

# ***Nutrition Assistance Program Report Series***

**The Office of Analysis, Nutrition and Evaluation**

Special Nutrition Programs

Report No. CN-04-AV3

---

## Case Study of National School Lunch Program Verification Outcomes in Large Metropolitan School Districts



United States  
Department of  
Agriculture

Food and  
Nutrition  
Service

April 2004

## **Non-Discrimination Policy**

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication or program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complain of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14<sup>th</sup> and Independence Avenues, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.



United States Food and  
Department of Nutrition  
Agriculture Service

April 2004  
Special Nutrition Programs  
Report No. CN-04-AV3

## Case Study of National School Lunch Program Verification Outcomes in Large Metropolitan School Districts

**Authors:**

From Mathematica Policy Research, Inc.  
John Burghardt  
Tim Silva  
Lara Hulsey

**Submitted to:**

USDA, Food and Nutrition Service  
Office of Analysis, Nutrition and Evaluation  
Room 1014  
3101 Park Center Drive  
Alexandria, VA 22302

**Project Officer:**

Paul Strasberg

**Submitted by:**

Mathematica Policy Research, Inc.  
P.O. Box 2393  
Princeton, NJ 08543-2393  
Telephone: (609) 799-3535  
Facsimile: (609) 799-0005

**Project Director:**

John Burghardt

**Principal Investigator:**

Philip Gleason

This study was conducted under Contract number GS-10F-00502 with the Food and Nutrition Service.

This report is available on the Food and Nutrition Service website: <http://www.fns.usda.gov/oane>.

**Suggested Citation:**

Burghardt, J., Silva, T., and Hulsey, L. "Case Study of National School Lunch Program Verification Outcomes in Large Metropolitan School Districts." *Special Nutrition Program Report Series*, No. CN-04-AV3. Project Officer: Paul Strasberg. U.S. Department of Agriculture, Food and Nutrition Service, Office of Analysis, Nutrition and Evaluation, Alexandria, VA: 2004.

## ACKNOWLEDGMENTS

The authors gratefully acknowledge the assistance of the many organizations and individuals who played a role in completing this study.

FNS regional office staff and staff in the state child nutrition agencies of California, Florida, Massachusetts, Minnesota, Oklahoma, Utah, and Virginia arranged for the participation of individual districts in the study. We would especially like to thank the districts that participated in the study and the individuals who helped us arrange and complete the verification data collection.

Boston, Massachusetts, metropolitan area:

Helen Mont Ferguson, Boston Public Schools  
Donna Lombardi, Worcester Public Schools  
Anne Marie Sheehan, Lawrence Public Schools

Norfolk-Newport News, Virginia, metropolitan area:

Carol R. Clark, MS, RD Hampton City Schools  
James G. Ratliff, Jr., Virginia Beach City Public Schools  
Douglas H. Vaughan, Newport News Public Schools

Orlando, Florida, metropolitan area:

Dan Andrews, Seminole County School District  
Jim Hill, Lake County School District  
Jean Palmore, Osceola School District  
Janet Williams, Orange County School District

Los Angeles, California, metropolitan area:

Geri Dee and Ileana Siu, Hacienda La Puente Unified School District  
Terry Pangborn, Anaheim Union High School District  
Judy Pollock, Orange Unified School District  
Cecilia Slater, Long Beach Unified School District

Minneapolis, Minnesota, metropolitan areas:

Jo Ellen Miner, Minneapolis Public Schools  
Allison Bradford, Anoka-Hennepin Independent School District

Salt Lake City, Utah, metropolitan area:

Kim Carter, Granite School District  
Marilyn Clayton, Jordan School District  
Kelly Orton, Salt Lake City School District

Tulsa, Oklahoma, metropolitan area:

Lisa Griffin, Tulsa Public Schools  
Jill Poole, Broken Arrow Public Schools

Paul Strasberg at the Office of Analysis, Nutrition and Evaluation served as the primary point of contact for school district and state agency staff. He also served as the contracting officer's technical representative for the contract under which Mathematica Policy Research, Inc. conducted the case study. His close involvement in site recruiting, data collection, and the analysis and report preparation have shaped the study and this report. The study has also benefited from the insights of Jay Hirschman and John Endahl of the Office of Analysis, Nutrition, and Evaluation, and Todd Barrett of FNS's Child Nutrition Division.

The authors also wish to thank their many colleagues at Mathematica Policy Research, Inc. who contributed to the study and to this report. Rhoda Cohen designed the abstraction and study survey and oversaw the data collection. Keith Appleby, Julie Ladinsky, Charles Nagatoshi, and Claire Wilson helped explain the study to district staff and conducted the visits to each district to review verification files. Julita Milliner and Anne Self helped manage the field data collection. Barbara Kolln provided programming support to the field data collection. Jaclyn Wong, Michael Bloom, Justin Humphrey, Lucy Lu, and Patricia Seunarine provided research programming support. Philip Gleason, Michael Sinclair, and James Ohls provided review, advice, and guidance on aspects of the analysis and report preparation. Jill Miller, Marjorie Mitchell, Walter Brower, and Patricia Ciaccio provided production and editorial support.

# CONTENTS

Chapter	Page
EXECUTIVE SUMMARY .....	xv
I INTRODUCTION .....	1
A. PROGRAM BACKGROUND.....	1
B. STUDY OBJECTIVES.....	4
II STUDY METHODS AND CHARACTERISTICS OF STUDY DISTRICTS.....	7
A. STUDY METHODS .....	7
1. Overview .....	7
2. Selection of Districts .....	10
3. Data Abstraction.....	12
4. In-Person Interviews .....	14
5. Follow-Up Data on Postverification Eligibility Status .....	16
6. Analysis Methods.....	16
B. CHARACTERISTICS OF CASE STUDY DISTRICTS AND ALL DISTRICTS NATIONWIDE.....	19
III OUTCOMES OF VERIFICATION.....	27
A. OVERALL OUTCOMES .....	28
1. Summary for All Households.....	28
2. Summary of Results Based on How Households' Initial Eligibility Was Determined.....	31
3. Placing the Verification Outcome Results in Perspective.....	34
B. VERIFICATION OUTCOMES BY DISTRICT CHARACTERISTICS.....	37
1. District Enrollment.....	37
2. Percentage of Students Approved for Free or Reduced-Price Meals.....	39
3. Use of Direct Certification .....	42
4. Use of Multichild Versus Single-Child Applications .....	44
C. REAPPROVAL RATES AMONG NONRESPONDERS.....	44

<b>Chapter</b>	<b>Page</b>
IV	INCOME ELIGIBILITY STATUS OF TWO GROUPS OF CASES SELECTED FOR VERIFICATION..... 49
	A. APPROACH AND INTERPRETATION OF THE ESTIMATES ..... 49
	B. FINDINGS ON INCOME ELIGIBILITY STATUS ..... 51
	1. Findings on the Income Eligibility Status of Nonresponders to Verification..... 51
	2. Findings on the Income Status of Cases with No Change in Benefits ..... 54
	3. Accuracy of Meal Price Certification for Nonresponders and No-Change Cases ..... 56
V	CHARACTERISTICS OF NONRESPONDING HOUSEHOLDS THAT WERE REAPPROVED AND THAT WERE NOT REAPPROVED BY MARCH 1 ..... 59
	A. ELIGIBILITY ..... 60
	B. OTHER CHARACTERISTICS ..... 63
	C. PARTICIPATION IN THE NSLP ..... 64
VI	INCOME ELIGIBILITY STATUS OF REAPPROVED NONRESPONDERS: COMPARING MEAL PRICE STATUS ASSIGNED BY THE SFA WITH INCOME ELIGIBILITY ESTIMATED FROM THE CASE STUDY INTERVIEW ..... 67
	A. DATA AND METHODS..... 69
	B. COMPARING MEAL PRICE STATUS AS DETERMINED BY THE SFA AND MEAL PRICE STATUS BASED ON THE SURVEY..... 71
	C. UNDERSTANDING THE DIFFERENCES IN STATUS AS DETERMINED BY THE DISTRICT AND BY THE SURVEY..... 73
	1. Categorical Eligibility or Foster Child Present ..... 74
	2. Income and Household Size Agree but Meal Price Status Differs ..... 74
	D. ESTIMATING THE PORTION OF THE DIFFERENCE IN RATES OF INELIGIBILITY OF NO-CHANGE CASES DUE TO CHANGING CIRCUMSTANCES ..... 78
	REFERENCES ..... 81

## **Chapter**

APPENDIX A: ADDITIONAL TABULATIONS

APPENDIX B: INCOME ELIGIBILITY OF NONRESPONDERS AND  
NO-CHANGE CASES FOR GROUPS OF CASE STUDY  
DISTRICTS

APPENDIX C: DETAILS OF THE ESTIMATE OF THE PERCENTAGE  
INELIGIBLE IN MARCH WHO HAD A CHANGE IN  
ELIGIBILITY FROM DECEMBER TO MARCH



## TABLES

<b>Table</b>	<b>Page</b>
II.1	CASE STUDY OF VERIFICATION OUTCOMES: INTERVIEW SAMPLES AND RESPONSE RATES..... 15
II.2	AVERAGE CHARACTERISTICS OF ALL DISTRICTS NATIONWIDE AND THE CASE STUDY DISTRICTS ..... 20
II.3	CHARACTERISTICS OF CASE STUDY DISTRICTS..... 23
III.1	SUMMARY OF VERIFICATION OUTCOMES FOR ALL HOUSEHOLDS, OVERALL AND BY SAMPLING METHOD USED..... 29
III.2	SUMMARY OF VERIFICATION OUTCOMES, BY BASIS FOR INITIAL APPROVAL, OVERALL AND BY SAMPLING METHOD USED .. 32
III.3	SUMMARY OF VERIFICATION OUTCOMES, OVERALL AND BY SAMPLING METHOD USED ..... 38
III.4	SUMMARY OF VERIFICATION OUTCOMES BY DISTRICT ENROLLMENT AND SAMPLING METHOD USED ..... 40
III.5	SUMMARY OF VERIFICATION OUTCOMES BY PERCENTAGE OF STUDENTS APPROVED FOR FREE AND REDUCED-PRICE MEALS AND SAMPLING METHOD USED..... 41
III.6	SUMMARY OF VERIFICATION OUTCOMES BY DIRECT CERTIFICATION POLICY AND SAMPLING METHOD USED..... 43
III.7	SUMMARY OF VERIFICATION OUTCOMES BY MULTICHILD APPLICATION POLICY AND SAMPLING METHOD USED..... 45
III.8	MEAL PRICE STATUS OF NONRESPONDERS TO VERIFICATION INITIALLY APPROVED ON THE BASIS OF INCOME, AS OF MARCH 1, 2003, OVERALL AND BY ORIGINAL STATUS..... 46
IV.1	INCOME STATUS OF HOUSEHOLDS APPROVED ON THE BASIS OF INCOME AND HOUSEHOLD SIZE THAT FAILED TO RESPOND TO VERIFICATION REQUEST ..... 52
IV.2	INCOME STATUS OF HOUSEHOLDS APPROVED ON THE BASIS OF INCOME AND HOUSEHOLD SIZE THAT HAD NO CHANGE IN NSLP BENEFITS AS A RESULT OF VERIFICATION ..... 55

**TABLES** (continued)

<b>Table</b>	<b>Page</b>
IV.3 CERTIFICATION ACCURACY OF HOUSEHOLDS WITH SELECTED VERIFICATION OUTCOMES .....	58
V.1 CHARACTERISTICS OF SURVEY SAMPLE OF HOUSEHOLDS THAT FAILED TO RESPOND TO VERIFICATION THAT WERE REAPPROVED AND THAT WERE NOT REAPPROVED .....	61
VI.1 MEAL PRICE STATUS ACCORDING TO THE STUDY SURVEY AND ACCORDING TO THE SFA DETERMINATION AFTER REAPPLICATION.....	72
VI.2 REASONS FOR DIFFERENCE BETWEEN MEAL PRICE STATUS ASSIGNED BY SFA AND MEAL PRICE STATUS BASED ON THE SURVEY AMONG NONRESPONDERS TO VERIFICATION WHO WERE REAPPROVED.....	75
A.1 OUTCOMES OF NSLP VERIFICATION IN 21 LARGE METROPOLITAN DISTRICTS .....	A.1
A.2 OUTCOMES OF NSLP VERIFICATION IN 21 LARGE METROPOLITAN DISTRICTS, BY SAMPLING METHOD USED .....	A.2
A.3 RANGE OF OUTCOMES OF NSLP VERIFICATION ACROSS ALL 21 PARTICIPATING DISTRICTS.....	A.3
A.4 RANGE OF OUTCOMES ON SUMMARY MEASURES OF NSLP VERIFICATION RESULTS ACROSS ALL 21 PARTICIPATING DISTRICTS .....	A.4
A.5 RANGE OF REAPPROVAL RATES FOR NONRESPONDERS TO VERIFICATION AS OF MARCH 1, 2003, ACROSS ALL 21 PARTICIPATING DISTRICTS.....	A.5
A.6 INCOME STATUS OF GROUPS OF HOUSEHOLDS SELECTED FOR NSLP VERIFICATION IN 21 LARGE METROPOLITAN SFAs.....	A.6
A.7 INCOME STATUS OF GROUPS OF HOUSEHOLDS SELECTED FOR NSLP VERIFICATION IN 21 LARGE METROPOLITAN SFAs, BY USE OF FOCUSED OR RANDOM SAMPLING FOR VERIFICATION .....	A.7

**TABLES** (continued)

<b>Table</b>		<b>Page</b>
A.8	CHARACTERISTICS OF SURVEY SAMPLE OF HOUSEHOLDS THAT FAILED TO RESPOND TO VERIFICATION WHO REAPPLIED AND DID NOT REAPPLY, IN DISTRICTS USING RANDOM SAMPLING FOR VERIFICATION .....	A.8
A.9	CHARACTERISTICS OF SURVEY SAMPLE OF HOUSEHOLDS THAT FAILED TO RESPOND TO VERIFICATION WHO REAPPLIED AND DID NOT REAPPLY, IN DISTRICTS USING FOCUSED SAMPLING FOR VERIFICATION .....	A.10
A.10	TOTAL SAMPLE AND NUMBER OF COMPLETED INTERVIEWS, BY SUBGROUP AND DISTRICT.....	A.12
B.1	INCOME ELIGIBILITY STATUS IN DISTRICTS WITH SELECTED CHARACTERISTICS.....	B.1

## FIGURES

Figure		Page
II.1	CASE STUDY OF VERIFICATION OUTCOMES IN 21 LARGE METROPOLITAN SFAs .....	9
C.1	ELIGIBILITY STATUS AT TWO POINTS IN TIME OF CASES WITH NO CHANGE DUE TO VERIFICATION .....	C.2
C.2	ELIGIBILITY STATUS AT TWO POINTS IN TIME OF CASES WITH NO CHANGE DUE TO VERIFICATION ASSUMING NO CASES APPROVED IN DECEMBER CHANGED FROM INELIGIBLE TO ELIGIBLE .....	C.4

## EXECUTIVE SUMMARY

The National School Lunch Program (NSLP) and the School Breakfast Program (SBP) provide federal financial assistance and commodities to schools serving lunches and breakfasts that meet required nutrition standards. Under the NSLP and the SBP, millions of American students receive a free or reduced-price lunch and/or breakfast every school day.

Concern has grown recently that many students who participate in the program may in fact be ineligible for the benefits they receive. School Food Authorities (SFAs) that operate the NSLP must verify the eligibility of a small sample of approved applications by requiring documentation of income or receipt of food stamps or cash assistance. The verification process is designed to identify and deter errors in each district. However, the system does not provide data on the accuracy of benefit determination nationwide.

This report presents the results of a case study of verification in 21 large metropolitan SFAs around the country. The study examined outcomes of the verification process and made an independent assessment of income eligibility of households with specific verification outcomes using data from in-person interviews with families.

### CASE STUDY OBJECTIVES

The study had the following three objectives:

1. ***Assess outcomes of the verification process.*** Determine the number and percentage of verified applications that fall into various categories defined by combinations of preverification status and postverification status.
2. ***Verify incomes of nonresponding households.*** Independently determine the income level of households who were initially approved on the basis of income provided on an application (were not categorically eligible), were selected for verification, and did not respond to SFA requests for documentation of their income.
3. ***Verify incomes of households with no change in benefits.*** Independently determine the income level of households who were initially approved on the basis of income, were selected for verification, and whose benefit levels were unchanged as a result of the verification process.

Under the first objective, the study provides data on the proportions of verified households for whom verification results in no change in benefits, in reduction or termination of benefits due to information provided, in an increase of benefits due to information provided, or in no response to the verification request, in which circumstance the SFA is required to terminate benefits. Under the second objective, the study provides information on the proportion of nonresponding

households with income that would make them eligible if they complied with the request for verification. Under the third objective, it provides a check on the accuracy of the benefit determination conducted in the verification process among households that responded to the verification request.

## **CASE STUDY DESIGN**

The Case Study of Verification Outcomes in Large Metropolitan School Districts used a purposively selected sample of 21 large districts in seven metropolitan areas. Food and Nutrition Service regional office staff recruited two to four SFAs in each of seven metropolitan areas (Boston, Massachusetts; Orlando, Florida; Virginia Beach-Norfolk-Newport News, Virginia; Los Angeles, California; Salt Lake City, Utah; Tulsa, Oklahoma; and Minneapolis-St. Paul, Minnesota). In each SFA, the study reviewed the verification outcomes of all cases selected for verification during fall 2002.

We conducted in-home interviews with 632 households who did not respond to the district's verification request and with 532 households who had no change in benefits due to verification. The interview methodology was similar to that used in the Evaluation of the NSLP Application/Verification Pilot Projects. Interviews were conducted in February and March 2003. These interviews obtained data on household membership and income in the month before the interview (January or February 2003). A limitation of comparing the results of the verification process and the household interviews is that the two measures of household circumstances are made at different times two to three months apart. As a result, changes in circumstances during the intervening two to three months may contribute to differences in household eligibility as assessed at verification and through the study survey.

The study also collected information on whether individuals who were nonresponders to verification had reapplied and been reapproved for benefits by March 1, 2003. For the nonresponders selected for in-home interviews, data were collected on household size and income as reported on the new application.

The analysis of nonresponders to verification and cases with no change in benefits due to verification included households who had initially been approved on the basis of income and household size. This analysis excluded cases initially approved as categorically eligible based on the household providing a Temporary Assistance for Needy Families, Food Stamp Program, or Food Distribution Program for Indian Reservations case number.

It is important to emphasize that the verification system and the information derived from it presented in this report are not designed to provide information on the accuracy of benefit determination in individual districts or nationwide. Instead, the system is designed to identify and deter certification errors in each district. To this end, federal regulations allow districts to target their verification efforts to specific groups of cases whose circumstances are such that the case has a higher likelihood of being ineligible for the benefit it receives. Nearly half the districts included in this case study use such focused sampling to select cases for verification. This district decision very likely leads to a greater incidence of ineligibility in the verification sample than would be found if all approved cases had the same chance of being selected for verification.

Because of this feature of the verification process, caution must be used in drawing conclusions from the case study about underlying rates of certification inaccuracy in the participating districts.

## CASE STUDY FINDINGS

### Outcomes of Verification

**On average across the districts, half of households selected for verification did not respond to the request for verification.** The review of verification records indicated that:

- 50 percent responded to the request for verification by the December 15, 2002, deadline, and 50 percent did not.
- Among the 50 percent who responded:
  - 32 percent had no change in their benefit.
  - 1 percent had their benefit increased from reduced-price to free.
  - 9 percent had their benefit reduced from free to reduced-price.
  - 8 percent had their benefit terminated (changed from free or reduced-price to paid status).

Approximately 13 percent of all households verified were categorically eligible, and 87 percent were approved on the basis of income. Categorically eligible households were less likely to have their benefits reduced or terminated and more likely to have had no change in benefits.

The percentage of households selected for verification who did not respond to the verification request was larger in districts using focused sampling, and the percentage with no change was smaller. Nonresponding cases were 56.0 percent of cases in focused-sampling districts and 45.3 percent in random-sampling districts. No-change cases were 23.1 and 39.5 percent of the total in focused- and random-sampling districts, respectively.

**About one-fourth of households approved on the basis of income who did not respond to verification had been reapproved for free or reduced-price meal benefits by March 1, 2003.** Since households approved on the basis of income who did not respond made up 47 percent of cases verified, the nonresponders who were reapproved made up 12 percent of all verified cases.

## **Income Eligibility of Nonresponders**

**Just over one-half of nonresponder households were eligible for at least the benefit they had been receiving prior to verification.**

- Among nonrespondents who had been approved for free meals:
  - 51 percent were eligible for free meals.
  - 26 percent were eligible for reduced-price meals.
  - 23 percent were not eligible for either free or reduced-price meals.
- Among nonrespondents who had been approved for reduced-price meals:
  - 23 percent were eligible for reduced-price meals.
  - 31 percent were eligible for free meals.
  - 46 percent were not eligible for either free or reduced-price meals.

In random-sampling districts, 55.8 percent of nonresponders were eligible for at least the benefit they were initially approved to receive. In focused-sampling districts, 49.1 percent were eligible for this level of benefit.

**More than three-fourths of the nonresponding households who were reapproved by March 1, 2003, were eligible for at least the benefit for which they had been reapproved.** Among reapproved households who completed the study survey:

- 64 percent were eligible for exactly the level of benefits for which they had been reapproved.
- 14 percent were eligible for a higher benefit than they had been reapproved for.
- 22 percent were not eligible for the benefits they had been approved for.

