



UTC Spotlight

University Transportation Centers Program

This month: Marshall University | June 2012

Potential Economic Benefits of Public-Private Partnerships (P3s) on Reclaimed Mine Sites in the Construction of the I-73/74 NHS Corridor

The Nick J. Rahall, II Appalachian Transportation Institute (RTI) has completed a study exploring the economic benefits available by using Public Private Partnerships (P3s) for construction of the I-73/74 National Highway System (NHS) Corridor in West Virginia. The study estimates the economic impact of the I-73/74 NHS Corridor under two scenarios: completion of the roadway without the use of a P3 and completion using P3s. Using P3s not only offers significant construction cost and time savings but would provide McDowell, Mercer, Mingo, Wayne, and Wyoming counties with substantial economic and fiscal impacts.

Highway (KCH), which will extend 95 miles from Williamson to Bluefield.

An innovative aspect of the I-73/74 NHS Corridor consists of using reclaimed surface mine sites as locations for part of the roadbed (see figure 2). In this form of P3, coal is extracted through surface mining, but instead of returning the property to as near as possible its approximate original contour, the mining company agrees to build a section of rough roadbed as a part of an approved post mine land use (PMLU). Alpha Natural Resources and CONSOL Energy Inc. have both entered into agreements with the West Virginia Department of Transportation to provide 11.37 and 5 miles of roadbed respectively, saving the state approximately \$170 million and \$110 million in construction costs.

The Regional Economic Impact Model (REMI) is used to estimate the impact of the roadway on total employment, gross regional product, personal income, and industry output. The results show that while both scenarios have a positive economic and statewide tax revenue impact, engaging in a P3 is the preferred method as it would provide faster and greater impacts. A few highlights are shown below¹:

- Using P3s would create 844 jobs in 2012, while construction without a P3 creates 571 jobs.
- The construction industry will benefit in the short-run, peaking in 2012, with the service industry benefitting in the long-run.



I-73/74 National Highway System (NHS) Corridor Map

Named by Congress as a high priority corridor on the National Highway System in 1995, the West Virginia portion of this roadway is to serve as a multi-lane replacement of the existing US 52 alignment extending approximately 150 miles from Huntington to Bluefield (see figure 1). The I-73/74 NHS Corridor has been divided into two sections: the Tolsia Highway, which runs from Huntington to Williamson (51 miles) and the King Coal

¹ Junwook Chi, Justin Matthews, Jessica Weddington, and Pamela Hamilton. *Potential Economic Benefits of Public-Private Partnership (P3s) on Reclaimed Mine Sites in the Construction of the I-73/74 NHS Corridor*. Nick J. Rahall, II Appalachian Transportation Institute (RTI) and Center for Business and Economic Research, Marshall University. Submitted to the West Virginia Department of Transportation, February, 2012. Report is available at http://www.njrati.org/wp-content/plugins/research_projects/reports/211085.pdf



RTI

Construction of the I-73/74 NHS Corridor – Red Jacket Section of King Coal Highway

- 2050 industry output estimated at \$25 million (without P3) and \$46 million (with P3).
- Estimated \$15.27 million increase in service industry payroll.
- FY2013 personal income tax \$722,128 (without P3) and \$1,634,676 (with P3).
- 17.4 to 20.3 percent increase in vehicle mile traveled.

In addition to roadbed creation, potential PMLU options along the corridor include distribution centers, agritourism, aquaculture, recreation, and automobile manufacturing plants. Mingo County has been successful with PMLU, having completed the Mingo County Air Transportation Park, Mingo Central Comprehensive High School, and a planned \$3 billion coal-to-liquids plant. By 2020, Mingo is projected to have added 940 direct jobs due to PMLU. I-73/74 NHS Corridor construction will create a vast amount of useable land where service businesses are ideal due to the percentage of service related jobs in the study and the expected need for additional service jobs.

The study also outlines key issues and recommendations for the future of P3s in West Virginia. Among them are analyzing and selecting P3 projects based on the needs of the state while offering the best value for money, sharing risk appropriately, and establishing a P3 equilibrium framework that creates boundaries and allows proper program evolution. A review of coal reserve maps shows that reserves do not exist in all locations along the proposed route, so incentives will be necessary to entice potential private partners to engage in P3s. Guaranteeing minimized tax burdens, offering tax credits to these partners in addition to exploration of federally funded innovative programs and financing mechanisms are recommended.

Overall, this study provides empirical evidence of the economic importance of using P3s for facilitation and construction of future sections of the I-73/74 NHS Corridor. The results show that the corridor can be vital for the economic development in the study region and more P3 options should be considered for transportation infrastructure investment in West Virginia and abroad.

About This Project



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This newsletter highlights some recent accomplishments and products from one University Transportation Center (UTC). The views presented are those of the authors and not necessarily the views of the Research and Innovative Technology Administration or the U.S. Department of Transportation, which administers the UTC program.

