

Unseen Economic Development: Maximizing Local Procurement in Downstream Investment

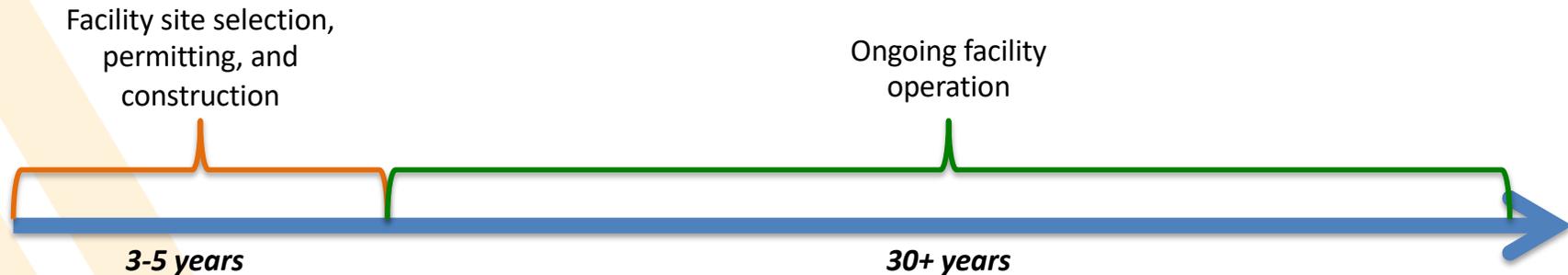
Gideon Gradman and John Deskins, Ph.D.

**West Virginia Manufacturers' Association
April 2019**

Bureau of Business & Economic Research
John Chambers College of Business & Economics
West Virginia University
www.be.wvu.edu/bber

Copyright ©2019 by WVU Research Corporation

Capturing growth from a new regional chemical project



A world scale petrochemical project creates opportunity in two phases

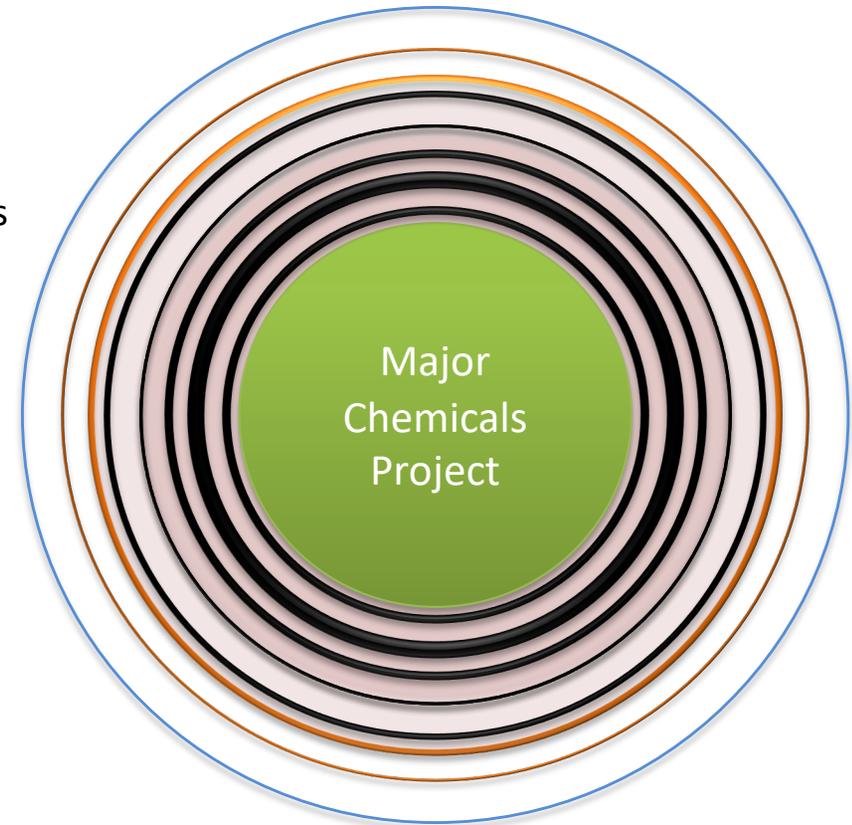
- **Site Selection, Permitting, and Construction:** Employment of 6,000+ workers and all services to support them
 - Engineering services, earthworks, civil, mechanical, construction services, raw materials, fabricated equipment, etc.
 - Construction support services including hotels/housing, rental equipment, food service, parking, trucking, personnel movement, staffing, fabrication shops, equipment staging, warehousing, terminating and logistics and other service facilities
 - Staff support services including educational services, day care services, outpatient healthcare, etc.
- **Ongoing Facility Operation:** Employment of 400-600 operations staff and all of the services to support them
 - Maintenance services, regional fabrication yards, rail logistics facilities for inbound and outbound product movements, equipment maintenance facilities, real estate development (office, warehousing, industrial), finance and insurance, etc.
 - Suppliers' regional offices, suppliers' R&D facilities, emerging cluster of downstream companies (similar to SouthPointe)
 - Mixed-use retail, hotels, restaurants, arts & entertainment, outpatient medical facilities, fire, police and emergency services