## **Income Eligibility of Households with No Benefit Change**

**About one-third of households whose benefits were unchanged as a result of verification were ineligible for their approved benefit level two to three months after completing the verification process.**

- Among free-approved students whose meal price status was unchanged, the study found that, as of February/March 2003:
  - 64 percent were eligible for free meals.
  - 27 percent were not eligible for free meals but were eligible for reduced-price meals.
  - 9 percent were not eligible for either level of benefits.



- Among reduced-price approved students whose meal price was unchanged, the study found that, as of February/March 2003:
  - 42 percent were eligible for reduced-price meal benefits.
  - 25 percent were eligible for free meal benefits.
  - 33 percent were not eligible for either level of benefits.

In random-sampling districts, 30.1 percent of no-change cases were not eligible for the benefit they were receiving. In focused-sampling districts, 39.2 percent were not eligible.

A part of the difference in the percentage found eligible in the survey compared to the verification process may be due to changes in household circumstances. Based on the nearly contemporaneous data from the new applications of reapproved cases and the study survey, we estimate that as much as 30 to 40 percent of the difference between the survey estimate of income eligibility and the SFA's determination at the point of verification may be due to changes in household circumstances between the period covered in documentation and the period reported in the study's survey. Eliminating this part of the difference suggests that approximately 20 percent of those whose benefits were unchanged in verification were ineligible for the benefit they were receiving at the time of verification.



## **I. INTRODUCTION**

The National School Lunch Program (NSLP) and the School Breakfast Program (SBP) provide federal financial assistance and commodities to schools serving lunches and breakfasts that meet required nutrition standards. Under the NSLP and the SBP, millions of U.S. students receive a free or reduced-price lunch and/or breakfast every school day.

Recently, concern has grown that many students who participate in the program may in fact be ineligible for the benefits they receive. This report presents the findings of a case study of verification outcomes and in-depth in-person interviews with families selected for verification in 21 large metropolitan school districts around the country. It is part of a growing body of research conducted by and for the Food and Nutrition Service (FNS) and other agencies of the U.S. Department of Agriculture (USDA) to gauge the nature and extent of the problem of certification inaccuracy.

The rest of this chapter provides background on the NSLP application and verification processes. It then describes the objectives of the case study.

### **A. PROGRAM BACKGROUND**

Responsibility for administering the NSLP and SBP at the local district level rests with the School Food Authority (SFA), which provides meals that meet nutritional requirements. So it can claim reimbursement from USDA, the SFA keeps counts of meals served free, at reduced price, and at full price. The SFA also is responsible for (1) notifying families that free and reduced-price meals are available to children from families that meet certain income-for-family-size standards; (2) distributing blank application forms and instructions and receiving completed applications; (3) reviewing the information on forms to establish which students are approved

(certified) and which applying students are not eligible (and, therefore, are not certified); and (4) notifying families of their children's certification status.

Eligibility for free or reduced-price meals in the NSLP is based on information that parents or guardians provide on an application at the start of the school year. Applicants list all the students living in the household and indicate whether each student receives welfare benefits (Temporary Assistance for Needy Families [TANF]), participates in either of two nutrition-related programs (the Food Stamp Program or the Food Distribution Program for Indian Reservations [FDPIR]), or is a foster child. Students who receive TANF, food stamps, or FDPIR qualify for a free lunch; they are considered "categorically eligible" if their case number is reported on the application. Other applicants must list all people living in their household and report the total income received by each household member, including students. For students not categorically eligible for a free lunch, SFA personnel consider total household size and income, using federally published guidelines, to determine whether students qualify for free or reduced-price meal benefits. Students from households whose income is less than 130 percent of the federal poverty level (FPL) are eligible for free meals. Students from households whose income is between 130 and 185 percent of the FPL are eligible for reduced-price meals. Students from households whose income exceeds 185 percent of the FPL must pay full price for a school lunch, although the cost of "full price" lunches also reflects a small federal subsidy. Finally, SFAs may also use "direct certification" to determine that students are eligible for free meals. If SFAs receive information documenting participation in TANF, the Food Stamp Program, or FDPIR directly from officials responsible for those programs, households need not submit an application for NSLP.

Congress instituted the NSLP verification process to detect and deter applicant misreporting that caused meal benefits to be directed to students not eligible to receive them when it passed

the Omnibus Budget Reconciliation Act of 1981. Currently, each SFA must conduct verifications of a small fraction of approved applications by December 15 of each year. Districts initiate the verification process (usually in October or November) by sending selected families whose children are approved for free and reduced-price meals a request for documentation of their income or food stamp/TANF/FDPIR status. If the family provides documents showing their income is below the free threshold, and if they had been approved for reduced-price meal benefits, the SFA increases their benefits to free status. If the family provides documents showing their income exceeds the eligibility limit, their benefits are reduced or terminated. If a family does not provide documentation, the SFA is required to terminate free or reduced-price meal benefits. Upon such termination, children may obtain NSLP meals at the paid rate. At any time after verification, a household may submit a new application, with documentation of its family circumstances, to seek approval for their children to receive free or reduced-price meals.

SFAs have the option of conducting verification of a *random sample* of applications, a *focused sample* of applications, or *all applications*. A random sample is supposed to be a simple random sample of all approved applications. If a random sample is used, it must include the lesser of 3,000 or three percent of applications. In a focused sample, verification efforts center on students in families that have incomes close to the upper cutoff of eligibility or that receive TANF or food stamps. Such a sample must include the lesser of 1 percent of all applications or 1,000 students selected from families that listed income within \$100 monthly or \$1,200 annually of the free and reduced-price guidelines for that household size, plus 0.5 percent of all applications or 500 selected from those receiving food stamps/TANF/FDPIR.

The verification sample includes only students who were approved on the basis of an application. This means that two groups of children entitled to receive free and reduced-price meals are not subject to verification. First, students who are directly certified are excluded from

verification samples. Second, students attending schools using Provision 2 or 3 under the Special Assistance Certification and Reimbursement Alternatives in years other than the base year are excluded from the district's verification sample.<sup>1</sup>

## **B. STUDY OBJECTIVES**

FNS stated the nature of its concerns about the application and verification processes in guidance issued to SFAs in 2001:

The U.S. Department of Agriculture (USDA) has become aware that a significant and increasing number of ineligible children are being certified for free and reduced price school meals as a result of inaccurate information provided by some households. When ineligible children receive free and reduced price benefits, USDA meal reimbursement is misdirected, as are significant amounts of State, Federal, and in some cases, local education funds. Furthermore, questions about the integrity of the certification and verification process undermine public confidence in a program that has long enjoyed the support of the American people.

Given these concerns, FNS wanted more-detailed information to better understand the nature and scope of the problem. Therefore, the agency contracted with Mathematica Policy Research, Inc. (MPR) to conduct a study of the outcomes of the verification process in selected school districts. The study had the following three objectives:

1. ***Assess outcomes of the verification process.*** Determine the number and percentage of verified applications that fall into various categories defined by combinations of preverification status and postverification status.
2. ***Verify incomes of nonresponding households.*** Independently determine the income level of households that were initially approved on the basis of income provided on an application (that is, were not categorically eligible), who were selected for

---

<sup>1</sup>Provision 2 or 3 allows schools in which high percentages of students are income eligible for free or reduced price meals to use an alternative to the standard certification and meal claiming procedure. In a base year, provision 2 or 3 schools require applications of all students in order to receive free or reduced price meals, and claim federal reimbursement following standard procedures. In years after the base year, no applications are required. Instead all students in the school receive free meals, and the district claims federal reimbursement for these meals by applying the base year percentages of meals served free, at reduced price, and at full price to the total number of reimbursable USDA meals served in each year.

verification but did not respond to SFA requests for documentation, and who remained enrolled in the school district.

3. ***Verify incomes of households with no change in benefits.*** Determine independently the income level of households that were initially approved on the basis of income, were selected for verification, and whose benefit levels were unchanged as a result of the verification process.

Under the first objective, the study provides information about the proportion of verified households for whom verification results in no change in benefits, in reduction or termination due to information provided, in increase due to information provided, and in termination for failure to comply with the request to document income. Under the second objective, it provides information on the proportion of nonresponding households with income that would make them eligible if they complied with the request for verification. Under the third objective, the survey provides a check on the accuracy of the benefit determination conducted in the verification process.





## **II. STUDY METHODS AND CHARACTERISTICS OF STUDY DISTRICTS**

This chapter describes the study methods. It also compares the characteristics of the 21 districts participating in the study with the characteristics of all districts nationally.

### **A. STUDY METHODS**

We first provide an overview of the study structure. We then present additional details on key elements of the methodology.

#### **1. Overview**

The Case Study of Verification Outcomes in Large Metropolitan School Districts used a purposively selected sample of districts. We undertook three types of data collection. First, we abstracted data from the files of all cases selected for verification in each participating district. For each case, we identified whether its preverification basis for approval had been income and household size or categorical. Among all cases in each district that were approved on the basis of an application with income and household size, we identified two groups: (1) applications of households that did not respond to the request for verification, and (2) applications that had no change in certification status as a result of verification. Second, we selected simple random samples within each of the two groups in each district and conducted in-depth personal interviews in which we collected detailed information about household membership and income. We used the interview data to estimate total household income and the number of people in the household, from which we calculated the household's income as a percentage of the FPL to examine certification accuracy. Third, we contacted SFA staff to determine which members of the nonresponder group had been reapproved for free or reduced-price meals as of March 1, 2003, after their nonresponse to verification (as of December 15, 2002). For the randomly

selected subset of the families within this group of reapplying nonresponders who were selected for a study interview, we also acquired data on household size and income as reported on the new application.

Figure II.1 shows how the elements of the study relate to the universe of all students approved for free or reduced-price meals. This universe includes three broad groups: (1) students approved for free or reduced-price meals on the basis of an application, (2) students directly certified for free meals, and (3) students attending a Provision 2 or 3 school that was not in its base year. In the average case study districts, 18 percent of students approved for free or reduced-price meals were directly certified.<sup>1</sup> Among certified students nationally, 14 percent were directly certified in school year 2001-2002.<sup>2</sup> Two districts in the case study had one or more schools that used Provision 2 or 3. While this study did not collect data on the number of such students in the two case study districts, 5.6 percent of students nationally attend schools using Provision 2 or 3 (Gleason et. al. 2003).

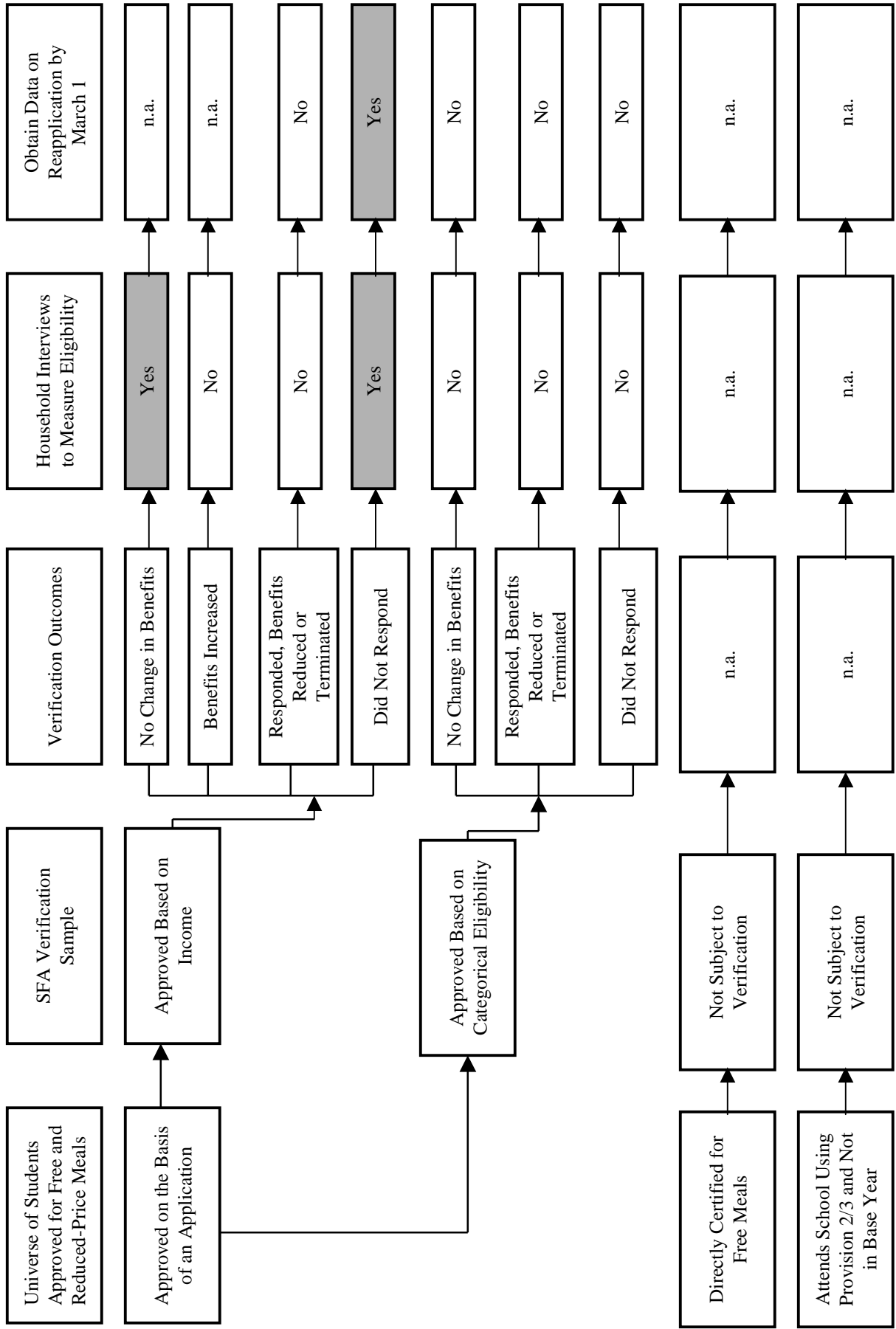
The verification process applies only to those households approved on the basis of an application, of whom each SFA selects a small sample for verification. The verification sample consists of students approved on the basis of income and household size and students approved on the basis of their eligibility for food stamps or cash assistance. For each group, the possible outcomes of verification are (1) no change in benefits, (2) an increase in benefits, (3) reduction

---

<sup>1</sup>Estimate computed from estimates of total number approved and the total number directly certified that were provided by SFA staff. In 4 of the 17 districts known to be using direct certification, SFA staff could not provide an estimate of the number directly certified. We computed the mean percentage directly certified in the 13 districts for which we had an estimate and imputed that value for the 4 districts known to be using direct certification but for which we did not have an estimate of the number directly certified.

<sup>2</sup>Gleason et al. (2003).

FIGURE II.1  
CASE STUDY OF VERIFICATION OUTCOMES IN 21 LARGE METROPOLITAN SFAs



Note:  indicates group is included in the corresponding data collection. n.a. means “not applicable.”

or termination of benefits on the basis of documentation provided, or (4) termination of benefits for failure to provide documentation. The objective of the case record abstraction work was to determine the proportion of verified students in each of these groups.

As the figure indicates, we attempted interviews to measure household eligibility status with two groups defined by their verification outcomes: (1) students approved on the basis of income provided on the application who had *no change in benefits*, and (2) students approved on the basis of income provided on the application who *did not respond to the SFA verification request by the deadline*.

Finally, for all nonresponders, we gathered data on whether the student was reapproved for benefits. Some of these reapproved nonresponders were in the interview sample and some were not.

## **2. Selection of Districts**

In planning this project, FNS wanted a set of districts that would include large urban and suburban districts in metropolitan areas across the country. To implement this strategy, the FNS project officer first identified all metropolitan areas, as defined by the Office of Management and Budget, in which were located at least four SFAs that each had a minimum of 10,000 students.

The FNS project officer then sent the list of these metropolitan areas and the SFAs within each one to the FNS special nutrition staff in each of the seven FNS regional offices. Regional office staff were asked to identify three or more SFAs in one metropolitan area in the region that would be willing to participate in the case study. Regional office staff members contacted state agencies and school districts, explained the study, and sought cooperation at both the state and district levels.

Participation required facilitating a visit by MPR staff to abstract information from the verification files on individual verifications and providing names, addresses, and contact

information for households selected for the interviewing portion of the study. Within the single large metropolitan area, the goal was to recruit one SFA with enrollment over 60,000 and two SFAs with enrollments between 10,000 and 60,000. An additional goal was to select at least one central city school district and at least one suburban district. To contain data collection costs, we considered for inclusion in the study only SFAs that could make application and verification data available at a central location; we excluded districts in which individual schools administer verification and the relevant data are stored only at each school.

Using the list of SFAs that agreed to participate, the project officer and the MPR project director developed a list of districts that met the size and metropolitan status area requirements of the study and would be diverse in racial and ethnic composition. The FNS project officer then informed the SFA directors about the study and told them that MPR would be contacting them to discuss the details of the SFA's participation. MPR staff then called each SFA to gather basic background information that would confirm the suitability of the SFA for the study, answer questions about the study, and schedule the visit. Participation was encouraged but not required, and some districts that MPR initially contacted ultimately decided not to participate.

The following 21 school districts, located in seven large metropolitan areas, participated in the case study:

**Boston, Massachusetts**

Boston Public Schools  
Lawrence Public Schools  
Worcester Public Schools

**Los Angeles, California**

Anaheim Union High School District  
Hacienda La Puente Unified School District  
Long Beach Unified School District  
Orange Unified School District

**Minneapolis, Minnesota**

Anoka-Hennepin Independent School District  
Minneapolis Public Schools

**Norfolk-Newport News, Virginia**

Hampton City Schools  
Newport News Public Schools  
Virginia Beach City Public Schools

**Orlando, Florida**

Lake County School District  
Orange County School District  
Osceola School District  
Seminole County School District

**Salt Lake City, Utah**

Granite School District  
Jordan School District  
Salt Lake City School District

**Tulsa, Oklahoma**

Broken Arrow Public Schools  
Tulsa Public Schools

These purposefully selected districts are not statistically representative of the full set of school districts nationwide that participate in the NSLP or of any subset or category of participating districts. However, the selection process sought to ensure diversity in region of the country, ethnic composition of students, and operational features of the NSLP. Accordingly, the case study districts provide general insights into the verification process in large urban school districts, which account for a high percentage of the students approved for a free or reduced-price lunch. In Section B, we provide data that allow comparison of the selected districts with all districts nationally.

**3. Data Abstraction**

MPR sent data abstractors to the 21 districts in mid-January 2003, about one month after SFAs were required to have completed the verification process. Abstractors reviewed SFA

records (such as original applications, summary reports, and submitted documentation) for every household that was part of the verification sample. Using laptop computers, abstractors entered into a database the following information from applications on file for every household selected for verification:

- Household size
- Monthly income
- Number of students
- Name, school, and grade level of one student from the household (randomly selected in cases with more than one student)
- Whether participation in the Food Stamp Program, TANF, or FDPIR was reported on the application (yes/no)
- Whether the application reported that the child was a foster child (yes/no)
- District's initial determination of eligibility status (free, reduced-price, denied, missing)
- Result of verification process (no change, free to reduced-price, free to paid, reduced-price to free, reduced-price to paid, missing)
- Reason for status change, if applicable (change in income, change in household size, change in food stamp/TANF/FDPIR participation, refusal to cooperate or no response, other, missing)

Depending on the data entered for these items and the size of the district, a computer program determined whether abstractors needed to record additional data about each household. Two groups of households were selected for this additional data collection: (1) those who were initially eligible for a free lunch based on household income (were not categorically eligible) or eligible for a reduced-price lunch and whose eligibility status did not change as a result of verification, and (2) those who were initially eligible for a free lunch based on household income (were not categorically eligible) or eligible for a reduced-price lunch and who did not respond to verification. For all nonresponders to verification, the MPR data abstractor attempted to

determine whether the child was still enrolled in the district. Both of these two groups were potentially eligible for in-person interviews. If the estimated number of households in these categories exceeded the number to be interviewed, a computer program randomly selected households for whom contact information was collected during the abstracting phase; in this way, we collected information only for the households we would seek to interview. The contact information included parent name, home address, home and work phone numbers, and social security number.

#### **4. In-Person Interviews**

As noted, the study plan called for in-person interviews with parents or guardians in two groups of households—those who were from households whose initial eligibility status was either free based on income (not categorical eligibility) or reduced-price, and who either (1) responded appropriately and had a certification status that remained the same, or (2) did not respond to requests for verification information and whose NSLP benefits were to be terminated due to nonresponse. In each district, the goal was to interview up to 32 of the group who responded but had no change in meal price status and up to 42 of the group who did not respond to verification. We conducted computer-assisted personal interviews at the homes of selected families using data collection instruments and methods that were similar to those used to conduct the in-person part of the interviewing for the Evaluation of the NSLP Application/Verification Pilot Projects. These interviews focused on a few types of information: household composition, reported household income by person and by source, and documentation of reported income. We mailed a letter requesting cooperation and a brochure describing the research study to all households selected for interviews. We conducted interviews during February and March 2003. To maximize response rates, we offered a financial incentive of \$20 to complete the in-home interview and provide the requested documentation. Table II.1 shows the number of cases



TABLE II.1

CASE STUDY OF VERIFICATION OUTCOMES: INTERVIEW SAMPLES AND  
RESPONSE RATES

	Nonresponder to Verification	No Change as a Result of Verification
Total Sample	889	665
Ineligible Sample <sup>a</sup>	40	26
Total Eligible Sample	849	639
Completed Interviews	632	532
Response Rate (Percent)	74.4	83.3

Note: Data by district are presented in Table A.10.

<sup>a</sup>Ineligible sample included households selected for interview who no longer resided in the district or whose child no longer attended a district school.

selected, number of selected cases that were ineligible for interview, number of completed interviews, and the response rates. Appendix Table A.10 provides these data by district.

