
Joint Legislative Audit and Review Commission



**Impact of Regulations
on Virginia's Manufacturing Sector**

Manufacturing Development Commission

November 30, 2006



Study Mandate

- SJR 360 (2005) directed JLARC staff to study the comparative burden of regulatory compliance on Virginia's manufacturing sector
 - Cost of compliance with federal and Virginia regulation
 - Compare Virginia's regulations to other mid-Atlantic and southern states
 - Compare Virginia's regulations for manufacturers to other business sectors

In This Presentation

- Background
- Regulations and Compliance Costs
- Conclusions



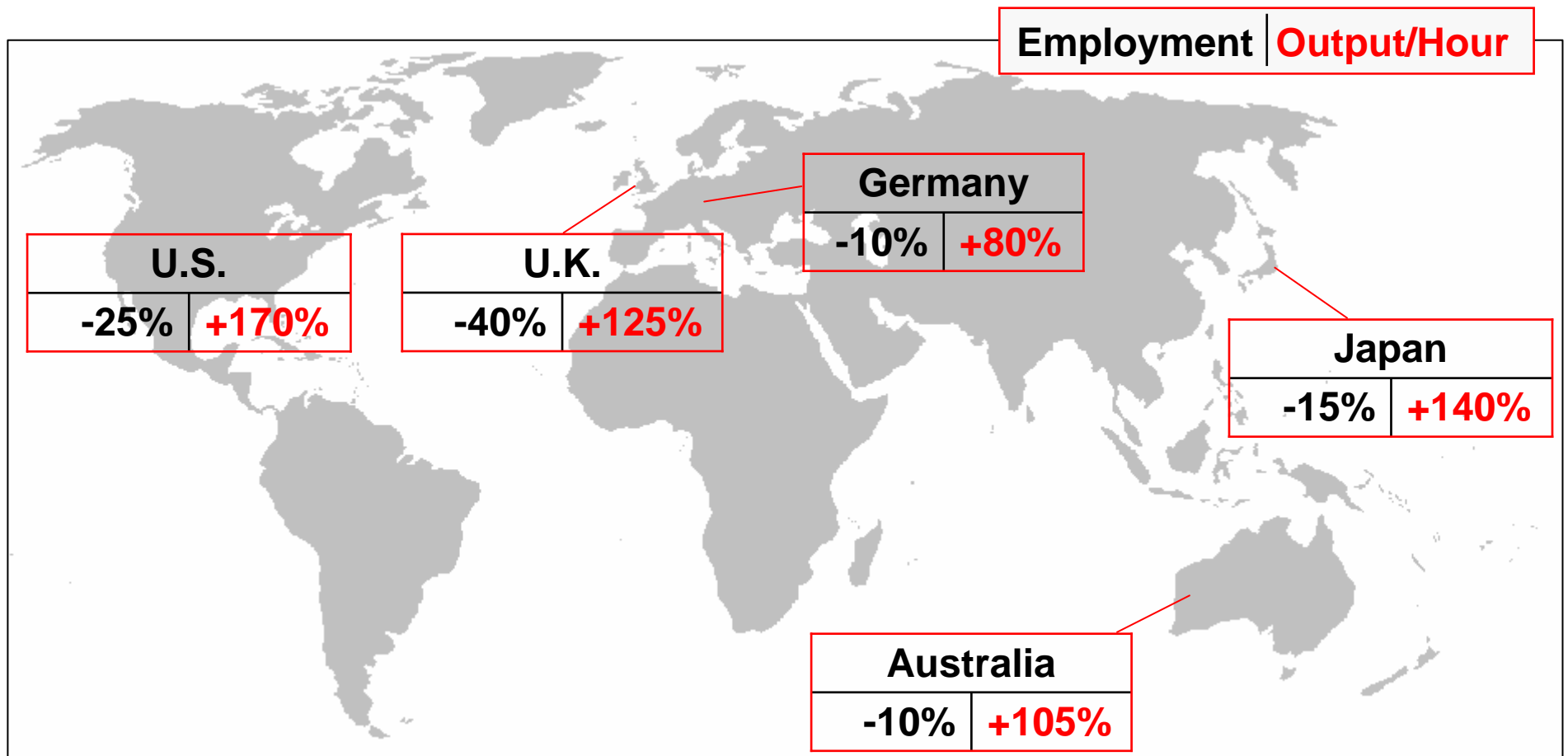
Virginia's Manufacturing Sector

- Virginia's manufacturing employment has declined
 - Since 1992, employment down 27% from 407,200 to 296,000
 - Most occurred during recession, but job loss has moderated
- Manufacturing is still important to Virginia's economy
 - Third largest business sector with 12% of State's employment
 - Nearly 6,000 manufacturing establishments
 - Sector value-added is about 15% of Virginia's Gross State Product

