IV. ESTIMATED INELIGIBILITY AMONG CERTIFIED STUDENTS

As described in Chapter I, there has been much concern recently about the integrity of the NSLP free and reduced-price eligibility determination system due to the perception that a substantial proportion of certified students are ineligible for free or reduced-price meals. However, the evidence as to the dimensions of this problem is incomplete. Much of this evidence has focused on individual school districts or States, and thus does not reveal much about the extent of the problem nationally. The other approach taken to examine this issue has relied on nationally representative data that were collected for purposes other than examining the issue of certification errors and is limited in a number of respects.[36] Furthermore, the previous studies focusing on the issue of overcertification, or certification errors, have not examined the role of direct certification in program integrity.

The Direct Certification Study provides an opportunity to examine the extent to which the NSLP free and reduced-price eligibility determination system provides benefits to intended recipients rather than to ineligible students. The study's SFA survey collected information from districts on the results of their verification process, which sheds light on the extent to which students approved for free or reduced-price meals by application have incomes that qualify them for these benefits. Verification results, however, yield no information on the extent to which directly certified students are ineligible for the benefits they are receiving at a given point during

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[36]For this analysis, Tordella (2001) relied on data from the Current Population Survey (CPS). The income information in CPS covers a different time period than that used to determine students' eligibility for free and reduced-price meals. In particular, the CPS analysis based its determination of free/reduced-price eligibility on household income during the full 1999 calendar year. The number of children thus determined to be eligible was then compared to the number approved for free meals as of October 1998. For these approved students, however, their actual eligibility was determined based on household income as of July, August, or September 1998.

the school year. Thus, to address this issue, we collected supplemental data from State food stamp and/or TANF offices.

This chapter describes the study's estimates of the extent to which free and reduced-price certified students are ineligible for the benefits they are receiving. Section A presents background on ineligibility measurement and the estimates we employed. Section B describes the characteristics and results of districts' income verification process, including a discussion of the benefit reduction/termination rate and other estimates of ineligibility among this group. Section C examines directly certified students, presenting an estimate of the proportion of this group ineligible for the benefits they are receiving. And, Section D presents overall estimates of ineligibility among students certified for free or reduced-price meals through applications and students certified for free meals through direct certification.

A. Ineligibility Measurement

We take two alternative perspectives in examining eligibility versus ineligibility for free or reduced-price meal benefits, both of which exclude Provision 2 and 3 schools. One perspective focuses on the administrative rules for eligibility. Under this perspective, students' eligibility status is determined by whether they comply with program rules, regardless of their underlying household circumstances. Thus, students whose incomes are 130 percent or less of poverty may still be *administratively ineligible* for free meal benefits if they have not complied with program rules—for example, by not providing documentation of their eligibility in response to a verification request.

An alternative perspective on eligibility focuses on whether household circumstances are consistent with eligibility guidelines, regardless of compliance with program rules. In this perspective, households are considered *income eligible* for free meals if current income is 130

percent or less of poverty or if they receive FS/TANF/FDPIR.[37]   This perspective ignores whether households have fully complied with program rules, such as verification requests or reporting changes in FS/TANF/FDPIR status.

A further complication with respect to assessing ineligibility is that it is necessary to rely on different sources of information and methods for estimating ineligibility among different groups of certified students. Information on the eligibility of students certified by application is most readily available from the results of districts' verification process. The verification system does not cover directly certified students, so information on their eligibility comes from State administrative data. And to assess ineligibility among *all* certified students, we must find some way of combining the information we have gathered on each of the groups of students described above. Thus, we ended up generating three sets of estimates of ineligibility among certified students: (1) ineligibility among students certified by application, (2) ineligibility among directly certified students, and (3) ineligibility among all students certified for free or reduced-price meals.

1.   Ineligibility Among Students Certified by Application

To estimate the proportion of students certified by application who are ineligible for the benefits they are receiving, we relied primarily on the results of the verification process as reported by districts on the SFA survey. Based on this information, we generated three estimates of the prevalence of errors among students certified by application: (1) the proportion of verified applications in which benefits were reduced or terminated, also known as the benefit reduction/termination rate; (2) the proportion of verified students who responded to the

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[37]This concept of eligibility is referred to as income eligibility for simplicity, even though it can be determined by FS/TANF/FDPIR status rather than by income.

verification request and who were found to be ineligible (and had their benefits reduced or terminated as a result) based on the documentation they provided; and (3) the proportion of students whose benefits were reduced or terminated and who did not subsequently reapply and be approved for benefits.

The benefit reduction/termination rate captures the extent to which students certified by application are ineligible for benefits on the basis of not complying with program rules—they either did not provide documentation in response to the verification request or they provided documentation showing that they did not qualify for benefits. In other words, the rate is an estimate of the proportion of students certified by application who are administratively ineligible for benefits. Although some of these students may have household incomes that qualify them for benefits, it is appropriate to consider them to be administratively ineligible for benefits because they have not done what is necessary according to program rules to maintain eligibility.

The other two estimates address ineligibility of students certified by application from the perspective of their actual household circumstances; that is, these estimates address income ineligibility. The proportion of verified students who respond to the verification request and have their benefits terminated is an estimate of the proportion who we are fairly certain (based on the results of verification) have incomes above income eligibility thresholds and who are not receiving FS/TANF/FDPIR. This is a very conservative estimate, or a lower bound estimate, of the proportion of students certified by application who are income ineligible for benefits because it assumes that those who did not respond to the verification request are income eligible for benefits. In fact, nonresponders may or may not be income eligible for benefits. We have little

information on what proportion of nonresponders are income eligible.[38] One piece of information we have, however, is an estimate of the proportion of nonresponders who reapply and are approved for benefits. This information was provided by food service directors on the SFA survey. We used the information to estimate the proportion of verification cases in which the households either provided documentation that showed them to be income ineligible or did not provide documentation and subsequently failed to reapply and be certified for benefits. We consider this proportion to be an upper bound estimate of the proportion of students certified by application who are income ineligible, since we believe that nonresponders who reapply and are approved for benefits are truly income eligible but we are not certain about the eligibility status of nonresponders who do not reapply for benefits.

