

**WELFARE REFORM AND MIGRATION:
MOVING TO BENEFITS; MOVING FROM RESTRICTIONS**

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Abstract

The devolution of welfare policy and programs to the states by the 1996 federal welfare reform legislation has resulted in increased differentiation between states in welfare benefits and eligibility. The thesis of this study is that as a result of these increased inequalities, the Personal Responsibility and Work Opportunity Reconciliation Act has not only enhanced incentives for poor families to move but also, and perhaps more importantly, created disincentives for them to stay in “race to the bottom” states of origin.

We summarize research, completed prior to the initiation of the present grant, which utilized state-level welfare policy textual information from the Urban Institute’s Welfare Rules Database to derive the welfare policy summary measures used for the current study. Factor analysis was used in the previous study to create these 15 first-order and 2 second-order welfare policy dimensions for the 1996-1999 period. Those data were integrated with event-history migration information for poor families from the 1996-1999 panel of the Survey of Income and Program Participation.

The factor analysis of state welfare policy textual rules provided measures of two key second-order policy dimensions -- behavior-related rules and eligibility rules -- for which measures of level and 1996-1999 lenient-to-stringent change scores were derived for each state. Following the modeling strategy of Frey et al. (1996), we separately model the destination (pull) and departure (pull) effects of welfare policy measures and selected covariates in a discrete-time event history migration model. Preliminary results for the baseline welfare policy impact models show that the increasingly stringent behavior-related welfare rules were significant determinants of both decisions to migrate from the home state and notably the choice of a more lenient welfare rules destination state, controlling for state economic characteristics and individual and family socioeconomic attributes. While post-welfare-reform changes generally eased eligibility rules, poor families used interstate migration to locate in states with less stringent eligibility rules and departed states with more stringent eligibility criteria. In summary, the evidence provides general support for the thesis that changes in state welfare policy have precipitated the interstate migration of poor families in the U.S.

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Introduction

The revamping of welfare as we knew it has propelled welfare migration into a salient demographic and public policy issue (Schram and Soss 1999; Schram, Nitz, and Krueger 1998; Frey, Liaw, Xie, Carlson 1996; Long 1974). Devolution of welfare policy and programs to the states by the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) means that welfare benefits now differ across states on more than dollar amount. Variations in time limits, work requirements, eligibility criteria, financial sanctions for non-compliance, etc., in addition to payment levels result in increased welfare inequality across states.

This study seeks to determine whether poor families are motivated to migrate between states by unattractive welfare situations in places of origin (push factors) and attractive welfare circumstances in destination areas (pull factors). From a policy perspective, research is needed to understand whether the new federalism approach to public benefits exacerbates public assistance inequalities from state to state and the extent to which such inequalities are linked to migration among poor families. From the perspective of migration scholarship, the need is for new longitudinal multi-level state, family, and individual-level analyses that integrate both destination and origin models to provide a more valid test of the welfare migration hypothesis.

The thesis of this study is that PROWORA has not only enhanced incentives to move, but also, and perhaps more important, has created new disincentives to stay in some places of origin for poor (<200% of poverty level) families. We investigate this thesis using a longitudinal

research design and multi-level event-history modeling techniques to address two major questions:

1. When poor families move, do inequalities in post-welfare reform levels and change in states' TANF welfare eligibility and behavior-related rules predict where they migrate C their choice of destination states C controlling for economic characteristics of states?

2. Do inequalities in post-welfare reform levels and change in states' TANF welfare eligibility and behavior-related rules predict the class of states (classified by lenient to stringent benefits rules) from which poor families migrate -- the origin states from which migrants depart - - controlling for social and economic characteristics of poor families?

Migration Theory of Poor Families Revisited

According to Schram and Soss (1999) the welfare migration thesis rests on a long history of local area obligation and commitment to poor relief and a predisposition by non-migrants to view migrant poor from other areas as undeserving interlopers. The modern thesis of welfare migration also has added the assumption that welfare recipients are motivated by an instrumental rationality to maximize their welfare benefits. We seek to extend traditional micro-level migration theory by refining the generalized micro-economic cost-benefit theoretical assumption through explicitly modeling both a destination benefit model (pull effects) and a departure disincentive model (push effects) for multiple welfare policy cost-benefit dimensions, controlling for alternative explanation indicators of state economic characteristics and socio-economic characteristics of poor families.

Fundamental to the transition from the Aide to Families with Dependent Children (AFDC) program has been the shift in policy responsibility and eligibility criteria from the

federal government to individual states and from an entitlement to a temporary assistance program structure. The new federalism approach to public welfare policy has at least two key consequences as they relate to migration decision-making: 1) inequality across states in the level of benefits and the restrictive nature of eligibility criteria, and 2) inequality across states in the direction and degree of change in implementation of benefit levels and eligibility criteria, as some states maintain or enhance former AFDC policy guidelines while other states rush to the bottom to reduce welfare case loads. These inequalities are integrated (see Table 1) to form a theoretical framework on the origin and destination area “push” and “pull” effects of welfare reform regarding the migration behavior of poor families.

This framework argues that the costs of migration will be outweighed by its benefits when higher benefit levels and less restrictive eligibility rules are becoming more favorable for welfare participants. Such conditions are expected to “pull” migrants from states where benefits and eligibility are less favorable according to micro-economic migration theory. Where more lenient benefit levels and rules are becoming more restrictive, the cost of non-migration can be expected to increase relative to the cost of migration, creating disincentives to stay in origin areas. On the other hand, when benefit levels are lower and eligibility is more restrictive, increasing benefit levels combined with restrictive eligibility rules is not expected to push or pull migrants. Yet, from the classic micro-economic cost-benefit perspective, when benefits levels decrease and rules become more restrictive, the costs of migration will drop relative to the costs of not migrating to better opportunities.

