State Policy Under Devolution: Redistribution and Centralization

Abstract *- Political theory argues redistributive spending is best made at higher levels of government, but under devolution, state policy becomes the most significant arena for redistributive activity. Using Census of Government data for 1992. this paper compares Federal and State aid to county areas and considers the role of state centralization of fiscal responsibility on local revenue raising efforts. Both the magnitude and redistributive nature of state aid are greater than federal aid. However, because state centralization has a large impact on reducing local fiscal stress, differences in state policy choices create a very uneven landscape of local tax effort.*

INTRODUCTION

In his book, *Disunited States*, John Donahue (1997) argues that devolution of governmental responsibility from federal to state and local governments will create a more uneven and competitive landscape between states and localities. While the national debate gives considerable attention to the benefits of devolution in terms of opportunities for increased efficiency, local representation, and freedom to innovate, discussion of the implications of devolution for inequality across states and localities is remarkably limited. Devolution of responsibility implies that managerial and financial capacity exists for state and local governments to assume increased responsibility (Kodras, 1997).

As more federal aid is block granted to states, the nature of the distribution of state aid becomes more critical. This paper uses a national data set to analyze current patterns of federal and state aid to localities and the corresponding levels of local tax effort. The state emerges as a critical actor under devolution. State policies with respect to redistribution and recentralization are shown to be of key importance. This paper provides empirical support for Donahue's caution that devolution will result in a more unequal landscape across states and localities. A key to understanding these differences is the role of the state.

THEORETICAL BASES FOR DEVOLUTION

Proponents of devolution herald from the public choice school, which argues that inter–governmental competition

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will limit rent seeking and result in more effective, efficient, and democratic government. These notions build upon Tiebout's (1956) seminal work on the existence of public markets as local governments compete for tax base and offer varying levels of public goods based on citizen price and quality concerns. Decentralization provides opportunity for differences in regional preferences and costs that can enhance accountability and efficiency. However, real limits in residential mobility (especially of the poor), weak fiscal capacity of local governments, and weak preferences for redistributive spending must be balanced against these efficiency goals (Chernick, 2000; Anderson, 1994). Peterson (1981) showed theoretically that redistributive expenditures can not be sustained at the local level because local governments will compete for higher income tax payers by focusing on developmental expenditures (which build the local tax base). Lack of political voice for the poor, limited local fiscal capacity, and inter-local competition for growth prevent local governments from adequately providing redistributive services. In a devolved Federal system, Peterson (1995) argues a federal role in redistributive expenditures is crucial.

While Peterson reflects the neoclassical economic perspective, O'Connor (1973) reaches similar conclusions from a neomarxist perspective. He argues there is a structural gap between expenses and revenue caused by state absorption of social costs, but private accumulation of social surplus. He describes state and local government as the "productivity state" primarily focused on expenses that increase productivity. Redistributive expenses are the primary concern of Federal government, which seeks legitimization to maintain social harmony.

Experience with devolution over the last 30 years reflects the tension between state and national authority in the U.S. federal system. While the "New Federalism" of the Nixon administration in the 1970s brought new sources of funds to localities, Reagan's devolution in the 1980s initiated a serious retreat in federal funding to localities. Under Clinton in the 1990s state and local calls for mandate relief resulted in some devolution of authority and even more serious limitations on redistributive programs (especially welfare funding) (Conlan, 1998; Nathan and Lago, 1990).

Under devolution the state must assume a greater redistributive role. While the federal government clearly has greater capacity for redistributive expenditures, historical analysis suggests that the targeting of federal aid has been limited and that states can assume a redistributive role (Dye and Hurley, 1978; Stein and Hamm, 1987; Reeder and Jansen, 1995; Fox and Reid, 1987). However, reductions in federal aid to states and the shift from matching to non-matching grants decreases incentives for states to make redistributive expenditures (Gold, 1996).

A common rationale for intergovernmental aid is to equalize the burden of providing standard quality public services by helping provide equal services for equal effort, despite uneven capacity (Ladd and Yinger, 1994). Capacity is of two types: economic, which derives from local economic growth, and political, which derives from state and federal intergovernmental aid and local effort, including the range of revenue raising instruments made available to localities (Chernick, 1998). Since the 1980s, federal aid has become less important in addressing the fiscal stress of central cities and non-metro areas (Logan and Molotch, 1987; Parker, 1984; Johnson et. al., 1995). However, reliance on states for equalization is problematic, as it precludes addressing interstate and interregional differences in welfare.

