

APPENDIX C

SUPPLEMENTAL TABLES FOR ANALYSIS OF THE EFFECTS OF DIRECT CERTIFICATION ON RATES OF CERTIFICATION, PARTICIPATION, AND INELIGIBILITY AMONG CERTIFIED STUDENTS

TABLE C.1

CHARACTERISTICS OF PUBLIC SCHOOL DISTRICTS AND STUDENTS
(Standard Errors in Parentheses)

	Among Districts			Among Students		
	DC Districts	Non-DC Districts	All Districts	In DC Districts	In Non-DC Districts	In All Districts
Enrollment (Percentages)						
<= 500	30 (2.8)	29 (3.6)	30 (2.2)	2 (0.2)	2 (0.4)	2 (0.2)
501-1000	18 (1.9)	19 (2.4)	18 (1.4)	4 (0.4)	5 (0.7)	4 (0.4)
1001-2500	24 (1.8)	25 (2.4)	24 (1.0)	10 (0.8)	15 (1.5)	12 (0.7)
2501-5000	14 (1.2)	16 (1.7)	14 (0.6)	13 (1.0)	19 (2.0)	15 (0.9)
5001-10000	8 (0.7)	8 (1.1)	8 (0.4)	14 (1.2)	19 (2.4)	16 (1.1)
10001-25000	5 (0.5)	3 (0.6)	4 (0.4)	19 (1.7)	18 (2.6)	19 (1.4)
25001-50000	1 (0.1)	1 (0.1)	1 (0.1)	12 (0.7)	9 (1.3)	11 (0.6)
>= 50000	1 (0.1)	<1 (0.1)	1 (<0.1)	26 (1.3)	13 (3.0)	22 (1.2)
Median	1122 (84.0)	1102 (117.0)	1096 (65.8)	3381*** (1402.1)	6798 (683)	10543 (587.6)
Certification Rates (Means)						
Free meals	29.3 (0.7)	29.7 (1.6)	29.5 (0.8)	33.6 (0.7)	32.5 (1.5)	33.2 (0.7)
Reduced-price meals	10.0*** (0.3)	8.2 (0.3)	9.3 (0.2)	8.0 (0.1)	7.7 (0.2)	7.9 (0.1)
Total	39.4 (0.9)	37.7 (1.7)	38.7 (0.8)	41.6 (0.7)	40.1 (1.6)	41.1 (0.7)
Participation Rates (Means)						
Among all students	62.4** (1.0)	58.2 (1.3)	60.7 (0.8)	54.7** (0.5)	52.4 (1.0)	54.0 (0.5)
Among students certified for free meals	78.0 (0.8)	76.2 (0.8)	77.1 (0.6)	75.8 (0.4)	75.1 (0.7)	75.6 (0.3)
Among students certified for reduced-price meals	72.4 (0.9)	70.5 (1.1)	71.8 (0.7)	66.5** (0.5)	64.2 (1.0)	65.8 (0.5)
Among students not certified	54.8*** (1.2)	48.7 (1.5)	52.4 (0.9)	40.5 (0.6)	39.0 (1.1)	40.1 (0.5)
Sample Size	792	425	1,222	792	425	1,222

*Difference between DC and non-DC districts is significantly different from zero at the .10 level, two-tailed test

** Difference between DC and non-DC districts is significantly different from zero at the .05 level, two-tailed test.

*** Difference between DC and non-DC districts is significantly different from zero at the .01 level, two-tailed test.

TABLE C.2

DESCRIPTIVE CHARACTERISTICS OF VARIABLES INCLUDED IN DISTRICT-LEVEL ANALYSIS

Variable	All Districts		Weighted Using District-Level Weights	
	Unweighted	District-Level Weights	Direct Certification Districts	Non-Direct Certification Districts
Whether direct certification is in place	0.650	0.610	1.000	0.000
Whether direct certification has been in place for:				
1 to 2 years	0.067	0.070	---	---
3 to 5 years	0.179	0.168	---	---
6 to 10 years	0.278	0.223	---	---
More than 10 years	0.093	0.095	---	---
Whether direct certification was formerly used in district but not in school year 2001-2002	0.080	0.064	---	---
Type of direct certification implementation				
Non-matching	0.106	0.121	---	---
District-matching, passive consent	0.259	0.191	---	---
District-matching, active consent	0.040	0.058	---	---
State-matching, passive consent	0.138	0.113	---	---
State-matching, active consent	0.036	0.047	---	---
Mixed	0.066	0.073	---	---
Percentage of certified free students in districts who were directly certified	0.165	0.152	---	---
Whether district has schools that operate under Provision 2 or 3 and the base year was prior to 2001-2002	0.066	0.057	0.041	0.082
Size of district				
<= 500	0.094	0.294	0.299	0.287
501 to 1,000	0.108	0.181	0.180	0.185
1,001 to 5,000	0.405	0.391	0.377	0.409
5,001 to 10,000	0.135	0.076	0.076	0.077
10,001 to 25,000	0.108	0.042	0.048	0.034
> 25,000	0.149	0.017	0.021	0.009
Proportion of elementary school students	0.489	0.512	0.525	0.504
Urbanicity				
Urban	0.151	0.069	0.063	0.077
Suburban	0.489	0.417	0.334	0.544
Rural	0.360	0.514	0.603	0.379

TABLE C.2 (continued)