## **5. Follow-Up Data on Postverification Eligibility Status**

In March 2003, we recontacted all the case study districts to determine the free or reduced-price approval status—as of March 1—of each household that did not respond to the verification request by December 15, 2002. Such households could have fallen into one of three groups: (1) still on paid status, (2) approved for free status, (3) approved for reduced-price status. Use of the March 1 reference date meant that households had at least 10 weeks from the date by which they were supposed to provide verification during which they could submit a new application with the appropriate documentation. FNS was aware, based on anecdotal evidence, that a substantial proportion of households removed from the program each year after not responding to the verification requirement reapply and become certified again. The study aimed to document systematically the extent to which this occurred in the 21 sample districts. We provided each district with a list of the households that, according to our data abstraction, had not responded to the SFA’s verification request by December 15, 2002. The districts then returned the lists with an indicator of the March 1 status of each household—free, reduced-price, or paid.

## **6. Analysis Methods**

Our goal was to select simple random samples of approximately equal size in each SFA to estimate the income status of two groups of cases selected for verification: (1) nonresponders to verification, and (2) cases with no change in benefits as a result of verification. We judged that the simple average of outcomes across districts overall and for each subgroup analysis was the

most appropriate way to summarize the case study data. Equal samples by district minimize the variance of the district-level estimates.<sup>3</sup>

While the initial goal was to select approximately 42 nonresponders and approximately 32 no-change cases per SFA, we learned in the data abstraction process that some study SFAs had fewer than the target numbers of cases in these groups. We compensated by increasing the samples in other study SFAs with more verified cases to achieve target samples of 881 nonresponders (42 per SFA on average, with the actual number ranging from 8 to 52) and 665 no-change cases (about 32 per SFA on average, with the actual number of cases ranging from 9 to 41).

For the main analysis, we calculated each outcome for each SFA and then calculated the mean of these SFA-level estimates. We refer to this as the *mean outcome across districts* in analytical tables in this report. We also calculated the simple means and percentages of all cases in the sample, which are presented in Appendix Table A.6 and A.7.

In most parts of the analysis, we present tabulations for (1) *all districts* in the sample, (2) districts that used *random sampling* to select the verification sample, and (3) districts that used *focused sampling* to select the verification sample. The tabulations for all districts in the sample are presented to summarize verification outcomes of cases selected for verification and the eligibility status of verified cases with certain verification outcomes in the 21 case study districts.

It is very important to bear in mind that these data for all districts may *not* accurately reflect the eligibility status of all students approved for free or reduced-price meals in the case study

---

<sup>3</sup>An alternative would have been to select cases with probability proportional to size (with larger samples for SFAs with more cases in the group) or to reweight the data to reflect the probability of selection of each case. This approach would have been optimal for projecting results to the population of students in the selected groups in the 21 case study SFAs.

districts or the verification outcomes that would have been found in a representative sample of students approved for free and reduced-price meals in the case study districts. A key reason for this limitation is that verification samples in focused-sampling districts are specifically designed to include a higher incidence of cases whose circumstances might lead them to become ineligible than would be expected to occur in the overall population. Specifically, the requirement that focused samples be selected from applications on which monthly income is within \$100 of the monthly income eligibility cutoff for the approved benefit is designed to increase the likelihood that cases whose circumstances have changed to make them ineligible for their benefit are included in the sample. The rationale for this method of sampling is that the NSLP verification process is intended to deter households from providing false information and to uncover changes in circumstances and that oversampling these error-prone cases may be advantageous. The verification system was not designed to provide information about the eligibility or ineligibility of all students approved for benefits.

Accordingly, because of the way samples are selected in focused-sampling districts, it is not appropriate to draw inferences about the eligibility status of all students approved for free or reduced-price meals from the study tabulations for all districts. However, these tabulations do support valid inferences about the verification outcomes and eligibility status of students with particular verification outcomes in all case study districts. While it was not within the scope of this study to examine the eligibility of all students approved for free or reduced-price meals in the case study districts, the study data can be used to address this issue. To facilitate such analysis, the report presents estimates of mean outcomes separately for the 11 random-sampling districts and the 10 focused-sampling districts.

## **B. CHARACTERISTICS OF CASE STUDY DISTRICTS AND ALL DISTRICTS NATIONWIDE**

The districts participating in the study were not selected to be representative of all regular public districts nationwide. Indeed, on several dimensions, the participating districts as a group differed considerably from the average district nationally. Because much of the analysis examines outcomes separately for districts that used focused sampling and districts that used random sampling, we compare the characteristics of the focused-sampling and random-sampling districts included in the study. Table II.2 shows selected characteristics of (1) all districts nationally, (2) all districts included in the study, (3) study districts using random sampling, and (4) study districts using focused sampling.

The most notable differences between the case study districts and all districts nationally relate to their size and location. The case study districts were, on average, about 10 times larger than the average public school district, both in the number of schools they operate and their total student enrollment. In addition, more than half the case study districts were urban (that is, in the central city of the metropolitan area), and none was rural; in contrast, only about six percent of all districts are urban, and more than half are rural. Compared with all districts, a higher proportion of the case study districts were in the South and West, and a much lower proportion were in the Midwest.

The demographic characteristics of students in the case study districts also differed substantially from those in the average district. In the case study districts, a higher proportion of students were members of a racial/ethnic minority group (52 versus 21 percent) and a higher proportion had limited English proficiency (14 versus 5 percent).

On some measures of poverty, however, the participating districts were not substantially different from the average district nationally. For example, the poverty rate among school-age

TABLE II.2

## AVERAGE CHARACTERISTICS OF ALL DISTRICTS NATIONWIDE AND THE CASE STUDY DISTRICTS

	All Regular School Districts Nationwide	Districts Participating in the Case Study of Verification Outcomes		
		All Districts	Districts Using Random Sampling	Districts Using Focused Sampling
Region (Percent)				
Northeast	15.6	14.3	18.2	10.0
South	25.3	42.9	54.6	30.0
Midwest	37.3	9.5	9.1	10.0
West	21.7	33.3	18.2	50.0
Urbanicity (Percent)				
Urban (primarily serves a central city of an MSA)	5.8	52.4	36.4	70.0
Suburban (serves an MSA, but not primarily its central city)	41.5	47.6	63.6	30.0
Rural (does not serve an MSA)	52.7	0.0	0.0	0.0
Number of Schools (Mean)	6.9	69.1	54.2	85.5
Total Number of Students (Mean)	3,619	49,725	36,809	63,932
Enrollment Range (Percent)				
0 to 999	47.0	0.0	0.0	0.0
1,000 to 2,499	23.4	0.0	0.0	0.0
2,500 to 4,999	15.1	0.0	0.0	0.0
5,000 to 9,999	8.2	0.0	0.0	0.0
10,000 to 24,999	4.4	14.3	18.2	10.0
25,000 to 49,999	1.2	47.6	63.6	30.0
50,000 or more	0.7	38.1	18.2	60.0
Title I Schools (Percent)	62.5	46.3	43.3	49.6
Schoolwide Title I Schools (Percent)	23.4	36.6	34.2	39.4
Percentage of Students Certified for NSLP (Mean)				
Free	29.0	36.4	32.8	40.2
Reduced-Price	8.6	9.6	9.2	10.0
Range Certified for Free or Reduced-Price Meals (Percent)				
0 to 33	52.2	23.8	27.3	20.0
33 to 50	23.3	33.3	45.5	20.0
50 or more	24.5	42.9	27.3	60.0
Poverty Rate Among School-Age Children (Mean)	15.0	16.7	16.3	17.1
Student Race/Ethnicity (Percent)				
White, Non-Hispanic	78.6	48.0	56.8	38.3
Black, Non-Hispanic	7.6	18.8	14.2	23.8
Hispanic (any race)	9.6	25.0	22.8	27.5
Native American/Alaskan	3.3	1.5	1.9	0.9
Asian, Pacific Islander	1.8	6.7	4.1	9.6
Students Classified as Having Limited English Proficiency (Mean)	4.9	13.8	9.7	18.4
<b>Sample Size</b>	<b>12,845<sup>a</sup></b>	<b>21</b>	<b>11</b>	<b>10</b>

TABLE II.2 (continued)

---

Sources: Child poverty data are from the Census Bureau's 1999 Current Population Survey. All other data come from the National Center for Education Statistics' Common Core of Data (CCD) for the 2001-2002 school year, except that in four districts we used estimates of the number of students approved for free and reduced-price meals furnished by SFA officials at the beginning of our study. These data were missing from CCD for the three districts in the Boston area. Data were available for Anaheim Union High School District, but do not reflect the fact that the SFA also serves an elementary district. In all four cases, we used NSLP eligibility data provided by SFA officials at the beginning of our study.

Note: Averages for enrollment and NSLP eligibility among case study districts reflect the entire area served by the Anaheim SFA, which includes an elementary district. All other averages are based on data only for Anaheim Union High School District.

<sup>a</sup>Sample size was smaller than indicated on some items due to missing data. The minimum sample size was 10,773 on limited English proficiency.

MSA = metropolitan statistical area.

Regions are defined as follows:

Northeast: CT, MA, ME, NH, NJ, NY, PA, RI, VT

South: AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV

Midwest: IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI

West: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY

children was about 17 percent, on average, in the case study districts and 15 percent, on average, across all districts. Furthermore, and most relevant to this study, the two groups were fairly close in their students' participation in the NSLP. Among the case study districts, an average of 32 percent of students were certified as eligible for free meals, and an additional 9.3 percent were certified at the reduced-price level. At all districts nationwide, the comparable rates were 29 percent and 8.6 percent.

The data also indicate that districts using focused sampling that were included in the case study exhibited marked differences in their characteristics and the characteristics of their students from the random-sampling districts included in the study. The focused-sampling districts had larger average enrollment (63,932 versus 36,809), and they were more likely to serve a central city of their metropolitan area (70.0 versus 36.4) percent and less likely to serve a suburban area within the metropolitan area. The focused-sampling districts had more schools in which some students were eligible for Title I (49.6 versus 43.3 percent), more schools in which all students were eligible for Title I (39.4 versus 34.2 percent), a higher percentage of students approved for free and reduced-price school meals (50.2 versus 42.0 percent), and a higher rate of poverty among school-age children (17.1 versus 16.3 percent). Finally, focused-sampling districts had a larger percentage of students who were black, non-Hispanic, Hispanic, or Asian or Pacific Islander (60.9 versus 41.1 percent) and a smaller percentage of students who were white, non-Hispanic or Native American or Alaskan (39.2 versus 58.7 percent).

Table II.3 shows data from the National Center for Education Statistics' Common Core of Data (CCD) for each participating district.



TABLE II.3

CHARACTERISTICS OF CASE STUDY DISTRICTS

	Boston, Massachusetts			Los Angeles, California			Minneapolis, Minnesota		
	Boston	Lawrence	Worcester	Anaheim	Hacienda – La Puente	Long Beach	Orange	Annoka-Hennepin	Minneapolis
Region (N=Northwest, S=South, M=Midwest, W=West)	N	N	N	W	W	W	W	M	M
Urbanicity <sup>a</sup> (U=Urban, S=Suburban, R=Rural)	U	U	U	U	S	U	S	S	U
Number of Schools	134	22	50	21	37	90	42	59	144
Percent Title I Eligible	92.5	86.3	72.0	42.9	62.2	80.0	31.0	28.8	57.6
Percent Schoolwide Title I	92.5	86.3	72.0	28.6	43.2	65.6	31.0	0.0	57.6
Total Enrollment	62,141	12,697	25,826	52,000	25,282	96,488	31,689	41,419	48,155
Students Certified for NSLP (Percentage)									
Free	64.1	62.4	47.3	48.1	41.4	57.0	27.9	9.4	57.5
Reduced-Price	9.0	14.0	7.9	15.4	13.4	9.9	6.7	5.8	9.1
Poverty Rate Among School-Age Children	29.7	38.0	30.9	16.3	13.9	29.3	10.0	4.9	23.2
Student Race/Ethnicity (Percentage)									
White, Non-Hispanic	14.7	11.2	51.5	27.3	10.0	17.3	43.6	90.0	26.6
Black, Non-Hispanic	47.5	2.7	11.2	3.4	2.9	19.5	1.7	3.7	43.9
Hispanic (any race)	28.4	82.8	28.7	52.6	69.3	46.7	39.8	1.6	11.1
Native American	0.4	<0.1	0.6	0.5	0.4	0.3	1.1	1.1	4.1
Asian, Pacific Islander	8.9	3.3	8.0	16.2	17.1	16.1	12.5	3.6	14.3
Students Classified as Having Limited English Proficiency (Percentage)	21.0	21.4	12.7	27.3	25.4	32.9	23.2	3.1	24.0
Method of Selecting Verification Sample	Focused	Random	Random	Focused	Focused	Focused	Random	Random	Focused

TABLE II.3 (continued)

	Newport News, Virginia			Orlando, Florida			
	Hampton	Newport News	Virginia Beach	Lake County	Orange County	Osceola County	Seminole County
<b>Region</b> (N=Northwest, S=South, M=Midwest, W=West)	S	S	S	S	S	S	S
<b>Urbanicity<sup>a</sup></b> (U=Urban, S=Suburban, R=Rural)	U	U	U	S	S	S	S
<b>Number of Schools</b>	37	47	85	52	184	48	72
<b>Percent Title I Eligible</b>	40.5	38.3	15.3	48.1	44.6	29.2	27.8
<b>Percent Schoolwide Title I</b>	5.4	31.9	3.5	26.9	44.6	22.9	26.4
<b>Total Enrollment</b>	23,192	32,907	75,970	30,689	157,433	37,779	62,786
<b>Students Certified for NSLP (Percentage)</b>							
<b>Free</b>	29.7	35.5	16.5	31.3	34.0	35.7	20.0
<b>Reduced-Price</b>	8.3	9.7	8.7	8.7	9.8	12.5	7.6
<b>Poverty Rate Among School-Age Children</b>	14.5	17.0	8.5	16.9	14.8	15.5	9.7
<b>Student Race/Ethnicity (Percentage)</b>							
<b>White, Non-Hispanic</b>	36.3	36.6	62.0	73.6	42.6	47.3	69.1
<b>Black, Non-Hispanic</b>	59.0	55.8	28.0	16.2	28.9	9.5	13.9
<b>Hispanic (any race)</b>	2.4	4.2	4.0	8.9	24.5	40.5	13.7
<b>Native American</b>	0.3	0.9	0.3	0.2	0.4	0.2	0.3
<b>Asian, Pacific Islander</b>	1.9	2.5	5.6	1.0	3.6	2.5	3.0
<b>Students Classified as Having Limited English Proficiency (Percentage)</b>	1.1	0.7	1.0	3.1	11.6	16.7	3.1
<b>Method of Selecting Verification Sample</b>	Focused	Random	Focused	Random	Focused	Random	Random

TABLE II.3 (continued)

	Salt Lake City, Utah			Tulsa, Oklahoma	
	Granite	Jordan	Salt Lake City	Broken Arrow	Tulsa
Region (N=Northwest, S=South, M=Midwest, W=West)	W	W	W	S	S
Urbanicity <sup>a</sup> (U=Urban, S=Suburban, R=Rural)	S	S	U	S	U
Number of Schools	98	81	42	22	84
Percent Title I Eligible	16.3	12.3	47.6	36.4	61.9
Percent Schoolwide Title I	16.3	7.4	45.2	0.0	61.9
Total Enrollment	72,082	73,494	25,161	14,725	42,302
Students Certified for NSLP (Percentage)					
Free	24.4	11.3	42.8	14.6	52.7
Reduced-Price	9.5	6.4	10.1	8.2	11.0
Poverty Rate Among School-Age Children	8.3	4.2	17.0	6.0	21.8
Student Race/Ethnicity (Percentage)					
White, Non-Hispanic	74.8	91.8	53.9	84.4	43.1
Black, Non-Hispanic	1.4	0.5	4.1	4.1	35.6
Hispanic (any race)	16.1	5.2	30.3	3.0	11.3
Native American	1.2	0.4	2.0	7.0	8.6
Asian, Pacific Islander	6.5	2.0	9.7	1.4	1.3
Students Classified as Having Limited English Proficiency (Percentage)	15.0	5.7	33.5	1.8	6.0
Method of Selecting Verification Sample	Random	Focused	Focused	Random	Random

Sources: Child poverty data are from the Census Bureau's 1999 Current Population Survey. All other data come from the National Center for Education Statistics' Common Core of Data (CCD) for the 2001-2002 school year, except for NSLP eligibility data for four districts. The data were missing from the CCD for the three districts in the Boston area. Data were available for Anaheim Union High School District but do not reflect the fact that the SFA also serves an elementary district. In all four cases, we used NSLP eligibility data provided by SFA officials at the beginning of our study.

Note: For Anaheim, data on enrollment and NSLP eligibility reflect the entire area served by the SFA, which includes an elementary district. All other data pertain only to Anaheim Union High School District.

TABLE II.3 (continued)

---

<sup>a</sup>Urban = primarily serves a central city of an MSA; Suburban = serves an MSA, but not primarily its central city; Rural = does not serve an MSA.

MSA = metropolitan statistical area.

Regions are defined as follows:

Northeast: CT, MA, ME, NH, NJ, NY, PA, RI, VT

South: AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV

Midwest: IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI

West: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY

### III. OUTCOMES OF VERIFICATION

This chapter presents the results of the abstraction of verification outcomes for the average of the 21 case study districts, and separately for the 11 random-sampling districts and 10 focused-sampling districts. Study team members reviewed each case selected for verification in each participating district, and recorded, among other variables, the initial meal price status of the case and the outcome of verification. Because we reviewed all cases selected for verification in the 21 districts, the tabulations are a census of the verification outcomes in these districts in the 2002-2003 school year.

Care must be exercised in drawing inferences on the basis of verification outcomes about rates of eligibility or ineligibility for benefits of the underlying populations of students approved for free or reduced-price school meals in these districts. First, as discussed more fully in the next chapter, we found that, for some cases, information from the study's survey led to a different NSLP eligibility status than the one the SFA approved. At least some of this difference appears to be due to the fact that some households underreported their income to the district, and some is due to errors by the SFA in processing information that households provided. Second, 10 of the 21 case study districts used focused sampling, which targets for verification those households with a higher likelihood that changes in income or household size could affect eligibility. Because of this sampling method, the results of verification in focused-sampling SFAs and in the average study SFA do not necessarily reflect the underlying circumstances of the population of all students approved for free and reduced-price meals in the districts participating in the study. On the other hand, to the extent that random-sampling SFAs used a procedure that approximated a scientifically valid procedure for selecting their verification samples, the results from

verification represent an unbiased estimate of the verification outcome results we would expect if all students subject to verification sample selection had been verified in these SFAs.

## **A. OVERALL OUTCOMES**

With the information available on key variables (status before and after verification, whether or not the household responded, child enrollment status at the end of the verification period, and basis of initial certification—income, categorical, and foster child), we found that households were distributed across 26 unique categories. Appendix Tables A.1 and A.2 present detailed tabulations showing all categories. In the following sections, we discuss the main groups of outcomes.

### **1. Summary for All Households**

On average, about two-thirds of households (67.1 percent) had a verification outcome that required a reduction or termination of benefits (Table III.1): 50.4 percent of all households did not respond to the SFA's request for verification, and 16.7 percent provided documentation that led the SFA to reduce or terminate their benefit. Of the latter group, 11.9 percent responded to their district's request for documentation, but the SFA determined, based on the information provided, that they were not eligible for free meals at the time of verification. In an additional 4.8 percent of cases initially approved for reduced-price meals, the SFA determined that the documentation provided showed the household was not eligible for reduced-price meals.

Almost one-third of households (31.7 percent) had no change in their benefits. On the basis of documentation provided, the SFA concluded that the household was eligible in December for the benefit it had been approved for earlier in the fall. On average, 23.8 percent of cases selected for verification were approved for free meals initially and had no change in status, and 7.9 percent maintained their approval for reduced-price meals.

TABLE III.1

SUMMARY OF VERIFICATION OUTCOMES FOR ALL HOUSEHOLDS, OVERALL AND  
BY SAMPLING METHOD USED  
(Mean Percentages Across Districts)

	All Districts	Districts That Used Random Sampling	Districts That Used Focused Sampling
Responder: No Change in Benefits	31.7	39.5	23.1
Free to free	23.8	31.0	15.9
Reduced-price to reduced-price	7.9	8.5	7.2
Responder: Benefits Increased	1.2	1.5	0.9
Reduced-price to free	1.2	1.5	0.9
Responder: Benefits Reduced or Terminated	16.7	13.6	20.0
Free to reduced-price	8.8	7.3	10.5
Free to paid	3.1	3.6	2.4
Reduced-price to paid	4.8	2.7	7.1
Nonresponder	50.4	45.3	56.0
Initially free	33.8	33.9	33.7
Initially reduced-price	16.6	11.4	22.3
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Note: Excluded are 3 of the original 5,183 households—those approved as foster child and for which key information (for example, on outcome status) was missing or possibly miscoded.

Households rarely had their benefit level increased as a result of verification. Only 1.2 percent of cases had their eligibility status changed from reduced-price to free. There are two possible reasons for such a change: (1) the household had lower incomes and/or more members than it had reported on their original application, or (2) it had begun participating in one or more of the programs (TANF, the Food Stamp Program, or FDPIR) that would have made it categorically eligible for free meals.<sup>1</sup>

Overall, 50.4 percent of verified cases did not respond to the verification request and were subject to having their benefits terminated. Withdrawals from the district did not appear to be a major reason for nonresponse to the verification process. Abstractors attempted to determine whether the sampled children in nonresponding households initially approved on the basis of income were still enrolled in the district at the conclusion of the verification period (on or about December 15, 2002); if they had withdrawn, that would be a possible explanation for the nonresponse. On average, however, only 2.4 percent of nonresponders had withdrawn, while 84.6 percent were still enrolled; we could not determine enrollment status for the remaining 13.1 percent.<sup>2</sup>

Table III.1 also shows the outcomes of verification separately for the case study districts that used random sampling to select cases for verification and the case study districts that used focused sampling. As described in Chapter I, districts using random sampling select cases for verification from among all approved cases. They must select the lesser of three percent or 3,000 applications. Districts using focused sampling devote their verification efforts to cases in which

---

<sup>1</sup>There was considerable variability about the means across sites; see Appendix Table A.4.

