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United States General Accounting Office

GAO

Report to the Chairman, Subcommittee on  
Domestic Marketing, Consumer Relations  
and Nutrition, Committee on Agriculture,  
House of Representatives

October 1987

# FOOD STAMP PROGRAM

## Error Rate Adjustments and Sanctions



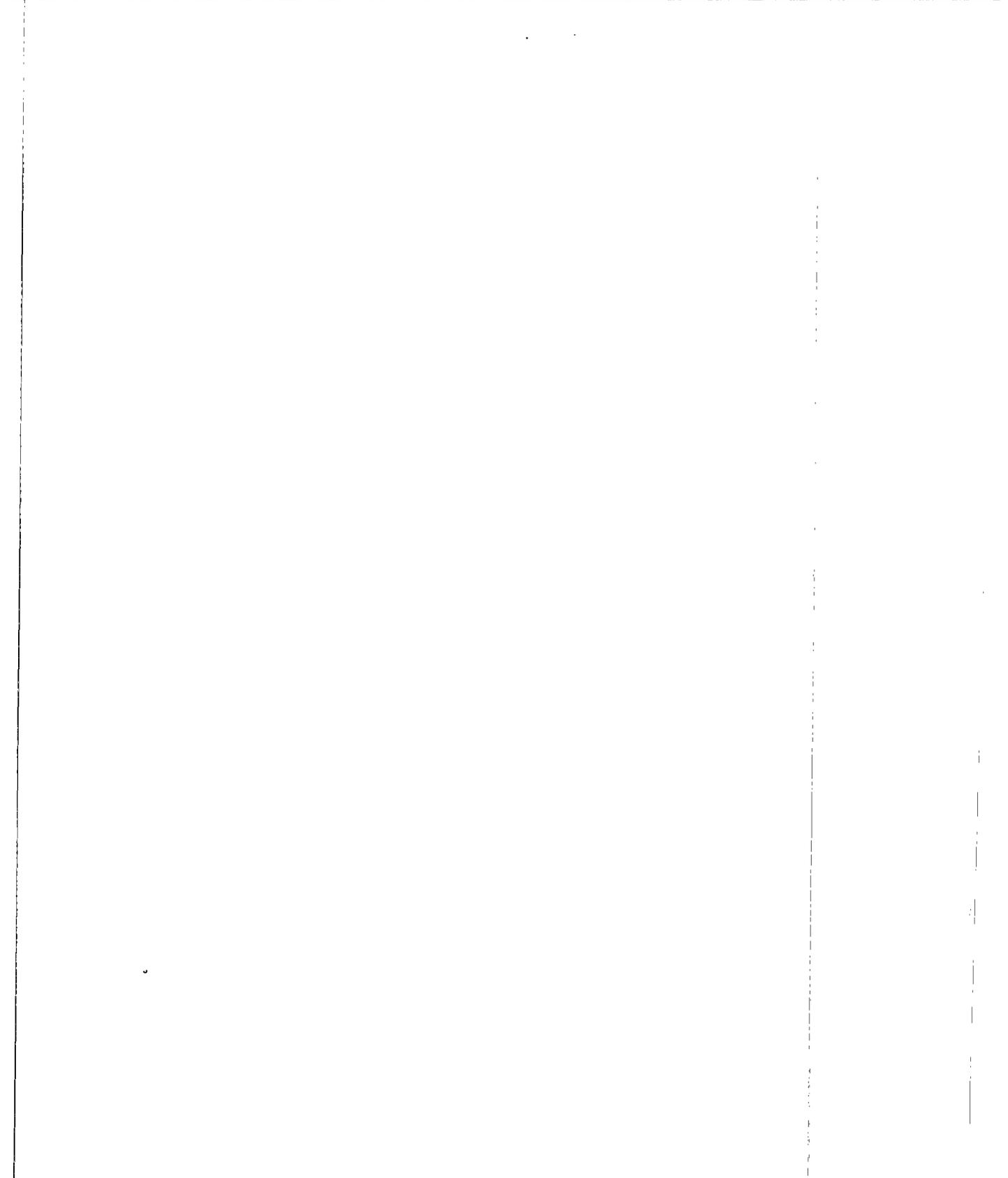
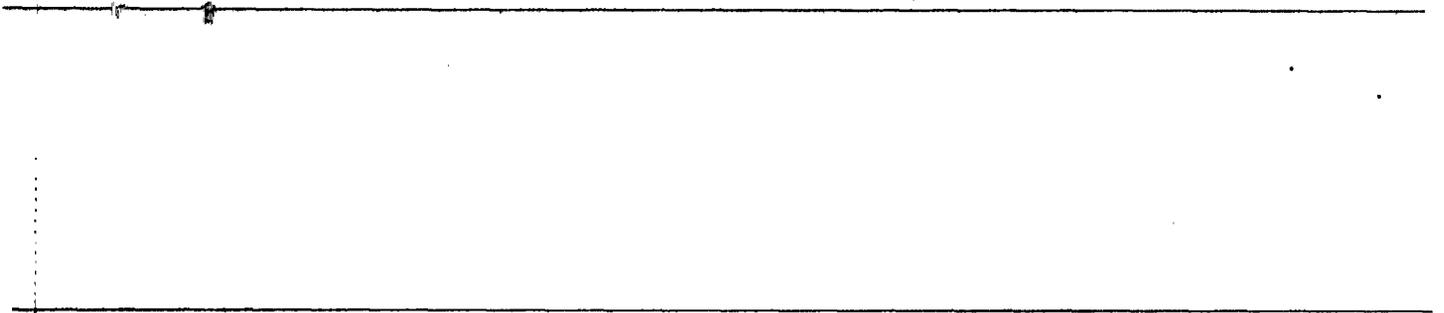
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AO/RCED-88-10



Resources, Community, and  
Economic Development Division

B-217883

October 22, 1987

The Honorable Leon E. Panetta  
Chairman, Subcommittee on Domestic Marketing,  
Consumer Relations and Nutrition  
Committee on Agriculture  
House of Representatives

Dear Mr. Chairman:

As requested in your February 24, 1987, letter, we have reviewed the Department of Agriculture's Food and Nutrition Service procedures for adjusting a state's Food Stamp Program error rates to account for quality control reviews that states did not complete. Specifically, we examined (1) the noncompletion adjustment's effect on error rates and sanctions (financial penalties) levied against states based on the adjusted error rates, (2) the Department of Agriculture's (USDA's) legislative authority and its decision-making process for developing the adjustment for not completing quality control reviews, and (3) the most recent available data (fiscal years 1984 and 1985) on individual states' error rates and sanctions.

