



# Tweed-New Haven Airport Economic Impacts 2023-2060

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## Executive Summary

Sponsored by the Tweed-New Haven Regional Airport Authority, the Connecticut Center for Economic Analysis (CCEA) examines the economic impacts of expanding the Tweed-New Haven Airport (HVN) through a pair of lenses. The first scenario, dubbed “Tweed,” is based on planned expansions of the airport with announced utilization by Avelo Airlines and Breeze Airlines. Following recent expansions, Breeze is assumed to keep pace with Avelo’s planned expansions.

The second scenario, “Tweed+” adds complementary drivers of growth to the Tweed Scenario. While the text documents all these in detail, the largest among them are:

- Adoption and use of Electric-Hybrid Vertical Take-off and Landing Aircraft (EVTOL);
- Expansion of medical tourism at the world-class Yale New Haven Hospital (YNHH);
- Construction and operation of a 200-bed hotel.

The text presents economic impacts in Connecticut, New Haven County, and 6 ZCT codes nearby HVN whereas the following results are limited to New Haven County only.

In 2026 Tweed job impacts in New Haven County reach 2,281. By 2029 with the rapid expansion of airlines using HVN, County job impacts peak at 2,465 with 2,087 residing there. These airport and enplanement expansions continue to stimulate employment growth with increasing shares of employment and residency being located in New Haven County. By 2060, annual County job impacts reach 5,187 with 4,872, residing in the County.

In contrast, Tweed+ Scenario yields New Haven County 2027 employment impacts of 3,997 and in 2030, 4,701 with 3,285 of the incremental employees being resident in the County. By 2060 Tweed+ County employment impacts hit 9,732 of whom 9,167 are resident in the County.

With YNHH medical tourism investments at a quarter of the Mayo in Rochester MN activities at 25% of the Tweed employment impacts account for more than half those of Tweed+.

Typical of various income impact measures, Real Gross State Product (RGSP) in the Tweed Scenario rises from \$322 M in 2026 to \$378 M in 2030 and \$1,150 M by 2060 in contrast with Tweed+ Scenario results for the above years of \$408 M, \$668 M, and \$2,105 M, again with Tweed impacts being more than half of those in Tweed+. Relative sizes of growth drivers may exceed or fall short of expectations nevertheless the current comparison indicates the importance of Tweed to the County. Other income metrics covered in the report include personal income, disposable personal income, income taxes, and fiscal capacity impact.

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# Tweed-New Haven Airport Economic Impacts 2023-2060

## Background

The original New Haven Municipal Airport opened for traffic on August 29, 1931. Li-Con Airways, Inc., (Long Island-Connecticut Airways) initiated passenger and mail service on November 10<sup>th</sup>, 1933 which ran until July 1934. In the fall of 1934, [American Airlines](#) began serving New Haven as a stop on flights between New York and Boston and continued service until 1960. American service was then replaced by [Allegheny Airlines](#) and [Allegheny Commuter](#) (with the latter being operated by Suburban Airlines and [Pennsylvania Airlines](#)). [Eastern Airlines](#) initiated service in 1948 and then left in 1970 due to legal challenges relating to a runway extension but returned from 1972 to 1974 offering service nonstop to Baltimore-Washington (BWI), Washington-National (DCA), and Boston. The carrier also offered one-stop service to Miami (MIA) and Atlanta (ATL). Since then, until 2000, multiple airlines provided scheduled commercial services from HVN.<sup>1</sup>

On June 25, 1961, the airport was renamed in honor of John H. "Jack" Tweed – its first airport manager and became more normally known as Tweed-New Haven Airport (HVN). During the first two decades of this century, commercial airlines utilizing HVN included Delta Connection, and Pan Am Clipper Connection.

On April 18, 2019, [Shoreline Aviation](#) – based at the airport – announced a merger with [Cape Air](#).<sup>2</sup> This seaplane service was expected to continue connecting HVN with the [New York Skyports Seaplane Base](#).<sup>2</sup> But on April 1, 2020, [Cape Air](#) bought most of the assets, then promptly liquidated personal and aircraft, deciding to no longer pursue seaplanes or the New York to Boston route. Former Shoreline employees and investors then purchased Fly the Whale to continue operations and now operate charters out of Shoreline's hangar and facilities.<sup>3</sup>

On June 14, 2019, [Southern Airways Express](#), a Florida-based-Part 135 commuter carrier, began seasonal nonstop service between Tweed and Nantucket, MA.<sup>4</sup> On May 6, 2021, Houston-based low-cost startup [Avelo Airlines](#) announced that it would be opening its first East Coast base at HVN. The airline operates a fleet of [Boeing 737-700](#) and 737-800 aircraft offering capacities of 149 and 186 seats. Initial routes from Tweed to Fort Lauderdale, Fort Myers,

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<sup>1</sup> Airlines included New Haven Airways, NewAir, Pilgrim, Airlines, Delta Air Lines, Provincetown-Boston Airlines, Continental Express and USAir Express. Smaller air carriers that serviced New Haven included Ocean Airlines, Astec Air East, East Hampton Aire, Trans International Express, [Trans World Express](#) operated by [Pocono Airlines](#) on behalf of [Trans World Airlines \(TWA\)](#), and [Northwest Airlink](#) operated by Precision Airlines and [Northeast Express Regional Airlines](#) on behalf of [Northwest Airlines](#). (Based on [Tweed New Haven Airport - Wikipedia](#))

<sup>2</sup> Genter, Ethan. "By air and by sea". *Cape Cod Times*. Retrieved November 3, 2024.

<sup>3</sup> [Shoreline Aviation - Wikipedia](#). (Feb. 5, 2025)

<sup>4</sup> ["SOUTHERN AIRWAYS EXPRESS"](#). *iflysouthern.com*. [Archived](#) from the original on September 19, 2017. Retrieved October 12, 2019

Orlando, and Tampa began on November 3, 2021. Before service even started, two more routes were announced to Sarasota and West Palm Beach.<sup>5</sup>

By 2024, Avelo services had expanded to 25 cities, 16 operating all year and 10 seasonally.

On August 7, 2024, [Breeze Airways](#) announced it was launching 10 A220 flights, some in direct competition with Avelo Airlines' current routes from HVN. With 137 seat capacity, these planes are expanding operations from Tweed New Haven Airport, adding more flights to the already small terminal and increasing competition. Breeze Airways began operating these new routes from HVN in December 21, 2024 extending out to February 7, 2025.<sup>6</sup>

Today, the airport is operated by AFCO AvPORTS of Dulles, Virginia – a subsidiary of [Goldman Sachs](#), under contract with the Tweed-New Haven Regional Airport Authority.<sup>7</sup>

## Report Structure and Analysis

Expansions from a few unscheduled commercial flights in 2020 to 25 scheduled flights per week by two airlines by February 2025 and their planned expansions, based on emerging technologies, make clear the need to upgrade the airport's runway, relocate and modernize the terminal, and facilitate connections (e.g. off-site park & fly and close proximity to the train station). Tweed will also have expanded staffing and enhanced connections to nearby centers of business, medical tourism, and recreational tourism. This study considers two future scenarios for future expansion of Tweed out to 2060 to capture the potential economic impacts this critical project will deliver for the New Haven region and Connecticut.

The first scenario, "Tweed," embraces Avelo's announced targeted route expansion to 25 flights weekly by 2042 at a constant annual rate of growth matched by Breeze with commercial flights by both airlines then continuing to expand at the 2025-2042 annual rates out to 2060. This scenario also includes the announced Airport expansions and upgrades, inclusive of the runway, new taxiways, and the four-gate terminal, replacing the current cramped terminal built in the 1930s. Included as essential to this basic scenario are construction and operations of improved access and egress roads, car rental operations, expanded airport food, beverage, and childcare services, and shuttle-supported park-and-fly operations located close to I-95/US 1.

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<sup>5</sup> Gosselin, Kenneth R. (May 6, 2021). ["Tweed New Haven Airport announces \\$100 million expansion and the arrival of Avelo Airlines. Here's what it means for New Haven, the state and air passengers"](#). *courant.com*. [Archived](#) from the original on May 7, 2021. (May 7, 2021).

<sup>6</sup> ["'This is what winning looks like.' Breeze Airways coming to Tweed New Haven Airport"](#). *News 12 - Default*. Retrieved August 14, 2024.

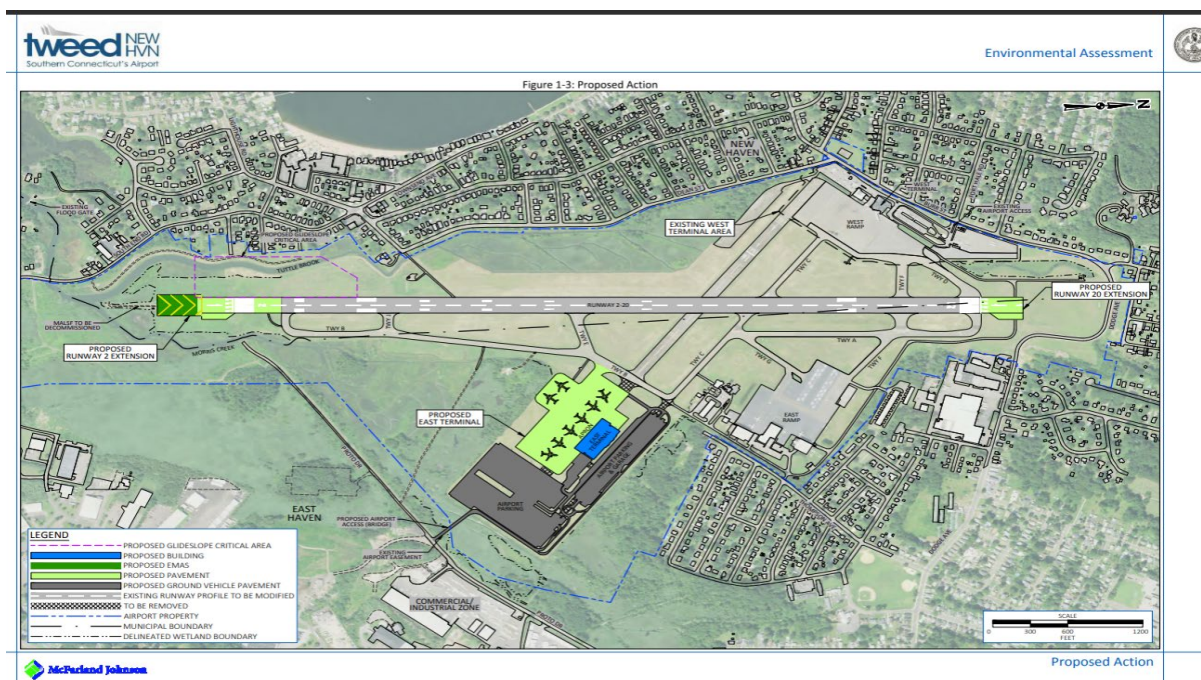
<sup>7</sup> Zaretsky, Mark (August 18, 2022). ["Tweed New Haven Airport Authority approves 43-year lease and development agreement to facilitate expansion"](#). *New Haven Register*. Retrieved November 2, 2024.

The second scenario, Tweed+,” expands on the first by adding complementary expansions, facilitated in part or wholly by the airport. These complementary activities include expanded airborne shuttle services from HVN into Boston and New York City (NYC) relying on both seaplanes and various roof-top landing sites using EVTOLs based at HVN. This scenario also incorporates the Tweed-driven construction of a 200-bedroom airport hotel commencing operations in 2027, the accelerating commercial activities Yale’s successful IP and expanding research capacity drives, and significant medical tourism of the Yale New Haven Hospital (YNHH).

## Scenario #1: Airport Planned Tweed Expansions

Chart 1 depicts the planned expansions to Tweed involving a slight relocation and extension to the main runway, terminal relocation and construction, and paved new surfaces for taxiways, terminal apron, access and egress roads, and parking. The new terminal is expected to be 81,568 square-foot with four gates.<sup>8</sup>

**Chart 1: Airport Expansions**



## Projected Construction Costs

In 2022 dollars, Table 1 illustrates that construction costs are front loaded with \$100 M of a total of \$278 M occurring in this decade. Due to the limited number of sectors in REMI, 70, all construction involving paving is lumped into transportation road construction, resulting in it constituting the majority of the construction in each decade.

<sup>8</sup> Staff, New Haven Independent, *Tweed Terminal Expansion Land \$4 Million* Nov 1, 2024.



**Table 1: Construction Costs by Decade (M of 2022 \$)**

Construction Inputs	2021-2030	2031-2040	2041-2050	2051-2060	Total
Paving	66.8	24.5	60.0	41.5	192.8
Non-Res Construction	30.5	19.3	17.7	14.0	81.5
Prof Services	1.5	0.5	0.5	-	2.5
Vehicles	0.8	-	-	-	0.8
Total	99.6	44.3	78.2	55.5	277.5

Given the structural strength needed for landing jets relative to road surfaces, this likely causes the model to overestimate surface pavement cost *per se* relative to installation of substrata materials. The professional services costs are attached to architectural, lobbying, and preparation for hearings before environmental and regulatory agencies.