<sup>2</sup>Computed from rows D-I and M-R in Table A.1. (For child enrolled:  $(24.7 + 0.9 + 13.1 + 0.8)/46.7 = .846$ ; child not enrolled:  $(0.6 + 0.4 + 0.1)/46.7 = .024$ ; for child enrollment status missing:  $(3.4 + 0.5 + 1.9 + 0.3)/46.7 = .131$ ).



monthly income is within \$100 of the cutoff of eligibility or who receive TANF or food stamp benefits. The sample is required to include the lesser of 1 percent of all applications or 1,000 applications that are selected from all applications within \$100 of the monthly income limit plus 0.5 percent of all applications or 500 applications selected from cases receiving TANF or food stamps. Because of these differences in the way verification samples are selected, it is important to examine verification outcomes separately for districts in the study using each method. The middle section of Table III.1 presents basic verification outcomes for case study districts that used random sampling and the right-hand section presents this information for case study districts that used focused sampling.

Table III.1 shows marked differences in verification outcomes of random- and focused-sampling districts. A smaller percentage of verified cases had benefits reduced or terminated in random-sampling districts than in focused-sampling districts—58.9 percent, compared to 76.0 percent. Correspondingly, random-sampling districts had a larger percentage of verified cases with no change in benefits (39.5 percent, compared to 23.1 percent) and a slightly larger percentage with an increase in benefits (1.5 percent, compared to 0.9 percent).

## **2. Summary of Results Based on How Households' Initial Eligibility Was Determined**

In this section, we summarize verification outcomes separately for households that were initially approved on the basis of income and household size and those that were approved on the basis of categorical eligibility (participating in TANF, the Food Stamp Program, or FDPIR). Overall, 87.2 percent of cases were in the first group and 12.8 percent were categorically eligible (Table III.2).

The outcome distribution for households approved on the basis of income was generally similar to the distribution overall. On average, just over half (53.1 percent) were nonresponders.

TABLE III.2

SUMMARY OF VERIFICATION OUTCOMES, BY BASIS FOR INITIAL APPROVAL,  
 OVERALL AND BY SAMPLING METHOD USED  
 (Mean Percentages Across Districts)

	All Districts			Districts That Used Random Sampling			Districts That Used Focused Sampling		
	Approved Based on Income <sup>a</sup>	Categorically Eligible	Approved Based on Income <sup>a</sup>	Categorically Eligible	Approved Based on Income <sup>a</sup>	Categorically Eligible	Approved Based on Income <sup>a</sup>	Categorically Eligible	
Percentage of Cases Verified	87.2	12.8	92.7	7.3	82.2	17.8			
Responder: No Change in Benefits	27.6	62.1	34.5	65.1	19.9	58.7			
Free to free	18.1	62.1	23.5	65.1	12.1	58.7			
Reduced-price to reduced-price	9.5	n.a.	11.0	n.a.	7.8	n.a.			
Responder: Benefits Increased	1.5		2.0		0.9				
Reduced-price to free	1.5	n.a.	2.0	n.a.	0.9	n.a.			
Responder: Benefits Reduced or Terminated	17.9	4.3	14.8	6.1	21.3	2.3			
Free to reduced-price	10.2	0.7	9.3	1.3	11.3	0			
Free to paid	2.3	3.6	2.1	4.8	2.4	2.3			
Reduced-price to paid	5.4	n.a.	3.4	n.a.	7.6	n.a.			
Nonresponder	53.1	33.7	48.8	28.8	57.8	39.1			
Initially free	34.3	33.7	34.8	28.8	33.7	39.1			
Initially reduced-price	18.8	n.a.	14.0	n.a.	24.1	n.a.			
Total	100	100	100	100	100	100			

<sup>a</sup>Excluded are 41 of the original 5,183 households—those approved as foster child cases.

n.a. = not applicable.

Of the responders, 17.9 percent had their benefits reduced (10.2 percent) or terminated (7.7 percent), almost 28 percent had no change, and just under 2 percent had their benefits increased from reduced-price to free.

Verification outcomes for categorically eligible households differed markedly from the outcomes for households approved on the basis of reported income. Just less than two-thirds of categorically eligible households (62.1 percent, on average) had no change in benefits, an average of about one-third did not respond (33.7 percent), and the rest responded and had their benefits reduced or terminated (4.3 percent) (Table III.2). The average rate of nonresponse to verification differed by basis of eligibility: about one-third of categorically eligible households failed to respond (33.7 percent), compared to over half of households whose eligibility was based on their reported income (53.1 percent).

Districts using random sampling had a smaller fraction of categorically eligible verified cases than districts using focused sampling. Less than 1 in 10 verified cases in random-sampling districts were categorically eligible (7.3 percent), compared to just under 2 in 10 (17.8 percent) in focused-sampling districts. We cannot determine from the available data the extent to which this difference reflects underlying differences in the percentage of all students certified who are categorically eligible and the extent to which it results from the method of selecting the verification sample.

Districts using random sampling and districts using focused sampling had similar patterns of outcomes when comparing cases approved on the basis of income with categorically eligible cases. Under both sampling methods, cases approved on the basis of income had smaller percentages with no change in benefits due to verification, larger percentages with benefits reduced or terminated on the basis of a response, and larger percentages who were nonresponders than did categorically eligible cases.

The pattern that random-sampling districts had larger fractions of cases with no change and smaller fractions with benefits reduced or terminated than did focused-sampling districts holds separately for cases approved on the basis of income and categorically eligible cases. In random-sampling districts, 34.5 percent of the cases approved on the basis of income had no change, compared to 19.9 percent in focused-sampling districts. Likewise, among categorically eligible cases, in random-sampling districts 65.1 percent cases had no change, compared to 58.7 percent in focused-sampling districts. Benefits were reduced or terminated among 63.6 percent of cases approved on the basis of income in random-sampling districts and among 79.1 percent in focused-sampling districts. Among categorically eligible cases, the benefit reduction and termination rate was 34.9 percent in random-sampling districts, compared to 41.4 percent in focused-sampling districts.

### **3. Placing the Verification Outcome Results in Perspective**

To gain perspective on the findings reported in this chapter, it is useful to compare the main results with those of other studies. The results presented in Table III.1 for the 21 case study districts can be directly compared with the findings of a recent survey of a nationally representative sample of SFAs sponsored by the USDA Economic Research Service (ERS) (Gleason et al. 2003). In the ERS study, interviews were conducted with SFA representatives, who were asked to report the outcomes of verification in their district in school year 2001-2002. The main differences between the recent ERS study and the present case study are that (1) the ERS study is nationally representative and this study is not; and (2) the ERS study obtained aggregate data on outcomes through reports from SFA staff, whereas the present case study reviewed the outcomes of each case selected for verification.

A second study with which our findings can be compared was conducted by FNS in school year 2001-2002 (Strasberg 2003). In the 2003 FNS study, FNS regional office staff who are

expert in application and verification rules recorded information from the verification case files of representative samples of households selected for verification in 14 large metropolitan SFAs across the country. As in the case study, the 14 large metropolitan SFAs were a convenience sample; they are not statistically representative. Both the data collection methodology and method of selecting the sample of SFAs were similar in the case study and the FNS regional office verification study.

**a. Comparing the Case Study with the ERS Study**

The 21 case study districts had a larger percentage of cases whose benefits were reduced, terminated or subject to termination and a smaller percentage with no change than the ERS study found nationwide. On average, districts in the ERS study reported that 69 percent of cases selected for verification in school year 2002-2002 had no change in benefits, 2 percent had benefits increased, 6 percent had their benefits reduced, and 23 percent had their benefits terminated (Gleason et al. 2003). In contrast, in school year 2002—2003, the 21 case study districts had 32 percent of verified cases with no change, 58 percent either did not respond or responded and had benefits terminated, 9 percent had benefits reduced, and just over 1 percent had benefits increased. This comparison indicates that the 21 case study districts have more cases in which benefits are reduced or terminated as a result of verification and fewer in which they remain unchanged than occurs in the typical district nationwide.

The case study included districts in metropolitan areas whose enrollment ranged from just over 10,000 students to approximately 157,000. The case study did not include any districts with fewer than 10,000 students or any very large districts. Gleason et al. (2003) also present data for districts with enrollment of 10,000 students or more for a national sample that includes very large districts. The average percentage of verified cases whose benefits were reduced or

terminated or subject to termination for nonresponse (the benefit reduction termination rate) among districts with 10,000 or more students is about 50 percent. This compares with a benefit reduction termination rate of 64 percent in the average case study district. The difference indicates that, on average, the districts in the case study had a higher benefit reduction/termination rate than the typical district nationwide with enrollment exceeding 10,000 students. These differences underscore the need for caution in applying the case study findings nationally.

**b. Comparing Verification Outcomes in the Case Study and the FNS Regional Office Verification Study**

Findings of the case study and the FNS regional office verification study are similar. In the case study, about 13 percent of cases selected for verification were categorically eligible. In the FNS regional office verification study, on average across the 14 sites, 18 percent of cases were categorically eligible.<sup>3</sup> The percentage of all cases with no change was 31.7 percent in the case study, compared to 36.1 percent in Strasberg (2003).<sup>4</sup> Similarly, the percentages of cases whose benefits were reduced or terminated on the basis of a response or who did not respond were 67.1 percent in the case study (16.7 percent reduced or terminated based on a response and 50.5

---

<sup>3</sup>To make the estimates as comparable as possible, data for the Regional Office Verification Study are computed as the simple means across sites of the data shown by site in Table 2 in the FNS study (Strasberg 2003).

<sup>4</sup>Calculated from Table 4 in Strasberg (2003). Among districts using random sampling, the average percentage with no change was 40 percent in the Case Study and 47 percent in the Regional Office Verification Study. Among districts using focused sampling, the average percentage with no change was 23 percent in the Case Study and 28 percent in the Regional Office Verification Study.

nonresponders), and 62.4 (14.4 percent reduced or terminated based on a response and 48 percent nonresponders in Strasberg [2003]).<sup>5</sup>

## **B. VERIFICATION OUTCOMES BY DISTRICT CHARACTERISTICS**

We explored whether verification outcomes differed for groups of districts that were identified on the basis of common characteristics. In addition to the method of selecting the verification sample, these characteristics included the size of the district as measured by total enrollment, the percentage of the district's students approved for free or reduced-price meals, whether the district uses direct certification, and whether the district uses one multichild application per family or requires a separate application for each child in the family. We obtained the data necessary to form the groups during initial or follow-up telephone discussions with SFA authorities about this study.<sup>6</sup> Table III.3 and the following tables present the results of this analysis, with outcomes condensed into 10 categories. Next we describe some highlights from these analyses, focusing on two summary measures: (1) the percentage of cases with no change in benefits as a result of verification, and (2) the percentage of cases whose benefits were reduced, terminated, or did not respond to the verification request.

### **1. District Enrollment**

As described in Chapter II, all districts in this study are large relative to the average district nationwide. However, we compared the verification outcomes of districts that enroll between

---

<sup>5</sup>Among districts using random sampling, the average percentage with benefits reduced, terminated or subject to termination for nonresponse was 58 percent in the Case Study and 50 percent in the Regional Office Verification Study. Among districts using focused sampling, the average percentage with benefits reduced, terminated, or subject to termination for nonresponse was 76 percent in the Case Study and 71 percent in the Regional Office Verification Study.

<sup>6</sup>In two cases, we obtained missing data from the CCD.

TABLE III.3

SUMMARY OF VERIFICATION OUTCOMES, OVERALL AND BY SAMPLING METHOD USED  
(Mean Percentages Across Districts)

Group	All (n=21)	District Used Random Sampling (n=11)	District Used Focused Sampling (n=10)
Income-Eligible Households <sup>a</sup>			
Responded—no change	23.4	27.9	18.5
Responded—benefit terminated	6.8	4.6	9.3
Responded—benefit reduced	8.8	7.2	10.5
Responded—benefit increased	1.2	1.5	0.9
Nonresponder	47.0	41.0	53.6
Subtotal	87.2	82.2	92.7
Categorically Eligible (TANF, Food Stamps, FDPIR)			
Responded—no change	8.2	11.5	4.5
Responded—benefit terminated	1.1	1.8	0.2
Responded—benefit reduced	0.1	0.2	0.0
Responded—benefit increased	3.4	4.2	2.5
Subtotal	12.8	17.8	7.3
Total Responded—No Change	31.6	39.4	23.0
Total Benefits Reduced, Terminated, or Did Not Respond	67.2	59.0	76.1

<sup>a</sup>Excluded are 41 of the original 5,183 households—those approved as foster child.



10,000 and 50,000 students with the outcomes of districts that enroll between 50,000 and 157,000 students (Table III.4). For the smaller-size group, we also present outcomes separately for the nine random-sampling and four focused-sampling districts within the size group. For the larger-size group, which contains two random-sampling districts and six focused-sampling districts, the number of districts was too small to support separate estimates.

Overall, compared to the smaller-district group, the larger-district group has a smaller percentage of verified cases with no change (23.5 versus 36.6 percent, in the next to last row of Table III.4) and a larger percentage with benefits reduced, with benefits terminated, or who did not respond (75.4 versus 62.1 percent, in the last row of Table III.4). However, a high degree of overlap exists between the size grouping and the method of sampling—9 of 13 smaller districts used random sampling, and 6 of 8 larger districts used focused sampling. Furthermore, the four smaller districts that used focused sampling have outcomes similar to those for the large-district group, in which focused-sampling districts predominate. For example, 27.6 percent of verified cases in the small districts that used focused sampling had no change, compared to 23.5 percent in the large-district group. Correspondingly, the percentages benefits reduced, terminated, or who did not respond were 75.4 and 71.6, in the small-district group using focused sampling and the large-district group, respectively. This pattern leads us to suspect that method of sampling, rather than size, is the reason for the overall differences between the small and large districts.

## **2. Percentage of Students Approved for Free or Reduced-Price Meals**

We compared outcomes in case study districts with less than 50 percent of their students approved for free or reduced-price meals with the outcomes in districts with more than 50 percent of their students approved (Table III.5). Overall, the group with less than 50 percent of students approved had a larger percentage with no change (36.4 versus 25.4 percent) and a smaller percentage with benefits reduced, terminated, or who did not respond (62.2 versus 74.0

TABLE III.4

SUMMARY OF VERIFICATION OUTCOMES BY DISTRICT ENROLLMENT  
AND SAMPLING METHOD USED  
(Mean Percentages Across Districts)

Group	District Enrollment 10,000 to 50,000			
	All (n=13)	District Used Random Sampling (n=9)	District Used Focused Sampling (n=4)	District Enrollment Over 50,000 (n=8)
Income-Eligible Households <sup>a</sup>				
Responded—no change	25.7	27.4	21.9	19.6
Responded—benefit terminated	5.2	4.5	6.7	9.5
Responded—benefit reduced	8.2	7.5	9.7	9.7
Responded—benefit increased	1.3	1.5	0.9	1.1
Nonresponder	43.6	39.8	52.2	52.4
Subtotal	84.1	80.8	91.4	92.3
Categorically Eligible (TANF, Food Stamps, FDPIR)				
Responded—no change	10.8	13.1	5.7	3.9
Responded—benefit terminated	1.7	2.3	0.3	0.1
Responded—benefit reduced	0.2	0.3	0.0	0.0
Responded—benefit increased	3.3	3.5	2.6	3.7
Subtotal	15.9	19.2	8.6	7.7
Total Responded—No Change	36.6	40.5	27.6	23.5
Total Benefits Reduced, Terminated, or Did Not Respond	62.1	57.9	71.6	75.4

<sup>a</sup>Excluded are 41 of the original 5,183 households—those approved as foster child.

TABLE III.5

SUMMARY OF VERIFICATION OUTCOMES BY PERCENTAGE OF STUDENTS APPROVED FOR  
FREE AND REDUCED-PRICE MEALS AND SAMPLING METHOD USED  
(Mean Percentages Across Districts)

Group	Less than 50 Percent of Students Approved for Free or Reduced-Price Meals			More than 50 Percent of Students Approved for Free or Reduced- Price Meals		
	All (n=12)	District Used Random Sampling (n=8)	District Used Focused Sampling (n=4)	All (n=9)	District Used Random Sampling (n=3)	District Used Focused Sampling (n=6)
<b>Income-Eligible Households<sup>a</sup></b>						
Responded—no change	25.6	30.7	15.5	20.5	20.5	20.5
Responded—benefit terminated	6.3	5.0	8.7	7.6	3.4	9.7
Responded—benefit reduced	7.1	6.8	7.9	10.3	8.2	12.3
Responded—benefit increased	1.4	1.7	0.8	1.0	1.1	0.9
Nonresponder	43.9	37.2	57.4	51.1	51.1	51.0
Subtotal	84.4	81.4	90.3	90.4	84.3	94.3
<b>Categorically Eligible (TANF, Food Stamps, FDPIR)</b>						
Responded—no change	10.8	13.1	6.2	4.9	7.4	3.5
Responded—benefit terminated	1.8	2.5	0.5	0.1	0.2	b
Responded—benefit reduced	0.1	0.1	0.0	0.2	0.6	0.0
Nonresponder	3.0	3.0	3.0	4.3	7.6	2.2
Subtotal	15.6	18.6	9.7	9.6	15.7	5.7
Total Responded—No Change	36.4	43.7	21.6	25.4	27.9	23.9
Total Benefits Reduced, Terminated, or Did Not Respond	62.2	54.6	77.6	74.0	71.1	75.1

<sup>a</sup>Excluded are 41 of the original 5,183 households—those approved as foster child.

<sup>b</sup>Rounds to less than one-tenth of one percent.

percent) than did districts with more than 50 percent of their students approved. However, this difference by percentage of students approved is due entirely to the districts that used random sampling. Among districts using focused sampling, outcomes were similar by size category. For example, the percentage who had their benefits reduced, terminated, or who did not respond was 54.6 percent in random-sampling districts with less than 50 percent of students approved, compared to 71.1 percent in random-sampling districts with more than 50 percent of students approved. In contrast, among focused-sampling districts, the percentage who had their benefits reduced, terminated or who did not respond was 77.6 percent in districts with less than 50 percent of students approved and 75.1 percent in districts with more than 50 percent of students approved.

In a nationally representative study, Gleason et al. (2003) found the opposite relationship between the percentage of students approved and the percentage of students whose benefits were reduced or terminated or who did not respond to the verification request: districts with larger percentages of students approved had lower benefit reduction and termination rates.<sup>7</sup>

### **3. Use of Direct Certification**

The verification results for districts that used direct certification were very similar to those for districts that did not use it (Table III.6). The percentage of cases with no change was 31.7 percent among districts using direct certification and 30.9 among districts not using it. The percentage of cases whose benefits were reduced, terminated, or who did not respond was also similar—66.8 percent in districts using direct certification and 68.6 percent in districts not using it.

---

<sup>7</sup>Gleason et al. (2003), Table III.3.

TABLE III.6

SUMMARY OF VERIFICATION OUTCOMES BY DIRECT CERTIFICATION POLICY  
AND SAMPLING METHOD USED  
(Mean Percentages Across Districts)

Group	District Used Direct Certification			District Did Not Use Direct Certification (n=4)
	All (n=17)	District Used Random Sampling (n=8)	District Used Focused Sampling (n=9)	
Income-Eligible Households <sup>a</sup>				
Responded—no change	23.6	29.9	18.1	22.4
Responded—benefit terminated	6.7	4.6	8.5	7.5
Responded—benefit reduced	8.5	6.8	10.1	9.7
Responded—benefit increased	1.4	1.9	0.9	0.5
Nonresponder	46.6	36.5	55.6	48.4
Subtotal	86.9	79.7	93.2	88.5
Categorically Eligible (TANF, Food Stamps, FDPIR)				
Responded—no change	8.1	12.6	4.1	8.5
Responded—benefit terminated	1.3	2.5	0.2	0.0
Responded—benefit reduced	0.1	0.3	0.0	0.1
Responded—benefit increased	3.6	4.8	2.4	2.9
Subtotal	13.1	20.3	6.8	11.5
Total Responded—No Change	31.7	42.5	22.2	30.9
Total Benefits Reduced, Terminated, or Did Not Respond	66.8	55.6	76.8	68.6

<sup>a</sup>Excluded are 41 of the original 5,183 households—those approved as foster child.

Among the 17 case study districts using direct certification, 8 used random sampling and 9 used focused sampling. Among the four case study districts, two used random sampling and two used focused sampling. Thus the mix of random and focused sampling is similar among the group of districts using direct certification and the group not using it. Within the group of districts that used direct certification, we observe the same pattern of difference between random-sampling and focused-sampling districts as is evident among all districts—larger percentages of cases with no change and smaller percentages whose benefits were reduced or terminated or who did not respond in the random-sampling districts.

#### **4. Use of Multichild Versus Single-Child Applications**

The verification results for districts that used multichild applications were generally similar to those for districts that used single-child applications (Table III.7). Again, within the group of 16 districts that used a multichild application, we observe the same pattern of difference between random-sampling and focused-sampling districts as is evident among all districts—larger percentages of cases with no change and smaller percentages whose benefits were reduced or terminated or who did not respond in the random-sampling districts.

