

# The Southern Tier Outpaces the Rest of New York State in Per Capita Higher Education R&D Expenditures

## Overview

The Southern Tier saw \$1,674 per capita in higher education R&D expenditures in 2017, greater than any other region in New York State and a 34% increase from 2010, according to a Center for Regional Economic Advancement (CREA) analysis of data from the National Science Foundation (NSF).

## HERD Expenditures

The National Science Foundation's Higher Education Research and Development (HERD) Survey is the primary source of information on R&D expenditures within higher education institutions, conducted annually across 900 institutions in the United States<sup>1</sup>. Data from the 2017 survey shows New York City leading the state with approximately \$3,276,000,000 in absolute R&D expenditures across 40 institutions in the metropolitan region. The Southern Tier, a region comprising eight counties and home to Ithaca, Binghamton and Corning, ranked second in R&D with \$1,083,000,000 across three institutions (see Fig. 1), list institutions. Of those three institutions, Cornell University accounted for 91%, or \$985,000,000, of the R&D expenditures in the region.

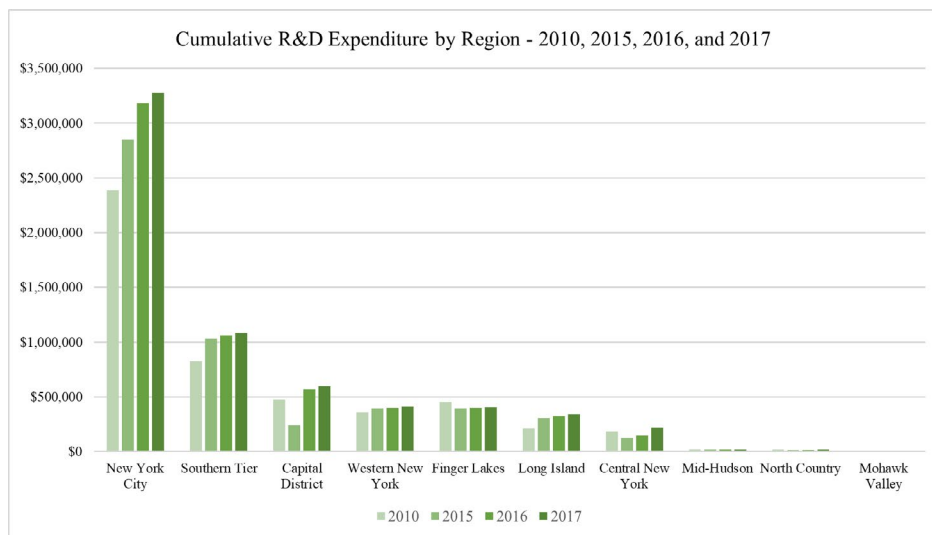


Figure 1. Higher education R&D expenditures, in thousands, 2010 and 2017. Source: National Science Foundation HERD Survey. Published 2018.

When population is considered, the Southern Tier leads in R&D expenditures per capita, spending \$1,674 per person compared to \$368 in New York City (see Fig. 2). In fact, the Southern Tier spends three times more in higher education R&D than the next closest region in the state. Additionally, university R&D expenditures per capita in the Southern Tier have risen significantly over the past decade. From 2010 to 2017, R&D expenditures per capita increased by 34% in the Southern Tier, compared to 31% in New York City and 26% statewide.

