A RECONSIDERATION OF THE OPTIMAL ASSIGNMENT OF REDISTRIBUTION UNDER FISCAL FEDERALISM*

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INTRODUCTION

REDISTRIBUTION IS ONE OF THE CORE FUNCTIONS of government. In federalist systems, redistributive choices must be made not only in respect to the total amount of resources allocated to redistribution, but also to the division of responsibility between the various levels of government. This paper addresses the issue of assignment for redistribution, and the principles that should underlie the division of fiscal and programmatic responsibility between national, state/provincial, and local levels? The focus is on means-tested spending, and excludes the major age-based social insurance programs — Social Security and Medicare.

Because the total amount of resources devoted to redistribution is itself linked to the assignment of fiscal responsibility, the assignment issue question is not simply a question of how to divide a given amount of fiscal resources between levels of government. Subnational allocations are influenced by the magnitude and form of federal intergovernmental grant programs. However, over time federal resource allocations are complementary with state and local allocations. The more fiscal responsibility is shifted from the subnational to the central level, the greater the political cost of allocating additional federal resources to redistribution. The same principle of increasing marginal cost of funds applies to downward assignment or devolution.

The standard normative principles of fiscal federalism call for an upward assignment of the redistributive function (Oates, 1972; Boadway and Wildasin, 1984; Musgrave, 1997). Decentralized responsibility is likely to produce less redistribution than the level preferred by the median voter in each state. While there may be efficiency gains from delegating the management, administration, and service delivery to lower level governments, the higher the governmental level at which financial responsibility is lodged, the lower the deadweight loss per dollar of redistribution.

In contrast to the standard upward assignment argument, the argument in this paper is that not only *too little*, but also *too much* centralization can be suboptimal. While there is little argument that age-based redistribution — the provision of social and medical insurance to the elderly — should be primarily a federal function, in the case of means-tested programs, too much centralization can thwart the complementarity of support by subnational governments. The greater the dispersion in fiscal capacity, need, and preferences across subnational units in a federation, the greater the importance of a balance of federal and subnational fiscal responsibility.

The plan of the paper is as follows. The first section presents some basic data on the roles of the federal and state-local sectors in redistributional finance in the United States. The second section considers the efficiency of centralized and decentralized redistribution, with sample fiscal calculations. The third section considers the advantages and disadvantages of various intergovernmental strategies for the sharing of redistributional responsibility. The fourth section concludes.

Trends in the Financing of Redistribution in the United States

Propelled by the major economic break from the great depression and the long-term political realignments which resulted, there has been a long-term increase in redistributional spending at all levels of government. However, there has also been an increase in the federal share, as would be consistent with the normative prescription of upward assignment. With a broad definition of redistribution that includes both means-tested and age-based programs, Peterson (1995, Table 3-1) calculates that between 1962 and 1990, the federal share of redistributive expenditures went from 68

percent to 75 percent, with the subnational share dropping from a little less than a third to a fourth of the total. It is notable that the change in the relative fiscal roles of national and subnational governments was much smaller than the overall increase in redistributive expenditures, which went from 7 percent of GDP to 13.2 percent.

In 2007, federal spending on the major means-tested programs—Food Stamps, Medicaid and the State Children's Health Insurance Program, the Earned Income Tax Credit and the Child Tax Credit (refundable portion), Temporary Assistance to Needy Families, Child Care and Social Service Block Grants, Supplemental Security Income (SSI), Housing Assistance—was equal to $419 billion, or 15 percent of total federal outlays.[1]

At the state-local level, redistributive programs, including public assistance, low-income health insurance, health services (clinics, unreimbursed care in public hospitals), child welfare services, child care, and other social services, also comprised about 15 percent of total state and local expenditures in 2005 (U.S. Bureau of the Census, 2005). However, a substantial portion of this spending comes from federal grants. Netting out the federal share, which constitutes roughly 55 percent of state-local spending in this category, implies that about 10 percent of own-source revenue, or $190 billion in 2007, was allocated to redistributional programs. Hence, the state share of total redistributional spending was 30 percent in 2007. A similar estimate for 1995 is that about a 33 percent of total spending for redistribution was raised at the subnational level (Chernick, 1998).

