

International Cooperation for Space Exploration (1)  
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DEVELOPMENT OF A PRIVATE SPACE SECTOR IN THE U.S. AND RUSSIA

**Abstract**

Private space companies repeatedly demonstrate an ability to cut costs and innovate at a faster rate than government organizations like NASA and Roscosmos. Privately-developed reusable rockets lower launch costs by over fifty percent and small satellite constellations offer inexpensive global coverage for communications and remote sensing applications, creating sustainable business opportunities in space beyond defense. With burgeoning private-sector space support for national objectives like returning to the moon and service of the broader public in sectors such as information technology and telecommunications, the United States and Russia both look to establish viable commercial space economies. Key areas for promoting sustainable commercial space economies include reducing the financial risk of expensive space endeavors through public-private and multilateral partnerships, building relationships between the academic communities of both nations to promote the development of a new space workforce, and creating opportunities for scientific advancement.

This work presents a novel analysis of progress and challenges in the development of commercial space economies in the United States and Russia, and how space development can be leveraged to influence scientific achievement, economic development, and educational infrastructure in the two countries. A mixed-methods approach involving interviews with founders of early-stage private space companies and leaders of established space organizations; surveys of students comprising the next-generation space workforce; and time-series econometric analysis of space investment over the past decade is used to establish a development baseline. This study will highlight key challenges and paths to entry for newcomers to the commercial space sector. This paper will propose strategies for successful privatization to aid in the future development of the American and Russian commercial space industries.