Many Factors Contributed to the Job Loss

- Globalization of the U.S. economy
- Technological and process improvements allowed increased productivity
- Increasing sector labor costs

Jobs Decline and Productivity Increase Is a Worldwide Trend



Data from U.S. Bureau of Labor Statistics; percent change measured 1980 - 2003

Emerging Economies Driving Increased Imports Have Much Lower Manufacturing Wage Rates

- Average U.S. manufacturing wage is \$22.87 / hour

<u>Developed Economies</u>			<u>Emerging Economies</u>		
Country	Share of U.S. Imports	Average Wage / Hour	Country	Share of U.S. Imports	Average Wage / Hour
Canada	17.5%	\$21.42	China	14.0%	\$0.57
Japan	8.1	21.90	Mexico	10.8	2.50
Germany	5.0	32.53	Korea	2.5	11.52

Data from U.S. Census Bureau and *Monthly Labor Review*; wages in 2006 U.S. \$

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Federal and Virginia Regulations Grouped Into Four Categories

1. Environmental

Protect the environment and human health from harmful air emissions, water contamination, and hazardous waste pollutants.

2. Economic

Restrict a firm's primary economic activities, such as its process, pricing, and output decisions.

3. Workplace

Govern the relationships between employers and employees, such as wages, benefits, safety and health, and civil rights.

4. Tax

Identify the activities for which government will collect taxes and the rates at which those taxes will be collected.



Different Sources for Compliance Costs

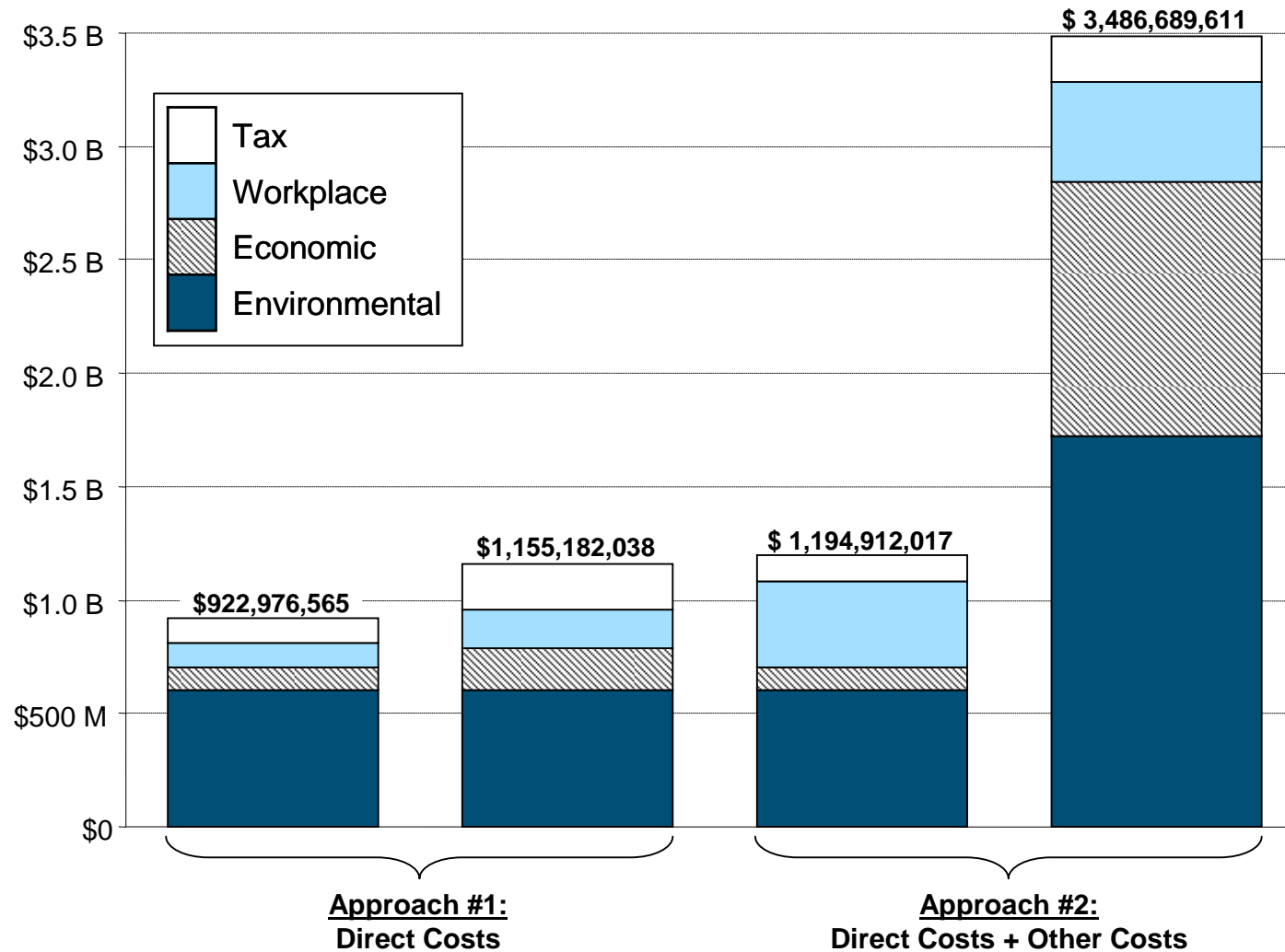
- Existing estimates adjusted by JLARC staff
- Case studies with five large Virginia manufacturers
 - Two paper manufacturers
 - Transportation equipment manufacturer
 - Beverage and tobacco products manufacturer
 - Computer and electronics manufacturer
- Attempted to address costs in four regulatory areas