Each of the estimates of ineligibility among students certified by application relied on the results of verification. One limitation of this methodology is that the verification system was not designed to *measure* eligibility among students certified by application. Instead, it was designed to detect ineligibility among currently certified students and to deter ineligible students from becoming certified. Because of this objective, rules permit districts to select a random sample or a focused sample for verification. While the basic goal of random sampling is to select a simple random sample, the actual methods used in practice may deviate significantly from that goal. Despite these deviations from scientific practice it is quite likely that the results of random selection across the many districts nationwide result in samples that are reasonably representative

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[38]An FNS study conducted by Abt Associates during the 1986-87 school year provides some insight about ineligibility among families that do not respond to the verification request (USDA 1990). In that study, 10 percent of those selected for verification did not respond. Household audits of these nonresponders found that 67 percent remained income eligible for the benefits they were approved for; 18.7 percent were income ineligible for NSLP benefits; and 14.3 percent were eligible only for reduced-price meals even though they had been certified for free meals. The districts from which these estimates were computed all used random sampling to conduct verification. This study was conducted before direct certification was available to districts.

of the underlying population of applications. [39]   Subject to these limitations, verification results from random samples can be generalized to all students certified by application. With focused samples, however, the underlying population to which the verification sample generalizes is not clear. Our approach to dealing with this aspect of the verification system is that after initially presenting verification results among all districts, we limit the remainder of the analysis to districts that selected random verification samples. This allows results to be generalized to students certified by application in those districts. But those districts may be different from districts that selected focused verification samples; thus, the results are not representative of verification results among students certified by application in all public school districts.

In interpreting the results of our analysis of verification data it is important to consider the possible sources of inaccuracy identified through the current verification process. These include:

- Intentional misreporting of circumstances at the time of application

- Inadvertent misreporting of circumstances at the time of application

- Unreported changes in household circumstances between application and the point at which verification is conducted

- SFA errors in processing information provided by household

All of these sources contribute in unknown degrees to the differences found between applications certified in late summer or fall of the school year and family income status or qualifying assistance program participation at verification in December of each school year.

Another feature of the verification system is that it does not cover directly certified students. The exclusion of directly certified results complicates the interpretation of verification results.

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[39] According to the 1986-87 Study of Income Verification, over half of all districts used some sort of quasi-random procedure to select applications for verification. However, that study noted that "for the purpose of selecting applications for verification, it is likely that such methods provide an adequate substitute for a truly random selection procedure."

Although verification results provide information on ineligibility among students certified by application, the measures of ineligibility among this group will have different interpretations, depending upon what proportion of certified students in the district became certified by application. In a district that does not use direct certification (and is not a Provision 2 or 3 school), all students who are certified completed an application, and so verification results can be generalized to all certified students. On the other hand, in a district in which a large number of students are directly certified, the verification pool does not contain all certified students, and students in the verification pool may have a different underlying likelihood of being ineligible than directly certified students. In this situation, the verification results will not be a very good guide to the overall level of ineligibility among all certified students. Thus, we need to be particularly careful in interpreting differences in the verification results of districts that do and do not use direct certification (or in which different proportions of students are directly certified), since such differences may arise even if the overall levels of ineligibility among all certified students are similar in the two types of districts.

Despite these limitations, the verification system provides a great deal of useful evidence on the levels of ineligibility among certified students. Verification is required in all NSLP districts, and most districts select random verification samples. Furthermore, most certified students are certified by application rather than being directly certified; therefore, most are covered by the verification system. Finally, while verification results alone should not be used to estimate levels of ineligibility among all certified students, they can be combined with estimates of ineligibility among directly certified students to generate estimates of overall ineligibility.

2. Ineligibility Among Directly Certified Students

To estimate ineligibility among directly certified students, we developed an approach analogous to the verification process, in that we examined the status of directly certified students as of December of the school year.[40] Conceptually, the idea was to estimate the proportion of students directly certified at the beginning of the school year who were not eligible for benefits in December. We again used two perspectives of ineligibility. Directly certified students were defined as administratively ineligible if they were no longer receiving FS/TANF/FDPIR as of December and yet remained directly certified because they did not report their change in status to the SFA. These students, or their districts, had not complied with program rules in the sense that either they had not reported their change in FS/TANF/FDPIR status to the district or, if they had, the district had not acted on this information. According to program rules, directly certified students who exit FS/TANF/FDPIR are to report this information to the district. If the student remains income eligible for free meals, he or she can complete an application at that time and remain eligible. If the student is no longer income eligible, program rules require that benefits be terminated.

We measured the proportion of directly certified students administratively ineligible for benefits by estimating an FS/TANF/FDPIR turnover rate among directly certified students. Conceptually, this turnover rate was defined as the proportion of directly certified students at the beginning of the 2001-2002 school year who were no longer receiving FS/TANF/FDPIR as of December 2001. The turnover rate was estimated using State administrative data. In particular, for the zip code areas of schools located in each of the direct certification districts in the SFA survey, we used the data to first identify each school-age child receiving FS/TANF during

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[40]For more information on ineligibility among directly certified students, see Appendix D.

summer 2001, when students potentially eligible for direct certification for the 2001-2002 school year were identified by districts and/or States. We then examined the December 2001 FS/TANF status of each of these children to measure the turnover rate—the proportion of the directly certified group who were no longer receiving assistance as of December.[41]

Some of the administratively ineligible, directly certified students may have retained their income eligibility for free meal benefits.[42] Thus, we also estimated a second measure of ineligibility, the proportion of directly certified students no longer on FS/TANF/FDPIR and in households with incomes above 130 percent of poverty. To calculate this estimate of income ineligibility among directly certified students, we adjusted the FS/TANF turnover rate to account for households that may have left FS/TANF but remained eligible for free meals on the basis of their income. We first used information from the 1996 panel of the Survey of Income and Program Participation (SIPP) to identify school-age children who were FS/TANF leavers between summer 1999 and December 1999. Among this group, we then calculated the adjustment factor—the proportion of leavers whose December income was above 130 percent of Federal poverty guidelines. This adjustment factor was multiplied by the FS/TANF turnover rate in each sample district to generate the estimate of the proportion of directly certified students who are income ineligible for benefits. For example, if the proportion of leavers with incomes above 130 percent of poverty turned out to be 40 percent and the FS/TANF turnover rate in a given district was 25 percent, then the estimate of the proportion income ineligible in that district would be 10 percent.

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[41]One weakness of this approach was that not all students who received FS/TANF in summer 2001 were necessarily directly certified.

[42]For example, studies of both TANF leavers (Rangarajan and Wood 1999; Kuhns et al. 1999) and food stamp leavers (Rangarajan and Gleason 2000) have found that a substantial fraction of leavers remain poor even after exiting these programs.

3. Ineligibility Among All Certified Students

Finally, we took the critical step of combining the estimates of ineligibility among students certified by application and students directly certified. We did this both for the estimates of administrative ineligibility and income ineligibility. These combined estimates of ineligibility among all certified students are used in the next chapter in estimating the effects of direct certification on program integrity.

The estimate of the proportion of all certified students ineligible for the benefits they are receiving was calculated as a weighted sum of the rate of ineligibility among students certified by application and the rate of ineligibility among students directly certified. The weights in this calculation were set to the percentage of certified students who were certified by application and the percentage directly certified. For example, if 30 percent of certified students were directly certified in a district, the rate of ineligibility among all certified students would be set to 0.70 times the rate among those certified by application times 0.30 times the rate among directly certified students. For districts not using direct certification, 0 percent of students were directly certified, so the estimate of the proportion of all certified students ineligible for benefits was determined entirely by the proportion ineligible among students certified by application.