The Service uses error rates to assess sanctions against states for not complying with the Food Stamp Program's quality control review requirements. The Service annually estimates each state's food stamp payment error rate based on quality control reviews of a statistically selected sample of households participating in the program. As a part of this process, the Service may adjust (increase) a state's error rate for not completing the prescribed number of reviews and for reporting less in payment errors than actually occurred. The resulting number is the official error rate, which is used to determine the state's sanction, if any.<sup>1</sup>

In summary, we found that

- Adjustments for not-completed case reviews were relatively small for 1984 and 1985. In only one case did the adjustment increase a state's sanction. In that case, however, a minor adjustment increasing the error rate substantially increased that state's sanction for 1984.

<sup>1</sup>The sanction amount can be very sensitive to the small changes in the error rate caused by these adjustments. See also our report entitled Food Stamp Program: Statistical Validity of Food Stamp Payment Error Rates (GAO: RCED-87-4, Oct. 30, 1986).

- USDA has the legal authority to adjust states' error rates to account for not-completed cases, and it followed its usual rule-making process to develop regulations implementing this authority. While the resulting adjustments are a means of penalizing states for not-completed reviews, the adjustments are based on the sample error rate, the standard deviation of that error rate (which measures the variability of the error rate), and the sample size, as well as the completion rate, and the adjustments may understate the extent of errors for these cases.
- An error-rate adjustment may increase sanctions for some states with relatively high completion rates while allowing states with lower completion rates to avoid any financial penalty, the adjustment may vary for states with the same or similar completion rates, and/or the adjustment may be the same for states with different completion rates.

We are recommending that USDA devise a sanction process that separates financial penalties for not-completed reviews from financial penalties for exceeding the target error rate.

## Background

The Food Stamp Program is designed to help low-income households that meet program eligibility requirements obtain more nutritious diets. The program is administered nationally by the Food and Nutrition Service with federal financing of (1) 100 percent of the food stamp benefits—about \$10.6 billion in fiscal year 1986—and (2) about half of the states' administrative expenses—about \$947 million in federal costs for fiscal year 1986. The states are responsible for the program's day-to-day operations and are required by the Service to conduct quality control reviews to identify and measure any incorrect food stamp issuances. The states are required to select and review a sample of their cases in accordance with the Service's regulations. The reviews, made by state quality control units independent of program operations, measure the extent of program errors made. On the basis of their review results, each state calculates an error rate—the percentage of benefits either issued to ineligible households or issued in inappropriate amounts to eligible households—and reports this error rate to the Service. The Service then reviews a portion of each state's sample to verify that the state correctly identified payment errors and to calculate the state's official error rate. The Service completes its review in a two-step process using state and Service quality control reviews of a statistically selected sample of households participating in the program. First, the Service computes a regressed error rate by using the results of the state and Service reviews. This procedure increases the precision of the error rate estimate and results in an adjustment (upward or downward) to the state's

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reported error rate. Second, the regressed error rate is adjusted upward if the state did not complete the number of reviews prescribed by the Service. The Service makes the increases as an incentive to states for completing the quality control reviews.

Food stamp legislation requires the Service to sanction a state when its error rate exceeds a legislatively established target. The target error rates of the benefit amounts the states issued during fiscal years 1984 and 1985 were 7 and 5 percent, respectively. The sanction amount is based on both the state's official error rate and its expenditures for administering the program. The sanction increases for each percentage point or fraction thereof by which the state exceeds its target error rate. Sanctions are equal to 5 percent of a state's federally reimbursed administrative costs for each of the first 3 percentage points or fractions thereof by which the state's official error rate exceeds the target rate and a 10-percent sanction for each additional percentage point or fraction thereof above the target. Thus, a small increase in the error rate can result in a large increase in the sanction. For example, an increase as small as 0.01 percent can double the state's liability. Appendix I contains a detailed discussion of the program's quality control and error-rate sanction systems.

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## Effect of Error-Rate Adjustment

To estimate the impact of the error-rate adjustments, we collected and analyzed error-rate data for all states for fiscal years 1984 and 1985. We found that in only one case did the Service's adjustment for not completing the required quality control reviews increase a state's sanction. In that case, it increased Virginia's fiscal year 1984 sanction by \$652,347. However, as table 1 illustrates, other states such as Alaska were not financially penalized for completing a smaller percentage of their required reviews. Virginia's sanction increase occurred because its adjustment was added to a regressed error rate that was very close to the next percentage point increment; this relatively small adjustment increased the error rate enough so that it crossed this threshold (from 7.94 to 8.04 percent) and thus increased its sanction liability. However, Alaska's adjustment was larger, but it did not invoke an additional financial penalty because the resulting error rate did not exceed the state's target error rate.

In addition, the size of the adjustment may (1) vary for states with the same or similar completion rates for quality control reviews or (2) be the same for states with different completion rates. For example, table 1 shows that Virginia and New Jersey both had completion rates of 93

percent, yet the adjustments were 0.10 and 0.07 percent, respectively. On the other hand, Virginia and Pennsylvania had different completion rates, 93 and 97 percent, yet each had the same noncompletion adjustment of 0.10 percent. These differences stem from the Service's decision to base the size of the adjustment, to a certain extent, on factors not related to the percentage of cases the state completes.