As state policy becomes more important and differences in state choices more salient, increased research attention needs to

be focused on the role of the state. This study contributes to that gap by enhancing understanding of the nature of state and federal aid. This study does not limit itself to redistributive expenditures. By focusing on total governmental expenditure, this study provides a general understanding of governmental financial capacity. Attention is focused on state policy impacts at the local government level where flexibility in revenue raising is most limited.

DATA

Data are drawn from the Census of Government finance files for 1992 and the Census of Population and Housing for 1990. The Census of Government aggregates data for all governmental jurisdictions (including school districts) to the county in which they operate. Jurisdictions that cross county lines are counted in the county of their administrative headquarters. Thus, county areas are the unit of analysis.[1] The analysis covers counties in all states except Hawaii and Alaska.

To compare across years and counties of different size, all government finance data is presented in constant 1987 dollars on a per capita basis. The Implicit Price Deflator for State and Local Government Services (Economic Report of the President, 1993) is used to deflate government expenditures, and the Consumer Price Index to deflate per capita income. Census of Population and Housing data is used to determine population, density, income, income inequality and poverty levels for counties.[2] The federal land and non–adjacent rural county variables were based on data provided by the Economic Research Service of the USDA and were coded as dummy variables for the analysis.[3] See Table 1.

Two state–level variables were included: state centralization and average state and local government expenditure per capita. State centralization is measured as the state share of total direct state and local expenditures, including capital investment. State aid to localities is counted in the local share. State centralization is taken from the state level Government Finance file.[4]

Descriptive Statistics

Local government investment is determined by level of federal and state aid,

[1] The five boroughs of New York City are treated as one county area by the Census of Government and socio-economic data from the Census of Population and Housing were averaged to create a single value for the metro region. Virginia data is incomplete. All counties are included but complete data for all independent cities were not available. Thus, Virginia independent cities are excluded from this analysis. Washington, DC and Yellowstone Park county are also excluded due to extreme values and unique policy context. An additional 36 outliers from the initial regression runs were excluded yielding a total sample of 3,000 counties.

[2] Gini coefficients of income inequality were calculated from 25 household income categories in the 1990 Census using a SAS program developed by Mark Nord, ERS, USDA. Computation of Gini using such grouped data requires the assumption that we know the mean income of households in each group. In Nord's computation the mid–point of each range is substituted for the mean for every group except the top category. Since the Census does not provide an upper bound for the top income range, we use the bottom point as the "mean."

[3] The non–adjacent rural counties were based on rural–urban continuum codes developed by USDA based on data collected in the 1990 census. Counties are grouped into ten categories based on size of central place and adjacency to metropolitan counties. The following categories were included for the non adjacent dummy: *Large Rural Non–Adjacent*—urban population greater than 20,000, not adjacent to a metropolitan area; *Medium Rural Non–Adjacent*—urban population 2,500 to 19,999, not adjacent to a metropolitan area; and *Small Rural Non- Adjacent*—no places with population of 2,500 or more, not adjacent to a metro area.

[4] State centralization = (direct general expenditures by state/direct general expenditure by state and local government) * 100. It includes capital outlays but excludes intergovernmental transfers, utility, liquor, and insurance trust revenue. The government expenditure variable is taken from the denominator of the state centralization variable and reflects the average level of state and local government expenditures per capita for each state. Each of these variables is common for all counties in any given state.

TABLE 1
MEAN AND STANDARD DEVIATION FOR U.S. COUNTY AREAS

Variable Name	Min.	Max.	Mean	Std. Dev.	Description
POPULATION	339	9,053,645	82,675	298,117	[1]Population (est.), 1992
PC INCOME	2942.35	24,389.92	9,483.94	2,251.23	[1,#]Per Capita Income, 1989
DENSITY	.12	11,837.40	62.06	323.24	[1]Population Density Per Square Mile, 1990
DENSITY^2	.01	166,132,000	116,972	3,184,353	[1]Population Density Squared, 1990
PCT. URBAN	.0	100.0	36.00	29.17	[1]Percent Urban Population, 1990
NON ADJACENT	.00	1.00	.42	.49	[2]Non Adjacent Non-Metro Dummy, 1990, 1=non-adjacent, 0=other
PCT. POVERTY	2.2	63.1	16.72	7.85	[1]Pct. Persons Below Poverty Level, 1989
STATE AID	33	1,719	600.34	233.49	[3,#]State Aid Per Capita, 1992
FED. AID	0	460	38.60	53.66	[3,#]Federal Aid Per Capita, 1992
LOCAL EFFORT	.01	.60	0.094	0.052	[3,2,#]Local Revenue, 1992 / Per Capita Income, 1989
STATE CENT.	32.9	63.80	44.52	6.31	[3,#]State Centralization = [State Exp./ (Tot. State and Local Exp)]*100, 1992
FED. LAND	.00	1.00	0.087	.28	[2]Federal Land Dummy, 1=if > 30% federal land, 0=if not, 1979
AVR. GOVT. EXP.	2,230	4,550	2831.77	425.8	[3,#]Average State and Local Expenditure Per Capita for each state, 1992
GINI COEFF.	.30	.58	.43	0.037	[1]Gini Coefficient

