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Self-Interest and Voter Support for Oregon's Land Use Controls

Gerrit J. Knaap

Local land use controls have received considerable attention from political economists, but statewide land use controls have not. This research note offers an analysis of the political economy of statewide land use controls in Oregon. Unlike two previous studies, which indicate that such controls generally serve the upper class, this research note asserts that the statewide land use program in Oregon subsumes four identifiable issues, which generate the necessary supporting coalition among distinct groups. These results suggest that the political viability of statewide land use programs depends critically on public perception of how they address the issues that affect the voters.

Once described as a quiet revolution (Bosselman and Callies 1971), the land reform movement in the United States has slowed considerably in this era of fiscal austerity and decreasing confidence in all levels of government. At the national level, the prospects for federal land use legislation have all but disappeared; and at the state level, the reform movement no longer brings new land use programs to more and more states. But the revolution in land use controls did not pass without having significant effects in many places. Innovative land use programs continue to evolve in California, Florida, Hawaii, Oregon, and Vermont. The land use programs in those states remain the legacy of a once-vigorous land reform movement and provide insights into the political economy of statewide land use controls.

The birth, development, implementation, and effects of those state land use programs have been well documented (DeGrove 1984; Healy and Rosenberg 1979; Pelham 1979; Rosenbaum 1976). Considerable confusion remains, however, as to the political economy, or whose economic interests are served by these programs. Rosenbaum (1976) argues that statewide land use controls make it easier for suburbanites to exclude renters

and low-income residents. On the other hand, Nourse (1977) argues that statewide programs serve the interests of environmentalists, industrialists, minorities, and renters, all of whom are harmed by exclusionary local land use controls. Walker and Heiman (1981) argue that statewide land use programs serve the interests of a small group of liberal reformers closely associated with large development capital.

The empirical evidence is remarkably thin concerning the political economy of statewide land use programs. In an analysis of a 1972 referendum on the California Coastal Commission, Deacon and Shapiro (1975) found that support for the commission was positively related to higher income and education and negatively related to construction employment. They concluded that the commission was favored by the affluent segments of society. Similarly, Medler and Mushkatel (1979), in an analysis of a 1976 referendum to repeal the Oregon land use program, found that support for the program was positively related to higher income, education, and housing value and negatively related to the unemployment rate. They concluded that the Oregon land use program principally served upper- and upper-middle-class citizens.

This research note provides new empirical evidence on the political economy of statewide land use controls, using the results of a 1982 referendum to repeal the Oregon land use program. The empirical analysis is based on the assumption that individuals vote in their self-interest. The article briefly suggests how interests

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may differ on the land use issue; then it examines whether varying voter support for the land use program reflected those varying interests. The results appear to corroborate the presumption that voters supported the program if they viewed it as serving their self-interests; but the results do not support the prevailing suspicion that statewide land use programs serve exclusively the interests of the upper class.

Components of Oregon's program

The Oregon program is now well known and detailed elsewhere (see, e.g., Leonard 1983). In brief, local governments in Oregon must construct comprehensive land use plans in compliance with 19 statewide goals and guidelines. It is now old news that the goals and guidelines often are in conflict with each other. But the nature of the conflicts, the public perception of how they are resolved, and their effects on the welfare of Oregon voters are the keys to understanding the political economy of statewide land use controls in Oregon.

At issue in the 1982 referendum was the state's role in land use control; a vote in favor of ballot measure 6 would have ended state participation and returned land use control to local governments. But beneath the issue of the state's role in the program lie at least four subordinate issues that have identifiably different effects on the Oregon voting public: home rule, urban growth management, economic development, and housing. In the discussion below I suggest that these issues' economic effects on any voter vary by the voter's location, occupation, ownership status, and income; later I show that the results of the referendum varied accordingly.

One could describe the entire issue on ballot measure 6 as a home rule issue; but as suggested elsewhere (Little 1974, 20; Leonard 1983, 45–53), the home rule issue is viewed differently inside than it is outside the Willamette Valley. The Willamette Valley contains more than 60 percent of the state's population and only 5 percent of the land. Little (1974) argues that the entire land use program developed largely in response to density-related problems in the Willamette Valley and the inability of local governments to cooperate to solve these problems. And because the valley contains most of Oregon's population, the statewide planning program enables valley residents to exert considerable control over land use in the coast, mountain, and plains regions while giving up very little influence over land use in the valley region. Thus we expect greater support for the land use program among voters in the Willamette Valley.