JLARC Staff Used Two Approaches To Estimate Costs

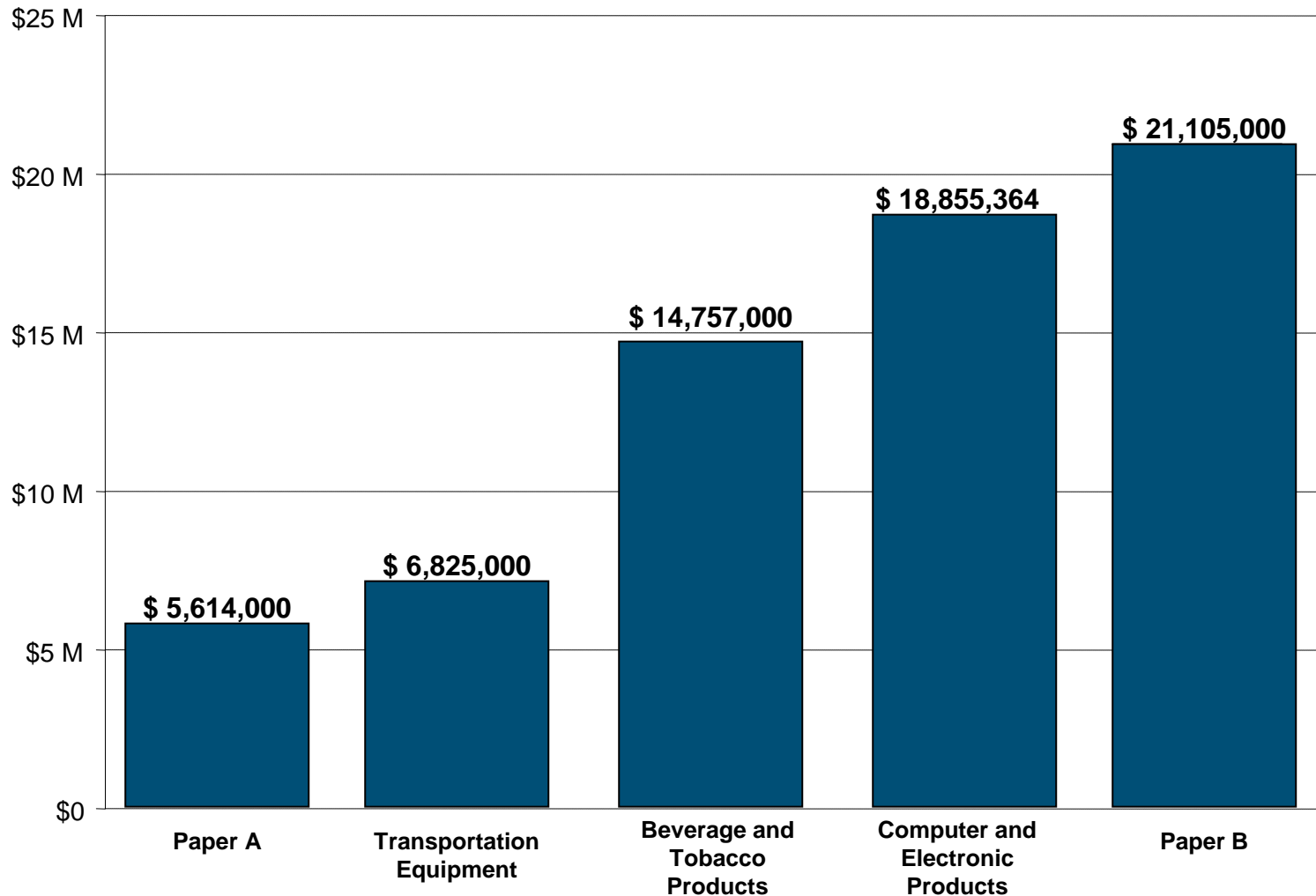
- Approach #1 includes direct costs
- Approach #2 includes direct costs plus other types of costs