### **C. REAPPROVAL RATES AMONG NONRESPONDERS**

An average of about one-fourth of households whose benefits had been terminated because they failed to provide adequate documentation during verification had been recertified for free or reduced-price meals by March 1, 2003—16 percent for free meals and 8.3 percent for reduced-price meals. About 71 percent were still in paid (full-price) status as of March 1, 2003, about 10 weeks after the verification period ended, according to SFA records (Table III.8). About four

TABLE III.7

SUMMARY OF VERIFICATION OUTCOMES BY MULTICHILD APPLICATION POLICY  
AND SAMPLING METHOD USED  
(Mean Percentages Across Districts)

Group	District Used Multichild Applications			
	All (n=16)	District Used Random Sampling (n=8)	District Used Focused Sampling (n=8)	District Used Single Child Applications (n=5)
Income-Eligible Households <sup>a</sup>				
Responded—no change	23.1	26.2	19.9	24.5
Responded—benefit terminated	6.9	4.1	9.8	6.5
Responded—benefit reduced	9.2	7.3	11.1	7.3
Responded—benefit increased	1.2	1.5	0.9	1.2
Nonresponder	45.6	40.8	50.5	51.3
Subtotal	86.1	79.9	92.2	90.7
Categorically Eligible (TANF, Food Stamps, FDPIR)				
Responded—no change	8.7	12.2	5.1	6.6
Responded—benefit terminated	1.1	2.1	0.2	0.9
Responded—benefit reduced	0.2	0.3	0.0	<sup>b</sup>
Responded—benefit increased	3.9	5.5	2.4	1.8
Subtotal	13.9	20.1	7.8	9.3
Total Responded—No Change	31.8	38.5	25.1	31.1
Total Benefits Reduced, Terminated, or Did Not Respond	66.9	60.0	74.0	67.8

<sup>a</sup>Excluded are 41 of the original 5,183 households—those approved as foster child.

<sup>b</sup>Rounds to less than one-tenth of one percent.

TABLE III.8

MEAL PRICE STATUS OF NONRESPONDERS TO VERIFICATION INITIALLY  
APPROVED ON THE BASIS OF INCOME, AS OF MARCH 1, 2003,  
OVERALL AND BY ORIGINAL STATUS  
(Mean Percentages Across District)

	All Districts	Districts Using Focused Sampling	Districts Using Random Sampling
Overall			
Reapproved, free	16.0	12.3	19.3
Reapproved, reduced-price	8.3	9.3	7.3
Paid	70.9	74.9	67.2
Withdrawn	3.9	2.8	5.0
Missing	1.0	0.6	1.2
Original Status Free			
Reapproved, free	23.3	18.2	27.9
Reapproved, reduced-price	8.5	11.0	6.2
Paid	62.6	66.0	59.4
Withdrawn	4.4	3.8	5.0
Missing	1.3	1.0	1.5
Original Status Reduced-Price			
Reapproved, free	4.3	4.9	3.7
Reapproved, reduced-price	8.8	8.1	9.4
Paid	82.2	84.6	80.0
Withdrawn	4.1	1.9	6.0
Missing	0.7	0.4	1.0

Source: SFA records.

Note: Sample sizes in this analysis were as follows: A total of 1,614 households were originally approved for free meals, 632 in SFAs that use a focused sample and 982 in SFAs that use a random sample; a total of 763 households were originally approved for reduced-price meals, 395 in SFAs that use a focused sample and 368 in SFAs that use a random sample.



percent of students, on average, had withdrawn from the district, and we were unable to obtain information on March 1 status for an average of one percent of nonresponding households.<sup>8</sup>

Across all districts, the average reapproval rate was much higher among households originally approved for free meals than among those originally approved for reduced-price meals. Among nonresponders originally certified for free meals, an average of 31.8 percent were reapproved—23.3 percent at the same benefit level and 8.5 percent at the reduced-price level. Among nonresponders originally certified for reduced-price meals, 13.1 percent, on average, were reapproved—8.8 percent at the same benefit level and 4.3 percent for free meals.

Overall, average reapproval rates were somewhat higher in the 11 districts that used random sampling (26.6 percent) than in the 10 that used focused sampling (21.6 percent). This finding, however, did not carry across all subgroups. The average reapproval rate for households originally certified for reduced-price meals was the same in districts that used focused sampling and those that used random sampling (13 percent). However, the average reapproval rate for households originally certified for free meals was 5 percentage points higher in districts that used random sampling than in those that used focused sampling (34 and 29 percent, respectively).

---

<sup>8</sup>As with other data previously presented, there was considerable variation around the mean results presented in Table III.8. For example, overall, the reapproval rate for free meals ranged from 0.5 to 43 percent, and the reapproval rate for reduced-price meals ranged from 0 to 21 percent. See Appendix Table A.5 for the response ranges for the overall outcomes presented in Table III.8.



#### **IV. INCOME ELIGIBILITY STATUS OF TWO GROUPS OF CASES SELECTED FOR VERIFICATION**

This chapter presents independent estimates of income eligibility of two important groups within the sample of cases selected for verification in the 21 case study districts. The two groups are (1) households that were initially approved on the basis of income and who failed to respond to the SFA's verification request (nonresponders), and (2) households that were initially approved on the basis of income and whose benefits were unchanged as a result of verification (no-change cases). These nonresponders are 47.0 percent of all cases, and these no-change cases are 23.4 percent (Table III.3). Thus, these two verification outcome groups accounted for 70 percent of all cases selected for verification on average across the study districts. Figure II.1 shows how these two groups relate to the broader population of all students approved for free and reduced-price meals.

The analysis shows that just over half of nonresponders were eligible at the time of the study survey in early 2003 for the preverification benefit they were approved to receive in fall 2002. Just under half of nonresponders were not eligible for their preverification benefit. Approximately 7 of 10 nonresponders were income-eligible for either free or reduced-price meals. Two-thirds of no-change cases were eligible in early 2003 for the benefit level for which they provided documentation in late 2002, and one-third were not eligible for this benefit level. Section A describes our basic approach and the interpretations of the estimates, and Section B presents the estimates.

##### **A. APPROACH AND INTERPRETATION OF THE ESTIMATES**

The analyses for nonresponders and no-change cases address different questions. Because (by definition) nonresponders did not comply with the request for documentation, the

independent estimates of household eligibility status provide information about a group for whom no evidence of income eligibility is available from verification. It is useful to know what fraction of nonresponders would have been eligible to receive benefits had they complied with the reporting requirement and what fraction would not have been eligible. Information on this question will help policymakers assess the extent to which the current verification system may create barriers to the receipt of benefits for some income-eligible families.

For no-change cases, the independent estimates of household eligibility status provide policymakers with information on the extent to which the verification process accurately reflects the income eligibility of households one to three months after verification. Each SFA determined, on the basis of income documentation provided between November 1 and December 15, 2002, that each no-change household continued to be eligible for the benefit it was initially approved to receive at, or shortly after, the start of the school year. The survey reflects household membership and income in January or February 2003. Therefore, differences in income eligibility as determined through verification and as determined through the study survey can occur because of inaccuracies in the verification process, short-term changes in households' circumstances, or inaccuracies in the survey.

To address the study questions about the extent to which nonresponders and no-change cases are eligible for the benefits they are receiving and the distribution of their income, our analysis focuses on the simple means of eligibility outcomes across the 21 case study districts. We first compute the mean outcome in each district, then the average of these district-level means.

It is important to emphasize that these estimates do not provide information about the eligibility of *all students approved* for free or reduced-price meals or about the eligibility of *all students selected for verification*. Making inferences about all approved students requires information about the eligibility status of a representative sample of all approved students. As

Figure II.1 shows, a representative sample of all students would need to include five groups that are not included in the case study survey. The results we present here for no-change cases and nonresponders can be combined with other information about the groups not included in the survey to arrive at an estimate of the eligibility of all approved students.<sup>1</sup>

## **B. FINDINGS ON INCOME ELIGIBILITY STATUS**

The first section presents estimates of income eligibility for nonresponders. The second presents those for no-change cases. The third section presents several alternative measures of certification accuracy for nonresponders and no-change cases.

### **1. Findings on the Income Eligibility Status of Nonresponders to Verification**

Table IV.1 presents the data for the sample of cases that failed to respond to the request for verification and whose benefits were to be terminated. The top section of the table shows mean values across all 21 case study districts, the middle section shows mean values for the 11 districts that used random sampling, and the bottom section shows mean values for the 10 districts that used focused sampling. Each section shows separately for students approved for free meals and for reduced-price meals, as well as for both groups together, the mean across districts of the percentage of the meal price status group in selected outcome categories.<sup>2</sup>

---

<sup>1</sup>An important qualification is that such estimates are feasible only for random-sampling sites, in which the method of verification sampling approximates a simple random sample of all applications approved. In districts using focused sampling for verification, the method of selecting the verification sample is specifically designed to include in the sample a higher proportion of cases whose circumstances may change and who may thus be ineligible for their benefits at the time of verification than would be found in a simple random sample of all approved students. Because the verification samples in focused-sampling districts are designed not to be representative of all approved students, they cannot be used to draw conclusions about the eligibility of all approved students.

<sup>2</sup>Appendix Table A.6 presents the percentage of all households interviewed that are in each income category.

TABLE IV.1

INCOME STATUS OF HOUSEHOLDS APPROVED ON THE BASIS OF INCOME AND  
HOUSEHOLD SIZE THAT FAILED TO RESPOND TO VERIFICATION REQUEST  
(Mean Percentages Across Districts)

Income Status Based on Study Interview	Initial Meal Price Status		
	Free	Reduced-Price	Total
<b>All Districts</b>			
Income Relative to FPL			
Income <130 percent FPL	51.3	31.4	44.1
130 to 185	26.0	22.8	24.7
186 to 250	14.0	29.2	19.7
251 to 400	7.3	13.8	9.5
>400	1.4	2.8	1.9
Cases Eligible for at Least the Level of Benefit They Were Approved to Receive	51.3	54.2	52.6
Number in Sample	417	209	626
<b>Random-Sampling Districts</b>			
Income Relative to FPL			
Income <130 percent FPL	56.9	32.2	49.2
130 to 185	25.2	20.3	23.5
186 to 250	10.4	32.7	18.0
251 to 400	6.3	13.3	8.0
>400	1.3	1.5	1.3
Cases Eligible for at Least the Level of Benefit They Were Approved to Receive	56.9	52.5	55.8
Number in Sample	235	77	312
<b>Focused-Sampling Districts</b>			
Income Relative to FPL			
Income <130 percent FPL	45.1	30.5	38.6
130 to 185	26.9	25.5	26.0
186 to 250	18.0	25.4	21.5
251 to 400	8.4	14.3	11.2
>400	1.6	4.3	2.6
Cases Eligible for at Least the Level of Benefit They Were Approved to Receive	45.1	56.0	49.1
Number in Sample	182	132	314

Note: The 21 case study districts were selected and recruited for the study by FNS regional office staff. Within each district, samples were selected to be representative of households whose NSLP benefits were terminated for failure to respond to the verification request. Each sample is representative of cases in the subgroup whose initial application was approved on the basis of income and household size; applications approved because the household was receiving TANF, food stamp, or FDPIR benefits or because the child was a foster child are excluded from the sample. Findings do not generalize to all students approved for free and reduced-price meals in the case study districts. Therefore, findings apply only to students in the specific verification outcome groups within the 21 study site districts.

Of the cases that were initially approved for free meals, 51.3 percent on average had income less than 130 percent of FPL at the time of the interview. Of the cases approved for reduced-price meals, 31.4 percent had incomes below 130 percent of FPL (and would have qualified for free meals) and 22.8 percent had incomes between 130 and 185 percent of FPL (and were thus eligible for reduced-price meals). The mean percentage of all nonresponder cases whose income and household size made them eligible at the time of the interview for at least the benefit they were initially approved to receive was 52.6 percent. The balance, or just under half (47.4 percent), had incomes above the threshold of income eligibility for their initial benefit.

Note that 26.0 percent of the households that were initially approved for *free meals* (about 17 percent of all nonresponders interviewed) reported incomes that would have made them eligible for *reduced-price benefits* had they reapplied. Furthermore, 31.4 percent of cases initially approved for reduced-price meals (about 10 percent of the combined free-plus-reduced-price group) reported incomes that made them eligible for free meals, a higher level of benefit than they were initially receiving. As a result, 68.8 percent of all nonresponder cases were eligible for free or reduced-price meals at the time of the interview (44.1 and 24.7 percent, respectively).

The data on random- and focused-sampling districts reveals different patterns of income eligibility in the two groups of districts. Nonresponders in random-sampling districts were more likely than those in focused-sampling districts to have incomes that made them eligible for free or reduced-price meals at the time of the survey. In random-sampling districts, 72.7 percent of nonresponders had incomes below 185 percent of the FPL (49.2 percent plus 23.5 percent). In focused-sampling districts, 64.6 percent of nonresponders had incomes below 185 percent of the FPL. Correspondingly, nonresponders in the random-sampling districts were more likely to be

eligible for at least the benefit they were initially approved to receive (55.8 percent versus 49.1 percent in the focused-sampling districts).

## **2. Findings on the Income Status of Cases with No Change in Benefits**

Table IV.2 presents data for cases that had no change in benefits as a result of verification. For these cases, the SFA received documentation in November or December in response to the verification request, and the documentation confirmed that the household was income-eligible at that time for the benefit it had been awarded at the start of the school year. On average across the 21 SFAs, two-thirds of no-change cases were eligible for at least the level of benefits they were approved to receive (65.5 percent). Just under two-thirds of households certified for free meals were eligible for them, and just over two-thirds of households certified for reduced-price meals reported incomes and household membership that made them eligible for either free or reduced-price benefits.

As with the nonresponder sample, we observe some cases apparently eligible for reduced-price meals but approved for free meals, and vice versa. In particular, 27.4 percent of free approved cases have incomes between 130 and 185 percent of the FPL (about 18 percent of all cases with no change). Furthermore, 24.8 percent of cases approved for reduced-price meals (about 8 percent of all cases) are eligible for free meals. Although about two-thirds of no-change cases were eligible according to the survey for at least the benefit they were receiving, and one-third were not eligible, 83.3 percent were eligible for either free or reduced-price meals.

Again, as with the nonresponder sample, no-change cases in random-sampling districts have lower incomes, on average, and are more likely to be eligible for benefits than their counterparts in focused-sampling districts.



TABLE IV.2

INCOME STATUS OF HOUSEHOLDS APPROVED ON THE BASIS OF INCOME AND HOUSEHOLD SIZE  
THAT HAD NO CHANGE IN NSLP BENEFITS AS A RESULT OF VERIFICATION  
(Mean Percentages Across Districts)

Income Status Based on Study Interview	Initial Meal Price Status		
	Free	Reduced-Price	Total
<b>All Districts</b>			
Income Relative to FPL			
Income <130 percent FPL	63.7	24.8	50.1
130 to 185	27.4	42.4	33.2
186 to 250	5.2	25.0	11.4
251 to 400	2.6	5.4	3.5
>400	1.2	2.5	1.8
Cases Eligible for at Least the Level of Benefit They Were Approved to Receive	63.7	67.2	65.5
Number in Sample	359	167	526
<b>Random-Sampling Districts</b>			
Income Relative to FPL			
Income <130 percent FPL	69.4	26.3	55.3
130 to 185	23.2	43.9	30.9
186 to 250	3.3	25.9	9.5
251 to 400	2.6	3.9	3.1
>400	1.5	0.0	1.1
Cases Eligible for at Least the Level of Benefit They Were Approved to Receive	69.4	70.2	69.7
Number in Sample	216	83	299
<b>Focused-Sampling Districts</b>			
Income Relative to FPL			
Income <130 percent FPL	57.4	23.2	44.4
130 to 185	32.0	40.6	35.6
186 to 250	7.3	23.9	13.5
251 to 400	2.5	7.1	3.9
>400	0.8	5.2	2.5
Cases Eligible for at Least the Level of Benefit They Were Approved to Receive	57.4	63.8	60.8
Number in Sample	143	84	227

Note: The 21 case study districts were selected and recruited for the study by FNS regional office staff. Within each district, samples were selected to be representative of households whose NSLP benefits were unchanged as a result of verification. Each sample is representative of cases in the subgroup whose initial application was approved on the basis of income and household size; applications approved because the household was receiving TANF, food stamp, or FDPIR benefits or because the child was a foster child are excluded from the sample. Findings do not generalize to all students approved for free and reduced-price meals in the case study districts. Therefore, findings apply only to students in the specific verification outcome groups within the 21 study site districts.

### 3. Accuracy of Meal Price Certification for Nonresponders and No-Change Cases

This section presents data on meal price accuracy for nonresponders to verification and cases with no change in benefits due to verification using measures of meal price certification accuracy similar to those used in Volume I of the Evaluation of the NSLP Application/Verification Pilot Projects (Burghardt et al. 2004). The four measures are:

1. Percentage of free approved students who are eligible for free meals (CA\_1)
2. Percentage of free and reduced-price students who are eligible *for exactly* the level of benefits they are approved to receive (CA\_2)
3. Percentage of free and reduced-price students who are eligible *for at least* the level of benefits they are approved to receive (CA\_3)
4. Percentage of free and reduced-price students who have income not over 185 percent of the FPL (CA\_4)

The first measure pertains to free approved students only, while the second, third, and fourth pertain to those approved for free and reduced-price meals. The measures for those approved for free and reduced-price meals differ in how “appropriately certified” is defined. In the second measure, only students certified for exactly the level of benefits they are entitled to receive are considered appropriately certified—students certified for a lower level of benefits and a higher level of benefits are considered inappropriately certified. In the third measure, students certified for at least the level of benefits they are entitled to receive are considered appropriately certified. Thus, in contrast to the second measure, students certified for a lower level of benefits than they are entitled to receive are considered appropriately certified according to the third measure. The fourth measure considers as appropriately certified all students whose income is at or below 185 percent of the FPL, the income that makes a student eligible for reduced-price meals. The fourth measure differs from the third in considering as appropriately certified students who are certified for free meals although their incomes are between 130 and 185 percent of the FPL. While this

group is not eligible for the benefit they are receiving, they are eligible for a lower level of benefit.

Table IV.3 presents the data on the four measures of certification accuracy for nonresponders and no-change cases in all districts, random-sampling districts, and focused-sampling districts. Among nonresponders in all case study districts, 51.3 percent of students initially approved for free meals in fall 2002 were eligible for free meals at the time of the survey in January and February 2003. Of all students approved for free and reduced-price meals in the nonresponder group, 41.7 percent were eligible for exactly the benefits they are approved to receive, 52.6 percent were eligible for at least the benefit they are approved to receive, and 68.7 percent had incomes of 185 percent of the FPL or less at the time of the survey. Nonresponders in districts using random sampling had higher rates of eligibility according to each measure than did nonresponders in districts using focused sampling.

Among cases in all study districts that had no change in benefits due to verification in December 2002, 63.7 percent of free-approved students were eligible for free meals. Among all no-change cases approved for free and reduced-price meals, 57.9 percent were eligible for exactly the benefits they are approved to receive, 65.5 percent were eligible for at least the benefit they are approved to receive, and 83.1 percent had incomes of 185 percent of the FPL or less. Again, no-change cases in districts using random sampling had higher rates of eligibility according to each measure than did no-change cases in districts using focused sampling.

TABLE IV.3

CERTIFICATION ACCURACY OF HOUSEHOLDS WITH SELECTED VERIFICATION OUTCOMES  
(Mean Percentages Across Districts)

	All Districts	Random-Sampling Districts	Focused-Sampling Districts
<b>Nonresponders to Verification</b>			
Free Approved Students Who Are Eligible for Free Meals (CA_1) <sup>a</sup>	51.3	56.9	45.1
Free and Reduced-Price Approved Students Who Are Eligible <i>for Exactly</i> the Level of Benefits They Are Approved to Receive (CA_2) <sup>b</sup>	41.7	46.3	36.7
Free and Reduced-Price Approved Students Who Are Eligible <i>for at Least</i> the Level of Benefits They Are Approved to Receive (CA_3) <sup>c</sup>	52.6	55.8	49.1
Free and Reduced-Price Approved Students Who Have Income Not Over 185 Percent FPL (CA_4) <sup>d</sup>	68.7	72.4	64.6
<b>Cases with No Change in NSLP Benefits as a Result of Verification</b>			
Free Approved Students Who Are Eligible for Free Meals (CA_1) <sup>a</sup>	63.7	69.4	57.4
Free and Reduced-Price Approved Students Who Are Eligible <i>for Exactly</i> the Level of Benefits They Are Approved to Receive (CA_2) <sup>b</sup>	57.9	63.0	52.2
Free and Reduced-Price Approved Students Who Are Eligible <i>for at Least</i> the Level of Benefits They Are Approved to Receive (CA_3) <sup>c</sup>	65.5	69.7	60.8
Free and Reduced-Price Approved Students Who Have Income Not Over 185 Percent FPL (CA_4) <sup>d</sup>	83.1	86.2	79.8

Note: The 21 case study districts were selected and recruited for the study by FNS regional office staff. Within each district, the nonresponder samples were selected to be representative of households whose NSLP benefits were terminated for failure to respond to the verification request, and the no-change samples were selected to be representative of cases whose benefit was unchanged due to verification. Each sample is representative of cases in the subgroup whose initial application was approved on the basis of income and household size; applications approved because the household was receiving TANF, food stamp, or FDPIR benefits or because the child was a foster child are excluded from the sample. Findings do not generalize to all students approved for free and reduced-price meals in the case study districts. Therefore, findings apply only to students in the specific verification outcome groups within the 21 study site districts.

<sup>a</sup>Percentage with income <=130 percent FPL among those certified for free meals by application.

<sup>b</sup>Percentage with income <=130 percent FPL and certified free or with income between 131-185 percent FPL and certified reduced-price among all those certified for free or reduced-price meals.

