TABLE 1

City	8th grade graduates	Initial approximation	First correction term	First approximation	Second correction term	Quotas	Percent sampled
Duluth, Minn.	5,500	4,000	−.02968	3,881	−.00077	3,878	70.51
Birmingham, Ala.	9,000	5,500	+.06641	6,399−	+.00148	5,343	59.37
Denver, Colo.	12,500	6,000	−.02690	5,352	−.00164	6,409	51.27
Seattle, Wash.	15,000	6,500	+.07525	6,989	+.00257	7,007	46.71
San Francisco, Cal.	21,000	8,000	+.01425	8,114	−.00341	8,086	38.50
St. Louis, Mo.	31,000	10,000	−.07349	9,265	+.00129	9,277	29.93
Total	94,000	40,000		40,000		40,000	

simply to draw contrasts between any two strata we would seek to minimize the standard error of the difference,

$$\sigma_{\Delta_{jk}} = \sqrt{S_j'^2\left(\frac{1}{n_j} - \frac{1}{N_j}\right) + S_k'^2\left(\frac{1}{n_k} - \frac{1}{N_k}\right)}$$

subject to the condition,

$$\sum_1^m n_i = n .$$

This leads to the result

$$\frac{S_j'}{n_j} = \frac{S_k'}{n_k}.$$

Thus, the number of samplings from each stratum is, for all practical purposes, proportional to the standard deviations, irrespective of the size of the various strata.

WASHINGTON, D. C.

ON THE COEFFICIENTS OF THE EXPANSION OF $X^{(n)}$

BY J. A. JOSEPH

Let us construct the following triangular arrangement of numbers:

$$\begin{array}{ccccccccccccc}
 & & & & & & 1 & & & & & & \\
 & & & & & 1 & & 1 & & & & & \\
 & & & & 1 & & 3 & & 2 & & & & \\
 & & & 1 & & 6 & & 11 & & 6 & & & \\
 & & 1 & & 10 & & 35 & & 50 & & 24 & & \\
 & & \cdot & & \cdot & & \cdot & & \cdot & & \cdot & & \cdot \\
 & 1 & & f_1(n-1) & f_2(n-1) & & \cdot & \cdot & \cdot & f_{n-2}(n-1) & & f_{n-1}(n-1) & \\
1 & & f_1(n) & & f_2(n) & \cdot & \cdot & \cdot & \cdot & & f_{n-1}(n) & & f_n(n)
\end{array}$$