Welfare Dimensions Summary Score (WDSS) Documentation:

by

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ABSTRACT

This paper describes a methodology for categorizing state welfare reform policy guidelines from the Urban Institute’s Welfare Rules Database into quantitative dimensions to more effectively conceptualize and manage the magnitude of data on post-reform state TANF recipient rules. Using factor analysis techniques, coded policy guidelines for 43 unique rules on which there was variation across states were reduced to 18 first- and second-order dimensions. Stringent-to-lenient scores on each of these 18 dimensions for all states and the District of Columbia for each year during the 1996-2003 post welfare-reform period are available to academic and policy researchers for justified scientific studies through the Data Archive of the Population Research Institute at the Pennsylvania State University.
INTRODUCTION

The redesign of U.S. welfare policy in 1996 freed states to create public assistance contexts specific to their own economic environments. States could view the change as an opportunity to aid the poor toward self sufficiency, or as a chance to reduce their own responsibilities in hopes that poverty would just go away – some say, to a state offering better benefits.

Devolution of welfare policy and programs to the states by the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) means welfare benefits can now differ by state on more than dollar amount, creating complex packages of benefits with which states may compete. The federal welfare reform legislation brought variation, for example, in time limits, work requirements, training opportunities, and child care assistance as well as in the size of the welfare check, resulting in greater potential for welfare receipt to appear more or less attractive across localities. Gradual implementation of reforms over time within and across states can add to benefit diversity, or to emergent similarity, in a possible “race to the bottom” of the welfare generosity barrel. This process has potential to eventually homogenize the medley as states converge toward a pattern of lower benefits and stricter rules for receiving them.

We contribute to this research and policy debate by providing quantitative evidence on welfare policies across all states and over the 1996-2003 period. The specific objective of this research has been to categorize textual welfare policy guidelines into dimensions and quantified scores across states throughout the post welfare reform implementation period. The resulting 18 policy dimension summary measures are made available to the research community as the
Welfare Dimensions Summary Scores (WDSS) dataset.

This paper describes the development these WDSS measures based upon the Urban Institute’s Welfare Rules Database (WRD). The WRD 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 1996-2003. It organizes the detailed and complex textual information on welfare rules across states and times, as well as across different types of assistance units. Data in text form are useful for qualitative and case study approaches to understanding welfare reform, but text-form data are difficult to incorporate into a national level study.

A quantitative approach calls for both numerical representation of each policy and reduction of the tremendous volume of rules data. We address these objectives from a client-oriented perspective to create a set of indicators useful for comparing all states and for evaluating the consequences of welfare reform for individual and family behavior and outcomes in nationally representative research. We present these data graphically in a cross-state comparative framework to demonstrate the relative stringency of state’s welfare rules and their change in the welfare reform implementation period.

BACKGROUND

The context of this research is the overarching question posed by the title of Schram’s and Beer’s (1999) recent book, "Welfare Reform: A Race to the Bottom?" As they note, the "race to the bottom" metaphor suggests a competition between states to underbid each other on a variety of public policy issues. These include lowering taxes, offering incentives, and simplifying regulations to attract business and industry, while at the same time tightening welfare rules and lowering benefits to reduce welfare rolls.

To assess state-level inequalities and changes, welfare eligibility policy may be
categorized and quantified according to several different perspectives. Some alternative possibilities are 1) from the perspective of state policy makers; 2) from the perspective of prior federal guidelines; and 3) from the perspective of cost-benefit program analysis. We categorize and quantify welfare policy guidelines on a lenient-to-stringent continuum from the client's perspective. That is, how would a current or prospective welfare client evaluate new state welfare benefits and participant-behavior rules from a personal adjustment perspective? For example, welfare reform may influence various survival strategies of poor families, including transition to work, fertility and family formation decisions, and moving to escape a stringent welfare environment. Thus we argue that the client perspective is most appropriate for evaluating the consequences of welfare reform for human behavior.

METHODOLOGY FOR MEASURING WELFARE POLICY VARIATION AND CHANGE

Using the basic categories provided by the Urban Institute’s text-based WRD (Urban Institute, 2000) as a point of departure, we coded 78 salient individual welfare rule items for each state and for the years 1996, 1997, 1998, 1999, 2000, 2001, 2002, and 2003. An additional 25 WRD items were excluded because minimal state-to-state variation rendered them of little empirical value (see Appendix A for a list of these rules). Items were coded on a lenient-to-stringent continuum and subjected to preliminary correlation analysis and then to varimax factor analysis solution to obtain rule dimensions for parsimoniously describing state policies. This process required several steps and relied on both conventional statistical decision criteria and the development of a set of decision rules for dealing with missing information. Our first step was to quantify textual measures provided by the WRD.

 Observed Welfare Policy Measures

The Welfare Rules Database, or WRD (Urban Institute, 2000), provides an array of
textual indicators documenting state welfare policy annually throughout the United States, beginning with PRWORA’s implementation in 1996, through 2003. These items are organized by the Urban Institute under 28 categories addressing families potentially eligible for benefits (including pregnant women without other children, minor parents, and two-parent families); which people in a family are eligible (e.g., non-citizen family members and family caps); states’ diversion of persons from applying for benefits; the amount of family assets allowable for eligibility; the amount of allowable income and how income is counted in determining eligibility (e.g., earned income disregards and income deeming); the state’s benefit computation technique; child support requirements in the state; family behavioral requirements (e.g., contracts and agreements, school attendance and health care policies); recipient family work-related requirements (including activities requirements, exemptions, and sanctions); time limits; and states’ strategies regarding recipient transition from welfare to work.