As noted above, we generated separate estimates of the proportion of all certified students administratively ineligible and the proportion income ineligible. In particular, the proportion administratively ineligible was based on the benefit reduction/termination rate among students certified by application and the FS/TANF turnover rate among directly certified students. Correspondingly, the upper bound estimate of the proportion income ineligible was based on the proportion of verified students whose benefits were reduced or terminated and who did not reapply for benefits among students certified by application and on the proportion of directly

certified students who exited FS/TANF and were in households with incomes above 130 percent of poverty.

B. THE VERIFICATION PROCESS AND RESULTS

1. The Income Verification Process

Three dimensions of the income verification process described above involve its timing, the type of verification sample the district selects, and the size of this verification sample. With respect to the timing of income verification, districts are required to complete the process by December 15. They may select either a random or a focused verification sample, or they may verify all approved applications. The sample must be above a minimum size, which depends upon whether they have selected a random or focused sample. Districts selecting a random sample must verify at least 3 percent of all approved applications (or 3,000 applications, if that is smaller than 3 percent). Districts selecting a focused sample must verify at least 1 percent of all approved applications (or 1,000 applications, if that is smaller), plus 0.5 percent of applications approved on the basis of a FS/TANF/FDPIR case number (or 500 such applications, if that is smaller). The 1 percent portion of this focused sample must be selected from among those approved on the basis of household size and income and that report a monthly household income within $100 (or within $1,200 if they report annual income) of the income eligibility guideline for their household.

Most districts conduct the verification process during the late fall and complete it by December. According to the SFA survey, a majority of districts—60 percent—completed the process in December, while most of the remaining districts completed it earlier (Table III.1). Only 5 percent of all districts completed the verification process after December, presumably including some that had obtained waivers extending this deadline.

Nearly 9 of 10 districts chose to verify a random sample of applications, rather than a focused sample or some other type of sample (Table IV.1).[43] Direct certification districts were more likely than non-direct certification districts to verify a focused sample and less likely to verify a random sample.

Most districts verify few applications as part of the income verification process during a given year. During the 2001-2002 school year, 60 percent of districts reported that they verified no more than 10 applications, while nearly 80 percent verified no more than 25 applications (Table IV.1); the median number of applications verified across all districts was 7. At the other end of the spectrum, a handful of districts verified a large numbers of applications—5 percent verified more than 100 during the 2001-2002 school year.

The small number of applications verified by most districts is not all that surprising, given that most districts are relatively small and are required to verify at most 3 percent of approved applications.[44] It appears, however, that a few districts did not verify the required number of applications during the 2001-2002 school year. In particular, 21 percent of districts verified less than 3 percent of their approved applications (Table IV.1). There are two legitimate reasons for verifying less than 3 percent. First, districts using focused sampling have lower requirements for the number of applications to be verified. Second, very large districts may verify only 3,000 applications, even if this number represents fewer than 3 percent of all approved applications. However, only 12 percent of districts use focused sampling and less than 1 percent of districts

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[43]Most of the 2 percent of districts that used some other type of verification sample reported that they verified all approved applications.

[44]See Appendix Table C.1 for information on the distribution of enrollment among public school districts offering the NSLP nationally.

Table IV.1
CHARACTERISTICS OF VERIFICATION IN PUBLIC SCHOOL DISTRICTS NATIONALLY
(Standard Errors in Parentheses)

	DC Districts	Non-DC Districts	All Districts
Month Verification Process Completed (Percentages)			
October or earlier	14 (2.0)	22 (3.1)	18 (1.8)
November	19 (1.9)	16 (2.2)	18 (1.4)
December	63 (2.5)	57 (3.3)	60 (2.0)
January or later	4 (0.9)	6 (1.3)	5 (0.8)
Method of Selecting Verification Sample (Percentages) **			
Random	85 (1.5)	90 (1.8)	87 (1.2)
Focused	14 (1.4)	8 (1.7)	12 (1.1)
Other	1 (0.5)	2 (0.7)	2 (0.5)
Number of Applications Verified (Percentages) **			
1 to 10	64 (2.1)	55 (3.2)	60 (1.8)
11 to 25	16 (1.5)	24 (2.3)	19 (1.3)
26 to 100	15 (1.3)	17 (2.2)	16 (1.2)
More than 100	4 (0.5)	5 (1.0)	5 (0.5)
Median	5.9 (0.7)	8.3 (1.3)	6.6 (0.5)
Percentage of Applications Verified (Percentages) ***			
1 to 2 percent	25 (2.0)	16 (2.0)	21 (1.4)
3 percent	30 (2.1)	36 (3.0)	32 (1.7)
4 to 5 percent	29 (2.6)	27 (3.2)	28 (2.0)
6 to 10 percent	14 (2.1)	15 (2.6)	14 (1.7)
11 to 100 percent	2 (0.8)	6 (2.0)	4 (1.0)
Mean	5.0* (0.5)	8.1 (1.6)	6.8 (0.8)
Sample Size	**764**	**404**	**1,172**

*DC/Non-DC difference is significantly different from zero at the .10 level, two-tailed test
**DC/Non-DC difference is significantly different from zero at the .05 level, two-tailed test.
***DC/Non-DC difference is significantly different from zero at the .01 level, two-tailed test.

are so large that they are required to verify fewer than 3,000 applications. Thus, a minimum of 8 percent of districts fail to verify the required number of applications.

Direct certification districts tend to verify fewer applications than non-direct certification ones, in both absolute and percentage terms. For example, 64 percent of direct certification districts verified no more than 10 applications in the 2001-2002 school year, compared with 54 percent of non-direct-certification districts (Table IV.1). Similarly, 24 percent of direct certification districts verified fewer than 3 percent of approved applications, compared with 15 percent of non-direct-certification districts. One reason for the difference in the number of applications verified is that, since directly certified students do not complete an application, direct certification districts have fewer applications for the same number of certified students. In addition, direct certification districts are more likely to use focused sampling, which also requires fewer applications to be verified.

2. Results of Income Verification

In the average public school district nationally during the 2001-2002 school year, verification resulted in no change in benefits for just over two-thirds of households whose applications were verified (69 percent) and resulted in an increase in benefits (from reduced-price to free) for 2 percent of households (Table IV.2). The remaining 29 percent of households whose applications were verified had their benefits reduced or terminated, including 23 percent whose benefits were terminated and 6 percent whose benefits were reduced.[45]

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[45]Among those whose benefits were terminated, about 6 in 10 moved from free certification to paid status, and the remaining 4 in 10 moved from reduced-price certification to paid status.

