Chapter Five: State-by-State Error Patterns

State-by-state patterns are discussed in this chapter. The model can be used to help explain the variation in states' error rates, by diagnosing whether a state's errors are attributable to errors among first-month cases (at initial certification), among ongoing cases (at interim action), or among expiring cases (at recertification). This information is especially important for planning corrective actions, so that one can focus attention on the phase of the administrative process that is most responsible for errors.

Historically, food stamp error rates have shown substantial interstate variation. For FY 2001, as shown in Exhibit 18, the total case error rate ranged from 4.46 percent in South Dakota to 31.12 percent in California.

Deriving State-Specific Models

We calculated the model for each state and the District of Columbia using the state's pooled QC sample for the period 1998-2001. Initially, state-specific single-year models were computed. For states with annual QC samples of fewer than 800 cases, the majority of all states, sampling variability resulted in considerable year-to-year changes in the estimated transition probabilities. For this reason, and because of the desire to compare the model's results across all states, it was decided to pool the data across years for each state.

As with the single-year estimates at the national level, row totals were first derived for each state's multi-year model. In the state-specific models, as in the national estimates, the row totals (R_1 through R_5) represent the current-month distribution of households. As with the national estimates, the row totals assume that the change in the distribution of households takes place in twelve equal monthly steps for each year. For each state, the average month-to-month changes for each of the four years 1998-2001 are themselves averaged and are then used to derive the row totals for the state's multi-year estimates. Stated otherwise, we assume that the change in the distribution of households over the four-year period takes place in 48 equal monthly steps.

Exhibit 19 shows for each state the distribution of active cases between households with earnings and households without earnings. For any given state, the respective sizes of these caseload segments will affect the role played by the respective error rate parameters for cases with and without earnings in influencing the state's total error rate.

Exhibits 20, 21, and 22 show the key error findings from the state-by-state models. These exhibits display the previously defined case error indicators, for total households (Exhibit 20), households with earnings (Exhibit 21), and households without earnings (Exhibit 22). In each exhibit, the state values of each error indicator that lie in the bottom quartile of the

distribution are shown in bold. These states are the exemplary performers with respect to that error indicator.

The underlying cell counts and transition probabilities are shown by state in Appendix D.

Exhibit 18: Case Error Rates by State, Fiscal Year 2001

State	Overpayment case error rate (%)	Underpayment case error rate (%)	Total case error rate (%)
Alabama	12.82	2.99	15.81
Alaska	13.61	5.38	18.99
Arizona	6.76	3.86	10.62
Arkansas	4.46	2.04	6.50
California	20.00	11.12	31.12
Colorado	10.78	4.70	15.48
Connecticut	9.79	5.29	15.08
Delaware	11.18	5.80	16.98
District of Columbia	12.42	5.70	18.12
Florida	10.16	4.34	14.50
Georgia	7.74	2.51	10.25
Hawaii	8.83	5.68	14.51
Idaho	8.37	4.28	12.65
Illinois	9.50	3.13	12.63
Indiana	7.83	3.84	11.67
Iowa	8.87	2.38	11.25
Kansas	10.71	3.39	14.10
Kentucky	8.08	3.57	11.65
Louisiana	7.88	4.03	11.91
Maine	9.46	5.27	14.73
Maryland	9.01	4.00	13.01
Massachusetts	9.05	4.47	13.52
Michigan	12.21	6.30	18.51
Minnesota	5.69	3.05	8.74
Mississippi	4.93	2.63	7.56
Missouri	10.74	4.18	14.92
Montana	11.32	3.70	15.02
Nebraska	11.83	3.23	15.06
Nevada	8.07	3.16	11.23
New Hampshire	9.75	4.18	13.93