Direct Costs	Other Costs
Capital expenditures	Disrupted productivity
Product reformulation or design	Altered decision-making due to regulatory requirements
Recordkeeping	Settlement awards and legal costs
Staff time	OSHA fines for non-compliance

Total Compliance Cost Estimate



Case Study Company Estimates of Environmental Costs Vary by Company and Sub-Sector



Economic Cost Estimates Vary Substantially by Industry

Per-Employee Costs, by Sub-Sector / Industry

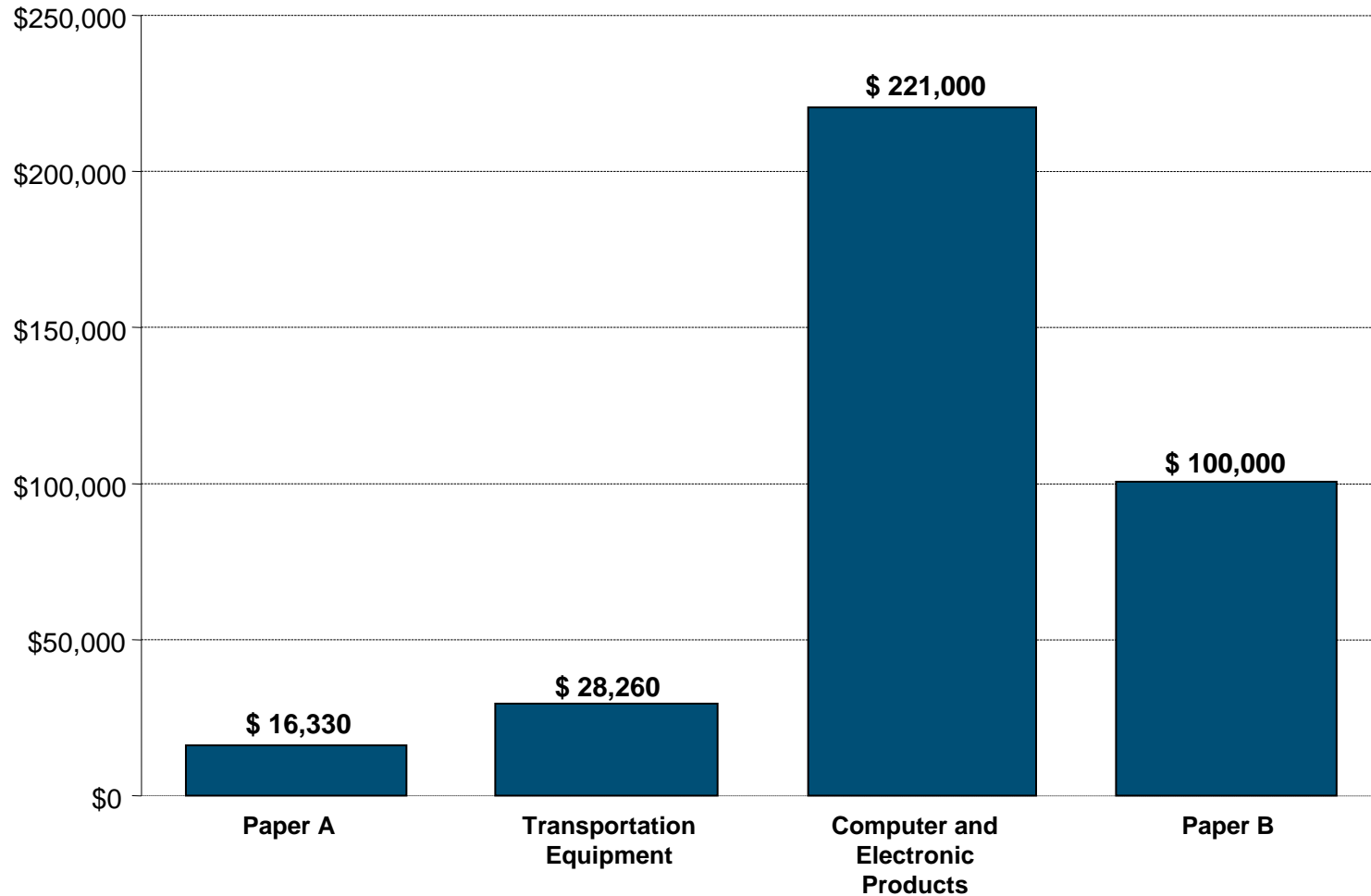
Sub-Sector / Industry	Per-Employee Cost (Low)	Per-Employee Cost (High)
Food and Beverage Manufacturing	\$100	\$3,392
Tobacco Product Manufacturing	243	243
Medical Equipment & Supplies Manufacturing	336	336
Pharmaceutical & Medicine Manufacturing	303	635
Transportation Equipment Manufacturing	1,076	2,904