Excludes Hawaii, Alaska, all independent cities in VA and 36 outliers with influential and extreme values, N = 3,000.
[1]Source: Census of Population and Housing, 1990.
[2]Source: USDA Economic Research Service.
[3]Source: Census of Government Finance Data, 1992.
[#]All fiscal items are in constant dollars deflated by Implicit Price Deflator for State and Local Government Services, 1987=100.

local tax effort, and level of state centralization of expenditure responsibility. Spatial analysis of federal and state aid, local effort, state centralization, and total local government expenditure show important spatial differences.

Federal aid to county areas is not high. The mean aid is $39 per capita (in 1987 dollars), down 27 percent from 1987, when it was $53 per capita. The highest levels of federal aid are found in the west, especially among counties with federal lands and Indian reservations. The level of federal aid is not significantly correlated with per capita income, and while it is correlated with poverty, the level of correlation is very low. See Table 2.

On average, state aid is more than 15 times higher than federal aid (mean = $600) and it rose 17 percent from 1987 (up from $511). State aid is correlated with poverty (+) and income (–) but the correlation levels are not high. State aid varies considerably from state to state.

State centralization is a critical factor in understanding state aid. This measures the degree of centralization in fiscal responsibility for governmental services. State centralization decreases the need for local expenditure and thus is as important

TABLE 2
CORRELATION MATRIX OF KEY VARIABLES

	State Aid	State Centralization	Per Capita Income	Effort 1992	Federal Aid	Avr. State Exp. Per Capita	Percent Poverty
State Aid	1.000						
State Centralization	−.275**	1.000					
Per Capita Income	−.177**	−.211**	1.000				
Effort	.146**	−.249**	−.006	1.000			
Federal Aid	.202**	−.051**	.000	.174**	1.000		
Avr. Govt. Exp. Per Capita	.441**	−.268**	.334**	.197**	.131**		
Percent Poverty	.174**	.184**	−.725**	−.017	.107**	−.317**	1.000

N = 3,000 county areas; excludes Hawaii, Alaska, all independent cities in VA and 36 outliers with influential and extreme values.
Source: Census of Government Finance Data 1992, Census of Population and Housing 1990.
**Significant at p<.01.

as state aid in helping to achieve fiscal equity. Overall, state centralization rose from 0.43 to 0.45 between 1987 and 1992. State centralization is significantly correlated with poverty (+) and income (−).

While both state aid and state centralization have been rising, they are negatively correlated with each other. To better understand the relationship between state aid and state centralization, we constructed an average of state aid to counties for each state and plotted those values against the level of state centralization. See Figure 1. The state plot shows that states tend to be either high in centralization or high in state aid but not both. Many of the Dillon's Rule[5] states, however, exhibit low centralization and low state aid.