Exhibit 18: Case Error Rates by State, Fiscal Year 2001 *(Continued)*

State	Overpayment case error rate (%)	Underpayment case error rate (%)	Total case error rate (%)
New Jersey	8.03	3.42	11.45
New Mexico	8.79	3.08	11.87
New York	7.06	6.26	13.32
North Carolina	7.75	2.10	9.85
North Dakota	4.69	3.19	7.88
Ohio	8.06	3.70	11.76
Oklahoma	10.29	3.33	13.62
Oregon	12.37	3.11	15.48
Pennsylvania	9.29	4.94	14.23
Rhode Island	6.44	4.19	10.63
South Carolina	5.37	2.81	8.18
South Dakota	3.62	0.84	4.46
Tennessee	8.35	2.51	10.86
Texas	5.30	2.58	7.88
Utah	12.12	4.27	16.39
Vermont	12.00	2.93	14.93
Virginia	7.61	4.64	12.25
Washington	8.97	3.67	12.64
West Virginia	8.40	2.40	10.80
Wisconsin	12.09	6.23	18.32
Wyoming	3.30	1.80	5.10
U.S. Average	9.55	4.56	14.11

Source: U.S. Department of Agriculture, Food and Nutrition Service, "Food Stamp Program Quality Control Annual Report, Fiscal Year 2001."

Notes:
U.S. average is weighted by state issuance and includes Guam and Virgin Islands.
Row entries may not sum to the indicated row total due to rounding.

Exhibit 19: Households With and Without Earnings, Caseload Shares by State, 1998-2001 Combined

State	Share of caseload (%)		
	Households with earnings	Households without earnings	Total
Alabama	29.8	70.2	100.0
Alaska	32.6	67.4	100.0
Arizona	32.9	67.1	100.0
Arkansas	28.5	71.5	100.0
California	30.5	69.5	100.0
Colorado	29.8	70.2	100.0
Connecticut	12.3	87.7	100.0
Delaware	27.4	72.6	100.0
District of Columbia	10.4	89.6	100.0
Florida	25.4	74.6	100.0
Georgia	28.7	71.3	100.0
Hawaii	27.0	73.0	100.0
Idaho	41.2	58.8	100.0
Illinois	27.2	72.8	100.0
Indiana	27.9	72.1	100.0
Iowa	32.1	67.9	100.0
Kansas	28.1	71.9	100.0
Kentucky	25.9	74.1	100.0
Louisiana	33.0	67.0	100.0
Maine	20.2	79.8	100.0
Maryland	21.6	78.4	100.0
Massachusetts	15.5	84.5	100.0
Michigan	31.2	68.8	100.0
Minnesota	22.0	78.0	100.0
Mississippi	28.8	71.2	100.0
Missouri	26.5	73.5	100.0
Montana	34.0	66.0	100.0
Nebraska	32.7	67.3	100.0
Nevada	21.1	78.9	100.0
New Hampshire	20.6	79.4	100.0

Exhibit 19: Households With and Without Earnings, Caseload Shares by State, 1998-2001 Combined *(Continued)*

State	Share of caseload (%) Households with earnings	Households without earnings	Total
New Jersey	15.8	84.2	100.0
New Mexico	32.2	67.8	100.0
New York	16.7	83.3	100.0
North Carolina	27.2	72.8	100.0
North Dakota	40.8	59.2	100.0
Ohio	22.8	77.2	100.0
Oklahoma	29.3	70.7	100.0
Oregon	31.0	69.0	100.0
Pennsylvania	26.1	73.9	100.0
Rhode Island	19.6	80.4	100.0
South Carolina	29.1	70.9	100.0
South Dakota	38.6	61.4	100.0
Tennessee	25.5	74.5	100.0
Texas	38.3	61.7	100.0
Utah	34.9	65.1	100.0
Vermont	23.7	76.3	100.0
Virginia	28.7	71.3	100.0
Washington	22.2	77.8	100.0
West Virginia	24.1	75.9	100.0
Wisconsin	32.3	67.7	100.0
Wyoming	42.6	57.4	100.0
U.S. Average	26.8	73.2	100.0

Source: Food stamp QC data by state, pooled over the period 1998-2001.

