

DIST2X: Two-way Distributions. This program is a more general version of VARSUM. Instead of a simple table of raw frequency counts, it produces a contingency table for any two variables in the inventory, with the cell entries optionally showing the raw frequencies, or with

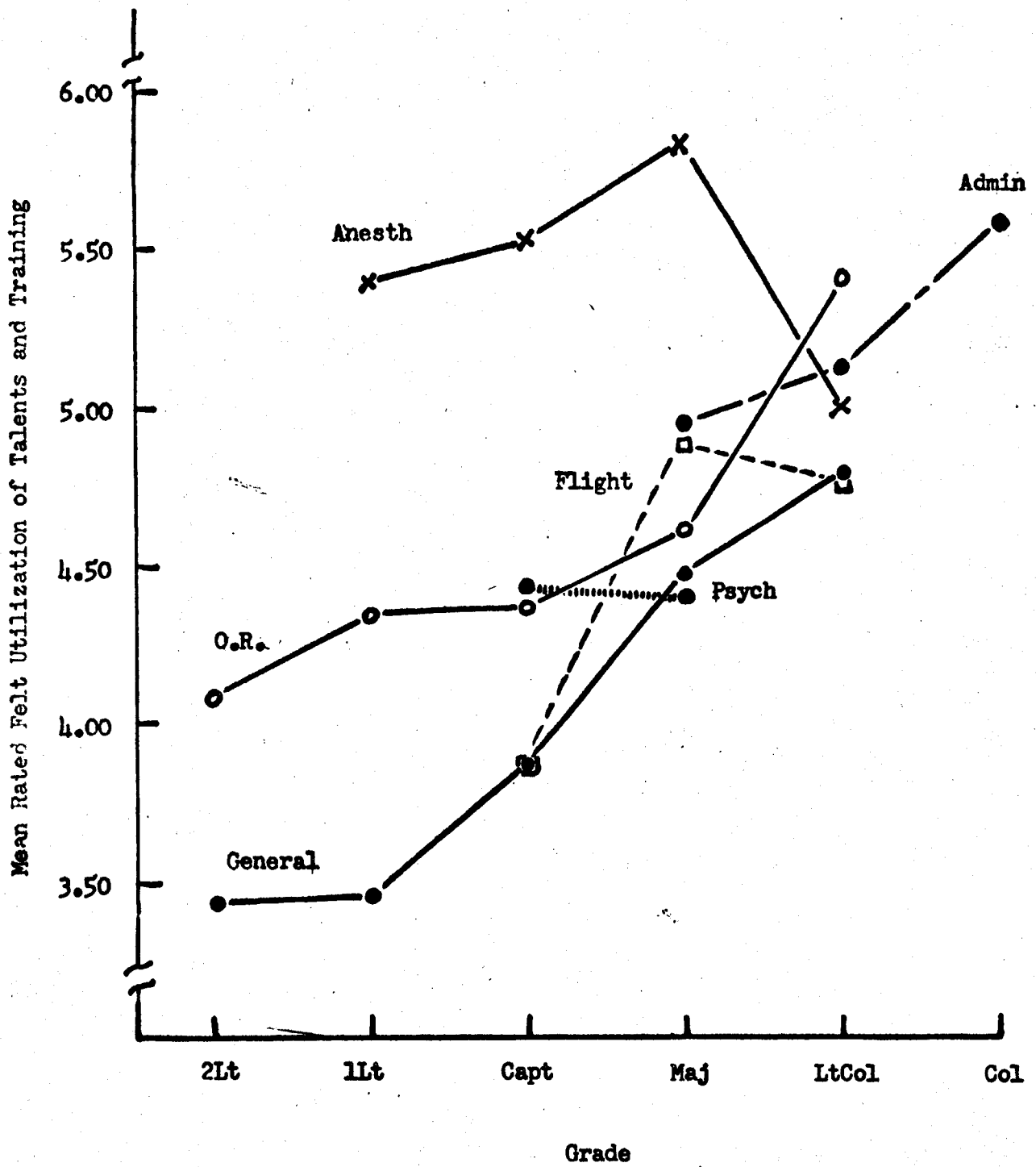


Figure 1 . Mean Felt Utilization of Talents and Training
Expressed by Grade Levels Within Each DAFSC

the frequencies re-expressed as percentages of the row totals, the column totals or the grand totals; or with the cells containing any combination of these data. The report is used for various statistical analyses.