Prior Studies of Welfare Migration

Previous studies of welfare migration present mixed results as to whether poor families move to maximize their welfare benefits. But past studies have employed diverse methods and data in producing these inconclusive results. Schram, Nitz, and Krueger (1998) categorize the welfare migration literature according to three waves of research: 1) The earliest wave, typically based on ecological data, showed little evidence for the welfare migration hypothesis (e.g., Cebula 1979; Long 1974; De Jong and Donnelly 1973; Sternlieb and Indik 1973; Beale 1971; Piven and Cloward 1971; Steiner 1971). 2) The second wave of studies, often utilizing individual-level data, indicated that the poor do migrate to higher benefit states (e.g., Dye 1990; Blank 1988; Gramlich and Lauren 1984). 3) The third, and generally more recent, wave of welfare research used micro-level data to find only weak, or no, evidence for the welfare migration thesis (e.g. Schram, Nitz, and Krueger 1998; Levine and Zimmerman 1995; Hanson and Hartman 1994; Walker 1994; De Jong and Ahmad 1976). However, while the welfare migration literature gives inconclusive evidence on the welfare migration question, there is long-standing evidence that migration determinants include such demographic and human capital factors as age, sex, race, marital status, employment status, educational status, and home ownership as well as state economic conditions (c.f. Morrison 1972; McAllister 1972; Goldscheider 1971; Speare 1970; Butler 1969), and we include these factors in our analysis.

Perhaps the fundamental cause of the inconclusive findings from the past welfare migration literature is attributable to methodology and data issues.

Methodology: Most prior studies on the impact of welfare on migration have used a cross-sectional methodology. Unfortunately this approach provides after-move-only measures of

poverty, employment status, educational enrollment, marital status, fertility, etc., which are not only determinants of migration but also important criteria for welfare eligibility. The causal order of variables is a major analytical problem in interpreting results using a cross-sectional research design. In this study we use a longitudinal design to calculate individual-level life-history measures of migration behavior, and all other predictor variables are measured prior to migration behavior.

Data: Regrettably, the U.S. has no national migration survey. Thus migration scholars must use decennial census, Current Population Survey, special purpose surveys, or other secondary administrative data sources to obtain always minimal information on aggregate migration rates or individual migration behavior. A key deficiency is the lack of information on migration histories. Although not a migration survey, the Survey of Income and Program Participation (SIPP) does provide a four-year current, as opposed to retrospective, migration history along with extensive individual socio-economic and program participation information. Thus SIPP is arguably the best nationally representative data set currently available to study the causes and consequences of migration in the U.S. However, to our knowledge, no prior studies have used SIPP data to test the welfare migration hypothesis.

Research Design and Methods

This study uses merged data from three different sources – the 1996 Panel of the Survey of Income and Program Participation (SIPP), the Urban Institute’s Welfare Rules Database (WRD), and a state economic characteristics file (created from 1996-1999 Current Population Surveys) – in a longitudinal, two-stage specification of welfare-benefit “push” and “pull” on individual migration behavior during the 1996 through 1999 welfare reform period. We define

our sample as family heads for whom family income is at or below 200 percent of the federal poverty level at any time during the four-year SIPP observation period. We define interstate migration as a move across state lines in any month during the 1996 through 1999 SIPP panel time period. Table 2 presents descriptive statistics for the variables used in the destination and departure models; variable specifications are described, by data source, below.

The Survey of Income and Program Participation (SIPP).

We use data from the 1996-1999 Panel of the Survey of Income and Program Participation, a longitudinal survey of around 40,000 households, containing information on monthly income and assets, public assistance receipt, living arrangements, including migration behavior, and demographic background (see www.sipp.census.gov/sipp for additional information). The SIPP was redesigned after the 1993 Panel to improve the quality of longitudinal data for informing policy makers regarding government program participation. This revision made the 1996 and subsequent SIPP panels ideal data for conducting these analyses.

The SIPP is designed to be nationally representative of the resident U.S. civilian, non-institutionalized population. Interviews of all household members age 15 or older every four months record changes in these factors as well as geographic location of residence, thus permitting a prospective study of migration which includes information at both origin and destination points. SIPP interviews are conducted in person or by telephone to collect a core set of information; the 1996 Panel initiated use of computer-assisted interviewing on a laptop computer.

Because individual and family demographic and economic characteristics are known to influence migration behavior, we address the research questions with statistical controls for age,

sex, racial/ethnic minority status, home ownership, and employment status in our models. These indicators, constructed with SIPP data, include racial/ethnic minority status (versus non-Hispanic white) and female (versus male), plus time-varying indicators of age (20 to 45 versus all others), family structure (married and living with spouse versus not living with a spouse), employment status (not working at a job versus working at a job), school enrollment (enrolled versus not enrolled), and home ownership (owns home versus rents or lives in rent-free housing). Time-varying indicators are lagged by one month to reflect circumstances just prior to our event of interest, an interstate move.

We code the interstate move variable as a “1” when the individual’s state fips code differs in a month from the state fips code in the previous month, and as “0” when no difference is found between months. Moves are further refined according to the welfare rules stringency/leniency levels of the states of origin and states of destination, using the welfare rules data described below. Thus, for example, a move from a state with stringent behavior-related or eligibility rules is identifiable separately from a move from a state with lenient rules. Likewise, we differentiate moves to states with stringent and lenient behavior-related and eligibility rules.

Welfare Rules Data and Methods

Data on state-level welfare reform rules are from the Urban Institute's Welfare Rules Database (WRD) which provides a longitudinal textual account of the changes in AFDC/TANF rules in all 50 states and the District of Columbia for each year of 1996-1999. The WRD organizes the detailed textual information on welfare rules across states and time as well as across different types of assistance units. Caseworker manuals and state regulations provide the

data for 1997 to the present, while AFDC state plans and waiver terms and conditions provide the data for years prior to 1997.