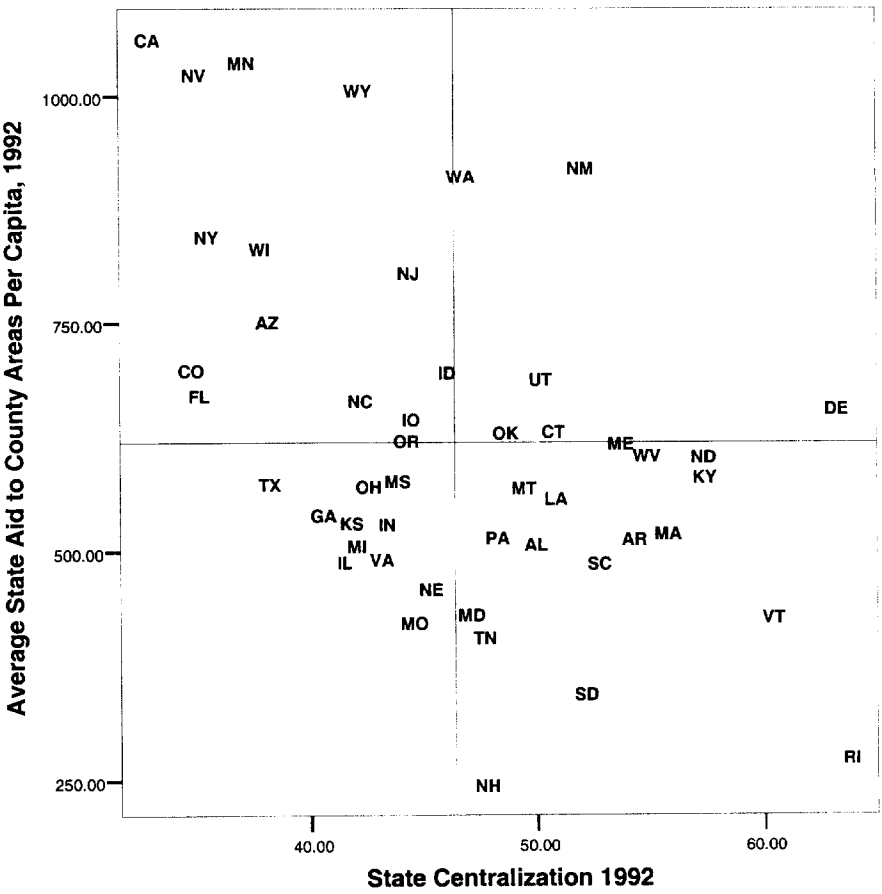
Most states fall in the $500–$700 state aid per capita range. Low state aid states are found in New England (Rhode Island, New Hampshire, and Vermont), the South (Tennessee, Maryland, Virginia, Alabama, South Carolina, and Arkansas), and the Midwest (Missouri, Nebraska, and Illinois). High state aid states are found in the west (California, Nevada, Wyoming, Washington, and New Mexico), North Central (Minnesota and Wisconsin), and Mid-Atlantic regions (New York and New Jersey), but none of these states had high levels of centralization. In these states, high state aid to localities may not contribute to fiscal equity since the level of service centralization is so low. The highest levels of state centralization are found in Vermont, Rhode Island, Delaware, Kentucky, North Dakota, West Virginia, and Massachusetts, but none of these states provides high levels of state aid. Counties in states with both low centralization and low aid (those in the lower left hand quadrant of Figure 1) may face the greatest fiscal stress.

Local Effort and Local Expenditure

Effort is a relative measure of tax burden and is measured as the percentage of

[5] In Dillon's Rule states, local governments only have authority specifically designated to them in the constitution. Counties in the these states would be limited in their options to raise local effort.

Figure 1. State Centralization and Average State Aid, 1992

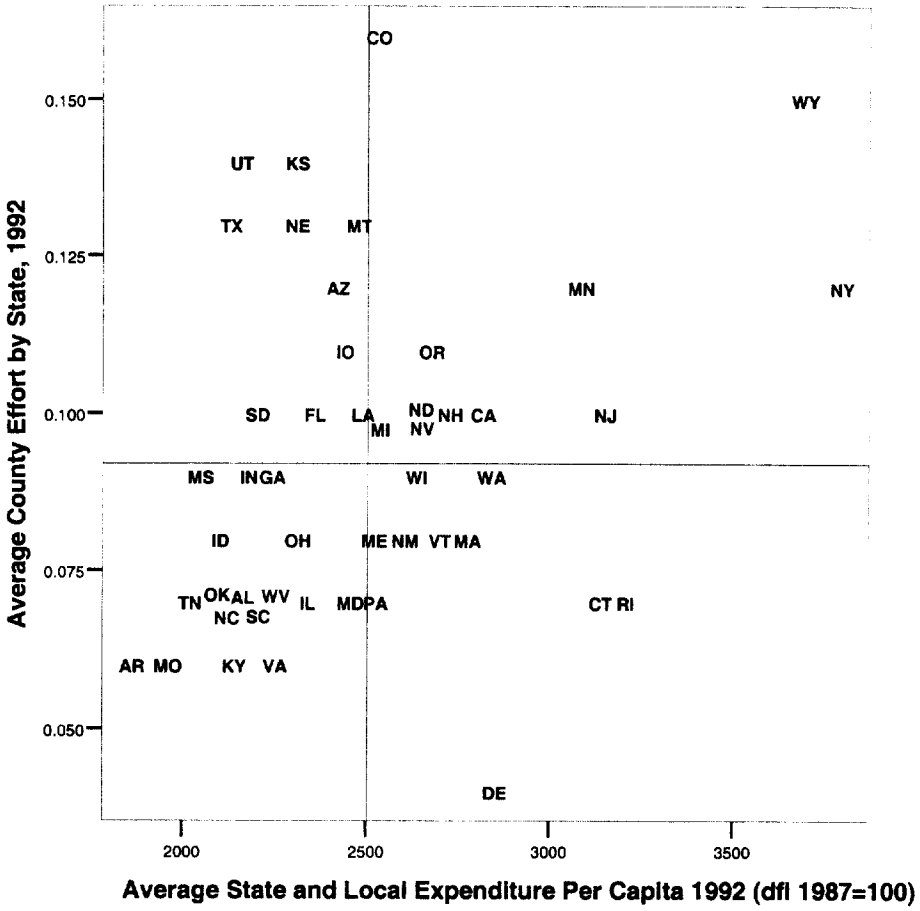


Grid Lines at state means
State Centralization: State share of total state and local expenditure. State aid to localities is not counted in the state share. State centralization = (direct general expenditures by state/direct general expenditure by state and local government) * 100.

