



Maxine Goodman Levin College of Urban Affairs

Economic Impact Assessment of the Contracts for Human Performance with Wright-Patterson AFB

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HUMAN PERFORMANCE RESEARCH DATA: Federal funding was awarded to 16 projects

- Economic impact is generated by spending of research funding provided by the Federal Government (“good” money coming to Ohio)
- 16 contracts have been awarded by the U.S. Department of Defense to AFRL starting in December 2011
- At least one contract’s financial disbursement is going through 2021
- Economic impact is presented by 5 measures: output, value added, labor income, employment and taxes
- State seed funding is excluded from calculation of economic impact based on the assumption of *substitution effect* (these are initial state money that could of being invested in a different enterprise/project within the state generating a different economic impact)
- While the State seed funding is excluded from calculations, the economic impact generated by it is not
- In this presentation ***AHEAD Impact*** refers to a **direct and indirect impact** – a summation of direct services and goods and their supply chain



AHEAD IMPACT: Measures And Types of Economic Impact

MEASURES

- Output – the total \$ value of goods and services produced, sometimes referred as Gross Regional Product (GRP)
- Value added – the value of goods and services produced, minus the cost of intermediary goods
- Employment – number of supported full-time and part-time jobs
- Labor income – payroll paid to employees and proprietor's income
- Taxes – state and local taxes generated by increased economic activity

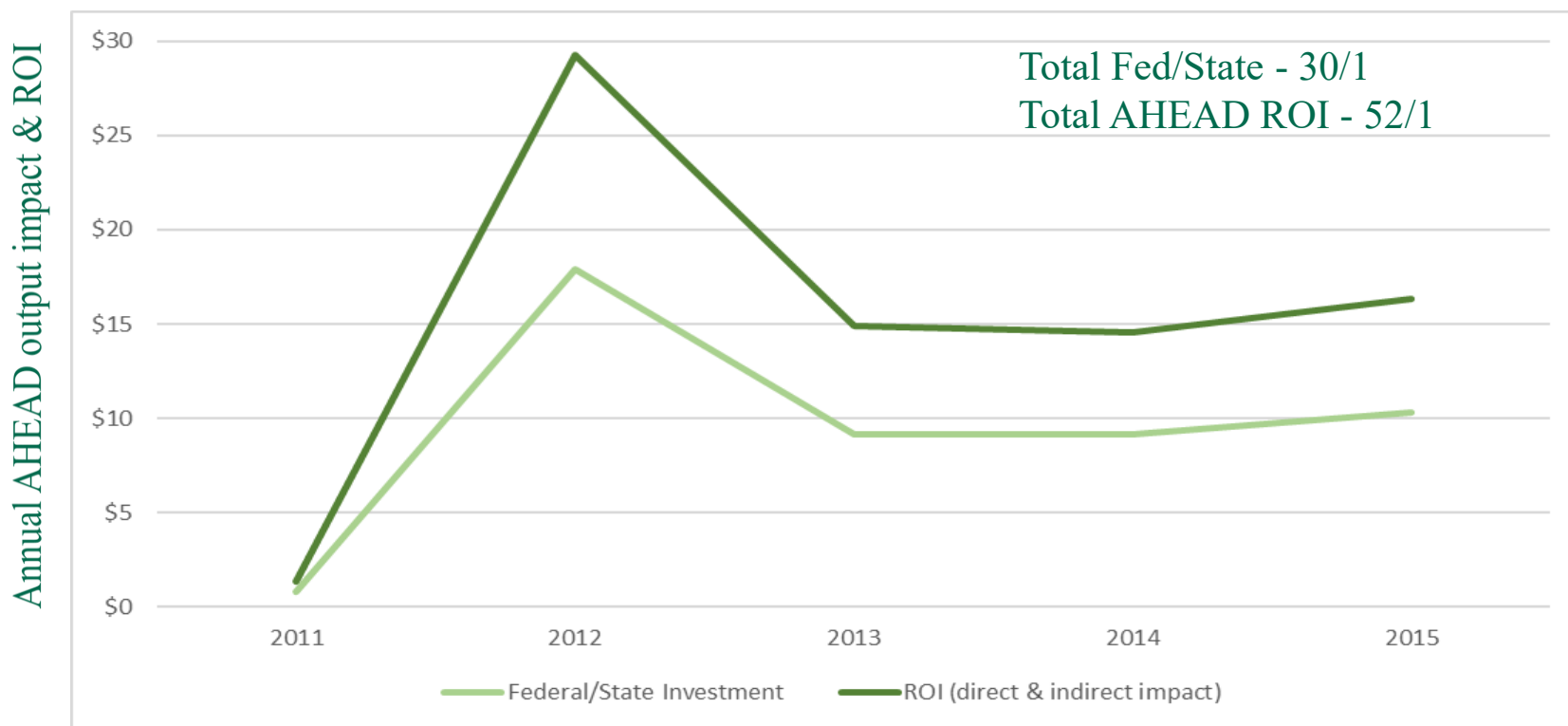
TYPES

- Direct impact is the initial value of goods and services
- Indirect impact measures the jobs and production needed to provide initial services and manufacture goods – also known as supply chain effect
- Induced effect is the increase in spending of local households due to the income received through work as employees or suppliers (not included in calculation of AHEAD Impact)



ECONOMIC RETURNS ON \$1 OF SEED STATE INVESTMENT:

RATIO OF FEDERAL TO STATE FUNDING AND
AHEAD IMPACT PER 1\$ OF STATE FUNDING



- Every dollar invested by the State generated \$30 of federal funding for research in Ohio
- Every dollar invested by the State is generating \$52 as AHEAD impact
- The impact is produced directly by companies/industries where federal investment was made and by their supply chain (direct and indirect impact)