Exhibit 20: Case Error Indicators by State, 1998-2001 Combined: Total Households

State	Total error rate	First-month error rate	Next-month error rate for: Ongoing correct cases	Ongoing error cases	Expiring correct cases	Expiring error cases
Alabama	14.4	16.5	8.5	45.0	9.0	**2.0**
Alaska	22.4	18.1	20.9	**13.9**	30.5	**0.0**
Arizona	**8.7**	**6.2**	6.3	**29.6**	**5.3**	7.8
Arkansas	**7.2**	**4.8**	**3.0**	**27.2**	6.2	29.3
California	24.1	12.5	17.1	42.1	**5.2**	**7.2**
Colorado	13.2	8.5	5.8	46.7	9.0	29.0
Connecticut	16.7	13.7	6.8	62.3	8.6	31.4
Delaware	19.8	14.8	10.5	54.9	6.6	9.9
District of Columbia	16.6	9.0	9.3	50.1	12.8	**7.4**
Florida	13.7	11.0	8.7	47.4	5.7	**3.3**
Georgia	14.4	9.8	7.3	47.7	11.2	13.4
Hawaii	13.9	14.3	8.1	46.3	**5.1**	29.0
Idaho	12.2	10.3	5.9	48.3	9.8	19.0
Illinois	16.4	**7.9**	7.6	39.3	18.8	32.3
Indiana	**10.2**	9.2	**4.2**	43.3	8.3	14.5
Iowa	12.4	10.8	7.1	**25.4**	14.6	22.7
Kansas	14.2	12.3	8.5	41.6	8.9	31.2
Kentucky	**10.2**	**8.1**	**5.5**	45.3	6.7	**5.2**
Louisiana	12.2	11.3	**5.7**	60.5	**5.4**	**5.6**
Maine	13.4	16.4	6.3	47.6	13.7	25.8
Maryland	17.4	12.4	6.9	68.3	6.3	20.6
Massachusetts	12.5	11.5	6.5	47.5	9.6	14.1
Michigan	21.9	14.2	8.5	68.4	8.6	22.4
Minnesota	**7.3**	**3.8**	**3.6**	**14.3**	**2.5**	34.5
Mississippi	**8.3**	**6.4**	**5.2**	**15.6**	7.5	20.3
Missouri	11.9	**7.8**	5.8	50.5	10.6	14.8
Montana	13.5	8.7	7.6	**23.0**	9.8	9.2
Nebraska	18.3	15.4	10.6	40.5	13.2	29.4
Nevada	**10.6**	8.7	7.9	**13.0**	11.0	8.6
New Hampshire	16.1	13.6	8.6	57.8	6.5	9.6

Exhibit 20: Case Error Indicators by State, 1998-2001 Combined: Total Households
(Continued)

State	Total error rate	First-month error rate	Next-month error rate for: Ongoing correct cases	Ongoing error cases	Expiring correct cases	Expiring error cases
New Jersey	15.9	8.3	**5.5**	76.0	6.6	13.0
New Mexico	15.9	14.5	9.7	51.5	**5.2**	**5.8**
New York	17.0	14.0	5.9	71.5	8.2	17.2
North Carolina	11.6	8.8	6.8	40.5	11.5	**6.8**
North Dakota	**9.8**	10.9	6.5	**15.9**	14.4	8.8
Ohio	11.3	9.9	**4.9**	54.3	7.9	17.5
Oklahoma	14.9	14.9	8.9	**30.6**	15.7	10.7
Oregon	14.4	16.6	8.8	**18.2**	13.2	**5.7**
Pennsylvania	14.3	**7.9**	6.8	56.1	7.0	37.0
Rhode Island	10.8	**6.9**	**5.6**	46.8	**3.7**	28.4
South Carolina	**9.9**	**7.0**	**4.9**	39.8	10.8	21.7
South Dakota	**4.7**	**3.0**	**2.6**	42.8	**1.0**	42.6
Tennessee	**10.3**	9.9	5.7	52.3	**4.5**	11.1
Texas	**8.4**	**5.1**	**4.8**	55.1	**2.2**	11.1
Utah	15.4	10.7	10.1	40.5	13.3	13.3
Vermont	14.5	13.1	6.6	60.8	**5.2**	**0.0**
Virginia	14.0	11.0	9.8	40.7	11.3	**0.0**
Washington	12.4	12.7	7.8	**34.0**	8.9	16.4
West Virginia	12.5	9.6	6.6	58.2	**3.7**	**5.1**
Wisconsin	15.5	15.0	9.2	45.8	10.0	10.0
Wyoming	**6.3**	**6.7**	**3.9**	**34.5**	**2.9**	8.1
U.S. Average	14.4	10.2	7.7	48.1	7.8	11.9
25th percentile	10.7	8.2	5.7	36.9	5.6	7.6
50th percentile	13.5	10.7	6.8	45.8	8.6	13.3
75th percentile	15.7	13.7	8.5	53.3	11.1	22.6

Note: Values less than or equal to the 25th percentile are shown in bold.

