

FIGURE E.37 Typical 8086 instruction formats. The encoding of the postbyte is shown in Figure E.38. Many instructions contain the 1-bit field w, which says whether the operation is a byte or a word. Fields of the form v/w or d/w are a d-field or v-field followed by the w-field. The d-field in MOV is used in instructions that may move to or from memory and shows the direction of the move. The field v in the SHL instruction indicates a variable-length shift; variable-length shifts use a register to hold the shift count. The ADD instruction shows a typical optimized short encoding usable only when the first operand is AX. Overall instructions may vary from 1 to 6 bytes in length.