Thus the estimates suggest that somewhere between 1 in 3 and 1 in 4 dollars spent on means tested programs in the United States are raised at the subnational level, and that this proportion has not changed dramatically for at least 65 years. Despite the conversion of welfare finance from open-ended matching to a fixed block grant, substantial expansion in the federal Earned Income Tax Credit, and the introduction of new programs such as the State Children's Health Insurance Program, the overall subnational share in redistributive spending remains important. Moreover, the national averages conceal considerable variation across states in redistribution. For example, in 1995 the variation in welfare spending net of federal aid as a fraction of personal income was about 30 percent of the mean.

EFFICIENCY AND DECENTRALIZED REDISTRIBUTION.

Variation in Need and Fiscal Capacity

The economic argument for centralized financing of redistribution rests on the mobility of skilled labor, capital, and the poor across jurisdictions, and the merit good nature of redistribution. Both fiscal capacity—the ability to finance redistributional expenditures—and need—the proportion of the population in need of assistance, multiplied by the average cost of providing a given service level—vary across jurisdictions. While the need measure may be thought of as the price of redistribution, the ratio of need to capacity provides a measure of the fiscal burden or effort which would be required to satisfy nationally determined standards.

If states with a relatively high fiscal price and/or low fiscal capacity choose to satisfy national standards for redistribution (i.e., preferences offset price and income effects), their fiscal burden will be relatively high. States with low prices and/or high capacities can satisfy national standards with a low fiscal burden. The resultant differences in fiscal burdens may lead to fiscally based mobility. If capital or skilled labor moves from states with a high burden of redistribution to states with a low burden, but the private marginal product is lower in destination than origin states, then productive efficiency in the economy is reduced. On the other hand, if preferences do not offset price and fiscal capacity differences, or actually reinforce them, then states with a high ratio of price to capacity will not meet national standards of redistribution. In this case the poor, or more generally those with low earnings capacity may move from low to high redistribution jurisdictions. This mobility will cause the price of redistribution to rise in states with a low price or a high preference for redistribution, and fall in states with low preferences. Both the mobility of productive factors and the poor are likely to reduce average spending on redistribution below the levels preferred by the median voter (Brown and Oates, 1987).

The potential burden of redistribution in state I can be represented by equation (1), the ratio of need to fiscal capacity:

$$(1) \quad \left[\frac{Need_i}{FC_i} \right]_i = \frac{POV_i * \bar{B}}{\bar{t} \, FB_i}.$$

In (1), POV represents the percentage of the population in need, B is the national average benefit
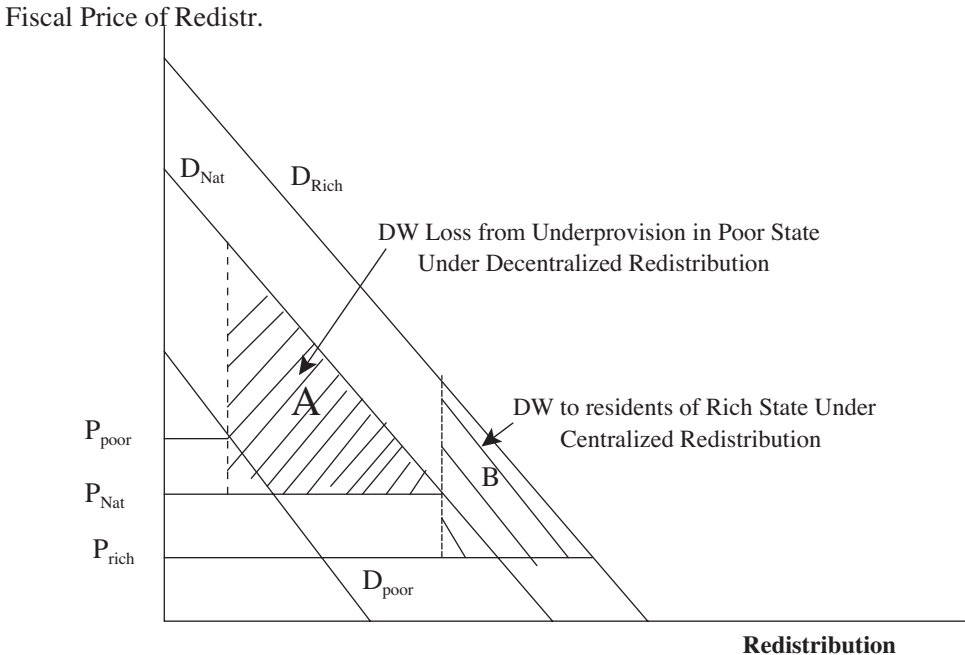
level, t is the national average state/local tax rate, and FB is the per capita tax base. The proposition underlying the principle of upward assignment of redistribution is that variation in equation (1) across states causes deadweight losses under decentralized provision of redistribution. Even if preferences are the same across states, the greater the variation, the greater the potential loss. In states with a high need to capacity ratio, the preferred level of redistribution will be below the national standard. By contrast, under decentralized assignment states with a low tax price for redistribution would choose a higher level of redistribution than the national standard.