Computed Task Index Values

AVALUE: Average Values: The AVALUE program is used to compute a descriptive index value for every task in the inventory and then to rank-order the tasks in terms of that index. The index may be based on any variable or combination of variables in the inventory. Table 14 shows the top, center, and bottom portions of an AVALUE listing based on the background variable, "Total Months Active Federal Military Service (TAFMS)." The program identified the nurses performing each task and simply computed their average TAFMS values. The tasks are listed in sequence from those performed, on the average, by the least-experienced nurses to those performed, on the average, by the most-experienced nurses.

Insert Table 14 about here

Any task performed exclusively by low-experience nurses -- for example, by nurses in their first two years of military service -- would have a correspondingly low "average value" in Table 14. There are no such tasks, as is shown at the top of the listing. The lowest average TAFMS values are about five years (56.03 to 65.66 months at

**TABLE 14. EXTRACT FROM AN AVALUE LISTING: AVERAGE MONTHS
MILITARY SERVICE OF MEMBERS PERFORMING EACH TASK (REPORT ID AVE003)**

		Standard deviation of values for those performing			
		Average TAFMS of those performing			
		Number of nurses performing (N=2494)..			
		Sequence number			
	
	
Task	
<u>No.</u>	<u>Task</u>
413	Perform perineal care	1	750	56.03	58.37
636	Wash articles of patient's clothing	2	531	61.51	60.19
122	Clean ward kitchen	3	870	63.07	62.95
245	Give back rubs	4	1290	63.35	61.42
516	Recopy physician's orders	5	1434	64.31	63.90
557	Serve between-mean nourishment to patients	6	1344	64.55	63.17
115	Check master diet list against physician's orders	7	1365	64.93	65.35
121	Clean patient care unit	8	1265	65.35	64.14
551	Serve as a team member using team nursing	9	449	65.39	65.43
36	Administer partial bed baths	10	1369	65.66	65.05

Table 14, cont'd

361	Operate inflight emergency oxygen systems	323	235	87.90	64.74
330	Mix allergy extracts	324	139	87.97	75.73
202	Direct or supervise the preparation of supplies or equipment for delivery room procedures	325	368	88.11	72.48
5	Act as liaison between medical	326	328	88.15	70.40

242	Formulate policies on the utilization of nursing service personnel	644	317	152.38	82.68
375	Participate in Air Force retention program	645	316	152.63	77.64
529	Review manning documents and submit recommendations for change	646	358	154.92	81.24
217	Establish leave policy	647	309	155.51	78.34
285	Interview civilian job applicants	648	240	162.77	78.19

the top of Table 14). Obviously, tasks done by nurses having the shortest experience are also performed by many nurses with long experience. The large standard deviations in the right column tell the same story: All tasks are performed by nurses with widely-varying lengths of service.

The data in Table 14 are based on the responses of the total sample of 2,494 active duty nurses. The data are heavily weighted by the responses of the 1,658 General Nurses in the sample. Similar reports could be produced for restricted samples such as "All Flight Nurses" or "All Head Nurses in Obstetrics."

Other average value indices could be computed to generate listings of tasks in sequence, for example, of the average grade of members performing each task, the degree to which tasks are performed in hospitals as opposed to dispensaries, or the degree to which tasks are performed in CONUS vs. Overseas locations. The tasks may be listed in ascending or descending sequence, or in the sequence in which they appeared in the job inventory.

AVGPCT: Average Percent. A variation of AVALUE. It produces reports in the format of Table 14, but computes weighted averages instead of simple average values. The weights are the percentages of people performing instead of the numbers performing. For example, suppose that a grade-level index were being computed. A task performed by 100% of the members in grade 5 and by 100% of the members in grade 6, and by no other grades, would receive an AVGPCT

index value of 5.50. The index derived from AVALUE, on the other hand, would depend on the number of people surveyed in each grade. The AVGPCT program operates only on one-digit variables.

TSKNDX: Raters' Task Index. The input to TSKNDX is task ratings provided by judges. One output is a task listing like that in Table 14, showing the mean and the standard deviation of all judges' ratings on each task. The program is used to analyze experimental data such as supervisors' ratings of the relative difficulty of each task; the training time needed to learn to do each task satisfactorily; or the relative amount of a certain kind of aptitude required for each task. Using the program VARGEN, which is discussed later, the TSKNDX data may be used to compute overall job-descriptive measures, such as "job difficulty," for each case and group in the survey. The TSKNDX program includes provisions for determining the extent of agreement among raters (inter-rater reliabilities); for identifying typical and deviant raters and for evaluating in other ways the statistical quality of the task ratings.