## Airport Operating Costs

Airport operating costs rise with:

- Annual planned repair and maintenance:
- New terminal and other buildings within the airport fence
- Paved components inclusive of runways, taxiways, aprons, related roads, both inside and outside the airport fence and parking
- Annual airport operations of the above driven by planned expansion of large aircraft services – extended at same annual rate in 2040-2060 as earlier.

## Assessing Potential

Using Regional Economic Model Inc's quasi-general equilibrium model of Connecticut (REMI), and, based on estimated direct construction, operating metrics, and plans, CCEA estimates total annual economic impacts on Connecticut, New Haven County, and surrounding communities for the duration of the model projections, to 2060. Based on expected incremental direct economic capital and operating activities 2022 to 2060, REMI, identifies economic impacts in each jurisdiction, namely:

- Employment
- Income – Gross State Product (GSP), Real Gross State Product (RGSP), Personal Income (PI), and Personal Disposable Income (DPI), DPI being PI accruing to individuals after paying income taxes to spend as they see fit.
- Fiscal impacts



Employment impacts are classified as total, indirect, and induced, with totals available within Connecticut and externally to it within each of New Haven County and the United States. Indirect employment is generated by suppliers to final manufacturing and distributors while induced employment is generated from compensation of direct and indirect employees as well as by induced employment itself.

CCEA will deploy current shares of towns closely adjacent to the airport to estimate more local employment opportunities and impacts.

## Recent Air Travel Growth

On May 6, 2021, Avelo Airlines announced that their new East Coast hub would be located at Tweed and would hire 100 new employees to be based in New Haven County. Avelo Airlines committed to flights begin in the third quarter of 2021. It was also gave notice to building a new terminal on the East Haven side of the airport in addition to expanding the length of the runway, facilitating greater loadings on more distant flights.

Service began with flights to four destinations in Florida, but it quickly expanded to 14 destinations in eight states. During Avelo's first full year of service, over 340,000 enplanements were recorded at HVN, an all-time record.

Table 2 notes current routings and near-term planned routing expansions. Avelo currently flies to 16 scheduled destinations year-round and ten seasonal ones. Because not all destinations are covered daily, it currently averages about 15 departures daily.

Of Avelo's top-ten enplanements from HVN, November 2023-October 2024, only Greenville/Spartanburg was a seasonal destination.<sup>9</sup>

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<sup>9</sup> [\*"New Haven \(HVN\) Summary Statistics". Archived from the original on February 18, 2022. Retrieved June 10, 2023.\*](#)

**Table 2: Commercial Airlines and Destinations<sup>10</sup>**

<b>Airlines</b>	<b>Destinations</b>
<u>Avelo Airlines</u>	<p>Atlanta, Charlotte/Concord, Daytona Beach, Fort Lauderdale, Fort Myers, Houston–Hobby, Lakeland, Myrtle Beach, Orlando, Raleigh/Durham, SanJuan, Sarasota, Tampa, Washington–Dulles, West Palm Beach, Wilmington</p> <p>Beginning March 7<sup>th</sup>, 2025 Dallas/Fort Worth</p> <p>Beginning February 14<sup>th</sup>, 2025 Jacksonville.</p> <p><b>Seasonal:</b> Baltimore, Charleston, Chicago-Midway, Destin/Fort Walton Beach, Greenville/Spartanburg, Knoxville, Nashville, New Orleans, Savannah, Traverse City</p> <p>Beginning April 4<sup>th</sup>, 2025 Detroit</p> <p>Beginning May 22<sup>nd</sup>, 2025 Portland (ME)</p>
<u>Breeze Airways</u>	<p>Fort Meyers, Orlando, Vero Beach, West Palm Beach</p> <p>Beginning Feb 6<sup>th</sup>, 2025: Charleston, Jacksonville, Norfolk, and Richmond.</p> <p>Beginning Feb 7<sup>th</sup>, 2025: Raleigh/Durham and Sarasota.</p>

The growth in passenger totals further highlighted the need for the expansion, with the existing terminal experiencing overcrowding issues, no longer being able to efficiently handle the airport's needs.<sup>11</sup> By the end of October 2024, total enplanements in the previous year had reached 554,315. Expected Avelo route expansions during 2025 and the December 2024 entry of Breeze Airways, HVN based on Avelo's successes and the relative carrying capacities of each fleet, enplanements are expected to exceed 669,000 in 2025. Tweed is rapidly becoming a major regional airport and an economic driver for the region and the state.

<sup>10</sup> Layout modified from "[Destinations](#)". Avelo Airlines. [Archived](#) from the original on November 7, 2023. Retrieved January 18, 2022. and "[Breeze Airways Destinations](#)". [Archived](#) from the original on April 15, 2022. Retrieved August 15, 2024.

<sup>11</sup> [Tweed New Haven Airport - Wikipedia](#).

## Scenario #2: Tweed+ Hotel/Connectivity/Commercial Growth/Tourism

This section, “Tweed+” generates additional new growth in New Haven County by capitalizing on complementary opportunities with Tweed expansions, specifically:

- A new 200-bedroom hotel;
- Deploying innovative technologies to improved connectivity, especially with New York City;
- Capitalizing on Yale Innovations; and
- Expanded medical tourism services tied to Yale and the Yale New Haven Hospital (YNHH);
- Evolving Technologies: Electric-Hybrid Vertical Take-off and Landing Aircraft; and,
- Rental car expansions.

### New Hotel

It assumes that increasing airport traffic will attract a new hotel, on or near the airport property, capable of accommodating small conventions and business meetings. It’s preliminary capital costs in 2022 dollars are expected to be \$45 M spread over 2025-2027 at \$10 M, \$25 M, and \$10 M. Its operating revenues are based on \$250 per night starting at 66% of capacity in 2028 rising at 1.5% annually to attain 94.7% of capacity by 2058 and flat thereafter.<sup>12</sup>

Under those assumptions, operating revenues from accommodations, in 2022 dollars unadjusted for inflation, rise steadily from \$ \$12.1 M in 2029 to \$17.5 M 2058. CCEA has set new food and beverage sales as a result of the hotel at a third of the above amounts.

The potential of an on-site hotel is tightly linked to Tweed Airport expansions—and will support that expansion. The remaining initiatives are complementary to TWEED expansion assisting an even brighter economic future.

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<sup>12</sup> Current posted rates [https://www.bing.com/travel/hotel-search?q=New+Haven+Hotels+with+more+than+200+rooms&cin=2024-12-29&cout=2024-12-30&guests=2A&rooms=1&displaytext=New+Haven&loc=New+Haven&sort=Popularity&type=hotel&mapBounds=41.42057%2C-73.16008%2C41.18627%2C-72.72646&cacheId=07481483-9d0a-476d-8c72-dea33bd5bef9\\_e78f22d2-c541-4bfe-b8e8-08e9e835a7c8\\_2\\_hotels+more+than+200+rooms&form=HTSELI&entrypoint=HTSELI](https://www.bing.com/travel/hotel-search?q=New+Haven+Hotels+with+more+than+200+rooms&cin=2024-12-29&cout=2024-12-30&guests=2A&rooms=1&displaytext=New+Haven&loc=New+Haven&sort=Popularity&type=hotel&mapBounds=41.42057%2C-73.16008%2C41.18627%2C-72.72646&cacheId=07481483-9d0a-476d-8c72-dea33bd5bef9_e78f22d2-c541-4bfe-b8e8-08e9e835a7c8_2_hotels+more+than+200+rooms&form=HTSELI&entrypoint=HTSELI). The \$250 per night is supported by posts HVN rates among nine hotels averaging \$260.

## Improved Connectivity

With the exceptions of Detroit and Portland ME, all destinations are southward from HVN, suggesting an emphasis on recreational tourism. Yet increased access to New Haven County is also critical to growing markets for technologies being spun out of Yale and elsewhere.

Five Yale Medical spin-offs, 1986-1988, illustrate pathways to economic growth and demand for Tweed services. Despite Morphotech's acquisition of TransMolecular, which relocated its U.S. headquarters to Boston, four of these firms are still growing. The improvements at Tweed will likely help hold more firms in the New Haven region.

- Molecular Staging, a life sciences tool company, develops technologies for the detection and measurement of proteins and nucleic acids currently with 101-250 employees.<sup>13</sup>
- TransMolecular, Inc. engaged in discovering, developing, and commercializing therapies for [glioma](#), metastatic brain tumors, and cancers. It developed TM601, a synthetically-produced [polypeptide](#) that derived from scorpion venom, which is used to specifically target tumors in the treatment of cancer. *Fortune Magazine* listed the company as one of the 14 "most exciting, innovative companies in the nation".<sup>14</sup> In March 2011, TransMolecular's assets were purchased by Morphotek, a subsidiary of the Japanese pharmaceutical company, located in MA. From TransMolecular, Inc's founding to acquisition, it raised \$51 M.<sup>15</sup>
- L<sup>2</sup> was founded as a provider of novel diagnostic services for systemic lupus erythematosus and Lyme disease. The company rapidly evolved to a new emphasis on developing novel diagnostic tools in several areas, discovering new vaccines and the development of small molecule therapeutics. In January 2025 it raised \$523 M in research funds.<sup>16</sup>
- Cellular Genomics Inc. (CGI) is a privately held genomics-based biopharmaceutical company that is pioneering a unique, highly integrated chemical genetics platform (Analog Sensitive Kinase Allele, or ASKA, technology) to discover and develop kinase and other signal transduction inhibitors for multiple clinical indications. CGI has established state-of-the art small molecule drug discovery capabilities, including proprietary chemical libraries generated through the company's High-throughput Accelerated Lead Optimization (HALO) platform. CGI has generated potent, selective lead candidates in three drug discovery and development programs in autoimmune and inflammatory disease, cancer, and angiogenesis that are advancing rapidly toward the clinic. In January 2021, CGI raised \$22.3 M in additional venture capital.<sup>17</sup>

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<sup>13</sup> [Molecular Staging - Crunchbase Company Profile & Funding](#). (Feb. 4, 2025)

<sup>14</sup> [TransMolecular - Wikipedia](#). (Feb. 4, 2025)

<sup>15</sup> [Transmolecular 2025 Company Profile: Valuation, Investors, Acquisition | PitchBook](#). (Feb. 4, 2025)

<sup>16</sup> [L2 Diagnostics | VentureRadar](#). (Feb. 4, 2025) , Jan. 13

<sup>17</sup> [Cellular Genomics Raises \\$22.3 Million in First... | Flagship Pioneering](#). (Feb. 4, 2025)

On May 2, 2024, Yale significantly strengthened its research competitiveness through its partnership with Harvard, MIT, Boston College, and University of Massachusetts in the Massachusetts Green High Performance Computing Center (MGHPCC) in Amherst MA. This facilitates analysis of cutting-edge data analytics, permitting assessment of huge sets of data, particularly germane to enhancing neurological and genomic research.<sup>18</sup> This partnership benefits both Yale University's research and the Yale-New Haven medical complex.

Molecular research activities at Yale and the biomedical ecosystem attracted a Chinese firm, XingImaging LLC, a developer of biomarker imaging, to New Haven. It's "facility will include a clinic to recruit and evaluate participants for clinical research studies deploying cGMP radiochemistry laboratories, 2 PET-CT and 1 SPECT-CT scanners and image analysis capabilities."<sup>19</sup>

In essence, Yale's research and development activities are attracting complementary industries and consequential travel – a dynamic in which Tweed Airport plays a critical role.

## Medical Tourism

Medical tourism, to which Yale and YNHH have been migrating, complements HVN developments as documented in Annex 1. This section summarizes that appendix.

In addition to its increased emphasis on capitalizing on their intellectual capital, the Yale medical complex has been strengthening its position as medical tourism destination by:

- Its 2023 ranking among top half of World-leading 125-300 hospitals in 7 of 15 disciplines and within the top two-thirds of 31-86 World-leading American hospitals;<sup>20</sup> and,
- Having Rochester Minnesota's 2013 precedent for state officials to follow their determination that there was a compelling interest to authorize public investments in Rochester to help support The Mayo Clinic as a global Destination Medical Center, (DMC) to create in statute the financing tools and public governance structure necessary to carry out the global destination vision, launched there circa 2016.

In lieu of publicly available plans at this time, CCEA deploys Minnesota data to exemplify potential economic impacts of Yale-YNHH pursuing medical tourism but on a about a quarter of the Minnesota scale, based on the smaller initial scale halved again to keep estimates conservative.

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<sup>18</sup> Yale Center for Research Computing. <https://research.computing.yale.edu>

<sup>19</sup> David Krechevsky, **Chinese-owned biotech opens research facility in New Haven, Jan.13, 2025**. The Elm City Bioscience Center, ... New Haven.

<sup>20</sup> [Urology - Newsweek Rankings](https://www.newsweek.com/rankings/global-hospital-rating) 2024 based on <https://www.newsweek.com/rankings/global-hospital-rating> and Statista.

