as stating that benefit-cost or cost-effectiveness analysis must be done on plan alternatives to determine feasible output levels. In Utah, Montana, New Mexico, and Nevada such analysis is not done. While Obermiller briefly acknowledges this fact, he leaves one with the impression that it is just a matter of time before such efficiency analysis dominates BLM's planning process. A careful reading of the Instruction Memorandum 80-704 that Obermiller cites, discusses economics but only from the local and regional perspective. National publics, national benefits or costs, and efficiency analysis are not even mentioned. In fact, BLM handbooks for preparing environmental impact statements on planning stress identification of who would be affected and the significance of the effect on the regional businesses. Thus, information on equity routinely is provided.

A year after the Washington Office Instruction Memorandum (80-704) the Utah State Office's Instruction Memorandum 81-386 on planning again uses the term regional economic analysis as synonymous with economic analysis. Input-output and regional economics are discussed but no mention of benefit-cost analysis or cost-effectiveness analysis is made, even though the regulations require it. Part of the reason for omission of efficiency analysis is that most non-economist resource specialists that provide the planning requirements do not understand the distinction

between efficiency analysis and regional economic analysis.

The economic analysis procedures for grazing environmental impact statements (IM-81-99) that Obermiller cites as being consistent with U.S. Water Resource Council's emphasis on national efficiency in fact contain no discussion of efficiency criteria or efficiency techniques. They emphasize employment, population and income impacts by design. Since this author was one of the three original authors of those grazing economic analysis procedures, it might be interesting to briefly look at their evolution. When we met in Washington, D.C. to outline the contents, efficiency analysis was rejected and a compromise was struck to supplement regional analysis with information on physical outputs produced. An economist from U.S. Department of Interior's Office of Policy Analysis, who three weeks later helped an expanded team review the original draft, tried to include national economic efficiency into the procedures. After much discussion and compromise, a watered-down measure of efficiency was added (see IM-80-216). However, the final procedures (IM-81-99) omit these efficiency measures altogether.

Since little or no efficiency analysis has been done as part of the wilderness studies, land and resource planning and range environmental impact statement process, how can efficiency be a dominant criterion? While an economist reading FLPMA may see economic efficiency, BLM managers have not. Thus, it is difficult to use the argument that reliance on the efficiency criterion brought about the Sagebrush Rebellion. Possibly the threat of efficiency analysis and of raising user fees to fair market value did, but few actual decisions made since FLPMA emphasize economic efficiency.

Implementation

If decision makers do not use economic efficiency, what do they use? The answer

should be apparent: equity. In the minds of most BLM managers, the local employment gains are economic benefits and employment losses are economic costs. McConnell states, "Many decision makers are basically mercantilists. They choose projects on the criterion of total expenditures rather than net benefits." But as Waggener discusses, projects or plans that generate positive local economic impacts often are not efficient. For example, BLM's emphasis on counting recreationists' expenditures would suggest location of recreation sites farther away from population centers to increase recreationists' expenditures in local towns surrounding the recreation site at the expense of national efficiency.

Even though FLPMA calls (in an economist's mind anyway) for economic efficiency as a criterion, the prospects for adoption of efficiency criteria are not good because of incentives facing the local area and district managers (and often the state director). The reasons are straightforward; local BLM managers live in the same small local communities as the ranchers, miners, and loggers. Why make enemies? Why subject your spouse or children to harrassment by local residents by making decisions which ignore local interests? County commissioners and local congressmen support the manager in decisions favoring local areas. What support there is for efficiency analysis only comes from the Washington office of BLM and the Interior's Office of Policy Analysis, from the Office of Management and Budget, and from urban congressmen. The manager rarely meets these people, let alone receives direct rewards for decisions reflecting efficiency. He and his family would receive direct social punishment from choosing efficient solutions at the expense of local gain. Thus, public choice models of the utility-maximizing bureaucrat support the view that emphasis on local benefits and costs is more likely to be the bureaucrats' decision criterion than

national economic efficiency (Young; Pfeiffer). Self-interest places distributive equity for locally powerful groups ahead of efficiency.

Conclusion

The evidence provided seems to indicate that an increased emphasis on the efficiency criterion is an unlikely cause of the Sagebrush Rebellion. First, little efficiency analysis was performed and even when performed, is rarely used by BLM managers. Ignoring the distribution of benefits to local users in favor of emphasis on national efficiency simply is not in the field managers' self-interest. Consistent with the property rights view of the origin of the Sagebrush Rebellion is the fact that few states have asked for transfer of Forest Service land (Gray and Fowler; Le-Baron *et al.*). Yet, the Forest Service has been at the forefront of using efficiency analysis in forest planning and wilderness decisions for several years. Calculation of net present value of forest plans, roadless area evaluations and timber investments have been a part of Forest Service analysis for almost a decade. It is admitted that Forest Service decisions do not always place great weight on the efficiency criteria, but this only strengthens the point that even with information on economic efficiency, sufficient incentives to adopt the efficiency criteria are not always present. Perhaps the key is that the property rights to national forest resources have changed little since the early 1900s other than with passage of the Wilderness Act of 1964, whereas in the case of BLM, property rights have changed significantly in the last decade.

During the time the Sagebrush Rebellion was emerging the efficiency criterion was not receiving any emphasis in analysis or decision making in BLM. Since FLPMA did little to modify the incentives facing managers to employ an efficiency criterion, sagebrush rebels (and certainly econ-

omists) should not have expected any immediate change in managers' behavior. A more plausible rationale for the emergence of the Sagebrush Rebellion is that the formalization in FLPMA of the trends starting in the early 1970s shifted property rights and control over remaining rights away from traditional users. Regaining those economically valuable property rights may have been the uppermost objective of sagebrush rebels.

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