The second implicit issue on ballot measure 6 was urban growth management, or, conversely, the preservation of agricultural land. The statewide goals and guidelines require the establishment of urban growth boundaries and the restriction of land outside those boundaries to exclusive farm use. As a result of urban growth management, urban residents may enjoy lower

public service costs and nearer open space. Rural residents, however, benefit little from lower urban service costs; and exclusive farm use zoning, in effect, merely preserves for agricultural use the land that rural residents do not themselves own or that they otherwise would have sold for urban development. In other words, such zoning does not enhance and often restricts rural residents' opportunities. Thus the economic effects of urban growth management on rural residents are mixed at best. Although the jury is still out, most observers think state participation in the land use program has protected a substantial amount of farmland and yielded a more contiguous pattern of urban growth (Gustafson et al. 1982; Nelson 1985; Knaap 1985). Thus we expect greater support for the land use program from urban residents than from rural residents.¹

The issue that has gained increasing attention in Oregon of late is economic development—in particular the kind of development that is fostered by a system of statewide land use controls. The statewide goals and guidelines call for comprehensive plans that foster economic diversification—to reduce reliance on the traditional resource base—and conservation of resources (including forest land). Thus those whose employment is not closely tied to the resource base may benefit from land use plans that foster economic diversification. But resource conservation, like agricultural land preservation, only conserves for the future what the resource-base industries would not have conserved themselves. In other words, it does not aid and can hurt these industries. Thus its economic effects on people employed in resource-based industries also are mixed at best. DeGrove (1984, 289–290) notes that the forest products industry supported ballot measure 6, (to repeal statewide land use controls), while the effort to defeat ballot measure 6 (keep the controls) was headed by the president of Tektronics, a Portland-based electronics firm. Thus we expect greater support for the land use program from areas where fewer people's employment is closely tied to the resource base.

Finally, the issue that is likely to distinguish Oregon once again as a national leader in social policy is housing. Courts in other states have had little against which to evaluate exclusionary housing policies by local governments. In Oregon, however, exclusionary housing policies stand in direct conflict with the statewide housing goal of providing, at reasonable cost, housing for all segments of the Oregon population. As a result, advocates of fair housing have won significant decisions in favor of low-income residents and renters (Leonard 1983, 110–120). Thus, based on the housing issue, we expect low-income residents and renters to exhibit greater support for the statewide land use program than do high-income residents and owner-occupants.

In sum, the principal components of the Oregon land use program—home rule, urban growth management, economic development, and housing—divide the land

use issue into subordinate issues whose economic effects differ by location, occupation, homeownership status, and income. If economic interests vary as suggested above, and if individuals vote in their self-interest, then we expect the following groups to exhibit the greatest support for the Oregon land use program (i.e., vote against ballot measure 6): Willamette Valley residents, urban residents, nonresource-base employees, and low-income renters.

Data and methods

I analyzed the results of the referendum using multiple regression analysis at two levels of aggregation: county and census tract. The county-level data include observations from each of Oregon's 36 counties. Data at that level are best suited for identifying large-scale regional variations in the voting results. One must use caution, however, in interpreting these data. Because

they are highly aggregated, the data are highly colinear (interrelated) and fraught with potential *ecological fallacy* (aggregate characteristics of a county's population may be poor measures of the characteristics of the individuals or groups who comprise that population). To overcome those problems, I gathered data from all of the census tracts in Jackson County (Medford SMSA), Lane County (Eugene-Springfield SMSA), and Marion and Polk counties (Salem SMSA). I chose those counties because of the availability of tract-level data, the close correspondence between census tract and voting precinct boundaries, the dissimilarity of populations between census tracts, and because of the similarity of populations within census tracts. These features lessen potential problems of multicollinearity and ecological fallacy.

To form the dependent variable I took the logarithm of the ratio of "yes" (repeal) votes to "no" (do not repeal) votes from each location.² The voting results at the county level were provided by the Office of the Oregon Secretary of State. The precinct results were provided by county elections offices; data from precincts within each census tract were combined to create data for the tract. Descriptions of the data are provided in Tables 1 and 2.