Items within these categories were examined for variation across states and time from 1996 to 2003, and those with sufficient variation for inclusion in statistical analyses were re-coded from a textual format to a numerical one using a lenient-to-stringent continuum. In this coding scheme, the most lenient value is 0, with the highest score representing greatest stringency among states. In some cases, variables are simply coded “yes” or “no,” with the more lenient of these coded 0 and the more stringent coded 1. An example is our indicator for whether or not a pregnant woman without other children is eligible for welfare benefits (PREGELG), where a “yes” response is coded 0 and “no” is coded 1. In some cases, the response is continuous, as for the maximum benefit allowable (MAXBENEF). For some continuous variables, the value is calculated using formulas provided for each state in the WRD. We assume a net income of 0 and a four-member family when these family characteristics are
needed for the calculation. In other cases, response categories are ordinal in nature, such as the indicator for who is eligible when a mother is pregnant (PREGWHO). Responses for this measure range from the mother and other family member(s), coded 0, to the mother only, coded 1, or no one, coded 2.

When data were unavailable for an item in the WRD because state policy guidelines do not mention the item, WRD indicates the response to be “N/A.” Those responses were analyzed by three independent coders using other information on the state’s policies available in the WRD to determine whether the data were missing because of leniency on the item in that state, because welfare reform had not been instituted yet in the state, or because the state continued rules from previous years without change and thus their policy documentation simply did not point out the rule. Based on this information and a straightforward set of decision rules (presented in Appendix C), codes were assigned to avoid the missing data problem. The research team consulted together to determine the most appropriate response code when inter-coder reliability was low. Thus our missing data imputation was based upon a logical decision rule process and the full range of information available in the WRD. Data were imputed in this manner for 5 percent of data points throughout the 1996-2003 period, making it possible to include data for all states for all years in the factor analytic stage of the project.

Development of Summary Measures Using Factor Analysis

Based upon preliminary exploration of the patterns of item inter-correlations, sets of variables expected to represent a single underlying construct were identified which involve 43 of the 78 coded items. Both tetrachoric and Pearson correlation coefficients were calculated and these provided comparable results. Whereas tetrachoric correlation is an appropriate statistic for data that are not measured on a continuous scale, such as most of the welfare rule items coded...
from the WRD, comparison of these with Pearson correlations indicates that use of basic factor analytic techniques are not unduly influenced by violation of the measurement-scale assumption. Variables were standardized so that a uniform metric was established among items. Sets of variables shown to be inter-correlated were then analyzed using factor analysis to arrive at a factor score for the underlying construct. Data users wanting an introduction to factor analytic methods are referred to *Introduction to Factor Analysis: What It Is and How to Do It* (Kim and Mueller 1978). As described by Hatcher (1994), a factor is a latent construct resulting in the expression of the observed variables. That is, when items are found to factor according to a single construct, their covariation is assumed to result from that construct. In this case, the underlying construct is a latent variable that contributes, in a linear combination of latent constructs, to the value of the observed variable.

Factor analysis is conducted as a series of steps leading to the construction of the factor score summary measure. The first step is to extract the factors to determine the number of components accounting for large portions of the variance among the variable set. Following the Kaiser criterion (Kaiser 1960), only factors with an eigenvalue greater than 1.0 were retained for interpretation. In most cases, only one factor was retained for our sets of variables. When more than one was indicated, the rotated solution was sought, using a varimax rotation procedure, which provides an orthogonal rotation. This procedure maximizes the variance in the factor matrix column, resulting in uncorrelated factors. Factors were interpreted according to the shared meaning among variables loading on the factor; that is, when variables load together on a factor, the meaning of the component is interpreted as the construct the variables all seemed to measure. Items with loadings of at least .40 were considered to contribute acceptably to the component; items with lower loadings were dropped from the set of variables used to create the
factor-based construct score. Reliability for the summary scales was calculated as the Cronbach’s coefficient alpha. While most items’ Cronbach’s alpha scores fall above the generally used threshold criterion of .70, we accept lower scores when our constructs are created by very small sets of variables.

For constructs meeting the above criteria, factor scores were calculated by multiplying each item by its optimal regression weight and summing the products to obtain each state’s score on the construct for each year 1996-2003. The results from this analytical process produced 15 1st-order constructs, which were then subjected to a second round of factor analysis to determine whether further data reduction would result in fewer, more general constructs. Patterns of correlation in the set of 1st-order scores were examined to determine groups of variables that might together serve as indicators of an underlying single construct. These groups were analyzed using factor analysis and a varimax rotation. Based upon the same threshold criteria as for 1st-order constructs, variables found to contribute significantly to the variance among the set were retained in the construction of 2nd-order factor scores and Cronbach alpha reliability coefficients were calculated for each.

In Table 1, each individual item contributing to a dimension is listed in the first column, with its factor loading shown in parenthesis. To the right of each set of items, in the second column, are listed each 1st-order dimension corresponding to the variable set, with the dimension eigenvalue, proportion of the variance explained, and reliability measure shown below the name of the dimension. In the third column, to the right of each inter-correlated set of 1st-order dimensions, are listed the 2nd-order dimensions with their statistical criteria measures.