OSHA Compliance Costs Vary Substantially by Company and Sub-Sector

Per-Employee Costs, By Case Study Company

	Paper Company A	Paper Company B	Computer & Electronics Equipment	Beverage & Tobacco
Fire Protection	\$887	\$21	\$143	\$78
Personal Protective Equipment	326	70	70	284
Respiratory Protection	14	24	54	56

Tax Compliance Cost Estimates Vary by Company and Sub-Sector



Overall Themes -- Case Study Companies

- Companies could generally identify compliance costs
- Had difficulty determining what they would spend absent regulation
- Generally could not separate costs to comply with federal regulations from costs for Virginia regulations
- A company's estimates for its facility are likely more precise than aggregate estimates for all companies
- Compliance costs can vary widely

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Virginia Regulations Generally Mirror Federal Regulations and Do Not Appear to Add Substantial Costs

- Most Virginia regulations closely follow federal regulations and are similar to other states
- Tendency for federal regulation benefits to outweigh costs could also be applied to Virginia regulation
- Long-term, public regulatory review process that allows manufacturer involvement

Manufacturers Are Concerned About the Timeliness of DEQ Permit Processing

- Number of permit applications and length of processing time have increased in recent years, with no appreciable increase in DEQ permit staffing
- 2005 peer review report of DEQ's permit process identified about 250 improvement opportunities
 - Provide technical training
 - Initiate focus groups
 - Allow unchanged application information to carry over
 - Streamline the general permit process