**Table 1: 1984 Food Stamp Program  
Quality Control Review Results for  
Selected States**

State	Penalty increase	(Percent)			
		Completion rate	Size of adjustment	Regressed error rate	Official error rate
Virginia	\$652,347	93	0.10	7.94	8.04
Alaska <sup>a</sup>	0	89	0.18	8.96	9.14
New Jersey	0	93	0.07	7.39	7.46
Pennsylvania	0	97	0.10	10.43	10.53

<sup>a</sup>Alaska's 1984 target error rate was 10.45 percent; thus, the increase in the state's regressed error rate from 8.96 percent to 9.14 percent does not result in a sanction.

Source: The quality control error rate and completion rate information was provided to us by USDA's Food and Nutrition Service during March and April 1987. This information may change slightly as differences between federal and state review findings are resolved.

The Service's adjustment calculation includes (1) the percentage of the required number of reviews that the state completed, (2) the state's regressed error rate, and (3) the standard deviation, a measure of the variability of a state's error rate. The standard deviation, a statistical term, measures the dispersion of the errors in the state's sample from the state's average error. As the state's error rate increases, the standard deviation tends to increase.

In addition, the standard deviation varies inversely with the state's sample size—states with smaller caseloads and smaller samples tend to have larger standard deviations, compared with states with larger samples. The Service specifies the minimum sample size required for each state. Therefore, the size of the adjustment for not-completed cases is affected by these other factors in addition to states not completing the required quality control reviews. For example, Virginia and New Jersey had the same completion rate (93 percent), but their standard deviations were 0.75 and 0.47 percent, respectively. This difference in standard deviation size resulted in different adjustments—the larger the standard deviation, the larger the adjustment. Also, different standard deviations in conjunction with different completion rates can result in the same adjustment. To illustrate, Virginia and Pennsylvania received the same adjustment even though their completion rates differed (93 versus 97 percent); this occurred because Virginia's standard deviation was

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0.75 percent, compared with the 1.62 percent for Pennsylvania. Again, the size of the standard deviations affected the adjustments, not the completion rates. Appendix II discusses the adjustment's effect on state error rates and the specifics of the error-rate adjustment calculation; appendixes III and IV provide individual state information.

The Service's procedure to estimate error rates for not-completed cases is based on the premise that such error rates are slightly higher than those for completed cases. However, as shown in our 1986 report, this may not be a valid assumption.<sup>2</sup> We found, in general, that the not-completed reviews were about twice as error prone as completed reviews. Therefore, the procedure that the Service used may have resulted in understated estimates of the extent of the errors that states made. In response to our recommendations in that report, the Service is evaluating revisions that would make it easier for states to complete a higher percentage of their reviews, thus improving the accuracy of the error rates. In addition, the Service is looking into alternative methods for estimating the error rate for those cases states are still unable to complete.

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## How the Error-Rate Adjustment Evolved

The Food Stamp Act of 1977, as amended, granted the Service the legal authority to adjust states' error rates to account for not-completed reviews. The Service followed its usual rule-making process and issued regulations to provide specific procedures for calculating the adjustment. In promulgating its regulations, the Service stated that it intended to implement a sanction and incentive system that treats states consistently. However, because the resulting adjustments for not-completed reviews are also based on each state's sample size and the variability of its sample error rate as well as the completion rates, states may be affected differently. The Service also intended that the system be compatible with those of the Department of Health and Human Services' (HHS) Aid to Families with Dependent Children (AFDC) and Medicaid Programs which administer similar quality control systems. Although the Service and HHS have similar sample selection and review procedures, neither AFDC nor Medicaid adjust their program error rates by using the state's standard deviation to assign an error rate to not-completed cases. Instead, both AFDC and Medicaid focus on completing the required sample; if the state cannot complete its sample in accordance with HHS procedures, the agency then estimates an error rate for not-completed cases

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<sup>2</sup>See Food Stamp Program: Refinements Needed to Improve Accuracy of Quality Control Error Rates (GAO RCED-86-195, Sept. 1986).

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based on the best reasonably available data. Further discussion on the development of the Service's error-rate adjustment calculation is contained in appendix II.

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## Conclusions

The noncompletion adjustment is used to encourage states to complete required quality control reviews and thus avoid an increase in their error rates and potential increase in their sanctions. Although USDA has the authority to adjust states' error rates to account for not-completed cases, the resulting adjustments are not based solely on completion rates and may understate the extent of errors for these cases. Taken in conjunction with a sanction system that is sensitive to very small changes in a state's error rate, the adjustment may financially penalize some states that have higher completion rates than other states that may avoid any sanctions altogether. The adjustment is based as much on the variability of the sample results as it is on the states' completion rate. Although in only one case did the adjustment increase a state's sanction, in that instance it doubled Virginia's sanction.

Because the potential exists for other such sanction increases, the Service should devise alternative ways to (1) more accurately estimate the error-rate for these cases and (2) assess penalties for not-completed case reviews. The Service is taking steps to improve the accuracy of the error rates. In addition, the Service is looking into alternative methods for estimating the error rate for those cases states are still unable to complete. However, the Service also should devise a sanction process that separates financial penalties for not-completed reviews from financial penalties for exceeding the prescribed error-rate target. Such a process could entail assessing sanctions based on the extent to which states do not complete the prescribed number of reviews. These sanctions could be levied on a graduated basis.

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## Recommendation to the Secretary of Agriculture

We recommend that the Secretary of Agriculture direct the Administrator, Food and Nutrition Service, to devise a sanction process that separates financial penalties for not-completed reviews from financial penalties for exceeding the target error rate. An alternative for doing so could entail a graduated sanction based on the extent to which states do not complete the prescribed number of reviews.