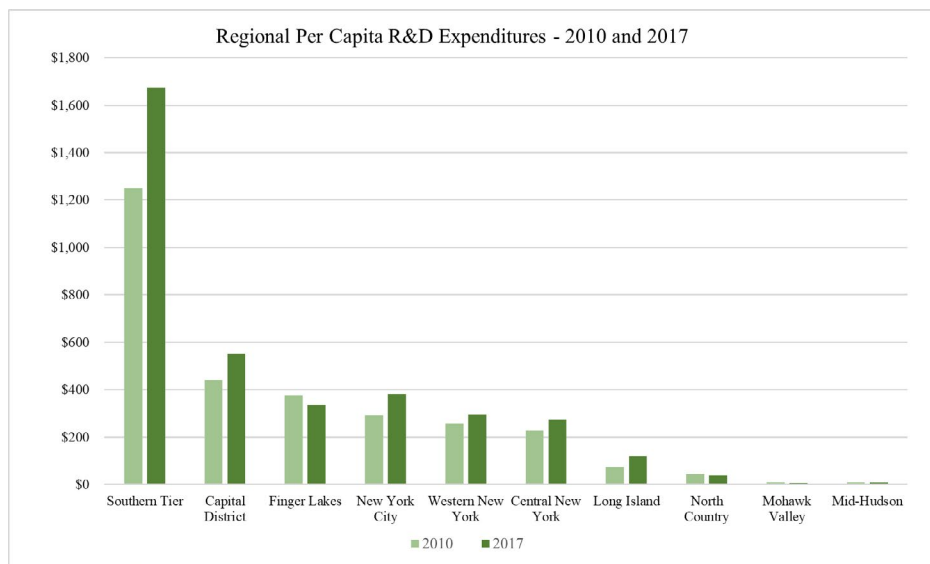


Figure 2. Higher education R&D expenditures per capita 2010 and 2017. Source: National Science Foundation HERD Survey. Published 2018.

The three largest research fields by R&D expenditure in the Southern Tier are life sciences (64% of the region's total expenditures), physical sciences (12%), and engineering (10%). These figures reinforce Cornell University's importance in the region, with the university accounting for 98% of life sciences expenditures, 87% of physical sciences expenditures, 79% of social sciences expenditures, 78% of computer and information science expenditures, and 76% of engineering expenditures.

### Cornell's Presence in New York State

Beyond Cornell University's role in the Southern Tier, its \$985,000,000 in R&D expenditures accounts for 16% of the state's total expenditures, the largest share of any institution in the state (see Fig. 3). By research field, Cornell leads the state in computer and information sciences, life sciences, physical sciences, and social sciences expenditures. Nationally, it has the 13th highest expenditures of any higher education institution and is one of only 25 institutions with expenditures over \$800,000,000.

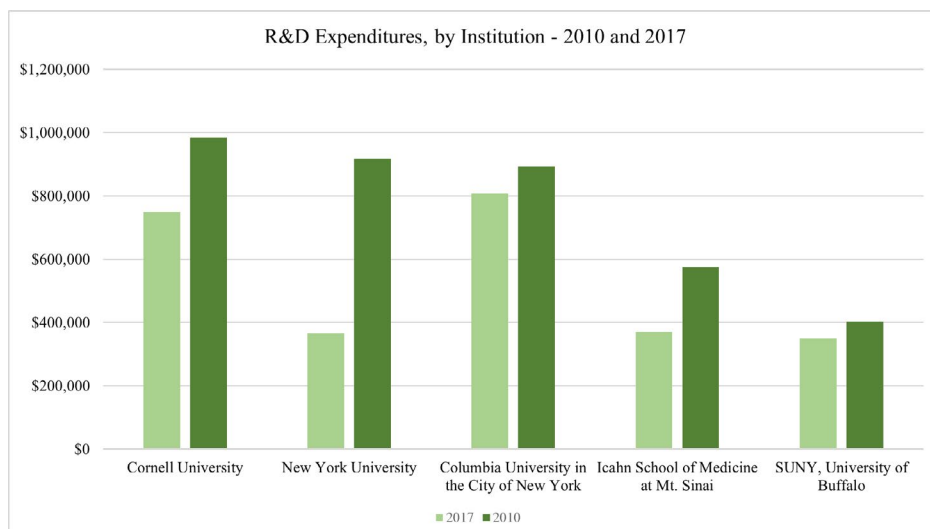


Figure 3. Top institutions in New York State by higher education R&D expenditures 2010 and 2017. Source: National Science Foundation HERD Survey. Published 2018.

### ABOUT CREA

The Center for Regional Economic Advancement fuels economic growth and diversity in Upstate New York through entrepreneurship and innovation. We support and empower people to start and grow new ventures.

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