This approach results in direct impacts of annual non-residential investments of \$40 M, matched by purchases of equipment, plus \$13.75 annually in professional services. Annual increment Yale and YNH employment to meet patient needs range from 346 in 2027 to 736 in 2060.

## Evolving Technologies: Electric-Hybrid Vertical Take-off and Landing Aircraft (EVTOL)

By providing direct access to final destinations, emerging EVTOLs will potentially supplant some ground transportation by providing quicker access to surrounding locales, such as New York attractions, than experienced by passengers landing at large airports, requiring a lot of time-consuming walking, before proceeding via congested urban ground transit. Possible EVTOL urban landing sites include roof tops of both offices and apartment buildings, occupied and abandoned local shopping centers with readily available parking in New York and Boston as well as their waterfronts. With most feasible New York landing sites within half-an-hour flying time from HVN, EVTOLs servicing the City from HVN is expected to be competitive with extant ground transportation options frequented by commuters and those with connecting flights.

Simultaneously, EVTOLs will facilitate rapid access to large airports with established national and international flight networks. By air HVN to KFK is 63 miles and Boston Logan 123 miles.<sup>21</sup> Essential to the mass adoption of EVTOLs is the development of an automated safe air traffic control system for the expected massive increase in flights of EVTOLs heading for multiple potentially congested roof tops from all directions, already in development stages<sup>22</sup>.

This section is more speculative than previous sections because EVTOL test flights have only recently received FAA approval.<sup>23</sup> In 2021, United Airlines placed a \$1 billion order for Archer's Midnight EVTOL, while Delta Air Lines invested \$60 M into Joby Aviation in 2022 with permission to go to \$200 M as benchmarks are met.<sup>24</sup> In addition to financing from airlines, at least two automotive giants are staking their claim on the air mobility market. [Supernal](#), owned by Korean car maker Hyundai, is preparing to fly a full-scale demonstrator of its EVTOL air taxi in 2025. [Toyota](#) has partnered with California-based EVTOL developer Joby Aviation on the development and production of its aircraft, expected to be among the first to enter service in

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<sup>21</sup> [airline miles hvn to boston logan airport - Search](#)

<sup>22</sup> Aljaz Hussain and Rutgers, Change is in the Air, [Electric vertical takeoff and landing \(eVTOL\) vehicles | Deloitte Insights](#) (January 29, 2025.0

<sup>23</sup> [Archer's Midnight Electric Air Taxi Completes Inaugural Test Flight - FLYING Magazine](#), [FAA Greenlights Honda eVTOL Prototype Flight Testing | Aviation International News](#), and <https://www.bing.com/videos/riverview/relatedvideo?q=evtol+TEST+FLIGHT+FAA&mid=091B7D804D1A66D0B3F8091B7D804D1A66D0B3F8&FORM=VIRE>.

<sup>24</sup> [See Joby's Electric Aircraft It Plans to Fly for the Price of an Uber - Business Insider](#).

the U.S.<sup>25</sup> With ongoing battery advances in battery technologies EVTOLs are expected to become cheaper and capable of longer routes.

For clarity, Joby's 38-foot wingspan 4-seater EVTOL is used here as a current example. It has a range of 150 nautical miles supported by over 1000 test flights on evolving versions. Other EVTOLs in development include a 50-foot wingspan,<sup>26</sup> one with a range in excess of 400 km. There are currently more than 60 companies around the world seeking to capture this future market. The example of possible future flights generated within this section falls within the bounds of technologies currently in the process of being tested so timing, rather than the fact of EVTOL aircraft coming into production, is the speculative element. While looking to the future, EVTOL aircraft obviously parallel HVN's heritage. In modelling their impacts, CCEA delays the initial tranche of 11 EVTOLs until 2030 with additional similar sized tranches every quinquennium to 2060. While there may be some retirements, none are acknowledged.

EVTOL activities are not the only option to establish greener flights from HVN. Eighty-four years after blimps, Hybrid Air Vehicles has developed a 100-person hybrid electric Airlander airship primarily for short-take-off and landing routes that reduce GHGs relative to conventional aircraft by 90%. Its test blimp is designed to cover short distances, particularly scenic ones and is expected to come to market in 2025.<sup>27</sup>

As of now, there are no negotiations for arrangements between HVN and any likely assemblers or operators.

EVTOLs represent a quantum leap in aviation. Under current tests relative to the twin-engine Sikorsky S-76 helicopter, without pilots, industry members claim EVTOL aircraft, undertaking 25-mile trips, to be 4.14 times less costly and far less noisy<sup>28</sup>. CCEA's scenario includes commercial pilots on all EVTOL flights so it is more labor intensive than the current commercial airlines, but less so once automated EVTOL replace piloted ones, not included herein. Potential operational data vary among potential sources with required revenues per passenger/mile differing from

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<sup>25</sup> Ibid.

<sup>26</sup> <https://www.aerospace-technology.com/projects/alia-250-electric-vertical-take-off-and-landing-evtol-a>

<sup>27</sup> <https://www.theguardian.com/world/2021/may/26/airships-for-city-hops-could-cut-flyings-co2-emissions-by-90> (June 2, 2021).

<sup>28</sup> This calculation is based on Joby flying costs excluding pilots with \$333/hour added by CCEA to cover pilot costs. [APznzabUHaob4pWBQERHqgZGCzRGbjCCzOxo9TpXMO 24L3emieHOT-FJCZAYYY1iHvKmjvQbOhQnAicjKrVGkk9U8kw1hTUWwaN2EEyx7-5gDyM95XWrI94sg1buuRa6W9iUMKZzUDZaZ9owRAww3UYM9x6CjwWPOIN-sJmiX33YGzUsG0ffOhvJDUSJe4E9V42Ej9vuyXAEj2fnR6KC5Dk - xPE4QsieBFF52G3l3Ip21 QOKx8p2mRc0LTBwE2hdHamPwwrG3WAL sgz8fxHKjQD4HMXpFeiyR0R13bEg43xV3nNF oWcD5UbNX8B1KqGJJYmAFQdeCs o-8koAbhLMbXzsgilZ71NBL6Mhzi6djVVZtZewl=](https://www.aerospace-technology.com/projects/alia-250-electric-vertical-take-off-and-landing-evtol-a) (googleusercontent.com) (May 10, 2021)



Lilium at 2.25 cents, Archer Aviation 3.3 cents, Eve Urban Air Mobility 3.56 to 3.88 cents, and NASA at 6 to 11 cents<sup>29</sup>. Conservatively, CCEA has utilized Archer Aviation's estimates.

Compared to helicopters, EVTOLs are quiet. According an EVTOL assembler, the Sikorsky S-76, generates 93 decibels (dBA) on take-off compared to the EVTOL's 65 dBA. Because the dBA scale is logarithmic, these differences are larger than they appear. The foregoing means that, the S-76 is  $10 \times 10^{27}$  times louder than the EVTOL - the same difference as being close to almost intolerable noise or having a civil conversation. That factor alone suggests that repair cost for EVTOL planes will be less than on helicopters.

Energy consumed may be either electricity or fossil fuels. With electricity there can be immediate Greenhouse Gas (GHG) savings relative to Connecticut's current vehicle fleet in 2022, dominated (97.9%) by internal combustion engines (ICEs). Overtime, ICE vehicles are expected to be replaced by EVs and current generating technologies by green ones, thereby foreshortening the magnitude of GHG impacts that EVTOLs will have in replacing vehicles, albeit per passenger miles travelled EVTOL are more than twice as energy efficient as EVs. In the longer-term, it is important to recognize that EVTOL, with capacity for four persons but with average occupancy of 2.5 passengers, save electricity relative to EVs with average occupancy of 1.1 persons. Relative to EVs on 25-mile trips EVTOLs get a multiple of 2.27 more miles per watt consumed; that ratio increases over longer distances asymptotically to 2.52 times per passenger mile over 150 miles, the modelled EVTOL's maximum.

The example used in this report focusses on piloted 4-seater EVTOLs servicing New York markets with an average distance of 63 miles from HVN with 2.5 average passenger loads making 12 one-way trips per 16-hour day for 360 days/year with most mechanical work being done during the night shift. Expected capital costs per EVTOL \$1.3M or \$14.3 M for a tranche of 11 of them every five years. To recharge quickly, each tranche will require six DC 150 Kw quick chargers at \$75,000 each.<sup>30</sup> CCEA has approximated the capital costs of such chargers by using, during flight turnarounds at HVN and, due to the lack of recharging at NYC landing sites, faster turnarounds there. Capital costs for 6 chargers amount to \$450,000. Turnround times will be more than sufficient to recharge.<sup>31</sup> Longer flights, such as Boston, would require more extended fueling at both landing sites. Aside from starting the fleet fully charged each day, EVTOLs need for electricity during the day precludes heavily weighting off-peak charging rates in estimating costs of electricity for their flights, albeit stationary battery storage costs are

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<sup>29</sup> [How Much Will It Cost to Fly on eVTOL Air Taxis? - FLYING Magazine](#) (Feb 3, 2025)

<sup>30</sup> Michael Nicholas, Estimating Electric Vehicle Charging Infrastructure Costs Across Major U.S. Metropolitan Areas, United States The International Council and Clean Transportation, August 2019. CCEA assumes that total battery capacity is sufficient to supply electricity round-trip and at least five EVTOLs are in other than HVN during operational hours of fully fueled from down time at night.

<sup>31</sup> [Quick Charging of Electric Cars | PluginCars.com](#) (May 10, 2021)

<sup>5</sup> Michael Nicholas, Estimating electric vehicle charging infrastructure costs across major U.S. metropolitan areas United States The International Council and Clean Transportation, August 2019.

tumbling making augmenting off-peak electricity demand for EVTOLs increasingly briefer and more appealing.<sup>32</sup>

Sufficient incremental HVN paving costs are incurred for EVTOLs<sup>33</sup> to overnight, recharge, and navigate as well as for their passengers to park at HVN amounting to another \$2.3 M. In addition, CCEA has added in a 10% contingency to cover any other capital expenditures such as ticketing or light baggage handling facilities. Due to higher Connecticut than average U.S. electricity prices, CCEA has rolled Joby estimated other expenditures of 11 cents per seat-mile into electricity charges.

Operations of EVTOLs from HVN will add highly paid professions to HVN's client base. Expected EVTOL ticket prices are well within the time saved at their billable rates.

Noted in Table 3 for each year 2030 to 2034, expenditures during operations include both operating expenses and paying off all capital expenses within each five-year tranche of 11 EVTOL purchases. Previous purchased EVTOLs remaining in service along with subsequent tranches. Financing charges are based on five annual payments at 10% covering each tranche of EVTOL acquisitions. Because the EVTOLs are stationed at HVN, unlike commercial flight crews, their pilots are assumed to reside in Connecticut.

**Table 3: Annual Expenditures from EVTOL Operations: 2030-2034 (2024 \$)**

Activity	Direct Annual Impacts
Pilot compensation	3,960,000
Mechanics	1,100,000
Ground support compensation	1,260,000
Airport charges	1,317,254
Aircraft insurance	1,077,754
Utilities	2,993,760
Total	11,588,768
Annual Financing (10%)	4,964,832
Grand Total	16,673,600

Source: CCEA derived from [How Much Will It Cost to Fly on eVTOL Air Taxis? - FLYING Magazine](#)

CCEA extended this table to 2060 by repeating single tranches of EVTOLs every five-years and adjusting costs in the "Total" to meet each additional quinquennium. With financing costs remaining constant since each tranche is paid-out over its initial five-years. Because the series

<sup>32</sup> Katherine Blunt, Natural Gas, America's No. 1 Power Source, Already Has a New Challenger: Batteries, Wall Street Journal May 16<sup>th</sup>, 2021 and Lazard.com, Levelized Costs of Energy and Levelized Costs of Storage 2020 (May 16, 2021).

<sup>33</sup> For safety tarmac area per EVTOL involved a diameter of 50 feet for a width of 38 feet.

are in real 2024 dollars, the REMI impact runs include adjusting for inflation, so that issue is covered by the modelling process.

If the average of 2.5 passengers per EVTOL is maintained, this approach generates annual surpluses of \$8.0 M,<sup>34</sup> some of which may be devoted to upgrading out-of-state landings, during the first five-years augmented by the lack of financing charges on EVTOLs six years and older thereafter. These annual direct impacts were modelled as incremental revenues to the air transport. If the EVTOLs are owned in Connecticut, the model, based on normal expenditures by airlines, would underestimate Connecticut impacts.

Given that EVTOLs are 2.17 to 2.51 more energy efficient than EVs and save GHG emissions relative to ICEs, GHG impacts may be assisted by the shift away from fossil fuels, albeit, total social advantages of GHG reductions will shrink over the longer timeframe with increasing adoptions of EVs replacing ICEs.

## Park-and-Fly

The opportunity to develop park-and-fly infrastructure close to I-95 for passengers will grow with enplanements and EVTOL usage. Bradley's Lot 3 operates effectively as its park-and-fly lot with a readily available shuttles servicing about 750 parking spaces at a daily fee per vehicle of \$8.00 or \$48 per week<sup>35</sup>. Using the Bradley operation as basis for the analysis CCEA has assumed that 70% of users pay weekly and the rest daily charges.