Three 2nd-order constructs were found – one representing state’s rules regarding eligibility for groups, another representing rules regarding the expected behaviors of recipients,
and a third representing rules regarding eligibility time limits and work activities exemptions. Factor scores for these three constructs were then calculated for each state in each year. First-order scores contributing to the 2nd-order eligibility for groups item include rules to determine acceptable work-related activities and rules for two-parent families and immigrants. The 2nd-order behavior-related eligibility rules item comprises expected client behaviors; penalties for noncompliance; and special exemptions from rules. The 2nd-order eligibility limits and exemptions scale score comprises rules regarding illness-related exemptions, work exemptions, and time limits. Four of the 1st-order constructs did not load with these 2nd-order items and were retained as separate items. These are rules regarding welfare eligibility of pregnant women, asset and income thresholds, financial responsibilities for the recipient and the availability of transitional benefits.

Again, the pattern of relationships among the 1st- and 2nd-order constructs is demonstrated in Table 1. Table 2 presents mean scores for the dimensions. Because these constructs are created with standardized items, factor scores range from negative (the lowest indicating greatest leniency) to positive (the highest indicating greatest stringency) values. These data – Welfare Dimensions Summary Scores (WDSS) – are available through the Data Archive of the Population Research Institute (PRI) at the Pennsylvania State University. (See Appendix B for the list of summary variables and WRD variables on which they are based.)

CONCLUSIONS

The objective of this paper was to describe a methodology for categorizing and summarizing 78 state welfare reform policy guidelines. Using factor analysis, we identified 15 1st-order and three 2nd-order policy dimensions which summarize 43 of the 78 coded items. While the 35 coded items that do not contribute to our summary measures are indicators of state
policy stance, they were not found to result from the state’s underlying, “latent” policy climate. The 43 rules summarized by the WDSS share a common source of variation with at least one of the 18 dimensions derived through this analysis. Based on conventional scale construction criteria (i.e., adherence to conventional rules for threshold values of the eigenvalues, Cronbach coefficient alpha scores, and factor loadings), these dimensions provide meaningful operational measures of the variation across states and changes over time in welfare policy guidelines for the 1996-2003 welfare reform implementation period.
REFERENCES


<table>
<thead>
<tr>
<th>State Rules Contributing to Dimensions (item factor loading)</th>
<th>Dimensions Based On 1st Order Factor Analysis</th>
<th>Dimensions Based On 2nd Order Factor Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work-related Activities Requirements #1 (.94)</td>
<td>Work-related Activities Requirements</td>
<td>Eligibility Requirements for Groups Scale Score</td>
</tr>
<tr>
<td>Work-related Activities Requirements #2 (.97)</td>
<td>Eigenvalue:4.7</td>
<td>Eigenvalue:2.2</td>
</tr>
<tr>
<td>Work-related Activities Requirements #3 (.99)</td>
<td>Variance Explained: 95%</td>
<td>Variance Explained: 55%</td>
</tr>
<tr>
<td>Work-related Activities Requirements #4 (.98)</td>
<td>Chronbach’s α : .96</td>
<td>Chronbach’s α : .72</td>
</tr>
<tr>
<td>Work-related Activities Requirements #5 (.98)</td>
<td>(More stringent states accept work only; more lenient states accept a variety of activities and ease recipients into the workplace.)</td>
<td></td>
</tr>
<tr>
<td>Maximum Hours of Work in 2-Parent Family (.91)</td>
<td>Two-Parent Families</td>
<td></td>
</tr>
<tr>
<td>Job Proof Required for 2 Parents (.89)</td>
<td>Eigenvalue:2.5</td>
<td></td>
</tr>
<tr>
<td>Unemployment Duration Required for 2 Parents (.96)</td>
<td>Variance Explained: 84%</td>
<td></td>
</tr>
<tr>
<td>New Immigrant Eligibility in 1st 5 Years (.77)</td>
<td>Chronbach’s α : .91</td>
<td></td>
</tr>
<tr>
<td>Post-Reform Battered Immigrants Eligible (.92)</td>
<td>New/Battered Immigrants</td>
<td></td>
</tr>
<tr>
<td>Pre-Reform Battered Immigrants Eligible (.87)</td>
<td>Eigenvalue:2.2</td>
<td></td>
</tr>
<tr>
<td>Eligibility of Immigrants admitted for Emergency Reasons (.92)</td>
<td>Variance Explained: 73%</td>
<td></td>
</tr>
<tr>
<td>Eligibility of IRCA/Green-card Immigrants in 1st 5 Years (.86)</td>
<td>Chronbach’s α : .81</td>
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</tr>
<tr>
<td>Eligibility of Immigrants admitted for Humanitarian Reasons (.94)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eligibility of Immigrants admitted with Stay of Deportation (.93)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Required for Dependent Children (.86)</td>
<td>Family Responsibilities</td>
<td></td>
</tr>
<tr>
<td>Immunization Requirement (.88)</td>
<td>Eigenvalue:3.0</td>
<td></td>
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<tr>
<td>Contract Requires Immunization/Health Screening (.88)</td>
<td>Variance Explained: 75%</td>
<td></td>
</tr>
<tr>
<td>Contract Requires School Involvement (.84)</td>
<td>Chronbach’s α : .89</td>
<td></td>
</tr>
<tr>
<td>Drug/Alcohol Screening Required (.85)</td>
<td>Personal Responsibilities</td>
<td></td>
</tr>
<tr>
<td>Parenting/Family Skills Classes Required (.85)</td>
<td>Eigenvalue:1.4</td>
<td></td>
</tr>
<tr>
<td>Income Eligibility Test Value (.64)</td>
<td>Variance Explained: 72%</td>
<td></td>
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<tr>
<td>Job Search Requirement (.58)</td>
<td>Chronbach’s α : .61</td>
<td></td>
</tr>
<tr>
<td>Drug Felon Eligibility (.75)</td>
<td></td>
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<tr>
<td>Sanctions for Activities Requirements Noncompliance (.87)</td>
<td>Basic Responsibilities</td>
<td></td>
</tr>
<tr>
<td>Most Severe Penalty for Child Support Noncompliance (.87)</td>
<td>Eigenvalue:1.3</td>
<td></td>
</tr>
<tr>
<td>Exempt for Own Illness (.96)</td>
<td>Variance Explained: 44%</td>
<td></td>
</tr>
<tr>
<td>Exempt to Care for Ill Unit Member (.96)</td>
<td>Chronbach’s α : .35</td>
<td></td>
</tr>
<tr>
<td>Exempt If No Activities Program in Area (.78)</td>
<td>Noncompliance Penalties</td>
<td></td>
</tr>
<tr>
<td>Exempt If VISTA Volunteer (.76)</td>
<td>Eigenvalue:1.5</td>
<td></td>
</tr>
<tr>
<td>Unit Exemption (.84)</td>
<td>Variance Explained: 76%</td>
<td></td>
</tr>
<tr>
<td>Work Hours Required for Exemption (.78)</td>
<td>Chronbach’s α : .68</td>
<td></td>
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<tr>
<td>Time Limit Extensions Implemented (.83)</td>
<td>Illness Exemption</td>
<td></td>
</tr>
<tr>
<td>Combination of Time Limits Employed (.83)</td>
<td>Eigenvalue:1.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Variance Explained: 92%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chronbach’s α : .91</td>
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<tr>
<td>Exempt If No Activities Program in Area (.78)</td>
<td>Work Exemption</td>
<td></td>
</tr>
<tr>
<td>Exempt If VISTA Volunteer (.76)</td>
<td>Eigenvalue:2.5</td>
<td></td>
</tr>
<tr>
<td>Unit Exemption (.84)</td>
<td>Variance Explained: 63%</td>
<td></td>
</tr>
<tr>
<td>Work Hours Required for Exemption (.78)</td>
<td>Chronbach’s α : .80</td>
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<tr>
<td>Time Limit Extensions Implemented (.83)</td>
<td>Time Limits</td>
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</tr>
<tr>
<td>Combination of Time Limits Employed (.83)</td>
<td>Eigenvalue:1.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Variance Explained: 69%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chronbach’s α : .56</td>
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</tr>
</tbody>
</table>

