HB 804

Department of Legislative Services

Maryland General Assembly
2020 Session

FISCAL AND POLICY NOTE
First Reader

House Bill 804 (Delegate Guyton, *et al.*)
Economic Matters

Workgroup to Study Maryland's Emerging Digital Economy

This bill establishes the Workgroup to Study Maryland's Emerging Digital Economy, staffed by the Department of Commerce (Commerce). The workgroup is charged with a wide variety of issues to examine and on which to make recommendations, such as higher education curriculums, related professional research, public-private partnerships, apprenticeships, State grant funding levels, new tax credits, and the State's current statutory and regulatory authority over manufacturing. A member of the workgroup may not receive compensation but is entitled to reimbursement for travel expenses. By December 1, 2021, the workgroup must report its findings and recommendations to the General Assembly. **The bill takes effect July 1, 2020, and terminates June 30, 2022.**

Fiscal Summary

State Effect: General fund expenditures increase by $486,300 in FY 2021 and by $460,700 in FY 2022, under the assumptions discussed below. Expense reimbursements for workgroup members are assumed to be minimal and absorbable within existing budgeted resources. Revenues are not affected.

(in dollars)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Revenues	$0	$0	$0	$0	$0
GF Expenditure	486,300	460,700	0	0	0
Net Effect	($486,300)	($460,700)	$0	$0	$0

Note:() = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate increase; (-) = indeterminate decrease

Local Effect: None.

Small Business Effect: None.

Analysis

Bill Summary: The workgroup must:

- examine existing academic research, data, statistics, and industrial case studies to make recommendations to the General Assembly that manufacturing organizations may use to adequately develop their workforce to meet the skill demands of Industry 4.0 (described below);

- examine the current curriculums of the State's institutions of higher education to determine whether students are fully prepared for the technology and processes they will be exposed to in future manufacturing;

- examine whether current State training programs and resources for the State's current workforce require modifications to prevent worker displacement resulting from Industry 4.0;

- examine new strategies and incentives that manufacturers may use to reskill the current workforce and invest in continuing educational training of employees;

- examine specified research conducted by the Massachusetts Institute of Technology on the relationships between emerging technologies and the workforce to enable a future of shared prosperity;

- examine existing financial resources available to manufacturers seeking to invest in Industry 4.0 technology;

- make recommendations to facilitate the State's robust entry into Industry 4.0 technology to improve the perception of manufacturing careers;

- employ workforce development strategies for manufacturers to attract minorities, women, military veterans, millennials, and other groups to Industry 4.0 careers that do not alienate the current workforce;

- recommend various solutions for manufacturers to prepare for the potential workforce gaps resulting from the loss of current workers by examining increased training opportunities and creating best practices for manufacturers to use for workforce succession planning after the retirement of essential workers;

- evaluate and develop recommendations for long-term private-public partnerships between educational institutions and manufacturers to develop curriculums that address the rapidly changing needs of the manufacturing industry, including:

    - exploring the role of manufacturers to influence the curriculums of educational institutions by providing market feedback and skill requirements to educators, as well as partnering to understand the development needs of the current workforce; and

    - examining California's 115th community college, founded in 2018, as a model for possible adoption in the State, which provides training to meet the industry demand for highly trained, high-tech workers in the growing digital economy, while increasing access for traditionally underserved populations through online education and affordable certifications;

- propose appropriate annual State grant funding to create a statewide training program to address the growing skills gap in the manufacturing workforce, including the development of operators capable of programming automated equipment, training for the next generation of automation technicians, and revising curriculums for mechanical, electrical, and computer engineering related to industrial automation;

- examine formalizing mentorship or apprenticeship programs that match new workers with more experienced and skilled workers to develop practical and relevant skills within the daily production environment;

- examine new and viable tax credits and programs for manufacturers to be more competitive and marketable in the new digital economy;

- examine the State's current statutory and regulatory authority over manufacturing to examine potential reforms to attract new manufacturing businesses brought by Industry 4.0 to invest in the State's economy and workforce; and

- recommend additional financial support delivery mechanisms, as needed, to enable State manufacturers to adopt Industry 4.0 technology and enhance the ability of industry service providers to increase the scope of their industry support.

Current Law/Background: "Industry 4.0" is a term used to capture the way emerging technologies will affect the manufacturing industry in the future. The concept focuses heavily on interconnectivity, automation, artificial intelligence, robotics, 3D printing, machine learning, and real-time data.

In 1990, there were 200,000 manufacturing jobs in the State, representing 9.2% of all jobs. By 2014, manufacturing employment had fallen to 103,400, or 3.8%, of total jobs. This trend is not unique to Maryland, as manufacturing employment also fell nationally. Since the low of 2014, Maryland's manufacturing employment has stabilized and even grown slightly with rest of the economy, to 109,600 jobs (still 3.8%) in 2018.

State Expenditures: Given the extensive nature of the workgroup's charge and the variety of issues it is tasked with evaluating, Commerce advises that it requires both a part-time contractual staff and significant assistance from consultants. The Department of Legislative Services concurs with this assessment.

Accordingly, general fund expenditures increase by $486,298 in fiscal 2021, which accounts for the bill's July 1, 2020 effective date. This estimate reflects the cost of hiring one *half-time* contractual employee to staff the workgroup and coordinate with the consultant. It includes a salary, fringe benefits, one-time start-up costs, ongoing operating expenses, and one-half of the estimated $885,000 total consultant cost.

Contractual Position	0.5
Salary and Fringe Benefits	$38,273
Half of Total Consultant Cost	442,500
Other Operating Expenses	5,525
Total FY 2021 State Expenditures	**$486,298**

Fiscal 2022 expenditures of $460,678 reflect the continuation of the part-time contractual position through December 2021, ongoing operating expenses, and the other half of the total consultant cost. Actual costs in fiscal 2021 and 2022 depend on the timing of payments made to the consultant, which may vary from this estimate.

This estimate does not include any health insurance costs that could be incurred for specified contractual employees under the State's implementation of the federal Patient Protection and Affordable Care Act.

Additional Information

Prior Introductions: None.

Designated Cross File: SB 369 (Senators West and Hester) - Finance.

Information Source(s): Department of Commerce; Department of Information Technology; University System of Maryland; Department of Budget and Management;

Maryland Department of Labor; U.S. Bureau of Economic Analysis; Department of Legislative Services

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