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## Agency Comments

In providing comments on a draft of this report, officials from the Food and Nutrition Service said that the report generally presented an objective description of the subject material and that the information in our report was factually correct. While they agreed with our conclusions that it would be appropriate to find alternative ways to levy financial sanctions on states for not-completed reviews, they were concerned that our recommendation could be interpreted as suggesting the development of a separate sanction system. We are not advocating that the Service develop a new system but rather refine its process for determining the sanctions and have changed the wording of our recommendation accordingly. We believe that the Service should take those actions it believes would assure that the financial sanctions assessed are consistent among the states with respect to the degree of case reviews not-completed. In addition, the officials suggested several technical and minor changes that we have made in the final report.

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In conducting our work, we reviewed the legislation, regulations, and policies governing the quality control and error-rate sanction systems, and specifically, the Service's procedures for adjusting error rates to account for not-completed quality control reviews. We also assessed the Service's statistical procedures for adjusting Food Stamp Program error rates and collected federal and state error rate and other quality control review information for fiscal years 1984 and 1985. In addition, we interviewed and obtained relevant documents from Service officials and, for comparison purposes, we gathered descriptive information and data on the AFDC and Medicaid quality control systems.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after its issue date. At that time, we will send copies of this report to appropriate House and Senate committees; the Secretary of Agriculture; and the Director, Office of Management and Budget. Copies will also be made available to other interested parties upon request.

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Major contributors to this report are listed in appendix V.

Sincerely yours,

A handwritten signature in cursive script that reads "J. Dexter Peach". The signature is written in black ink and is positioned above the printed name and title.

J. Dexter Peach  
Assistant Comptroller General



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**Abbreviations**

AFDC	Aid to Families with Dependent Children
GAO	General Accounting Office
HHS	Department of Health and Human Services
RCED	Resources, Community, and Economic Development Division
USDA	U.S. Department of Agriculture

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# Background and Objectives, Scope, and Methodology

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## The Food Stamp Program

The Food Stamp Program was authorized by the Food Stamp Act of 1964, as amended, and is designed to help low-income households that meet program eligibility requirements obtain more nutritious diets. Income, household size, and liquid assets, such as bank accounts, are the principal factors for determining household eligibility. Benefits are issued in the form of food coupons that eligible households can use to purchase food and obtain a more nutritious diet. The program is administered nationally by the USDA's Food and Nutrition Service with 100-percent federal financing of the food stamp benefits—about \$10.6 billion in fiscal year 1986. States are responsible for local administration and day-to-day operation of the program.<sup>1</sup> The federal government finances part (usually 50 percent) of the states' administrative expenses; its share of such expenses was about \$947 million in fiscal year 1986.

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## The Quality Control System

The Food Stamp Act of 1977, which established the current quality control review system, requires states to conduct quality control reviews to identify and measure incorrect food stamp issuances and give program managers information needed to develop corrective actions to reduce these errors. Error-rate results are compiled and reported for each fiscal year and provide data on three categories of benefit issuance errors: issuances to ineligible households, overissuances to eligible households, and underissuances to eligible households. Quality control reviews also provide information on the percentage of cases in which benefits were improperly denied or terminated. The official Food Stamp Program error rate is defined as the percentage of benefits issued to ineligible households or improper amounts issued to eligible households (overissuances).

Program regulations require each state to complete quality control reviews by selecting a statistically valid sample of its issuances to program participants (households). Their review of the sample is used to (1) verify the accuracy of the state's eligibility determinations and the amounts of benefits provided and (2) project an error rate for the state's total caseload. Each state then reports this error rate to the Service.

The Service validates each state's quality control review results by (1) selecting a subsample of cases from each state's quality control sample and (2) determining whether the state properly completed its review of

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<sup>1</sup>For the Food Stamp Program the term "states" includes the 50 U.S. states plus the District of Columbia, Guam, and the U.S. Virgin Islands.

the required sample cases and accurately reported the results. The Service uses information from the completed state and Service quality control reviews to estimate the state's official payment error rate for each fiscal year in a two-step process. First, an estimated error rate, called a "regressed" error rate, is computed using the results of state and federal review samples. The Service uses this procedure to increase the precision of the error rate estimate relative to what could be obtained from the Service's sample alone. If this procedure shows that the state and Service review results are similar (that is, both identified similar payment errors), the regressed error rate is the same as the state-reported rate. If the state-reported error rate indicates more errors than the Service's procedure shows, the Service adjusts the state-reported error rate downward to arrive at a lower, regressed error rate. Or, if the state's error rate reports less in overissuances than this review procedure indicates, the error rate is adjusted upward to arrive at a higher, regressed error rate.

Second, the Service also adjusts the state's regressed error rate upward if the state did not complete all of the specified quality control reviews. This adjustment is made as an incentive to encourage states to complete quality control reviews. The resulting number is the state's official Food Stamp Program error rate. (Additional details on the noncompletion adjustment are contained in app. II.)

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## **The Error-Rate Sanction System**

The Food Stamp Act Amendments of 1980 first established an error-rate sanction system that made states financially responsible for a portion of their erroneous payments. Current procedures, established by the Food Stamp Act Amendments of 1982, established target error rates and prescribed sanctions against states if they exceeded these targets. For fiscal year 1984, most states had a 7-percent target error rate and were liable for overissuances that exceeded 7 percent of the total benefits they had issued. For fiscal year 1985 and each subsequent year, the target error rate for all states is 5 percent.