Exhibit 21: Case Error Indicators by State, 1998-2001 Combined: Households with Earnings

State	Total error rate	First-month error rate	Next-month error rate for: Ongoing correct cases	Ongoing error cases	Expiring correct cases	Expiring error cases
Alabama	21.0	27.8	**12.5**	38.5	13.7	12.3
Alaska	33.9	18.6	42.0	**8.3**	42.3	**0.0**
Arizona	**13.7**	**8.6**	**11.8**	**22.9**	**8.0**	7.6
Arkansas	**10.6**	**8.8**	**5.5**	**23.2**	**10.7**	52.1
California	30.2	24.9	24.1	29.3	**11.0**	**3.3**
Colorado	22.2	**11.1**	14.5	38.6	15.5	13.8
Connecticut	33.9	34.0	22.6	38.3	41.0	20.2
Delaware	33.3	18.6	23.6	41.3	23.6	**0.0**
District of Columbia	42.2	20.9	30.7	42.6	42.1	13.5
Florida	26.4	16.6	22.9	37.1	12.9	**2.2**
Georgia	22.7	13.4	15.6	32.0	21.2	11.1
Hawaii	22.2	23.5	16.4	37.8	**3.5**	42.0
Idaho	**18.2**	14.3	**10.1**	44.5	13.4	8.2
Illinois	26.8	13.6	16.5	31.1	33.0	35.0
Indiana	**16.2**	14.9	**8.8**	41.4	11.8	10.1
Iowa	20.7	19.4	14.0	**21.1**	37.6	27.4
Kansas	22.5	19.1	18.0	28.0	11.0	40.5
Kentucky	**16.7**	**11.3**	**12.3**	38.9	**9.4**	**3.9**
Louisiana	19.1	15.7	12.6	56.3	**7.0**	**4.0**
Maine	20.3	21.9	14.2	**25.2**	20.7	15.7
Maryland	30.9	**11.4**	18.3	63.1	15.6	19.8
Massachusetts	23.8	20.5	20.5	26.0	13.3	12.4
Michigan	32.7	21.3	18.7	61.4	12.7	17.0
Minnesota	**13.3**	**6.9**	**8.6**	**12.2**	**8.7**	**0.0**
Mississippi	**15.0**	**7.5**	**11.1**	**9.9**	19.8	28.8
Missouri	18.7	**11.2**	**11.5**	40.2	16.8	15.0
Montana	25.3	25.7	17.1	29.3	26.4	**0.0**
Nebraska	31.6	16.7	22.3	44.4	22.7	27.8
Nevada	24.3	20.9	21.8	**8.2**	22.0	16.9
New Hampshire	28.4	22.8	20.8	51.4	13.6	4.0

Exhibit 21: Case Error Indicators by State, 1998-2001 Combined: Households with Earnings *(Continued)*

