

## **Response to Follow-up Questions from OMB on Survey on the Use of Funds Under Title II, Part A**

April 8, 2008

1. *What, if any, additional sample size would be required to develop estimates for urban and rural school districts?*

There are enough districts in the current sample design to develop estimates for urban and rural school districts. In order to develop estimates for urban and rural school districts, we can redesign how the sample districts are selected and allocated. For example, we could still choose 100 districts from each of the 8 district size categories and then sample districts based on their urban/rural status. We would also continue to take district poverty status into account when drawing the sample.

Under the redesigned sampling plan, approximately 50 of the 800 sampled districts would be in urban areas, 350 in suburban areas, and 400 in rural areas. With subgroup sample sizes in the range of 300 to 400, the margin of error (i.e., 95 percent confidence limits) around an estimated percentage of districts with a specified characteristic can be expected to range from  $\pm 4\%$  to  $\pm 7\%$ . Estimates for urban districts, on the other hand, will be subject to sampling errors that are roughly 2 to 3 times as large as those for the suburban and rural areas. To improve the precision of the urban estimates, we could increase the sample size for urban districts to at least 200 (or more). With a sample size of 200, the margins of error for urban estimates can be expected to range from  $\pm 6\%$  to  $\pm 8\%$  for most characteristics. Note, however, that “oversampling” urban districts will result in a more disproportionate sample which will tend to increase sampling errors for the total sample. Thus, tradeoffs would need to be made between having increased precision for urban areas and somewhat lower precision for overall estimates. However, given cost constraints, it may not be practical at this time to increase the sample size. It is estimated that it would cost an additional \$22,500 to increase the sample to a total of 950 districts.

2. *In justifying sample size, what are the key estimates, and what level of precision is required, for this study?*

In addition to estimates of the percentage of districts having specified characteristics, some of the key statistics produced from the survey include aggregate measures, such as total dollar amounts allocated for allowable activities under Title II, Part A and total numbers of teachers participating in various professional development activities. In the 2006-07 survey, the relative standard errors (RSEs) of the aggregate measures have ranged roughly from 5 to 20 percent depending on the statistic, while those of the percentage characteristics generally have ranged from 3 to 9 percent. Although explicit precision requirements for this study have not been specified, we believe that the achieved levels of precision from past surveys can serve as a reasonable goal to aim for in future studies. Thus, we expect the current design to yield similar levels of precision.

3. With regard to ED’s response to question 1 on sample design (“The categorization of urban/rural districts is likely correlated with district size, since large districts tend to be urban and small districts tend to be rural.”), how does ED know that district size and urbanicity are correlated? What data does ED have to support this assumption?

Table 1 below provides estimates of the numbers of districts in the survey population by district size class and metropolitan status. The estimates are weighted estimates of districts derived from the 2006-07 survey on the Use of Funds Under Title II, Part A. The classification of districts by metro status is based on the variable MSC05 in the CCD LEA Universe File. A very strong correlation between size and metro status can be seen in this table. Over 46 percent of the urban districts have enrollments exceeding 10,000 students compared to 7 percent of suburban districts and less than 1 percent of rural districts. Similarly, while over 50 percent of the rural districts have fewer than 600 students, fewer than 10 percent of the urban districts are this small.

Table 1. Estimated number of districts by size class and metropolitan status

District Size	URBAN		SUBURBAN		RURAL	
	Number	Pct.	Number	Pct.	Number	Pct.
1. 1 to 299	25	2.8%	611	10.3%	2,149	30.9%
2. 300 to 599	58	6.5%	524	8.8%	1,339	19.2%
3. 600 to 999	37	4.2%	617	10.4%	1,048	15.0%
4. 1,000 to 2,499	81	9.0%	1,808	30.5%	1,546	22.2%
5. 2,500 to 4,999	100	11.2%	1,296	21.8%	648	9.3%
6. 5,000 to 9,999	176	19.7%	688	11.6%	194	2.8%
7. 10,000 to 24,999	300	33.5%	242	4.1%	41	0.6%
8. 25,000 and over	119	13.3%	149	2.5%	0	0.0%
TOTAL	895	100.0%	5,934	100.0%	6,965	100.0%