Ripple Effects: Primary and Secondary economic impacts

Two time periods, two impact types

Impacts during construction (3-5 year period):

- Primary economic impacts: Building the plant; 6000+ construction jobs, direct jobs created by local businesses serving the construction project (e.g. utilities, professional services, equipment suppliers, parts suppliers)
- Secondary economic Impacts: All the regional businesses supporting the people, parts, services and inputs to the major chemicals project
 - Health care
 - Food service
 - Hotels/apartments
 - Retail trade
 - Warehousing
 - Parts fabrication and manufacturing
 - Transportation services



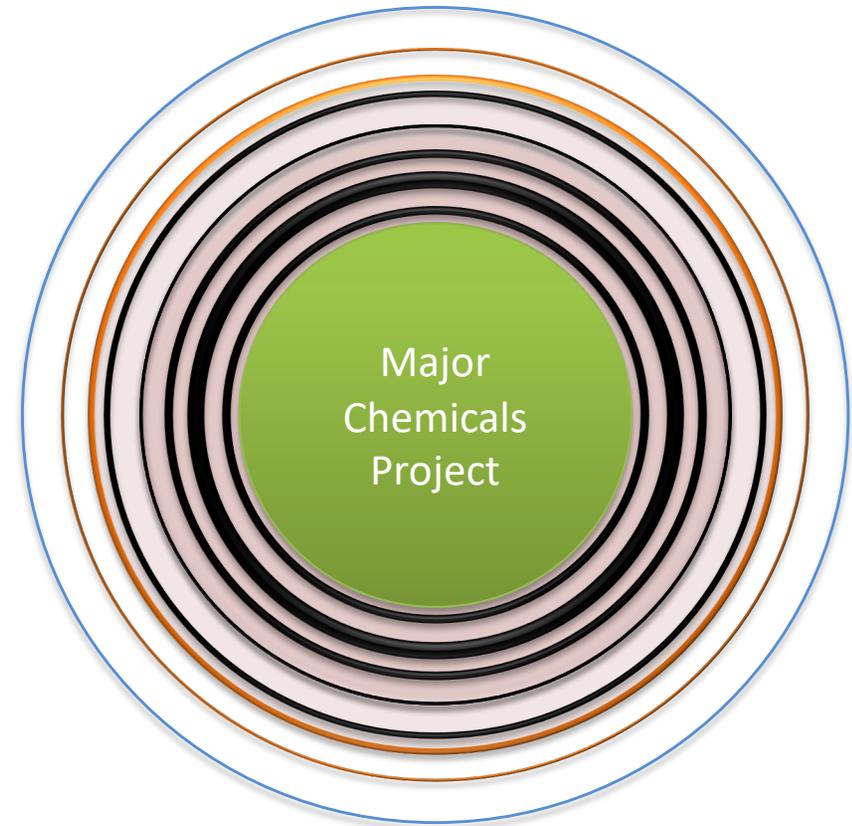
Think of all of the services you need to support a small city of workers arriving to the job site every day?