This rationale for upward assignment is illustrated in Figure 1. The figure shows the demand for redistribution, defined as spending on means-tested programs, in a poor state (D_{poor}), a rich state (D_{rich}), and national demand under fully centralized provision of the redistributive good (D_{Nat}). The price of redistribution is represented by the percentage of poor in the state. The price elasticity of demand for redistribution is assumed to be negative, while the income elasticity of demand for redistribution is assumed to be positive. These assumptions are

supported by evidence from many studies of the determinants of spending on cash and in-kind assistance spending, both in the United States and in other countries (Chernick, 1998). Though in practice demographic characteristics such as the racial and ethnic composition of states are likely to influence the demand for redistribution, for simplicity preferences they are assumed to be the same in both states. Under decentralized provision of redistribution, the poor state faces a price P_{poor}, and chooses redistribution level R_{poor}. The rich state faces a lower price, P_{rich}, and chooses R_{rich}. The level chosen by the nation under centralized redistribution, with national price P_{Nat}, is R_{nat}, which lies somewhere between the rich and the poor states' demand levels.[2]

For allocative public expenditures, variation in expenditure is Pareto-enhancing, and centralization would lead to a loss in welfare (Oates, 1972). However, because of the national merit good nature of redistribution, the triangle A in Figure 1 represents the benefits to the rest of the nation from increasing the level of redistribution in the poor state from R_{poor} to R_{nat} (i.e., the positive externality which would be realized by the rest of

Figure 1: **Demand for Redistribution in a Federalist System**

Fiscal Price of Redistr.

DW Loss from Underprovision in Poor State Under Decentralized Redistribution

DW to residents of Rich State Under Centralized Redistribution

Redistribution

the country if local preferences are overridden and redistribution is expanded to the national level). Stated another way, A represents the deadweight loss from underprovision of redistribution in the poor/high tax price. The position and slope of the demand curve D_{poor} indicates that fiscal capacity is sufficiently low, and demand sufficiently inelastic, that even a very generous federal matching subsidy would be insufficient to induce the poor state to provide redistribution up to the national standard. This corresponds to observed behavior under the federal Aid to Families with Dependent Children (AFDC) program, under which federal matching rates as high as 80 percent were insufficient to induce the poorest states to provide adequate benefit levels (Chernick, 2000).

In rich/low tax price states, centralized provision of redistribution is less than the level which would be chosen under a decentralized regime. A number of researchers have stressed the interdependence of state choices in redistribution, as summarized by the notion of a race to the bottom in welfare benefit levels (Peterson, 1995; Brueckner, 2000). The race-to-the-bottom version of interdependence implies that the location of D_{Rich} is influenced by the location of D_{poor}. In the extreme version of this theory, under-decentralized financing of redistribution D_{rich} converges on D_{poor}, as rich states cut their benefits to avoid the political and economic costs of becoming a welfare magnet.

Based on the empirical evidence on the magnitude of the race-to-the-bottom effect, I assume that even under a completely decentralized regime, the race-to-the-bottom effect would not be strong enough to overcome the positive demand effects of greater fiscal capacity and lower tax prices.[3] Hence, in Figure 1 demand in the rich state exceeds demand in the poor states. If redistribution is set at the national level R_{nat}, the area B in Figure 1 represents the deadweight loss to residents of the rich state from national "underprovision."[4] The standard rationale for centralization of redistribution stresses the deadweight loss from area A. To reflect this, in Figure 1 the external losses to the rest of the country from underprovision in the poor state exceed the internal losses in the high-demand state that result from centralized "underprovision."

