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Deposited 05/24/2021

Citation of published version:
Berry, W., Fording, R., Hanson, R. (2003): Reassessing the "Race to the Bottom" in State Welfare Policy. *The Journal of Politics,* 65(2).
DOI: https://doi.org/10.1111/1468-2508.t01-2-00003

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Reassessing the "Race to the Bottom" in State Welfare Policy

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On the assumption that poor people migrate to obtain better welfare benefits, the *magnet hypothesis* predicts that a state's poverty rate increases when its welfare benefit rises faster than benefits in surrounding states. The *benefit competition hypothesis* proposes that states lower welfare benefits to avoid attracting the poor from neighboring states. Previous investigations, which yield support for these propositions, suffer from weaknesses in model specification and methodology. We correct these deficiencies in a simultaneous equation model including a state's *poverty rate* and its *benefit level for AFDC* (Aid to Families with Dependent Children) as endogenous variables. We estimate the model using pooled annual data for the American states from 1960 to 1990 and find that a state's poverty rate does not jump significantly when its welfare payments outpace benefits in neighboring states. Furthermore, there is no evidence of vigorous benefit competition among states: states respond to decreases in neighboring states' welfare benefits with only small adjustments in their own.

Perhaps the most controversial debate in the recent literature on welfare policy concerns the validity of the "race to the bottom" thesis. This thesis entails propositions about the behavior of both the poor and state policy makers. Patterned after economic theories about location decisions (e.g., Tiebout 1956), the thesis suggests that welfare benefit levels play a significant role in the residential choices of the poor. Specifically, the *migration hypothesis* predicts that poor persons will migrate from states with low welfare benefits to those with more generous assis-

An earlier version of this paper was presented at the 1997 Annual Meeting of the American Political Science Association. We are grateful to Bill Claggett, Phil Shively, and Jerry Wright for their helpful comments. The data and documentation necessary to replicate our results are available from the ICPSR's Publication-Related Archive. An unpublished supplement is bundled with the replication data set and is also available at http://www.fsu.edu/~polisci/berry/berry.html. The research was funded partially by the National Science Foundation (SBR-9320849/Berry).

THE JOURNAL OF POLITICS, Vol. 65, No. 2, May 2003, Pp. 327–349
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tance (Allard and Danziger 2000; Gramlich and Laren 1984; Hanson and Hartman 1997; Schram, Nitz, and Krueger 1998). Relying on this individual-level hypothesis, Peterson and Rom (1989, 1990) advance a parallel state-level proposition. Their *magnet hypothesis* is that, ceteris paribus, when a state's welfare benefits grow relative to those in neighboring states, its poverty rate (i.e., the percentage of its population that is poor) should increase as the state becomes a "magnet" that attracts poor persons from other states.

The other element of the race to the bottom thesis, the *benefit competition hypothesis*, predicts that states compete with surrounding states to offer the least generous welfare assistance so as to discourage poor people from moving to their state. In effect, benefit competition occurs because state policy makers believe the magnet hypothesis is correct. They also recognize that the poor are costly to maintain and think that the presence of a large poor population in a state hinders efforts to attract firms and investors (Figlio, Kolpin, and Reid 1999; Rom, Peterson, and Scheve 1998; Saavedra 2000).

The various elements of the race to the bottom thesis enjoy different degrees of support from previous research. Several studies find strong evidence of benefit competition (Peterson and Rom 1989, 1990; Rom, Peterson and Scheve 1998; Tweedie 1994), with some concluding that states match reductions in neighboring states' benefits dollar for dollar (Figlio, Kolpin, and Reid 1999; Saavedra 2000). The magnet hypothesis has been subject to less empirical testing, but in widely cited work, Peterson and Rom (1989, 1990) claim support for it based on their finding that a state's poverty population increases when its benefit level is high. Their conclusion, however, is at odds with tests of the migration hypothesis conducted at the individual level. The majority of this work—including the most recent studies relying on the best data (Allard and Danziger 2000; Hanson and Hartman 1997; Schram, Nitz, and Krueger 1998)—concludes that interstate benefit differentials have *not* caused poor people to migrate in substantial numbers (see also Levine and Zimmerman 1999; Walker 1994).[1]

If poor people do not move in large numbers from states with low welfare benefits to states with more generous public assistance, why do Peterson and Rom find that when a state's benefit level is high, its poverty population increases?[2] We maintain that Peterson and Rom's model is plagued by important specification problems, which we detail below. Once these problems are corrected, support for the magnet hypothesis diminishes dramatically. In fact, we find that the ratio of a state's AFDC benefit to benefits in nearby states has only a slight impact on

[1] Individual-level studies finding a stronger migration effect include those by Gramlich and Laren (1984), Blank (1988), and Clark (1992). For methodological criticisms of these studies, see Hanson and Hartman (1997).

[2] Students of the ecological inference problem have taught us that state-level relationships do not necessarily mirror relationships at the individual level (Achen and Shively 1995). Recognizing that it is possible for state- and individual-level results to diverge is not the same as understanding *why* they actually diverge in a particular instance.

its poverty rate, a result consistent with the individual-level evidence that the poor do not migrate in large numbers for more generous welfare assistance.

Our model reflects numerous improvements over the extant state-level research on the race to the bottom. We adopt the best features of past designs. Like Rom, Peterson, and Scheve (1998) and Figlio, Kolpin, and Reid (1999), we use *annual* observations.[3] Consistent with recent studies, we focus on *neighboring* states when measuring benefit differentials.[4] We also return to the simultaneous equation strategy of Peterson and Rom (1989, 1990). Recent tests of the benefit competition hypothesis rely on single-equation models of AFDC benefit levels that either exclude poverty altogether (Figlio, Kolpin, and Reid 1999; Saavedra 2000; Tweedie 1994), or include the poverty rate as an independent variable but ignore its possible simultaneity with benefit levels (Rom, Peterson, and Scheve 1998). Our model recognizes the potential for simultaneity by specifying reciprocal causation between poverty rates and AFDC benefit levels (based on hypotheses presented below).

We also add several important refinements of our own. First, compared to past research, we examine a much longer time period: 1961 to 1990.[5] This adds considerable variation in both benefit levels and poverty rates. Even more significantly, we include years prior to a 1969 Supreme Court ruling (*Shapiro v. Thompson*) that abolished residency requirements for AFDC. If the race to the bottom thesis is correct, the response of poor persons and legislators to neighboring states' benefits depends on the presence or absence of other barriers to migration. Both benefit competition and the magnetic effect of welfare benefits should be stronger when no residency requirement is present to discourage interstate migration by the poor. Thus, the addition of years before 1969 yields increased leverage for testing the logic underlying the race to the bottom thesis.

Most important, our model reflects improvements in specification of both the magnet and benefit competition hypotheses. While it is plausible that the poor move to obtain higher welfare benefits, it is at least equally plausible that they move for better job prospects and higher wages (Schram, Nitz, and Krueger 1998). If a state's welfare benefits are positively correlated with its economic prosperity (a frequent assertion in the literature on state welfare policy making), Peterson and Rom's (1989, 1990) failure to control for interstate differentials in economic opportunity probably led them to overestimate the magnetic impact of benefit differentials. Our model specifies the impact of economic opportunity differentials on state poverty rates.

[3] Tweedie (1994) observes two-year intervals, while Peterson and Rom (1989, 1990) and Saavedra (2000) analyze five-year periods.

[4] Peterson and Rom's (1989, 1990) indirect test of the race to the bottom thesis does not explicitly consider a state's benefit level relative to those in neighboring states. But if the thesis holds true, it seems clear that differentials between neighboring states should have the strongest impact since moving costs rise as distance increases.

[5] Figlio, Kolpin, and Reid examine 1983–1994; Peterson and Rom study 1970–1985; Tweedie analyzes 1971–1987; Rom, Peterson, and Scheve examine 1976–1994; and Saavedra studies 1985–1995.

