The US health care system is rife with administrative burdens, such as those resulting from claim denials, but little is known about the causal effects of these burdens on providers. Using exogenous changes to the jurisdictions of Medicare Administrative Contractors, I show that administrative burdens cause providers to adopt cost-saving technologies, bill more aggressively, and consolidate into larger practices. Despite an increase in denial rates following a change in contractors, Medicare spending increases as a result of providers’ endogenous responses, which I explain using a simple model of providers’ investment in billing effort and technology. Estimates from this model show that investment costs amount to $31 billion per year and that increasing administrative burdens reduces providers’ profits by 2-3% while raising Medicare spending, making both parties worse off.