Ripple Effects: Primary and Secondary economic impacts

Two time periods, two impact types

Impacts during operation (30+ year period):

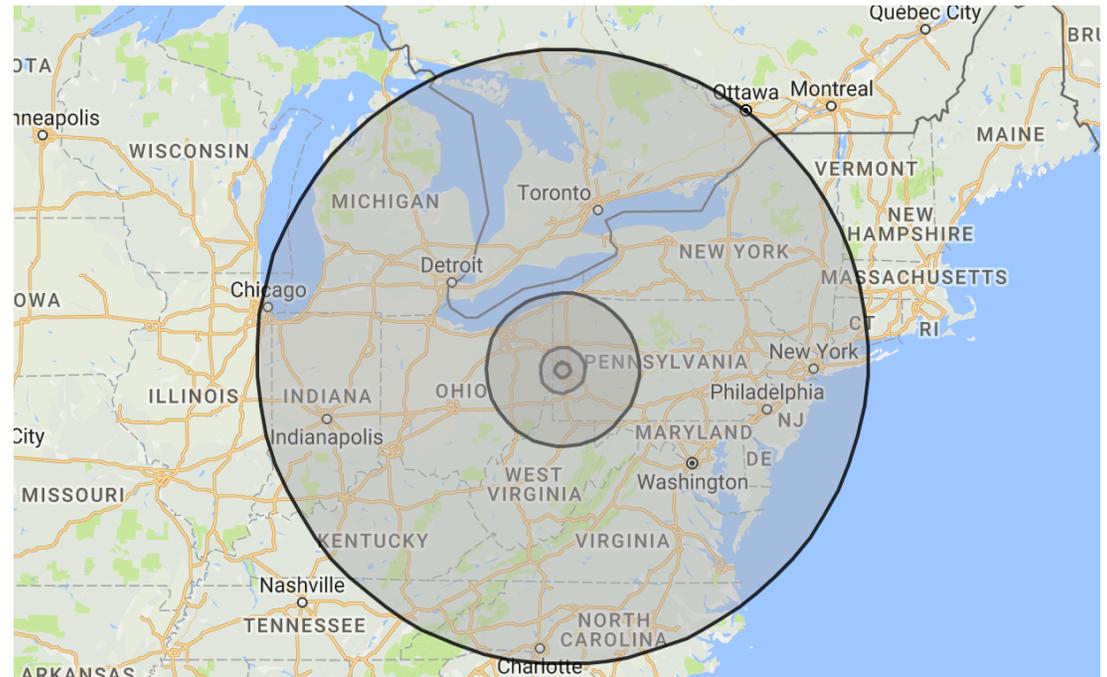
- Primary economic impacts: 400-600 high-wage operations jobs at the facility, earning 1.5 to 2x the average regional wage
- Secondary economic impacts: 2000 to 3000 additional jobs at regional companies and support organizations in and around the new plant
 - Adjacent chemical industries
 - Research & development
 - Contract maintenance
 - Parts suppliers
 - Real estate
 - Retail trade
 - Schools
 - Government services
 - Health Care
 - Financial services
 - Arts & Entertainment



Hundreds of newly employed families drive growth of nearby communities, opportunities for adjacent industries, and a broad expansion of goods and services

Radiating impact: Capturing opportunity downstream

- Certain sectors stand to gain the most:
 - Wholesale trade (raw materials, parts, business-to-business transactions)
 - Construction
 - Retail trade
 - Health Care and Social Services
 - Transportation and Warehousing services
 - Professional services
 - Accommodation and food service
- Big opportunity for small businesses: Companies with fewer than 20 employees are concentrated in professional services, retail trade, and construction
- Radiating opportunity: Not all impacts are within the immediate vicinity
 - Raw material supply
 - Parts fabrication
 - Downstream plastic part manufacturers
 - Information technology services



Questions?

- John Deskins, PhD., Director Bureau of Business & Economic Research and Associate Professor of Economics at West Virginia University
 - john.deskins@mail.wvu.edu
 - (304) 293-7876

- Gideon Gradman, Managing Director at Baker Tilly Capital
 - gideon.gradman@bakertilly.com
 - (773) 230-1979