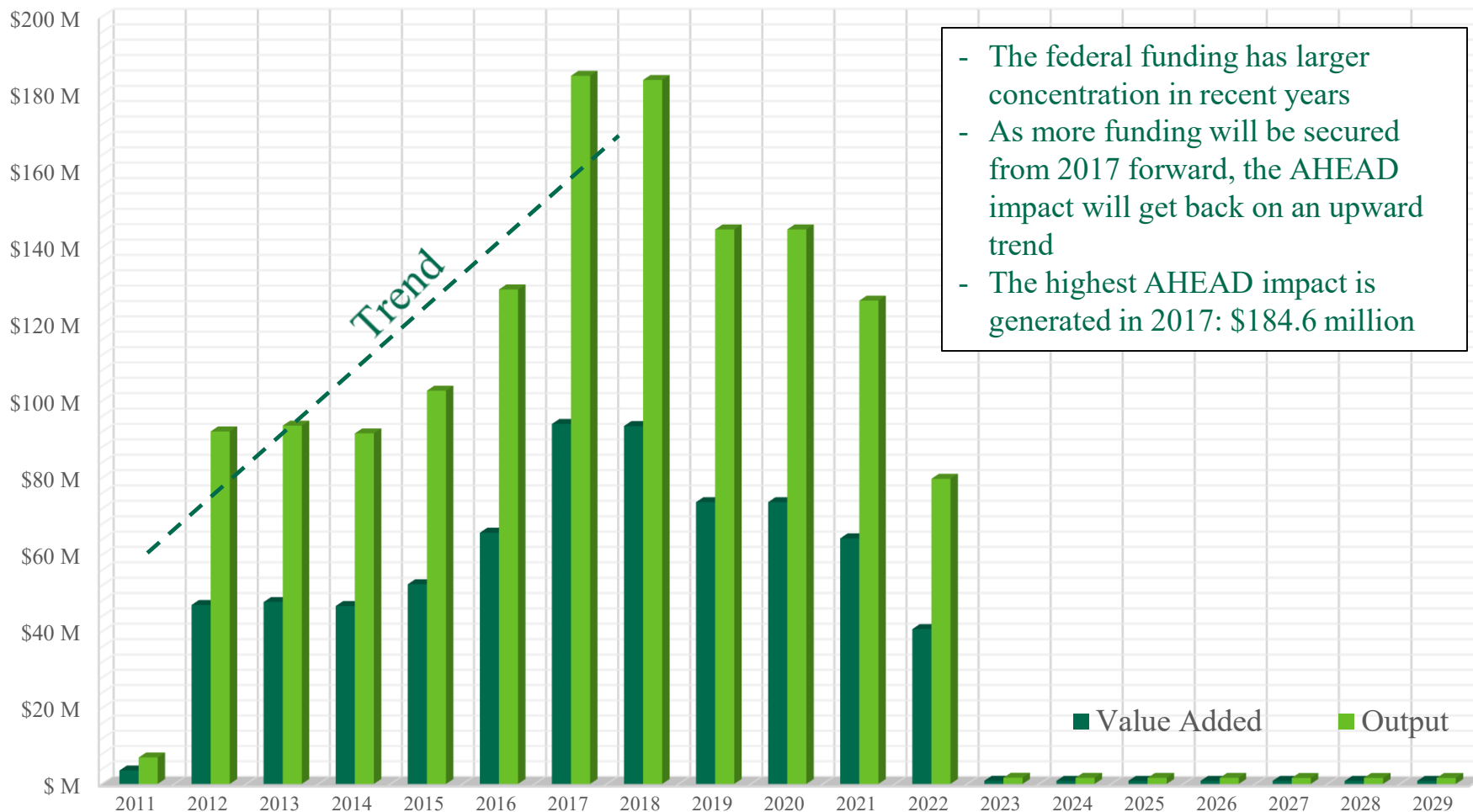


AHEAD IMPACT =
Direct + Indirect Economic Impact
Of Federal Dollars Spending



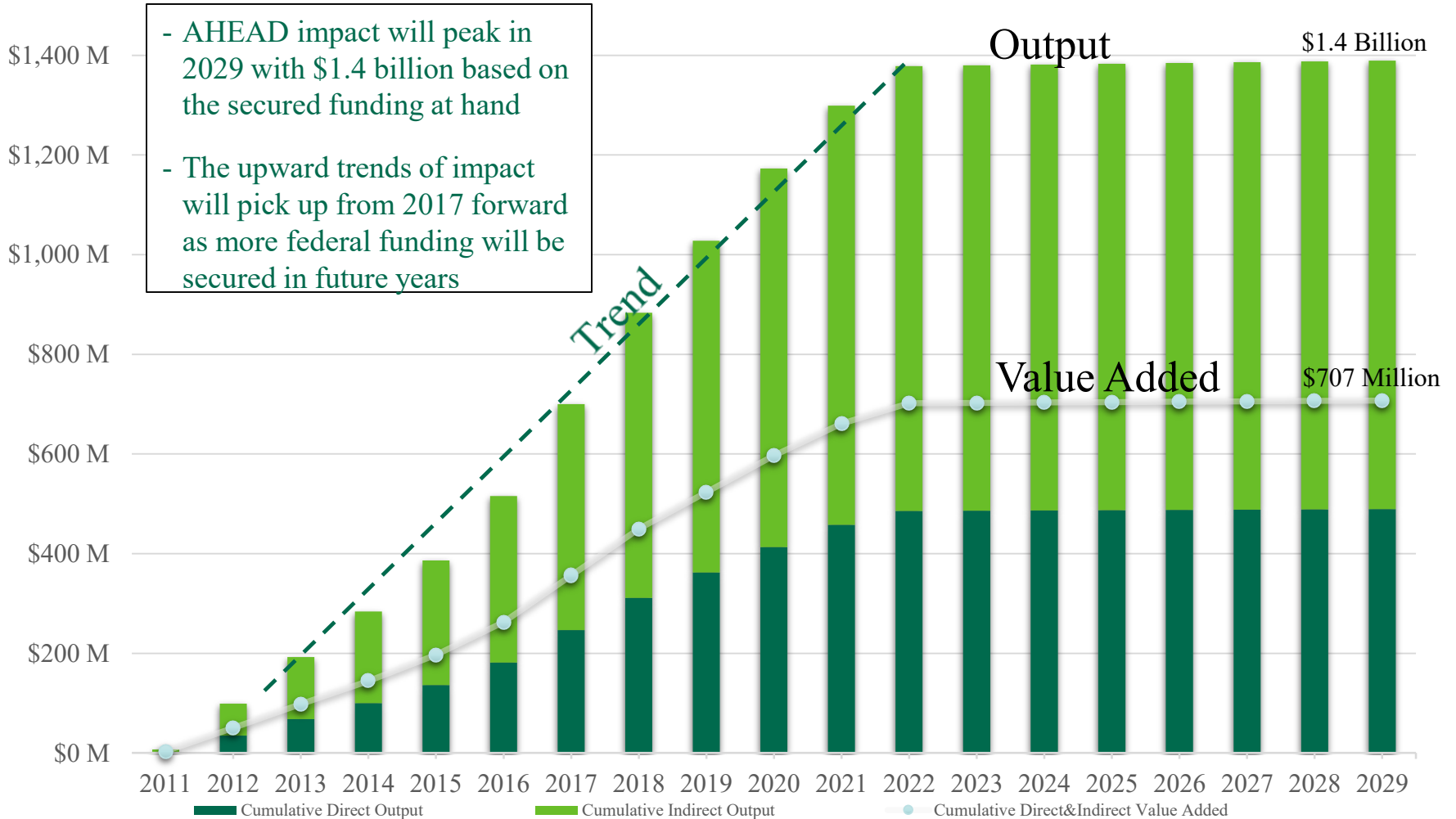
AHEAD IMPACT CREATED EVERY YEAR: OUTPUT AND VALUE ADDED

Millions of Dollars



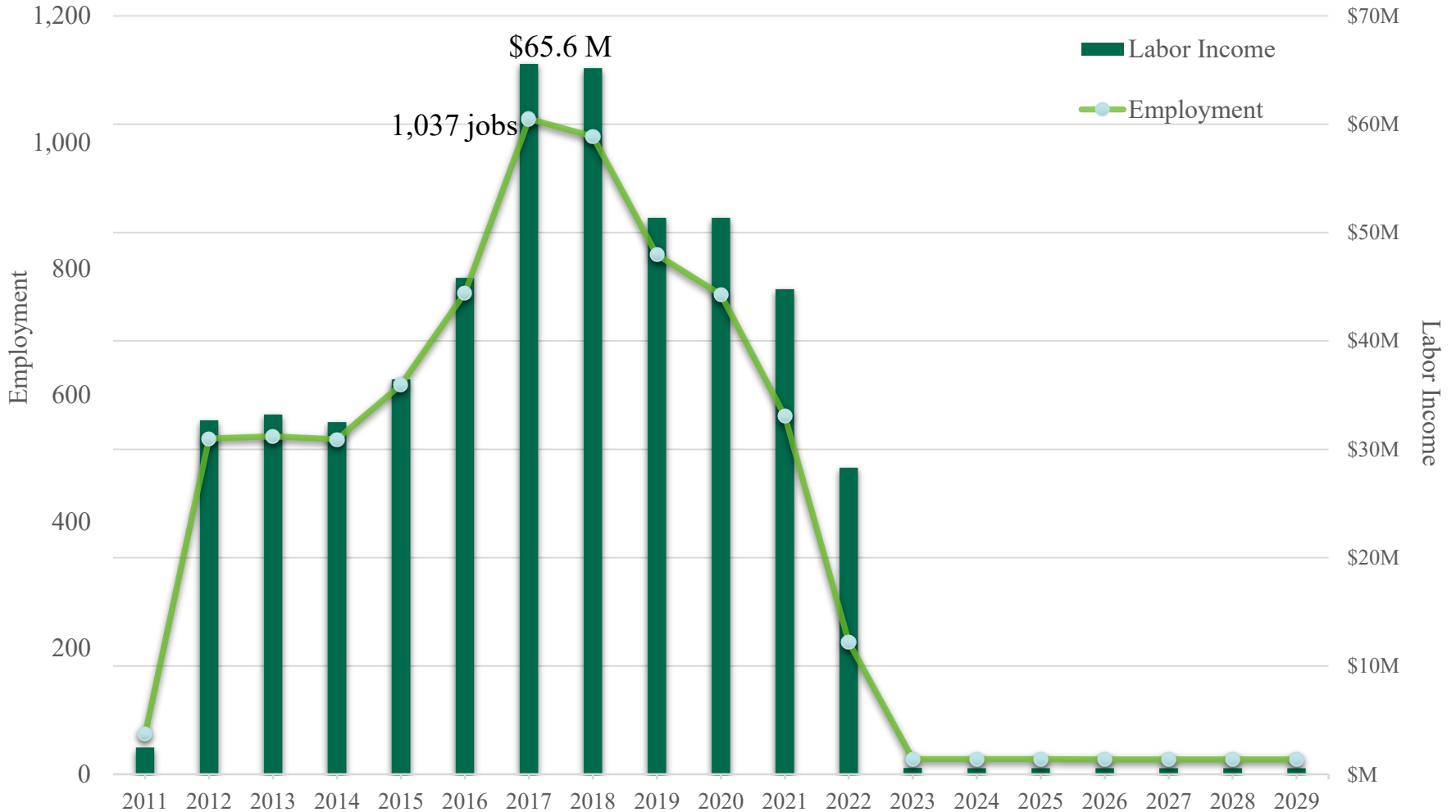


AHEAD IMPACT ACCUMULATED OVER TIME





AHEAD IMPACT CREATED EVERY YEAR: EMPLOYMENT AND LABOR INCOME



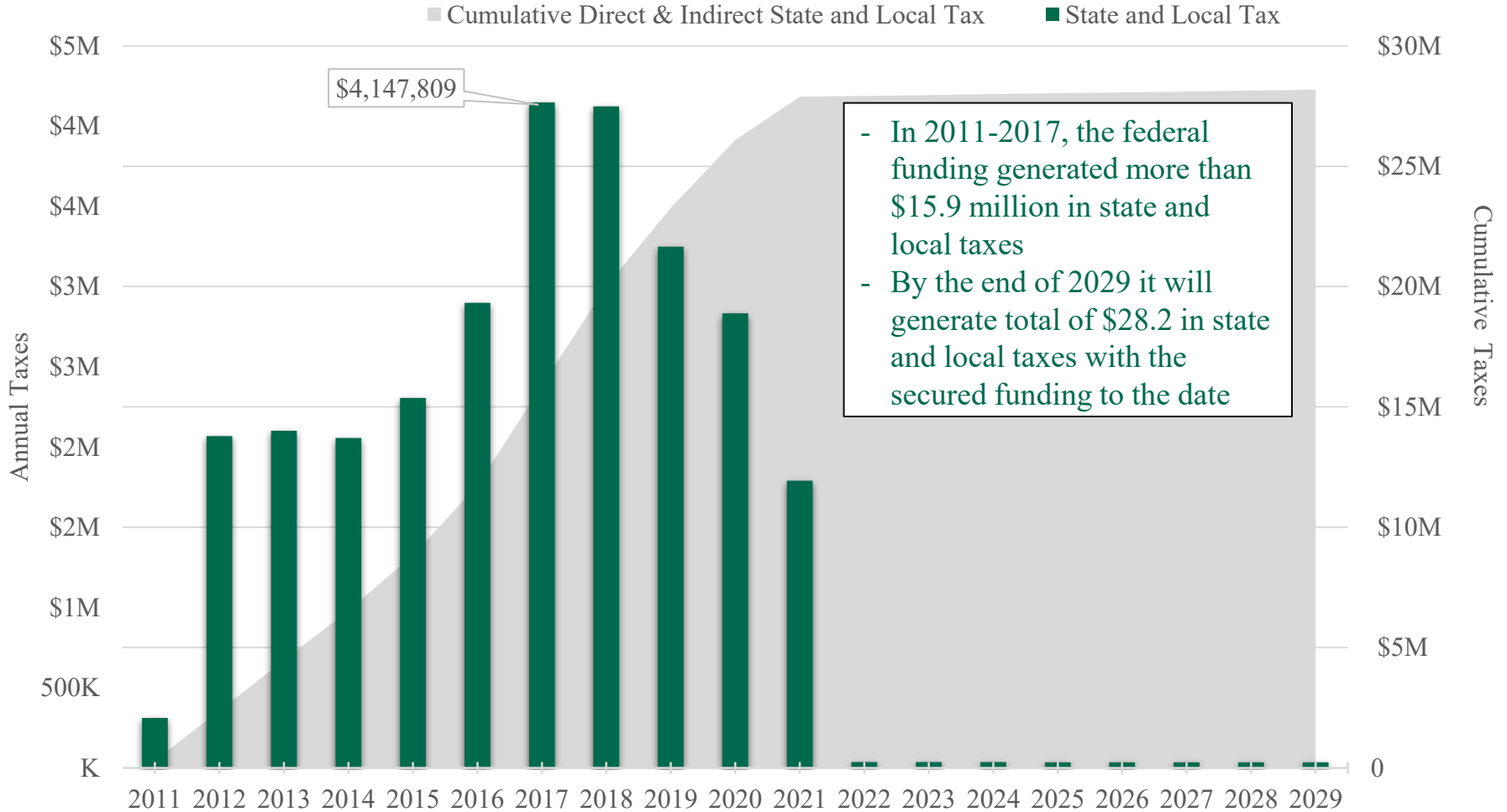


AHEAD CREATES JOBS AND BRINGS LABOR INCOME

- AHEAD brings employment and creates labor income every year
- The highest employment is created in 2017 with about 1,037 jobs (full-time and part-time)
- These people are employed in 16 federally funded projects and their partnering supply-chain companies
- \$65.6 million will be paid to these employees in 2017
- With the federal funding at hand, there are about 700 annual jobs secured in the research projects and their suppliers between 2018 and 2021
- The trends of employment and labor income will pick up starting in 2017, as more federal funding secured in future