As shown in Figure 1, the relative size of the two sources of deadweight loss depends on the positions of the poor and rich state demand curves, relative to the national standard. Starting from fully decentralized financing of redistribution, centralization will reduce total deadweight loss, because the gains from bringing up the poor state outweigh the losses from reducing redistribution in the rich state. If states are converging in fiscal capacity and the tax price of redistribution, the size of both A and B diminishes (i.e., both the external benefits and the internal costs from centralization will be decreasing). If states are diverging in fiscal capacity, then both A and B are increasing in magnitude. If relative fiscal capacity is deteriorating in poorer states, gains from centralization will be increasing. If relative fiscal capacity is expanding in already rich states, then centralization will increase the losses under area B.

Figure 1 illustrates the welfare trade-offs inherent in the financing of redistribution in a federalist system. The position of the national demand curve D_{nat} reflects a political compromise between low- and high-demand states. High demand states prefer to shift D_{nat} to the right (i.e., closer to own-state demand). The more successful they are, the smaller the losses from area B. However, such a shift to the right implies declining marginal benefits in the poor state, hence an increase in the cost-to-benefit ratio for legislators from low-demand states. Between R_{poor} and R_{Poor}^{max}, the social marginal benefit from raising the national standard is equal to the state benefit, plus the external benefit. Beyond the point R_{Poor}^{max}, the marginal benefit to the poor state becomes negative, offsetting the externality benefit to the rest of the nation, and increasing the resistance of legislators from low-demand states to the expansion of national support for redistribution. In what follows, I assess various financing mechanisms in terms of their ability to minimize the deadweight losses in Figure 1.

Sample Calculations of Relative Fiscal Capacity and Need

To convert the need to capacity ratio in (1) into a relative measure, define

$$(2) \quad \left[\frac{Need_i}{FC_i}\right]_{REL} = \frac{RELPOV}{RELCAP} = \frac{\left[\dfrac{POV_i}{\overline{POV}}\right]}{\left[\dfrac{FC_i}{\overline{FC}}\right]}.$$

The numerator of equation (2) is measured as the ratio of the poverty rate in state *I* to the national average poverty rate, while the denominator is a state's fiscal capacity relative to the national average. A standard measure of fiscal capacity is the representative tax system, which makes tax capac-

ity a weighted average of each state's various tax bases, where the weights are the nationwide average tax rates on each tax base (Yilmaz et al., 2006). Here I calculate an alternative measure based on the average rate of taxation at different points in each state's family income distribution. Thus this measure is based solely on income, but takes into account not only the level but also the distribution of personal income.[5]

Fiscal capacity in state I is calculated as

$$(3) \quad FC_i = \sum \overline{t_1} INC_i^1 + \overline{t_3} INC_i^3 + \overline{t_5} INC_i^5,$$

where $t_{1,3,5}$ are the average tax burdens on the rate on the first, third, and fifth quintiles of the family income distribution in each state, and $INC^{1,3,5}$ are average income levels for a family of four in those quintiles. *FC bar* is calculated using the national average values for the various income levels. Using data from Citizens for Tax Justice (1991, 1996), I calculate that the variance in fiscal capacity increased between 1985 and 1995, with the standard deviation going from 12.6 to 19.6. The ratio of fiscal capacity in the top five states to the bottom five states went from 1.52 to 1.87. These results parallel the increasing dispersion of state personal income in the United States. Over the past 25 years, the coefficient of variation in per capita income by state has increased from 14 to 19 (U.S. Department of Commerce, various years).

In contrast to the divergence in fiscal capacity among U.S. states, variation in poverty ratios changed very little in this period. In 1995, poverty rates were almost five times as high in the highest poverty state as the lowest poverty state. Higher costs of living in richer states imply that the variation in need is less than the variation in poverty rates. However, even if it were possible to accurately adjust for cost-of-living differentials, differences in the proportion of the population in need remain substantial.

