

The overall turn-around time on a job (the time interval between completing the preparation of a job by the user and the receipt of the processed results) is made up of a combination of factors. One of these factors can be called the "internal turn-around time" of the processor, the time between entry of the last component of a job into the input job stack and the termination of main processor assignment to the execution of the job.

The internal turn-around time experienced by any particular job will depend on such things as its expected execution time, the job mix and the total load on the installation at time of entry of the job. In general, internal turn-around time will vary according to conditions prevailing at the time of entry. The turn-around time experienced on any particular occasion may be thought of in the statistical sense as being drawn from a distribution of values ranging over all possible conditions.

To obtain the "overall turn-around time" on a job, a user must add to this internal turn-around time, the time required to place his data and program on the input job stack on the disk and the time to retrieve his printed output from the line images stored on disk during execution. To a large extent, the magnitude of these two time elements is determined by the method of access to the installation. This gives the user some control over his overall turn-around time by virtue of his choice between use of communication links, personal attendance at the installation or use of the delivery service.

Choice of the method of communicating with the system will, in many cases, be influenced by cost and users can, no doubt, derive a relationship of cost to overall turn-around time for their own particular situations.

Service to Departments

The Bureau operates on a cost-recovery basis and departments are charged for service provided. A pricing structure has been devised for the installation on the principle that customers should be charged for that portion of the installation which they use or deny to others. This radical departure from the conventional method of charging for computer time is made possible by the multi-programming capability of the installation. The pricing structure represents a prime means of influencing programming techniques in order to ensure the more efficient use of the facility. In initial operations, SPOOL (Simultaneous Peripheral Operations Off-Line) will be charged at a low hourly rate and will be used for such jobs as card-to-tape and tape-to-printer. The charge for job processing will be at an hourly rate based on the amount of core used and on the time of CPU assignment. This rate will be applied by job step rather than for the job as a whole. The use of tape and disk drives will be charged extra. There will be a flat set-up charge applicable to any job requiring the mounting of magnetic tapes or disks. However, we will make available on-line storage on disk at a most attractive rate to provide a much preferable alternative to set-up from the point of view of the installation.