The 1982 act requires states to pay sanctions on the basis of the state's error rate and links the sanction amount to the state's federal reimbursement for administering the program. Sanctions are based on the percentage points or fractions thereof by which the state's payment error rate exceeds the target rate. A state would be required to pay a sanction equal to 5 percent of its federally reimbursed administrative costs for each of the first 3 percentage points or fractions thereof by which the state's official error rate exceeds the target rate and a 10-

percent sanction for each additional percentage point or fraction thereof above the target rate. For example, Alabama's 1985 payment error rate of 13.5 percent exceeds the 5-percent target rate by 8.5 percent. This translates to a sanction of 75 percent of its fiscal year 1985 administrative reimbursement—15 percent for the first 3 percentage points in excess of the 5-percent target rate plus 60 percent for the additional 5.5 percentage points. Alabama's sanction was over \$13.1 million, or 75 percent of its \$17.5 million in administrative costs normally paid by the federal government.

## Objectives, Scope, and Methodology

Our objectives were to provide information on (1) the adjustment's effect, if any, on each state's official error rate and sanction amount, (2) USDA's legislative authority and its decision-making process for developing the error-rate adjustment for states not completing the prescribed number of quality control reviews, and (3) the most recent available data on individual state's target and official error rates, both including and excluding the adjustment for not-completed cases.

To determine the legislative authority and evaluate the decision-making process, we reviewed federal legislation, regulations, and policies governing the quality control reviews, error-rate adjustment procedures, and sanction system. We assessed how the implementing regulations fulfilled and corresponded to the authorizing legislation. We also reviewed the Service's statistical and mathematical procedures for adjusting state-reported error rates to develop the states' official Food Stamp Program error rates. For comparison purposes, we gathered descriptive information and data on selected quality control procedures in the HHS' AFDC and Medicaid programs and discussed those procedures with HHS officials.

To estimate the impact of the error-rate adjustments and provide current state error-rate information, we collected and analyzed federal and state data for fiscal years 1984 and 1985. We obtained individual state error rates, quality control review completion rates, adjustments for noncompletion of the reviews, and sanction amounts from officials of the Service's headquarters located in Alexandria, Virginia, and from the Service's seven regional offices. Also, we discussed the (1) data; (2) program policies and requirements; (3) steps for developing and deciding how to adjust the error rates; and (4) statistical procedures for calculating error rates, with officials from the Service.

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**Appendix I  
Background and Objectives, Scope,  
and Methodology**

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We made our review from March to August 1987, in accordance with generally accepted government auditing standards.

# Error-Rate Adjustment for Not Completing Quality Control Reviews

Service regulations specify the number of cases that each state is required to review for the food stamp quality control process. To provide states with an incentive to complete the required quality control reviews, the Service adjusts the state's error rate upward if the state fails to do so. However, the size of the adjustment and its impact on the amount of a state's sanction depends, to a certain extent, on factors not related to the percentage of cases the state completed. As a result, the adjustment may (1) invoke a financial penalty (sanction) for states that had a higher completion rate while other states with lower completion rates were not financially penalized for not-completed reviews, (2) vary for states with the same or similar completion rates, or (3) be the same for states with different completion rates.

The Service's adjustment calculation is based on the following factors: (1) the percentage of the required number of reviews that the state completed (called the completion rate), (2) the state's regressed error rate, and (3) a measure of the variability of a state's error rate, called the standard deviation. The Service computes the regressed error rate by using the results of state and Service quality control review samples. This procedure increases the precision of each state's error rate and adjusts the state-reported error rate upward or downward to provide the more precise error-rate estimate. The standard deviation, a statistical term, measures the dispersion of the errors in the state's sample from its average error. As the state's error rate increases, the standard deviation tends to increase. In addition, the standard deviation varies inversely with the state's sample size—states with small samples tend to have larger standard deviations, compared with states with larger samples.

## Effect of Service's Adjustment for Not Completing Reviews

Although the adjustment for failing to complete case reviews is relatively small, as table II.1 shows, an increase as small as 0.01 percentage point can double a state's liability for its federally reimbursed administrative costs.

**Appendix II  
Error-Rate Adjustment for Not Completing  
Quality Control Reviews**

**Table II.1: Sanction Amounts for States  
With Error-Rate Targets of 5 and 7  
Percent<sup>a</sup>**

Error rate (percent)	Sanction as a percentage of federally reimbursed administrative costs for state with an error-rate target of:	
	5 percent	7 percent
5.00 or less	none	none
5.01 - 6.00	5	none
6.01 - 7.00	10	none
7.01 - 8.00	15	5
8.01 - 9.00	25	10
9.01 - 10.00	35	15
10.01 - 11.00	45	25
11.01 - 12.00	55	35
12.01 or more <sup>b</sup>		

<sup>a</sup>The target error rates were set at 7 percent for fiscal year 1984 and 5 percent for fiscal year 1985 and beyond. However, the act permitted 17 states to meet less stringent, individually determined target error rates for fiscal year 1984.

<sup>b</sup>The sanction increases by 10 percentage points for each additional percentage point or part of a percentage point in the error rate. No state, however, can be sanctioned more than the value of benefits issued in error above its target.

When an adjustment is added to a regressed error rate that is very close to the sanction threshold, the adjustment may cause the error rate to cross that threshold to the next percentage point increment. To illustrate, Virginia completed about 93 percent of its quality control reviews for fiscal year 1984, and its adjustment for not-completed reviews was 0.10 percent; adding this adjustment to its regressed error rate of 7.94 percent raised Virginia's official error rate to 8.04 percent. This increased the state's sanction from about \$652,000 to about \$1.3 million, given that the adjustment caused the error rate to cross the threshold of the next percentage point increment. On the other hand, the same adjustment (0.10) for Pennsylvania in fiscal year 1984 did not result in any additional financial penalty. The 0.10 adjustment, added to Pennsylvania's regressed error rate of 10.43 percent, resulted in an official error rate of 10.53 percent that did not cross the threshold to invoke an additional penalty. In addition, Alaska had a lower completion rate of about 89 percent, and a higher adjustment of 0.18 percent, yet its sanction was not increased. Alaska's adjustment, when added to the state's regressed error rate of 8.96 percent, resulted in an official error rate of 9.14 percent which did not invoke an additional financial penalty because the resulting error rate did not exceed the state's error rate target of 10.45 percent.