AHEAD IMPACT: STATE AND LOCAL TAXES





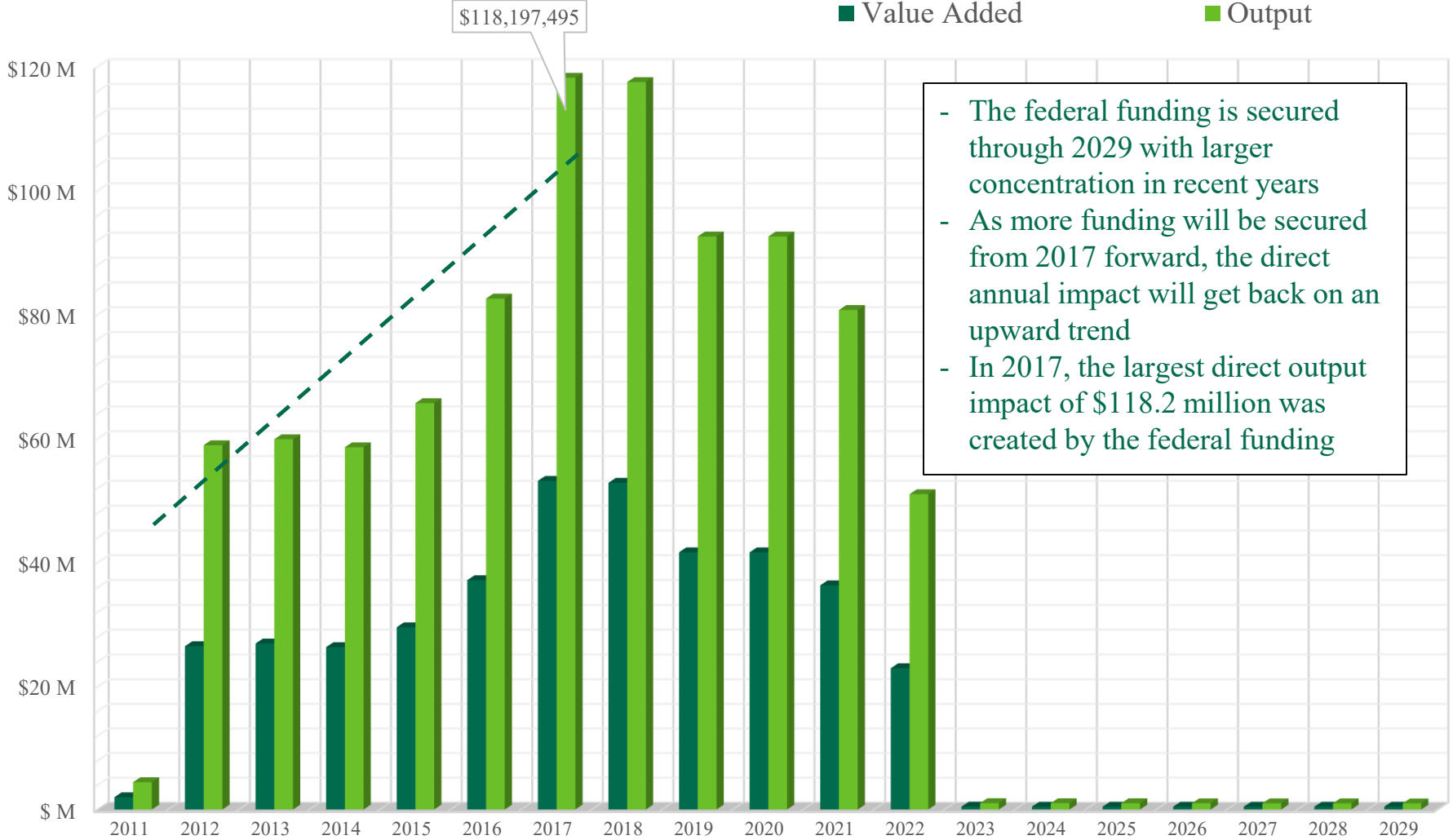
APPENDIX



DIRECT ECONOMIC IMPACT



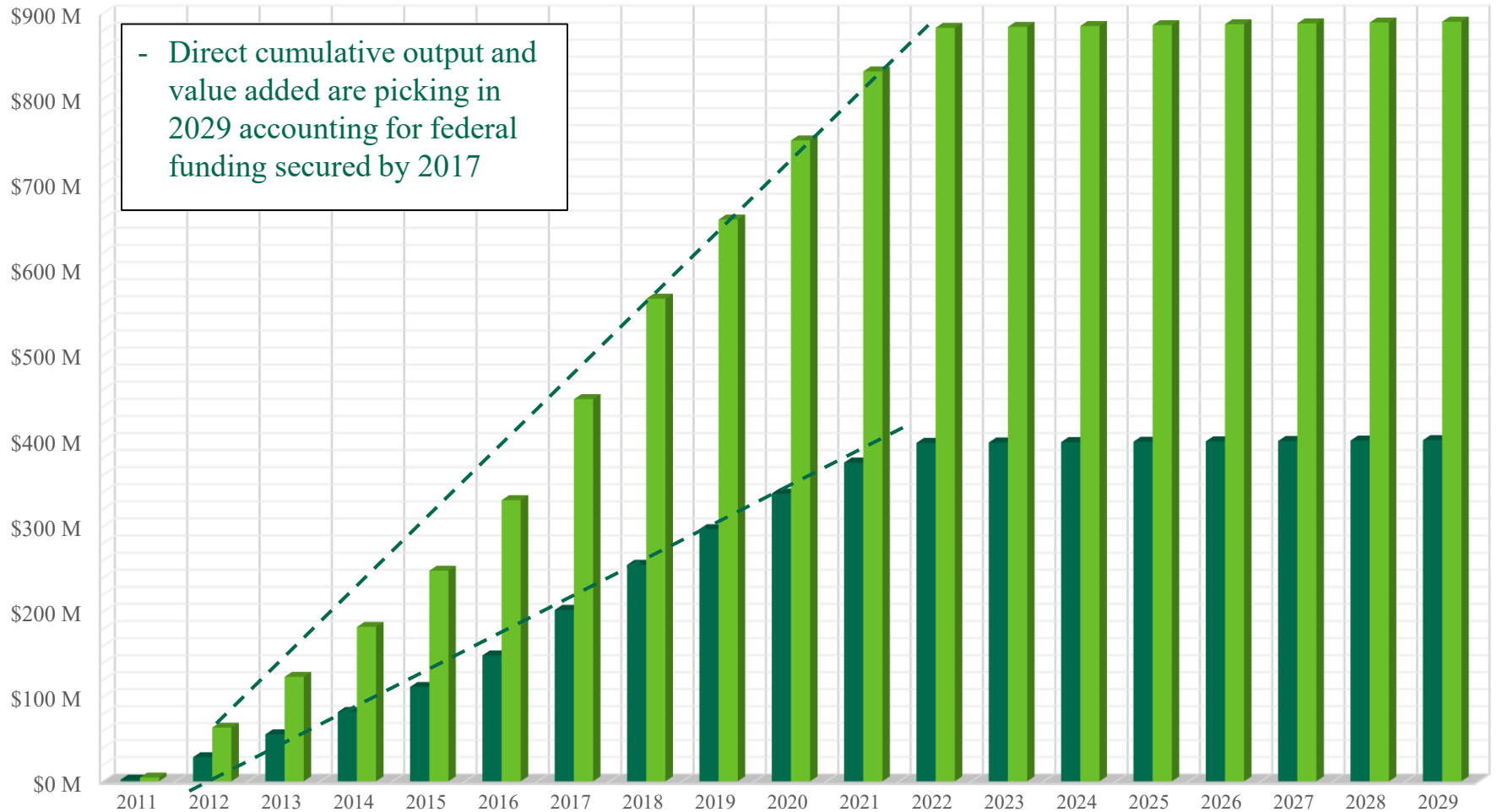
DIRECT AHEAD IMPACT: OUTPUT AND VALUE ADDED