<sup>c</sup>Percentage with income <=130 percent FPL and certified free or with income <=185 percent FPL and certified reduced-price among all those certified for free or reduced-price meals.

<sup>d</sup>Percentage with income <=185 percent FPL among those certified for free or reduced-price meals.

## **V. CHARACTERISTICS OF NONRESPONDING HOUSEHOLDS THAT WERE REAPPROVED AND THAT WERE NOT REAPPROVED BY MARCH 1**

Program rules require SFAs to terminate the NSLP benefits of families who fail to respond, by a deadline in December, to a request for verification of their income. On average across the case study districts, about half the cases selected for verification were nonrespondents (45 percent in random-sampling districts and 56 percent in focused-sampling districts). Families terminated for failure to comply with verification requirements can reapply for benefits and be reapproved at any time, provided they submit documentation verifying their income and are eligible for benefits. As Table III.8 shows, 24.3 percent of nonresponder cases in the case study districts reapplied and were approved for free or reduced-price meal benefits by March 1, 2003 (26.6 percent in random-sampling districts and 21.6 percent in focused-sampling districts).

The study conducted interviews with 632 nonresponders across the 21 case study districts. Of this interviewed sample, 160 had reapplied and were reapproved by March 1, 2003, and 472 had not been reapproved by March 1, 2003.<sup>1</sup> In this chapter, we compare the characteristics of nonresponders who applied and were reapproved with the characteristics of nonresponders who were not reapproved to address two questions:

1. Are nonresponders who reapply and are reapproved more likely to be eligible for benefits than nonresponders who do not become reapproved?
2. Does information about other characteristics or reported experiences in the NSLP offer any insights into the reasons that some families reapply and are reapproved, while other families are not?

---

<sup>1</sup>For cases in our sample that were not reapproved, we did not determine whether they reapplied. It is possible that none, some, or all nonrespondent households that were not reapproved submitted new applications and were denied benefits.

Table V.1 shows selected characteristics for and differences between the nonresponders who did and did not become reapproved by March 1. Appendix Tables A.8 and A.9 show these data separately for random- and focused-sampling districts.

## **A. ELIGIBILITY**

Survey data indicate that reapproved nonresponders were more likely than nonresponders that were not reapproved to have family income below 185 percent of the FPL and less likely to have income above 185 percent of the FPL. About 87 percent of reapproved cases had incomes below 185 percent of poverty, which made them eligible for free or reduced-price meals, whereas 63 percent of nonrespondent families that did not become reapproved by March 1 had incomes below 185 percent of poverty.

Reapproved families were more likely than those not reapproved to be receiving food stamps or TANF benefits and thus to be categorically eligible for NSLP benefits if they chose to apply on this basis. About 15 percent of reapproved cases reported receiving food stamps, and 3 percent reported receiving TANF, compared to 5 percent and 2 percent, respectively, of households that were not reapproved.<sup>2</sup> All families selected for the survey were initially approved in fall 2002 on the basis of an application on which they provided information on income and household size. Households that were initially categorically eligible were excluded from the survey sample.

The patterns of differences in the eligibility of households reapproved and those not reapproved observed across all study districts are similar to the patterns observed in districts using random and focused sampling (Appendix Tables A.8 and A.9). In random-sampling

---

<sup>2</sup>There is substantial overlap in these percentages, since some households receiving TANF also received food stamps.

TABLE V.1

CHARACTERISTICS OF SURVEY SAMPLE OF HOUSEHOLDS THAT FAILED TO RESPOND TO VERIFICATION  
THAT WERE REAPPROVED AND THAT WERE NOT REAPPROVED  
(Mean Percentages Across Districts)

Characteristics	Nonresponders Who Were Reapproved	Nonresponders Who Were Not Reapproved	Difference
<b>Household Size</b>			
Number of household members (mean)	4.6	4.5	0.1
Number of children in household (mean)	2.4	2.2	0.2
<b>Household Structure (Percentages)</b>			
Two-parent household	44.0	53.9	-9.8
Single-parent household	51.4	38.7	12.7
Other household structure	4.6	7.4	-2.9
<b>Survey Respondent's Educational Attainment (Percentages)</b>			
Lacks a high school diploma	35.1	26.4	8.7
High school diploma only	33.6	34.1	-0.5
Some postsecondary education but lacks a college degree	28.5	34.0	5.5
College degree or more	2.7	5.4	-2.7
<b>Employment Status of Household Members</b>			
Survey respondent is employed (percentage)	61.5	71.8	-10.4
Number of employed adults in household (mean)	1.0	1.4	-0.3
<b>Household Income (Percentages)</b>			
Less than 130 percent of FPL <sup>a</sup>	63.5	37.1	26.4
131 to 185 percent of FPL	23.2	25.5	-2.2
186 to 250 percent of FPL	6.4	24.1	-17.7
251 to 400 percent of FPL	3.7	11.2	-7.5
More than 400 percent of FPL	3.1	2.1	1.0
<b>Percentage Receiving Public Assistance</b>			
Percentage receiving food stamp benefits	14.7	4.6	10.1
Percentage receiving TANF	2.9	2.1	0.8
Percentage receiving other benefits	7.9	9.8	-1.9
<b>Race/Ethnicity (Percentages)</b>			
White, non-Hispanic	21.1	31.7	-10.7
Black, non-Hispanic	25.6	22.3	3.3
Hispanic	33.5	26.7	6.7
Native American	0.0	1.5	-1.5
Asian, Pacific Islander	6.5	4.6	1.8
Other	0.0	0.6	-0.6
Mixed race	13.4	12.5	-0.9
English Primary Language Spoken at Home (Percentage)	62.9	69.7	-6.8
<b>Grade Level of Child (Percentages)</b>			
Grade 9 to 12	14.5	26.8	-12.3
Grade 6 to 8	29.7	22.4	7.2
Grade 3 to 5	30.2	27.5	2.7
Grade 1 to 2	17.5	15.8	1.7
Kindergarten or pre-K	8.2	7.5	0.7

TABLE V.1 (continued)

Characteristics	Nonresponders Who Were Reapproved	Nonresponders Who Were Not Reapproved	Difference
Parents' Views on Administration of School Meal Programs (Percentages)			
Believes school lunch program at child's school is well run	89.4	85.4	4.0
Believes the application process to receive free/reduced-price meals is fair	83.5	74.6	8.9
Students' Perceptions of Quality/Taste of School Meals (Percentages)			
Satisfied with amount of food in school lunches	88.1	75.2	12.9
Satisfied with quality/taste of school lunches	81.3	75.5	5.8
Number of Days per Week Usually Eats School Lunch (Self-Reported)			
0	2.5	17.3	-14.8
1	0.3	3.1	-2.7
2	2.0	5.6	-3.6
3	9.8	8.0	1.8
4	3.0	5.4	-2.4
5	82.4	60.7	21.7
Percentage of Students (Based on Self-Reported Meal Price Status)			
Free	71.9	18.2	53.7
Reduced-price	20.4	9.4	11.0
Paid	7.7	72.4	-64.7
<b>Sample Size</b>	<b>160</b>	<b>472</b>	

FPL = federal poverty level.

<sup>a</sup>The lowest income category (less than 130 percent of FPL) includes families categorically eligible for free meals (based on receipt of TANF or food stamps or foster child status), regardless of their actual income.



districts, we found somewhat larger differences between reapproved households and households not reapproved in rates of free meal eligibility and food stamp receipt but somewhat smaller differences in their rates of free or reduced-price eligibility. Districts that used focused sampling had higher rates of ineligibility both among reapproved and not reapproved households than did districts that used random sampling. This finding is not surprising, because focused sampling targets households near the thresholds of eligibility. Therefore, we expect that more nonresponder households in the focused-sampling districts will have moved across the eligibility threshold to become ineligible.

## **B. OTHER CHARACTERISTICS**

Families who were reapproved after not responding were different from families who were not reapproved. Reapproved households were more likely to be single-parent households than households not reapproved (51.4 percent versus 38.7 percent of households not reapproved). Parents in households that were reapproved were more likely to lack a high school diploma (35.1 percent versus 26.4 percent). They were also less likely to be currently employed (61.5 percent versus 71.8 percent). Finally, reapproved households were somewhat more likely to be black, non-Hispanic (25.6 percent vs. 22.3 percent of households not reapproved), more likely to be Hispanic (33.5 versus 26.7 percent), and less likely to speak English as the primary language in the home (62.9 percent versus 69.7 percent).

Most of these differences between households that were reapproved and households that were not reapproved were similar in the random- and focused-sampling districts. While the levels varied somewhat across random- and focused-sampling districts, the differences between reapproved and not reapproved households were similar in both random- and focused-sampling districts to the differences in all sites for most characteristics considered (Tables A.8 and A.9). One notable difference was in the percentage of households that were single-parent households.

The percentage of reapproved households headed by single parents was considerably greater in focused-sampling districts than in random-sampling districts. There were also some small differences in patterns of difference by ethnic group.

### **C. PARTICIPATION IN THE NSLP**

Reapproved households reported higher rates of regular participation in the NSLP than did households not reapproved. Among reapproved households, 82.4 percent said their child eats a school lunch every day, compared to 60.7 percent of those who were not reapproved. Furthermore, only 2.5 percent reported that their child never eats a school lunch, compared to 17.3 percent of nonreapproved households. Reapproved households were more likely to report satisfaction with the amount of food (88.1 percent, compared to 75.2 percent) and quality of school meals (81.3 percent, compared to 75.5 percent). The sample child in families that were not reapproved was more likely to be in high school grades, which tend to have lower NSLP participation rates than the elementary and middle school grades.<sup>3</sup>

Because of timing of the survey, we expected that most, if not all, households that reapplied and whose reapplication was approved would have been certified for free or reduced-price meals at the time of the survey. We further expected that most households that were not reapproved would have had their benefits terminated at that time and therefore would have reported that their child was not certified for free or reduced-price meals.<sup>4</sup> As expected, 92.3 percent of reapproved households reported being certified (71.9 percent for free meals and 20.4 percent for reduced-

---

<sup>3</sup>See Gleason (1995).

<sup>4</sup>Interviews were conducted between February 13, 2003, and April 2, 2003; data on reapproval status were based on whether the student was approved to receive free or reduced-price meals as of March 1, 2003.

price meals).<sup>5</sup> However, 28 percent of households that were *not* reapproved also reported that their child was certified. The fact that some households whose benefits should have been terminated for nonresponse either were still approved for free or reduced-price meals or were unaware that their benefits had been terminated may help explain why they did not reapply.<sup>6</sup> The students in some of these households may not have been participating in the NSLP, as suggested above, or may have participated only a few times a week. It is also possible that their free or reduced-price certification status had not actually been changed, despite the findings from the verification process.<sup>7</sup>

All of these differences between reapproved households and households not reapproved that were related to NSLP participation were found both in districts using random sampling and in those using focused sampling (Tables A.8 and A.9). However, most of the differences were considerably larger in random-sampling districts.

---

<sup>5</sup>The eight percent that reported not being certified either were mistaken or may have been interviewed before reapplying and being recertified.

<sup>6</sup>We did not collect data on whether termination of benefits had actually taken place in households that failed to respond to verification (although we might reasonably assume termination was actually carried out for families that later reapplied, since they would have had no reason to reapply if their benefits had not been terminated), so it is possible that children actually were still receiving free or reduced-price meals in some households that had failed to respond to verification requests.

<sup>7</sup>In its study of free and reduced-price eligibility determination in 14 large SFAs in school year 2001-2002, FNS found that 31 percent of nonresponder households that had not reapplied were approved to receive free or reduced-price meals at the end of the 2001-2002 school year (memorandum from Paul Strasberg to Mathematica Policy Research, Inc., January 29, 2004).



## **VI. INCOME ELIGIBILITY STATUS OF REAPPROVED NONRESPONDERS: COMPARING MEAL PRICE STATUS ASSIGNED BY THE SFA WITH INCOME ELIGIBILITY ESTIMATED FROM THE CASE STUDY INTERVIEW**

In this chapter, we examine factors that account for the differences observed between eligibility status of no-change cases as determined in the survey and their meal price status as determined by the SFA. We found that 65.5 percent of no-change cases were eligible for at least the level of benefits for which SFAs had received documentation in response to the verification request, and 34.5 percent were not eligible for this level of benefits. Thus, a substantial fraction of households that documented their income in December appeared not to be eligible for those benefits at the time of the study interview in March. In this chapter, we seek to understand why a substantial fraction of households whose income had recently been documented to the SFA were not eligible for the level of benefits they were receiving according to the survey.

Possible reasons for the difference in eligibility rates as determined by the verification process and the survey include the following:

1. ***Changes in Household Circumstances.*** The request for verification was sent out in October or November 2002, and the household was required to respond by early December. Thus, the documentation that no-change cases provided is likely to have pertained to income during the months of October or November. However, the survey was conducted in February or March 2003, and households were asked about income in January or February 2003. The income of some families and people living in the household may have changed between the period October-November 2002 covered by the verification documents and February-March 2003, the period about which interview respondents provided data.
2. ***Inaccurate Reporting of Circumstances in Providing the Verification.*** No-change cases selected for verification could have reported circumstances inaccurately, either intentionally or unintentionally. Omitting adult household members, omitting sources of income, and providing a different income amount in the survey for a source that was reported on the application are some ways this could have occurred.
3. ***Inaccurate Reporting of Circumstances in the Household Interview.*** The household could have reported circumstances inaccurately in the study interviews. A large literature indicates that respondents to a structured survey do not report their income

by source accurately, even when asked detailed questions about a long list of possible sources, which is designed to aid recall.<sup>1</sup>

4. ***Errors by SFA Staff Processing the Data.*** The verification system requires that SFA staff review the information to determine the correct monthly income amount for each source. Several potential errors can arise in this process. If the documentation does not show the period covered by the income, the SFA staff member reviewing it could make an error in determining the full gross *monthly* income amount. If a piece of information is missing or incomplete, the SFA staff member might make assumptions that are inaccurate. Similarly, SFA staff must correctly count household members and sum the income amounts per person source. All these steps are subject to some level of error.<sup>2</sup>

This chapter uses data from the reapplications of nonresponders who were reapproved for benefits by March 1, 2003, to provide insights into the sources of error. Our analysis makes use of the fact that the data furnished on new applications (and for which documentation was provided) pertain to nearly the same period of time as the survey data. Thus, differences between the survey data and the application-based data are very unlikely to be due to differences in circumstances at the time of the survey and the time of the application.

We found that 77.6 percent of the nonresponder households that were reapproved were eligible, according to the survey, for at least the level of benefits they were approved to receive. Among cases in which the survey data and the application data produced a different level of benefits, differences in the number of people for whom income was reported accounted for one-third of the differences. In most of these cases, the benefit calculated from the survey data was lower than the benefit calculated from the application data. This pattern suggests that households systematically underreported the number of people receiving income on the

---

<sup>1</sup>See Moore et al. (2000).

<sup>2</sup>Strasberg 2003 reports that, in a study of 14 SFAs, 94.3 percent of applications approved on the basis of household income and size were approved for the correct level of benefits, based on the information provided on the application, and 5.7 percent were approved inaccurately.

applications. Apparent administrative errors also accounted for about seven percent of the differences. The remaining errors reflecting differences in the number of sources or types of income and in the amount of income reported were as likely to result in a smaller benefit as in a larger one, according to the survey data, which suggests that these types of errors are random measurement errors.

Finally, we used the estimate of the difference in the contemporaneous survey and application data for the reappraised households to estimate the proportion of the difference between the survey and application-based estimate of eligibility of the no-change cases that is due to change in circumstances and the proportion due to all other factors.

In the following section, we describe the data used to compare information reported to the SFA with information reported on the study survey.

## **A. DATA AND METHODS**

Senior MPR data collection staff telephoned staff at each participating SFA and asked each SFA representative to determine and report on the meal price status on March 1, 2003, of one student in each household that did not respond to the district's request for verification. For each household in which the student was approved for free or reduced-price meals as of March 1, 2003, the MPR interviewer requested detailed information on the documentation provided. For households that reported receiving food stamps or TANF benefits or in which the child was a foster child, the SFA staff was asked to report on the nature of the documentation received and used for verification. For other households, the MPR interviewer obtained a count of the number of adults and number of children in the household and asked the SFA staff to list all adults in the household. The MPR interviewer then asked whether any income was reported for each adult. For each person who was reported to have received income, the MPR interviewer asked what

each source of income was. For each source of income, the MPR interviewer asked the gross amount, period covered, and whether documentation had been provided.

With this information, MPR analysts calculated the household's total gross income and, with the number of people in the household, their income relative to the FPL. We used this estimate of income relative to the FPL, the data on TANF and food stamp receipt, and the indicator of whether the child was a foster child to estimate whether the household was eligible for the benefits it had been approved to receive, based on the information in the documentation file. We performed a similar calculation of income relative to the FPL using data reported on the study interview.

The timing of the SFA administrative data and the timing of the study survey are important to the analysis. The reapproved cases submitted new applications and supporting documentation at some point between December 15, 2002 (the last date for submitting documentation for verification) and March 1, 2003. Because schools were closed for the holidays in the latter part of December, we believe most of the new documentation would have been submitted in January and February. Given this schedule for submitting the documentation, the documentation would have provided information about household circumstances during December or January. The study survey was conducted in the period late February through the end of March 2003, and it asked about income during January or February. Accordingly, the documentation submitted as part of the reapproval process covers the period December 2002-January 2003, whereas the study survey obtained data on income and household composition in January-February 2003. Although the correspondence is not perfect, it is considerably closer than the match between the period covered by the initial verification documentation of the no-change cases and the study survey.



## **B. COMPARING MEAL PRICE STATUS AS DETERMINED BY THE SFA AND MEAL PRICE STATUS BASED ON THE SURVEY**

How do estimates of meal price status based on the study survey compare with the meal price status assigned by SFAs in response to new applications and documentation that the family submitted to be reapproved after failing to provide verification by December 15, 2002? Table VI.1 shows this basic comparison between survey-based eligibility and reapplication-based certification status, both overall and separately for districts that used random-sampling methods to select households for verification and districts that used focused sampling.<sup>3</sup> Certification status on March 1, 2003, matched the eligibility category from the survey data in 64 percent of households in all districts (102 of the 160 households for which we have both survey and March 1 meal price status).<sup>4</sup> Forty-nine percent were certified for, and eligible for, free meals, and 15 percent were certified for, and eligible for, reduced-price meals. The percentage matching is higher (71 percent of households) in districts using random sampling and lower (56 percent of households) in districts using focused sampling. About 23 percent of reapproved households overall were receiving a higher level of benefits than the survey data indicated they were eligible for, and 14 percent were receiving a lower level.<sup>5</sup> Reapproved households in

---

<sup>3</sup>The numbers in this table are unweighted percentages of all households that failed to respond to verification but later reapplied and were reapproved.

<sup>4</sup>These percentages do not include households that did not reapply and become recertified for NSLP benefits after nonresponse to verification and, thus, cannot be used as an indicator of the accuracy of certification status of all terminated households. Since some of the households that did not reapply are probably eligible, including these households with zero benefits, the calculation would show a larger proportion of households receiving a lower level of benefits than the survey suggests they are entitled to.

<sup>5</sup>This 23 percent receiving a higher level of benefits includes 11 percent that were certified free but deemed eligible for reduced-price meals according to the survey data, 7 percent that were certified free but deemed ineligible for free or reduced-price meals, and 5 percent that were certified reduced-price but deemed ineligible. The 14 percent receiving a lower level of benefits were all certified reduced-price but deemed eligible to receive free meals.

TABLE VI.1

MEAL PRICE STATUS ACCORDING TO THE STUDY SURVEY AND ACCORDING  
TO THE SFA DETERMINATION AFTER REAPPLICATION  
(Percentage of All Reapproved Cases)

Meal Price Status According to SFA	Income Eligibility Status According to Survey			Total
	Free (Percent)	Reduced- Price (Percent)	Paid (Percent)	
<b>In Districts Using Random Sampling</b>				
Free	61.5	8.4	7.2	77.1
Reduced-price	8.4	9.6	4.8	22.9
Total	69.9	18.1	12.0	100.0
Eligible for at least the benefit they were approved to receive				79.5
Sample size				83
<b>In Districts Using Focused Sampling</b>				
Free	35.1	13.0	6.5	54.6
Reduced-price	19.5	20.8	5.2	45.5
Total	54.6	33.8	11.7	100.1
Eligible for at least the benefit they were approved to receive				75.4
Sample size				77
<b>In All Districts</b>				
Free	48.8	10.6	6.9	66.3
Reduced-price	13.8	15.0	5.0	33.8
Total	62.5	25.6	11.9	100.1
Eligible for at least the benefit they were approved to receive				77.6
Sample size				160

Note: Benefits of verified cases were supposed to be terminated by December 15, 2002. New applications were submitted between December 15, 2002, and March 1, 2003. Survey interviews were conducted from February 15 to March 31, 2003.

districts that used random sampling were somewhat less likely to be receiving a higher level of benefits than the survey data indicated they were eligible for (20 percent, compared to 24 percent of households in districts that used focused sampling), and they were considerably less likely to be receiving a lower level of benefits than they were eligible for according to the survey than were households in districts that used focused sampling (8 percent, compared to 20 percent).