Variable	All Districts		Weighted Using District-Level Weights	
	Unweighted	District-Level Weights	Direct Certification Districts	Non-Direct Certification Districts
Region ^a				
Northeast	0.105	0.119	0.169	0.042
Mid-Atlantic	0.112	0.087	0.076	0.104
Southeast	0.148	0.085	0.079	0.098
Midwest	0.209	0.214	0.109	0.380
Southwest	0.140	0.159	0.153	0.169
Mountains/Plains	0.128	0.190	0.276	0.057
West	0.158	0.144	0.139	0.153
Racial / ethnic distribution				
Percentage white	0.732	0.794	0.822	0.758
Percentage black	0.115	0.070	0.067	0.071
Percentage Hispanic	0.107	0.084	0.070	0.104
Percentage other	0.043	0.048	0.038	0.064
Proportion of students who are “limited English proficient”	0.042	0.028	0.024	0.065
Poverty rate				
Within district	0.167	0.170	0.173	0.166
Within county	0.123	0.127	0.127	0.127
Month verification process Completed				
October or earlier	0.099	0.171	0.140	0.220
November	0.181	0.180	0.190	0.160
December	0.672	0.603	0.630	0.570
January or later	0.048	0.046	0.040	0.060
Type of verification sample selected				
Random sample	0.776	0.875	0.850	0.900
Focused sample	0.214	0.116	0.140	0.080
Other	0.010	0.008	0.006	0.015
Size of verification sample selected				
< 1% of applications	0.071	0.027	0.023	0.030
1 to 2 % of applications	0.213	0.147	0.123	0.166
2 to 4 % of applications	0.495	0.504	0.534	0.469
4 to 10% of applications	0.184	0.272	0.275	0.260
> 10% of applications	0.038	0.072	0.045	0.075
Type of application used				
Single-child	0.664	0.746	0.784	0.682
Multi-child	0.290	0.212	0.175	0.269
Other	0.046	0.042	0.041	0.049
District uses verification for cause	0.308	0.192	0.214	0.138
District uses electronic point-of-sale system	0.646	0.488	0.571	0.376

^aModel actually includes binary variables indicating the State in which the district is located. Descriptive statistics are presented for region instead of States for simplicity.

TABLE C.3
STATE CHARACTERISTICS: 1990 TO 2001

Characteristic	Description	Mean	Standard Deviation
Free Certification Rate	Percentage of all students certified for free meals, as of October 1990-2001	29.5	9.9
Reduced-Price (RP) Certification Rate	Percentage of all students certified for RP meals as of October, 1990-2001	6.8	1.6
Free Participation Rate Among All Students	Average percentage of all students obtaining a free school lunch on a given day during October, 1990-2001	22.8	8.9
Free Participation Rate Among Certified Students	Average percentage of free certified students obtaining a free school lunch on a given day during October, 1990-2001	78.9	7.4
RP Participation Rate Among All Students	Average percentage of all students obtaining an RP school lunch on a given day during October, 1990-2001	4.6	1.4
RP Participation Rate Among Certified Students	Average percentage of RP certified students obtaining an RP school lunch on a given day during October, 1990-2001	68.5	9.4
Paid Participation Rate Among All Students	Average percentage of all students obtaining a paid school lunch on a given day during October, 1990-2001	28.2	8.9
Paid Participation Rate Among Non-Certified Students	Average percentage of non-certified students obtaining a paid school lunch on a given day during October, 1990-2001	43.7	13.5
Overall Participation Rate Among All Students	Average percentage of all students obtaining a school lunch on a given day during October, 1990-2001	55.6	10.8
Direct Certification Use	Binary variable indicating whether any district in the State was using direct certification during the year, 1990-2001	0.73	0.44
Number of Years of Direct Certification Use	Number of years that any district in State has been using direct certification as of a given year, 1990-2001	4.3	3.7
Direct Certification Penetration Rate, 1996	Percentage of districts in the State that were using direct certification as of October 1996	75.3	35.7
Direct Certification Penetration Rate, 2001	Estimated percentage of districts in the State that were using direct certification as of October 2001	74.6	27.6
Percentage on AFDC/TANF	Percentage of State's residents who were receiving Aid to Families with Dependent Children (AFDC) or Temporary Assistance for Needy Families (TANF), 1990-2001	3.7	1.9
Percentage on Food Stamps	Percentage of State's residents who were receiving food stamps, 1990-2001	8.3	3.3
Median Income	Median household income in the State (\$000)	39.7	6.5
Poverty Rate	Percentage of State's residents living in poverty, 1990-2001	12.8	4.0

TABLE C.3 (continued)

Characteristic	Description	Mean	Standard Deviation
Unemployment Rate	Percentage of State's labor force unemployed, 1990-2001	5.3	1.5
Manufacturing Wage	Mean hourly wage in State's manufacturing industry (\$), 1990-2001	12.2	1.9
Sample Size		612	

Source: The certification and participation rates and the percentage receiving food stamps were drawn from the U.S. Department of Agriculture, Food and Nutrition Service Data Bank, 1990 through 2001. The number of years of direct certification use was obtained from the 1996 Direct Certification Study State Survey. The percentage receiving AFDC/TANF was obtained from the U.S. Department of Health and Human Services, Administration for Children and Families. Median income and the poverty rate were obtained from the U.S. Bureau of the Census' Current Population Survey. The unemployment rate and mean wage in the manufacturing industry were obtained from the U.S. Department of Labor, Bureau of Labor Statistics.