DIRECT CUMULATIVE OUTPUT AND VALUE ADDED, M\$

■ Cumulative Direct Value Added ■ Cumulative Direct Output



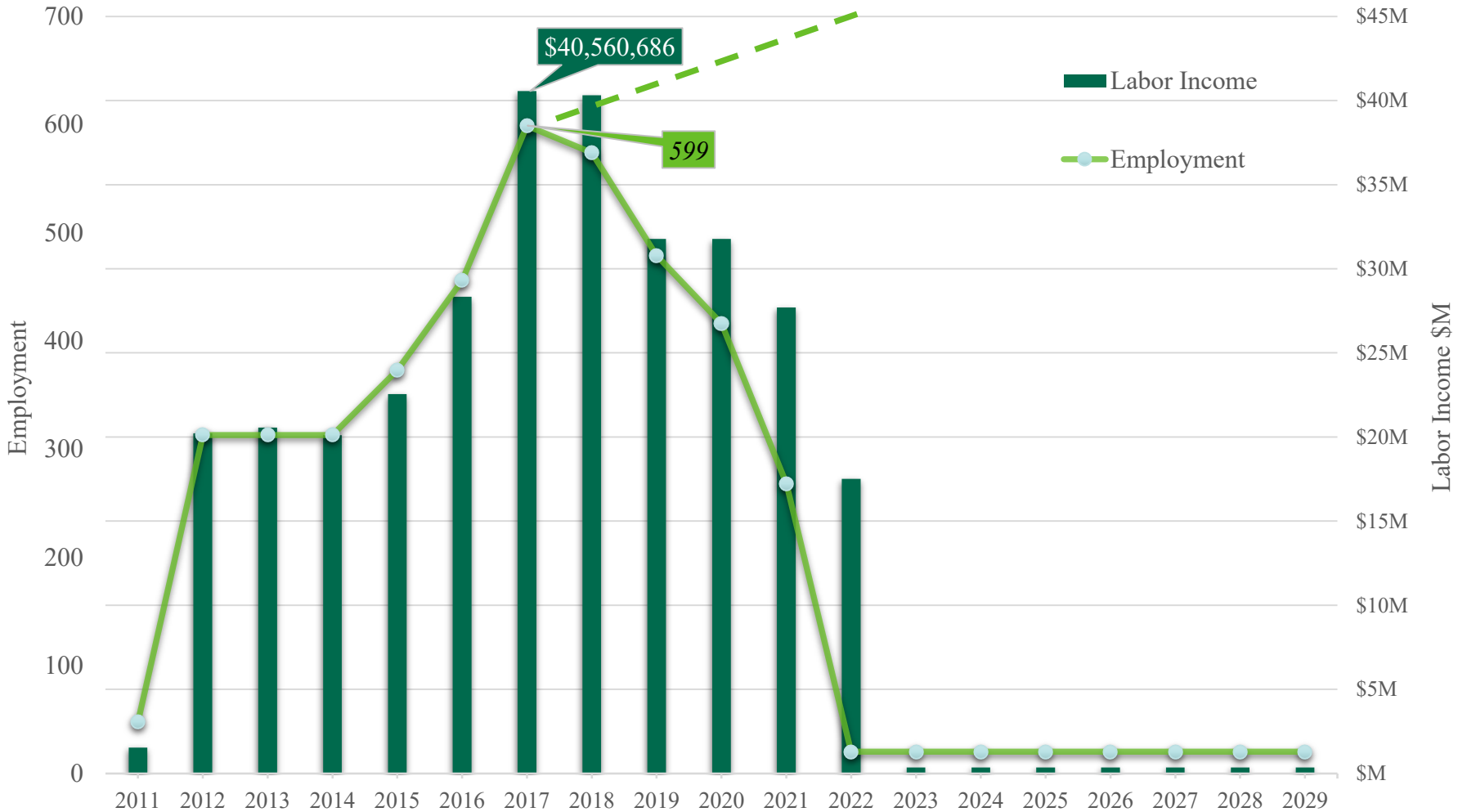


DIRECT CUMULATIVE OUTPUT AND VALUE ADDED, M\$

- The trends of direct cumulative output and value added impacts will pick up from 2017 forward as more federal funding will be secured in future years
- \$889.9 million of direct cumulative output impact will be generated by 2029 with the secured funding at hand
- \$400.3 million in direct cumulative value added impact is secured by 2029