CCEA has estimated the capital costs of construction including paving to be \$8,000 per parking place inclusive of access roads, or \$6.0 M financed over ten years at 10% interest. In addition, the operation will require a pair of shuttle buses valued at \$60,000 each, financed over three years at 10% at retirement, before vehicle retirement at about 240,000 miles followed by the process being repeated out to 2060.

Starting at 85% of capacity, initial operating revenues are expected to be \$1.6 M. Sufficient to cover annual operating expenditures of \$1.5 M comprised of \$420,000 in shuttle driver compensation, \$256,230 for fuel, \$70,000 for maintenance, \$40,000 for security, and \$4,000 for insurance. In addition, annual payments to retire debt on the lot's paved surfaces and buses will amount to \$766,330 until 2039 when its principal and interest on the paving are paid out. That accomplishment frees up \$718,075 annually thereafter. CCEA expects lot usage to grow at 0.5% annually, approaching capacity by 2060.

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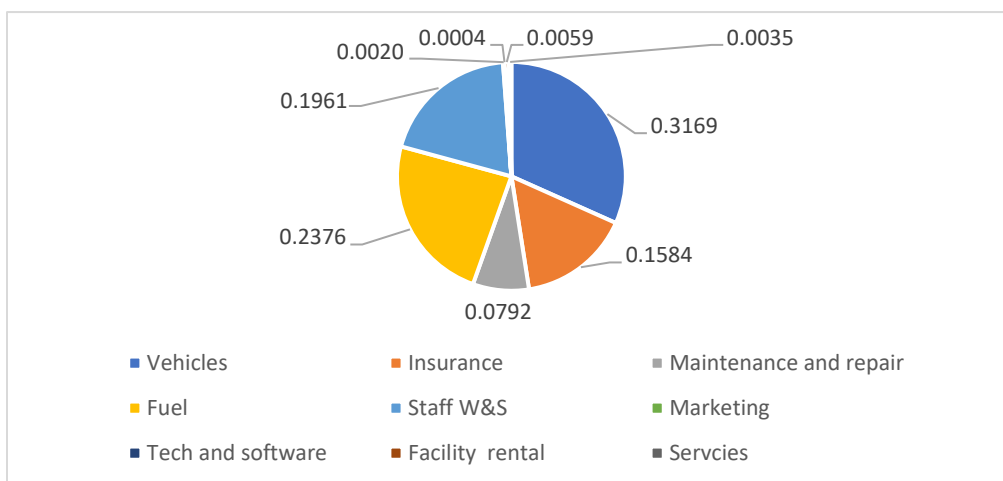
<sup>34</sup> Based in Archer Aviation estimate of 3.3 cents per seat mile [How Much Will It Cost to Fly on eVTOL Air Taxis? - FLYING Magazine](#)

<sup>35</sup> [how much to park at bradley airport - Search](#) (Feb. 3, 2025)

## Rental Vehicles

Air passengers generally spend about 5% of air fares on rental vehicles. To provide such services at HVN require about 400 vehicles. Chart 2 illustrates typical expenditure shares of a rental car operation.

**Chart 2: Share of Car Rental Costs by Expenditure Type (\$5,05 M 2023)**



Sources: CCEA based on [Tourism demand in Canada, constant prices](#) and [What Are the Key Operating Costs for Car Rentals? – Business Plan Templates](#).

Note: Because rent-a-care companies renew fleets at low millages, vehicle costs are estimated depreciation costs.

CCEA assumes that these costs grow annually to 2060 at the same rate as enplanements.

Commencing in 2023, this complementary industry generated and additional \$5.05 M growing, relatively rapidly to \$7.8 M by 2030 and more gradually thereafter reaching \$14.05 M in 2060 in 2022 \$.

## Projected Economic and Fiscal Impacts

Based on the foregoing descriptions, CCEA has developed two scenarios. The first scenario, “Tweed,” is exclusive of complementary investments, the second, “Tweed+” inclusive of them. Tweed is limited strictly to impacts from airport capital outlays and operations and commercial airline investments and operations to 2060 at HVN. Tweed+ includes the first scenario supplemented by complementary developments discussed above. The first scenario results are integral to Tweed’s expansion while the second illustrate that HVN expansions fit critically into New Haven regional and nearby components of statewide economic development.

Based on incremental direct economic capital and operating activities 2022 to 2060, CCEA projects economic and fiscal impacts with the REMI model, a quasi-general equilibrium model of New Haven County and Connecticut, to identify jurisdictional economic impacts of each scenario on:

- Employment;

- Income – RGSP, Output, Personal Income and Disposable Personal Income (The last of these being income accruing to individuals after paying personal income taxes; and,
- Fiscal impacts.

REMI classifies employment as total, indirect, and induced within Connecticut and New Haven County, and externally to them. Indirect employment is generated by suppliers to final manufacturing and distributors and induced employment by the expenditures derived from Inputs into the direct expenditures and other derived induced expenditures. CCEA deploys current shares of towns closely adjacent to the airport to estimate more finely local employment opportunities.

## Airport and Commercial Airlines: “Tweed”

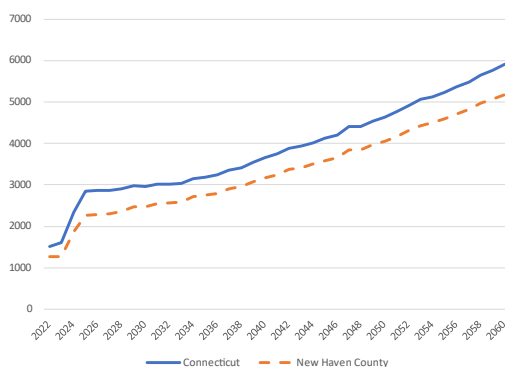
### Jobs

The lefthand panel of Chart 3 indicates annual impacts on employment by job locale in each of New Haven County and Connecticut. The righthand panel presents residential locales of incremental employment – where additional employees reside.

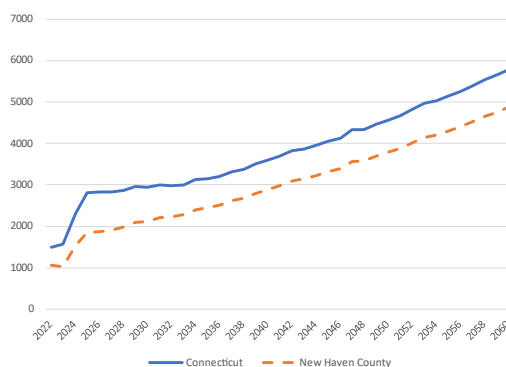
**Chart 3:**

## Tweed Employment Impacts

**Jobs by Locale**



**By Employee Residency**



Source REMI Run.

Relative to recent history, current plans have no local or state subsidies after 2023. Construction expectations weaken after early 2050s due to lack of data that may be filled by that time. Job impacts oscillate during construction activities. Because statewide construction workers are highly mobile, employment impacts are more numerous within the state than the county. As the construction labour force adjusts residency to job locations, the share of operational employment resident in the county increases so county impacts more closely match the State's.

By 2026 job impacts in Connecticut are planned to rise by 2,871 of which 2,281 are in New Haven County with only 590 residing out-of-county. By 2029 with the rapid expansion of airlines using HVN and, job impacts peak at 2,985 of which 2,465 are expected to be in New Haven County with 2,954 being resident in Connecticut and 2,087 residing in New Haven County. These airport and enplanement expansions continue to stimulate employment growth with increasing shares of employment and residency being located in New Haven County. By 2060 annual Connecticut job impacts reach 5,902 of which 5,187 are located in New Haven County and creating 715 jobs elsewhere. Of the incremental jobs in 2960, 5,783, all but 119, reside in Connecticut. 4,872, are expected to reside in New Haven County leaving only 315 residing elsewhere in the state. In doing so they add 0.79% to New Haven County jobs and 0.2% to the much larger Connecticut employment.

On average annual total Tweed employment impacts for New Haven County exceed direct employment by 2.24 times and in Connecticut by 2.25. These results indicate that the vast majority of the employment impacts are in New Haven County, which stimulates consumption and its housing market. Estimated airline expenditures add considerably to impacts and any accelerated usage would further enhance impacts.

## RGSP & Output

Chart 4, left panel, presents impacts of annual capital and operating expenditures at HVN, the airlines, all generating RGSP and real output impacts. Generally, CCEA does not utilize output estimates of income because that metric includes double counting.<sup>36</sup> both metrics are presented here to clarify just how misleading output impacts can be in measuring growth.

With steadily growing airline capacity being met, airline enplanements are of increasing importance in expanding impacts. It will be important that local markets successfully meet demand for personnel, fuel, and travellers' purchases of food, beverages, and accommodations.

By 2027, projected RGSP Tweed impacts amount to \$444 M in Connecticut and \$368 M in New Haven County. The righthand panel presents the same information on output at \$907 and \$768. Based on slow growth in enplanements, conservatively, Connecticut RGSP impacts grow

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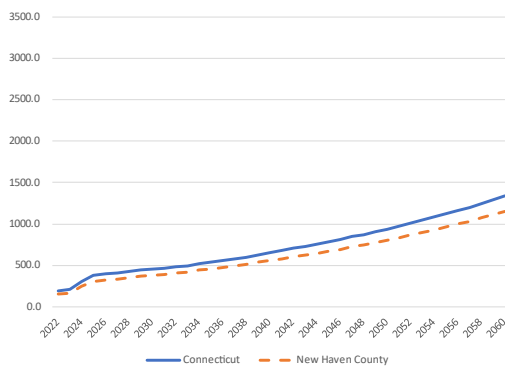
<sup>36</sup> Simply put, counting the total value shipped at factory gates along a supply line results in previous inputs being counted several times along the supply chain, whereas limiting the metric to the valued added by each mine or factory avoids double counting and is real value added resulting in GSP – what is produced in state.

to \$480 M in 2032 with \$390 M of that occurring in New Haven County. By 2060 the impacts amount to \$1,339 M and \$1,150 M respectively, highly concentrated in New Haven County.

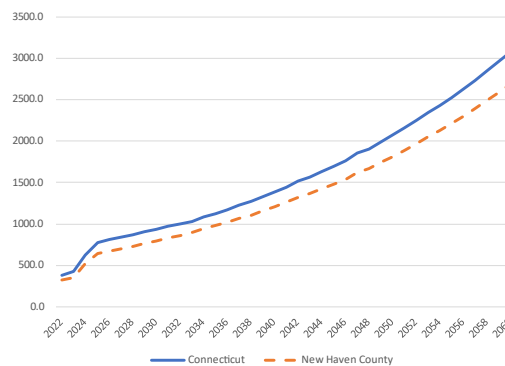
**Chart 4:**

## Tweed RGSP & Output Impacts (Millions \$)

**RGSP (Fixed 2022 \$)**



**Output (Fixed 2022 \$)**



Source REMI Run.

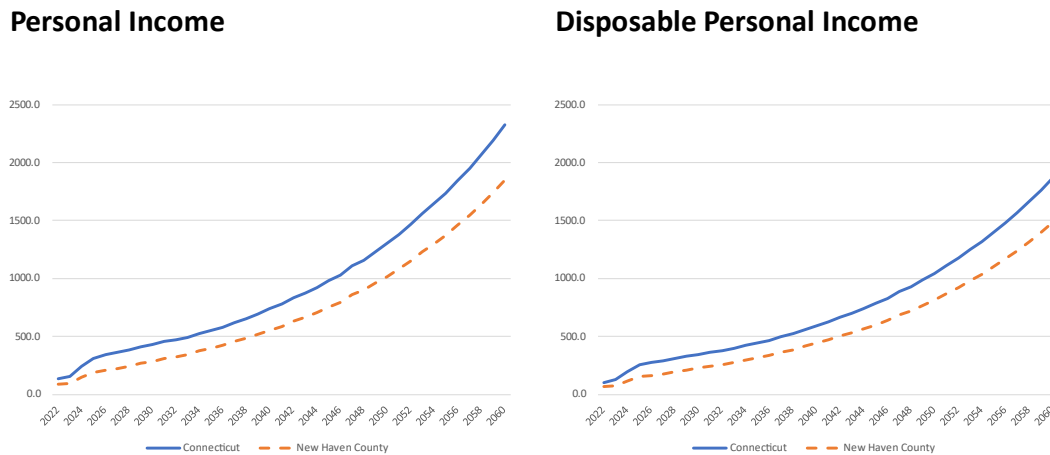
### PI and DPI

The left-hand panel of Chart 5 illustrates that Tweed PI impacts in current, as opposed to fixed dollars, remain positive throughout. In 2030, Connecticut PI impacts amount to \$432 M and New Haven County's \$287 M. a decade later, further airport and airlines expansions, and inflation add 71% to the Connecticut PI impacts generated in 2030 and 93% to New Haven County's incremental PI over the same time-period. By 2060, Connecticut PI impacts in current dollars reach \$2,327 M and New Haven County at \$1,849 M or as percentages of the base year, 1.67% and 0.72% respectively.