Source: U.S. Census of Government Finance Files, 1992

local capacity actually raised in revenues [(taxes, user fees, and miscellaneous revenue)/per capita income]. It is a proxy for fiscal stress. Average effort was .09 in 1992, up from .08 in 1987. We are interested in effort as a proxy for fiscal stress, but it also may reflect preference for higher or lower levels of spending. We plotted average county effort by state against average per capita state and local expenditures. See Figure 2. In the lower left hand quadrant we see the southern states with low effort and low average expenditure. Many of these states are Dillon's Rule states, which exhibit low levels of state aid and moderate to low state centralization. This region can be thought of as a low government region. By contrast, New York, Minnesota, and New Jersey lie at the other extreme with high expenditure and high effort. These patterns reflect long standing trends of lower governmental expenditure in the

Figure 2. Average Expenditure and Effort by State, 1992



Grid lines at state means.
Effort is Locally Raised (Own Source) Revenue, 1992 / Per Capita Income, 1989

Source: U.S. Census of Government Finance Files, 1992

South and higher expenditure in the Northeast, which might be attributed to preference. To control for this we include average state and local government expenditure by state in our regression models. In the upper left hand quadrant, by contrast, we find a number of western states with high local effort despite lower average expenditure. Counties in these states face higher fiscal stress. Limited property tax bases due to the presence of large tracts of federal land may explain the rankings of Colorado, Wyoming, Utah, Montana, and Arizona. To control for this we include a variable for federal lands (1 = if more than 30 percent of county land is federal).

REGRESSION MODEL

Regression models seek to disentangle three factors: the redistributive nature of

federal and state aid and local effort, the role of state policy (centralization, average level of governmental expenditure) and the spatial distribution of these effects. Separate models are presented for federal aid, state aid and local effort. To determine whether federal aid, state aid and local effort are substitutes or complements, these variables are included in each model. To test for redistribution, the models include variables for population, differential costs, local capacity (per capita income) and need (poverty). Population, the most common measure of need (the only indicator used for most state and federal general revenue sharing), doesn't reflect the higher costs at both ends of the density spectrum (Reeder, 1990; Ladd and Yinger, 1994). Based on earlier work by Reeder and Jansen (1995) and Booms and Hu (1971), a variety of variables are used to reflect the U–shaped curve in which costs are higher for concentrated urban areas and sparsely populated rural areas. Direct measures of density and density squared are complemented by a variable for non–adjacent rural counties, which cannot take advantage of nearby urban services, and percent urban, which reflects the higher service requirements and a potential for tax exporting of urban areas. These variables also capture the salient spatial distribution of aid and effort. A variable for federal land is also included because these counties (primarily in the west) have limited local tax base and may receive higher federal aid.

To test for the role of state policy, two state–level variables are added. State centralization captures the degree of devolution within states, and average level of state and local government expenditure reflects historical differences in overall preference for government spending as discussed above. The local effort model also includes a variable for income inequality (Gini coefficient). Schneider (1989) predicts that effort will be higher in places with more homogeneous income distributions. The equations are shown below.

Federal Aid = f {population, differential costs (U–shaped cost curve), spatial effects (non adjacent rural, percent urban, federal land), need (percent poverty), local capacity (per capita income), substitutes (state aid, local effort), and state policy (level of state centralization, average state and local government expenditure)}

State Aid = f {population, differential costs (U–shaped cost curve), spatial effects (non adjacent rural, percent urban, federal land), need (percent poverty), local capacity (per capita income), substitutes (federal aid, local effort), and state policy (level of state centralization, average state and local government expenditure)}

Local Effort = f {population, differential costs (U–shaped cost curve), spatial effects (non adjacent rural, percent urban, federal land), need (percent poverty), local capacity (per capita income), substitutes (state aid, federal aid), state policy (level of state centralization, average state and local government expenditure), and local homogeneity (income inequality)}

