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Author: Dr. Roger D. Launius
Smithsonian Institution, United States

THE RAILROAD AND THE SPACE PROGRAM REVISITED: HISTORICAL ANALOGUES AND
THE STIMULATION OF COMMERCIAL SPACE OPERATIONS**Abstract**

In 1965 historian Bruce Mazlish edited the NASA-sponsored study, *The Railroad and the Space Program. An Exploration in Historical Analogy* (MIT Press), seeking to understand the historical record of government stimulation of private sector investment in infrastructure for the public good. The study team explored several specific episodes of American railroad history. It took as its mission: “In all of these studies an effort will be made to move from the impact of the railroad in the specific area under consideration to an analogy with the possible space impact today in similar areas.” While the result was disappointing at the time there remain lessons to be gained in exploring the historical analogue of railroad building and operation in the nineteenth century and their application to an expansion of space exploitation. While many are familiar with the enticing of American transcontinental railroad construction through land grants, national, state, and local governments had engaged in a range other stimulative efforts to facilitate railroad development. These included tax breaks, investment credits, and otherwise favorable decisions supporting these business interests. It also involved in some instances direct subsidies for a time, monopolies not only on railroad operations but also in ancillary and even tertiary industries, and changes to regulations to ease requirements for labor, safety, and other factors. This paper revisits this analogue, drawing several key findings from the railroad experience. It suggests that there is a broad range of options that have been pursued in the past to stimulate investment in infrastructure—in this case in railroads—that have application for future space operations. Not all of these options were successful—some failed outright and others had detrimental unintended consequences—and that will be discussed as well.