TABLE IV.2
RESULTS OF DISTRICTS' VERIFICATION PROCESS
(Standard Errors in Parentheses)

	DC Districts	Non-DC Districts	All Districts
Verification Results (Means)			
No change in benefits	67	70	69
	(1.6)	(2.0)	(1.3)
Benefits increased	2	3	2
	(0.4)	(0.7)	(0.4)
Benefits reduced	5	7	6
	(0.5)	(1.2)	(0.5)
Benefits terminated	25**	20	23
	(1.4)	(1.5)	(1.1)
Among Districts Using Random Sampling (Means)			
No change in benefits	70	71	71
	(1.7)	(2.2)	(1.3)
Benefits increased	3	3	3
	(0.4)	(0.8)	(0.4)
Benefits reduced	4**	7	5
	(0.4)	(1.4)	(0.6)
Benefits terminated	23*	19	22
	(1.6)	(1.6)	(1.2)
Among Districts Using Focused Sampling (Means)			
No change in benefits	49	59	52
	(4.0)	(8.6)	(3.9)
Benefits increased	2	1	2
	(0.5)	(0.6)	(0.4)
Benefits reduced	13*	8	11
	(1.9)	(1.9)	(1.5)
Benefits terminated	37	32	35
	(3.2)	(6.6)	(3.0)
Benefit Reduction/Termination Rate (Percentages)			
0	33	34	34
	(2.7)	(3.4)	(2.1)
1 to 20	10	14	12
	(1.7)	(2.0)	(1.3)
21 to 40	23	22	22
	(1.9)	(2.4)	(1.5)
41 to 60	18	18	18
	(1.7)	(2.2)	(1.3)
61 to 100	16	12	15
	(1.7)	(2.0)	(1.3)

Table IV.2 *(Continued)*

	DC Districts	Non-DC Districts	All Districts
Mean	30.2	27.1	28.8
	(1.6)	(1.9)	(1.2)
Reason for Benefit Reduction/Termination (Means)			
Percentage because of nonresponse	59*	49	56
	(2.5)	(3.0)	(1.9)
Percentage with income too high	38**	45	40
	(2.5)	(3.1)	(2.0)
Percentage with other reason	3	6	4
	(0.9)	(1.7)	(0.8)
Among Districts Using Random Sampling or Verifying All Approved Applications (Means)			
Mean benefit reduction/termination rate	27.3	25.9	26.6
	(1.7)	(2.0)	(1.3)
Percentage with benefits reduced or terminated because of nonresponse	60**	48	55
	(2.9)	(3.2)	(2.2)
Percentage with benefits reduced or terminated because income too high	37**	46	40
	(3.0)	(3.3)	(2.2)
Percentage with benefits reduced or terminated for other reason	3	6	4
	(1.0)	(1.8)	(1.0)
Sample Size (for Verification Results)	**715**	**376**	**1,093**
Sample Size (for Reason for Benefit Reduction/Termination)	**568**	**286**	**854**

Source: 2001 Direct Certification Study SFA Survey.

*DC/Non-DC difference is significantly different from zero at the .10 level, two-tailed test
**DC/Non-DC difference is significantly different from zero at the .05 level, two-tailed test.
***DC/Non-DC difference is significantly different from zero at the .01 level, two-tailed test.

We also examined the results of the verification process separately for districts that used random sampling versus those that used focused sampling. Since focused sampling largely involves applications of households whose reported incomes are close to the eligibility thresholds, a larger proportion may have their benefits changed, since minor variations in income could result in a change in eligibility status.

The results of income verification differed significantly for districts using random sampling versus focused sampling. Districts using focused sampling terminated the benefits of an average of 35 percent of households whose applications were selected for verification, compared with 22 percent among districts using random sampling (Table IV.2). Similarly, benefits were reduced for 11 percent of households in focused sampling districts, and just 5 percent of households in random sampling districts. It is important to keep in mind, however, that 87 percent of districts used random sampling, while only 12 percent used focused sampling. Thus, random sampling districts dominate the verification results reported here for all school districts.

The percentage of applications in a district's verification sample whose benefits are reduced or terminated is referred to as the benefit reduction/termination rate.[46] The mean benefit reduction/termination rate across all districts was 29 percent during the 2001-2002 school year (Table IV.2). In districts that used random sampling, this rate was 27 percent.[47] The benefit

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[46]Sometimes this percentage is called the "verification error rate." The verification error rate could also be defined to include the applications with benefits increased as a result of verification, though this group is small.

[47]Throughout the remainder of the analysis, we use the benefit reduction/termination rate as a measure of the percentage of students certified by application who are administratively ineligible, even though the benefit reduction/termination rate is based on an analysis of applications rather than students. In districts that use multi-child applications, this could be misleading if families with multiple children are systematically more (or less) likely to have their benefits reduced or terminated. However, this potential problem is unlikely to strongly affect our results for two reasons. First, a relatively small proportion of districts uses multi-child applications (21 percent). Second, the benefit reduction/termination rate in districts that use single child applications (25.4 percent) is close to the rate among all districts (26.6 percent).

reduction/termination rate varied widely across districts. In about one-third of the districts, the benefit reduction/termination rate was zero, since no households had their benefits reduced or terminated as a result of the verification process. On the other hand, a third of all districts had benefit reduction/termination rates of more than 40 percent, and 15 percent of districts had rates exceeding 60 percent. Much of this variation across districts in the benefit reduction/termination rate reflects sampling variability rather than variation across districts in the underlying levels of ineligibility, since the rate in each districts is based on often extremely small verification samples.

The final aspect of the income verification results we examined involves the reasons that benefits were reduced or terminated by districts. Benefits may be reduced or terminated through the verification process for one of two main reasons. First, households that provide documentation showing that their income is higher than the income threshold for their current level of certification have their benefits either reduced or terminated. For example, a household receiving free meal benefits whose applications is verified may produce income documentation showing that their income is above 130 percent of Federal poverty guidelines. The benefits of this household would be reduced if this documented income were between 131 and 185 percent of poverty, and would be terminated if the household's documented income were greater than 185 percent of poverty. Second, households that do not respond to the request for income documentation or that do not provide sufficient documentation within a reasonable period of time of the verification request would have their benefits terminated.

In the average district during the 2001-2002 school year, the reason for benefit reduction/termination was nonresponse to the request for documentation in more than half (56 percent) of all cases in which benefits were reduced or terminated (Table IV.2). In most of the remaining cases, benefits were reduced or terminated because the documentation provided

indicated that the household's income level (along with household size) made the household ineligible for the benefits they were receiving.