MODELING APPROACH AND RESULTS

Initial regression models were analyzed for influential outliers and 36 additional county areas were excluded.[6] The final regression analysis includes 3,000 counties. After exclusion of outliers, examination of residual plots for each regression still showed substantial evidence of heteroscedasticity (unequal residual variance) on a state basis. Heteroscedasticity poses an especially important problem in a model which attempts to differentiate state from county effects. All regressions were rerun using weighted least squares. Separate weights were developed for the federal aid, state aid, and local effort equations using the residuals from the base equations with the influential outliers removed.[7] All variables (*X*s, *Y*s and the constant) in each of the three equations were divided by the weight variable developed for that equation. Predicted *Y* values were then multiplied by the weight to get the actual predicted *Y* and these were correlated with the original *Y* value and squared to get the R^2. Heteroscedasticity makes the coefficient estimates inefficient and the *t* statistics in the base equation unreliable since the assumption of equal variance of residuals is violated. Results from both the unweighted base model and the weighted model are included to illustrate the importance of the weighted least squares regression technique in cross sectional analysis. However, only the *t* values in the weighted regressions are accurate.

Federal Aid Results

Even though Federal aid is small on a per capita basis, results confirm the theoretical expectation that federal aid is redistributive. Counties with higher poverty get more aid—about $0.64 more per capita for an additional percentage point of poverty. Federal aid is not redistributive with respect to income. The spatial impacts of federal aid show that federal aid is higher for both high density and urban counties as well as counties that have federal lands. While the statistical significance of these variables does not change between the unweighted and weighted models, the unweighted model overestimates the redistributive nature of federal aid—note the coefficient for percent poverty drops by half. Coefficient values for federal land fall by one–third, while the coefficients for percent urban rise by one–third. Thus it is important to control for unequal variance across states, as the unweighted model overestimates the spatial effects. See Table 3.

State aid is a complement to federal aid. Counties receiving more state aid also receive more federal aid. However, the level of this complementarity drops by almost half in the weighted model. State centralization and average expenditure do not have a significant effect on federal aid. However, local effort is significant as places with higher local effort get more federal aid. This may reflect greater aggressiveness on the part of those counties experiencing more fiscal stress.

[6] Outliers from each regression were analyzed and excluded as a common set from all three regression equations. These were 11 counties with residuals > 400 from the Federal aid equation, 15 counties with residuals > 900 from the State aid equation, and 10 counties with residuals > 0.5 from the effort equation. These outliers include all ten places with effort values > 0.6, all nine places with federal aid values > $500 per capita, and 14 of 15 places with state aid values > $1,700. Only one place with state aid > $1,700 remains (Trinity, CA), but its values look reasonable for all other variables and its residuals were not high in any of the initial regressions.

[7] The standard deviation by state for the residuals from the federal aid, state aid, and effort equations were used as the weights.

TABLE 3
FEDERAL AID REGRESSION MODEL, 1992

Variable Name	OLS–Unweighted Coefficient	WLS–Weighted Coefficient
CONSTANT	–60.807***	–3.024
	(–4.337)	(–.327)
POPULATION	1.478E–06	2.770E–06
	(.369)	(1.022)
PC INCOME	9.960E–04	–3.385E–04
	(1.354)	(–.658)
DENSITY	.042***	.041***
	(6.823)	(10.283)
DENSITY^2	–2.776E–06***	–2.560E–06***
	(–4.951)	(–7.795)
PCT. URBAN	.182***	.255***
	(4.820)	(8.589)
NON ADJACENT	6.741***	2.665
	(3.269)	(1.718)
PCT. POVERTY	1.166***	.641***
	(6.531)	(4.575)
STATE AID	.024***	.014***
	(4.858)	(3.330)
STATE CENT.	.219	–.125
	(1.355)	(–1.157)
FED. LAND	36.573***	24.877***
	(10.956)	(7.615)
AVR. GOVT. EXP.	6.888E–03**	4.033E–04
	(2.499)	(.223)
LOCAL EFFORT	124.079***	113.882***
	(6.601)	(7.237)
R^2	0.15	0.14

***Significant at p≤ .001, ** Significant at p≤ .01, * Significant at p≤ .05; *t* value in parenthesis.
N = 3,000; excludes Hawaii, Alaska, all independent cities in VA and 36 outliers with influential and extreme values.
Source: Census of Government Finance Data 1992, Census of Population and Housing 1990.

State Aid

With devolution, state policy becomes increasingly important. These models analyze three aspects of state policy: overall level of spending, level of centralization at the state level and the redistributive nature of state aid. A primary question underlying devolution is whether state aid is redistributive. These results show that state aid is redistributive both with respect to need and capacity. On average, state aid rises $5.50 per capita with a 1 percentage point increase in poverty. State aid falls $2.40 per capita with a $100 increase in per capita income. As we would expect, states with higher centralization give less aid on average. States with higher average government expenditure give more aid. See Table 4.

