

## **Rahall Transportation Institute (RTI) Research Project Description Form**

Project Number: RTI TRP 05-09

Project Title: "Improving the Competitive Position of Appalachia's Wood Product Producers Through Enhanced Transportation Alternatives."

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Project Objective:

To explore transportation options that might be available to the region's lumber and wood products manufacturers that will enable them to reduce their product transportation costs and extend their market reach.

Abstract:

The production of lumber and other wood products is integral to the economy of Appalachia. In West Virginia, alone, lumber and wood product manufacturing accounts for nearly eleven percent of Gross State Product (GSP). However, lumber and wood product manufacturers tend to be relatively small in size. Sixty-two percent of such concerns employ twenty, or fewer, workers. Thus, individual firms very often ship quantities of outputs that are too small to achieve, otherwise attainable, economies of scale. Often times, too, the relatively small shipment sizes preclude the use of intermodal alternatives that could potentially reduce transport costs and extend market reach. This limitation is particularly important as the markets for lumber and wood products become increasingly more global in nature.

Potential remedies to these transportation challenges are many and varied. Certainly, the development of better and more affordable intermodal access is important. It may also be that commonly operated consolidation facilities could

create shipment volumes sufficient to achieve lower unit transport costs. However, this latter option would require both cooperation and, to some degree, the sacrifice of confidentiality, so that it may or may not be viable from a firm perspective.

Within this context, the Rahall Transportation Institute (RTI), in cooperation with the West Virginia Public Port Authority (WVPPA), will explore the transportation options that might be available to the region's lumber and wood products manufacturers. This study effort has grown out of interest within Jackson County, West Virginia in the development of an intermodal facility for the consolidation and shipment of wood products. However, given the pervasive nature of lumber and wood product manufacturing across the region and the various location-specific transportation alternatives, the study team hopes to explore a variety of policy alternatives.

#### Task Descriptions:

The proposed study contains five specific elements designed to provide and evaluate necessary industry data, develop plausible consolidation / distribution scenarios, estimate potential transportation savings, and yield tangible recommendations for policy initiatives. Specific project steps are outlined as follows:

**Step 1: Data / Literature Review** - Study team members will collect, prepare and analyze existing commodity flow data in order to identify existing wood product movement patterns. To the extent the data allow, the study team will also begin the process of establishing base-line estimates of existing transportation (and other supply chain) costs. This initial examination will also include a review of available economic and business literature that describes consolidation / distribution improvement project within other industries and / or other regions of the US and Canada.

**Step 2: Shipper Interviews** - As envisioned, any policy proposal(s) resulting from the study process must satisfy the future needs of a broad array of wood products manufacturers. Accordingly, the study team, armed with the results from Step 1, will conduct in-person interviews with as many wood products shippers as possible. The purpose of these interviews will be to supplement transportation cost and flow data, further refine other supply chain cost estimates, and identify potential new market opportunities as viewed by current shippers.

**Step 3: Scenario Development and Vetting** - The cumulative results from the first two study steps should provide study team members with the data necessary to develop at least three potential scenarios for product consolidation activities or

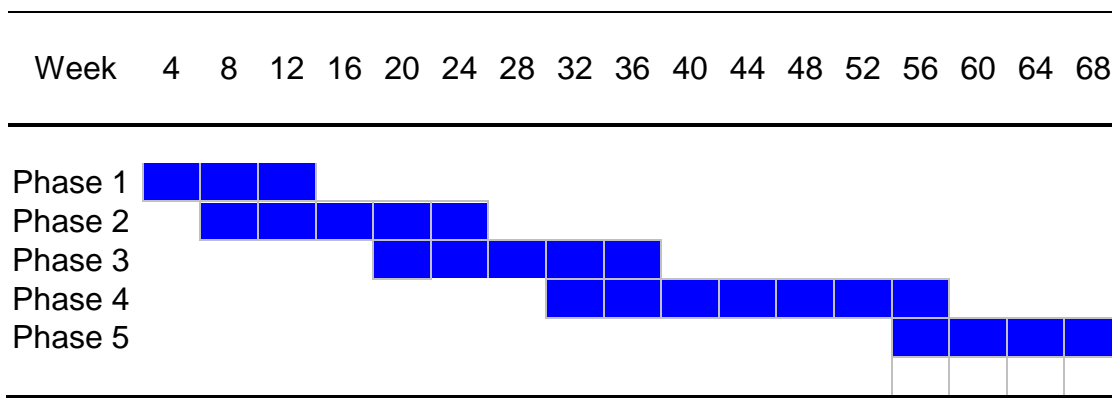
other distribution improvements. As potential scenarios are identified they will be circulated Among the Steering Committee members and other concerned industry representatives. Ultimately, the Steering Committee will select the final scenarios to be considered within subsequent project steps.

Step 4: Scenario Evaluations - The study team, using a variety of existing data, in combination with forecast and costing models, will evaluate each of the final scenarios in order to determine the potential cost savings and market impacts. Transportation and other relevant supply chain costs will be compared to the base-line cost estimate developed in Steps 1 and 2. This portion of the overall study process will also provide a very rough estimate of the implementation cost under each scenario. However, neither the savings estimates nor the implementation cost estimates will be sufficiently robust to allow for the construction of formal benefit / cost ratios.

Step 5: Project Recommendations - Based on the data collected and analyzed in Steps 1 through 4 the study team will develop a set of candidate recommendations for policy initiatives. These will be provided in a draft study report to the Steering Committee members. Committee members will then adopt a final set of recommendations for inclusion in the final study document.

Milestones, Dates, Schedule:

Schedule of Work



Yearly and Total Budget:

Total Budget: \$122,535 cash and \$30,000 in-kind effort.

Student Involvement: None.

Relationship to Other Research Projects: None.

Technology Transfer Activities: None.

Potential Benefits of this Project:

Improved competitiveness for West Virginia wood products producers as a result of reduced product transportation costs and extended market reach.

TRB Keywords: Intermodal; Shipment; Transportation; Wood Products.