While the correlation between poverty rates and fiscal capacity is negative, the correlation became somewhat weaker between 1985 and 1995, going from -.67 to -.47. However, the increase in the dispersion of fiscal capacity meant that the dispersion in the relative need-to-capacity ratio, as defined in equation (2), increased from .41 to .47. In 1995 the need-to-capacity ratio in the five highest price states was over four times as high as the five lowest price states. Even taking into account regional

differences in the cost of living, these calculations very substantial and increasing differences in need and fiscal capacity in U.S. states. Referring back to Figure 1, the above estimates suggest that the horizontal distance between D_{rich} and D_{Poor} has increased over the past 2 1/2 decades, thus increasing the potential magnitude of the deadweight losses from both areas A and B. In 1995, demand in the five states with the highest fiscal capacity relative to need ranged from 62 to 85 percent greater than in the low fiscal capacity high need states.[6] Thus both the benefits and losses from centralization have increased. In the next section we examine various fiscal strategies for reducing A while limiting the increase in B.

EMPIRICAL ESTIMATES OF THE MARGINAL ECONOMIC COST OF SUBNATIONAL REDISTRIBUTION

The economic conditions for the optimal assignment of redistribution require that the marginal economic and political costs of an additional dollar of redistributive spending be equated at each level of government. If the marginal deadweight loss is greater at the state than the national level, then financing should be upward assigned. However, if the marginal political cost of redistribution is increasing, then sharing of fiscal responsibility can help to increase the overall level of support for redistribution.

The extent of inefficiency that results from sub-national assignment of redistribution depends on both the mobility of the poor in response to interstate differences in welfare generosity, and the potential effect on the fiscal base. In terms of equation (1), the issue is what is the elasticity of the need-to-capacity ratio with respect to BEN_i, the level of benefits provided. If that elasticity is close to zero, states can choose their redistributional outlays without regard to the behavior of other states. The positions of the rich and poor state demand curves in Figure 1 represent this assumption.

If the elasticity is positive, or perceived to be positive, then the position of the high-demand states converges to the low-demand states. The fiscal federalist literature stresses the assumption that the subnational elasticity is substantially greater than the national elasticity, because subnational economies are more open than national economies. If any particular state attempts to expand

the amount of redistribution it provides, the state's economy will suffer, and its public assistance costs will rise. Hence, in equilibrium all states have an incentive to underprovide redistribution.

While there has been a substantial amount of research on welfare magnets, the most recent estimates find positive but relatively small changes in mobility in response to benefit differentials (Brown and Oates, 1987; Blank, 1988; Gelbach, 2004). The effect of redistribution on the fiscal base can be expressed in terms of the elasticity of state output with respect to the amount of redistribution. That elasticity can be written in multiplicative form as

(4) $\quad \varepsilon_{q,d}{}^{s} = 1/(1 - 1/\gamma)^{*} \, \varepsilon c,_{FR(H)},$

where $\varepsilon c,_{FR(H)}$ is the elasticity of the cost of production with respect to redistribution, and the parameter γ is the elasticity of output with respect to cost. Redistribution is summarized by the term *FR(H),* which represents the fiscal residual enjoyed by high-skilled residents of a state. The cost increase from greater redistribution depends on the extent to which there are compensating adjustments in the gross wages of high-skilled workers, the effect of such adjustments on production costs, and the extent to which any such cost changes cause a decline in output in the state. The more elastic the demand for the product of a state (the greater is γ), the greater the effect of a change in cost on output. At the extreme, if the elasticity of product demand is infinite, a given redistribution related increase in cost translates into a one for one percentage reduction in output. As the elasticity approaches zero, the first term goes to zero, and the cost increase has no effect on output.

Wallace (1993) and Feldstein-Wrobel (1998) found that changes in the pretax state income distribution offset changes in the incidence of the state income tax, implying a positive elasticity of wage costs with respect to tax incidence. However, subsequent research finds no compensating adjustment in wages (Leigh, 2008) or family income (Chernick, 2005). Mobility studies find significant but economically small migration effects of tax structure (Pema, 2005) While some studies have found a negative effect of income taxation on employment in the 1970s, the effects are no longer significant in the 1980s (Wasylenko and Carroll, 1989). Chernick and Sturm (2007) examine the effect of state tax progressivity on economic growth, and find no effect.

