The Radiation Therapy Committee of the AAPM recently assigned a subcommittee on Assessment of Technology. The first technology to be assessed, by means of a working group, is Multileaf Collimation (MLC). The group, composed of physicists, physician, and administrator, decided to let users asses the technology with a comprehensive survey. After composition, the survey was distributed to the 250 North American MLC users during February of 1998. The survey asked questions in categories of; use, workload, cost, perception, limitations, process, and satisfaction. Questions were directed to physicists, therapists, physicians, etc. They pointed to such items as purchase justification and cost analysis methods. Early responses indicate most clinics are not using MLC for most patients on an MLC machine. The consistent apprehension is the stair-stepping associated with MLC. But despite the lack of full use, most users have given high satisfaction ratings (ratings of; 3 or more out of 5). There is also wide variation as to billing practices for MLC fields. Though most clinics did not purchase MLC for intensity modulated radiotherapy (IMRT), many have indicated future plans to investigate IMRT using MLC. We shall analyze the complete results upon final receipt (March, 1998). We hope the results will be useful for those deciding whether to purchase a MLC, and what questions they should be asking themselves and the manufacturer. This is the first of many technologies to be assessed by the AAPM. This effort was financially supported by Elekta, Siemens, and Varian corporations.