State	Total error rate	First-month Error rate	Next-month error rate for: Ongoing correct cases	Ongoing error cases	Expiring correct cases	Expiring error cases
New Jersey	31.1	**9.0**	14.2	74.6	15.9	7.9
New Mexico	19.7	19.4	14.5	40.2	**6.2**	5.5
New York	26.0	27.0	13.5	60.9	14.0	16.2
North Carolina	20.6	12.8	16.4	30.8	16.8	7.7
North Dakota	**17.5**	16.6	14.0	**16.4**	21.7	**0.0**
Ohio	19.2	13.4	14.0	37.7	12.2	21.0
Oklahoma	24.7	20.4	20.6	**14.4**	23.2	7.4
Oregon	22.7	23.6	17.1	**16.1**	25.6	4.9
Pennsylvania	25.2	**8.5**	17.1	44.5	22.6	34.0
Rhode Island	25.6	12.9	18.7	42.6	17.3	37.4
South Carolina	**14.7**	**8.5**	**9.6**	**21.2**	15.0	15.1
South Dakota	**6.4**	**3.6**	**5.0**	27.2	**0.0**	**0.0**
Tennessee	**17.5**	13.3	13.6	36.8	**8.8**	5.2
Texas	**12.7**	**7.4**	**9.1**	53.1	**2.1**	6.5
Utah	24.5	23.4	20.9	30.5	20.6	7.7
Vermont	28.0	29.4	17.1	53.7	11.2	**0.0**
Virginia	28.3	20.1	26.4	25.8	22.5	**0.0**
Washington	22.0	23.4	17.6	**23.9**	14.8	29.5
West Virginia	20.2	16.4	14.7	42.0	**5.4**	**1.6**
Wisconsin	23.4	23.4	16.5	38.9	14.1	9.1
Wyoming	**9.6**	12.0	**7.0**	33.2	**2.6**	9.5
U.S. Average	22.6	15.5	16.0	37.2	13.1	9.5
25th percentile	18.4	11.7	12.5	25.5	11.0	4.0
50th percentile	22.5	16.6	16.4	37.1	14.8	9.5
75th percentile	26.6	21.6	19.6	42.3	21.9	18.4

Note: Values less than or equal to the 25th percentile are shown in bold.

Exhibit 22: Case Error Indicators by State, 1998-2001 Combined: Households without Earnings

State	Total error rate	First-month error rate	Next-month error rate for: Ongoing correct cases	Ongoing error cases	Expiring correct cases	Expiring error cases
Alabama	11.6	7.8	6.8	50.5	5.8	**0.0**
Alaska	16.8	17.8	12.6	**19.4**	25.4	**0.0**
Arizona	**6.2**	**4.9**	3.9	**36.4**	3.8	**8.2**
Arkansas	**5.8**	**2.7**	**2.1**	**29.5**	3.9	**0.0**
California	21.4	9.4	13.9	50.5	**2.8**	9.0
Colorado	9.4	7.0	**2.7**	45.8	4.4	44.9
Connecticut	14.3	9.0	4.9	70.2	**2.7**	36.8
Delaware	14.6	13.2	6.1	67.8	**0.8**	14.8
District of Columbia	13.7	7.6	7.2	52.4	9.6	**4.0**
Florida	9.3	8.3	4.7	55.9	**2.7**	**5.2**
Georgia	11.0	7.5	4.6	55.9	3.5	15.9
Hawaii	10.8	11.4	5.4	51.0	5.4	17.5
Idaho	8.1	5.9	3.3	54.4	6.2	37.3
Illinois	12.5	6.0	4.8	46.5	12.6	30.1
Indiana	**7.8**	**5.2**	**2.7**	42.2	6.0	19.5
Iowa	8.5	5.8	4.1	**29.8**	5.6	16.8
Kansas	11.0	8.2	5.2	52.5	7.4	24.2
Kentucky	8.0	6.1	3.5	46.9	4.8	8.5
Louisiana	8.8	8.5	**3.0**	63.8	4.1	10.3
Maine	11.6	13.6	4.7	56.9	9.6	33.0
Maryland	13.7	12.7	4.5	71.1	**2.9**	21.2
Massachusetts	10.4	8.5	4.5	55.4	8.0	15.4
Michigan	17.0	10.2	4.8	74.2	5.1	32.2
Minnesota	**5.7**	**2.4**	**2.3**	**15.4**	**0.8**	34.9
Mississippi	**5.6**	5.9	**3.0**	**25.7**	**2.9**	22.5
Missouri	9.4	**5.6**	4.2	49.3	5.9	14.5
Montana	**7.4**	**1.0**	3.6	**17.9**	4.0	8.7
Nebraska	11.9	14.7	6.2	**33.2**	7.3	25.7
Nevada	**6.9**	**3.2**	5.1	**17.4**	7.5	**0.0**
New Hampshire	12.9	10.5	5.9	59.8	4.7	14.8