**Chart 5:**

## Tweed PI & DPI Impacts (Millions Current \$)



Source REMI Run.

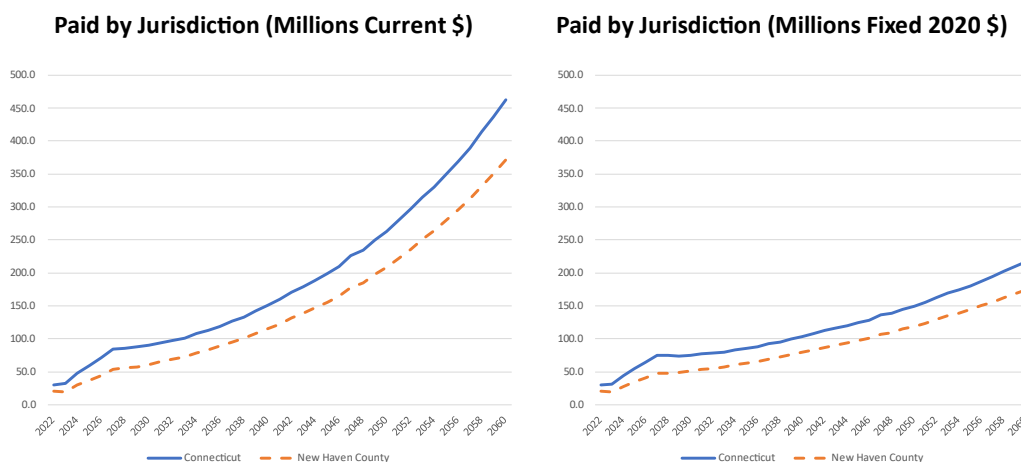
Subtracting incremental Personal Income Taxes from PI yields incremental DPI , the righthand panel of the chart, thereby enhancing consumers' capacity to exercise free choice from increased expenditures. By 2030, CCEA estimate Connecticut DPI impacts at \$346 M and New Haven County's \$248 M. In 2040, further Connecticut DPI impacts are expected to reach \$592 M of which \$443 M is expected in to accrue in New Haven County. By 2060, Connecticut DPI impacts in current dollars reach \$1,910 M with \$1,873 M in New Haven County.

### Personal Income Tax Impacts (M Current \$)

Derived from above, Chart 6 shows annual Tweed PIT impacts in both current and fixed millions of dollars. The short-term growth from increased flights and enplanements to the expansion of the terminal and expanded airlines routes are all stimulating growth and if sustained have capacity to extend growth.

**Chart 6:**

## Personal Income Tax Impacts From Tweed



Source REMI Run

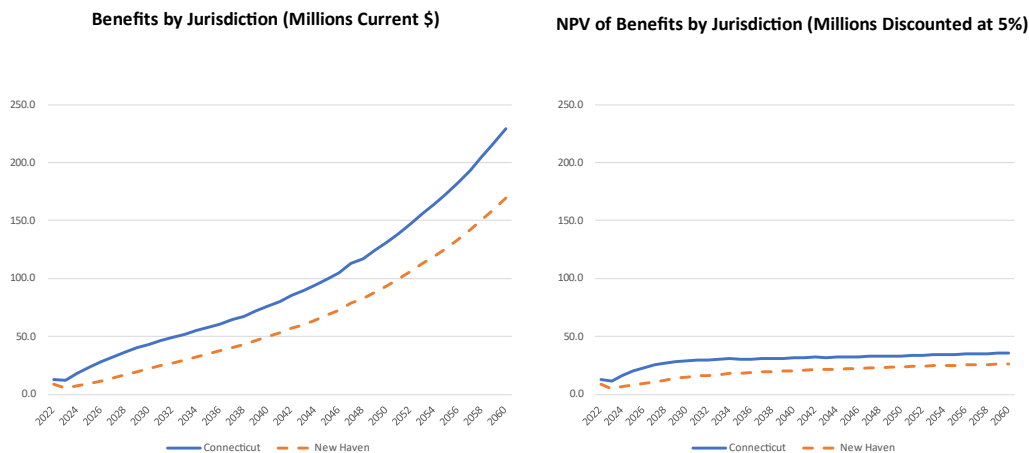
### Fiscal Impacts

The difference, Tweed PI less DPI, annually is personal income taxes collected by the Federal and State governments with the State's share of 23.5%. See Chart 7. Because the fiscal analysis is carried out in current dollars, but because the current value of aggregate growth is better analyzed in discounted terms, this Chart contains both current real, 2022-dollar and NPV, versions with the byproduct of the importance of underlying inflation. Based on models prior to any tariff policies impacting inflation, by 2057 current dollar values are more than double the real dollar ones in each jurisdiction.

Other major sources of State and Local government revenues include sales taxes and property taxes. REMI yields consumption and capital data on which to estimate these incremental revenues making up about 70% of total combined revenues. The remaining 30% of State and Local government revenues are assumed to grow at the same rate to estimate to impacts on State and Local government revenues. Deducting REMI derived additional expenditures by State and Local governments to meet the needs of the project and larger economy, yield net fiscal gains annually. Chart 7 contains these estimates in both current dollars, left panel, and discounted back to 2022 at 5% in line with Federal guidelines, right panel.

**Chart 7:**

## State and Local Gov't. Fiscal Impacts Frm Tweed



Source REMI Run.

The bottom line is that Tweed HVN expansions yield annual Connecticut NPV impacts to additional net fiscal capacity ranging from \$5.1 M to \$15.1 M from 2022 to 2030 before adding \$16.1 to \$20.7 M annually thereafter. Over the entire period NPV accumulates at \$1,178M out to 2060 of which \$756 M occurs in New Haven County. While successive governments may paydown debt with these funds they may also undertake additional growth initiatives. There is clearly room for more growth depending on the successes or failures of such stimulus.

### Local Impacts Tweed Scenario

To identify Tweed benefits accruing to nearby locales, CCEA has distributed New Haven County economic impacts among zip codes (ZCTAs) at or proximate to HVN by their shares of New Haven County population adjusted for differing percentages of population employed in each. This approach is conservative because it does not account for greater employment of people residing in close proximity to their workplace within New Haven County.

Table 4 designates five ZCTA's nearby HVN and its five-digit location in 6512. Collectively, 23.1% of New Haven County's population resides in these zip codes accounting for 22.8% of the County's employment in 2022, the last year for which data are available. Because percentages employed and household incomes also vary among zip codes the shares of the County's employed and income distributions are further adjusted to yield the percentages in the last two columns for determining impacts by zip code. Totals show the shares of County employment and incomes captured in and around HVN are significant.

**Table 4: Impacts in Airport and Nearby ZCTAs**

Proximate ZCTA5	Population % of County	Population % Adjusted by % Employed	Population % Adjusted by % Median Household Income
6510	0.51	0.52	0.43
6511	6.46	6.39	4.83
6512	3.41	3.59	3.80
6513	4.47	4.21	2.76
6516	6.43	6.40	6.28
6519	1.79	1.67	1.05
Total	23.06	22.78	19.15

Source: Bureau of the Census ZCTA Data. (February 19 2025).

Aside from ZCTA5 6512, part of the reason for relatively poor performances of the last three proximate zip code areas is that residents are less well educated than those of both HVNs Zip and the County in general.<sup>37</sup>

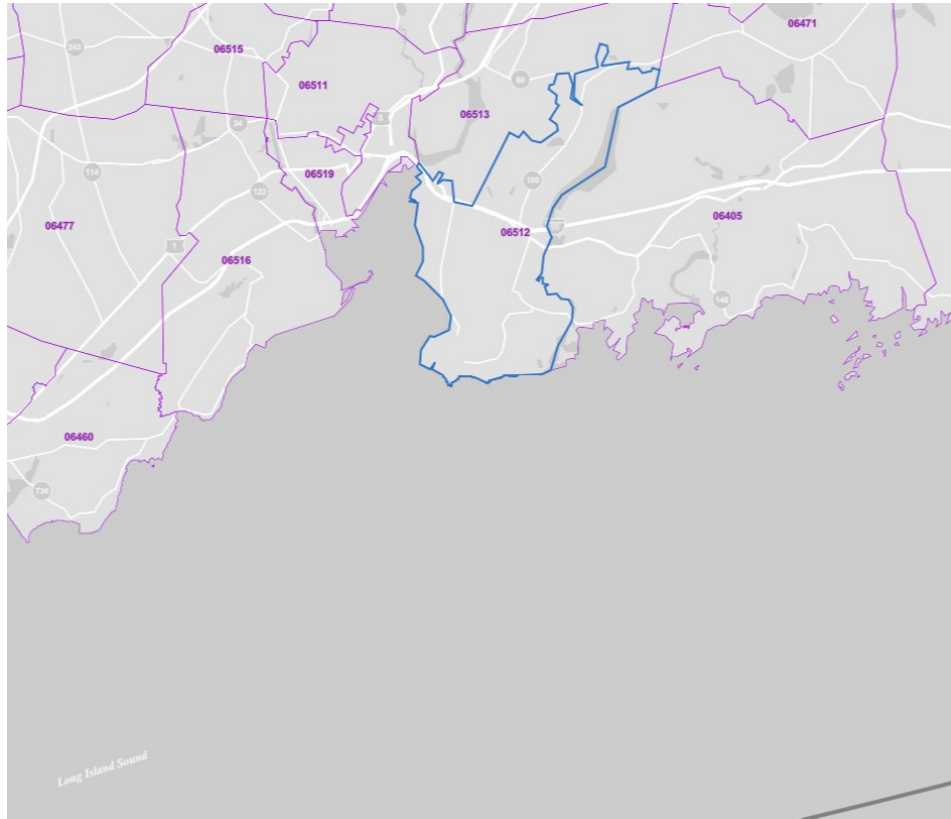
Chart 8 maps the locale of nearby ZCTA5s. Aside from the initial spread of eight years, decennial impacts are presented in the following four charts covering each of the ZCTAs, adjusted as above. Chart 9 contains employment impacts while the remaining cover RGSP, PI, and DPI.

With larger current populations, impacts are strongest in ZCTA 6511 and 6516, reaching over 135 jobs each by 2030 and 300 each by the end of the outlook. Zones 6513 and 6512 projections follow closely in third and fourth place, sufficiently close to each other to create another virtual tie which will depend on future uses made of airport lands and location of new residences, particularly, multiunit homes throughout the County.

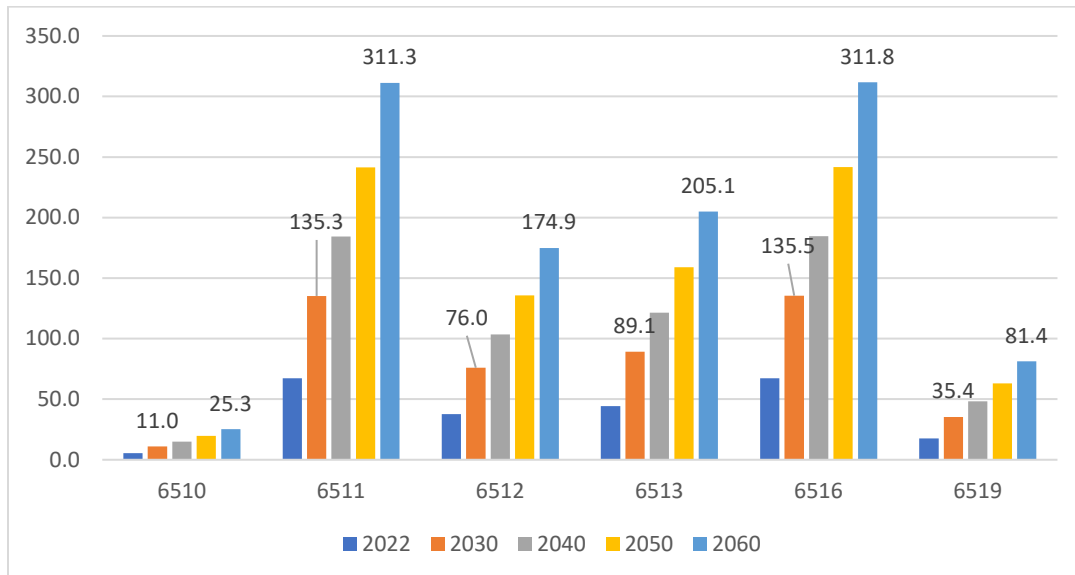
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<sup>37</sup> Bureau of the Census ZCTA Data. (February 19 2025).

