THE CENTER FOR DISCOVERY'S ECONOMIC IMPACT



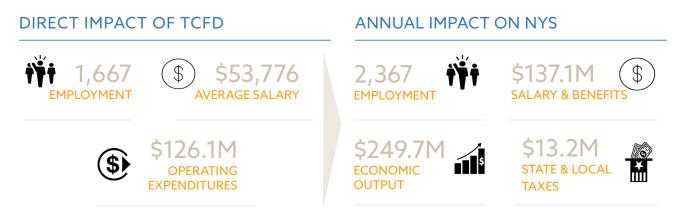
The Center for Discovery has generated more than 1.7 billion dollars of economic activity for the State of New York between 2010 and 2019.

Growing from 25 employees in 1980 to 1,667 employees in 2019, The Center is Sullivan County's largest private sector employer. The average compensation (wages and benefits) for TCFD employees of \$53,776 is 29 percent higher than the county's private sector average of \$41,744, and an increase of 9 percent from the 2016 value.

Over the last nine years, The Center for Discovery has generated \$1.77 billion of economic impact for the State of New York. In 2019, The Center directly employed 1,667 people, and it had total operating expenditures of \$126.1 million (including real estate purchases of \$853 thousand). The Center's total economic impact is even larger when the combined effect of TCFD's operations and employment (and employee spending) on other local and regional business are factored in—especially since 79 percent of TCFD employees reside in Sullivan County. TEConomy estimates that TCFD generated \$249.7 million of economic activity for the State of New York in 2019 through total direct, indirect, and induced impacts; supported 2,367 jobs with \$137.1 million in compensation; and accounted for \$13.2 million in state and local tax revenue. While TCFD's tax revenues are generated primarily through payroll and personal income taxes, The Center paid \$329,946 in 2019 property taxes on renovated buildings that TCFD leases to local private businesses.

These data are summarized in Table 1 for New York State and Table 2 for Sullivan County.

TCFD's economic impact and vision continues to be a positive force for change in Sullivan County. Yet the true purpose of TCFD is not the dollars flowing within the regional economy, but it is seen in the smiles and personal growth of The Center's residents and its employees. These factors make TCFD's impact on the community even more significant.



Source: TEConomy Partners, LLC

Table 1: The Center for Discovery's Total Impact on the State of New York, 2019

Impact Type	Employment	Labor Income	Output	State/Local Tax Revenue	Federal Tax Revenue
Direct Effect	1,667	\$89,644,992	\$126,104,475	\$4,452,617	\$18,534,097
Indirect Effect	297	\$18,927,837	\$44,588,880	\$2,761,210	\$4,006,667
Induced Effect	459	\$30,466,288	\$83,128,899	\$5,970,771	\$6,739,245
Total Impacts	2,367	\$137,098,881	\$249,710,765	\$13,184,598	\$29,280,009

Source: TEConomy Partners analysis and calculations using State of New York 2019 IMPLAN model.

Table 2: The Center for Discovery's Economic Impact on Sullivan County, 2019

Impact Type	Employment	Labor Income	Output	State/Local Tax Revenue	Federal Tax Revenue
Direct Effect	1,667	\$89,644,989	\$126,104,475	\$3,516,898	\$17,975,978
Indirect Effect	260	\$8,901,815	\$24,611,843	\$1,873,888	\$1,942,372
Induced Effect	320	\$12,511,308	\$46,610,162	\$4,085,812	\$3,025,164
Total Impacts	2,193	\$109,584,039	\$194,124,848	\$9,476,598	\$22,943,514

Source: TEConomy Partners analysis and calculations using Sullivan County 2019 IMPLAN model.

TRANSFORMING LIVES

Today, The Center is one of New York State's Centers of Excellence in the Care and Treatment of Children with Complex Disabilities. It develops and models many best practices in the education and care of children and adults with Autism Spectrum Disorders and complex disabilities, and like other leading research centers, partners with top researchers across the country. Each year, The Center attracts and hosts approximately 100 interns and professionals for both short- term and long-term stays. They include medical residents; educators; physical and occupational therapists; chefs and nutritionists; music, dance and art interns; and biodynamic farming interns, among others. Another important focus of The Center is the built environment, because of the impact that the physical environment has on students' and residents' learning and health outcomes. This focus extends from the design of TCFD's schools and residences to the universal design elements that facilitate access to the outdoors across the campus and in town. The Center has been visionary in developing school campus environments that foster connections to others, as well as to food, to the land, to animals, to nature, and to the creative arts.