**Eligibility Limits & Exemptions Scale Score**
- Eigenvalue:1.6
- Variance Explained: 54%
- Chronbach’s α : .56
<table>
<thead>
<tr>
<th>State Rules Contributing to Dimensions (item factor loading)</th>
<th>Dimensions Based On 1st Order Factor Analysis</th>
<th>Dimensions Based On 2nd Order Factor Analysis</th>
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<tbody>
<tr>
<td>Pregnant Women Eligible (.98)</td>
<td>Pregnant Women</td>
<td></td>
</tr>
<tr>
<td>Month Benefits Start for Pregnant Women (.98)</td>
<td></td>
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<tr>
<td>Child Care Assistance Duration Required (.78)</td>
<td>Transitional Benefits</td>
<td></td>
</tr>
<tr>
<td>Prior Medicaid Duration Required (.78)</td>
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<tr>
<td>Stepparent Inclusion in Benefit Calculation (.86)</td>
<td>Extended Kin</td>
<td></td>
</tr>
<tr>
<td>Deeming of Stepparent Income (.93)</td>
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<tr>
<td>Deeming of Co-resident Grandparent Income (.56)</td>
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<td>Unrestricted Asset/Resource Limit (.80)</td>
<td>Assets/Income</td>
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</tr>
<tr>
<td>Earned Income Disregards Value (.80)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Pregnant Women**
  - Eigenvalue: 1.9
  - Variance Explained: 95%
  - Chronbach’s α: .95

- **Transitional Benefits**
  - Eigenvalue: 1.2
  - Variance Explained: 61%
  - Chronbach’s α: .38

- **Extended Kin**
  - Eigenvalue: 1.9
  - Variance Explained: 64%
  - Chronbach’s α: .70

- **Assets/Income**
  - Eigenvalue: 1.3
  - Variance Explained: 64%
  - Chronbach’s α: .44

Source: Welfare Rules Database, Urban Institute
### Table 2. Descriptive Statistics for Welfare Dimensions Summary Scores (N=408 state-years) and 1996-2003 Change in Summary Scores (N=51)