Additional Opportunities Exist to Reduce Pollution

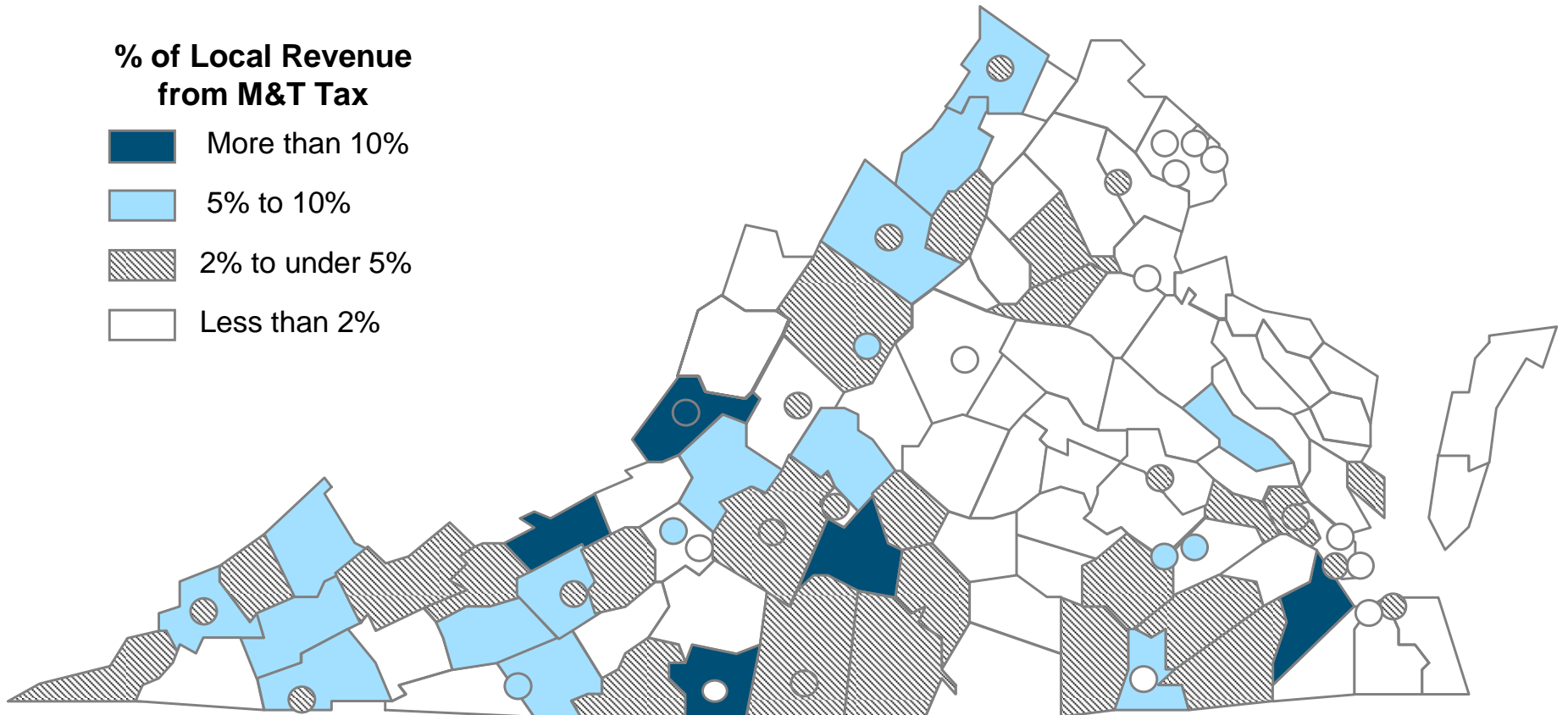
- Only 1% of manufacturing facilities have participated in Governor's Environmental Excellence Award program
- Burden is on companies to participate
- No single DEQ group is primarily responsible for identifying and promoting opportunities for companies to reduce pollution