This visionary outlook is also evidenced in the critically important leadership role that TCFD is playing in the broader community. Through its private and public partnerships and investments, TCFD is seeking to advance regional quality of life and job opportunities centered around three core economic development goals:

- Strengthen the region's business attraction and recruitment efforts by expanding the number of educational, cultural, creative, and recreational amenities.
- Serve as a direct economic catalyst by purchasing abandoned buildings in downtown Hurleyville, renovating them, and leasing them to private businesses; and,
- Improve the health and quality of life for Sullivan County residents through its investments in the built environment.

The Children's Specialty Hospital construction and remodeling efforts scheduled will bring The Center's construction and improvement investments to more than \$190 million over the past 30 years, as shown in the figure on the next page. Beyond the on-going Children's Specialty Hospital efforts, these investments include the construction and renovation of buildings, residences, and public use spaces across The Center's operations in Harris, Grahamsville, and Hurleyville.

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OPERATIONAL UPDATES

Children's Specialty Hospital

The Center for Discovery is building a first-of-its-kind Children's Specialty Hospital to bring our innovative models of care to hundreds of children each year. The Children's Specialty Hospital will provide intensive, short-term treatment for children with complex disabilities and medical frailties, along with support and training for their families, caregivers, and school districts.

The Specialty Hospital will achieve one of the greatest unmet medical needs – at incredible savings to the local, state, and national economies. This ground-breaking and life changing work of the Specialty Hospital will create a net savings of almost \$15 million dollars over five years, with the savings continuing to grow over time.

In late 2020, The Center received approval on a \$35 million-dollar low interest construction loan from the USDA. Construction will commence on the project in the spring of 2021. This will put The Center for Discovery on the map as a singular organization that provides help across the lifespan for children and families in crisis.

Northwell Health

In early 2020, Northwell Health, New York State's largest health care provider with over 75,000 employees and a network of 830 hospitals and care centers, signed an affiliation agreement with The Center for Discovery. The agreement identified ways that the two organizations can work together to better meet the needs of individuals with developmental disabilities and medical complexities, including autism. "The Center for Discovery shares our values of providing extraordinary care through a program of continual innovation, education and a commitment to excellence," said Michael J. Dowling, President and CEO of Northwell Health. "We look forward to working together with them to provide a full continuum of medical and behavioral health services that help enhance the lives of individuals with developmental disabilities and medical complexities." With Northwell's expansive resources and expertise, the collaboration intends to advance vital research and improve the lives of many more people with complex conditions.



Hurleyville, New York

The Center for Discovery has been reimagining and helping to redevelop a truly inclusive Main Street community in Hurleyville, New York. The hamlet has experienced tremendous growth – from the installation of pedestrian-friendly sidewalks and a traffic light, to the development of a universally accessible public rail trail and new business ventures.

Hurleyville's newest additions, made available through private dollars, include Main Street Mews – luxury residential and retail space; La Salumina – a modern Salumeria; the Tango Café – Executive Chef Tom Valenti's new dining and catering space which will open at the Hurleyville Performing Arts Centre; and the Hurleyville General Store – a boutique promoting meaningful access, integration, and economic opportunity for individuals with complex disabilities.

And, thanks to a \$200,000 State and Municipal Facilities Capital Grant secured in the fall of 2020 by former State Senator Jen Metzger, the Rail Trail will be extended in the near future.

In addition, The Homestead School, a private Montessori school, and SUNY Sullivan, have established a remarkable new opportunity in Hurleyville – the Collaborative College High School (CCHS). The school has been approved by the State Education Department and will launch in the fall of 2021 for grades 7 through 9 – right on Main Street – followed by an additional grade in each of the two subsequent years. The collaboration will be supported by The Center for Discovery in its efforts to further revitalize Hurleyville, NY. The Technology Hub and Incubator (THINC) building will transition into the Collaborative Hub, becoming the home-base for the CCHS students.

Hurleyville, NY, truly is a model of inclusion for the rest of small town America.

National Recognition

The Center for Discovery has garnered national recognition for its groundbreaking work and impact on the 1,200 individuals in its care – reaching a broader network of foundations, donors, partner organizations, and media platforms. In late 2020, The Center was featured on CNN's Anderson Cooper 360° for its outstanding leadership during the pandemic—the pinnacle being the moment when The Center's residents and staff became among the first in long term residential care to receive the Pfizer COVID-19 vaccine.