**Chart 8: Map of Nearby ZCTA5 Zones**



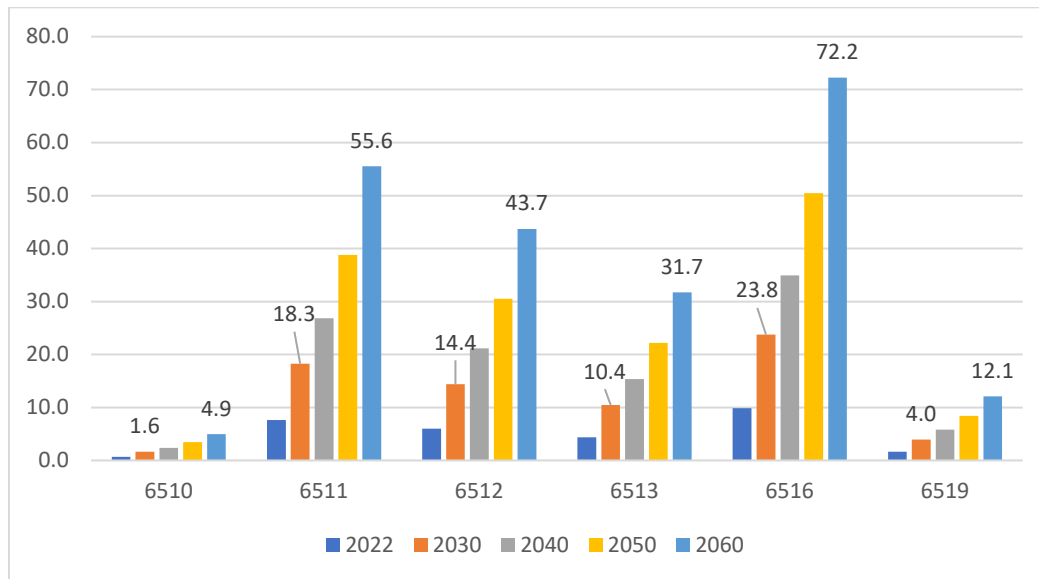
**Chart 9: Tweed Employment Impacts in ZCTAs Near HVN (Jobs)**



Tweed RGSP impacts, in Chart 10, are strongly influenced by abnormally high average median household incomes of \$84,034 in ZCTA 6512, where HVN is located, combined with relatively low average median household incomes in ZCTA 6413, \$46,520, when New Haven County is

\$75,295.<sup>38</sup> These differences lead to stronger income impacts in the airport’s own zip code than in the strictly adjacent ones, though future sitings of additions to the housing stock could alter this outcome.

**Chart 10: Tweed RGSP Impacts in ZCTAs Near HVN (Millions of Fixed 2022 \$)**



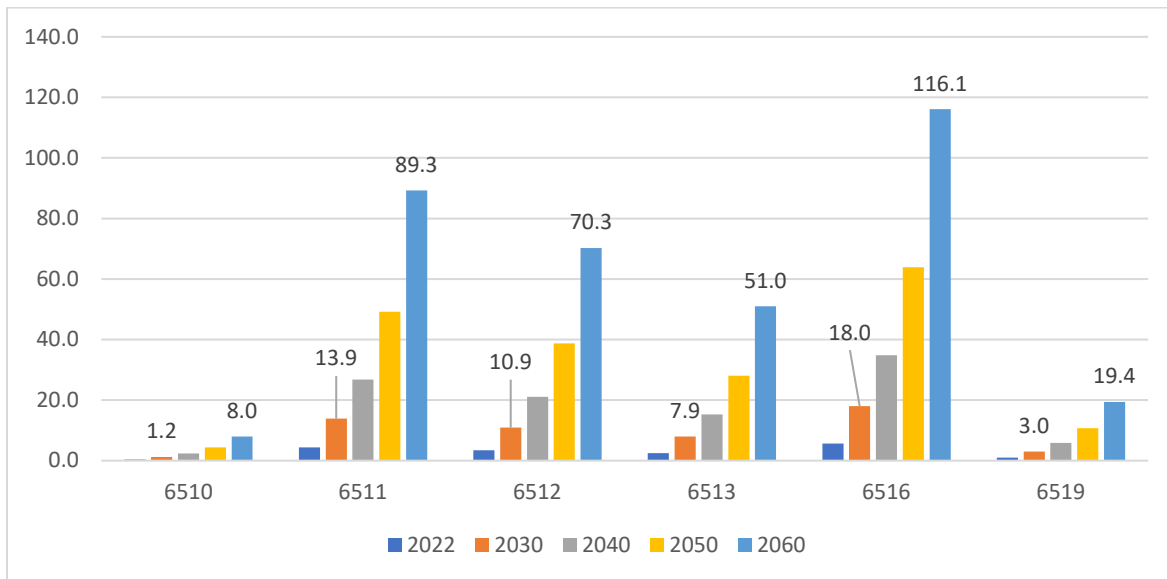
The same is true of the differences in RGSP impacts between the first two placements for job impacts. Average median household income in ZCTA 6516 is \$73,556 but only \$56,300 in ZCTA 6511. Data labels cover the years 2030 and 2060, so the former outdistances the latter with the largest Tweed impacts among these zip codes.

As shown in Charts 11 and 12, by using the same income weighting techniques Tweed PI and DPI impacts have similar shares among the six zip codes. However, in current dollars, rather than fixed dollars, they accelerate more over time.

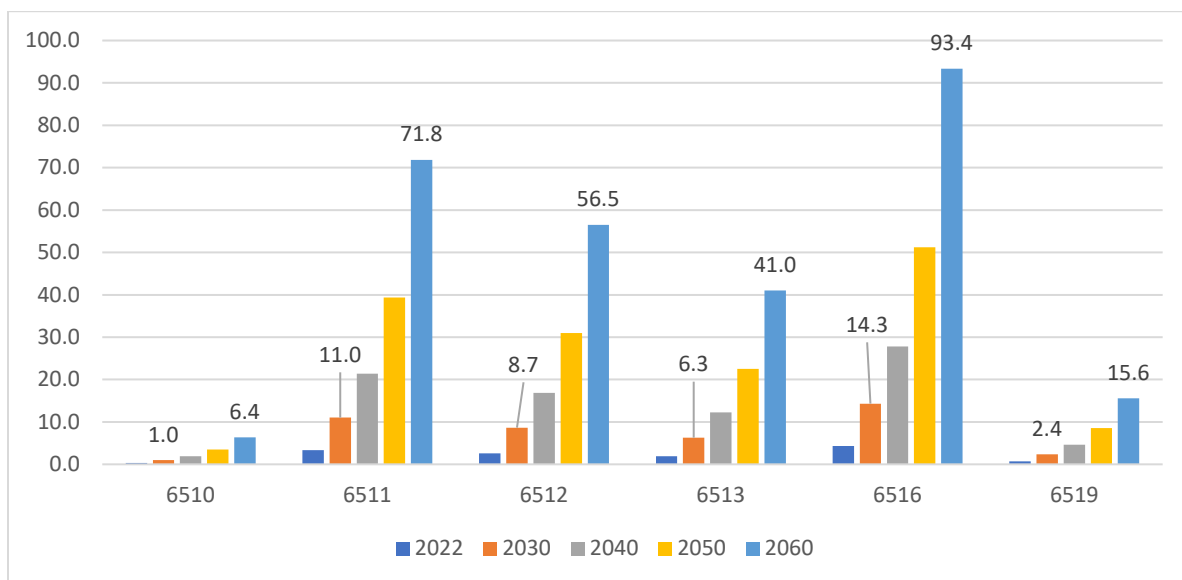
As with the earlier charts data for 2030 and 2060 are labelled with the differences between the charts amounting to Tweed PIT expansions in those years.

<sup>38</sup> Bureau of Census ZVTA data.

**Chart 11: Tweed PI Impacts in ZCTAs Near HVN (Millions of Current \$)**



**Chart 12: Tweed DPI Impacts in ZCTAs Near HVN (Millions of Current \$)**



## Conclusion

The bottom line is that the Tweed scenario raises additional RGSP in New Haven County with a real NPV of \$15.3 B over the period of which the cumulated NPV of New Haven County PI impacts amount \$8.8 B and DPI \$7.0 B. Of these amounts, at least to PI of \$2.9 B and DPI \$1.7 B will accrue to residents in the six ZCTAs on which HVN is situated or within close proximity of ZCTA 6512.



## Complementary Developments: Tweed+ Scenario 2

### Tweed+ Introduction

Tweed+ Scenario 2 builds on the first one by including aforementioned complementary initiatives coming to fruition. In order of magnitude from smallest to largest, these initiatives are park-and-fly, car rentals, hotel, Yale-YNHH medical tourism, and EVTOLs. Inclusion of complimentary activities gives a broader perspective to all these growth initiatives by increasing all indirect and induced impacts on all sectors. It also puts the impacts captured in the Tweed scenario in context of broader incremental development initiatives.

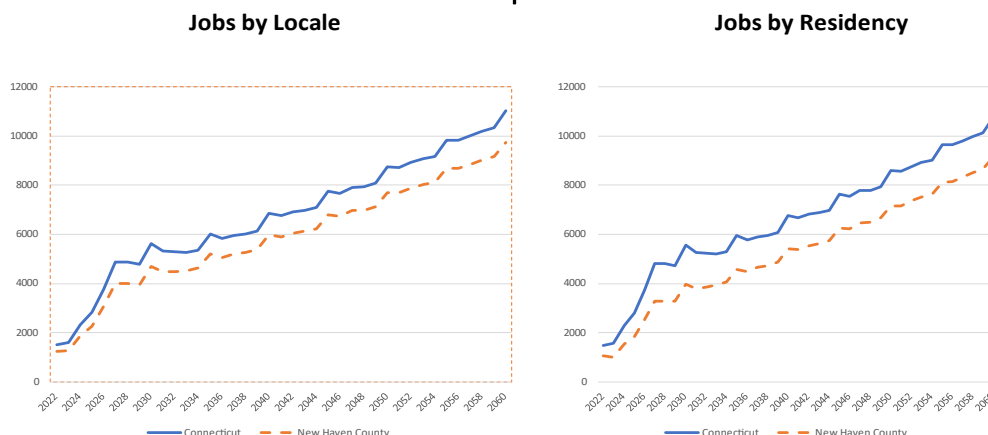
### Jobs

The lefthand panel of Chart 13 indicates annual Tweed+ impacts on employment by job locale in each of jurisdiction. The righthand panel presents residential locales of incremental employment – where new employees reside and the majority of where income is spent.

Tweed+ direct capital expenditure expectations for medical tourism are repeated annually thereby increasing direct staffing requirements at the Yale-YNHH's entry into medical tourism as well as from quinquennial tranches of EVTOL airplane purchases, park-and-fly shuttle buses tri-annually renewal, due to ware and tear, and related staffing. Resulting operations call forth additional direct employment augmented, slightly, by expanded use of the park-and-fly and higher occupancy rates from the hotel start-up. Ragged-shaped trend line emanates from the tranches of EVOLs, airport expansions, and, to a much less, extent from shuttle renewals.

**Chart 13:**

## Tweed +: CT and New Haven Employment Impacts



Source REMI Run.

Job impacts vary with levels of construction activities and tranches of EVTOL purchases and two-year periodic airport expansions. Because statewide workers are highly mobile, employment impacts are more numerous within the State than the County. Yet as the labour force adjusts its residency to job opportunities, the share of operational employment resident in the county increases so county more closely matches the State's.

By 2027, Connecticut job impacts are planned to rise by 4,869 of which 3,998 are in New Haven County with only 871 employed out-of-county. With the rapid expansion of airlines using HVN and introduction of EVTOLs into service and the other project initiatives in 2060 Connecticut job impacts reach 11,013 of which 10,778 are expect to be in resident in State. Of the 9,732 jobs created in the County 9,167 of the incremental employment will be resident in New Haven County with 555 residing elsewhere of whom 330 will reside elsewhere in Connecticut.

These airport, enplanement expansions, and other activities continue to stimulate employment growth with increasing shares of employment and residency being located in New Haven County.

Proceeding with the projects to 2060 adds 1.48% to New Haven jobs and 0.38% to Connecticut jobs of which scenario one activities account for just over a half. In reality, that actual share will be dependent on the scale of medical tourism and the use of EVTOL services as well as the previously noted variations in enplanements. Accelerated growth will be expansive and contractions in any of the main drivers will have the opposite impacts.

On average, annual total employment impacts for New Haven County exceed direct employment by 2.02 times and in Connecticut by a multiple of 2.06. These results indicate that the vast majority of the employment impacts remain in New Haven County, which stimulates consumption there and that housing market.