Certain Employees Can File Workers' Compensation Claims Under One or Both Acts

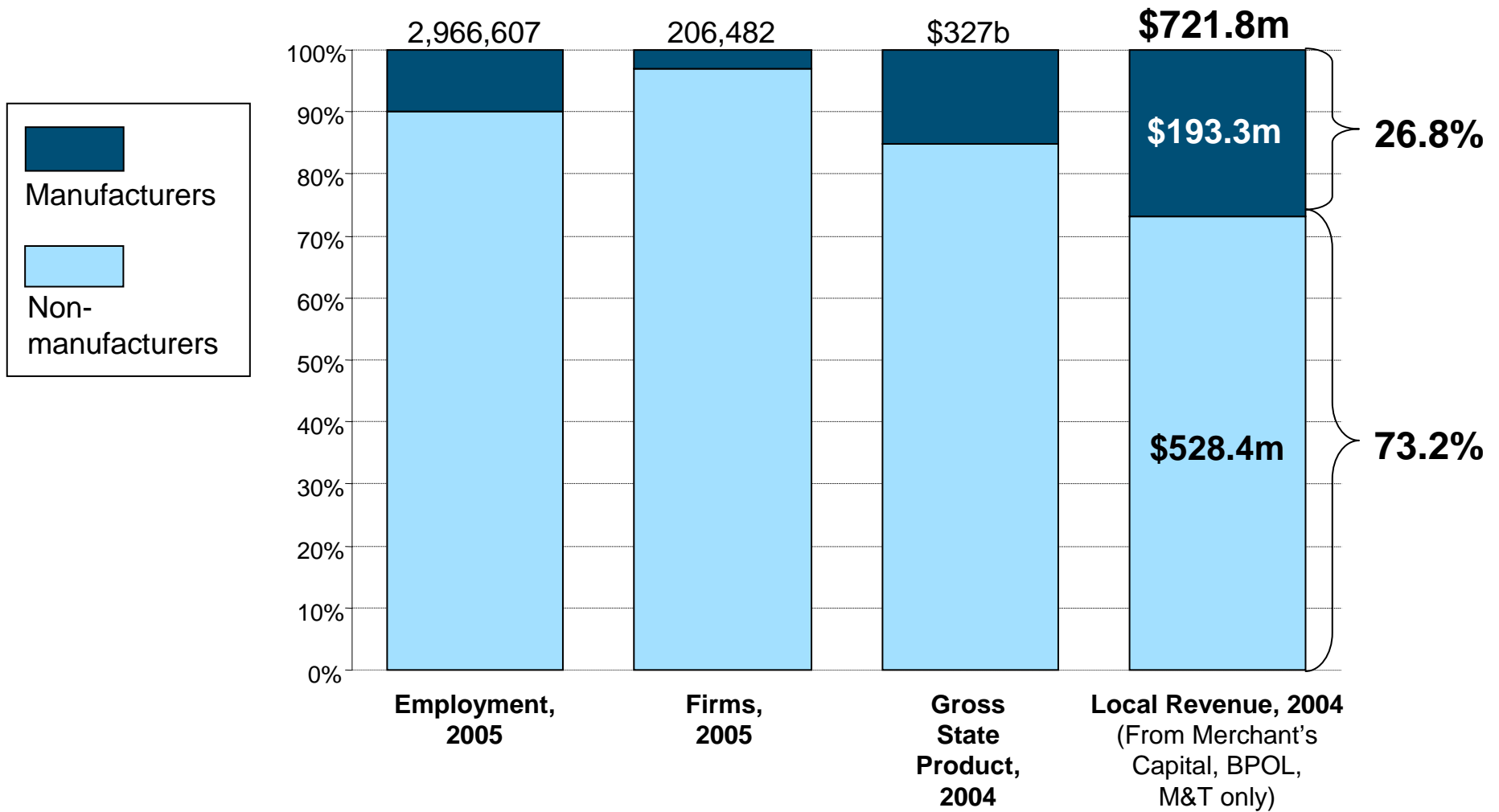
- Provides flexibility for employees
 - Can only receive compensation under one act
- For employers, overlap results in increased costs because of duplicative administrative and legal costs
 - One company's estimate of these costs: \$1.5 to \$2 million per year
- Shipbuilding is the manufacturing industry most affected (21,684 employees in Virginia)