Moffitt, Ribar, and Wilhelm (1998) claim that states lower welfare benefits during periods of declining real wages for low-skill jobs to discourage the working poor from quitting their jobs and applying for welfare and promote equity between the working poor and welfare recipients. If true, the failure of previous tests of the benefit competition hypothesis to control for low-skill wage levels could bias estimates of the effect of interstate welfare benefit differentials on states' AFDC benefit levels. Thus, our model specifies the hypothesized effect of a state's low-skill wages on its welfare benefits.

The Welfare-Poverty Model

To test the race to the bottom thesis, we develop a simultaneous equation model that captures the presumed logic of poor peoples' migration decisions, and the strategic reaction of state policy makers to those decisions. The model consists of the following two equations:

$$\begin{aligned}\textbf{\textit{Poverty Rate}}_{i,t} &= \pi_0 + \pi_1 \textbf{\textit{Poverty Rate}}_{i,t-1} + \pi_2 \textbf{\textit{AFDC Benefit}}_{i,t} \\ &+ \pi_3 \textbf{\textit{Benefit Relative to Nbrs}}_{i,t-1} + \pi_4 \textbf{\textit{No Resid Req}}_{i,t} \\ &+ \pi_5 (\textbf{\textit{Benefit Relative to Nbrs}}_{i,t-1})(\textbf{\textit{No Resid Req}}_{i,t}) \\ &+ \pi_6 \textbf{\textit{Unemployment}}_{i,t} + \pi_7 \textbf{\textit{Unemp Relative to Nbrs}}_{i,t} \\ &+ \pi_8 \textbf{\textit{Retail Wage}}_{i,t} + \pi_9 \textbf{\textit{Wage Relative to Nbrs}}_{i,t} \\ &+ \pi_{10} \textbf{\textit{Retail Jobs}}_{i,t} + \pi_{11} (\textbf{\textit{Retail Wage}}_{i,t})(\textbf{\textit{Retail Jobs}}_{i,t}) \\ &+ \pi_{12} \textbf{\textit{Manuf Jobs}}_{i,t} + \pi_{13} \textbf{\textit{Female-Headed Families}}_{i,t} \\ &+ \pi_{14} \textbf{\textit{Income}}_{i,t} + \varepsilon^{P}_{i,t} \end{aligned} \quad [1]$$

$$\begin{aligned}\textbf{\textit{AFDC Benefit}}_{i,t} &= \beta_0 + \beta_1 \textbf{\textit{AFDC Benefit}}_{i,t-1} + \beta_2 \textbf{\textit{Poverty Rate}}_{i,t} \\ &+ \beta_3 \textbf{\textit{Benefit Relative to Nbrs}}_{i,t-1} + \beta_4 \textbf{\textit{No Resid Req}}_{i,t} \\ &+ \beta_5 (\textbf{\textit{Benefit Relative to Nbrs}}_{i,t-1})(\textbf{\textit{No Resid Req}}_{i,t}) \\ &+ \beta_6 \textbf{\textit{Retail Wage}}_{i,t} + \beta_7 \textbf{\textit{Citizen Ideology}}_{i,t} \\ &+ \beta_8 \textbf{\textit{Government Ideology}}_{i,t} + \beta_9 \textbf{\textit{IPC}}_{i,t} + \beta_{10} \textbf{\textit{Tax Capacity}}_{i,t} \\ &+ \beta_{11} \textbf{\textit{Tax Effort}}_{i,t} + \beta_{12} \textbf{\textit{Federal Share}}_{i,t} + \varepsilon^{B}_{i,t} \end{aligned} \quad [2]$$

The subscripts *i* and *t* denote the state and year of observation, respectively. The left-side variables are ***AFDC Benefit***, the maximum monthly AFDC payment (in real dollars) for a family of four (with no income), and ***Poverty Rate***, the percentage of the population below the official poverty line.[6] ***AFDC Benefit*** and ***Poverty Rate*** are endogenous; all other variables—including the lagged values of

[6] Our AFDC payment data differ from those used by Rom, Peterson, and Scheve (1998); the unpublished supplement (Section VII) discusses the discrepancies.

AFDC Benefit and ***Poverty Rate***—are exogenous.[7] The model's remaining variables are as follows:

Benefit Relative to Nbrs = ratio of a state's maximum monthly AFDC payment (in real dollars, for a family of four with no income) to the *average* payment in neighboring states (weighted by population).

No Resid Req = 0 if a state has a residency requirement (i.e., someone must live in the state for some period of time—nearly always one year—before she is eligible for AFDC assistance in the state), and equals 1 if the state does not have a residency requirement (i.e., someone is eligible for assistance immediately upon moving to the state).

IPC = interparty competition (a folded Ranney index ranging from .50 to 1.00).[8]

Citizen Ideology = state citizen ideology, and ***Government Ideology*** is the ideological orientation of the institutions of state government [both on a scale ranging from zero (conservative) to one (liberal), as measured by Berry et al. (1998)].

Tax Capacity = state tax capacity, and ***Tax Effort*** = tax effort [as measured by the Advisory Commission on Intergovernmental Relations, and estimated by Berry and Fording (1997) in years for which ACIR does not provide data].

Federal Share = federal share of the costs of assisting AFDC recipients for the component that is subject to a variable matching rate across states.[9]

Unemployment = average monthly unemployment rate.

Unemp Relative to Nbrs = ratio of the unemployment rate in a state to the *average* rate in neighboring states (weighted by population).

Retail Wage = average monthly wage in the retail sector (in real dollars).

Wage Relative to Nbrs = ratio of the average wage in a state's retail sector to the *average* retail wage in neighboring states (weighted by population).

Manuf Jobs = number of people employed in the manufacturing sector (per 100 population).

[7] If the disturbance terms (ε^B and ε^P) were autocorrelated, lagged values of ***AFDC Benefit***$_{i,t}$ and ***Poverty Rate***$_{i,t}$ would be correlated with the disturbance terms and, thus, ***AFDC Benefit***$_{i,t-1}$ and ***Poverty Rate***$_{i,t-1}$ would be endogenous. In our unpublished supplement (Section I), we report empirical evidence that there is not strong autocorrelation in either equation, thereby justifying our assumption to treat lagged variables as exogenous.

[8] We are grateful to Laura Langer for providing the competition data.

[9] For states choosing the "old" formula, this is the matching rate applicable for per recipient monthly benefits exceeding $18 and below $32. For states choosing the Federal Medical Assistance formula after 1965, this is the matching rate applicable to all AFDC benefits.

Retail Jobs = number of people employed in the retail sector (per 100 population).
Female-Headed Families = number of female-headed families with children under 18 (per 100 population).
Income = state per capita income (in real dollars).

The Poverty Equation

Two groups comprise the poverty population living in a state in a particular year. The first, and by far the largest, includes natives or long-time residents; the second consists of recent migrants to the state. Although our interest in the race to the bottom thesis focuses attention on the latter group, we begin by considering briefly the factors that determine the size of a state's native poor population. Single-parent families (most often headed by females) are those at the greatest risk of living in poverty. Thus, our model assumes that the number of female-headed families with children (as a percentage of population) [***Female-Headed Families***] has a positive effect on the poverty rate.

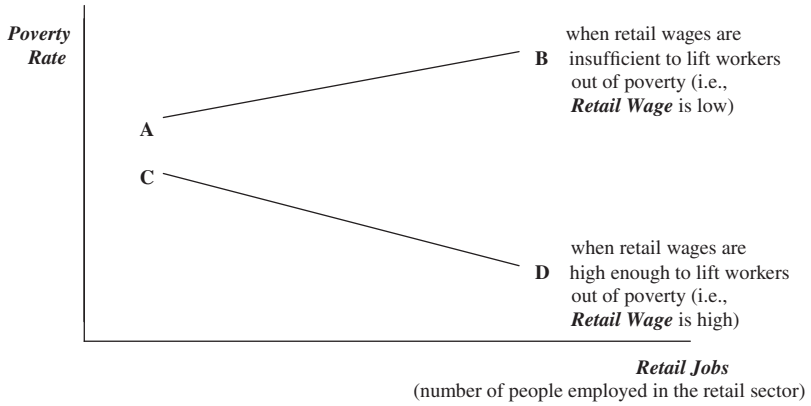
The strength of a state's economy, prevailing wage levels, and employment prospects affect how much of the state's at-risk population will become poor. First, lower per capita income (***Income***) and greater unemployment (***Unemployment***) should yield a higher poverty rate. However, the effect of employment prospects on the size of the poor population depends on the types of jobs available. We consider the manufacturing and retail sectors separately. Manufacturing jobs generally pay wages high enough to lift workers with all but the largest families above the poverty line. Thus, we hypothesize that a greater availability of manufacturing jobs (***Manuf Jobs***) reduces poverty.