Also, as shown in table II.2, the adjustments may (1) vary for the same or similar completion rates or (2) be the same for different completion rates. For example, in fiscal year 1985 the District of Columbia and Missouri both had 96 percent completion rates, but the adjustments were 0.08 to 0.03 percent, respectively. Conversely, Missouri and Vermont had different completion rates of 96 and 99 percent, respectively, but both were assigned the same adjustment of 0.03 percent. This difference in the adjustment amount assigned to similar and different completion rates is due, in part, to the magnitude of each state's standard deviation—larger standard deviations can result in a larger adjustment. As the state's error rate increases, the standard deviation tends to increase. In addition, the standard deviation varies inversely with the state's sample size—states with smaller caseloads and smaller samples tend to have larger standard deviations, compared with states with larger samples. In these cases, the adjustments did not result in an additional sanction for any of these states because their regressed error rates were not close enough to the sanction threshold. (See apps. III and IV for detailed state information.)

**Table II.2: Adjustments Differ for Completion Rates**

State	(Percent)			
	Completion rate	Adjustment	Standard deviation	Regressed error rate
District of Columbia	96	08	1.04	9.73
Missouri	96	03	.42	5.20
Vermont	99	.03	1.07	8.03

Source: The quality control error rate and completion rate information provided to us by USDA's Food and Nutrition Service is reported as of June 1987. This information may change slightly as differences between federal and state review findings are resolved.

## How the Error-Rate Adjustment Evolved

In establishing the quality control system and its resulting sanction, the Food Stamp Act of 1977, as amended, provided that "The Secretary shall issue such regulations consistent with this [Act] as the Secretary deems necessary or appropriate for the effective and efficient administration of the food stamp program . . ." The act did not provide specific procedures for the error rate calculation, such as for adjusting state error rates upward for not completing their required number of quality control reviews, which left the Secretary a great deal of discretion in implementing these provisions of the act. We found that although the Secretary has the authority to adjust states' error rates for not-completed cases, the resulting adjustments are also based on factors other

than completion rates. Furthermore, the adjustments for not-completed cases may understate the extent of errors for these cases.

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### Justification for Adjustment Procedure

According to Service regulations, states' not completing the required quality control samples can affect the accuracy of the error rates the states report and the accuracy of the national error rate that the Service uses to make management decisions. The Service was concerned about the (1) accuracy of the error rates when samples are incomplete and (2) bias that may be introduced because of noncompletion. Therefore, the Service designed an error rate adjustment procedure that would compensate, to some degree, for the resulting bias when such cases are not completed in a state's quality control sample. To do this, the Service developed a procedure that uses confidence intervals designed to estimate how much the estimated error rate could differ from the true error rate if it were known.<sup>1</sup>

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### Procedures Used in Establishing the Adjustment

In developing its quality control and sanction systems, the Service officials relied upon information and suggestions of representatives from interested state agencies, HHS, the American Public Welfare Association, and congressional reports. In proposed regulations published for comment in October 1980, the Service (1) described its procedures for adjusting error rates to account for states not completing required quality control reviews and (2) explained its rationale for proposing these procedures.

A total of 105 states, federal agencies, advocacy groups, and other interested parties commented on the proposed regulations—38 commenters addressed the noncompletion issue. These commenters were primarily concerned with whether the proposed adjustment procedures would be applied in an even-handed manner to each state. On the basis of the comments, the Service modified the regulations to address these concerns and stated that it intended to implement a sanction and incentive system in a manner that treated states consistently. These regulations were implemented in fiscal year 1981 and required states to complete 95 percent of their prescribed number of quality control reviews. The regulations also provided for an error rate adjustment of one standard deviation as a means of penalizing states for not completing their reviews.

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<sup>1</sup>Our report entitled Quality Control Error Rates for the Food Stamp Program (GAO RCED-85-98, Apr. 12, 1985) provides a detailed description of the statistical procedures that the Service used to develop official Food Stamp Program error rates.

After using this adjustment for 2 years, the Service concluded that setting a 95-percent completion rate target and basing the penalty for not-completed cases on one standard deviation did not provide an adequate incentive for states to complete required reviews. On the basis of its experience administering the quality control system, the Service proposed, in July 1983, regulations to modify the error rate adjustment to account for not completing reviews. These revised regulations, in effect for fiscal year 1983, modified the adjustment procedures to increase the (1) review completion rate from 95 to 100 percent and (2) amount of the adjustment from one to two standard deviations. According to the regulations, these revisions would serve to ensure that states made every reasonable attempt to complete their reviews, and thus minimize any bias that not-completed reviews cause.<sup>2</sup> According to Service officials, the change was not based on any empirical studies of the Food Stamp or comparable programs but rather represented the Service's opinion of what an adequate adjustment might entail.

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## Observations of Procedure Development

The Service intended to implement a sanction and incentive system that treated states consistently; however, the resulting adjustments for not-completed cases can affect states differently. In addition, it sought to (1) make the system compatible with the quality control systems of other income security programs and (2) accurately estimate error rates for not-completed cases.

One objective of the food stamp quality control system was to be compatible with HHS' AFDC and Medicaid programs quality control systems. The Service and HHS regulations both require states to (1) select statistically reliable samples of specified sizes from their universes of cases, (2) complete quality control reviews of the samples, and (3) calculate a payment error rate. However, unlike the Service, HHS does not assign error rates to not-completed cases based on the size of a state's standard deviation. Instead, HHS' quality control systems focus on completing the required sample; if the state cannot complete its sample in accordance with HHS procedures, the agency then estimates an error rate for not-completed cases based on the best reasonably available data. HHS regulations specify that estimates should be based on information such as a federal subsample of completed cases, or an audit conducted through a contractual agreement with a third party.