<table>
<thead>
<tr>
<th>Welfare Dimension</th>
<th>Dimension Range</th>
<th>Mean Change</th>
<th>(Standard Deviation)</th>
<th>Change Range across States &amp; District of Columbia</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2nd Order Dimensions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eligibility Requirements for Groups Scale Score</td>
<td>-1.13 – 2.09</td>
<td>-2.22</td>
<td>(1.08)</td>
<td>-3.22 – -0.47</td>
</tr>
<tr>
<td>Behavioral Eligibility Responsibilities Scale Score</td>
<td>-1.94 – 2.18</td>
<td>1.22</td>
<td>(0.89)</td>
<td>-0.56 – 2.89</td>
</tr>
<tr>
<td>Eligibility Limits and Exemptions Scale Score</td>
<td>-2.08 – 1.91</td>
<td>1.78</td>
<td>(0.87)</td>
<td>-0.81 – 3.33</td>
</tr>
<tr>
<td><strong>1st Order Dimensions</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Work-Related Activities Requirements</td>
<td>-0.83 – 2.73</td>
<td>-1.14</td>
<td>(1.00)</td>
<td>-3.20 – 1.42</td>
</tr>
<tr>
<td>Two Parent Families</td>
<td>-0.73 – 1.55</td>
<td>-1.36</td>
<td>(1.03)</td>
<td>-2.26 – 0.00</td>
</tr>
<tr>
<td>New/Battered Immigrants</td>
<td>-1.16 – 1.18</td>
<td>-1.74</td>
<td>(0.76)</td>
<td>-2.34 – 0.00</td>
</tr>
<tr>
<td>Green Card/Refugee Immigrants</td>
<td>-0.65 – 1.86</td>
<td>-2.20</td>
<td>(0.66)</td>
<td>-2.51 – 0.00</td>
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<tr>
<td>Family Responsibilities</td>
<td>-1.29 – 1.05</td>
<td>0.95</td>
<td>(0.96)</td>
<td>0.00 – 2.34</td>
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<tr>
<td>Personal Responsibilities</td>
<td>-0.79 – 1.75</td>
<td>0.85</td>
<td>(0.99)</td>
<td>0.00 – 2.54</td>
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<td>Basic Responsibilities</td>
<td>-1.49 – 1.63</td>
<td>0.82</td>
<td>(1.00)</td>
<td>-3.20 – 1.42</td>
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<tr>
<td>Noncompliance Penalties</td>
<td>-2.22 – 1.41</td>
<td>0.59</td>
<td>(1.01)</td>
<td>-1.06 – 3.63</td>
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<td>Illness Exemption</td>
<td>-0.65 – 1.66</td>
<td>0.54</td>
<td>(1.08)</td>
<td>-2.31 – 2.31</td>
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<td>Work Exemption</td>
<td>-1.88 – 0.83</td>
<td>1.70</td>
<td>(1.02)</td>
<td>-0.99 – 2.54</td>
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<tr>
<td>Time Limits</td>
<td>-2.03 – 1.92</td>
<td>1.49</td>
<td>(1.02)</td>
<td>-1.66 – 3.31</td>
</tr>
<tr>
<td>Pregnant Women</td>
<td>-0.89 – 1.33</td>
<td>0.05</td>
<td>(0.56)</td>
<td>-1.65 – 2.22</td>
</tr>
<tr>
<td>Transitional Benefits</td>
<td>-1.94 – 0.87</td>
<td>-0.83</td>
<td>(0.87)</td>
<td>-2.81 – 0.00</td>
</tr>
<tr>
<td>Extended Kin</td>
<td>-1.73 – 1.19</td>
<td>0.10</td>
<td>(1.11)</td>
<td>-2.32 – 2.32</td>
</tr>
<tr>
<td>Assets/Income</td>
<td>-2.99 – 1.77</td>
<td>-0.50</td>
<td>(0.86)</td>
<td>-3.32 – 0.99</td>
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</tbody>
</table>

**Note:** All dimensions are standardized scores with a mean of 0 and standard deviation of 1.
APPENDIX A. RULES EXCLUDED DUE TO INADEQUATE VARIABILITY

Are two-parent, non-disabled units eligible? (98% YES)

Are child only units living with ineligible parents eligible? (100% YES)

Are child-only units living with ineligible non-parent relatives eligible? (100% YES)

Are child-only units living with non-relative caregivers eligible? (91.7% YES)

Whether mandatory or optional to include natural/adoptive parents living in the household as members of the unit (100% MANDATORY)

Whether it is mandatory or optional to include all dependent children living in the household as members of the unit (93.9% MANDATORY)

The age under which an individual is considered a child with no restrictions (96.9% Age 18)

The age under which an individual is considered a child with restrictions (e.g., must be a full-time student) (94.1% AGE 19)

Whether SSI recipients are eligible (100 % NO)

Whether cooperation with child support enforcement is required in the state (100% YES)

Whether illegal immigrants, or undocumented aliens who are remaining in the U.S. without INS permission are eligible for benefits. (100% NO)

Whether nonimmigrants, or aliens who have been admitted for a temporary stay in the U.S. in order to fulfill a specific purpose (i.e., tourists, students, business visitors), are eligible for benefits. (99.35% NO)

Whether the non-exempt group of “regular immigrants” who enter the U.S. with a green card or are permitted permanent residence under the Immigration Reform and Control Act (IRCA) or Special Agricultural Worker provisions of the IRCA are eligible for benefits. (98% ALL ELIGIBLE)

Whether the non-exempt immigrant group with humanitarian status based on conditions abroad (i.e., may face persecution in their homeland) is eligible for benefits. Refugee status permits non-citizens to enter from abroad, and asylee status permits non-citizens in the U.S. to remain. (95% ALL ELIGIBLE)