Using the basic policy categories provided by the WRD as a point of departure, we coded 78 salient individual welfare rule items for each state and for the years 1996, 1997, 1998, and 1999. These individual welfare rules for multiple years, coded on a lenient to stringent continuum, were then subjected to a Varimax factor analysis solution. Decisions on factor dimensions were based on the threshold principal component eigenvalue criteria of 1.00 or higher, and an individual item factor loading of .40 or higher in the rotated factor pattern. As shown in Figure 1, this methodology extracted 15 welfare policy factor dimensions composed of 40 individual items (see <http://www.pop.psu.edu/mswpvs/welfare-policy.htm>) for item factor loadings from principal components analysis and scale reliability for constructs describing state policies).

Based on an examination of intercorrelation patterns among these 15 dimensions, a second-order data reduction analysis was conducted among items within three basic groupings: eligibility rules, benefit rules, and responsibilities and requirements. As shown graphically in Figure 1, the second-order factor analysis yielded the following six welfare reform policy dimensions: 1) Eligibility Rules, including rules regarding two-parent families, immigrants, assets and income, and basic eligibility; 2) Behavior-related Rules, including those regarding family responsibilities, personal responsibilities, illness exemptions, work exemptions, time limits, and penalties for noncompliance; 3) Activities Requirements; 4) Rules for Pregnant Women; 5) Availability of Transitional Benefits; and 6) Financial Responsibilities of Extended Kin. Scale scores for each of these dimensions were calculated for each state and for each year

of the 1996 to 1999 welfare reform period. These results are the input data for the GIS descriptive analysis of between state differences and changes in welfare policy rules for the pre- and post-welfare reform period. In this paper, we analyze only the two second-order policy dimensions — 1) Eligibility Rules and 2) Behavior-related Rules.

Maps showing across-state variations in our welfare policy measures in 1999 and the directions of change for each state between 1996/97 and 1999 are shown in Figures 2 and 3. Figure 2 graphically displays the Behavior-related Rules indicator regarding recipient responsibilities for personal and work behavior. For modeling purposes, states are grouped as “more lenient,” “less lenient,” “less stringent,” or “more stringent” based upon their scores’ distribution around the U.S. mean of the score. We code states as having more stringent rules when the score on this item is greater than one standard deviation above the mean for all states and as less stringent when the score is 0 to 1 standard deviation above the mean; lenient scores have this same metric below the mean. Illinois, Georgia, North and South Carolina, Louisiana, Delaware, Nevada, and Tennessee are states with the most stringent expectations regarding recipient responsibilities and behaviors in 1999; Washington, North Dakota, Minnesota, Missouri, Indiana, New Hampshire, Vermont, and Hawaii are comparatively the most lenient in this regard. Most states became more stringent regarding expected recipient responsibilities and behaviors. Alaska is the only state shown to be more lenient in 1999 than 1996 on this measure.

Figure 3 displays across-state differences in the Eligibility Rules. We code states as having more stringent rules when the score on this item is greater than one standard deviation above the mean for all states and as less stringent when the score is 0 to 1 standard deviation above the mean; lenient scores have this same metric below the mean. This measure shows

increasing leniency over time. The most lenient states are Oregon, Nebraska, Minnesota, Wisconsin, Michigan, Ohio, West Virginia, and Connecticut. Most stringent are Oklahoma, Georgia, Indiana, Delaware, Rhode Island, Pennsylvania, and Mississippi. Only the latter two states did not change over the period on this measure. Overall these maps show considerable variability across the states in the levels and changes in welfare benefits and rules since 1996. A general trend toward greater stringency regarding behavioral expectations and a general increase in leniency regarding welfare eligibility provides a valid basis to study its influence on interstate migration behavior of the welfare poor population.

In subsequent migration models, policy change was measured as follows. All change in eligibility rules was toward leniency; only a few states experienced no change. To capture variation in this score, a continuous measure was necessary. For ease in interpretation for modeling, this score was transformed to range from 0 to 4, with higher scores indicating greater change toward leniency. Change in behavior-related rules tended to be toward stringency. Variation in this score was obtainable with a binomial indicator, coded "1" for increasing stringency and "0" for little or no change. Both previous- and current-month state scores are recorded for each person-month record. Destination models include current state score groupings, and origin models include previous-month state score groupings. These scores are merged with SIPP data so that the year of the state welfare policy corresponds with the year of the SIPP interview.

State Economic Characteristics Data

Labor market opportunity structures that may be interrelated with state public welfare policy are alternative explanations for the migration behavior of poor families, such that apparent

welfare policy-influenced effects on migration may be mitigated by strong economies encouraging in-migration and inhibiting out-migration, and weak economies encouraging out-migration. While local labor market indicators would most precisely measure the opportunity structures individuals compare in migration decision making, public-use SIPP data do not provide the within-state-location indicators for all of its respondents needed to attach such indicators to SIPP case records. Thus, we must control for states' economic characteristics. State-level economic characteristics were determined using the Annual Demographic (March) files of the 1996-1999 Current Population Survey (CPS). Individual-level information was summarized by state to create continuous measures of state unemployment rates, median income, the proportion of residents in poverty, and the proportion of residents who rent their homes. This information was then merged with the SIPP and Welfare Rules data. Measures for 1996 are used in the departure models, and period-averaged measures are used in the destination models.

Origin and Destination Statistical Models

To model migration behavior, we adopt the modeling strategy of Frey, Liaw, Xie, and Carlson (1996) for separately identifying push and pull effects of our co-variables to a discrete-time event history migration model. This is a nested logit model for predicting a binomial response variable; we modify the model to accommodate a multinomial response outcome where alternative behaviors include no migration, migration to or from a lenient state, and migration to or from a stringent state. In all models to determine the “pull” of states with more or less stringent welfare rules, migration to a state with more stringent rules is our reference category and coefficients are estimated for effects on the probability of moving to a state having “stringent” (i.e., stringent by less so that more stringent), “lenient” and “more lenient” rules. In

models of departure, we model the likelihood of migration to a stringent or a lenient state versus no migration. Inclusion of the estimated “pull” of all states which differ from the origin state on welfare rules stringency in our models of departure indicates the “push” to migrate given the draw of potentially more lenient states. Frey and his colleagues describe their model as two separately estimated models: First a “destination model” for identifying pull effects, which provides an estimated co-variate representing the power of that pull for use in a “departure model,” which identifies the push effects of a potential migrant’s origin location. They discuss their model in the following way:

We can decompose $\rho_{ij,t}$, the unobserved probability that sub-population t living in state i (or, as in the proposed project, in class of states i) at a particular time had subsequently moved to state j (or, as in the proposed project, to class of states j), to obtain

$$\rho_{ij,t} = \rho_{i+,t} \rho_{j|i,t},$$

the product of the marginal probability of departure from class of states i and the probability of moving to class of states j conditional on moving from class of states i , respectively. In the nested model, $\rho_{i+,t}$ is the departure model and $\rho_{j|i,t}$ is the destination model. The destination (pull factor) model, a logit specification with population- and destination-specific predictors, is written as

$$\rho_{j|i,t} = \frac{\exp(\beta' y_{ij,t})}{\sum_{k \neq i} \exp(\beta' y_{ijk,t})},$$

where $y_{ij,t}$ is a column vector of explanatory variables and β' is a row vector of unknown coefficients. The summation in this equation is over all potential destinations. Using similar

notation, the departure (push factor) model is given as

$$\rho_{i,t} = \exp(\alpha' x_{i,t}) / [1 + \exp(\alpha' x_{i,t})],$$

where α' is a row vector of unknown coefficients and $x_{i,t}$ is a column vector of explanatory variables including $l_{i,t}$, the natural logarithm of the denominator from the destination selection model, which is defined as the drawing power of the rest of the system (i.e., potential destinations) on the potential migrant from class of states i .

We modify this model simply such that t represents individual t and add the dimension of time (the above models were applied to the case of data for only two points in time). Thus, our version of the basic model is

$$\rho_{ij,t,m+1} = \rho_{i,t,m} \rho_{ji,t,m+1},$$

where $\rho_{ij,t,m+1}$, the unobserved probability that the individual t living in class of states i at a particular time m had moved to class of states j at time $m+1$.

Limitations of the study result from our inability to estimate destination decisions among individuals who move within their states or who are lost from the sample through attrition. Those individuals are included as non-migrants in our departure models only. To the extent that these individuals share characteristics with inter-state migrants, our estimates are conservative.

Results from Destination and Departure Models of Welfare Migration

Destination Models

Impact of destination state welfare behavior-related and eligibility rule benefit levels on the interstate migration of poor families, given 1996-1999 changes (i.e. "race to the bottom" or a relaxation) in these rules, is shown in Table 3. The unstandardized regression results are further controlled for selected migration-associated economic characteristics of states, all of which, as

expected, exert an independent effect on the migration behavior of poor families. The key welfare policy substantive results from these destination models are presented in Figures 4 and 5.

Figure 4 shows that compared to destination states which have more stringent behavior-related rules, poor families are more likely to migrate to states where the behavior-related rules became less stringent, and notably to states which have more lenient rules. From a base odds of 1.0 for the more stringent states, the odds of migration to less lenient states increase to 11 and to 30 for states with the most lenient behavior-related welfare policy rules. Figure 4 also shows that change in eligibility rules has no independent effect on the odds of migration, given the behavior-related benefit levels of destination states.

This evidence for behavior-related welfare policy benefits strongly supports the thesis that as a reaction to increasing stringency in state welfare policy behavior rules ("race to the bottom"), poor families have migrated to states with more lenient behavioral rules.

Figure 5 provides similar evidence on the destination-state eligibility rules impact on the migration behavior of poor families. The results show that, compared with destination states which have the most stringent eligibility rules, poor families are likely to migrate to states where the eligibility rules are less stringent. The odds of migration are over 90-times higher than moving to other states with highly stringent eligibility rules. This supports the general thesis that poor families are attracted to states with less stringent rules. However, contrary to expectations, there is no evidence that poor families are "pulled" to states where eligibility rules are lenient, perhaps because the 1996-1999 trend in most of their home states was toward more lenient eligibility rules.

Thus this evidence provides mixed support for the impact of change in eligibility rules in destination states on the interstate migration of poor families. Similar to what was noted above, changes in behavior-related rules have only minimal effect on the odds of migration given eligibility rules criteria.

Departure Models

The impact of origin-state welfare behavior-related rules on interstate migration versus not moving, conditioned on the pull of welfare rules in other states, and given 1996-1999 changes in behavior-related and eligibility rules in the origin state, is presented in Table 4. These unstandardized regression results further control for selected individual socioeconomic and state economic characteristics identified in prior literature as determinants of move–stay migration behavior. The push from origin states, indicated by the change in eligibility and behavior-related rules, is the more salient factor compared with the pull from destination states for explaining departure. The most important substantive results of this analysis for welfare policy are presented in Figure 6.

Poor families have a higher probability of interstate migration versus not moving from lenient behavior-related states when the post welfare-reform policy in these states has become more stringent. From a base move–stay (i.e., no move) odds of 1.0, the odds of migration of poor families from lenient states where the welfare behavior-related policy has become more stringent is over three times greater than when the behavior-related rules have not changed. This evidence of increased odds of migration versus not moving by poor families in response to more stringent behavior-related welfare policy rules supports a welfare inequality cost–benefit interpretation of migration decision making. Figure 6 also shows that migration behavior

increases slightly (odds of 1.5) from stringent behavior-related states as the eligibility rules become more lenient and decreases (odds less than 0.5) as the behavior-related rules become more stringent. The interpretation of these relatively small-effect results is not immediately obvious and deserves further investigation.

Table 5 and Figure 7 provide similar evidence on the effect of origin state welfare eligibility rules on the interstate migration vs. not move behavior of poor families. The key result shows that the odds of migration increase for poor families living in states with stringent welfare eligibility rule when the state eligibility rules become more lenient. This change in states with lenient eligibility rules reduces the likelihood of out migration from these states. These results suggest that migration is one option by which poor families adapt to stringent eligibility rules in their home state, in the context of uncertainty about the changes in these rules.