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<sup>2</sup>According to the Service, the states' average completion rate was about 93 percent for fiscal years 1981 and 1982. Subsequent to the adjustment procedure revisions, the states' average completion rates for fiscal years 1983, 1984, and 1985 were about 95, 96, and 97 percent, respectively.

The procedure that the Service used to estimate error rates for not-completed cases is based on the premise that such error rates were slightly higher than those for completed cases. However, as shown in our 1986 report, this may not be a valid assumption.<sup>3</sup> We found, in general, that the not-completed reviews were about twice as error prone as completed reviews. For example, in that report we estimated that the error rate was 31 percent for the fiscal year 1984 cases that New York did not complete, while the error rate for completed cases was 10 percent. The procedure that the Service used to develop its official fiscal year 1984 error rates caused the Service to assume that the error rate was 12 percent for the cases that New York did not complete. Therefore, as our 1986 report shows, the procedure the Service used may have resulted in inaccurate estimates of the extent of the errors that states made. In response to our recommendations in that report, the Service is evaluating revisions that would make it easier for states to complete a higher percentage of their reviews, thus improving the accuracy of the error rates. In addition, the Service is looking into alternative methods for estimating the error rate for those cases states are still unable to complete.

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## Conclusions

The Service's error rate adjustment procedures for states' not-completed cases (1) are not based solely on completion rates; (2) may understate the extent of errors for these cases; and (3) may assess sanctions for states with relatively high completion rates, while allowing states with lower completion rates to avoid any financial penalty, given the sanction's sensitivity to small adjustments to the error rate. Because the adjustment is not dependent on completion rates alone, the size of the adjustment may vary for states with the same or similar completion rate or be the same for states with different completion rates. Furthermore, the procedure the Service uses to estimate an error rate for not-completed cases is based on the premise that these cases have slightly higher error rates than completed ones that may not be a valid assumption. Finally, contrary to its stated intentions, the Service's statistical adjustment differs from practices established for other similar income security programs for estimating the error rate for not-completed cases.

Although in only one case did the adjustment increase a state's sanction, in that instance it doubled Virginia's sanction. Because the potential

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<sup>3</sup>See Food Stamp Program: Refinements Needed to Improve Accuracy of Quality Control Error Rates (GAO/RCED-86-195, Sept. 1986).

exists for other such sanction increases, the Service should devise alternative ways to (1) more accurately estimate the error rate for these cases and (2) assess penalties for not-completed case reviews. The Service is taking steps to improve the accuracy of the error rates. In addition, the Service is looking into alternative methods for estimating the error rate for those cases states are still unable to complete. However, the Service also should devise a sanction process that separates financial penalties for not-completed reviews from financial penalties for exceeding the prescribed error-rate target. Such a process could entail assessing sanctions based on the extent to which states do not complete the prescribed number of reviews. These sanctions could be levied on a graduated basis.

## Recommendation to the Secretary of Agriculture

We recommend that the Secretary of Agriculture direct the Administrator, Food and Nutrition Service, to devise a sanction process that separates financial penalties for not-completed reviews from financial penalties for exceeding the target error rate. An alternative for doing so could entail assessing a graduated sanction based on the extent to which states do not complete the prescribed number of reviews.

## Agency Comments

In providing comments on a draft of this report, officials from the Food and Nutrition Service said that the report generally presented an objective description of the subject material and that the information in our report was factually correct. While they agreed with our conclusions that it would be appropriate to find alternative ways to levy financial sanctions on states for not-completed reviews, they were concerned that our recommendation could be interpreted as suggesting the development of a separate sanction system. We are not advocating that the Service develop a new system but rather refine its process for determining the sanctions and have changed the wording of our recommendation accordingly. We believe that the Service should take whatever actions it believes would assure that the financial sanctions assessed are consistent among the states with respect to the degree of case reviews not-completed. In addition, the officials suggested several technical and minor changes that we have made in the final report.

# 1984 Food Stamp Program Quality Control Review Information

State	(Percent)			
	Official error rate	Regressed error rate	Adjustment for not-completed reviews	Quality control review completion rate
Alabama	13.35	13.34	0.01	98.97
Alaska <sup>a</sup>	9.14	8.96	0.18	89.41
Arizona	9.58	9.54	0.04	97.19
Arkansas	9.75	9.74	0.01	97.18
California	7.76	7.65	0.11	86.38
Colorado	10.66	10.58	0.08	95.44
Connecticut	7.11	7.08	0.03	97.85
Delaware	6.31	6.28	0.03	98.26
D.C.	8.80	8.69	0.11	94.83
Florida	8.99	8.93	0.06	97.99
Georgia	9.56	9.48	0.08	96.81
Guam	3.39	3.26	0.13	94.84
Hawaii	3.70	3.67	0.03	98.05
Idaho	6.96	6.84	0.12	94.73
Illinois <sup>b</sup>	8.31	•	•	97.22
Indiana	8.64	8.61	0.03	97.90
Iowa	8.51	8.46	0.05	97.14
Kansas	7.35	7.30	0.05	96.66
Kentucky	8.98	8.94	0.04	97.31
Louisiana	10.15	10.14	0.01	99.60
Maine	6.74	6.74	0.00	99.91
Maryland	6.99	6.98	0.01	99.02
Massachusetts	9.86	9.79	0.07	96.88
Michigan	6.46	6.39	0.07	91.89
Minnesota	9.77	9.71	0.06	94.00
Mississippi	9.24	9.23	0.01	99.09
Missouri	5.83	5.79	0.04	96.28
Montana	8.77	8.74	0.03	96.79
Nebraska	8.40	8.30	0.10	92.59
Nevada	2.54	2.54	0.00	100.00
New Hampshire	8.18	8.17	0.01	99.46
New Jersey	7.46	7.39	0.07	92.54
New Mexico	11.61	11.54	0.07	97.24
New York	10.14	10.07	0.07	96.41
North Carolina	7.22	7.21	0.01	98.72
North Dakota	6.27	6.21	0.06	98.22

