



FIGURE B.8.6 Setup and hold time requirements for a D flip-flop with a falling-edge trigger. The input must be stable for a period of time before the clock edge, as well as after the clock edge. The minimum time the signal must be stable before the clock edge is called the setup time, while the minimum time the signal must be stable after the clock edge is called the hold time. Failure to meet these minimum requirements can result in a situation where the output of the flip-flop may not be predictable, as described in Section B.11. Hold times are usually either 0 or very small and thus not a cause of worry.