Summary and Conclusions

The objective of this research was to test the thesis that the devolution of welfare policy and programs to states has resulted in inequalities in welfare programs which have created incentives for poor families to migrate to other states and disincentives to stay in origin states because of divergence in lenient-to-stringent welfare rules. We tested this thesis using models of both destination (pull effects) and departure (push effects) on interstate migration behavior using measures of eligibility and behavior-related welfare rules as key policy dimension indicators.

The analysis provided evidence that was generally consistent with both the overall thesis and the specific theoretical framework of policy inequalities discussed in Table 1. Perhaps the most compelling evidence for the thesis was the impact of the 1996-1999 changes toward more stringent behavior-related rules in the majority of states. The destination model results showed

that poor families who migrated were more likely to choose states with more lenient behavior-related rules, controlling for the effects of state economic characteristics. Furthermore, the departure model results also showed that state policy change toward more stringent behavior rules in lenient behavior-rule states triggered out-of-state migration by poor families. In addition, the departure model results indicated that even in the context of easing eligibility rules, poor families had a greater likelihood of out-of-state migration from states that had stringent behavior-related welfare rules. These destination and departure model results support the conclusion that poor families have engaged in interstate migration as a response to the "race to the bottom" by states toward more stringent behavior-related rules for welfare program participation that have been instituted in the wake of welfare reform.

Changes in state welfare eligibility rules also provide general, if less straightforward, evidence on welfare policy determinants of interstate migration of poor families. Results from the destination model showed that poor families who migrate tended to choose states with less stringent (although not the most lenient) eligibility rules. And the departure model results suggested that even with the post-welfare reform trend toward more relaxed state eligibility rules, poor families tended to migrate from states with stringent eligibility rules. One interpretation of this latter finding is that changing state policy regarding eligibility created uncertainty about time limits, income thresholds, family criteria, etc., which in turn precipitated departure migration of poor families in stringent-eligibility states.

The validity of these findings is buttressed by the fact that the coefficients for the impact of welfare policy on migration of poor families maintained their statistical significance when salient alternative state economic development and family and individual socio-economic status

explanatory indicators were included in the models. Most notable theoretically is the congruence in poor families= migration destination choice of states having friendlier welfare behavioral rules and states with generally higher median incomes and lower unemployment rates. These destination model findings are consistent with, but not a full test of, the modern welfare migration assumption that welfare recipients desire to maximize both their welfare and their job and income opportunities (Schram and Soss 1999).

From a migration research perspective we conclude that the evidence generally supports the thesis that post-welfare-reform inequalities in both the level and the change in state eligibility and behavior-related welfare rules are important determinants of migration by poor families. Furthermore, the empirical support for both the destination (benefits) and departure (disincentives) effects of welfare policy on migration behavior extends the traditional one-equation micro-economic cost-benefit theoretical perspective on migration. While state economic development and individual socio-economic status indicators were included in the analysis, this study is not a full test of possible competing explanations for the welfare and migration hypothesis. In future research we will test alternative life course transition explanations based on event-history modeling of marital status, fertility, work, and job training individual-level changes. In addition, use of the restricted-use SIPP data in future research would make possible more precise tests of local labor market economic development hypotheses by providing within-state location indicators for all SIPP respondents.

From a public policy perspective, the evidence affirms the position that the new federalism approach to public benefits has exacerbated welfare assistance inequalities as they are linked to migration of poor families. The results support Schram and Soss's (1999) welfare -

incentive assumption regarding the impact on welfare recipients' destination choice and residential departure behavior decisions, and their instrumental assumption that recipients make residential decisions on the basis of means-ends rational choice of welfare benefits and state economic conditions. While further analyses noted above remain to be pursued, the evidence presented here suggests that, whether intended or unintended, the 1996 Personal Responsibility and Work Opportunity Reconciliation Act has now created policy-driven interstate migration of poor families in the United States.

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Table 1. Theoretical Framework for the Study of Policy Impact on Migration Behavior

State Level of Benefits and Eligibility	Welfare Reform Period Changes in State Benefits and Eligibility	
	<u>Increasing or Little Change</u>	<u>Decreasing or Restricting</u>
Higher Benefit Levels/Less Restrictive Eligibility	Strong pull (welfare magnet) effect on inter-state migration of welfare poor	Higher intra- and inter-state migration of welfare poor
Lower Benefit Levels/More Restrictive Eligibility	No direct effect on migration of welfare poor	Strong push (& disincentive to immigration) effect on inter-state migration of welfare poor

Table 2. Descriptive Statistics for State and Individual Characteristics Used in Departure and Destination Models.

Variable	<u>Departure Models</u>	<u>Destination Models</u>
	All Poor & Near-poor Families (n=864,830 person months)	Poor & Near-poor Migrant Families (n=41,957 person months)
<u>State Characteristics</u>		
Change in Eligibility Rules	2.7 (sd=0.7)	2.8 (sd=0.7)
Change in Behavior-related Rules (Reference=No Change)	75%	75%
Median Income*	6.7 (sd=0.8)	7.4 (sd=0.9)
% Unemployed*	3.8 (sd=0.8)	3.3 (sd=0.7)
% at or below Poverty*	-	31.1 (sd=5.3)
% Rent Homes*	-	21.9 (sd=5.0)
<u>Individual Characteristics</u>		
Female	77%	-
Age 20-44 (Reference=15-19 & 45+)	57%	-
Married, Spouse Present	29%	-
Racial/Ethnic Minority	32%	-
Enrolled in School	12%	-
Not Working	42%	-
Owns Home	55%	-

*Averaged over 1997-1999 for migrant poor and near-poor families and are for 1996 for all families.