Among cases in which benefits were reduced or terminated due to nonresponse, households may have failed to respond for a variety of reasons. Some households may not have responded to the request for documentation because they realized that they were no longer eligible for the benefits they were receiving. Other nonresponding households, however, may have forgotten about the documentation request, not gotten around to complying with it, lost the information needed to comply with the request, or decided that it was too intrusive or too much work. Households not responding to the verification request for these reasons may or may not have had income or FS/TANF status that qualified them for the benefits they were receiving at the time these benefits were terminated: the true income eligibility status of these households is unknown. As part of the SFA survey, food service directors were asked to estimate the proportion of the households whose benefits were terminated due to nonresponse who subsequently reapplied and were approved for benefits. On average, districts reported that 35 percent of these nonresponders reapplied and were approved for benefits. This estimate gives us a rough sense of the extent to which those who did not respond to the verification request actually were eligible for benefits at the time their benefits were terminated.[48]

3. Alternative Estimates of Ineligibility Among Students Certified by Application

We examined rates of ineligibility from two perspectives—that of the typical district and that of certified students, regardless of which district they attended. The estimated ineligibility

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[48]Actually, the proportion of nonresponders who were eligible is probably somewhat higher than this, since some nonresponders may have been eligible for benefits even if they did not subsequently reapply. As noted previously, the 1986-1987 Study of Income Verification found that two-thirds of those whose benefits were terminated due to non-response were eligible for either their current level of benefits or a higher level of benefits.

rates turned out to be very different for the two perspectives, since the results of verification differed greatly in large districts (affecting large numbers of students) than in small districts (affecting fewer students).

Figure IV.1 summarizes our estimates of the rates at which students certified by application are ineligible for benefits, from both perspectives. With these and all subsequent estimates of ineligibility rates based on verification results, we excluded districts that selected focused verification samples.[49] At both the district level and the certified student level, three estimates are provided. The first estimate shows the benefit reduction/termination rate, which captures administrative ineligibility among students certified by application and subject to verification. As described above, this estimate of the benefit reduction/termination rate during the 2001-2002 school year was 27 percent in the average district that used random sampling.

The other two estimates shown in Figure IV.1 are intended to capture income ineligibility. The second estimate, labeled "Lower Bound," shows the percentage of verified applications in which the household provided documentation showing that they were not eligible for the benefits they were receiving. These households responded to the verification request and had their benefits reduced or terminated anyway on the basis of the information they provided. In this definition, households that did not respond to the verification request were not considered ineligible, despite the fact that their benefits were terminated. As such, it should be considered as a lower bound on the rate of income ineligibility among students certified by application. In

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[49]We excluded focused sampling districts because we wanted the verification results for a given district to be representative of all students certified by application in that district. Randomly selected verification samples are representative of this population, whereas focused samples are not. We also included districts that verified all approved applications in the sample used to estimate rates of ineligibility based on verification results. One limitation of excluding focused sampling districts is that the estimates are no longer representative of all public school districts that offer NSLP lunches, just those that decided not to select a focused verification sample.

Figure IV.1
Alternative Estimates of Ineligibility Among Students Certified by Application

(Standard Errors in Parentheses)
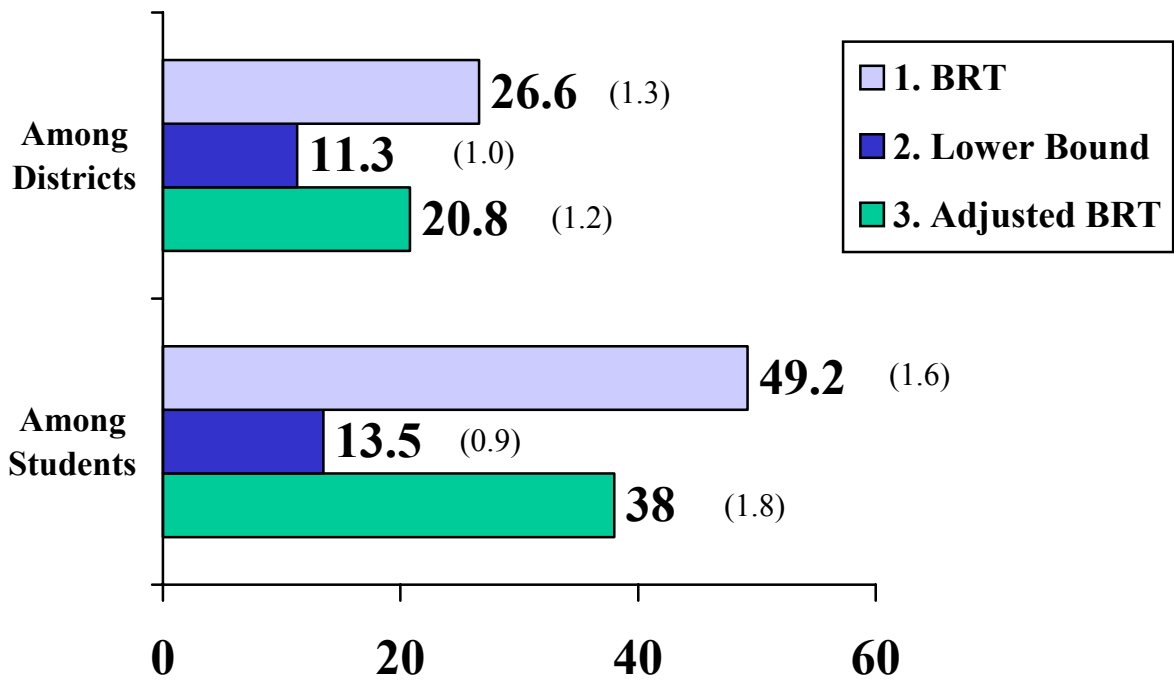
BRT = Benefit reduction/termination rate
Lower Bound = Percentage who responded to verification request and had benefits reduced or terminated
Adjusted BRT = Percentage who had benefits reduced/terminated and did not reapply for benefits

NOTE: Sample excludes only districts that selected focused verification samples. The sample size is 863.

the average district during 2001-2002, this lower bound was 11 percent. In other words, 11 percent of verified households responded to the verification request but still were found to be in error and had their benefits reduced or terminated.

The third estimate of ineligibility, labeled "Adjusted BRT," uses the information provided by districts on the proportion of nonresponders who reapplied and were approved for benefits to adjust the benefit reduction/termination rate. This estimate is calculated as the percentage of verified applications in which either (1) the household responded to the verification request and were found to be ineligible for the benefits they were receiving; or (2) the household did not respond to the verification request, had their benefits terminated, and did not reapply for benefits. In the average district, this estimate of ineligibility was 21 percent during the 2001-2002 school year. This estimate of income ineligibility is an upper bound, since households that did not reapply for benefits may or may not have been income eligible.