Controlling for total spending, Helms (1985) finds a negative elasticity of state per capita income with respect to welfare spending. In a recursive model of state income growth over a 25- year period, Chernick and Sturm (2007) find a negative effect of welfare spending on aggregate state income, but no effect on (growth in) per capita income, and a positive effect on median income, suggesting that redistribution may have a greater effect on the migration patterns of the low-skilled and the elderly than on skilled workers. Haughwout and Inman (2002), and Mark et al. (2000) both find negative economic effects of redistribution at the metropolitan level. These results suggest that, while cities are highly constrained in the amount of redistributional spending, at the state level there is considerable latitude in how much to spend on redistribution.

INTERGOVERNMENTAL GRANTS AND THE OPTIMAL SHARING OF REDISTRIBUTIONAL RESPONSIBILITY

By sharing the fiscal costs, categorical assistance for redistribution may help to lower the marginal political cost at both the federal and state level, thus permitting socially optimal amounts of redistribution in both low and high fiscal capacity states.[7] Grants may be matching or non-matching, and closed or open-ended. Theoretically, open-ended matching is the preferred instrument for addressing benefit spillovers from low redistribution states, and cost spillovers from high redistribution states. However, there are a number of problems with open-ended matching that limit its applicability.

If preferences for redistribution and/or fiscal capacity vary widely across states, then an open-ended matching grant may distribute federal funds in a disequalizing manner (Stark, 2007). The greater the variance in fiscal capacity, the greater the potential disequalizing effects. While disequalization can be offset by allowing the matching rate to vary inversely with fiscal capacity, if preferences for redistribution and/or fiscal capacity are very weak in particular states, then even a highly favorable matching ratio will be insufficient to induce redistributive spending that meets national standards. In terms of Figure 1, the deadweight loss from area A (underprovision in low demand states) remains large, while losses from area B are minimized.

Open-ended matching also implies a fiscal risk for the central government, since the national finan-

cial obligation is determined by the states.[8] Federal budget obligations can be limited by making the grant narrowly categorical, so that states are unable to bring related expenditures under the matching umbrella. However, this approach may conflict with the goal of subnational policy flexibility. For example, the Personal Responsibility and Work Opportunities Act of 1996 gives the states wide latitude in how they use federal monies to support low-income households. An open-ended financial commitment would undoubtedly have led to a sharp increase in federal obligations. Hence, the greater policy flexibility had to be combined with a cap on federal funds.

Under an open-ended matching structure, states have a strong incentive to adjust the mix of services to maximize the federal share. In Medicaid, for example, states shifted mental health expenditures from state-funded mental hospitals to Medicaid-funded community-based programs (Powers and Powers, 2007). Subnational governments may also try to alter effective matching rates (Chernick, 1979). Under a variety of schemes, states have been able to increase the federal matching rate, shifting a substantial share of incremental costs to the federal government[9] (Baicker, 2001). However, substantial shifting of costs can only be accomplished with the collusion/cooperation of the federal legislature (Coughlin and Zuckerman, 2002). This type of fiscal behavior raises the marginal cost of redistribution at the federal level, leading to a movement along the federal demand curve in Figure 1.

The undesirable fiscal and programmatic incentives created by open-ended matching frequently lead to a federal grant structure for redistribution that is closed-ended.[10] The federal government provides a fixed amount for a specific function, sometimes subject to a state matching requirement. The amount of redistribution depends on the size of the federal allocation, and the extent to which states use the federal funds for their stated purpose. If the block grant releases more state funds for general budgetary relief than an equal amount of matching dollars, the subnational fiscal role in redistribution will diminish, even as the policy responsibility increases. The area A in Figure 1 is again substantial.

At the federal level, the marginal political cost of aid may not be independent of the state response function. If federal appropriations are influenced by the inducement effect of federal aid, then higher state spending may serve to "crowd-in" additional federal resources. If states treat categorical aid primarily as general fiscal relief, this raises the "price" of federal redistribution, and federal support for the aided category is likely to diminish. For welfare spending, Craig and Inman (1986) estimate that a dollar of earmarked assistance displaces at least 70 cents of state spending. The implication is that under the block grant poorer or higher need states could fall considerably below the national standard in addressing redistributional needs.[11]

CONCLUSION

The classic fiscal federalism argument is that redistribution should be assigned to the central level of government. This argument is based on the economic costs of subnational redistribution, and the incentive for states to race to the bottom (i.e., underprovide redistributional benefits to avoid becoming a welfare magnet). Despite this dictum, and the major expansion of redistributional programs at the federal level, roughly a third of total spending on redistribution in the United States (excluding age-based Social Security and Medicare) is financed by state and local governments. Over time, federal and subnational spending on redistribution appear to be complementary, rather than substituting.

