



Implementing public private partnerships during challenging economic times: Case study of the 495 Express Lanes on the Virginia portion of the Washington Capital Beltway Project (USA)

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ABSTRACT

This case study examines the implementation of the 495 Express Lanes – a major public–private partnership (P3) project in the Commonwealth of Virginia outside of Washington, DC. The project was approved by the Virginia legislature in December 2007 and construction was begun in the shadow of the 2008 Economic Crisis. This paper examines the enactment of P3 legislation in Virginia; the role that it played in the design, financing, and construction of this highway project under harsh economic conditions; and its impact on the evolution of P3 policy in the United States.

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1. Introduction

How has the 2008 Economic Crisis impacted the design, financing, and construction of highway public–private partnership (PPP or P3) projects in the United States? In December 2007, on the eve of the economic crisis, the Virginia legislature approved a P3 to construct a 14-mile (22.5 km) high occupancy toll (HOT) road (the 495 Express Lanes) to alleviate heavy traffic on the Capital Beltway around Washington, DC. This case study looks at the impact the 2008 Economic Crisis and associated economic challenges between 2008 and 2012 had on this project and considers what governments and other stakeholders should be aware of when implementing P3s during adverse economic times. The hypotheses of the analysis are that, despite the economic downturn, the employment of a P3 procurement approach on the 495 Express Lanes project made it possible to: (1) secure infrastructure investment, which would have been very difficult without the partnership with the private sector; (2) implement a project that was otherwise unfunded within the constrained

regional and state long-range transportation plans; (3) deliver the project on-time and on-budget; and (4) achieve higher service quality and potentially life-time operational cost savings (Valila and Timo, 2005).

While some states and municipalities have been pondering public–private partnerships in order to fund the operations and maintenance of increasingly deteriorated roads, others are considering aligning with private companies so that they may finance, develop, design, and build roads in addition to performing operations and maintenance functions. These state and local governments are turning to P3 innovations because they believe that these entities can improve capital investments and transportation capacity while upholding existing roadway standards (US Department of Transportation Federal Highway Administration, 2011). With existing P3 legislation, a P3-focused transportation office in place and many years of P3 experience, Virginia is poised to be at the forefront of the P3 project delivery initiative in the coming years.

One of Virginia's most recent P3 projects has been the design and construction of the 495 Express Lanes (Fig. 1), which began operation on November 17, 2012. The Capital Beltway (Fig. 2) is a 64-mile (103 km) circumferential interstate highway that surrounds the District of Columbia and the nearby Maryland and Virginia suburbs. The original concept of the Beltway dates back to the 1940s when Fred W. Tummler, former director of the National Capital Park and Planning Commission, suggested a freeway that surrounded the Washington suburbs (McDevitt and Betty, 1944). The road was originally envisioned as a bypass thoroughfare for

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Fig. 1. 495 Express (HOT) Lanes. Lynch, J. "Virginia Megaprojects." Presentation (Lynch, 2010).



Fig. 2. The Capital Beltway.

long-distance east coast drivers wishing to avoid traveling directly through Washington. As businesses and industry grew in the Washington suburbs, the Beltway became a popular, heavily traveled highway. Though the road has seen many revitalization projects, excessive traffic is a persistent problem.

2. Analytical framework

The framework of the case study will follow Yin, who recommends that researchers base their case studies on the theories and previous studies on the subject (Yin, 2009). In terms of the structure of the analysis, this study will follow Levy, who authored several P3 case studies (Levy, 2011). The following elements of a P3 project will be discussed: historical context of P3 legislation both nationally as well as in the Commonwealth of Virginia; the Virginia and metropolitan Washington, DC planning process; a project description including the initial proposal, scope, and key milestones; project demand; characteristics of the

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