Whether non-exempt non-citizens granted a stay of deportation or who have had their deportation withheld are eligible for benefits. (90% ALL ELIGIBLE)
Whether non-exempt persons or immigrant groups that are permitted entry into the U.S. in cases of emergency or because of an overriding public interest are eligible for benefits. These entrants are granted temporary residence and are not likely to become residents. (94% ALL ELIGIBLE)

Whether a state counts some portion of Food Stamps as unearned income in determining eligibility and benefits. (99.35% NO)

Whether or not the income of grandparents outside the household is deemed. (99% NO)

Range of dollar values to which Earnings Disregard #1 applies. (99% ALL)

Whether parents are required to be involved in their children’s education in any way other than encouraging school attendance. (94% NO)

Whether students are required to achieve at least minimum school standards. (99% NO)

Whether any school bonuses are offered for compliance with school requirements. (97.4% NO)

Whether a state provides Transitional Child Care to some or all former program participants. (90%+ YES)

Whether state provides Transitional Medicaid coverage to some or all former program participants. (90%+ YES)

Whether state has any test that compares net earnings (earned income with disregards) to an income threshold (100% NO)
APPENDIX B. CODE BOOK

Welfare Dimensions Summary Score (WDSS) Data, 1996-2003

For the 18 variables (dimensions) in the WDSS data, low values indicate lenient rules and high values represent stringent rules. Each of these dimensions is a first- or second-order factor-score-based summary item comprised by a set of items derived from the Urban Institute’s Welfare Rules Database (WRD). Each WRD-derived item was standardized before inclusion in factor analytic procedures to produce factor scoring. Details regarding this procedure are provided in the Documentation text above.

Variable names for each WDSS summary score dimension are listed below, with variable designations used in the data set shown in brackets. The data contain a value for each year 1996-2003 for each WDSS dimension.

For dimensions based on first-order factor analysis, WRD-derived items, created by quantitatively coding original textual Welfare Rules Database (WRD) variables, plus the response categories used in coding each, are listed below the WDSS dimension to which they contribute (original WRD variable names are shown in parentheses).

For dimensions based on second-order factor analysis, each first-order-factor-based dimension contributing to the second-order dimension is listed below the dimension designation.

DIMENSIONS BASED ON FIRST-ORDER FACTOR ANALYSIS

1. **Eligibility of Pregnant Women** [preg]

PREGELG (ep_asteg)
Indicates whether pregnant women are ever eligible in the state.
0= Yes (mother and father, mother and spouse if he lives with, mother and unborn child)
1= No

PREGMO (ep_month)
For states that provide assistance to pregnant women, indicates the month of pregnancy during which eligibility begins for a pregnant woman with no other children.
0= 6 months and under
1= 7 months and up
2= N/A (Pregnant women are not eligible)

2. **Transitional Benefits** [trans]
CHCARDUR (tb_tcdur)
Describes the duration of prior assistance receipt required for a unit to be eligible for Transitional Child Care.
0=no duration to 1 of last 6 months
1=3 of last 6 months or none provided

MEDICDUR (tb_tmdur)
Describes the duration of prior assistance receipt required for a unit to be eligible for Transitional Medicaid.
1= no duration requirement
2= 3 of last 6 months, for at least 1 month

3. Extended Kin [x_kin]

STEPRNT (ei_stprt)
Indicates whether inclusion of stepparent in the unit is mandatory, optional or prohibited.
0= Mandatory
1= Optional
2= Prohibited

GRNDDEEM (di_ghmd)
Captures whether or not the income of grandparents in the household is deemed.
0= No
1= Yes

STEPDEEM (di_spwho)
Describes to whom a step-parent's income is deemed, if at all.
0= No, not deemed to unit or not applicable
1= Yes, deemed to spouse and children

4. Basic (Eligibility) Responsibilities [eligresp]

INCTEST [Combined Income Eligibility Tests Variables]
Value of income eligibility test value, computed to be comparable to gross income test value (earned and unearned income). High values indicate most stringent income test values (i.e., lowest income cutoffs) and lowest values indicate more lenient cutoffs (i.e., highest income cutoffs).
Range = 0-3732
CA_JSREQ (ca_jsreq)
Indicates whether or not job search is required as a condition of eligibility in the state. Details on this policy are captured in the corresponding notes variable.
0= No
1= Yes

DRUGFEL (ei_drgfl)
Indicates whether persons convicted of a drug felony are eligible.
0= Yes
1= No or Not eligible

5. Eligibility of Two-Parent Families [twopar]

HUNDRED (tp_maxap)
Indicates the maximum number of hours a principal earner in a two-parent, non-disabled applicant unit can work and still be eligible for benefits. (The 100 hour rule for applicants).
0= No Limit
1= 100 hours
2= N/A (Not allowed to work)

WKHIS (tp_wkhis)
Captures the required proof of labor force attachment for the principal earner in a two-parent, non-disabled applicant unit in order to be eligible for benefits (The work history rule).
0= N/A and No
1= If a work history id required

UNEMWAIT (tp_bwait)
Length of time the principal earner of a two-parent, non-disabled family must be unemployed in order to receive benefits. (The 30 day waiting period rule).
0= no wait
1= 30 day wait (4 weeks)

6. Rules Regarding New and Battered Immigrants [im_new]

VYRNEWIM (nc_5ste$)
Captures whether the state chooses to fund any groups of non-exempt qualified, new immigrants during their first five years in the country.