DIRECT ANNUAL EMPLOYMENT AND LABOR INCOME



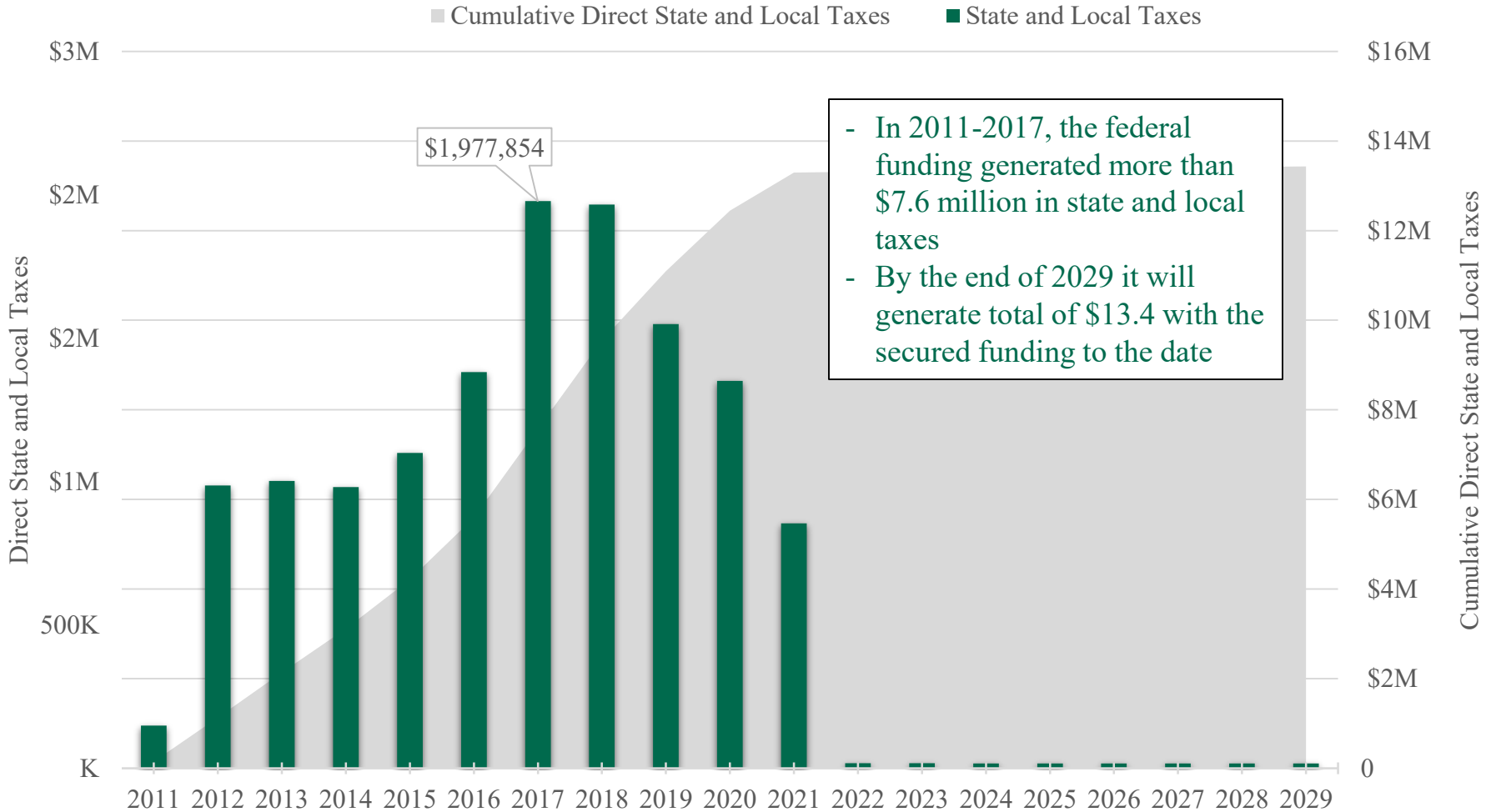


DIRECT ANNUAL EMPLOYMENT AND LABOR INCOME

- Direct annual employment and labor income are the highest in 2017 with about 600 people being directly employed in 16 federally funded projects on a full-time and part-time basis and \$40.6 million being paid to these employees in 2017 as their income while they are working in these projects
- With the federal funding at hand, there are about 400 full-time and part-time jobs already secured annually between 2018 and 2021
- The trends of direct annual employment and direct annual labor income will pick up starting in 2018, as more federal funding will be secured forward



DIRECT STATE AND LOCAL TAXES: ANNUAL AND CUMULATIVE





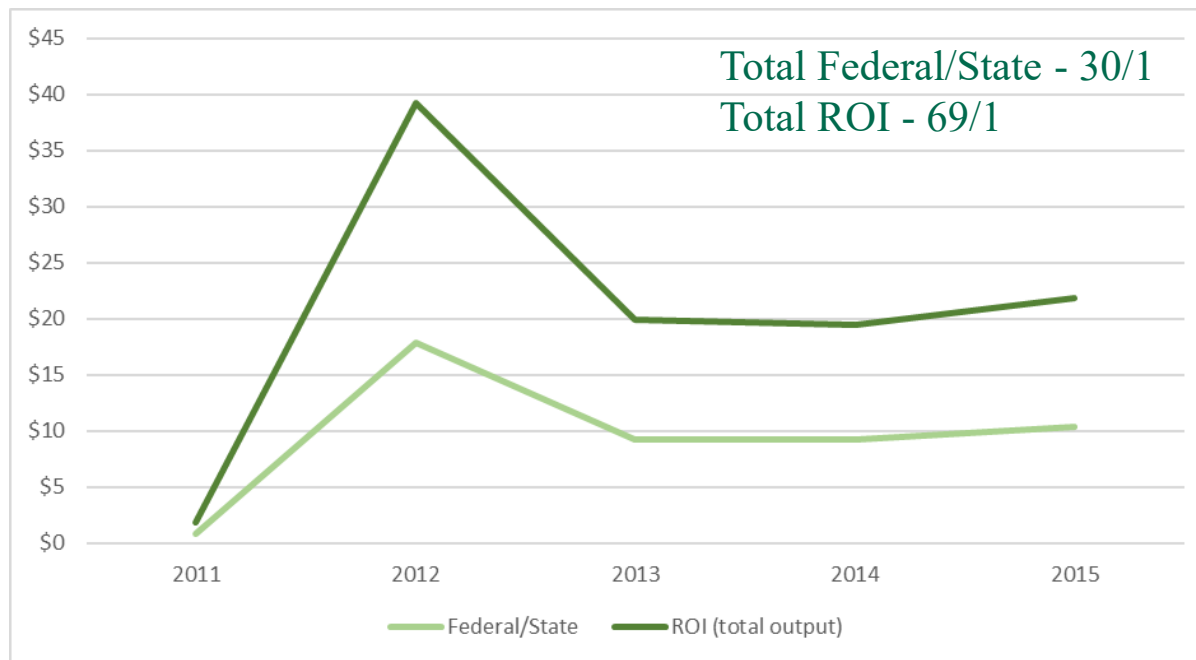
TOTAL IMPACT (DIRECT, INDIRECT, INDUCED)



ECONOMIC RETURNS ON \$1 OF STATE INVESTMENT:

RATIO OF FEDERAL TO STATE FUNDING AND
TOTAL OUTPUT IMPACT PER 1\$ OF STATE FUNDING

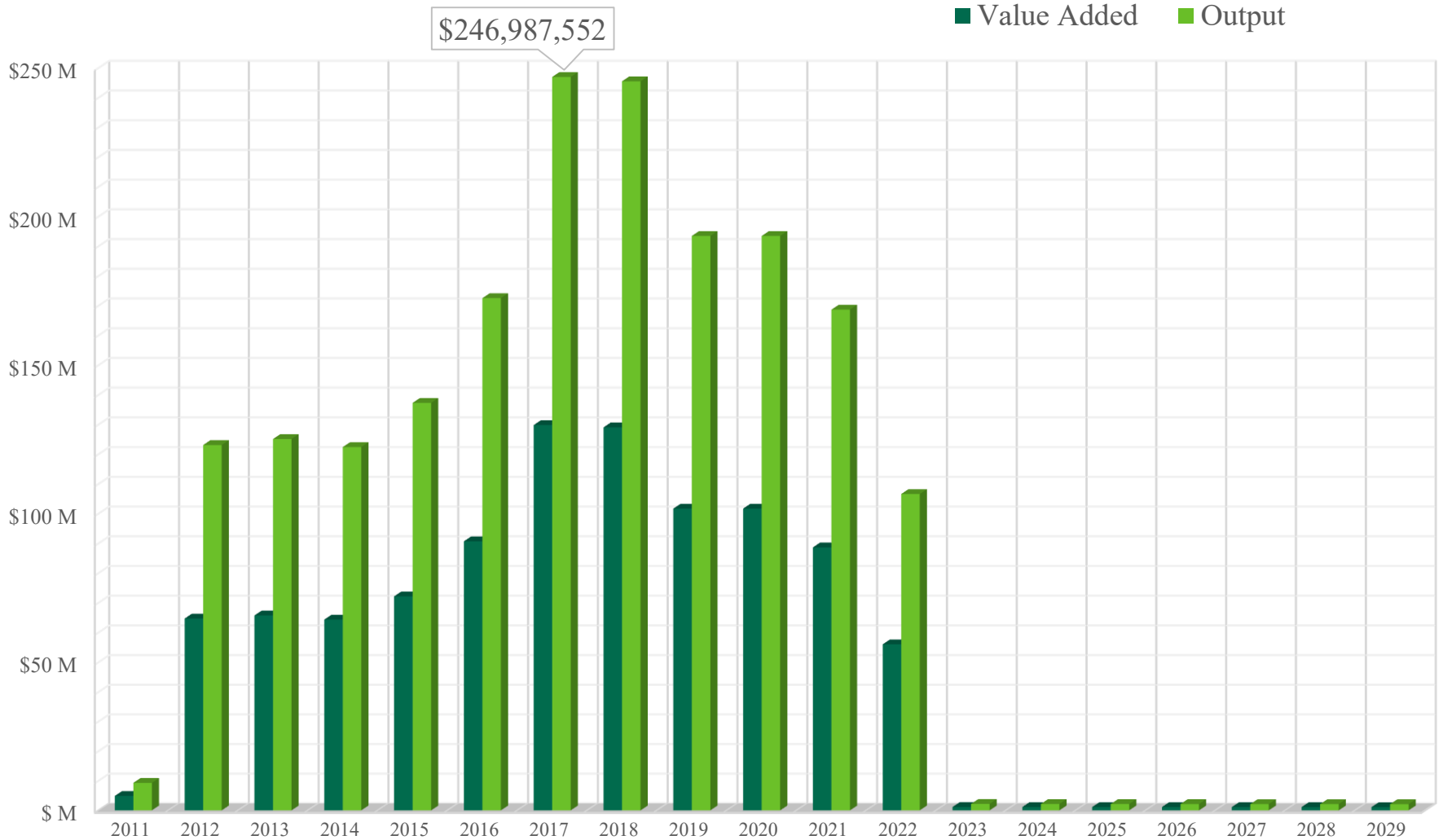
TOTAL: direct, indirect, and induced
economic impact (ROI)



- Every dollar invested from the State generated \$30 of federal investment into research in Ohio
- Every dollar of invested state funding generating \$69 of output produced directly by companies/industries where investment was made, their supply chain, and through the spending pattern of workers employed in all effected industries



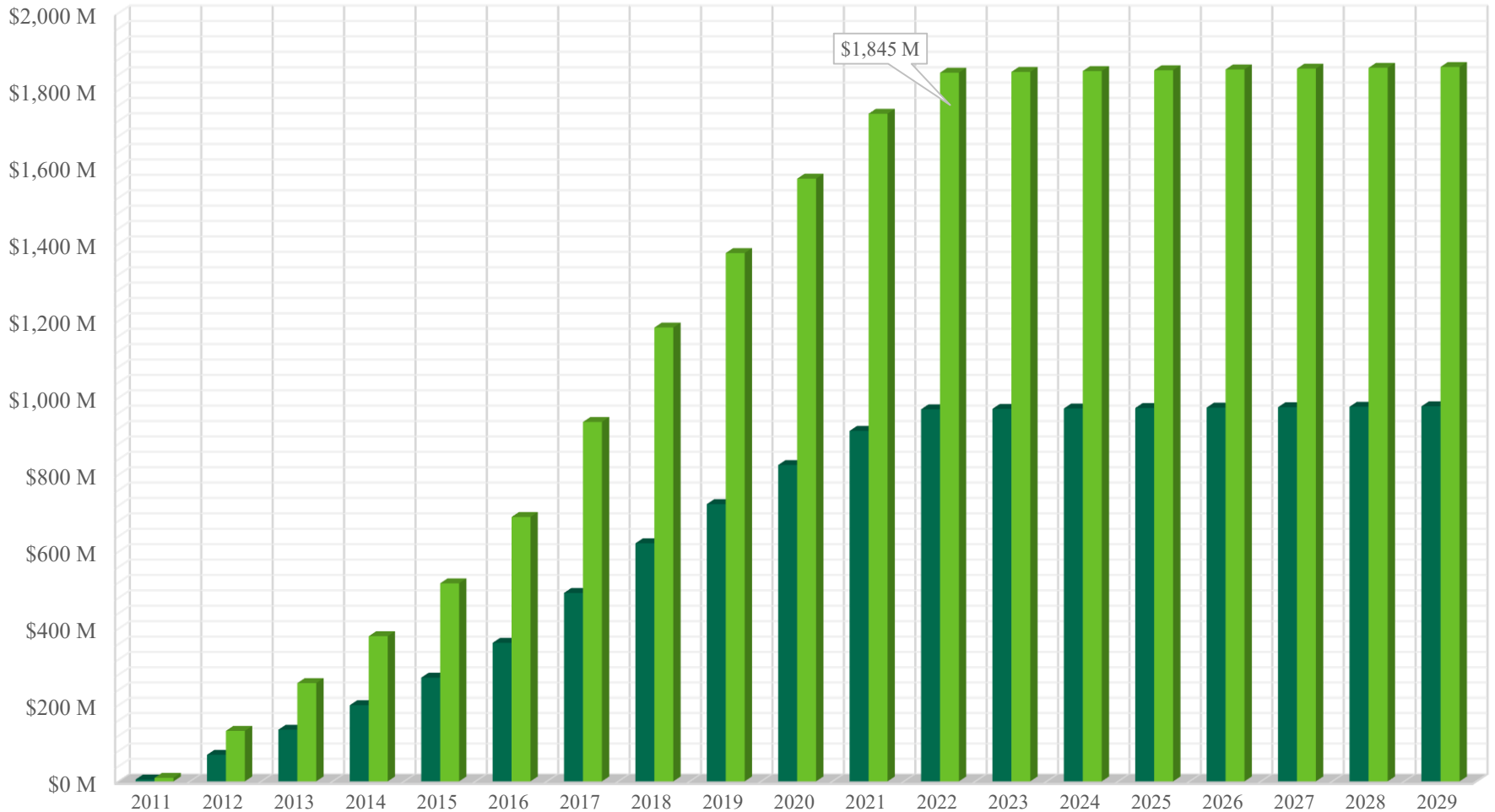
ANNUAL TOTAL DIRECT OUTPUT AND VALUE ADDED, M\$