Estimates of rates of ineligibility look quite different when measured across all certified students, rather than for the average district. In fact, certified students whose applications were verified were nearly as likely to have their benefits reduced or terminated as they were to have their benefits increased or not changed as a result of verification. In other words, the estimated benefit reduction/termination rate (that is, the estimated rate of administrative ineligibility) among certified students subject to verification was 49 percent (Figure IV.1). The reason this estimate differs so much from the estimate of the benefit reduction/termination rate in the average district is that the student-level estimate is driven largely by what happens in the largest districts, and these large districts tend to have the highest benefit reduction/termination rates.

In these largest districts, however, many of those whose benefits were reduced or terminated failed to respond to the verification request. Thus, the estimate of the lower bound of the percentage of students certified by application who are income ineligible, which assumes that

these nonresponders were not ineligible, was much lower than the benefit reduction/termination rate. This lower-bound estimate was 14 percent during the 2001-2002 school year—that is, 14 percent of certified students whose applications were verified responded to the verification request and had their benefits reduced or terminated (Figure IV.1). Finally, the adjusted benefit reduction/termination rate, the upper bound estimate that takes into account whether nonresponders reapplied and were approved for benefits, was 38 percent. This estimate is based on the percentage of students whose benefits were reduced or terminated as a result of verification and those who subsequently failed to reapply for benefits.

Verification results appear not to be strongly correlated with whether or not districts use direct certification, despite the fact that verification excludes directly certified students. The benefit reduction/termination rate was 27 percent in the average direct certification district and 26 percent in the average non-direct certification district, and this difference was not statistically significant (Table IV.2).[50] On the other hand, non-response was significantly higher in direct certification districts than in non-direct certification districts (60 percent versus 48 percent).

It is important to note, however, that differences in verification results between direct certification and non-direct certification districts do not indicate how direct certification influences overall levels of ineligibility for benefits—for two main reasons. First, verification samples in non-direct certification districts (using random sampling) are generalizable to all certified students, while verification samples in direct certification districts are generalizable only to those students certified by application and are not directly certified. To make these

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[50]Among certified students, this difference was slightly larger. Among certified students whose applications were verified, 51 percent of those in direct certification districts and 47 percent of those in non-direct certification districts had their benefits reduced/terminated. However, this difference was not statistically significant.

estimates of ineligibility comparable across the two types of districts, it is important to estimate the rate of ineligibility among all certified students in both types of districts.[51]   Second, this comparison of ineligibility rates among direct certification and non-direct certification districts does not take into account other differences between the two types of districts that could influence estimated rates of ineligibility, such as underlying poverty levels in the districts.[52]

Table IV.3 shows benefit reduction/termination rates by district characteristics, again excluding districts that selected focused verification samples. The table shows the mean benefit reduction/termination rate of districts by direct certification implementation type, enrollment, certification rate, percentage of certified students who are directly certified, urbanicity, and region. The characteristic most closely related to the benefit reduction/termination rate is district enrollment, with the error rate significantly higher in larger districts. In particular, the mean error rate in districts with an enrollment of more than 10,000 students was 50 percent, compared with only 18 percent in districts with 1,000 or fewer students.

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[51]See Section D of this chapter for this analysis of ineligibility among all certified students.

[52]See Chapter V for an analysis of the effects of direct certification on rates of ineligibility that takes into account observable district characteristics such as poverty levels.

TABLE IV.3

MEAN BENEFIT REDUCTION/TERMINATION RATES,
BY DISTRICT CHARACTERISTIC
(Standard Errors in Parentheses)

District Characteristic	Percentage of Districts with Characteristic	Mean District-Level Benefit Reduction/ Termination Rate
Type of Direct Certification Used		*
No DC	40	25.9
		(2.0)
Non-Matching	13	28.4
		(3.5)
District-Level Matching, Passive Consent	18	24.4
		(2.3)
		(2.3)
District-Level Matching, Active Consent	6	19.3
		(3.6)
State-Level Matching, Passive Consent	11	32.1
		(3.2)
State-Level Matching, Active Consent	4	43.6
		(10.5)
Mixed	8	24.8
		(4.7)
District Enrollment		***
1 to 1,000	51	18.0
		(2.3)
1,001 to 5,000	39	32.1
		(1.2)
5,001 to 10,000	6	43.3
		(2.4)
10,001 or more	4	49.9
		(1.8)
Total Certification Rate		
0 to 20 percent	23	29.1
		(2.8)
21 to 40 percent	35	28.1
		(2.2)
41 to 60 percent	26	24.9
		(2.2)
61 percent or more	16	21.8
		(3.4)

Table IV.3 (*continued*)

District Characteristic	Percentage of Districts with Characteristic	Mean District-Level Benefit Reduction/ Termination Rate
Percentage of Free Certified Students Directly Certified		
0 percent (non-DC district)	40	25.9
		(2.0)
1 to 20 percent	24	26.5
		(2.2)
21 to 40 percent	29	29.8
		(2.8)
41 percent or more	7	22.2
		(4.7)
Urbanicity		**
Urban	5	37.7
		(5.6)
Suburban	42	30.1
		(2.0)
Rural	54	25.2
		(2.2)

Source: 2001 Direct Certification Study SFA Survey.

*DC/Non-DC Difference Is Significantly Different From Zero At The .10 Level, Two-Tailed Test
**DC/Non-DC Difference Is Significantly Different From Zero At The .05 Level, Two-Tailed Test.
***DC/Non-DC Difference Is Significantly Different From Zero At The .01 Level, Two-Tailed Test.

C. ESTIMATING INELIGIBILITY AMONG DIRECTLY CERTIFIED STUDENTS

The verification process described above applies only to students approved for free or reduced-price meals on the basis of an application. Students who are directly certified for free meals do not complete an application and are not subject to the verification process. We therefore had to estimate the levels of administrative and income ineligibility using the methods outlined above in section A.2.

1. Limitations

Our two-stage estimation strategy does not correspond precisely with the conceptual definitions of administrative and income ineligibility described above. The conceptual definition of the rate of administrative ineligibility is: the rate at which students *who were directly certified* stop receiving FS/ TANF benefits but remain directly certified *by the same district* in December. The conceptual definition of the rate of income ineligibility simply adds the condition that those who stop receiving FS/TANF must also have household incomes above 130 percent of poverty to be considered ineligible. To actually estimate the rate of administrative ineligibility, we used the rate at which students on FS/TANF (when direct certification was conducted in the State) in the zip code areas covered by schools in the sample districts had stopped receiving FS/TANF by December. Two main limitations of this method were: (1) students who were receiving FS and/or TANF in the month when directly certified students were identified in the State may not actually have become directly certified by the sample districts; and (2) students who became directly certified may not have remained directly certified or attended the same district by December.

a. Students Receiving FS/TANF Who Were Not Directly Certified by Sample Districts