0= Yes
1= No

**BATIMPOS (nc_nbatt)**
Captures whether post reform battered immigrants are eligible for benefits.

0= Some or eligible
1= Not applicable or not eligible

**BATIMPRE (nc_obatt)**
Captures whether pre-reform battered immigrants are eligible for benefits.

0= Yes
1= No

---

7. **Rules Regarding Green Card/Refugee Immigrants [im_green]**

**PERMIMM (nc_nperm)**
Captures whether the non-exempt group of new immigrants who enter the U.S. with a green card or are permitted permanent residence under the Immigration Reform and Control Act (IRCA) or Special Agricultural Worker provisions of the IRCA are eligible for benefits after their first five years in the country.

0= Some or eligible
1= Not applicable or not eligible

**NODEPORT (nc_ndprt)**
Captures whether non-exempt non-citizens granted a stay of deportation or who have had their deportation withheld are eligible for benefits.

0= Some or eligible
1= Not applicable or not eligible
EMERGIMM (nc_nprle)
Captures whether non-exempt persons or immigrant groups that are permitted entry into the U.S. in cases of emergency or because of an overriding public interest are eligible for benefits. These entrants are granted temporary residence and are not likely to become residents.
0= Some or eligible
1= Not eligible or Not applicable

REFUGEE (nc_nref)
Captures whether the non-exempt immigrant group with humanitarian status based on conditions abroad (i.e., may face persecution in their homeland) is eligible for benefits. Refugee status permits non-citizens to enter from abroad, and asylum status permits non-citizens already in the U.S. to remain.
0= Some or eligible
1= Not applicable or not eligible

8. Asset/Income Test [inc]

DISREGRD (ed_edr #1, ed_#1$0%, ed_#1use, ed_#1tme, ed_#1rge, ed_edr #2, ed_#2$0%,
ed_#2use, ed_#2tme, ed_#2rge, ed_edr #3, ed_#3$0%, ed_#3use, ed_#3tme, ed_#3rge)

Maximum dollar amount that can be disregarded over a 2-year period, calculated per year based on the median income in the year for women ever receiving TANF in that year. (Reverse coded so that high values represent lowest disregards/most stringent policy)

Range = 0-56,264 (recoded)

UNRESASS (at_unres)
Indicates the allowable value of assets that can be held for a particular use, often referred to as IDAs (Individual Development Accounts).
1= 3000 and up
2= 2000-2999
3= 1000-1999

9. Illness Exemption [i_exmt]

ILLEXEM (ae_illps)
Indicates whether or not an ill or incapacitated person is exempt from Activities Requirements.
0= Yes
1= No
CARILLEX (ae_illct)
Indicates whether or not a unit member caring for another ill or incapacitated unit member is exempt from Activities Requirements.
0= Yes
1= No

10. Work Exemption [w_exmt]

NOPROGEX (ae_nopgm)
Indicates whether or not a state exempts a person from activities requirements if they are living in an area where the program is not available.
0= Yes
1= No

VISTAEX (ae_vista)
Indicates whether or not full-time VISTA volunteers are exempt from Activities Requirements.
0= Yes
1= No

WKHRS (ae_wkhrs)
Indicates the number of hours per week a unit member must work in an unsubsidized job in order to be considered exempt from Activities Requirements.
Other= Actual Values (Hours)
40= No Exemption

WKHREXEM (ae_wkhrs)
Indicates whether or not a unit can be considered exempt from Activities Requirements.
0=Yes
1=No, no exemption

11. Noncompliance Penalties [comply]

ACTSANCT (as_worst)
Describes the worst case sanction for non-compliance with an Activities Requirement.
0= Partial loss of benefits; time usually not specified (sanctioned individual; or 25% to 40%)
1 = Partial loss of benefits and sanction; individual’s income and assets counted for income tests (regardless of time)

2 = $100 penalty for 2 months, after which all benefit is lost until compliance

3 = Unit loses eligibility for a specific time or until compliance

4 = Eligibility lost for life or not applicable

**CHSSANCT (ss_worst)**

Describes the most severe penalty imposed as a result of failing to meet child support cooperation requirements.

1 = Fixed-rate financial penalty

2 = Calculated penalty

3 = Needs of parent and child in question are dropped from benefit calculation

4 = Unit loses eligibility

**12. Time Limits** [time]

**TIMELMT (tl_mos, tl_lamos, tl_lawho, tl_lbmos, tl_lbwho, tl_lcmos, tl_lcwho)**

Indicates the lifetime limit for benefits.

0 = no time limits

1 = 60 month time limit

2 = less than 60 months

**TMLMTEXT (tl_extyp)**

Captures how the extension policy is implemented in the state. Basically, this variable describes if the state has a set policy on granting extensions or if each case is evaluated on its own personal merits.