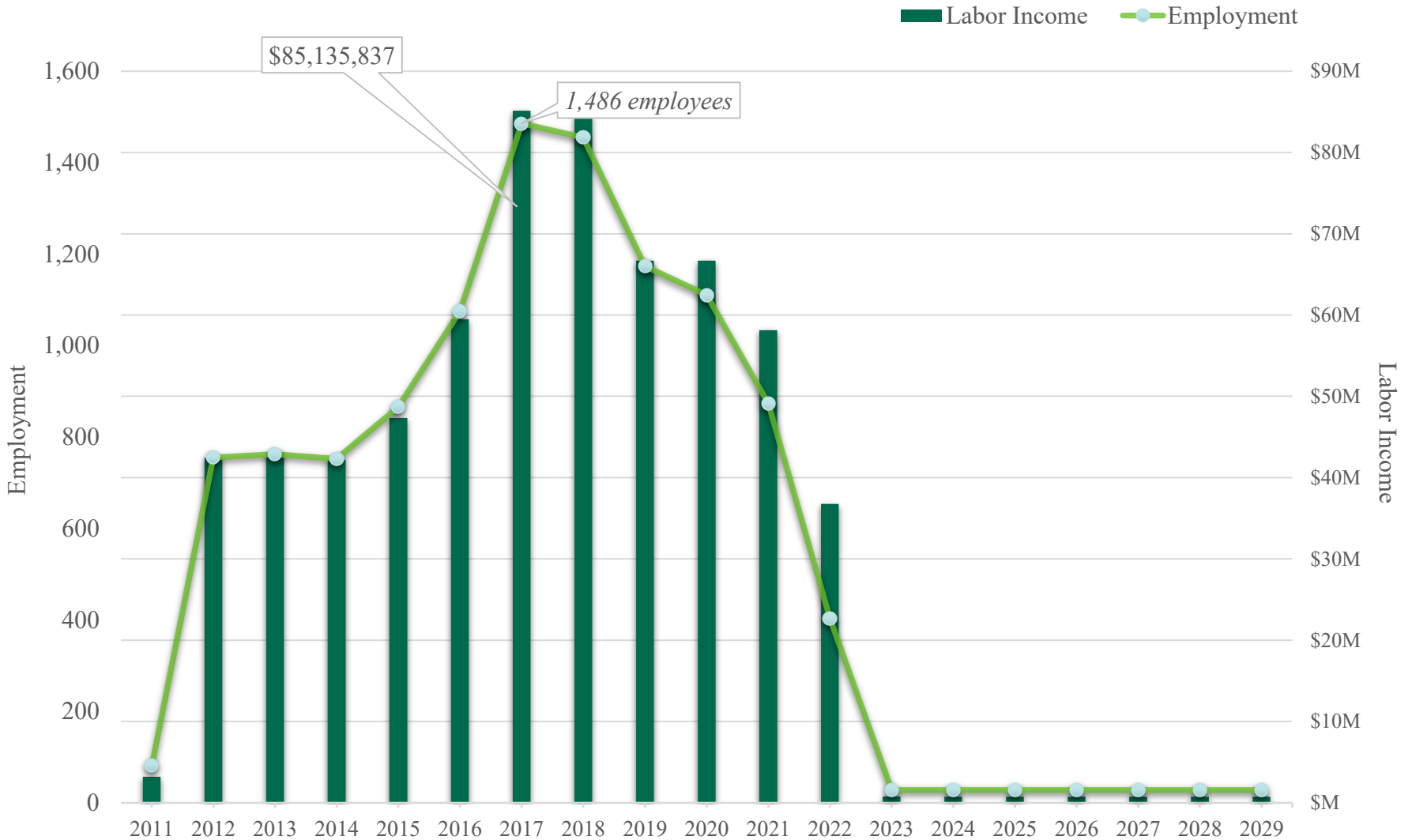
CUMULATIVE TOTAL DIRECT OUTPUT AND VALUE ADDED, M\$

■ Cumulative Total Value Added ■ Cumulative Total Output





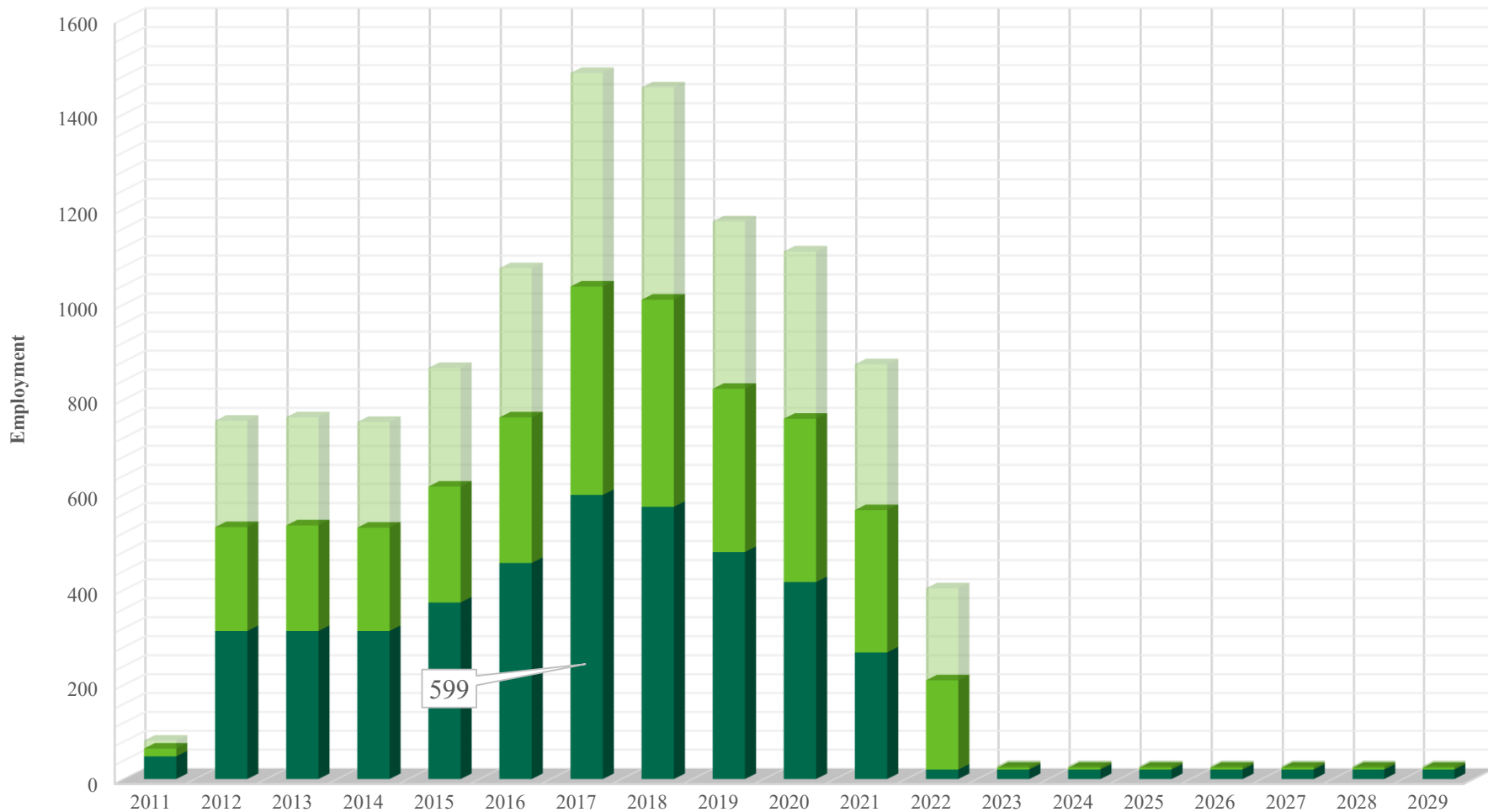
TOTAL ANNUAL EMPLOYMENT AND LABOR INCOME





TOTAL IMPACT OF EMPLOYMENT

■ Direct Employment ■ Indirect Employment ■ Induced Employment





TOTAL STATE AND LOCAL TAXES: ANNUAL AND CUMULATIVE