### **C. UNDERSTANDING THE DIFFERENCES IN STATUS AS DETERMINED BY THE DISTRICT AND BY THE SURVEY**

For most cases, the measure of income as a percentage of poverty calculated from the survey data differs at least somewhat from the same measure calculated from application data. Even in households whose eligibility category (free, reduced-price, or paid) matches in the two data sources, the precise income as a percentage of poverty calculated from the survey rarely exactly matches that from the reapplication. In only 18 percent of households is the survey-based continuous measure of total household income as a percentage of poverty within 10 percentage points of the reapplication measure of the same variable. About 44 percent of households overall reported incomes as a percentage of poverty more than 10 percentage points *higher* on the survey than on their reapplication, and another 39 percent reported incomes as a percentage of poverty more than 10 percentage points *lower* on the survey than on their reapplication.<sup>6</sup>

Since meal price status determined by the SFA from reapplications does not match the meal price status calculated from the survey in more than one-third of households, it is useful to understand the reasons for the differences. Potential reasons include differences in the number

---

<sup>6</sup>Even among households whose meal price status matched in the two sources, 73 percent reported incomes as a percentage of poverty that differed by at least 10 percentage points between the two data sources. Households that used income documentation at the time of the survey did not yield closer matches than households that did not use documentation in responding to the interview questions.

of household members, differences in the sources of income or individual income amounts reported, differences in categorical eligibility, and computational error on the part of SFA staff. Table VI.2 presents the incidence of these reasons for differences between reapplication and survey meal price status.<sup>7</sup> Reasons are in order of precedence, such that if two different reasons apply to a given household, that household is included in the higher row in the table. For example, if both the number of household members who reported income differs and the numbers of source or type of income differ, the number of household members is considered to be the reason for the overall difference.

### **1. Categorical Eligibility or Foster Child Present**

In three households, the eligibility category determined from the survey data did not match the certification status because information on whether the household received food stamps or TANF, or whether the child was a foster child differed. Two of these three households reported being categorically eligible or containing a foster child on the reapplication but not on the survey. The third reported receiving food stamps on the survey but did not report food stamp receipt when it reapplied. This household was then certified eligible only for reduced-price meals on the basis of income and family size.

### **2. Income and Household Size Agree but Meal Price Status Differs**

For four households, the survey-based meal price eligibility category did not match the meal price certification status because our calculation of total household income as a percentage of poverty based on information provided on the new application differed from the meal price status

---

<sup>7</sup>Some of the reasons for differences described below may also exist in cases where the survey eligibility category matched the certification status after reapplication, but the table and discussion focus only on those cases where these did not match.

TABLE VI.2

REASONS FOR DIFFERENCE BETWEEN MEAL PRICE STATUS ASSIGNED BY SFA  
AND MEAL PRICE STATUS BASED ON THE SURVEY AMONG NONRESPONDERS  
TO VERIFICATION WHO WERE REAPPROVED

	Cases in Group for Which Each Reason Applies					
	Benefits per Survey Less than Benefits per Application		Benefits per Survey Exceed Benefits per Application		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Categorical Eligibility or Foster Child Status Differs	2	5.6	1	4.6	3	5.2
Computational Error (Calculation of Eligibility Differs)	3	8.3	1	4.6	4	6.9
Income Differs Reflecting That Number of Household Members Who Reported Income Differs	15	41.7	4	18.2	19	32.8
Total Household Income Matches, but Number of Household Members Differs	1	2.8	0	0.0	1	1.7
Income Differs Reflecting That Number of Sources or Type of Income Differs	9	25.0	4	18.2	13	22.4
Income Amounts by Type Differ	6	16.7	12	54.6	18	31.0
Total	36	100	22	100	58	100

assigned by the SFA, although total income and household size were the same in both sources. In these cases, the meal price eligibility category based on the two different data sources (survey and reapplication) matched, according to our own calculations of both, but this category did not match the meal price status assigned by the SFA. The data we collected did not allow us to determine the reason for this discrepancy.

**Number of Household Members Who Reported Income.** The most common reason for differences between survey-based meal price eligibility status and the meal price status assigned by the SFA was differences in the number of household members who reported income. Differences in the number of household members who reported any income accounted for one-third of the differences in meal price eligibility status between the two data sources. Most of these households (15 of the 19) reported more members with income on the survey than were shown on the reapplication. This suggests that (1) the survey collected data on some people who were not listed as household members on the reapplication, (2) the survey collected income data on some household members who were listed on the reapplication as having no income, or (3) real changes in the number of household members with income occurred in the short period between the date of reapplication and the date of the survey. The detailed income questions asked on the survey may have reminded respondents of income sources for household members they had not considered relevant when completing the reapplication.<sup>8</sup> In one other household,

---

<sup>8</sup>Of these 15 households, 6 reported more household members on the survey than they included on their reapplication. This may imply that these six cases left some household members with income off their reapplication, while the other nine cases included all household members on their reapplication but left off income sources for some. However, we cannot be sure, since we were unable to determine for certain which individual household members in one data source were the same individuals in the other data source.

the meal price status failed to match because, although the total household income amount from the two data sources was the same, the number of household members differed.<sup>9</sup>

**Number of Sources or Types of Income Differ.** In 13 households (22 percent), the survey meal price status failed to match the SFA’s meal price status after reapplication due to a different number of income sources for at least one household member (nine cases) or due to a difference in the types of income sources, even though the number of sources of income was the same (four cases).<sup>10</sup> Of these 13 households, 9 reported a greater amount of income on the survey than on the reapplication, and 4 reported a lesser amount on the survey.

**Individual Income Amounts.** In the remaining 18 households (31 percent), the *sources or types of income* for household members are consistent, but the survey-based eligibility category did not match the recertification status, due to a difference in one or more person/source monthly *income amounts*.<sup>11</sup> This was the second most common reason for differences. This was also the only type of difference that more often resulted in a higher estimate of benefits based on the survey data than on the reapplication data. Of these 18 households, 12 reported lower income amounts on the survey than on their reapplication. The other six reported higher income amounts on the survey than on their reapplication.

---

<sup>9</sup>The household actually reported the same number of people in the survey and on the reapplication. However, one person did not meet our survey definition for inclusion in the household economic unit, so we did not collect income data on that person.

<sup>10</sup>The survey asked about income from 21 different types of income sources, including jobs, unemployment compensation, social security, supplemental security income, and child support.

<sup>11</sup>In 3 of these 18 cases, the households had provided incomplete income data on the survey, so all or part of their household income was imputed. Incomplete income data were imputed based on actual income amounts reported by other cases in the data, using hot-decking or median-fill methods. For more information on imputation procedures, see “Volume II: Description of Study Methods and Supplementary Tables of the Evaluation of the National School Lunch Program Application/Verification Pilot Projects” report.

In summary, most of the differences between our survey-based eligibility determinations and the certification status after reapplication were associated with discrepancies between the number of household members for whom income was reported on the two data sources and between the component income amounts reported for an individual person/source. In cases where the data sources did not match due to differences in the number of people with income, households tended to report fewer household members with income on their reapplications than in the survey. In cases where the data sources did not match due to differences in individual amounts, however, households tended to report lower income amounts (given person/source) in the survey data.

#### **D. ESTIMATING THE PORTION OF THE DIFFERENCE IN RATES OF INELIGIBILITY OF NO-CHANGE CASES DUE TO CHANGING CIRCUMSTANCES**

The interviews of no-change-at-verification households were conducted in February and March 2003. Table IV.2 shows 65.5 percent of these households were eligible for at least the benefits they were approved to receive. Thus, 34.5 percent of households in this sample were found to be ineligible, at the time of the survey in March 2003, for the NSLP benefits that they were certified for in December 2002. This is a substantial number, and it raises the question of whether the verification process failed to identify that these households were ineligible or whether changes in household circumstances made some of them ineligible after the verifications had been completed. While it is not possible to distinguish precisely between these two potential explanations, it is possible to draw on various survey results already reported to place bounds on the relative importance of the two possible explanations. We explore this next.

Following are key facts for our discussion:

- First, as noted above, about 34 percent of the no-change-at-verification households were ineligible for benefits as of approximately March 15, 2003.



- Second, we know from Table V1.1 that approximately 22 percent of households that initially failed to respond to a verification request but subsequently reapplied were ineligible for the benefits they applied for upon reapplication according to the study survey in March 2003. We believe that this provides a reasonable estimate of the percentage of the no-change-at-verification cases that were ineligible as of approximately December 15, at the end of the fall verification activities.

The 12 percentage point difference in these two numbers ( $34 - 22 = 12$  percent) represents a reasonable lower-bound estimate of the percentage of cases certified for benefits in December who became ineligible due to subsequent changes in household circumstances. It is a lower-bound estimate, because some of the 22 percent of households estimated to be ineligible in December may not have remained ineligible, but may have become eligible again by March.

The above analysis implies that at least 35 percent (that is, 12 percent divided by 34 percent) of the no-change-at-verification households found to be ineligible in the March survey were probably ineligible due to relatively recent changes in household circumstances that had occurred since the verification process. As noted, this is a lower-bound estimate. For reasons discussed in Appendix C, where we present the above discussion more formally, we believe that a plausible most likely estimate of this percentage would probably be 45 to 60 percent.



## REFERENCES

- Gleason, Philip M. "Participation in the National School Lunch Program and the School Breakfast Program." *American Journal of Clinical Nutrition*, vol. 61 (suppl.), 1995, pp. 213s-220s.
- Gleason, Philip, Kenneth Jackson, Patricia Nemeth, Tania Tasse, John Hall, and Bidisha Ghosh. "Direct Certification and Its Impact on Errors in the National School Lunch Program: Data Collection and Descriptive Report." Report submitted to the U.S. Department of Agriculture, Economic Research Service. Princeton, NJ: Mathematica Policy Research, Inc., August 2002.
- Gleason, Philip, Tania Tasse, Kenneth Jackson, and Patricia Nemeth. "Direct Certification in the National School Lunch Program: Impacts on Access and Program Integrity." Publication no. E-FAN-03-009. Report submitted to the U.S. Department of Agriculture, Economic Research Service. Princeton, NJ: Mathematica Policy Research, Inc., October 2003.
- Moore, Jeffrey C., Linda L. Stinson, and Edward J. Welniak, Jr. "Income Measurement Error in Surveys: A Review." *Journal of Official Statistics*, vol. 16, no. 4, 2000, pp. 331-361.
- Strasberg, Paul J. "School Food Authority Administration of National School Lunch Program Free and Reduced Price Eligibility Determination." Report no. CN-03-AV. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Analysis, Nutrition and Evaluation, August 2003.
- U.S. Department of Agriculture, Food and Nutrition Service, Office of Analysis, Nutrition and Evaluation. "National School Lunch Program Application/Verification Pilot Project Report on First Year Experience." Report no. CN-02-AV. Alexandria, VA: USDA, August 2002.



**APPENDIX A**  
**ADDITIONAL TABULATIONS**



TABLE A.1

OUTCOMES OF NSLP VERIFICATION IN 21 LARGE METROPOLITAN DISTRICTS  
(Mean Percentages Across Districts)

Group	Initial Status	Status at Conclusion of Verification Process	Responded to SFA	Child Enrolled on 12/15/02	Percent of All Households in Category
<b>Initial Application Approved on the Basis of Income and Household Size</b>					
A	Free	Free	Yes	n.a.	15.3
B	Free	Reduced-price	Yes	n.a.	8.7
C	Free	Paid	Yes	n.a.	2.0
D	Free	Paid	No	Yes	24.7
E	Free	Paid	No	No	0.6
F	Free	Paid	No	Missing	3.4
G	Free	Missing/uncertain	No	Yes	0.9
H	Free	Missing/uncertain	No	No	<sup>b</sup>
I	Free	Missing/uncertain	No	Missing	0.5
J	Reduced-price	Free	Yes	n.a.	1.2
K	Reduced-price	Reduced-price	Yes	n.a.	7.9
L	Reduced-price	Paid	Yes	n.a.	4.8
M	Reduced-price	Paid	No	Yes	13.1
N	Reduced-price	Paid	No	No	0.4
O	Reduced-price	Paid	No	Missing	1.9
P	Reduced-price	Missing/uncertain	No	Yes	0.8
Q	Reduced-price	Missing/uncertain	No	No	0.1
R	Reduced-price	Missing/uncertain	No	Missing	0.3
<b>Initial Application Approved on the Basis of Categorical Eligibility (Receipt of TANF, Food Stamps, or FDPIR)</b>					
S	Free	Free	Yes	n.a.	8.1
T	Free	Reduced-price	Yes	n.a.	0.1
U	Free	Paid	Yes	n.a.	1.0
V	Free	Paid	No	n.a.	3.0
W	Free	Missing/uncertain	No	n.a.	0.4
<b>Initial Application Approved on the Basis of Foster Child Status</b>					
X	Free	Free	Yes	n.a.	0.4
Y	Free	Paid	No	n.a.	0.3
Z	Other <sup>a</sup>				0.1

N = 5,118 households.

<sup>a</sup>Foster child cases for which key information was missing or miscoded.

<sup>b</sup>Rounds to less than one-tenth of one percent.

n.a. = not applicable; we did not check enrollment status for these cases; only for income-eligible nonresponders.

TABLE A.2

OUTCOMES OF NSLP VERIFICATION IN 21 LARGE METROPOLITAN DISTRICTS,  
 BY SAMPLING METHOD USED  
 (Mean Percentages Across Districts)

Group	Initial Status	Status at Conclusion of Verification Process	Responded to SFA	Child Enrolled on 12/15/02	Districts Using Focused Sample (n=10)	Districts Using Random Sample (n=11)
<b>Initial Application Approved on the Basis of Income and Household Size</b>						
A	Free	Free	Yes	n.a.	11.2	19.0
B	Free	Reduced-price	Yes	n.a.	10.5	7.1
C	Free	Paid	Yes	n.a.	2.2	1.9
D	Free	Paid	No	Yes	26.3	23.3
E	Free	Paid	No	No	0.8	0.5
F	Free	Paid	No	Missing	2.3	4.3
G	Free	Missing/uncertain	No	Yes	1.4	0.5
H	Free	Missing/uncertain	No	No	0	<sup>b</sup>
I	Free	Missing/uncertain	No	Missing	0.3	0.6
J	Reduced-price	Free	Yes	n.a.	0.9	1.5
K	Reduced-price	Reduced-price	Yes	n.a.	7.2	8.5
L	Reduced-price	Paid	Yes	n.a.	7.1	2.7
M	Reduced-price	Paid	No	Yes	17.8	8.8
N	Reduced-price	Paid	No	No	0.7	0.2
O	Reduced-price	Paid	No	Missing	2.2	1.6
P	Reduced-price	Missing/uncertain	No	Yes	1.1	0.5
Q	Reduced-price	Missing/uncertain	No	No	0.2	0.0
R	Reduced-price	Missing/uncertain	No	Missing	0.4	0.2
<b>Initial Application Approved on the Basis of Categorical Eligibility (Receipt of TANF, Food Stamps, or FDPIR)</b>						
S	Free	Free	Yes	n.a.	4.5	11.3
T	Free	Reduced-price	Yes	n.a.	0.0	0.2
U	Free	Paid	Yes	n.a.	0.2	1.8
V	Free	Paid	No	n.a.	2.4	3.7
W	Free	Missing/uncertain	No	n.a.	0.2	0.5
<b>Initial Application Approved on the Basis of Foster Child Status</b>						
X	Free	Free	Yes	n.a.	0.2	0.6
Y	Free	Paid	No	n.a.	0.2	0.5
Z	Other <sup>a</sup>				0.0	0.1

<sup>a</sup>Foster child cases for which key information was missing or miscoded.

<sup>b</sup>Rounds to less than one-tenth of one percent.

n.a. = not applicable; we did not check enrollment status for these cases; only for income-eligible nonresponders.



TABLE A.3

RANGE OF OUTCOMES OF NSLP VERIFICATION ACROSS ALL 21 PARTICIPATING DISTRICTS  
(Complements Table A.1)

Group	Initial Status	Status at Conclusion of Verification Process	Responded to SFA	Child Enrolled on 12/15/02	Lowest Percentage	Highest Percentage
<b>Initial Application Approved on the Basis of Income and Household Size</b>						
A	Free	Free	Yes	n.a.	6.4	37.5
B	Free	Reduced-price	Yes	n.a.	1.3	21.4
C	Free	Paid	Yes	n.a.	0	4.9
D	Free	Paid	No	Yes	2.9	44.2
E	Free	Paid	No	No	0	2.4
F	Free	Paid	No	Missing	0	12.7
G	Free	Missing/uncertain	No	Yes	0	4.3
H	Free	Missing/uncertain	No	No	0	0.4
I	Free	Missing/uncertain	No	Missing	0	5.5
J	Reduced-price	Free	Yes	n.a.	0	3.6
K	Reduced-price	Reduced-price	Yes	n.a.	2.7	13.3
L	Reduced-price	Paid	Yes	n.a.	0	13.4
M	Reduced-price	Paid	No	Yes	3.6	29.3
N	Reduced-price	Paid	No	No	0	3.4
O	Reduced-price	Paid	No	Missing	0	7.3
P	Reduced-price	Missing/uncertain	No	Yes	0	4.2
Q	Reduced-price	Missing/uncertain	No	No	0	1.2
R	Reduced-price	Missing/uncertain	No	Missing	0	2.1
<b>Initial Application Approved on the Basis of Categorical Eligibility (Receipt of TANF, Food Stamps, or FDPIR)</b>						
S	Free	Free	Yes	n.a.	0.9	35.6
T	Free	Reduced-price	Yes	n.a.	0	1.5
U	Free	Paid	Yes	n.a.	0	15.4
V	Free	Paid	No	n.a.	0	14.1
W	Free	Missing/uncertain	No	n.a.	0	1.8
<b>Initial Application Approved on the Basis of Foster Child Status</b>						
X	Free	Free	Yes	n.a.	0	2.2
Y	Free	Paid	No	n.a.	0	3.8
Z	Other <sup>a</sup>				0	0.5

<sup>a</sup>Foster child cases for which key information was missing or miscoded.

n.a. = not applicable; we did not check enrollment status for these cases; only for income-eligible nonresponders.

TABLE A.4

RANGE OF OUTCOMES ON SUMMARY MEASURES OF NSLP VERIFICATION  
RESULTS ACROSS ALL 21 PARTICIPATING DISTRICTS  
(Complements Table III.1)

	Lowest Percentage	Highest Percentage
Responder: No Change		
Free to free (Groups A, S, X)	9.3	48.1
Reduced-price to reduced-price (Group K)	2.7	20.0
Responder: Benefits Increased		
Reduced-price to free (Group J)	0	3.6
Responder: Benefits Reduced or Terminated		
Free to reduced-price (Groups B, T)	1.3	21.4
Free to paid (Groups C, U)	0.5	15.4
Reduced-price to paid (Group L)	0	13.1
Nonresponder		
Initially free (Groups D, E, F, G, H, I, V, W, Y)	7.7	62.9
Initially reduced-price (Groups M, N, O, P, Q, R)	4.8	30.4

Notes: Excluded are 3 of the original 5,183 cases—those approved as foster child and for which key information (for example, on outcome status) was missing or possibly miscoded.

Groups A, B, C, ... Y are those shown in Table A.1.

TABLE A.5

RANGE OF REAPPROVAL RATES FOR NONRESPONDERS TO VERIFICATION AS OF  
MARCH 1, 2003, ACROSS ALL 21 PARTICIPATING DISTRICTS  
(Complements Table III.8)

	Lowest Percentage	Highest Percentage
Overall		
Reapproved, free	0.4	29.7
Reapproved, reduced-price	0	17.5
Paid	51.9	93.7
Withdrawn	0	8.6
Missing	0	5.5
Original Status Free		
Reapproved, free	0.5	42.7
Reapproved, reduced-price	0	20.6
Paid	40	94.1
Withdrawn	0	14.8
Missing	0	6.7
Original Status Reduced-Price		
Reapproved, free	0	11.3
Reapproved, reduced-price	0	23.2
Paid	65.2	100
Withdrawn	0	14.8
Missing	0	8.3

TABLE A.6

INCOME STATUS OF GROUPS OF HOUSEHOLDS SELECTED FOR NSLP VERIFICATION IN 21 LARGE  
METROPOLITAN SFAs  
(Percentage of All Students in this Group)

Estimated Income Status Based on Study Interview	Initial Meal Price Status		
	Free	Reduced-Price	Total
<b>Households Who Had No Change in NSLP Benefits as a Result of Verification</b>			
Income <130 Percent FPL	63.8	25.7	51.7
130 to 185	25.6	42.5	31.0
186 to 250	5.8	24.0	11.6
251 to 400	3.1	5.4	3.8
>400	1.7	2.4	1.9
Percent Eligible			65.2
Number in Sample	359	167	526
<b>Households Who Failed to Respond to Verification Request</b>			
Income <130 Percent FPL	50.3	30.1	43.6
130 to 185	23.7	24.4	24.0
186 to 250	15.3	28.7	19.8
251 to 400	8.6	13.9	10.4
>400	1.9	2.9	2.2
Percent Eligible			51.7
Number in Sample	417	209	626

Note: The 21 case study districts were selected and recruited for the study by FNS regional office staff. Within each district, samples were selected to be representative of households who had no change in meal price benefits as a result of verification or households whose NSLP benefits were terminated for failure to respond to the verification request. Each sample is representative of cases in the subgroup whose initial application was approved on the basis of income and household size; applications approved because the household was receiving TANF, food stamp, or FDPIR benefits or because the child was a foster child are excluded from the sample.