0 = Not applicable (No time limit)

1 = Case by case

2 = Specific rules

3 = No extension
13. *Family Responsibilities*  [fambeh]

**SCHLREQ** (sp_screq)
Captures whether the state has any school requirements.
0= No
1= Yes

**IMMUMREQ** (im_imreq)
Captures whether the state has an immunization requirement.
0= No
1= Yes

**CA_SAREQ** (ca_sareq)
Indicates whether or not school attendance and parental involvement are required in the state. Details regarding school requirements for parents and children are found in the School Policies for Dependent Children and Minor Parents Activities Requirements and Bonuses categories.
0= No
1= Yes

**CA_IMREQ** (ca_imreq)
Indicates whether or not immunizations and/or health screenings are required in the state. Details regarding immunization and health screening policies are found in the Immunization and Health Screening Requirements category.
0= No
1= Yes

14. *Personal Responsibilities*  [peresp]

**CA_DGREQ** (ca_dgreq)
Indicates whether or not drug and alcohol screening and/or treatment is required in the state. Details on this policy are captured in the corresponding notes variable.
0= No
1= Yes
Indicates whether or not parenting classes and/or family skills training sessions are required in the state. Details on this policy are captured in the corresponding notes variable.
0= No
1= Yes

15. Activities Requirements [actreq]

ACTREQ1 (ar_#1dsc, ar_#1who, ar_#1tot)
Describes what is required for Activities Requirement #1.
0= Wide range of activities, including community service or child care or N.A.
1= More possibilities than only work or only school related activities
2= Only work or only school activities

ACTREQ2 (ar_#2dsc, ar_#2who, ar_#2tot)
Describes what is required for Activities Requirement #2.
0= Wide range of activities, including community service or child care or N.A.
1= More possibilities than only work or only school related activities
2= Only work or only school activities

ACTREQ3 (ar_#3dsc, ar_#3who, ar_#3tot)
Describes what is required for Activities Requirement #3.
0= Wide range of activities, including community service or child care or N.A.
1= More possibilities than only work or only school related activities
2= Only work or only school activities

ACTREQ4 (ar_#4dsc, ar_#4who, ar_#4tot)
Describes what is required for Activities Requirement #4.
0= Wide range of activities, including community service or child care or N.A.
1= More possibilities than only work or only school related activities
2= Only work or only school activities

ACTREQ5 (ar_#5dsc, ar_#5who, ar_#5tot)
Describes what is required for Activities Requirement #5.
0= Wide range of activities, including community service or child care or N.A.
1 More possibilities than only work or only school related activities
2 Only work or only school activities

**DIMENSIONS BASED ON SECOND-ORDER FACTOR ANALYSES**

**16. 2nd order Eligibility Requirements for Groups [elig]**

Two-Parent Families (twopar)
Green Card/Refugee Immigrants (im_green)
New/Battered Immigrants (im_new)
Work-related Activities Requirements (actreq)

**17. 2nd Order Behavioral Eligibility Responsibilities [behave]**

Noncompliance Rules (comply)
Family Responsibilities (fambeh)
Personal Responsibilities (peresp)
Basic Responsibilities (eligresp)

**18. 2nd Order Eligibility Exemptions and Limits [limits]**

Illness Exemption (i_exmt)
Work Exemption (w_exmt)
Time Limits (time)
APPENDIX C. DECISION RULES FOR MISSING DATA IMPUTATION

Welfare Dimensions Summary Scores (WDSS)
Imputation for Missing Data
Decision Rules

(Examples use 0/1 indicators, where “1” is more stringent and shaded cells where values are imputed.)

Single Variables

When a single variable is missing and the text provides no information indicating a change from the previous year, the value from the previous year is used:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>state</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

When the value for 1996 is missing and 1997 is not missing and indicates the initiation of a rule to specify the appropriate rule for all to follow, it is assumed that this new rule indicates an increase in stringency compared with the previous year and the 1996 value is coded to be less stringent:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>state</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

When the value for 1996 is missing and 1997 and 1998 are not missing and 1998 indicates the initiation of a rule to specify the appropriate rule for all to follow, it is assumed that the 1996 value is comparable to the 1997 value:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>state</td>
<td>1 ←</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

If all years are missing, assign less stringent value to each based upon the assumption that the lack of a rule implies flexibility in how the issue is handled from one welfare office to another.
Series Variables

If the value is missing for a variable in a series of variables (e.g., activities requirement #1 through activities requirement #5) and values exist for variables earlier in the series, and the text has no indication of a reasonable difference, assign the value from the earlier variable in the series from the same year because when this situation occurs, it usually indicates that the earlier requirement covers the period that the missing variable would have covered if a change in requirement had occurred:

<table>
<thead>
<tr>
<th>CASE</th>
<th>AR#1</th>
<th>AR#2</th>
<th>AR#3</th>
<th>AR#4</th>
<th>AR#5</th>
</tr>
</thead>
<tbody>
<tr>
<td>state-97</td>
<td>0</td>
<td>1</td>
<td>1 ➔</td>
<td>1 ➔</td>
<td>1</td>
</tr>
</tbody>
</table>

If all in the series are missing for a year, and the text provides no information indicating a change from the previous year, assign values from the previous year:

<table>
<thead>
<tr>
<th>CASE</th>
<th>AR#1</th>
<th>AR#2</th>
<th>AR#3</th>
<th>AR#4</th>
<th>AR#5</th>
</tr>
</thead>
<tbody>
<tr>
<td>state-98</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>state-97</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
</tr>
</tbody>
</table>

If all in the series are missing for 1996, and the text indicates the first institution of rules on the issue occurs in the following year, assume that 1996 was a less stringent period:

<table>
<thead>
<tr>
<th>CASE</th>
<th>AR#1</th>
<th>AR#2</th>
<th>AR#3</th>
<th>AR#4</th>
<th>AR#5</th>
</tr>
</thead>
<tbody>
<tr>
<td>state-97</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>state-96</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>