

Freight Transportation Center of Excellence

Rutgers University is assessing the formation of a **Freight Transportation Center of Excellence**, which would bring together the full resources of the institution to address the issues and needs of the freight industry. The University already offers a wide range of research and educational opportunities relevant to the freight, logistics and supply chain industries. Studies and projects undertaken by University staff include planning and policy analyses, economic impact and other modeling, logistics management, and systems engineering and infrastructure studies. Undergraduate, graduate and executive seminars are also offered.

The programs and centers at Rutgers already include:

- **Center for Advanced Infrastructure & Transportation (CAIT):**

CAIT, a unit of the Civil and Environmental Engineering Department, encompasses a wide range of research activities in modal and intermodal freight transportation. One element is the Maritime Infrastructure Engineering and Management Program (MIEMP), which is a dedicated academic initiative (education, research and training activities) in the fields of maritime transportation, maritime engineering and management, port planning, operations and management, and security in maritime transportation and port operations. Recent research projects include: empty intermodal container management, feasibility of and assistance to Port Authority of NY&NJ in establishing a virtual container yard in the New York-New Jersey Region, development of a berth allocation planner, a Passaic River clean-up project, evacuation and surge capacity modelling of transportation hubs, an analysis of public financing and charging practices of seaports in the European Union, and use of microsimulation tools for decision making in port land access networks. Industry oriented courses on freight and maritime transportation and port operations are currently offered. The courses are intended to serve as the core of a Certificate in Freight and Maritime Transportation, and eventually to establish a multipartite graduate degree with international partners in Europe, Middle East and Far East. Web site: <http://www.cait.rutgers.edu/>



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- **Alan M. Voorhees Transportation Center (VTC):** VTC, a unit of the Edward J. Bloustein School of Planning and Public Policy, has expanding experience in policy research in the area of freight transportation and its interrelationship with the New

Jersey and regional economies. This focus on freight has intensified since 2004 through contracts awarded to VTC by the Brookings Institution (principles of national and regional freight policy) and the New Jersey Motor Truck Association, the New Jersey Department of Transportation and the Port Authority of New York and New Jersey. VTC's work in the area of freight includes a 2001 study, "*The Value of Freight to the State of New Jersey*," assistance to the New Jersey Department of Transportation (NJDOT) in establishing and servicing a state Logistics Council, and preparation of an assessment of the management of the Conrail Shared Assets Area by CSX and Norfolk Southern. VTC has also undertaken a study for NJDOT to facilitate the re-use of derelict lands near the port for distribution purposes. Web site: <http://policy.rutgers.edu:16080/vtc/>



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- **Rutgers Center for Supply Chain Management (RCSCM):**

RCSCM, at Rutgers Business School, is dedicated to the development of leading-edge strategies and practical solutions to problems encountered by the business community relative to the management of the end-to-end supply chain. With a distinguished faculty, including 32 well established academic and industry research fellows, and a talented core of Ph.D. and MBA students, the Center offers extensive research and consulting experience in logistics management, in-bound/out-bound transportation network design, global sourcing and procurement, process modelling and optimization, partnership and negotiation, information technology and e-commerce, and supply chain management strategies. Recognized as a primary research center of Rutgers Business School, the RCSCM is proud to have developed the first MBA concentration in Supply Chain Management in New Jersey/New York. RCSCM is supported by a prominent industry Advisory Board of corporate officers and senior executives from major New Jersey corporations – most of them are primary shippers in the region. Web site: <http://www.scm.rutgers.edu>

Rutgers Business School
Center for Supply Chain Management

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- **Department of Industrial and Systems Engineering (ISE):**

The Research Group of ISE has been developing large scale simulation models of vessel arrivals and operations in bulk ports and marine terminals including security inspection operations. These models can be instrumental in making strategic decisions and predictions regarding planned expansion for terminals and distribution centers, vessel movements at the port, port entry/exit procedures, daily activities at the terminals, such as loading and unloading, storage, maintenance and other major activities. Furthermore, the models estimate the impact of increased cargo arrival at the port on key performance indicators, such as vessel port times, berth utilizations, terminal throughputs and channel traffic intensities. Additional projects include modelling effectiveness and efficiency of port security operations and risk analysis for containerized cargo. Web site: <http://coewww.rutgers.edu/ie/>

I&SE Industrial &
Systems Engineering

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- **Center for Urban Policy Research (CUPR):**

CUPR, also a unit of the Edward J. Bloustein School of Planning and Public Policy, is nationally and internationally recognized for its research on land use policy, economic impact assessments, environmental impact analysis, state planning, public finance, and land development practice. CUPR has developed a wide array of impact models that have been used in major public policy evaluations throughout the United States. Recent goods movement-related projects include the 2001 and 2004 Economic Impact Assessments of the New York-New Jersey Port Industry and development of the US Maritime Administration's Port Economic Impact Kit, which is used throughout the nation. In addition, CUPR has developed a national Cost of Sprawl Development Impact Model, which has been used in several states (including Florida, South Carolina, Michigan, New Jersey, and Kentucky). Web Site: <http://policy.rutgers.edu/cupr/>

CUPR
CENTER FOR URBAN POLICY RESEARCH

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