(continued)

**Appendix III  
1984 Food Stamp Program Quality Control  
Review Information**

State	(Percent)			Quality control review completion rate
	Official error rate	Regressed error rate	Adjustment for not-completed reviews	
Ohio	6.65	6.63	0.02	97.81
Oklahoma	7.19	7.17	0.02	98.22
Oregon	7.82	7.65	0.17	93.33
Pennsylvania	10.53	10.43	0.10	96.92
Rhode Island	7.08	7.01	0.07	95.08
South Carolina	10.80	10.75	0.05	96.96
South Dakota	3.59	3.57	0.02	98.38
Tennessee	6.09	6.08	0.01	98.64
Texas	9.60	9.51	0.09	98.70
Utah	11.43	11.43	0.00	99.83
Vermont	9.53	9.47	0.06	97.12
Virginia	8.04	7.94	0.10	93.33
Virgin Islands	12.12	12.05	0.07	97.68
Washington	9.24	9.23	0.01	99.55
West Virginia	6.94	6.87	0.07	94.69
Wisconsin	9.60	9.56	0.04	95.62
Wyoming	9.08	9.05	0.03	99.12

<sup>a</sup>Alaska's 1984 target error rate was 10.45 percent, thus, the increase in the state's regressed error rate from 8.96 percent to 9.14 percent does not result in a sanction.

<sup>b</sup>Illinois participated in the Simplified Application Demonstration Project, authorized by the Agriculture and Food Act of 1981, which required the Service to make a special calculation for Illinois' error rate in 1984. Therefore, only the official error rate is included in the table.

Source: The quality control error rate and completion rate information was provided to us by USDA's Food and Nutrition Service during March and April 1987. This information may change slightly as differences between federal and state review findings are resolved.

# 1985 Food Stamp Program Quality Control Review Information

State	(Percent)			Quality control review completion rate
	Official error rate	Regressed error rate	Adjustment for not-completed reviews	
Alabama	13.50	13.48	0.02	99.07
Alaska	13.53	13.44	0.09	96.92
Arizona	9.38	9.33	0.05	94.75
Arkansas	7.88	7.87	0.01	99.47
California	7.08	7.04	0.04	95.15
Colorado	8.48	8.41	0.07	94.93
Connecticut	7.04	7.02	0.02	98.52
Delaware	7.17	7.09	0.08	97.40
D.C.	9.81	9.73	0.08	96.24
Florida	6.71	6.70	0.01	98.71
Georgia	12.91	12.85	0.06	97.38
Guam	5.33	5.31	0.02	99.30
Hawaii	4.35	4.33	0.02	98.45
Idaho	5.16	5.07	0.09	92.04
Illinois	8.16	8.12	0.04	96.03
Indiana	10.90	10.89	0.01	99.24
Iowa	8.41	8.37	0.04	96.98
Kansas	8.16	8.12	0.04	97.71
Kentucky <sup>a</sup>	6.00	5.96	0.04	96.37
Louisiana	9.76	9.74	0.02	98.47
Maine	7.91	7.91	0.00	100.00
Maryland	7.37	7.35	0.02	98.52
Massachusetts	9.71	9.58	0.13	93.42
Michigan	7.35	7.31	0.04	96.68
Minnesota	9.51	9.43	0.08	95.31
Mississippi	7.98	7.97	0.01	99.45
Missouri	5.23	5.20	0.03	96.48
Montana	7.44	7.43	0.01	99.62
Nebraska	9.04	9.02	0.02	99.01
Nevada	2.48	2.46	0.02	98.36
New Hampshire	4.42	4.40	0.02	99.12
New Jersey	8.50	8.44	0.06	94.72
New Mexico	8.83	8.77	0.06	95.86
New York	7.11	7.08	0.03	97.20
North Carolina	6.49	6.47	0.02	98.51
North Dakota	3.53	3.51	0.02	98.96

(continued)

**Appendix IV  
1985 Food Stamp Program Quality Control  
Review Information**

State	(Percent)			
	Official error rate	Regressed error rate	Adjustment for not-completed reviews	Quality control review completion rate
Ohio	7.43	7.40	0.03	96.60
Oklahoma	10.58	10.58	0.00	99.78
Oregon	9.41	9.35	0.06	94.59
Pennsylvania	9.36	9.30	0.06	96.59
Rhode Island <sup>a</sup>	8.00	7.93	0.07	95.18
South Carolina	12.10	12.07	0.03	98.35
South Dakota	3.15	3.12	0.03	98.31
Tennessee	6.39	6.37	0.02	98.66
Texas	10.38	10.36	0.02	98.90
Utah	7.26	7.26	0.00	100.00
Vermont	8.06	8.03	0.03	98.54
Virginia	6.62	6.57	0.05	96.26
Virgin Islands	9.73	9.70	0.03	99.02
Washington	9.50	9.49	0.01	98.58
West Virginia	5.07	5.04	0.03	96.80
Wisconsin <sup>a</sup>	8.00	7.96	0.04	95.75
Wyoming	6.78	6.75	0.03	98.79

<sup>a</sup>Adjustments to state regressed error rates must increase the error rate above the next percentage point increment before the next sanction level is triggered. Kentucky's adjustment increased its official error rate to 6.00 percent which does not invoke a sanction, the error rate would need to reach 6.01 percent before a sanction occurred. The same situation occurs for Rhode Island and Wisconsin.

Source: The quality control error rate and completion rate information provided to us by USDA's Food and Nutrition Service is reported as of June 1987.

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