Machinery and Tools Tax Was the Most Widely Cited Regulatory Concern

Few Localities Rely Heavily on Machinery and Tools Tax for Local Revenue



Manufacturers' Share of Local Business Taxes Is Higher Than Other Measures

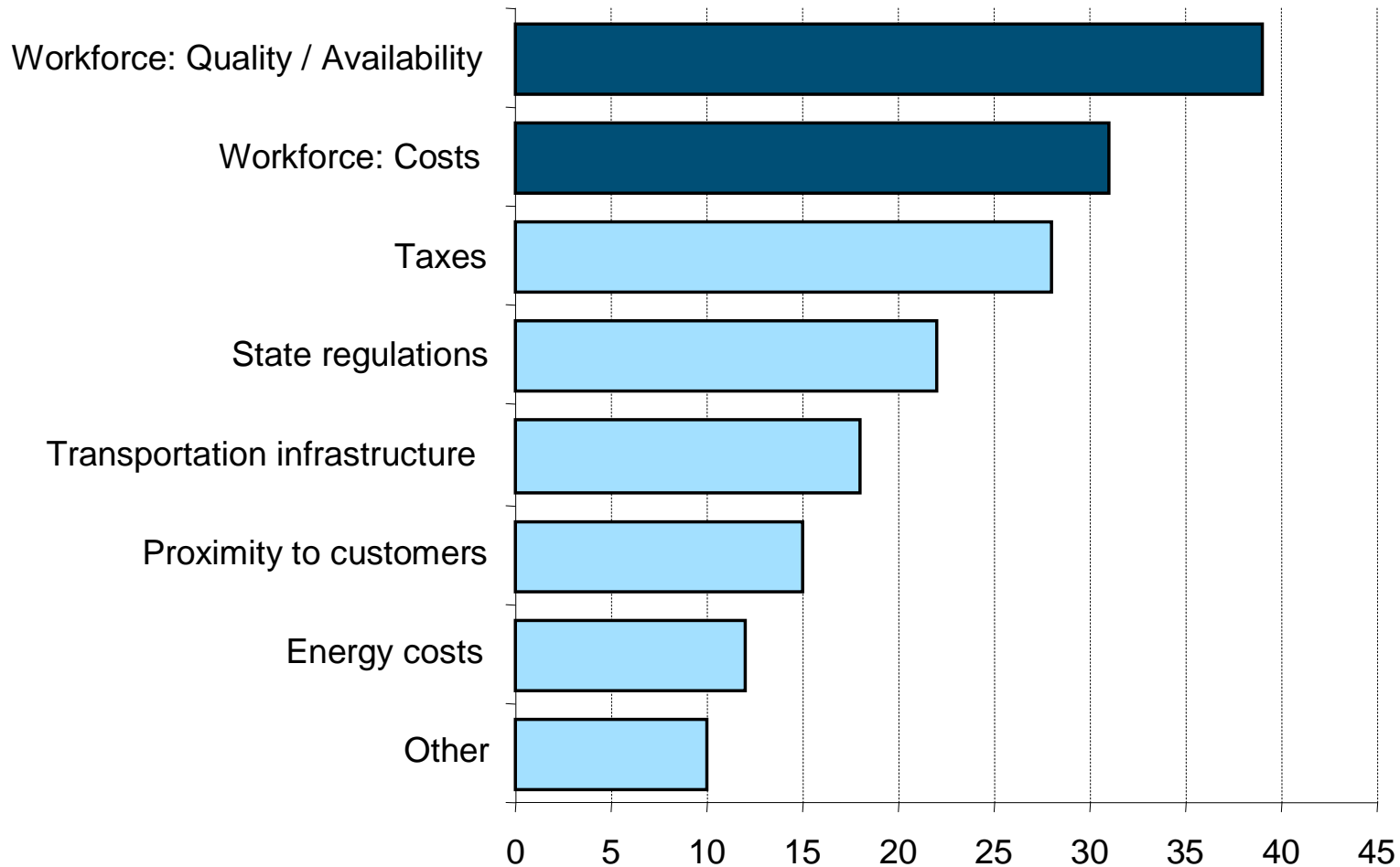


Virginia Regulations Were Not Primary Reason for Decline in Manufacturing Jobs

- Globalization, increased productivity, and labor costs were major reasons
 - Job loss occurred in other states, nationally, and in other industrialized nations
- Virginia's regulations closely follow federal regulations and have remained stable
- More broadly, Virginia is consistently recognized as a "business-friendly" state

Supporting Virginia's Manufacturing Sector Requires Considering Other Factors

Manufacturer's Responses to JLARC Survey on Factors of Location Decisions



Possible Considerations to Foster Virginia's Manufacturing Sector

- What role will manufacturing play in Virginia's future economy?
- How can Virginia complement the federal American Competitiveness Initiative?
- What sub-sectors does Virginia want to recruit, maintain, or support?
- What are Virginia's competitive advantages? Where does Virginia need to improve?
- How can appropriate perspectives be included and trade-offs considered?

Key Findings

- Despite job losses, manufacturing is still critical to Virginia's economy
- Virginia's regulations were not the primary cause of job loss
- Virginia manufacturers spent an estimated \$923 million to \$3.49 billion to comply with regulations in 2005
- Virginia's regulations generally follow federal regulations and are not substantially different from other selected states
- Supporting manufacturing requires considering other factors, including workforce issues and transportation infrastructure

For More Information

<http://jlarc.state.va.us>

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