TABLE A.7

INCOME STATUS OF GROUPS OF HOUSEHOLDS SELECTED FOR NSLP VERIFICATION  
 IN 21 LARGE METROPOLITAN SFAs, BY USE OF FOCUSED OR RANDOM SAMPLING  
 FOR VERIFICATION  
 (Percentage of All Students in the Group)

Estimated Income Status Based on Study Interview	Focused Sampling			Random Sampling		
	Free	Reduced-Price	Total	Free	Reduced-Price	Total
<b>Households Who Had No Change in NSLP Benefits as a Result of Verification</b>						
Income <130 Percent FPL	58.0	25.0	45.8	67.6	26.5	56.2
130 to 185	29.4	39.3	33.0	23.1	45.8	29.4
186 to 250	8.4	23.8	14.1	4.2	24.1	9.7
251 to 400	2.8	7.1	4.4	3.2	3.6	3.3
>400	1.4	4.8	2.6	1.9	0.0	1.3
Percentage Eligible			60.3			68.9
Number in Sample	143	84	227	216	83	299
<b>Households Who Failed to Respond to Verification Request</b>						
Income <130 Percent FPL	44.5	29.5	38.2	54.9	31.2	49.0
130 to 185	27.5	25.8	26.8	20.9	22.1	21.2
186 to 250	17.6	26.5	21.3	13.6	32.5	18.3
251 to 400	8.2	14.4	10.8	8.9	13.0	9.9
>400	2.2	3.8	2.9	1.7	1.3	1.6
Percentage Eligible			49.0			54.5
Number in Sample	182	132	314	235	77	312

Note: The 21 case study districts were selected and recruited for the study by FNS regional office staff. Within each district, samples were selected to be representative of households who had no change in meal price benefits as a result of verification or households whose NSLP benefits were terminated for failure to respond to the verification request. Each sample is representative of cases in the subgroup whose initial application was approved on the basis of income and household size; applications approved because the household was receiving TANF, food stamp, or FDIPIR benefits or because the child was a foster child are excluded from the sample.

TABLE A.8

CHARACTERISTICS OF SURVEY SAMPLE OF HOUSEHOLDS THAT FAILED TO RESPOND TO  
VERIFICATION WHO REAPPLIED AND DID NOT REAPPLY, IN DISTRICTS  
USING RANDOM SAMPLING FOR VERIFICATION  
(Mean Percentages Across Districts)

Characteristics	Nonresponders Who Were Reapproved by March 1, 2003	Nonresponders Who Were Not Reapproved by March 1, 2003	Difference
<b>Household Size</b>			
Number of household members (mean)	4.9	4.5	0.4
Number of children in household (mean)	2.6	2.2	0.4
<b>Household Structure (Percentages)</b>			
Two-parent household	47.1	50.6	-3.5
Single-parent household	47.5	39.6	7.9
Other household structure	5.3	9.8	-4.4
<b>Survey Respondent's Educational Attainment (Percentages)</b>			
Lacks a high school diploma	39.0	31.0	7.9
High school diploma only	32.9	33.0	-0.2
Some postsecondary education but lacks a college degree	26.7	32.3	-5.6
College degree or more	1.4	3.6	-2.2
<b>Employment Status of Household Members</b>			
Survey respondent is employed (percentage)	59.1	69.4	-10.4
Number of employed adults in household (mean)	1.0	1.4	-0.4
<b>Household Income (Percentages)</b>			
Less than 130 percent of FPL <sup>a</sup>	70.1	40.9	29.2
131 to 185 percent of FPL	18.2	26.3	-8.2
186 to 250 percent of FPL	5.4	22.8	-17.4
251 to 400 percent of FPL	5.1	8.6	-3.5
More than 400 percent of FPL	1.3	1.3	-0.1
<b>Percentage Receiving Public Assistance</b>			
Percentage receiving food stamp benefits	18.8	6.1	12.7
Percentage receiving TANF	3.2	1.8	1.4
Percentage receiving other benefits	9.8	11.4	-1.5
<b>Race/Ethnicity (Percentages)</b>			
White, non-Hispanic	25.3	34.9	-9.7
Black, non-Hispanic	20.3	22.7	-2.5
Hispanic	36.5	24.2	12.3
Native American	0.0	1.3	-1.3
Asian, Pacific Islander	3.1	3.0	0.2
Other	0.0	0.3	-0.3
Mixed race	14.8	13.6	0.1

TABLE A.8 (continued)

Characteristics	Nonresponders Who Were Reapproved by March 1, 2003	Nonresponders Who Were Not Reapproved by March 1, 2003	Difference
English Primary Language Spoken at Home (Percentage)	59.6	67.2	-7.5
Grade Level of Child (Percentages)			
Grade 9 to 12	12.7	32.1	-19.3
Grade 6 to 8	40.8	21.8	19.0
Grade 3 to 5	21.1	21.1	0.1
Grade 1 to 2	21.3	15.4	5.9
Kindergarten or pre-K	4.1	9.7	-5.6
Parents' Views on Administration of School Meal Programs (Percentages)			
Believes school lunch program at child's school is well run	89.7	87.5	2.2
Believes the application process to receive free/reduced-price meals is fair	87.3	76.1	11.2
Students' Perceptions of Quality/Taste of School Meals (Percentages)			
Satisfied with amount of food in school lunches	87.4	74.6	12.8
Satisfied with quality/taste of school lunches	86.5	77.2	9.3
Number of Days per Week Usually Eats School Lunch (Self-Reported)			
0	3.1	18.1	-15.1
1	0.0	1.7	-1.7
2	0.0	4.8	-4.8
3	4.9	6.5	-1.5
4	3.3	7.3	-4.0
5	88.7	61.6	27.8
Percentage of Students (Based on Self-Reported Meal Price Status)			
Free	76.0	18.6	57.4
Reduced-price	19.5	8.9	10.6
Paid	4.5	72.5	-68.0
<b>Sample Size</b>	<b>83</b>	<b>232</b>	

FPL = federal poverty level.

<sup>a</sup>The lowest income category (less than 130 percent of FPL) includes families categorically eligible for free meals (based on receipt of TANF or food stamps or foster child status), regardless of their actual income.

TABLE A.9

CHARACTERISTICS OF SURVEY SAMPLE OF HOUSEHOLDS THAT FAILED TO RESPOND TO VERIFICATION WHO REAPPLIED AND DID NOT REAPPLY, IN DISTRICTS USING FOCUSED SAMPLING FOR VERIFICATION  
(Mean Percentages Across Districts)

Characteristics	Nonresponders Who Were Reapproved by March 1, 2003	Nonresponders Who Were Not Reapproved by March 1, 2003	Difference
<b>Household Size</b>			
Number of household members (mean)	4.3	4.5	-0.2
Number of children in household (mean)	2.2	2.2	-0.0
<b>Household Structure (Percentages)</b>			
Two-parent household	40.9	57.4	-16.5
Single-parent household	55.3	37.7	17.6
Other household structure	3.8	4.9	-1.0
<b>Survey Respondent's Educational Attainment (Percentages)</b>			
Lacks a high school diploma	31.7	21.3	10.4
High school diploma only	34.3	35.3	-1.1
Some postsecondary education but lacks a college degree	30.1	35.9	-5.8
College degree or more	3.8	7.4	-3.6
<b>Employment Status of Household Members</b>			
Survey respondent is employed (percentage)	63.9	74.5	-10.6
Number of employed adults in household (mean)	1.1	1.4	-0.3
<b>Household Income (Percentages)</b>			
Less than 130 percent of FPL <sup>a</sup>	57.0	32.9	24.0
131 to 185 percent of FPL	28.3	24.5	3.8
186 to 250 percent of FPL	7.4	25.5	-18.8
251 to 400 percent of FPL	2.3	14.1	-11.8
More than 400 percent of FPL	5.0	3.0	2.0
<b>Percentage Receiving Public Assistance</b>			
Percentage receiving food stamp benefits	10.6	2.9	7.7
Percentage receiving TANF	2.5	2.4	0.1
Percentage receiving other benefits	6.0	8.1	-2.0
<b>Race/Ethnicity (Percentages)</b>			
White, non-Hispanic	17.3	28.2	-10.9
Black, non-Hispanic	30.4	21.9	8.5
Hispanic	30.7	29.5	1.2
Native American	0.0	1.7	-1.7
Asian, Pacific Islander	9.4	6.5	3.0
Other	0.0	0.9	-0.9
Mixed race	12.2	11.3	0.9
English Primary Language Spoken at Home (Percentage)	65.8	72.5	-6.7
<b>Grade Level of Child (Percentages)</b>			
Grade 9 to 12	16.2	21.1	-4.8
Grade 6 to 8	18.6	23.1	-4.5
Grade 3 to 5	39.3	34.5	4.7
Grade 1 to 2	13.6	16.2	-2.5
Kindergarten or pre-K	12.3	5.1	7.2



TABLE A.9 (continued)

Characteristics	Nonresponders Who Were Reapproved by March 1, 2003	Nonresponders Who Were Not Reapproved by March 1, 2003	Difference
Parents' Views on Administration of School Meal Programs (Percentages)			
Believes school lunch program at child's school is well run	89.1	83.0	6.1
Believes the application process to receive free/reduced-price meals is fair	79.7	73.0	6.7
Students' Perceptions of Quality/Taste of School Meals (Percentages)			
Satisfied with amount of food in school lunches	88.9	75.9	12.9
Satisfied with quality/taste of school lunches	76.1	73.6	2.5
Number of Days per Week Usually Eats School Lunch (Self-Reported)			
0	2.0	16.4	-14.4
1	0.7	4.5	-3.9
2	4.0	6.4	-2.4
3	14.7	9.7	5.0
4	2.6	3.2	-0.6
5	76.0	59.7	16.4
Percentage of Students (Based on Self-Reported Meal Price Status)			
Free	67.7	17.7	50.0
Reduced-price	21.3	9.9	11.3
Paid	11.0	72.4	-61.4
<b>Sample Size</b>	<b>77</b>	<b>240</b>	

FPL = federal poverty level.

<sup>a</sup>The lowest income category (less than 130 percent of FPL) includes families categorically eligible for free meals (based on receipt of TANF or food stamps or foster child status), regardless of their actual income.

TABLE A.10

## TOTAL SAMPLE AND NUMBER OF COMPLETED INTERVIEWS, BY SUBGROUP AND DISTRICT

District	Nonresponders to Verification					No Change Cases				
	Total Sample	Ineligible Sample	Eligible Sample	Completed Interviews	Response Rate <sup>a</sup>	Total Sample	Ineligible Sample	Eligible Sample	Completed Interviews	Response Rate <sup>a</sup>
Anaheim Union High School CA	48	0	48	39	81.3	39	0	39	27	69.2
Anoka-Hennepin MN	32	1	31	5	16.1	37	1	36	22	61.1
Boston MA	48	1	47	35	74.5	38	0	38	32	84.2
Broken Arrow OK	8	1	7	7	100.0	23	4	19	19	100.0
Granite UT	40	1	39	32	82.1	31	1	30	24	80.0
Hacienda La Puente CA	46	1	45	32	71.1	32	1	31	27	87.1
Hampton City VA	40	4	36	28	77.8	9	0	9	7	77.8
Jordon UT	28	1	27	17	63.0	17	0	17	16	94.1
Lake County FL	47	3	44	27	61.4	38	1	37	31	83.8
Lawrence MA	51	3	48	35	72.9	32	2	30	27	90.0
Long Beach Unified CA	48	1	47	33	70.2	41	3	38	26	68.4
Minneapolis, MN	53	4	49	38	77.6	35	1	34	29	85.3
Newport News City VA	40	1	39	26	66.7	30	1	29	23	79.3
Orange County FL	48	1	47	40	85.1	39	0	39	34	87.2
Orange Unified CA	48	0	48	35	72.9	40	0	40	35	87.5
Osceola County FL	48	2	46	40	87.0	39	1	38	34	89.5
Salt Lake City UT	40	2	38	29	76.3	21	0	21	17	81.0
Seminole County FL	48	3	45	36	80.0	39	1	38	33	86.8
Tulsa OK	40	5	35	31	88.6	30	8	22	20	90.9
Virginia City Beach VA	40	2	38	26	68.4	17	0	17	16	94.1
Worcester MA	48	3	45	41	91.1	38	1	37	33	89.2
<b>Total</b>	<b>889</b>	<b>40</b>	<b>849</b>	<b>632</b>	<b>74.4</b>	<b>665</b>	<b>26</b>	<b>639</b>	<b>532</b>	<b>83.3</b>
<b>Mean</b>	<b>42.3</b>	<b>1.9</b>	<b>40.4</b>	<b>30.1</b>	<b>74.5</b>	<b>31.7</b>	<b>1.2</b>	<b>30.4</b>	<b>25.3</b>	<b>84.1</b>

<sup>a</sup>Defined as number of completed interviews divided by eligible sample.

**APPENDIX B**

**INCOME ELIGIBILITY OF NONRESPONDERS AND NO-CHANGE CASES  
FOR GROUPS OF CASE STUDY DISTRICTS**



We tabulated mean outcomes for several different groupings of SFAs in which the groups are defined by SFA characteristics, other than method of sampling. However, because random-sampling districts may differ from focused sampling districts, we also tabulate the mean percentage eligible separately for cases in random- and focused-sampling districts with a specific characteristic. The tabulation by random versus focused is not performed when any grouping contains less than three districts.

Table B.1 displays the pertinent data. Characteristics are displayed in the row heads of the table. The first three columns show the number of districts in each group defined in the corresponding row head. The second set of three columns shows for nonresponders the number of households, and the third set of three columns shows the mean percentage of eligible nonresponder households. The fourth and fifth sets of three columns show number of cases and mean percentage eligible for no-change cases.

TABLE B.1  
 INCOME ELIGIBILITY STATUS IN DISTRICTS WITH SELECTED CHARACTERISTICS  
 (Mean Percentages Across Districts)

SFA Characteristics	Households Who Failed to Respond to Verification				Households Who Had No Change Due to Verification										
	Number of Districts		Mean Percentage Eligible for Their Benefit		Number of Cases		Mean Percentage Eligible for Their Benefit								
	All	Random	All	Focused	All	Focused	All	Focused							
District Enrollment															
10,000 to 50,000	13	4	9	372	126	246	51.0	45.7	322	80	242	65.4	60.2	67.7	
>50,000	8	6	2	254	<sup>a</sup>	<sup>a</sup>	55.3	<sup>a</sup>	204	<sup>a</sup>	<sup>a</sup>	65.7	<sup>a</sup>	<sup>a</sup>	
Percentage of Students Approved for Free and Reduced-Price Meals															
≤50	12	4	8	316	111	205	57.0	52.6	293	73	220	68.8	60.6	72.9	
>50	9	6	3	310	203	107	46.8	46.8	233	154	79	61.1	61.0	61.4	
Use of Direct Certification															
Use Direct Certification	17	9	8	472	275	197	54.1	48.6	398	200	198	67.4	60.2	75.5	
Do Not Use Direct Certification	4	1	3	154	<sup>a</sup>	<sup>a</sup>	46.2	<sup>a</sup>	128	<sup>a</sup>	<sup>a</sup>	57.4	<sup>a</sup>	<sup>a</sup>	
Application Type															
Single-child	5	3	3	160	<sup>a</sup>	<sup>a</sup>	54.6	<sup>a</sup>	141	<sup>a</sup>	<sup>a</sup>	68.1	<sup>a</sup>	<sup>a</sup>	
Multichild	16	8	8	466	248	218	52.0	49.6	385	173	212	64.7	59.8	69.5	

Note: Hypothesis tests were not performed.

<sup>a</sup>The number of SFAs in either the random-sampling or focused-sampling subgroups with this characteristic is too small (less than three) to report statistics separately for those using different sampling methods.

**APPENDIX C**

**DETAILS OF THE ESTIMATE OF THE PERCENTAGE INELIGIBLE IN MARCH  
WHO HAD A CHANGE IN ELIGIBILITY FROM DECEMBER TO MARCH**





From the survey data analyzed in Chapter IV, we can draw additional insights into the reasons for differences in meal price status as determined by the SFA and from the survey. To estimate the proportion of cases ineligible according to the survey that were eligible when the SFA determined their eligibility but became ineligible by the time of the survey, as well as the proportion who were ineligible at both points, we can compare the percentage of cases ineligible for the benefits for which they were approved among (1) households who failed to respond to verification requests but were subsequently reapproved for benefits, and (2) households that had no change in benefits due to verification.

One potentially important source of difference between information reported on an application and information provided as part of the NSLP verification process is that the family's circumstances changed between the time of application and the time of verification. Applications for free and reduced-price meals are typically submitted at the beginning of the school year, but the SFA does not request documentation until the verification process is conducted later in the fall. In the intervening months, family members may have entered or left the household, and employment patterns or income from other sources may have changed. Although program rules require that families report increases in their household income of \$50 per month or more, anecdotal information suggests families rarely report any changes.

Changing family circumstances and the exact period to which information applies are also likely to play a role in explaining differences between meal price status as determined by the SFA and meal price eligibility status as determined through the study interviews. Here, we use results from Chapter IV and Chapter VI to estimate how much changes in household circumstances may contribute to the finding that some children are certified for a greater level of benefits than the survey indicates they are eligible to receive. For cases that had no change in certification status, survey data collection occurred approximately 10 weeks after the SFA had

determined eligibility at verification. However, survey data collection and the SFA’s eligibility determination occurred at approximately the same time for nonrespondent cases that reapplied for benefits. These differences in timing of data provided to SFAs relative to the study survey allow us to estimate what proportion of ineligibility observed among the sample of no-change cases (reported in Chapter IV) might have been due to changes in their circumstances between the time of reapplication and the time of the survey.

The interior cells of Figure C.1 show the possible eligibility statuses in December and March of those cases who had no change in their meal price status as a result of verification. Eligibility status as of March 15, 2003, is the eligibility status found in the Case Study survey. Eligibility status as of December 15, 2002, is the eligibility status that would have been found if the survey had been conducted at that point in time.

FIGURE C.1

ELIGIBILITY STATUS AT TWO POINTS IN TIME OF CASES WITH NO CHANGE  
DUE TO VERIFICATION  
(Includes Cases Approved for Benefits in December 2002)

Actual Eligibility Status as of March 15, 2003	Actual Eligibility Status as of December 15, 2002		
	Yes	No	Total
Yes	Group 1	Group 2	Group 1+2
No	Group 3	Group 4	Group 3+4
Total	Group 1+3	Group 2+4	Group 1+2+3+4

- Group 1 was approved by the SFA in December and eligible according to the survey in both December and March.
- Group 2 was approved in December and not eligible at that time but had a change in circumstances that made the household eligible in March.
- Group 3 was approved in December and eligible in December but had a change in circumstances that made the households ineligible in March.

- Group 4 was approved in December and not eligible in December and not eligible in March.

From the interviews with no-change cases, we estimate that 35 percent of these cases were not eligible in March for the benefits they were approved to receive at the time of verification prior to December 15. However, we do not know what proportion of this ineligible group was eligible in December but had a change in income by the time of the survey (Group 3) and what portion was also ineligible in December (Group 4). To assess whether the verification process correctly determines eligibility status, we need to estimate Group 4—the proportion of no-change cases approved by the SFA that were not eligible in December and not eligible in March.

Our approach to forming an estimate of Group 4 uses survey-based estimates of the row and column totals, in conjunction with *an assumption* about one of the interior cells, to estimate the other three interior cells. From Table IV.2, we estimate that the total for Group 1+2 is .66 and the total for Group 3+4 is .34. We use the estimate of the percentage of reapplicants in the nonresponder group who were eligible and ineligible for their benefits—78 percent and 22 percent, respectively (Table VI.1)—as an estimate of the Group 1+3 and Group 2+4 totals in Figure C.2.

While this measure is not ideal, we believe it provides a reasonable proxy, for two reasons. First, SFA staff were supposed to follow the same procedures in conducting verification and in processing the reapplications submitted after nonresponse to verification: all families were required to provide documentation of each source of income of each adult in the household. Second, the study's questions and the income verification documents received by SFA staff covered nearly the same period for this group. Survey interviews were conducted in February and March, and households were asked to report about income in January or February. The verification documents received by SFA staff during the January to February period when

FIGURE C.2

ELIGIBILITY STATUS AT TWO POINTS IN TIME OF CASES WITH NO CHANGE  
DUE TO VERIFICATION ASSUMING NO CASES APPROVED IN DECEMBER  
CHANGED FROM INELIGIBLE TO ELIGIBLE  
(Includes Cases Approved for Benefits in December 2002)

Actual Eligibility Status as of March 15, 2003	Actual Eligibility Status as of December 15, 2002		
	Yes	No	Total
Yes	.66	.0	.66
No	.12	.22	.34
Total	.78	.22	

nonresponders were reapplying would most likely have provided data on the period December to February. Thus, the period covered by the survey and the period covered by the verification documents were very close to the same.<sup>1</sup> A significant limitation of using the information on nonresponders who reapplied as a proxy for information on cases who responded initially and had no change in benefits is that the two groups could have a different likelihood of reporting accurately on the study survey and/or a different likelihood of providing complete, accurate documentation of their income to the SFA. Our analysis makes the untestable assumption that no such differences exist.

Finally, to identify the proportion in Group 4, we need information on one of the internal cells of Figure C.2. We can place an upper and lower bound on the proportion in Group 4 by assuming that (1) all cases in the Group 2+4 total are in Group 4 and none are in Group 2, and (2) all cases in the Group 2+4 total are in Group 2 and none are in Group 4. This gives an upper-

<sup>1</sup> In contrast, documents used by the SFAs for verification would have pertained to the period October to November, and so the information from the survey and the verification process was not contemporaneous.

bound estimate of Group 4 of 34 percent and a lower-bound estimate of Group 4 of 22 percent. If 22 percent of 34 percent were ineligible at both points, this implies that 65 percent of cases found ineligible in March were also ineligible in December, and 35 percent of those found ineligible in March had a change in circumstance between verification and the interview. Accordingly, 35 percent is a lower bound on the percentage of those ineligible who are ineligible due to a change in circumstance.

We believe that a reasonable assumption is that the proportion of all cases in Group 2 is small or close to zero. If 5 percent are in Group 2, then 17 percent are in Group 4. This reasoning suggests that, of the 34 percent of no-change cases observed to be ineligible at the time of the interview, between 50 and 60 percent were also ineligible at the time of verification, and between 40 and 50 percent were eligible at the time of verification and became ineligible between the point of verification and the survey interview.