Pay scales in the retail sector are much lower, and the effect of employment opportunities in this sector should vary depending on the wage level for retail jobs. Our hypothesis is depicted in Figure 1. When the average retail wage (***Retail Wage***) is high enough to lift workers out of poverty, an increase in the number of people employed in the retail sector (***Retail Jobs***) should result in a decrease in the poor population. But when retail wages are insufficient to lift workers out of poverty, an increase in the number of retail jobs means that more workers are receiving a poverty-level wage and, therefore, the poverty rate should increase. Thus, we hypothesize that the effect of the number of retail jobs on the poverty rate should be strongly negative when wage levels are high, decrease in strength as wages decline, and eventually become positive when wages decline sufficiently. Furthermore, at any fixed level of retail sector employment, an increase in average retail-sector wages should reduce the poverty rate. These hypotheses justify the inclusion of ***Retail Wage***, ***Retail Jobs***, and their product in equation 1.

The level of welfare benefits in a state should also affect the size of the poor population. AFDC was clearly intended as an antipoverty measure, and to

FIGURE 1

Hypothesized Effects of the Availability of RetailSector Jobs and Wages for These Jobs on the Poverty Rate



Predictions:

(1) AB has a positive slope
(2) CD has a negative slope
(3) At any fixed value of ***Retail Jobs***, AB is higher than CD

the extent that the program was successful, the number of people living in poverty ought to decline as the benefit level increases. However, the availability of cash assistance may create work disincentives, according to critics of welfare (e.g., Mead 1986; Murray 1984). If this happens, many working poor will cease working and join the ranks of the nonworking poor, trading their earned income for the "leisure" and benefits of welfare. Depending on the relative strengths of these work disincentive and antipoverty effects, the overall impact of the AFDC benefit level on the poverty rate may be positive or negative (Moffitt 1992).

We now turn to factors influencing the migration of the poor. Some poor persons may move to another state in hopes of finding better economic opportunities. If wages in a state are low compared to those in other states (after adjusting for differences in the cost of living), people may move to seek employment elsewhere. Similarly, high rates of unemployment in a state may cause people to leave in order to take advantage of more plentiful job opportunities. But if wages are relatively good and unemployment is relatively low, the resident poor probably will stay put.

In fact, if wages are relatively good and unemployment is relatively low in a state, poor people from elsewhere may move to the state, adding to the ranks of the poor until such time as they find gainful employment. These recent immigrants comprise the second group of poor people residing in a state in any year. The size of this group will depend on the state's average retail wage level relative to the average wage in neighboring states (***Wage Relative to Nbrs***) and its unemployment rate relative to the average rate among its neighbors (***Unemp Relative to Nbrs***). By including as determinants of the poverty rate variables reflecting both employment and wage opportunities internal to a state (***Retail Wage*** and ***Unemployment***) and the extent of these opportunities relative to those in surrounding states (***Wage Relative to Nbrs*** and ***Unemp Relative to Nbrs***), we are able to isolate the magnetic effect of private economic opportunity. For example, the coefficient for ***Wage Relative to Nbrs*** in equation 1 (expected to have a positive coefficient) measures the change in the size of a state's poor population resulting from an increase in the state's wage level relative to those in other states, when the wage level in the state is held constant. In effect, estimating this coefficient is a statistical analogue to conducting an experiment in which we hold constant a state's own wage levels (and all other conditions in the state), adjust wages in neighboring states, and then monitor the changes in the number of poor people in the state.

Welfare benefits may also figure in migration decisions. When the AFDC benefit in a state is high relative to benefits in other states (adjusting for differences in the cost of living), the resident poor may be reluctant to move, even when better economic opportunities exist elsewhere. Similarly, poor people from other states may be attracted to states with relatively generous benefits. Hence, the magnet proposition anticipates a positive relationship between the poverty rate and AFDC benefits in a state relative to those in its surrounding states (***Benefit Relative to Nbrs***). Since a state's own benefit level is also included in the poverty equation, the coefficient for ***Benefit Relative to Nbrs*** can be interpreted as the expected change in a state's poverty rate resulting from an increase in the state's AFDC benefit level relative to the level available in surrounding states, when the state's own benefit level is held constant. This coefficient reflects the magnetic effect of welfare benefits.

Of course, the hypothesized magnetic attraction of higher benefits assumes there are no barriers to migrants' participation in AFDC. Yet, most states had residency requirements—nearly always one year in length—before they were declared unconstitutional by the U.S. Supreme Court in *Shapiro v. Thompson* (1969). Thus, we hypothesize that the effect of the ratio of a state's benefit level relative to the average benefit of its neighbors on the size of its poor population depends on whether the state has a residency requirement in effect at the time. When there is *no* residency requirement (so that immigrants are immediately eligible for AFDC benefits), the impact of a state's benefit level relative to that of its neighbors on the size of its poor population should be strongest; in contrast, when immigrants must wait a substantial length of time to become eligible for

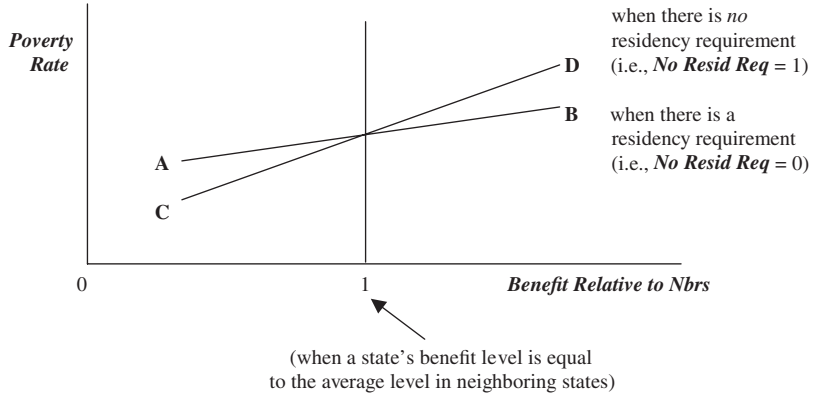
public assistance, the impact of ***Benefit Relative to Nbrs*** should be mitigated (either weaker or absent). (This hypothesized interaction, specified by the ***Benefit Relative to Nbrs * No Resid Req*** multiplicative term in equation 1, is depicted in the graph of Figure 2 by the different slopes of the two lines.) Finally, the logic underlying the magnet hypothesis suggests that when a state's AFDC benefit level is equal to the benefit level in surrounding states (i.e., ***Benefit Relative to Nbrs*** = 1), poor persons should not desire to move either to or from the state for welfare benefits, regardless of whether a residency requirement is imposed, and, therefore, the size of the poor population should be unaffected by whether there is a residency requirement (in Figure 2, the two lines should intersect above ***Benefit Relative to Nbrs*** = 1).