Table 1. Description of data: Variable definitions

Variable	Definition	County mean	Census mean
Income	Median household income	\$18,983	\$16,687
Education	Percentage of individuals with 16 years or more education	14.5%	12.0%
Occupation	Percentage of work force employed (1) in farming, forestry, and fishing or (2) as operators, fabricators, and laborers ^a	28.9%	20.5%
Rent	Percentage of households who rent	31.1%	36.0%
Urban	(1) Percentage of individuals residing in urban areas	41.6%	—
	(2) Percentage of individuals residing within urban growth boundaries	—	71.4%
Valley	Value of 1 if county is Benton, Clackamas, Linn, Lane, Marion, Multnomah, Polk, Washington, or Yamhill; value of 0 if other country	0.25	—
Jackson	Value of 1 if tract is located in Jackson County; value of 0 if not	—	0.47
Lane	Value of 1 if tract is located in Lane County; value of 0 if not	—	0.21

a. The bulk of these jobs in Oregon involve the processing and transportation of agriculture, mineral, and forest products.

Results

The results of the 1982 referendum are consistent with the expectations offered above (see Table 3). Column 1 of Table 3 contains the results of the county-level regression; column 2 contains the results of the census tract-level regressions pooled across all four counties. Columns 3, 4, and 5 contain the census tract-level results from the Salem, Eugene, and Medford metropolitan areas, respectively. As expected, the results from the disaggregated tract-level regressions are more robust.

The voting results vary geographically, as expected. At the county level, voters in Willamette Valley counties were more supportive of the land use program than voters from counties outside the valley. At the census tract level, voters in Marion and Polk counties were more supportive than voters in Lane County, which contains a greater proportion of nonvalley residents, and were more supportive than voters in Jackson County, where all residents live outside the Willamette Valley. At the county level, where the "urban" variable is defined as the percentage of the population in urban areas, that variable is insignificant, perhaps because of colinearity with the "occupation" variable.³ At the census tract level, where "urban" is defined the percentage of the population inside urban growth boundaries, that variable is positively related to voter support for the land use programs, and the relationship is significant in every county.

The results also vary by occupation, as expected. At the county level, the proportion of resource-based em-

Table 2. Description of data: Variance-covariance matrixes

A. County data							
	Ln (yes/no)	Income	Education	Occupation	Rent	Urban	Valley
Ln (yes/no) ^a	1.00	-.48	-.63	.52	-.66	-.43	-.64
Income		1.00	.16	-.05	.31	.12	.25
Education			1.00	-.68	.67	.51	.66
Occupation				1.00	-.39	-.82	-.62
Rent					1.00	.44	.49
Urban						1.00	.61
Valley							1.00

B. Census tract data (pooled)							
	Ln (yes/no)	Income	Education	Occupation	Rent	Urban	Valley
Ln (yes/no) ^a	1.00	.22	-.60	.67	-.62	-.64	—
Income		1.00	.15	-.09	-.58	-.15	—
Education			1.00	-.65	.13	.32	—
Occupation				1.00	-.35	-.65	—
Rent					1.00	.54	—
Urban						1.00	—

a. Dependent variable: logarithm of the ratio of "yes" (repeal) votes to "no" (do not repeal) votes from each location

ployees is negatively related to support for the land use program, but the relationship is only marginally significant. (This results partly from colinearity with the "urban" variable; see footnote 2). At the census tract level, the proportion of resource-based employees is also negatively related to support for the program, and the relationship is insignificant only in Marion and Polk counties.

Finally, the results vary by homeownership status, as expected. At both the county and census tract levels the percentage of the population who rents is positively and significantly related to voter support for the land use program. But the effect of income is mixed. This result matches earlier findings by Medler and Mushkatel (1979), who discounted the less aggregated results in favor of the more aggregated results. They argued that

Table 3. Regression coefficient^a

Variable	County level 36 counties	Census tract level			
		All counties	Marion/Polk counties	Lane county	Jackson county
Income	-.003 (2.53)**	.004 (2.88)**	.0003 (.17)	.001 (.32)	.008 (3.53)**
Education	-.04 (.09)	-.65 (8.62)**	-.35 (1.92)*	-.74 (3.83)**	-.62 (6.58)**
Occupation	.06 (1.64)	.20 (2.81)**	.08 (.62)	.43 (2.68)**	.30 (2.98)**
Rent	-1.00 (2.39)**	-.17 (5.23)**	-.09 (1.80)*	-.19 (1.79)*	-.11 (1.92)*
Urban	.13 (1.30)	-.05 (3.24)**	-.09 (1.95)*	-.05 (1.38)	-.05 (2.90)**
Valley	-.08 (1.85)*				
Lane		.11 (9.68)**			
Jackson		.07 (7.66)**			
N	36	137	43	29	65
R ²	.672	.839	.594	.864	.90

a. A "yes" vote is a vote to repeal the land use program; thus a negative coefficient implies a positive relationship to the support for the program.