Students on FS/TANF when direct certification was conducted (that is, those who appeared to be eligible for direct certification) may not actually have become directly certified by sample

districts, for at least three reasons. First, the zip code areas used to define the sample districts may not have corresponded exactly to the districts' enrollment areas. In cases where school districts enrolled only some children from a zip code area, we had no way of determining which children should be matched with the districts. We included all children living in all the zip code areas contained by a district.[53] In one State, we were able to examine how well school enrollment areas matched up with zip code areas. This State provided FS/TANF administrative data including a "town code" variable indicating the towns in which children receiving benefits resided. The town codes corresponded with school district areas. Using this variable, we generated rates of administrative ineligibility among directly certified students in two different ways: (1) using town codes to group children with school districts, and (2) using zip codes to determine school districts. We compared the estimated rates of ineligibility from the two sets of analysis and found that the resulting error rates were similar.[54]

Second, not all students in the zip code areas of the sample districts actually attended the sample districts. They may have attended private or charter schools, been home-schooled, or dropped out of school. Since the data did not include school enrollment status, however, all children in the area covered by a particular district were included in the sample for that district. Although we do not know how many children in the areas covered by the public school districts in the sample did not attend the sample district, data from the United States Department of Education indicates that, in the 1999-2000 school year, roughly 1 to 2 percent of low-income

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[53]In a few cases, two school districts named the same zip code area as being part of their district; here, we included the children in the zip code area in the sample to be analyzed for both school districts.

[54]The mean rate of administrative ineligibility among districts in this state was 28.3 percent when the town codes were used and 27.4 percent when the zip codes were used.

children enrolled in elementary and secondary schools in the United States were in private schools (Gruber et al., 2002).[55]

Third, and probably most important, even among students in these areas enrolled in the sample districts and eligible for direct certification on the basis of FS/TANF receipt, not all actually became directly certified. In districts where active consent was required, for example, households may not have returned letters to schools or taken the steps necessary for their children to become directly certified. In districts where matching was used, problems in the implementation of matching the FS/TANF and enrollment lists may have resulted in eligible children being missed and not becoming directly certified. There is some evidence (see Chapter II) to suggest that due to implementation issues, many eligible children did not, in fact, become directly certified. If the FS/TANF turnover rate among these students was different from the rate among students who were directly certified, then this limitation may have affected the results of our analysis.[56]

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[55]This estimate is based on data from the Schools and Staffing Survey, 1999-2000. Public and private school administrators were asked to estimate the proportion of students who were (or would be, if non-NSLP schools participated) eligible for free or reduced-price meals. We adjusted these estimates for the fact that about 25 percent of private school administrators could not provide an estimate of eligible students. Although these eligibility estimates are not completely reliable indicators of income status, especially among private school students, the numbers suggest that the proportion of low-income students attending private schools is small.

[56]For this limitation to have strongly affected our estimate of ineligibility, two conditions must have held. First, a substantial proportion of those eligible for direct certification must have failed to become directly certified. Second, the FS/TANF turnover rate of eligible students who were not directly certified must have been substantially different from the turnover rate among those who were directly certified. We have no information on the turnover rates among these two groups; however, we have no reason to believe that the rates were substantially different.

b. Students No Longer Directly Certified by December in Sample Districts

As noted above, it is possible that not all students directly certified in the summer remained directly certified in that district through December of the school year. For example, students who were directly certified by a sample district, but stopped receiving benefits by December, may have alerted the school district of their change in FS/TANF status and had their free meal benefits terminated by the district. Alternatively, these students may have moved out of the school district. If they moved within the same State, then the State administrative data used for the analysis would still have tracked their FS/TANF status, because the administrative data were matched at the State level prior to being grouped by school district. If they moved out of State, however, they simply disappeared from the State FS/TANF rolls, and we treated them as having exited FS/TANF. In other words, we could not distinguish between children who disappeared from the FS/TANF rolls because their families stopped receiving assistance versus those who disappeared because they moved out of State. However, based on analysis of SIPP data, we concluded that the proportion of children on FS/TANF in the summer who had moved out of State by December was very small.[57]

2. Estimated Rates of Ineligibility Among Directly Certified Students

Table IV.4 presents the estimated rates of ineligibility among directly certified students in all public school districts that used direct certification and were located in States that provided administrative data.[58] The first column shows the estimated rates of ineligibility in the average

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[57]Among those children in our SIPP analysis who were receiving FS/TANF in the month in which direct certification was conducted, less than 1 percent had moved out of state by December.

[58]Fourteen states did not provide FS/TANF data for the analysis of direct certification error rates. Appendix B lists states that did and did not provide data, and compares the characteristics of direct certification districts in these data-providing states with direct certification districts in non-providing states.

direct certification district. The second column shows the estimated percentages of all directly certified students who are administratively or income ineligible for benefits. Overall, we found that a relatively small proportion of directly certified students were income ineligible to receive free meals by December.

The mean rate of administrative ineligibility in the average direct certification district was 28 percent during the 2001-2002 school year. In other words, between one-quarter and one-third of directly certified students were estimated to have exited FS/TANF by December, and would not have been directly certified if that status had been determined at that time. However, a large proportion of those students no longer on FS/TANF in December remained eligible for free meals based on their household income. Once the FS/TANF turnover rate was adjusted to disregard FS/TANF leavers with incomes low enough to have allowed them to remain eligible for free meals, the estimated rate of income ineligibility among directly certified students was 9 percent. Thus, fewer than 1 of every 10 directly certified students in the average district was no longer eligible for free meals as of December 2001.

In districts with a large number of directly certified students, the rate of ineligibility among directly certified students tended to be somewhat lower. Thus, the estimated percentage of all directly certified students who were administratively ineligible for benefits was 21 percent in 2001-2002. In other words, approximately one in five directly certified students had exited FS/TANF by December. The estimated percentage of directly certified students who were income ineligible for free meals as of December 2001 was 6 percent. By December, about 1 out of every 16 students eligible for direct certification was no longer eligible for free meals.

TABLE IV.4

RATES OF INELIGIBILITY AMONG DIRECTLY CERTIFIED STUDENTS
(Standard Errors in Parentheses)

Ineligibility Rate	Among Direct Certification Districts	Among Directly Certified Students
Administrative Ineligibility Rate		
FS/TANF Turnover Rate (Percentage)		
0 to <10 percent	8	3
10 to <20 percent	24	50
20 to <30 percent	28	30
30 to <40 percent	24	14
40 to <50 percent	9	2
50 to <75 percent	6	<1
75 to <100 percent	2	<1
Mean Turnover Rate	27.9	21.0
(Standard Error)	(1.05)	(0.54)
Income Ineligibility Rate		
Percentage of Directly Certified Students No Longer on FS/TANF and with Incomes Above 130 Percent of Poverty by December (Percentage)		
0 percent	5	<1
>0 to <3%	3	3
3 to <6%	23	47
6 to <10%	36	37
10 to <20%	29	13
20 to <30%	2	<1
30% or more	1	<1
Mean Income Ineligibility Rate	8.6	6.5
(Standard Error)	(0.32)	(0.17)
Sample Size	**608**	**605**

Source: Direct Certification Study State administrative data file, 1999 data from the Survey of Income and Program Participation.