The Welfare Benefit Equation

Complementing the welfare magnet hypothesis is a welfare benefit competition proposition concerning the behavior of state policy makers (Peterson and Rom 1990). This proposition suggests that states are concerned about the relationship between their own welfare benefits and those of their neighbors. A state's policy makers fear that if its benefits exceed those in surrounding states, the relatively generous welfare benefits may lure poor residents from these neighbors,

FIGURE 2

The Magnet Hypothesis



Predictions:

(3) CD has a positive slope
(4) AB has a positive slope of smaller magnitude than CD (or possibly a slope of zero)
(3) AB and CD intersect when ***Benefit Relative to Nbrs*** = 1

increasing the burden on a state's taxpayers. The negative impact on the state would be further aggravated if the influx of the poor frustrates taxpayers and encourages them to migrate to states with lower benefits and tax burdens. This suggests that as the benefit level in a state rises relative to the average benefit level in surrounding states (i.e., as ***Benefit Relative to Nbrs*** increases), the state should lower its benefits.

Two versions of the benefit competition hypothesis seem plausible. One is that a state should be concerned about benefit levels in surrounding states (and thus ***Benefit Relative to Nbrs*** should have an impact on ***AFDC Benefit***) only when the average benefit in neighboring states is *lower* than the state's own benefit (i.e., when ***Benefit Relative to Nbrs*** > 1). The other version assumes that a state will be sensitive to a decline in neighboring states' benefits even when surrounding states have benefits that are *higher* than the state's own (so that the negative effect of ***Benefit Relative to Nbrs*** on ***AFDC Benefit*** would be present at all levels of ***Benefit Relative to Nbrs***). The latter version is specified in equation 2, but both versions are tested empirically below.[10]

We also refine the benefit competition hypothesis by taking into account residency requirements, which should dampen the impact of neighbors' benefit levels on a state's policy makers. Before *Shapiro v. Thompson* eliminated such requirements, policy makers from states with residency requirements had less reason to pay close attention to their neighbors' welfare benefits than officials from states without a requirement, since the residency requirement kept recent migrants off AFDC. After *Shapiro*, such policy makers should have been under more pressure to eliminate benefit differentials for fear of becoming "welfare havens." Hence, our model predicts a negative impact of the ratio of a state's benefit level to its neighbors (***Benefit Relative to Nbrs***) on its own benefit level, the magnitude of which should be greater when no residency requirement is in place. Nevertheless, at any fixed level of benefits relative to those in other states, the expected level of a state's welfare benefit should be lower when the state has no residency requirement than when it does, since the fear of migration in the absence of a residency requirement imposes additional downward pressure on benefits. These expectations motivate the inclusion of ***No Resid Req*** and ***Benefit Relative to Nbrs * No Resid Req*** in equation 2.

Presumably, policy makers who fear that relatively high welfare benefits create incentives for the poor to migrate to their state are also concerned about the disincentive to work that is created when benefit levels are high relative to wage levels for low skill workers in the private sector. If so, a decrease in the average real wage in a state's retail sector (***Retail Wage***) should lead the state's policy

[10] The former version is specified by replacing the variable ***Benefit Relative to Nbrs*** with the multiplicative term ***Benefit Relative to Nbrs * High Benefit***, where the dichotomous variable ***High Benefit*** equals 1 when ***Benefit Relative to Nbrs*** > 1 (i.e., when a state's benefit level exceeds that of its neighbors) and 0 otherwise.

makers to reduce its AFDC benefit. Alternatively, politicians may reduce welfare benefits in response to a decline in real retail wages to promote equity with the working poor (Moffitt, Ribar, and Wilhelm 1998).

Since our main purpose is to construct a welfare benefit equation specifying the nature of competition among states, the other variables in equation 2 are included primarily as statistical controls suggested by previous welfare research. Cost consciousness may lead policy makers to react to an increase in the size of the poor population with a reduction in welfare payments, thereby making ***Poverty Rate*** a determinant of the AFDC benefit level. State tax capacity (***Tax Capacity***) is included as a measure of state resources, which is frequently regarded as a determinant of welfare benefit levels (Fording 1997; Hill, Leighley, and Hinton-Andersson 1995; Tweedie 1994), and ***Tax Effort*** is an indicator of the willingness of the state to tap these resources to finance welfare services (Hill, Leighley, and Hinton-Andersson 1995). AFDC was a federal matching-grant program in which the national government's contribution varied across states; the greater the share of financing covered by the federal government (***Federal Share***), the greater the incentive for states to set high benefit levels. Thus, the matching rate should have a positive impact on benefits (Plotnick and Winters 1985).

The remaining variables reflect the potential impact of public opinion and electoral politics on welfare policy. Mirroring long-standing hypotheses in the literature, increased citizen liberalism (***Citizen Ideology***), stronger interparty competition (***IPC***), and greater control of the institutions of government by liberals (***Government Ideology***) are assumed to produce more generous welfare benefits (Carmines 1974; Dawson and Robinson 1963; Erikson, Wright, and McIver 1989; Plotnick and Winters 1985; Tweedie 1994). The role of electoral politics in influencing welfare policy has been the subject of intense debate in recent years, however. To assess the sensitivity of our results about benefit competition to the specification of electoral impacts, we also estimate equation 2, replacing the party competition and government liberalism variables with measures of Democratic party control (***Democratic Control***), class bias in electoral turnout (***Class Bias***), and their product (***Democratic Control* Class Bias***).[11] These variables reflect the hypothesis that Democratic party control of a state government and electoral mobilization of the poor interact to influence welfare generosity. The positive effect of lower class electoral mobilization on welfare benefits should be stronger when the party traditionally serving the interests of the lower class has unified control of government than when Republicans have more influence (Brown 1995; Hill, Leighley, and Hinton-Andersson 1995; Jennings 1979).

[11] ***Democratic Control*** equals 1 when the Democratic party controls the governorship and both houses of the state legislature and 0 otherwise; to measure ***Class Bias***, we use Husted and Kenney's (1997) indicator.

Empirical Analysis

Equations 1 and 2 are estimated using two-stage least squares (2SLS) and annual observations for the 48 continental states from 1961 through 1990. For several variables, including the poverty rate, observations are missing for some state-years and thus had to be estimated (see section VI of our unpublished supplement for details.) Numerous variables in the model must be measured in real dollars, controlling for inflation and geographic differences in the cost of living. We employ a deflator developed by Berry, Fording, and Hanson (2000) to measure monetary variables in "median 1995 dollars" (i.e., the deflator's base is the median value of state cost of living in 1995, the most recent year for which the deflator is available). Both equations are estimated as fixed-effects models, that is, with a set of dummy variables for the states. Consistent with Beck and Katz's (1995) advice, lagged dependent variables are included in both equations to model dynamics,[12] and panel corrected standard errors (PCSEs) are computed.[13]

The Benefit Competition Hypothesis

Our welfare model predicts that a state's AFDC benefit relative to its neighbors' will have a weaker effect on its own assistance level when the state has a residency requirement than when it does not, but there is no empirical evidence of such interaction. In fact, ***Benefit Relative to Nbrs*** is estimated in equation 2 to have a slightly stronger effect on a state's benefit level when there is a residency requirement than when no waiting period is in effect. There is also no empirical evidence of interaction of the type predicted when the benefit equation is modified to assume that ***Benefit Relative to Nbrs*** has an impact on states' benefit levels only when the average benefit in neighboring states is lower. Consequently, we respecify equation 2 assuming no interaction between ***Benefit Relative to Nbrs*** and a residency requirement and reestimate the model using the same 2SLS procedure.[14] The statistical results are presented in Table 1.[15]

[12] The inclusion of lagged dependent variables casts the equations as partial adjustment models in which the left-side variables gradually respond to changes in the right-side variables (Gujarati 1995).

[13] We thank Nathaniel Beck for writing a RATS program to calculate PCSEs for 2SLS.

[14] To save space, we do not report full statistical results for the models that assume interaction between ***Benefit Relative to Nbrs*** and a residency requirement in influencing a state's benefit level. These results can be found in Tables S-3 and S-4 of the unpublished supplement.

[15] Because of the inclusion of a lagged dependent variable in equations, the coefficients in Table 1 reflect the *immediate* impact of independent variables (i.e., that experienced in the first year). These effects are also dynamically distributed over time through the lagged dependent variable (Gujarati 1995, 599–600). Unless otherwise stated, all interpretations of effects in this article reflect *immediate* impacts.