Taking into account the political and economic costs of redistribution at both the federal and subnational levels, I argue that, while the central government should play the primary role, optimal redistribution in a federal system requires sharing of fiscal responsibility between central and subnational governments. While too much decentralization leads to suboptimal redistribution in low capacity or weak preference states, too much centralization can lead to welfare losses in high capacity or strong preference states. The appropriate degree of sharing depends on the variation in fiscal capacity and need across jurisdictions, and on the social marginal cost of subnational redistribution, relative to the social marginal cost of national redistribution. My assessment of the evidence is that at the state level the social cost is relatively small, with little evidence that higher redistribution hurts a state's economy. The wide and even increasing variation in fiscal capacity across U.S. states over the past 25 years has increased the importance of the central government in raising redistributional levels in states with low fiscal capacities, but at

the same time it has increased the importance of supplemental subnational redistribution in the high fiscal capacity states. Both matching grants and block grants may be deficient as national fiscal strategies for eliminating the societal deadweight losses from both decentralized underprovision and centralized underprovision of redistribution.

Notes

[1] Federal spending data was provided by Richard Kogan, Center on Budget and Policy Priorities.

[2] The traditional model of fiscal federalism stresses that differences in demand that stem from differences in preferences should be honored. Hence centralization would lead to a deadweight loss in both states, equal to the sum of A plus B.

[3] The assumption of higher demand in rich states is supported by the evidence on the income elasticity of own spending on redistribution. However, the proposition remains hypothetical, in that we do not observe a completely decentralized regime of redistributional finance. The mean estimate of copycatting behavior in welfare benefits is that a one dollar change in own-state benefits leads to a 30 cent change in the same direction in geographically adjoining states. Thus if there are n states between any one state and any other, then the strength of the transmission effect is on the order of 0.3^n (Peterson, 1995). For the very low redistribution states of Mississippi and Alabama and the high redistribution states in the Northeast, n is roughly equal to 5. Hence the magnitude of the race-to-the-bottom effect of a reduction in benefits in the lowest states is $0.3,^5$ very close to zero.

[4] In addition to differences in fiscal capacity and fiscal prices, local demand for redistribution may exceed national demand because of the social and geographical proximity of donors and recipients (Pauly, 1973).

[5] The measure is likely to underweight states with substantial amounts of mineral wealth.

[6] To provide an estimate of the horizontal distance between R_{Poor} and R_{Rich}, I regressed the log of welfare expenditures on the need to capacity ratio, with need measured by the poverty rate, and fiscal capacity measured as in equation (3). For 1995 this exercise yields an estimated welfare expenditure that is 62 percent higher in the five states with the lowest need to capacity ratio, as compared to the five states with the highest ratio. If we regress welfare expenditures on poverty rates (a need measure) and fiscal capacity, we get an elasticity of welfare expenditures w.r.t. fiscal capacity which is not significantly different from one. This would imply about an 85 percent higher level of demand in the rich than in the poor states in 1995.

[7] For those whose ideology calls for minimizing redistribution, this is not a desireable arrangement.

[8] There are a number of cases of matching programs where total spending escalated so fast that the federal government put an overall cap on its spending, thus converting the program to a block grant. One such example is the social services block grant (Derthick, 1975).

[9] Coughlin and Zuckerman (2002) found that states, by exploiting provider taxes and intergovernmental transfers, have been able to raise the federal matching rate from 56 percent to 59 percent.

[10] Marton and Wildasin (2007) describe the pressure that is building to impose a cap on federal medicaid spending, via a block grant.

[11] This reasoning was behind much of the concern about replacing an open-ended matching grant with a fixed-block grant for welfare, particularly if states faced an economic downturn. However, Merriman and McGuire (2006) found that states did not reduce their spending on welfare spending in the aftermath of the conversion to block grants, even under the fiscal pressure of a national economic slowdown. This fiscal behavior may reflect the lingering impact of state maintenance of effort requirements under welfare reform, as well as the fact that the sharp drop in the number of welfare recipients means that the overall magnitude of state fiscal obligations under welfare has contracted substantially.

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