D. ESTIMATED INELIGIBILITY AMONG ALL CERTIFIED STUDENTS

By combining the estimates of ineligibility among students certified by application and directly certified students, we estimated the percentage of all certified students in non-Provision 2 or 3 schools who are ineligible for the benefits they are receiving as of December of each school year. This rate was calculated as a weighted average of the ineligibility rates among students certified by application and directly certified, where the weights were the percentage of students who became certified via written application (applied to the rate of ineligibility among students certified by application) and the percentage certified by direct certification (applied to the rate of ineligibility among directly certified students). For example, if 30 percent of certified students were directly certified in a district, the overall rate of ineligibility would be set to 0.30 times the rate of ineligibility among directly certified students, plus 0.70 times the rate of ineligibility among students certified by application. In districts not using direct certification, the overall rate of ineligibility and the rate among students certified by application would be the same.[59]

Figure IV.2 shows the percentage of all certified students in non-Provision 2 or 3 schools estimated to be ineligible for benefits, among districts and across all certified students. As with the previous estimates of ineligibility, we present estimates of rates of both administrative and income ineligibility. The first set of estimates is a weighted average of the benefit reduction/termination rate and the FS/TANF turnover rate and captures administrative ineligibility. The second and third sets of estimates both are intended to capture income

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[59]Districts that selected focused verification samples were excluded from the estimation of these estimated rates of ineligibility among all certified students.

Figure IV.2
Estimates of Ineligibility Among
All Certified Students
(Standard Errors in Parentheses)
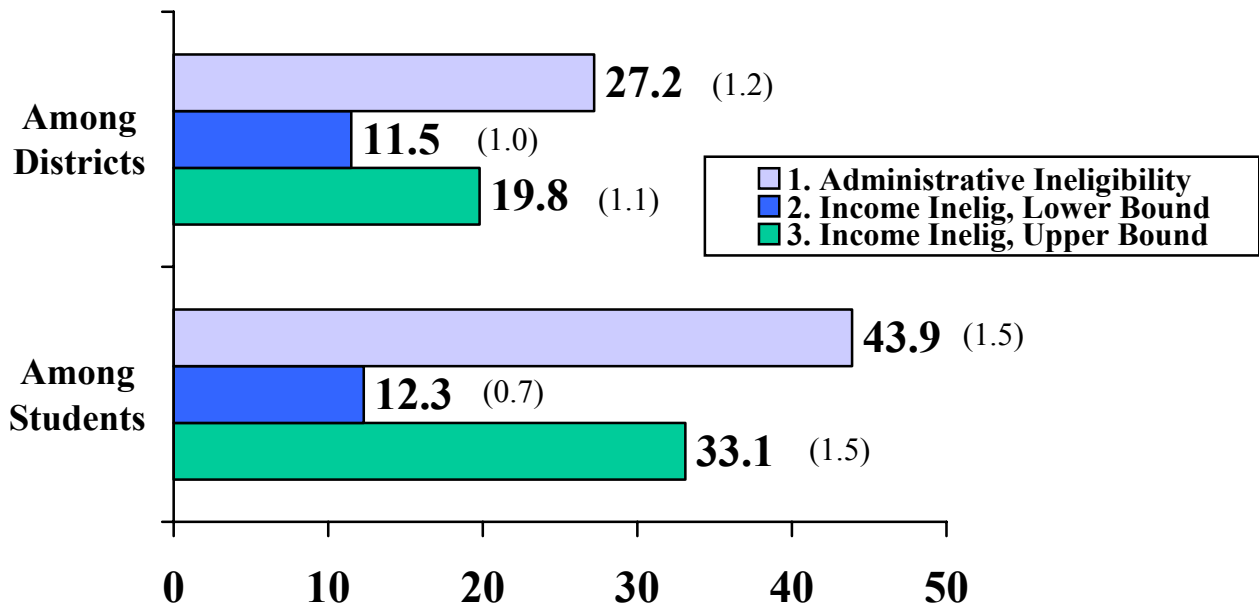
1. Administrative Ineligibility - based on benefit reduction/termination rate and FS/TANF turnover rate

2. Income Inelig, Lower Bound - based on percentage who responded to verification request and had benefits reduced or terminated and percentage of directly certified students who left FS/TANF and had incomes above 130 percent of poverty

3. Income Inelig, Upper Bound - based on percentage who responded to verification request and had benefits reduced or terminated; those who did not respond who had benefits reduced/terminated and did not reapply for benefits; and percentage of directly certified students who left FS/TANF and had incomes above 130% of poverty

NOTE: Sample excludes Provision 2 and 3 schools, districts that selected focused verification samples, and districts in States that did not provide FS/TANF data. The sample size is 724.

ineligibility. The second estimate presented in the figure is a lower bound estimate and considers students in either of the following groups to be ineligible: (1) students certified by application who responded to the verification request and had their benefits reduced or terminated on the basis of the information they presented; and (2) students who were directly certified and who exited FS/TANF by December *and* had household incomes greater than 130 percent of Federal poverty guidelines. This lower bound estimate of income ineligibility treats all other students as being eligible, including those whose benefits were reduced or terminated as a result of nonresponse to the verification request, as well as directly certified students who exited FS/TANF but whose household income remained below 130 percent of poverty. The third estimate is an upper bound estimate of income ineligibility that adds to the ineligible population, in addition to those already in the lower bound group, students certified by application whose benefits were terminated due to nonresponse and who did not subsequently reapply for benefits.

The first estimate suggests that the estimated rate of administrative ineligibility among certified students was 27 percent in the average district by December of the 2001-2002 school year. The estimated rates of income ineligibility were lower than this estimated rate of administrative ineligibility. The lower bound estimate of income ineligibility in the average district was 12 percent. This estimate does not include any students who failed to respond to the verification request as ineligible. When such students are treated as ineligible if they failed to reapply for benefits, the estimated rate of income ineligibility increases to the upper bound of 20 percent.

Among students, mean total certification error rates were higher than they were for districts. This resulted from the fact that the average student attended a school with a large enrollment, and estimated rates of ineligibility tended to be higher in larger districts. The estimated rate of administrative ineligibility was 44 percent. Again, however, many of these administratively

ineligible students had incomes that qualified them for free or reduced-price meal benefits. The estimated lower bound of the income ineligibility rate among students was 12 percent. Under the assumption that nonresponders were in error except for those who reapplied and were approved for benefits, the estimated upper bound of income ineligibility was 33 percent.