TABLE 1

2SLS Coefficient Estimates for Welfare Model

Benefit Equation (#2)			
Dependent Variable: ***AFDC Benefit***$_t$			
Independent Variable	Slope Coefficient	Panel Corrected Std. Error	t-ratio
AFDC Benefit$_{t-1}$	.885**	.036	24.58
Poverty Rate$_t$	.907	.701	1.29
Benefit Relative to Nbrs$_{t-1}$	−38.04*	17.26	−2.20
No Resid Req$_t$	−15.81*	7.55	−2.09
Retail Wage$_t$	.137**	.037	3.70
Citizen Ideology$_t$	.176	.254	.69
Government Ideology$_t$	.049	.110	.45
IPC$_t$	27.29	26.28	1.04
Tax Capacity$_t$	−.037	.215	−.17
Tax Effort$_t$	−.367*	.207	−1.78
Federal Share$_t$	1.24**	.44	2.81
Poverty Equation (#1)			
Dependent Variable: ***Poverty Rate***$_t$			
Poverty Rate$_{t-1}$	.779**	.026	30.11
AFDC Benefit$_t$	−.00080	.00086	−.93
Benefit Relative to Nbrs$_{t-1}$	−.086	.439	−.20
No Resid Req$_t$	−.101	.277	−.36
Benefit Relative to Nbrs$_{t-1}$* ***No Resid Req***$_t$	.622**	.175	3.55
Unemployment$_t$	.188**	.052	3.57
Unemp Relative to Nbrs$_t$	−.743**	.273	−2.72
Retail Wage$_t$	−.0187	.002	−.82
Wage Relative to Nbrs$_t$	8.62**	1.32	6.52
Retail Jobs$_t$	.853**	.342	2.49
Retail Wage$_t$ * ***Retail Jobs***$_t$	−.000765*	.00034	−2.22
Manuf Jobs$_t$	−.043	.051	−.84
Female-Headed Families$_t$	.071	.306	.23
Income$_t$	−.000232**	.000061	−3.80

*$p \leq .05$; **$p \leq .01$; significance tests are two-tail for ***AFDC Benefit*** in the poverty equation and one-tail for all other independent variables. To save space, coefficients are not reported for intercepts or the state dummy variables; the full results are in Tables S-1 and S-2 of our unpublished supplement.

When the effect of ***Benefit Relative to Nbrs*** is respecified as additive, there is evidence of some competition among states to keep welfare benefits low. Assume that a state has a welfare benefit level equal to the average benefit offered by its neighbors. The statistically significant slope coefficient of −38.0 for ***Benefit Relative to Nbrs*** implies that if the state's neighbors lowered their AFDC benefits so that the state's benefits exceeded its neighbors' average by 10%, the state would

be expected to reduce its own maximum monthly AFDC payment for a family of four by about four (median 1995) dollars.[16] (To place this result in context, note that the average monthly benefit level across our sample of state-years is $660, with a standard deviation of $220.)

We can derive an alternative interpretation of the degree of benefit competition among states by reestimating equation 2, substituting the average *level* of welfare benefits in surrounding states for our measure of the benefit *relative* to those in neighboring states. In this model, the estimated slope for average neighbors' benefit is .060 ($t = 2.26$). This coefficient suggests that for each decrease of $1 in surrounding states' average monthly welfare benefit, a state decreases its own benefit level by an average of 6 cents. Either formulation leads to the conclusion that states respond to their neighbors' reductions of welfare benefits but that the responses are quite modest.[17]

We also find support for the proposition that states lower welfare benefits during periods of declining real wages for low-skill jobs. The response to wage reductions is more than twice the magnitude of the response to declines in surrounding states' welfare benefits. In particular, the statistically significant slope coefficient estimate of .137 for ***Retail Wage*** implies that for each decrease of $1 in the average real monthly wage in a state's retail sector, a state reduces its monthly AFDC benefit, on average, by 14 cents. This is consistent with Moffitt, Ribar, and Wilhelm's (1998) contention that states try to keep their welfare benefit levels in line with low-skill wages to avoid creating work disincentives and to promote equity between the working poor and welfare recipients. Our result also suggests that when states set their welfare benefit levels, they view the low-skill wage within a state as a much more important benchmark than welfare benefits in neighboring states.

We speculated in the introduction that previous studies of the race to the bottom thesis produced biased estimates of the amount of interstate benefit competition because they failed to control for the impact of the level of wages for low-skill

[16] During the period of analysis, reductions in *nominal* AFDC benefit levels were very rare; in 1,440 state-years, there were 703 increases, 625 instances in which benefits remained unchanged, and 112 reductions. Of the 112 reductions, only 73 lowered nominal benefits by $5 or more per month. Although nominal increases were common, most states did not fully adjust benefits for inflation, which had the effect of depressing the real value of AFDC payments. This was a politically attractive strategy since policy makers did not have to attack welfare directly, which might have incurred a backlash from welfare rights organizations mobilized in the late 1960s and early 1970s.

[17] Even the multiyear cumulative effect of changes in neighboring benefit levels is rather small. For the model including ***Benefit Relative to Nbrs***, the estimated five-year cumulative effect is −151.04. That is, if a state started with the same benefit level as its neighbors, but its neighbors reduced their AFDC benefits by 10%, over the next five years the state would be expected to lower its benefit by $15.10. For the alternative model that substitutes the average level of welfare benefits for ***Benefit Relative to Nbrs***, the estimated total effect after five years is .21, implying that for every decrease of $1 in surrounding states' average welfare benefit, a state lowers its own benefit an average of 21 cents over this period. (Section II of the unpublished supplement compares our findings about the strength of interstate benefit competition with those of previous studies.)

jobs. To get a sense of the likely magnitude and direction of the bias, we reestimate equation 2 excluding average retail wage. With this specification error, the coefficient estimate for ***Benefit Relative to Nbrs*** nearly doubles in strength, from −38.0 to −73.2. This suggests that previous tests of the benefit competition hypothesis were likely to have overestimated the amount of interstate benefit competition by a substantial amount.

Additional support for the benefit competition hypothesis is found in the slope coefficient (−15.8) for ***No Resid Req***. It suggests that when states abandoned residency requirements in response to *Shapiro v. Thompson*, they also lowered their monthly benefits by an average of about 16 (median 1995) dollars. This is consistent with the hypothesis that state officials, worried that dropping their residency requirements would make it easier for the poor to migrate and become eligible for assistance, reduced their benefits when eliminating these requirements.[18] Once again, however, since the average benefit level across state-years is $660, the reduction in benefits is relatively small. In conclusion, taking into account all our results regarding the benefit competition proposition, there is no evidence of the kind of aggressive competition among states that could reasonably be characterized as a "race to the bottom."[19]

The Magnet Hypothesis

We now turn our attention to the poverty equation. Our results do not settle the debate between those maintaining that cash assistance programs serve to reduce poverty and those contending that they promote poverty by creating work

[18] There is an alternative explanation. July 1, 1969, was the deadline for complying with a 1967 law requiring states to make a one-time adjustment in their AFDC need standards for changes in the cost of living (Rabin 1970). States complied with the mandate, but some decided to separate need and payment standards, i.e., they elected to pay less than 100% of a family's need (as estimated by state officials). The result was lower benefits, measured in both nominal and real terms. Since we have no way of isolating the effects of the mandate from those associated with *Shapiro*, we attribute all changes to the Supreme Court ruling. This gives the race to the bottom hypothesis the greatest chance of surviving our test.