* Significant at the 90 percent level, one-tailed test

** Significant at the 95 percent level, one-tailed test

broader differences between cities and counties have a greater effect on voter preferences than differences between individual voters. An alternative explanation is that median household income is a poor measure of real differences from one county to the next in people's standard of living. To test that hypothesis I adjusted the income variable at the county level by the average price of land in each county—a reasonable proxy of differences in the cost of living.⁴ After that adjustment, the income variable becomes insignificant in the county-level regression. Thus, at the more broadly aggregated level, support for the land use program is not significantly related to real differences in household income between counties. But at the less broadly aggregated level—which better captures differences between individuals—support for the land use program is significantly related to real income, and the relationship is negative.

Summary and conclusion

The above results provide new and interesting information about the political economy of statewide land use controls. In general, Oregon voters supported the land use program if they viewed it as serving their interests. What is more, the division of support for the land use program in Oregon did not follow broad distinctions of social class but instead followed popular perceptions about how the program resolved the complex issues of home rule, urban growth management, economic development, and housing.

In Oregon, support for statewide land use controls was greater in the Willamette Valley than outside the Willamette Valley. That finding is consistent with Little's suggestion that nonvalley residents are suspicious of statewide programs that threaten home rule. Further, support for the land use program was greater in urban areas than in rural areas. That is consistent with the perception that urban growth management provides greater benefits to urban residents than to rural residents. Support for the land use program was also greater in areas where fewer people are employed in resource-based occupations. That mirrors the position taken by leaders of resource-based industries. Finally, support for the land use program was greater in areas with larger proportions of low-income renters. That finding suggests that voters perceived that the land use program benefits low-income renters through more equitable housing policy. While these findings, based on aggregate data, cannot identify the interests and motivations of any particular group, the consistency of the results with the above-offered calculus of self-interest is reasonably convincing of the implied relationships.

In sum, the popular support for the statewide land use program in Oregon consists of a coalition of interests: the interests of urbanites in the Willamette Valley,

of nonresource-based employees, and of renters and low-income residents. These results do not indicate whether the support of this coalition reflects the actions of the program, or whether the actions of the program reflect the support of this coalition. They do indicate, however, that the political viability of the program depends critically on how the program resolves the complex issues that affect the voters. And although the issues are likely to differ in other states that have or have considered similar statewide land use programs, analysis of the political economy of such programs based on broad distinctions of social class still may not be sufficient.

Author's note

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Notes

1. Although some rural residents supported the land use program via membership in a citizens' organization called Agriculture Against 6, judging by the campaign contributions filed with the secretary of state, greater numbers of farmers, ranchers, and land-owner organizations opposed the land use program via membership in an organization called Oregon Citizens for Fair Land Planning.
2. This transformation is known as the logit transformation. The transformation improved the regression results by widening the distribution of the dependent variable and placing greater weight on the tails. See Chow (1983).
3. Because highly urbanized counties contain few people who are employed in resource-based occupations, these variables are highly colinear. (Descriptions of these variables and their correlation coefficients are provided in Tables 1 and 2.) This prevents us from identifying the separate influence of these two variables in the county-level data. When each of these variables is included alone in the regression equation, each is significant with the expected sign. But when both are entered together, the data are unable to identify either as independently influential. Both are shown in Table 3 for consistency with the census tract-level specifications, where colinearity is not a problem and both are identified as independently influential.
4. It is reasonable to assume that all prices may vary somewhat between counties in a state and that land values provide some measure of the difference in county price levels. It is not reasonable, however, to assume that all prices will vary by location within metropolitan areas; therefore, land values are not an appropriate price index of differences in the cost of living at the metropolitan level. For that reason, I made the real income adjustment at the county level but not at the census tract level.

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