Table 3. Destination Models of Migration to States Having Behavior-related Rules Ranging from More Lenient to More Stringent
(n=41,957 person months)

State Characteristic	Behavior-related Rules (Reference= Most Stringent State)						Eligibility Rules (Reference= Most Stringent State)					
	Migration to Less Stringent States		Migration to Less Lenient States		Migration to Most Lenient States		Migration to Less Stringent States		Migration to Less Lenient States		Migration to Most Lenient States	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Change in Behavior-related Rules, 1996-1999 (versus Little or No Stringent)	.2**	.6**	1.3**	2.4**	.4**	3.4**	1.5**	1.3**	-2.3**	2.6**	.7**	.7**
Change in Stringency of Eligibility Rules, 1996-1999	2.0**	2.2**	-13**	-22**	-12**	-16**	76**	92**	8.5**	7.2**	-2.2**	-10.6**
(Change in Stringency of Eligibility Rules, 1996-1999) ²	-.01**	.1**	2.5**	4.3**	2.4**	2.7**	-14**	-17**	-1.3**	-.8**	.2**	3.3**
Median Income		-.1**		1.5**		7.4**		.5**		-1.0**		4.2**
Proportion in Poverty		.1**		.1**		.6**		.1**		-.2**		.2**
Proportion Unemployed		-2.7**		-2.1**		1.0**		.1**		-2.3**		-2.7**
Proportion Renting Home		.01**		.3**		-.6**		-.2**		-.02**		-.2*
Intercept	-5.1**	-.2**	14.1**	9.5**	13.3**	-48**	-102**	-130**	-12.4**	8.8**	-2.2**	7.4**

**p_.01

Table 4. Departure Models of Migration by Stringency/Leniency of State Welfare Behavior-related Rules, versus Not Moving, Controlling for Individual Socioeconomic and State Economic Characteristics and Change in Welfare Rules and Duration (not shown) (n=835,092 person months)*

Variable	Migration From Stringent States			Migration From Lenient States		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Pull of States with Lenient Behavior Rules	0.0**	0.0**	0.0**	.01	.01	.01
Pull of State with Stringent Behavior Rules	-.02	-.03	-.02	.002	.002	.002
Change in Eligibility Rules (Origin State)	5.6	5.7	8.6	-2.4	-2.3	-1.9
(Change in Eligibility Rules) ²	-.9	-.9	-1.3	.4	.4	.3
Change in Behavior-related Rules (Origin State)	-1	-.9	-1.4	1.2	1.2	1.1
Female		-.04 (ns)	-.04 (ns)		.3	.3
Age 20-45		.9	1		.9	.9
Married, Spouse Present		.1 (ns)	.1 (ns)		-.01 (ns)	-.01 (ns)
Racial/Ethnic Minority		-.8	-.8		-.7	-.7
Enrolled in School		.03 (ns)	.1 (ns)		.2 (ns)	.2 (ns)
Not Working		.7	.7		.7	.6
Owns Home		-1	-1.2		-1	-1
Median Income - State			-.2			.04 (ns)
% Unemployed - State			.6			.6
Intercept	-14.1	-14.7	-16	-5.7	-5.9	-8.8
Likelihood Ratio	13039.89 (4E3 df)	12616.39 (1E5 df)	12410.15 (1E5 df)	13039.89 (4E3 df)	12616.39 (1E5 df)	12410.15 (1E5 df)

* $p \leq .01$, unless otherwise indicated
 **Effect controlled; coefficient not estimated
 (ns) Not statistically significant

Table 5. Departure Models of Migration by Stringency/Leniency of State Welfare Eligibility Rules, versus Not Moving, Controlling for Individual Socioeconomic and State Economic Characteristics and Change in Welfare Rules (n=835,092 person months)*

Variable	Migration From Stringent States			Migration From Lenient States		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Pull of States with Lenient Eligibility Rules	0.0**	0.0**	0.0**	0.0**	0.0**	0.0**
Pull of State with Stringent Eligibility Rules	0.0**	0.0**	0.0**	0.0**	0.0**	0.0**
Change in Eligibility Rules (Origin State)	18	17	19	-5.8	-6	-7
(Change in Eligibility Rules) ²	-3.4	-3.3	-3.7	1.1	1.1	1.4
Change in Behavior-related Rules (Origin State)	-.4	-.3 (ns)	-.1 (ns)	-.2	-.2 (ns)	-.2 (ns)
Female		-.04 (ns)	-.04 (ns)		.3	.3
Age 20-45		.9	.8		.8	.8
Married, Spouse Present		.1 (ns)	.1 (ns)		.1 (ns)	.1 (ns)
Racial/Ethnic Minority		-1	-1		-1	-.9
Enrolled in School		-.1 (ns)	-.1 (ns)		-.03 (ns)	-.01 (ns)
Not Working		.6	.5		.7	.7
Owns Home		-1	-1.5		-1.3	-1
Median Income - State			-.9			.4
% Unemployed - State			-.03 (ns)			-.2
Intercept	-30	-30	-27	.6	.6	-.2
Likelihood Ratio	14066.55 (4E3 df)	13557.74 (1E5 df)	13393.63 (1E5df)	14066.55 (4E3 df)	13557.74 (1E5 df)	13393.63 (1E5df)

* $p \leq .01$, unless otherwise indicated

**Effect controlled; coefficient not estimated

(ns) Not statistically significant

**Figure 1. Dimensions of State-level Welfare Reform Rules
(Cronbach alpha coefficient)**

I. Eligibility Rules

II. Behavioral Responsibilities & Requirements

1st-order Factors:

Pregnant Women (.95) Financial Responsibility of Extended Kin (.71) Transitional Benefits (.52)

Activities Requirements (.89)

Immigrant Needs (.83) 2-Parent Families (.93) Public Interest In Immigrants (.87)

Basic Eligibility Rules (.53) Assets/Income (.45)

Family Responsibilities (.89) Personal Responsibilities (.64)

Illness Exemption (.88) Work Exemption (.85)

Penalties for Noncompliance (.67) Time Limits (.56)

2nd-order Factors:

Eligibility Rules (.71)

Behavior-related Rules (.71)