## RGSP & Output

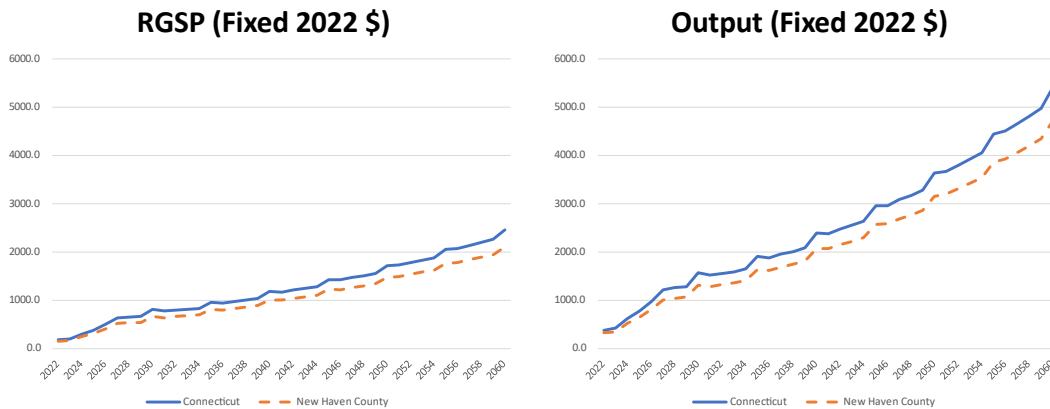
Chart 14, left panel, presents impacts of annual capital and operating all project expenditures generating RGSP and the righthand one real output impacts. Generally, CCEA does not utilize output estimates of income because that metric includes double counting.<sup>39</sup> Both metrics are presented here side-by-side in Fixed 2022 dollars to clarify just how misleading output impacts can be in measuring growth.

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<sup>39</sup> Simply put, counting the total value shipped at factory gates along a supply line results in previous inputs being counted several times along the supply chain, whereas limiting the metric to the valued added by each mine or factory avoids double counting and is real value added resulting in GSP – what is produced in state.

**Chart 14:**

## Tweed +: CT and New Haven RGSP & Output Impacts (Millions)



Source REMI Run.

By 2027, expected RGSP impacts amount to \$635 M in Connecticut and \$516 M in New Haven County. The righthand panel presents the same information on output at \$1,210 M and \$1,000 M. Conservatively, Connecticut RGSP impacts grow to \$791 M in 2032 with \$663 M of that occurring in New Haven County. By 2060, State and County RGSP impacts amount to \$2,550 M and \$2,106 M respectively, more than 83% concentrated in New Haven County. These gains are less than twice those in scenario 1, again underlying the importance of HVN and expanding its commercial operations.

### PI and DPI

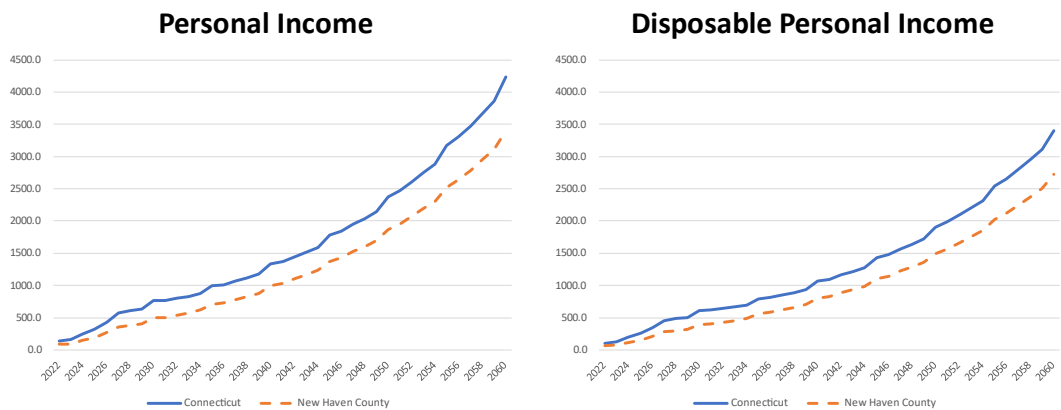
The left-hand panel of Chart 15 illustrates that, in current, as opposed to fixed dollars, annual increments to PI remain positive for residents of both the State and New Haven County. In 2030, Connecticut PI impacts amount to \$764 M and New Haven County's \$498 M. A decade later, further project expansions, and inflation add to the Connecticut PI impacts of \$1,331 Mn 2030 and \$996 M to New Haven County's incremental PI over the same time-period. By 2060, Connecticut PI impacts in current dollars reach \$4,230 M and New Haven County ones \$3,396 or as percentages of the base year, 1.32% and 0.27% respectively.

Subtracting Personal Income Taxes from PI yields DPI, the righthand panel of the chart, thereby enhancing consumers' capacity to exercise free choice from increased expenditures. By 2030, CCEA estimates annual Connecticut DPI impacts at \$610 M and New Haven County's \$395 M. In 2040, further Connecticut DPI impacts are expected to reach \$1,067 M of which \$796 M is

expected to accrue in New Haven County. By 2060, Connecticut DPI impacts reach \$3,403 M with \$2,730 M in New Haven County.

**Chart 15:**

**Tweed +: CT and New Haven PI & DPI Impacts  
(Millions Current \$)**



Source REMI Run.

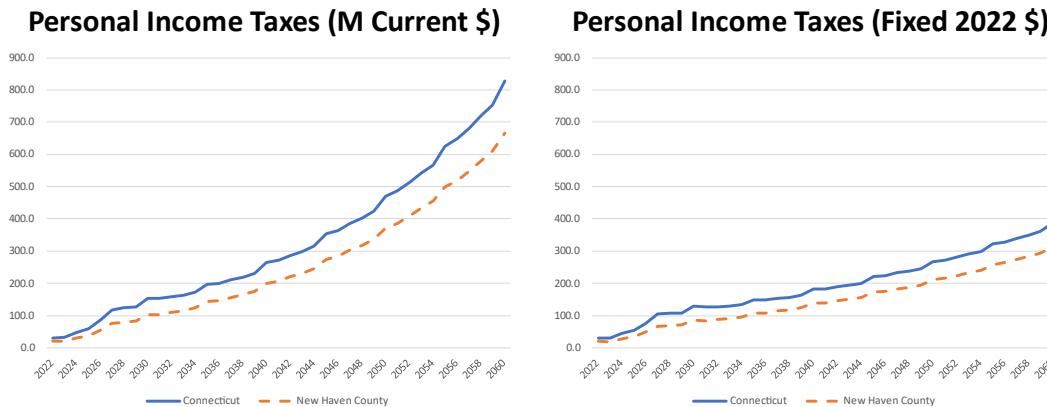
**Personal Income Tax Impacts**

Derived as the differences between the above metrics, Chart 16 shows annual PIT impacts in both current dollars and fixed millions of dollars. PIT growth is generated by the economic activities from the included projects under constant tax rates after covering increased local and state government expenditures to meet demands of the larger economy. Governments are free to make use of any surpluses as they see fit from reducing taxes to embarking on other growth-oriented projects.

In current dollars in 2027, the projects generate an additional net \$118 M in PIT from statewide activities of which \$76 M is raised in New Haven County. If used to retire the debt, bearing in mind ongoing inflation of roughly 3% in 2060 the combined projects could generate PIT of \$828 M with \$666 M of it in New Haven County. In fixed 2022 dollars these values would be \$389 M and \$314 M. Of these Connecticut raised revenues 23.5% accrue to the state government and the rest to the Federal government.

**Chart 16:**

## Tweed+: CT and New Haven PIT Impacts (Millions \$)



Source REMI Run

### Fiscal Impacts

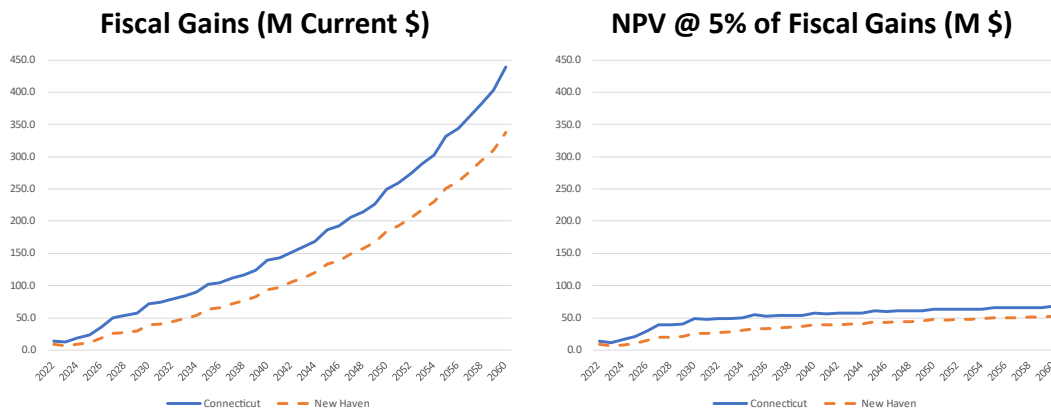
Chart 17 summarizes CCEA's fiscal analysis carried out in current dollars with and without discounting. As noted in scenario 1, NPV yields an estimate of the current value of the fiscal surpluses resulting from the projects. The dual versions underline the importance of inflation in considering discounted dollar values. By 2057, current dollar values are more than double the NPV ones in each jurisdiction.

Beyond the 23.5% of PIT accruing to the State, major sources of State and Local government revenues include sales taxes and property taxes. REMI yields consumption and capital data from which to estimate these incremental revenues making up 70% of total combined revenues of the two orders of government<sup>40</sup>. The remaining 30% of State and Local government revenues are assumed to grow at the same rate to estimate to impacts on State and Local government revenues. Deducting REMI derived additional expenditures by State and Local governments to meet the needs of the project and larger economy, yield net fiscal gains annually. The chart contains these estimates in both current dollars, left panel, and discounted back to 2022 at 5% inline with Federal guidelines, right panel. Higher discount rates would lower NPV estimates.

<sup>40</sup> Property tax revenues are based on New Haven mill rates for 2022 to 2025 with the last held constant going out to 2060 on RENU estimates of the expanding tax capital bases.

**Chart 17:**

## Tweed+: CT and New Haven Net Sourced Net Fiscal Gains



Source REMI Run.

The bottom line is that HVN expansions yield annual Connecticut NPV of fiscal impacts range from \$11.8 M to \$48.4 M from 2022 to 2030 before adding \$45.5 M to 16.1 to \$57.8 M annually thereafter culminating in a NPV of \$2,027 M out to 2060 of which \$1,375 M occurs in New Haven County, less than double findings for Scenario 1 of \$1,178M to \$756 M respectively, again less than double scenario 1 results. While successive governments may paydown debt with these funds, they may also undertake additional growth initiatives. There is clearly room for more or less growth depending on the successes or failures of such expenditures.

Under current trade policies, inflation will be stronger than currently modelled in REMI's base case, raising this estimate at the current discount rate, but that rate too should be increased to offset that inflation, so this NVP estimate is quite robust. NPV would shrink for both scenarios if the spread between the rate deployed and inflation, real interest rates, rose.

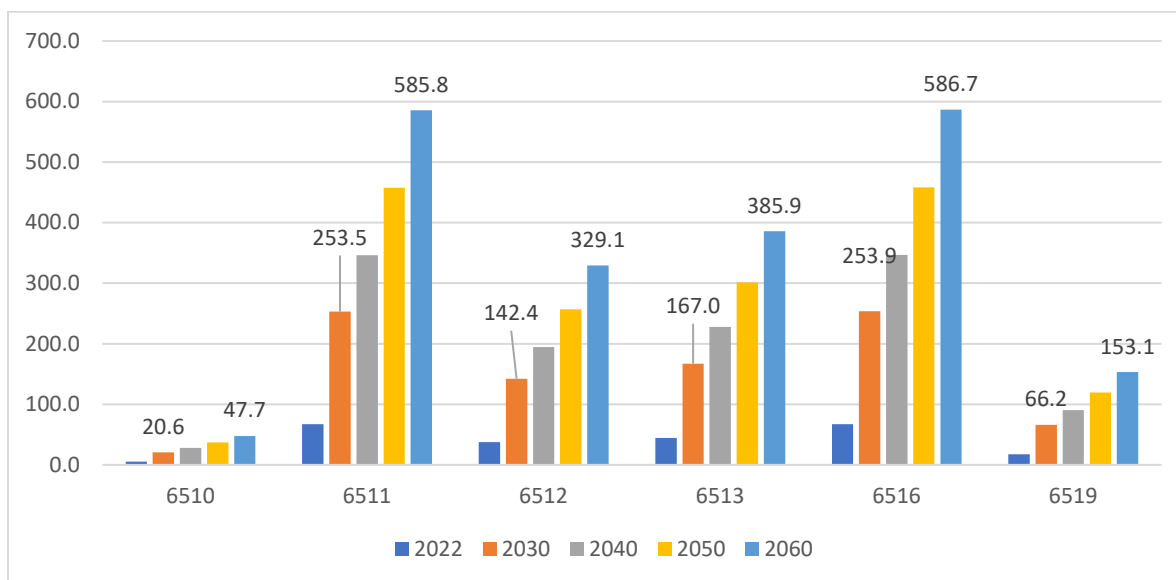
### Tweed+ Local Impacts

In keeping with its emphasis on the above projects complementary to HVN and for comparative analysis with other prospective projects, Tweed+ utilizes the same zip codes as in the Tweed scenario.<sup>41</sup> This process leads to the same weightings for employment and income as in the Tweed scenario albeit the results are based on previously noted larger impacts. At current shares of 23% of employment among New Haven County zip codes, 2030 employment impacts

in the six closely proximate zip codes reaches 904 compared to 2,880 in 2060. While REMI accounts for internal migration within Connecticut to New Haven County, internal migration to job opportunities can be expected to augment these numbers within the County to zip codes close to HVN.