[19] For the remaining "control" variables in the benefit equation, all coefficient estimates except those for tax capacity, tax effort, and the poverty rate have the predicted sign, but the magnitude of most effects is quite weak. The only control variable in the equation (apart from the lagged dependent variable) with a statistically significant impact is the national government's matching contribution for AFDC (***Federal Share***), which is positively related to welfare benefits; states with a greater incentive to set high welfare benefit levels, because a greater share of the benefits are financed by the federal government, do indeed provide greater benefits. The independent variables ***Democratic Control***, ***Class Bias*** and their product—used to specify an alternative formulation of the effects of electoral politics—proved to have statistically insignificant effects. Moreover, the effects of all "non-electoral" variables were unchanged by the substitution of the alternative electoral politics variables. (See our unpublished supplement (Table S-5) for the parameter estimates for the model using the alternative specification of electoral effects.) Of special note, there is no evidence to support the hypothesis that states sharply reduced their AFDC benefits in response to increases in the size of the poor population as a means of controlling program costs (see the coefficient for ***Poverty Rate***).

disincentives. Indeed, our slope coefficient estimate for ***AFDC Benefit*** (which is negative but small) suggests that these two consequences may offset one another, resulting in little net impact of the welfare benefit level on the poverty rate.

Not surprisingly, the strength of a state's economy has a powerful impact on its poverty rate. The slope coefficient for ***Unemployment*** implies that each addition of 100 persons to the ranks of the unemployed pushes, on average, 19 people into poverty. Furthermore, an increase in per capita income (***Income***) of 1,000 (median 1995) dollars is associated with an expected reduction of .23 percentage points in the poverty rate (i.e., a decrease of .23 in the percentage of the population that is poor).[20]

There is also evidence that the availability of retail sector jobs and the prevailing wage levels for these jobs have very strong impacts on the level of poverty. A graph comparable to Figure 1, but based instead on estimated coefficients, would look very much the same. Across state-years in our sample, the average monthly wage for a retail sector job varied from 859 (median 1995) dollars to $1,755. When retail wages are at their lowest, an increase in retail sector jobs actually pushes more people into poverty; an increase in the number of jobs sufficient to employ 1% of the population increases the poverty rate by an average of .19 percentage points.[21] As retail sector wages increase, the positive effect of the number of retail jobs on the poverty rate declines, eventually reaching a wage level at which the effect becomes negative. When wages reach their highest value across states, an increase in the number of jobs sufficient to employ 1% of the population *decreases* the expected poverty rate by .49 points. Moreover, when the number of retail sector jobs (relative to population) is at its maximum in our sample, an increase in wages from its lowest value to its highest yields a decrease of 8.40 points in the poverty rate. When the number of jobs is at its minimum, however, the same increase in wages is predicted to generate a decrease in the poverty rate of just 4.73 points. Clearly, the level of wages in the retail sector—the sector most likely to employ those individuals at the greatest risk of poverty—and the availability of retail jobs exert powerful impacts on a state's poverty rate.[22]

Compared to a state's internal economic conditions, conditions relative to those in other states have smaller effects on the poverty rate. Moreover, to the extent that magnetic effects are present, better job opportunities and higher wages seem to be more attractive than better welfare benefits. Assume that a state's average

[20] An increment of 1,000 (median 1995) dollars in per capita income might be compared to the average value for per capita income across state-years in our sample, which is $15,624; the standard deviation is $3,731.

[21] Using the coefficients from Table 1, .19 = .853 + (859 * −.00765).

[22] The effect of job availability in the *manufacturing* sector is less powerful. The coefficient for ***Manuf Jobs***, although negative as predicted, has a *t*-ratio of −.84, which suggests that an increase in manufacturing jobs sufficient to employ 1% of the population reduces the poverty rate by only .04 points. The impact of the number of female-headed families (an indicator of the size of the "at-risk" population) on the poverty rate is also quite small.

retail sector wage is equal to the mean prevailing wage in surrounding states (i.e., ***Wage Relative to Nbrs*** = 1.00). The slope coefficient of 8.62 for ***Wage Relative to Nbrs*** implies that if real wages in the state remained constant, but those in neighboring states dropped 10%, the poverty rate would increase by .86 points. To put this in perspective, we note that the largest wage differential between a state and its neighbors during our period of analysis is 30%; a hypothetical change in wage differential between equality and this maximum value (i.e., an increase in ***Wage Relative to Nbrs*** from 1.00 to 1.30) would yield, on average, a change in the poverty rate of 2.58 points.

The magnetic impact of unemployment is considerably smaller. Assume a similar situation as before: the unemployment rate in a state is the same as the average value among its neighbors. The statistical results suggest that if the unemployment rate in neighboring states increased 10%, the state's poverty rate would rise by .07 points. However, there is more interstate variation in unemployment than in retail wages. The largest unemployment differential in our period of analysis occurred when a state's unemployment exceeded its neighbors' by 112%. A hypothetical change in unemployment differential between equality and this maximum value (i.e., an increase in ***Unemp Relative to Nbrs*** from 1.00 to 2.12) would prompt an average change in the poverty rate of .83 points.

Finally, the magnetic effect of welfare benefits is still smaller, and some of the empirical evidence is inconsistent with the logic underlying the magnet hypothesis. The hypothesis suggests that when a state's AFDC benefit level is equal to the level in surrounding states (i.e., ***Benefit Relative to Nbrs*** = 1), poor persons should not desire to move either to or from the state based on welfare benefits, regardless of whether a residency requirement is imposed. Consequently, the state's poverty rate should be the same with and without a residency requirement (in Figure 2, the two lines should intersect above ***Benefit Relative to Nbrs*** = 1). In fact, the coefficient estimates in Table 1 imply that when a state's benefit level is the same as its neighbors, the poverty rate can be expected to be .52 points higher when the state has no residency requirement than when one is present, a difference significantly different from zero ($t = 2.14$); the estimated positions of the two lines in Figure 2 have them intersecting when ***Benefit Relative to Nbrs*** = .16, rather than when ***Benefit Relative to Nbrs*** = 1.

On the other hand, the empirical evidence supports the hypothesis that the magnetic effect of welfare benefits is weaker when a residency requirement is in effect than when migrants are immediately eligible for public assistance. When there is a residency requirement, if a state's AFDC benefit equals the average value among its neighbors (i.e., ***Benefit Relative to Nbrs*** = 1.00) and its benefit level remains fixed while the level in neighboring states decreases 10%, the state's poverty rate would be virtually unchanged (shifting less than .01).[23] When there is no resi-

[23] The estimated slope of the impact of ***Benefit Relative to Nbrs*** on ***Poverty Rate*** when there is a residency requirement (i.e., the estimated slope of line AB in Figure 2) is –.086, and .10 * –.086 < –.01.

dency requirement, the same 10% decrease in neighboring states' benefits would lead to an increase in the state's poverty rate of .05 points.[24] Hypothetically, a state with benefits equal to its neighbors' average could raise assistance to a level 72% higher than its neighbors (the maximum differential in our sample) and see its poverty rate increase by only .39 percentage points. Thus, even when there is no residency requirement to mitigate it, the magnetic effect of welfare is substantially weaker than the magnetic effects of high wages for low-skill workers and a low unemployment rate. This suggests that if state officials believe that generous welfare polices attract large numbers of poor persons to their states, their fears are unfounded.

RECONCILING OUR RESULTS WITH THOSE OF PETERSON AND ROM. Although our finding of the lack of a substantial magnetic effect of welfare benefits is consistent with recent individual-level research (Hanson and Hartman 1997; Schram, Nitz, and Krueger 1998), it contradicts the aggregate-level findings of Peterson and Rom (1989, 1990), leaving us to ask why this might be the case. Our analysis differs in many ways from Peterson and Rom's, but the most important of these differences are our specification of the impact on poverty of interstate differentials in economic opportunities and our more complex specification of the effect of within-state opportunities.