Exhibit 22: Case Error Indicators by State, 1998-2001 Combined: Households without Earnings *(Continued)*

State	Total error rate	First-month error rate	Next-month error rate for: Ongoing correct cases	Ongoing error cases	Expiring correct cases	Expiring error cases
New Jersey	13.0	8.2	4.1	76.8	4.9	16.0
New Mexico	14.1	11.7	7.7	58.0	4.4	**6.0**
New York	15.2	10.0	4.6	74.7	6.9	17.8
North Carolina	8.3	6.2	4.0	48.1	7.6	**5.6**
North Dakota	**4.6**	6.0	**2.0**	**15.2**	6.8	24.2
Ohio	9.0	8.0	**2.9**	54.5	5.1	10.8
Oklahoma	10.8	10.4	5.3	42.0	8.7	19.2
Oregon	10.7	13.3	5.6	**19.6**	5.6	**7.9**
Pennsylvania	10.5	7.7	3.7	63.5	3.4	40.7
Rhode Island	**7.2**	**5.1**	**2.8**	47.8	**2.0**	22.8
South Carolina	7.9	6.4	**3.1**	54.3	6.8	25.4
South Dakota	**3.6**	**2.6**	**1.0**	61.9	**1.4**	77.4
Tennessee	**7.8**	7.6	3.5	61.4	**1.9**	19.3
Texas	**5.7**	**3.5**	**2.5**	50.1	**2.3**	19.6
Utah	10.5	**3.0**	5.6	52.3	7.7	22.5
Vermont	10.3	6.9	3.8	66.4	3.8	**0.0**
Virginia	8.3	6.6	4.0	58.2	**3.2**	**0.0**
Washington	9.6	8.3	5.5	**40.8**	7.3	9.6
West Virginia	10.1	**5.6**	4.2	66.4	**2.5**	9.5
Wisconsin	11.7	9.3	6.3	52.1	7.3	11.1
Wyoming	**3.8**	**3.4**	**1.9**	**36.6**	3.3	**0.0**
U.S. Average	11.5	7.6	5.0	54.5	4.9	14.3
25th percentile	7.9	5.7	3.2	41.4	3.2	8.4
50th percentile	10.1	7.6	4.2	52.1	4.9	15.9
75th percentile	11.8	9.4	5.3	59.0	7.1	23.5

Note: Values less than or equal to the 25th percentile are shown in bold.

Differences Among States in Their Underlying Error Patterns

Total household findings, shown in Exhibit 20, are:

- Some states achieve low total case error rates through strong performance in initial certification, interim action, and recertification. Arizona, Kentucky, and Wyoming, as examples, are in the lowest-quartile for their total error rate and are below the median in all five of the component error parameters.

- Other states have low overall rates and show strong performance on some but not all phases of certification, indicating the potential for further improvement. Minnesota and South Carolina, for instance, have total error rates in the lowest quartile despite having recertification procedures that appear not as effective as most other states in preventing and correcting errors. In contrast, Oklahoma and Oregon do reasonably well in containing errors at interim action and recertification, but each has a high error rate at initial certification.

A contrasting pattern of error is evident among households with earnings, as shown in Exhibit 21.

- The following states are in the lowest quartile for the total error rate and are below the median in all five component parameters, for households with earnings: Arizona, Minnesota, South Dakota, Tennessee, and Wyoming.

- A number of other states have low total error rates for households with earnings, but with potential for improvement on some phases of case action. For example, Idaho, Indiana, and Texas are in the lowest quartile for the total error rate, despite having a high next-month error rate for ongoing error cases. This suggests that their interim action procedures are not effective in detecting and correcting errors. Mississippi and South Carolina, in contrast, do very well at avoiding errors at initial certification and interim action, but could improve the accuracy of their recertification decisions.

In possible future research, it would be instructive to consider the error patterns by state—especially for households with earnings—in the context of the client reporting provisions that states have adopted for such households. These reporting provisions are presumed to influence especially the "client error" component of the error rate—i.e., the extent to which error is attributable to a household not having correctly or completely reported information that it was required to report, such as a change in income or other financial circumstances. Throughout this report, the error measures include both client error and agency error.