Class Handout - Particle Size Statistics for Grouped Data, J. M. Cimbala
(Based on data from William C. Hinds, Aerosol Technology, Wiley, New York, 1982.) All diameters in microns, μm.

j = class (bin number)	$D_{p,\min,j}$ (lower limit)	$D_{p,\max,j}$ (upper limit)	$D_{p,j}$ (middle value)	$\Delta D_{p,j}$ = class width	n_j = frequency (count per class)	$n_j/\Delta D_{p,j}$ = count per class width	$f(D_{p,j}) = n_j/(\Delta D_{p,j} n_t)$ = fraction per class width	probability in this class = $f(D_{p,j})*\Delta D_{p,j} = n_j/n_t$	$F(D_{p,j})$ = cumulative distribution function
1	1	4	2.5	3	104	34.667	0.0347	0.104	0.104
2	4	6	5	2	160	80.000	0.0800	0.16	0.264
3	6	8	7	2	161	80.500	0.0805	0.161	0.425
4	8	9	8.5	1	75	75.000	0.0750	0.075	0.5
5	9	10	9.5	1	67	67.000	0.0670	0.067	0.567
6	10	14	12	4	186	46.500	0.0465	0.186	0.753
7	14	16	15	2	61	30.500	0.0305	0.061	0.814
8	16	20	18	4	79	19.750	0.0198	0.079	0.893
9	20	35	27.5	15	90	6.000	0.0060	0.09	0.983
10	35	50	42.5	15	17	1.133	0.0011	0.017	1
11	50	100	75	50	0	0.000	0.0000	0	1
J =					n_t =				
Totals	**11**				**1000**				**1**