The Center for Discovery was also previously featured on Good Morning America in a segment highlighting The Center's production of Beauty and the Beast. And previously, The Center's President, Dr. Terry Hamlin, spoke on The Center's work and research into elopement, during an appearance on CBS News to mark World Autism Awareness Day.

Ongoing and Collaborative Research Studies

The Center for Discovery has engaged in groundbreaking research for over a decade, and has created an innovative interdisciplinary research program focused on better understanding and treating individuals in its care and across a wide spectrum of complex conditions. The Center partners with leading researchers and scientists from top universities and medical facilities across the nation.

Current and ongoing research studies include:

GUT-MICROBIOME STUDY

In this multi-omics analysis of the gut-microbiome, children at TCFD were phenotyped to determine how specific parts of the microbiome/metabolome correlate with GI issues, behavior, inflammatory markers, and more. A new longitudinal pilot study is currently underway to identify biomarkers of GI conditions in ASD, of those newly admitted to TCFD's program, linking behavioral and gastrointestinal comorbidities.

MEDICAL MARIJUANA STUDY

In this observational study of medical marijuana as a treatment for treatment resistant epilepsies, TCFD is studying dosing tolerability and efficacy of low THC/ high CBD in the reduction of seizures. Overall, results for some participants are demonstrating a slight decrease in seizure frequency, as well as a decrease in seizure recovery time and duration of seizure event.

UB INTEGRATING RESEARCH

TCFD's collaboration with the University of Buffalo's Center for Integrated Global Biomedical Sciences is focused on integrating and advancing various research efforts, including joint funding sources, drug development, drug-resistant epilepsies and medical marijuana, and expanded studies in areas such as the microbiome and COVID-19.

PREDICTIVE BEHAVIOR MODELING AND EVALUATING INTERVENTIONS

TCFD has been leading efforts to apply data science to the field of ASD, including the study of co-occurring conditions and effects on behavior and daily functions, using machine learning approaches to determine changes in physiological variables. Ongoing research includes analyzing a comprehensive, longitudinal data (sleep, GI, etc.) and trying to predict behaviors, while assessing behavioral changes over time.

BALANCE TRAINING STUDY

This study has been looking at improving balance and coordination among residents via balance training intervention to increase attention and functioning. The exercises in this study have been so beneficial that many teachers have requested that exercises are continued post-study.

TELEMEDICINE STUDY

TCFD has been advancing the use of telemedicine for individuals with ASD, who often need access to a broad range of clinical disciplines and specialists. This study is focused on improving access to care, as well as clinical outcomes and clinician experience via telemedicine.

New Models of Living

As a national model of care, The Center for Discovery has long been a pioneer in innovative new models of cost effective care as well as environmentally sustainable architectural design to support people with complex conditions, including autism. The Center has recently constructed innovative new models of residential living that will greatly advance the field and provide dynamic new life opportunities for individuals across a wide spectrum of abilities and conditions to live and work.

The new residential models feature single bedroom arrangements to promote increased independence, health, and functioning, along with a supportive environment that focuses on the individual and how to best achieve their full potential. The models also include en suite bathrooms for increased privacy and to address issues of infection control/cross contamination.

This project is undertaken in close partnership with the leadership of the New York State Department of Health (DOH) and the Department of People with Developmental Disabilities (OPWDD) to address several significant issues affecting long-term residential care for people with developmental disabilities in the State of New York.

ABOUT THIS STUDY

This economic impact update was undertaken by TEConomy Partners, LLC, authors of the previous 2016 study on behalf of The Center for Discovery. The base year of analysis for this update is 2019. This update estimates the "economic footprint" of The Center for Discovery on Sullivan County and on the State of New York. The update information was developed by The Center.

METHODOLOGY

Economic impact analysis seeks to estimate how the economic activity generated through the expansion or contraction of a particular economic actor, or through a particular investment, impacts the local and regional economy.

For this economic impact analysis update, TEConomy worked with leadership of The Center to collect calendar year 2019 data on direct employment, payroll, and operating expenditures. For each operational component, TEConomy's analysis provide estimates of the following types of economic impacts, or effects:

- Direct effects are the specific values driving the model that reflect the employment, compensation, and expenditure data provided by The Center and/or estimated by TEConomy.
- Estimated Indirect and Induced effects capturing the secondary (supplier) and tertiary (TCFD and suppliers' employee spending) effects of TCFD-based employment and expenditures on the regional and state economies; and
- Total Impacts, or the sum of the direct, indirect, and induced effects and measures the total flow of economic activity in the region stemming from the activities of The Center.