Figure 2. Behavior-Related Rules 2nd-Order Factor Score, in 1999 and Change, 1996 to 1999

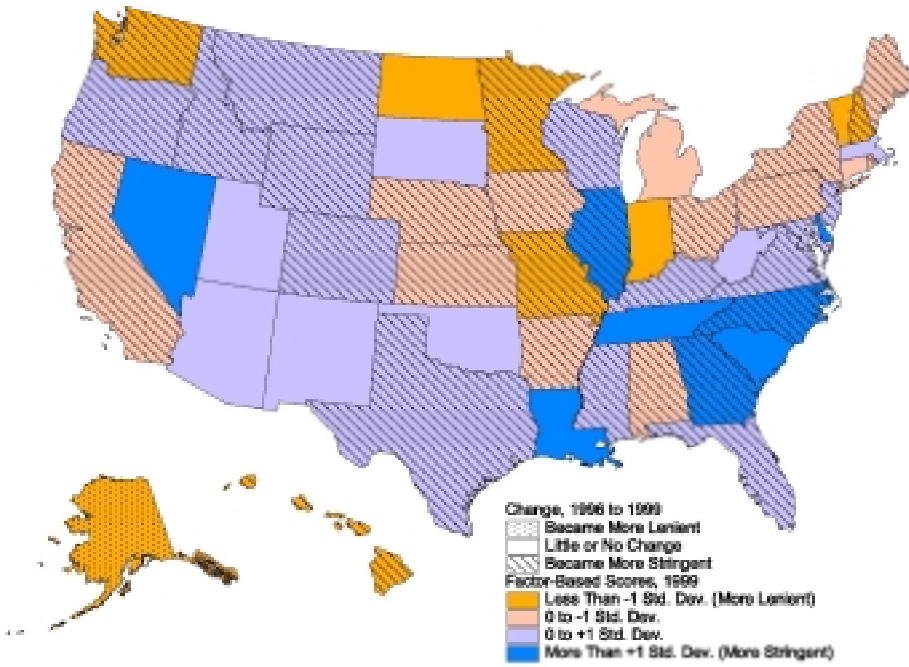


Figure 3. Eligibility Rules 2nd-Order Factor Score, in 1999 and Change, 1996 to 1999

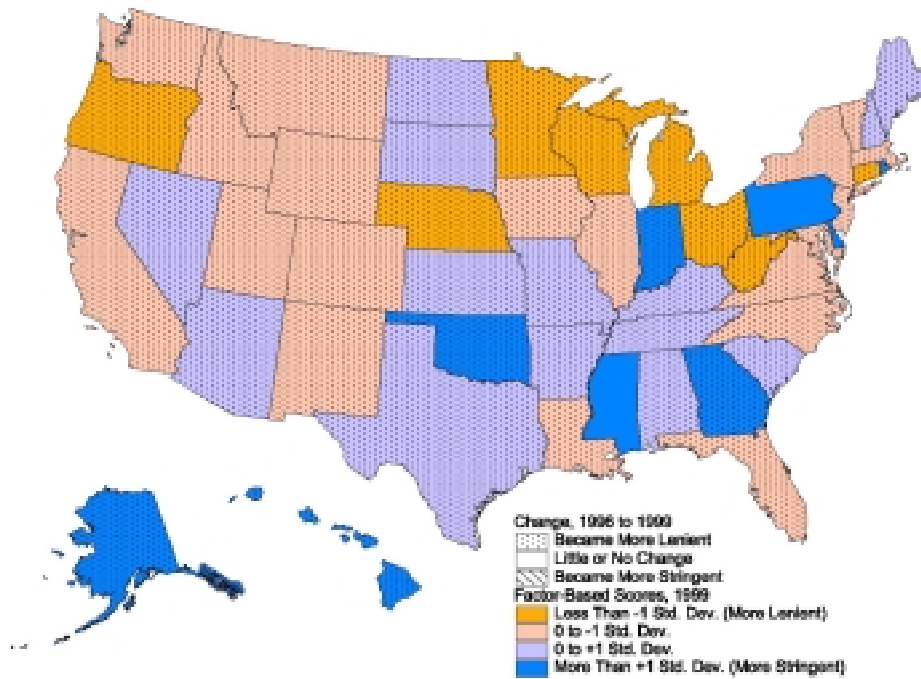
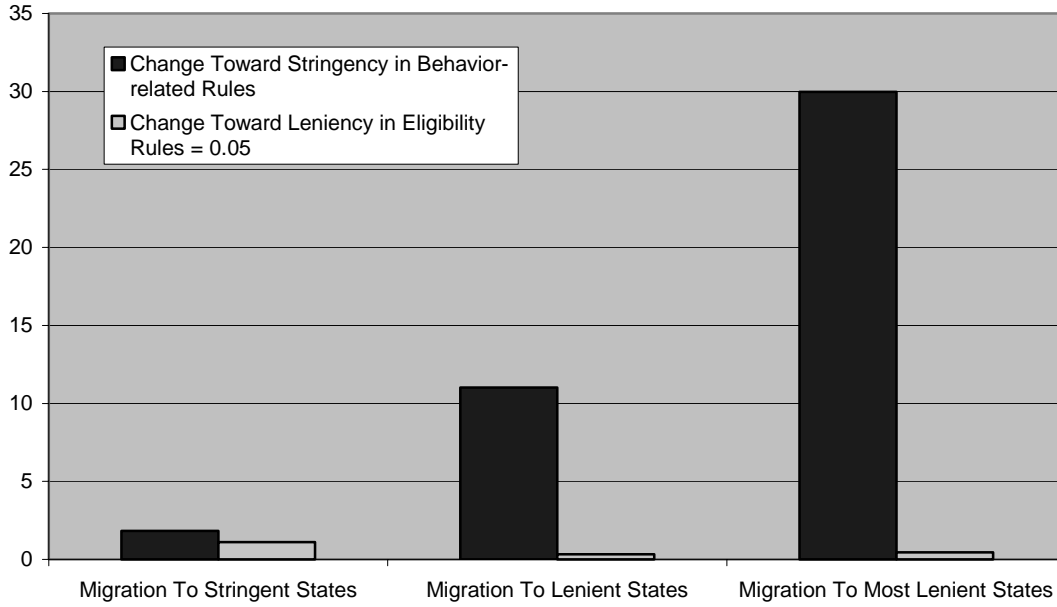