These results provide strong support for the notion that the state level of government is high enough to allow redis-

TABLE 4
STATE AID REGRESSION MODELS, 1992

Variable Name	OLS–Unweighted Coefficient	WLS–Weighted Coefficient
CONSTANT	431.773***	397.861***
	(8.558)	(9.768)
POPULATION	3.729E–05**	3.686E–05*
	(2.565)	(2.308)
PC INCOME	–.033***	–.024***
	(–12.642)	(–10.988)
DENSITY	.098***	.044*
	(4.415)	(2.268)
DENSITY^2	–4.989E–06*	–5.563E–07
	(–2.443)	(–.321)
PCT. URBAN	–.321*	–.265*
	(–2.329)	(–2.293)
NON ADJACENT	–1.370	–2.851
	(–.183)	(–.493)
PCT. POVERTY	4.497***	5.497***
	(6.945)	(10.616)
FED. AID	.321***	.277***
	(4.858)	(4.503)
STATE CENT.	–8.490***	–6.107***
	(–15.029)	(–13.445)
FED. LAND	97.771***	79.419***
	(7.994)	(5.831)
AVR. GOVT. EXP.	.276***	.208***
	(31.87)	(25.994)
LOCAL EFFORT	–159.174*	–92.259
	(–2.317)	(–1.612)
R^2	0.41	0.40

***Significant at p≤ .001, ** Significant at p ≤ .01, * Significant at p ≤ .05; *t* value in parenthesis.
N = 3,000; excludes Hawaii, Alaska, all independent cities in VA and 36 outliers with influential and extreme values.
Source: Census of Government Finance Data 1992, Census of Population and Housing 1990.

tributive expenditures. State aid is more redistributive than federal aid due to the higher level of state aid and the fact that state aid is redistributive both with respect to poverty and income. Federal aid and state aid are complements. However, it is the structure of state fiscal policy that is the most important determinant of the level of state aid to counties. The magnitude of average governmental expenditure and state centralization on state aid is greater than any other variable. Per capita income is next in importance in determining level of state aid as the redistributive nature of state aid is more heavily affected by per capita income than poverty.

The spatial distribution of state aid differs from that of federal aid. While state aid rises with population and density, more urban places are not directly favored (a one percentage point increase in level

of urbanization is associated with a $0.27 per capita loss in aid). Non-adjacent rural counties do not get more aid, but federal lands counties do.

Effort

Model results provide strong support for theoretical predictions that redistributive expenditures cannot be sustained at the local level of government. In the weighted model, effort falls with a rise in poverty. Effort is also lower for higher income counties. This model shows the importance of controlling for heteroscedasticity as neither of these variables were significant in the unweighted model. See Table 5.

TABLE 5
LOCAL EFFORT REGRESSION MODEL, 1992

Variable Name	OLS–Unweighted Coefficient	WLS–Weighted Coefficient
CONSTANT	.153***	.096***
	(8.398)	(8.131)
POPULATION	-4.890E-09	-1.121E-09
	(-1.263)	(-.450)
PC INCOME	-1.434E-06	-2.523E-06***
	(-1.835)	(-5.299)
DENSITY	1.032E-06	1.915E-06
	(.174)	(.540)
DENSITY^2	5.235E-10	3.441E-10
	(.962)	(.997)
PCT. URBAN	7.038E-05	1.063E-04***
	(1.918)	(3.789)
NON ADJACENT	.024***	.019***
	(12.208)	(12.515)
PCT. POVERTY	2.474E-05	-4.445E-04*
	(.092)	(-2.134)
STATE AID	-1.130E-05*	1.338E-06
	(-2.323)	(.382)
FED. AID	1.151E-04***	9.938E-05***
	(6.550)	(7.173)
STATE CENT.	-2.002E-03***	-1.338E-03***
	(-13.190)	(-13.135)
FED. LAND	7.588E-03*	5.924E-04
	(2.307)	(.219)
AVR. GOVT. EXP.	1.908E-05***	1.719E-05***
	(7.143)	(9.678)
GINI COEFF.	-.049	.037
	(-1.187)	(1.180)
R^2	0.16	0.15

*** Significant at $p \leq .001$, ** Significant at $p \leq .01$, * Significant at $p \leq .05$; t value in parenthesis.
N = 3,000; excludes Hawaii, Alaska, all independent cities in VA and 36 outliers with influential and extreme values.
Source: Census of Government Finance Data 1992, Census of Population and Housing 1990.

