This talk discusses collaborative work between the presenter and Dr. Jorge Sefair, an assistant professor at Arizona State University. We study two dynamic network games between an attacker and a user. In the first, the user seeks a shortest path between a pair of nodes in a network, and the attacker seeks to interdict a subset of arcs to maximize the user’s shortest-path cost. The attacker can interdict arcs any time the user reaches a node in the network, and the user responds by dynamically altering its chosen path. The challenge is to find an optimal path, coupled with the attacker’s optimal interdiction strategy. We propose an exact exponential-state dynamic-programming algorithm for this problem, along with algorithms that produce lower and upper bounds on the optimal objective. A second problem examines a similar problem in dynamic assignment problems. Interestingly, while the shortest-path variant is polynomially solvable when the interdictor can attack only one arc, the assignment variation becomes strongly NP-hard when the interdictor has a single assignment that can be interdicted.