Figure 4. Log Odds of Migration, Conditional on Change in Behavior-related and Eligibility Rules, Controlling for State Economic Characteristics (Reference=Migration to Most Stringent States)



**Figure 5. Log Odds of Migration, Conditional on Change in Behavior-related and Eligibility Rules, Controlling for State Economic Characteristics
(Reference=Migration to Most Stringent States)**

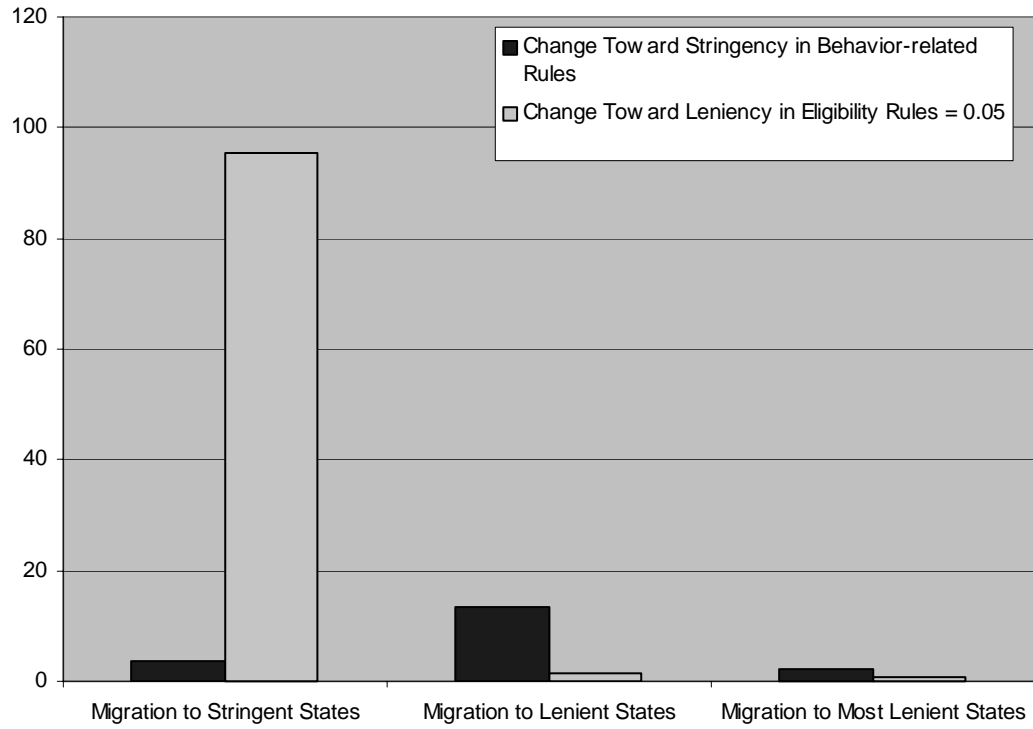


Figure 6. Log Odds of Migration, Conditional on Change in Behavior-related and Eligibility Rules, Controlling for State Economic and Individual Socioeconomic Characteristics (Reference=No Migration)

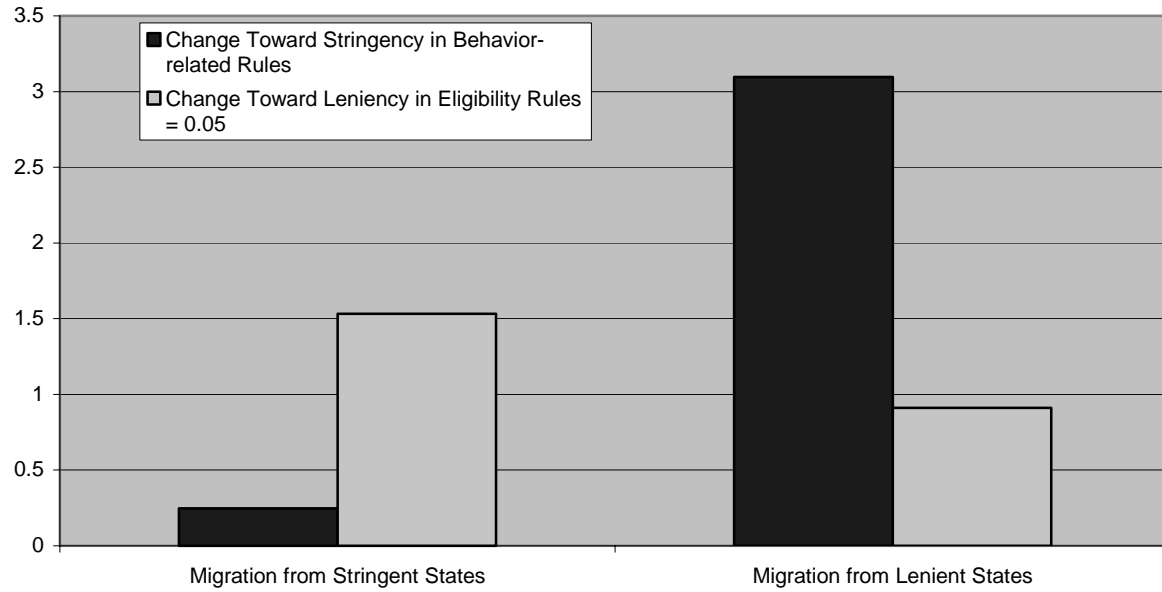


Figure 7. Log Odds of Migration, Conditional on Change in Behavior-related and Eligibility Rules, Controlling for State Economic and Individual Socioeconomic Characteristics (Reference=No Migration)