To gauge the impact of these differences in model specification, we assess how our results about the relationship between AFDC benefit differentials and the poverty rate would differ had we constructed a model more similar to that of Peterson and Rom. Since Peterson and Rom used data from a period in which residency requirements were illegal, we reestimate our poverty equation using only those state-years in which no residency requirement was in effect. In the reestimation, we delete the variables reflecting interstate unemployment and retail sector wage differentials (i.e., ***Wage Relative to Nbrs*** and ***Unemp Relative to Nbrs***), as well as variables reflecting the effects of manufacturing and retail sector job opportunities (***Manuf Jobs*** and ***Retail Jobs***) and the interaction of the latter with wage levels (i.e., ***Retail Wage* Retail Jobs***). For the revised model, the slope coefficient for ***Benefit Relative to Nbrs*** is 1.75 ($t = 5.35$). This is more than three times the estimate (.536) derived from the full model of equation 1.[25] Had our model not incorporated a detailed specification of the impacts of states' private sector economic opportunities, we would have substantially exaggerated the magnetic effect of welfare benefits.

[24] The estimated slope of the impact of ***Benefit Relative to Nbrs*** on ***Poverty Rate*** when there is no residency requirement (i.e., the estimated slope of the line CD in Figure 2) is .536, calculated by subtracting .086 (the coefficient estimate for ***Benefit Relative to Nbrs***) from .622 (the coefficient estimate for ***Benefit Relative to Nbrs * No Resid Req***). Then, .10 * .536 = .05, reflecting the immediate impact of ***Benefit Relative to Nbrs***. After five years, a 10% decrease in surrounding states' benefits would prompt a cumulative increase in a state's poverty rate of just .17 percentage points.

[25] Note 24 describes the calculation of .536.

Discussion

Exponents of the race to the bottom thesis predict that poor people migrate in search of better welfare benefits, causing policy makers in states with high benefits to reduce payments so as to avoid an influx of poor people from neighboring states. As policy makers in other states follow suit, a chain reaction unfolds and benefits spiral downward. This prediction, however, is not supported by our analysis, which suggests that economic considerations affect the behavior of poor people and policy makers much more strongly than do welfare benefit levels.

Our state-level results are consistent with individual-level findings that poor people do not migrate in large numbers to obtain higher AFDC benefits. We find that the magnetic effects of welfare benefits are slight in comparison to the drawing power of economic opportunities in the private sector. In particular, we estimate that if a state's AFDC benefit is equal to the average benefit of its neighbors and the neighbors' average is reduced by 10% while the state's benefit remains unchanged, its poverty rate would increase the next year by just .05 percentage points. In contrast, if the state's average retail wage remains steady while the same average wage in surrounding states declines by 10%, the state's poverty rate can be expected to rise by .86 percentage points—a response 16 times larger.

Our results also show that benefit competition among states is weak. Moreover, contrary to the expectation derived from the race to the bottom thesis, there is no evidence that competition intensified after residency requirements for AFDC were deemed unconstitutional in 1969. We find that for every decrease of $1 in the average AFDC benefit of neighboring states, a state reduces its own AFDC benefit in the following year by an average of 6 cents. This response is small in an absolute sense, and it is small relative to the response by a state to a decrease of $1 in the average real monthly wage in the retail sector of its economy—namely, a reduction in its AFDC benefit by an average of 14 cents. Thus, policy makers seem to be much more interested in keeping their AFDC benefit in line with the wage level for low-skill jobs in their own state than with the AFDC benefit level in neighboring states.

These conclusions are based on empirical analysis of AFDC using data from 1960 to 1990, when state policy makers controlled benefits but had little discretion in setting eligibility requirements (at least, after the *Shapiro* decision). Much has changed since then. During the early 1990s, many states obtained waivers from federal AFDC requirements to experiment with welfare reforms. As Lieberman and Shaw (2000) note, from 1991 through 1995, 42 states requested a total of 124 waivers representing more than 300 provisions designed to move welfare recipients off the rolls and into the workforce.[26] Then, in 1996 Congress elimi-

[26] Benefit data are available for 1991–1996, but we chose not to include these observations when estimating our models because the AFDC program changed significantly after the implementation of the Family Support Act in 1990. These changes—which were in addition to those resulting from federal waivers—included mandatory coverage of unemployed parents, stricter child support provisions, and implementation of the Job Opportunities and Basic Skills program. The new provisions

nated AFDC in favor of Temporary Assistance for Needy Families (TANF), which gave states almost complete control over eligibility matters. In light of these changes, one might wonder if interstate competition increased as discretion devolved to the states, first in the early 1990s under AFDC and again after 1996 under TANF.

We have no reason to expect that AFDC benefit competition intensified between 1990 and 1996. The federal waivers granted between 1992 and 1996 did not increase state control over benefit levels, which have always been a matter of state policy makers' discretion. Furthermore, low inflation actually made it more difficult for states to compete over benefit levels after 1990. During the inflationary 1970s and 1980s, it was relatively easy for states to reduce their real benefits substantially. They simply could allow the real value of welfare benefits to fall by failing to adjust for increases in the cost of living. But when inflation eased, significant reductions in the real value of welfare benefits could only be achieved with greater political risk—via direct intervention to lower nominal benefit levels.

Without *empirical* evidence about AFDC benefit competition in the early 1990s, we cannot assert with complete confidence that there was no increase in competition after the period we analyze. Nevertheless, we do know that there were only 15 reductions in nominal AFDC benefits in the combined 48 continental states between 1990 and 1996. This suggests, at least, that the 1990s were not characterized by *intense* benefit competition, as it seems unlikely that during a period of low inflation, a *vigorous* race to the bottom could occur without a larger number of reductions by states in nominal benefit levels. In any case, there is no evidence of a downward spiral in benefits during the 1990s.

Even if AFDC benefit competition did not increase during the 1990s, it is conceivable that the federal waivers giving states greater control over eligibility for AFDC led states to compete in a new venue, vying to restrict access instead of lowering benefits.[27] Although the possibility of AFDC eligibility competition has received much less attention than that of benefit competition, several recent empirical studies of state waivers (allowing states to impose work requirements, time limits on benefits, caps on family size, and other restrictions) cast doubt on this possibility. Hanson and Heaney (1997) find that policy makers in a few conservative states sought waivers to restrict access to AFDC, but states with relatively liberal AFDC programs requested waivers to expand services to poor

expanded the range of options available to policy makers for regulating public assistance and fundamentally altered AFDC and its dynamics. Consequently, it would be inappropriate to estimate our model—which is specified to reflect the pre-1991 AFDC program—using observations drawn from later years.

[27] Indeed, it might be argued that given a choice between discouraging migration by either lowering welfare benefits or restricting eligibility for welfare assistance, a politically rational politician would prefer the latter course. This is because reducing benefit levels adversely affects all welfare recipients, including children and the disabled, while tightening eligibility requirements can easily be cast as keeping "able-bodied" adults off the welfare rolls, a more popular form of action.

families. Elsewhere, states combined restrictive and liberalizing reforms in ways that are not easily reconciled with the notion of a vigorous race to the bottom. Lieberman and Shaw (2000) conclude that interstate competition played little role in waiver requests and that these requests were driven by other forces. Most important, Fording (2003) directly tests for interstate competition by examining the impact of AFDC waiver adoptions in neighboring states on state decisions to adopt restrictive waivers. He finds that a typical state's policy makers were unaffected by the policy choices made in adjacent states, corroborating the conclusion reached by Lieberman and Shaw.

Unfortunately, when attention turns to the period after AFDC was replaced by TANF, no empirical evidence about the extent of interstate competition over either benefit levels or eligibility conditions is available. Indeed, it will be some time before social scientists can systematically investigate the possibility of competition after 1996. Reliable information on state TANF programs is still being assembled (Moffitt and Ver Ploeg, 2001). Moreover, TANF programs continue to evolve in many states. Assessing the consequences of such sweeping and ongoing policy changes will be difficult even after good information about state programs has been collected.

Appendix

Estimating Missing Observations

Poverty Rate: State poverty rates are reported by the Census Bureau for 1959, 1969, 1979 and 1989. State poverty rates based on the Current Population Survey are available annually for 1980–90. Unfortunately, the two data sources rely on a different definition of income and thus are not fully comparable. We employ a methodology relying on state and regional data to estimate state poverty rates (based on the Census Bureau definition of income) for all years between 1960 and 1990, thereby creating a fully comparable series.

