

ABSTRACT

THE STRUCTURE OF TECHNOLOGY, SUBSTITUTION, AND PRODUCTIVITY  
IN THE INTERSTATE NATURAL GAS TRANSMISSION INDUSTRY  
UNDER THE NATURAL GAS POLICY ACT OF 1978

The purpose of this paper is to examine the production technology and cost structure of the interstate natural gas pipeline industry under partial price deregulation. We have constructed a new panel of 24 interstate pipeline companies over the period 1977-1985. We employ a variable cost function to estimate scale elasticities, substitution possibilities, and technical and productive change. Empirical results indicate substantial long-run economies of scale in the natural gas pipeline industry, considerable long-run substitution among most inputs, and a marked decline in total factor productivity while the industry was regulated by the Natural Gas Policy Act of 1978.