The relationship between local effort and state and federal aid shows that federal aid is higher in places with higher effort, but state aid is not. State aid was incorrectly shown to be negative and significant in the unweighted model. While this result would have made sense—higher state aid associated with lower effort—the weighted model showed that it is income and poverty which affect local effort. Given that state aid falls and rises with income and poverty, as seen in the state aid model, the weighted effort model confirms that the redistributive nature of state aid is via income and poverty, not effort. Effort is lower in states with high fiscal centralization and higher in states where average state and local government expenditure is high.

Effort is also higher in more urban counties and in non-adjacent rural counties—a probable reflection of higher costs. Despite the patterns suggested by the state level plots, higher effort does not hold in federal lands counties after controlling for state hetereoscedasticity. Contrary to theoretical expectations, effort is not related to income homogeneity. The Gini coefficient of income inequality was insignificant.

Local effort is critically linked to local capacity and need. While effort is higher in counties with higher costs (urban and non-adjacent rural places), it is lower in counties with higher poverty where the need for governmental expenditure is higher. This confirms earlier results by Reeder and Jansen (1995), which showed low effort in high poverty counties. This is the danger in devolution—that basic governmental services will be the lowest in high poverty counties were the need for governmental services is highest.

The model clearly shows that state centralization is more important than state aid in relieving local fiscal stress. The standardized beta (not shown) shows state centralization to be the single most important variable explaining the level of local effort. The next most important variable is average government expenditure—a reflection that the geography of government expenditure varies dramatically from state to state, with higher local effort in high governmental expenditure states and lower local effort in low government expenditure states.

CONCLUSION

Devolution creates a differentiated landscape, which raises concerns about equity, capacity, and competition. This analysis has shown the critical importance of state policy in determining the capacity for local government investment. As federal commitment to redistributive aid recedes, increased attention must be focused on the role of the state. Analysis of state policy should address not only the redistributive nature of state aid, but also the level of state centralization of service responsibility.

Local governments provide basic services—physical infrastructure, schools, administrative services—that form the foundation for economic growth and community well-being. Differences in the level of these expenditures reflect more than differences in costs of service provision. They reflect differences in capacity (based on the economic fortune of a region) and differences in attitudes about the role of government in community life.

Devolution, in part, reflects distrust of government and frustration with inefficiency in public service provision. Local government, as the developmental state, has the discipline to make efficient investments as economic and political forces are most direct at the local level. Some argue that devolution could result in greater support for government service provision at these levels, since state and local levels of government enjoy a higher level of trust (Conlan, 1998). However, local capacity and state policy will be critical in determining the extent to which this is true.

State efforts to shed service responsibility (especially in high government states with low levels of centralization) place tremendous fiscal burdens on local government. In low government states with low aid and low effort, the burden is on individuals themselves because public investment in local government services is low. Such dramatic differences in effort create an environment for destructive competition as local governments seek to lower their revenue effort to compete for tax base. While empirical measurement of complex state and local tax systems makes it difficult to conclude whether tax competition is good or bad, the benefits of horizontal tax competition (efficient resource allocation promoted by Tiebout sorting) must be balanced against concerns over destructive downward competition where taxes and public services are too low (Goodspeed, 1998).

Centralization of fiscal responsibility to the state level helps limit these destructively competitive pressures. That state level centralization is occurring in the context of strong political support for devolution suggests that greater research attention be given to the dynamics driving this recentralization process. In the face of increased devolution to the local level to promote allocative efficiency, does some recentralization at the state level offer potential to ensure equity? Evidence that the tax and expenditure limitations movement is resulting in increased state centralization suggests the importance of this state role (Mullins and Joyce, 1996). However, concerns about the political and economic capacity to support redistributive funding through state centralization must be heeded. Evidence from the equalization of public education funding in California and Michigan suggests that centralization may depress overall funding levels (Fisher and Wassmer, 1995; Silva and Sonstelie, 1995). Early analysis of block grants for programs targeted to poor children found funding decreased the most in southern states where the percentage of children in poverty is higher (Weinstein, 1998). Simulations of block grant effects on welfare spending show that states will not be able to raise funds sufficiently to cover increased welfare costs in a time of recession (Powers, 1999; Dye and McGuire, 1999).

This analysis has shown that states play an important redistributive role through state aid and, more importantly, through state centralization. However, the theoretical cautions raised by Peterson (1981) still hold, and the political and economic sustainability of state level redistributive efforts is not guaranteed. While the state has assumed an important redistributive role in the face of devolution, limits to this role may appear in a more uneven local landscape of local government spending and tax effort.

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