Female-Headed Families: Data are available for Census years only. Observations for intervening years are estimated based on a combination of state- and national-level data.

Retail Jobs: This is missing for seven states in some years. Data for these states are estimated based on trends in the number of employees in the combined wholesale and retail trade sectors in these states.

Retail Wage: Data are missing for 1960, 1961, and 1963. Values for these years are estimated based on trends in manufacturing wages.

Detailed information about the estimation of missing ***Poverty Rate***, ***Female-Headed Families***, ***Retail Jobs***, and ***Retail Wage*** observations, as well as evidence supporting the quality of our estimates, can be found in Sections III through VI of our unpublished supplement.

Manuscript submitted 14 September 2000
Final manuscript received 8 March 2002

References

Achen, Christopher H., and W. Phillips Shively. 1995. *Cross-Level Inference*. Chicago: University of Chicago Press.

Allard, Scott W., and Sheldon Danziger. 2000. "Welfare Magnets: Myth or Reality?" *Journal of Politics* 62 (2): 350–68.

Beck, Nathaniel, and Jonathan Katz. 1995. "What to Do (and Not to Do) with Time-Series Cross-Section Data." *American Political Science Review* 89 (3): 634–47.

Berry, William D., and Richard C. Fording. 1997. "Measuring State Tax Capacity and Effort." *Social Science Quarterly* 78 (1): 158–66.

Berry, William D., Richard C. Fording, and Russell L. Hanson. 2000. "An Annual Cost of Living Index for the American States, 1960–1995." *Journal of Politics* 62 (2): 550–67.

Berry, William D., Evan J. Ringquist, Richard C. Fording, and Russell L. Hanson. 1998. "Measuring Citizen and Government Ideology in the American States, 1960–93." *American Journal of Political Science* 42 (1): 327–48.

Blank, Rebecca. 1988. "The Effect of Welfare and Wage Levels on the Location Decisions of Female-Headed Households." *Journal of Urban Economics* 24 (2): 186–211.

Brown, Robert. 1995. "Party Cleavages and Welfare Effort in the American States." *American Political Science Review* 89 (1): 23–33.

Carmines, Edward G. 1974. "The Mediating Influence of State Legislatures on the Linkage between Interparty Competition and Welfare Policies." *American Political Science Review* 68 (3): 924–33.

Clark, Rebecca L. 1992. "Do They Leave the Safety Net: The Effect of Level of State Welfare Payments on the Outmigration of Low-Income Mothers." Paper presented at the Annual Meeting of the Population Association of America, Denver.

Dawson, Richard, and James Robinson. 1963. "Interparty Competition, Economic Variables and Welfare Policies in the American States." *Journal of Politics* 25 (2): 265–89.

Erikson, Robert S., Gerald C. Wright, Jr., and John McIver. 1989. "Political Parties, Public Opinion, and State Policy in the United States." *American Political Science Review* 83 (3): 729–50.

Figlio, David N., Van W. Kolpin, and William E. Reid. 1999. "Do States Play Welfare Games?" *Journal of Urban Economics* 46 (3): 437–54.

Fording, Richard C. 1997. "The Conditional Effect of Violence as a Political Tactic: Mass Insurgency, Welfare Generosity, and Electoral Context in the American States." *American Journal of Political Science* 41 (1): 1–29.

Fording, Richard. 2003. "Laboratories of Democracy or Symbolic Politics? The Racial Origins of Welfare Reform." In *Race, Welfare, and the Politics of Reform*, eds. S. F. Schram, J. Soss, and R. C. Fording. Ann Arbor: University of Michigan Press, 72–100.

Gramlich, Edward M., and Deborah S. Laren. 1984. "Migration and Income Distribution Responsibilities." *Journal of Human Resources* 19 (4): 489–511.

Gujarati, Damodar N. 1995. *Basic Econometrics*, 3rd ed. New York: McGraw-Hill.

Hanson, Russell L., and Hartman, John. 1997. "Questioning the Attractiveness of Welfare Magnets: State Characteristics and the Migration of the Indigent." Unpublished ms., Indiana University Bloomington.

Hanson, Russell L., and Michael T. Heaney. 1997. "The Silent Revolution in Welfare: AFDC Waivers during the Bush and Clinton Administrations." Paper presented at the Annual Meeting of the Midwest Political Science Association, Chicago.

Hill, Kim Quaile, Jan Leighley, and Angela Hinton-Andersson. 1995. "Lower Class Mobilization and Policy Linkage in the United States." *American Journal of Political Science* 39 (1): 75–86.

Husted, Thomas A., and Lawrence W. Kenney. 1997. "The Effect of the Expansion of the Voting Franchise on the Size of Government." *Journal of Political Economy* 105 (1): 54–82.

Jennings, Edward T., Jr. 1979. "Competition, Constituencies, and Welfare Policies in the American States." *American Political Science Review* 73 (2): 414–29.

Levine, Phillip B., and Zimmerman, D. J. 1999. "An Empirical Analysis of the Welfare Magnet Debate." *Journal of Population Economics* 12 (3): 391–409.

Lieberman, Robert, and Greg Shaw. 2000. "Looking Inward, Looking Outward: The Politics of State Welfare Innovation under Devolution." *Political Research Quarterly* 53 (2): 215–40.

Mead, Lawrence. 1986. *Beyond Entitlement: The Social Obligations of Citizenship*. New York: Free Press.

Moffitt, Robert. 1992. "Incentive Effects of the U.S. Welfare System: A Review." *Journal of Economic Literature* 30 (1): 1–61.

Moffitt, Robert, David Ribar, and Mark Wilhelm. 1998. "The Decline of Welfare Benefits in the U.S: The Role of Wage Inequality." *Journal of Public Economics* 68 (3): 421–52.

Moffitt, Robert and Ver Ploeg, Michele, eds. 2001. *Evaluating Welfare Reform in an Era of Transition: Panel on Data and Methods for Measuring the Effects of Changes in Social Welfare Programs*. Washington, DC: National Academies Press.

Murray, Charles. 1984. *Losing Ground: American Social Policy, 1950–1980*. New York: Basic Books.

Peterson, Paul E., and Mark C. Rom. 1989. "American Federalism, Welfare Policy and Residential Choices." *American Political Science Review* 83 (3): 711–28.

Peterson, Paul E., and Mark C. Rom. 1990. *Welfare Magnets: A New Case for a National Standard*. Washington, DC: Brookings Institution.

Plotnick, Robert D., and Richard F. Winters. 1985. "A Politico-Economic Theory of Income Distribution." *American Political Science Review* 79 (2): 458–73.

Rabin, Robert L. 1970. "Implementation of the Cost-of-Living Adjustment for AFDC Recipients: A Case Study in Welfare Administration." *University of Pennsylvania Law Review* 118 (8): 1143–66.

Rom, Mark Carl, Paul E. Peterson, and Kenneth F. Scheve, Jr. 1998. "Interstate Competition and Welfare Policy." *Publius* 28 (3): 17–37.

Saavedra, Luz Amparo. 2000. "A Model of Welfare Competition with Evidence from AFDC." *Journal of Urban Economics* 47 (2): 248–79.

Schram, Sanford F., Lawrence Nitz, and Gary Krueger. 1998. "Without Cause or Effect: Reconsidering Welfare Migration as a Policy Problem." *American Journal of Political Science* 42 (1): 210–30.

Tiebout, Charles M. 1956. "A Pure Theory of Local Expenditures." *Journal of Political Economy* 64 (5): 416–24.

Tweedie, Jack. 1994. "Resources Rather than Needs: A State-Centered Model of Welfare Policy-Making." *American Journal of Political Science* 38 (3): 651–72.

Walker, James R. 1994. *Migration among Low-Income Households: Helping the Witch Doctors Reach Consensus*. Institute for Research on Poverty, University of Wisconsin, Madison, Discussion paper no. 1031-94.

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