Chart 18 summarizes employment impacts by ZCTAs nearby HVN. Unlike the Tweed scenario's impacts are larger overall and ZCTA 6513 employment impacts are clearly third among nearby zip codes. In 2060, at 586-587 incremental jobs, in contrast with scenario 1's 311-312 jobs, there is less than a job differences between the two leading New Haven County zip codes, 6511 and 6516. ZCTA 6519 and 6516 need growth initiatives as indicated by higher-than-average levels of Landlord Tenant filings<sup>42</sup>

**Chart 18: Tweed+ Job Impacts Nearby HVN**



In contrast with employment distributions within proximate zip codes, relatively higher median household incomes in ZCTAs 6512 and 6516 boost Tweed+ shares of RGSP performances relative to their employment impacts with the latter the largest and the airport location clearly third among the six zip codes. In 2030, complementary projects augment RGSP in proximate zip codes to \$128.0 M from \$72.4 M. in scenario 1. By 2060, the spread widens with scenario one at \$220.3 M and this one at \$403.3 M, distributed among the six zip codes as noted in the Chart 19.

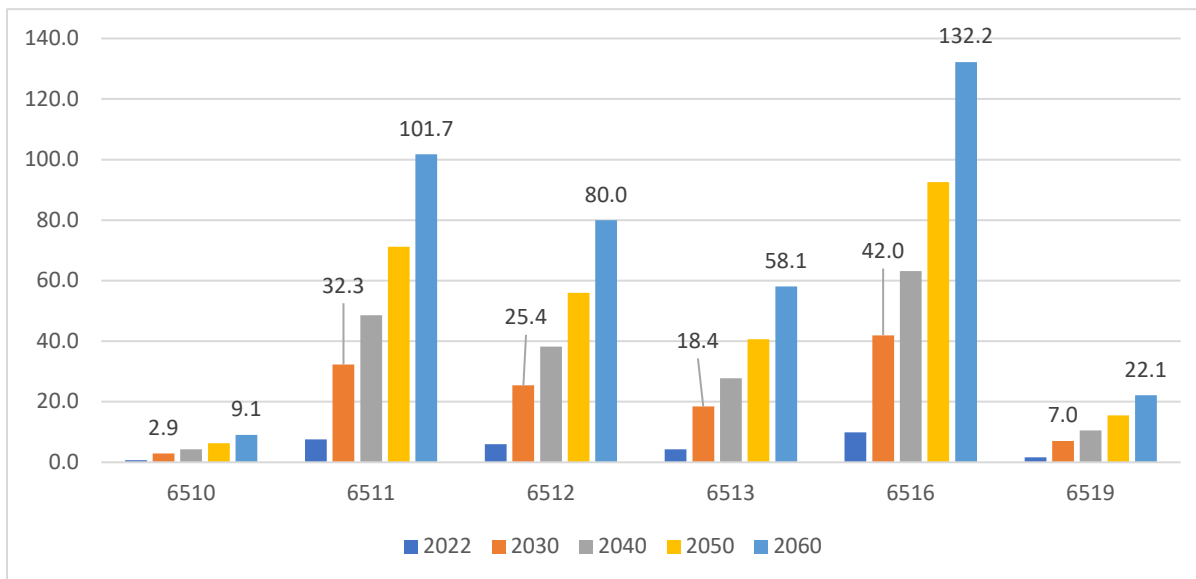
Overall, the NPV of Tweed+ RGSP in the areas proximate to HVN, at 2% for real values, amounts to \$4.6 B, up from \$2.9 B in the Tweed scenario. Expanding the area covered to include other additional zip codes nearby the medical complex, ZCTA 6510, would further augment those

<sup>42</sup> Stout, **Connecticut Eviction Right to Counsel Annual Independent Evaluation January 1 to November 30, 2024**, Connecticut Bar Association, Dec. 2024, p 18



impacts but take the report's focus away from the airport's surrounds, so this report's focus remains on zip codes only nearby HVN.

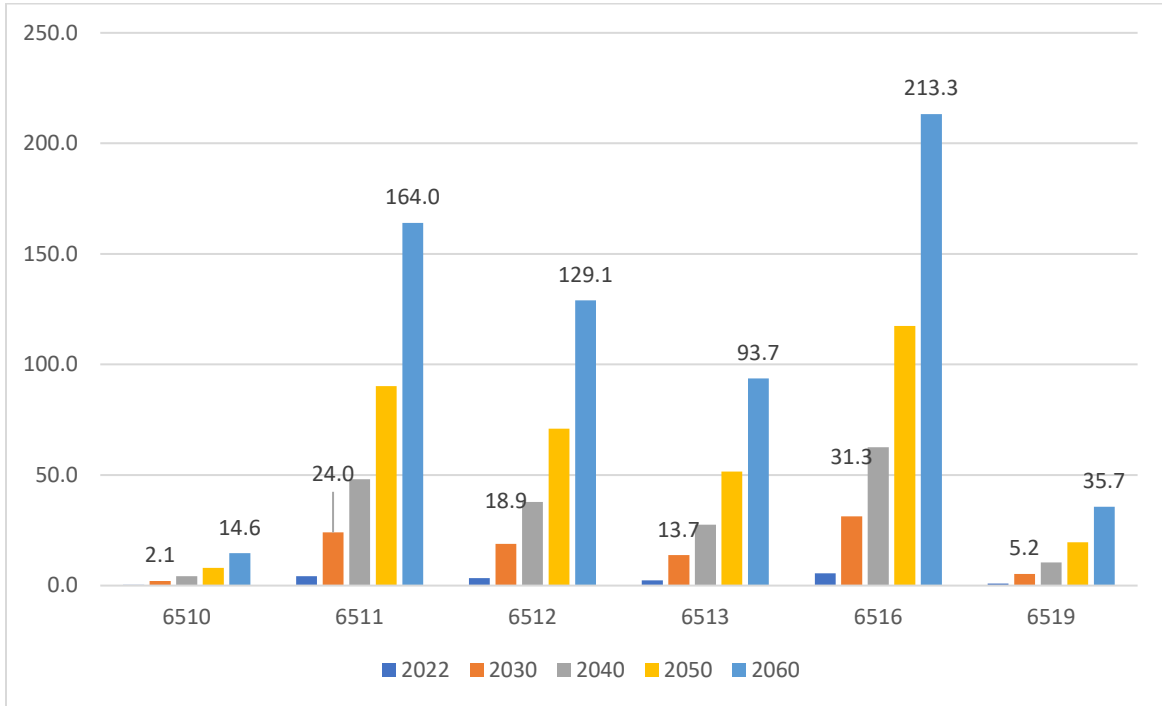
**Chart 19: Tweed+ RGSP Nearby Impacts (M Fixed 2022 \$)**



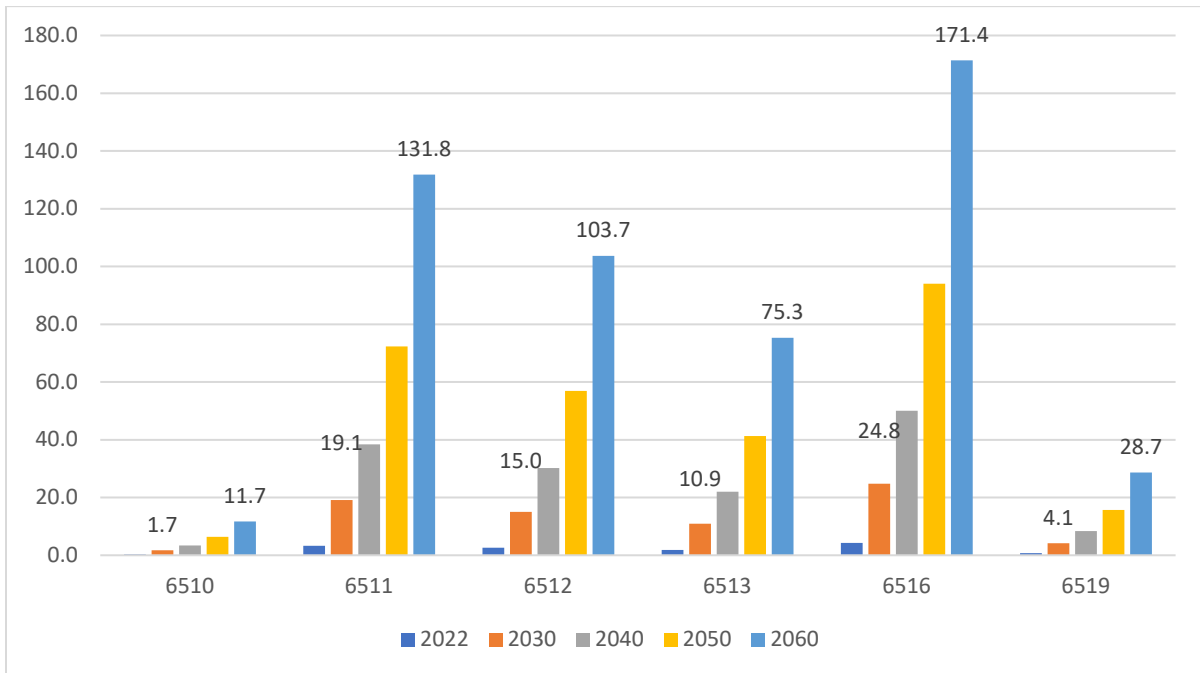
While Tweed+ impacts on PI and DPI are subsets of Tweed+ RGSP, they are expressed in current dollars reflective of how the difference between them, PIT, is paid. These factors contribute initially to PI and DPI metrics being smaller than RGSP metrics but surpassing them in the long run. Due to projections of roughly 3% inflation in PI and DPI, they are discounted at 5 rather than 2% for RGSP. Annual distributions within HVN's proximate areas in Charts 20 and 21 follow similar shares as RGSP but due to inflation accelerate faster, illustrated by the differences between 2030 and 2060 in each of the charts.

In aggregate over years the Tweed+ NPV of PI impacts are \$5,404.5 and DPI \$4,327.9 M, indicative of increased choice available to nearby residents. The difference between the two \$1,076.6 M accrues to Federal and State governments. This NPV of DPI represents the current worth to nearby residents of all the projects proceeding. The previous scenario, airport and commercial airline expansions alone generate \$1,432.9 M, more than a third of all project impact with nearby zip codes.

**Chart 20: Tweed+ PI Nearby Impacts (M Current \$)**



**Chart 21: Tweed+ DPI Nearby Impacts (M Current \$)**



## Conclusion

In aggregate over years the NPV of Tweed+ PI impact is \$5,404.5 M and DPI \$4,327.9 M, indicative of increased choice bestowed on nearby residents. The difference between the two \$1,076.6 M accrues to Federal and State governments. This NPV of DPI represent the current worth to nearby residents of the projects proceeding of which, from the Tweed scenario, airport and commercial airline expansions alone generate \$1,432.9 M, more than a third.

Inclusion of complementary services at the airport and Yale-YNHH medical tourism with nearby zip codes to HVN, adds to the impacts of expansions in Connecticut, New Haven County, and in zip codes in close proximity to HVN. Over the period collectively by 2060, the projects can boost New Haven County annual employment by 1.5%, RGSP by 1.75%, and PI by 1.3%.

## Appendix 1: Medical Tourism

“Medical tourism is emerging as a rapidly growing industry. Through it, patients seek medical treatment beyond their home country's borders, often to achieve improved outcomes, specialized treatment, and/or cost-efficiency.”<sup>43</sup>

Medical Tourism is normally defined, as above, to include international travelers for medical treatments of self where the ailing individual may be accompanied by loved ones. Because airline route expansions into Tweed are entirely domestic, they will generating similar out-of-state transfer of expenditures into Connecticut. The focus here entails interstate “domestic medical travel” in addition to international patients and accompanying persons. Given the historical build-up of out-of-state patients to The Mayo Hospitals and, Shriners supported, Saint Jude’s, CCEA’s inclusion of out-of-state medical tourism embraces American traditions.

Based on Statista research, Newsweek ranks world leading hospitals by specialty at the outset of successive New Years. Table 4 summarizes Yale New Haven Hospital’s 2025 rankings among world and national hospitals by specialty. Yale is ranked in the top half of seven of 12 specialties or disciplines with its highest ranking, Obstetrics and Gynecology, being 10th internationally, fourth nationally and ahead of any of The Mayo’s clinics. With the exceptions of Cardiology and Oncology, within the top 41% of world hospitals, Yale ranks within the top 33 American hospitals in its seven ranked specialties.

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<sup>43</sup>Expanded from [Top 25 Minnesota-Based Medical Tourism Firms](#) (Dec3,2024)

**Table 4: Yale Rankings among World's Best Hospitals 2025**

Specialty	International Rank	Hospitals Ranked	National Rank	USA Hospitals Ranked
Cardiac Surgery		150		
Cardiology	84	300	33	81
Endocrinology	70	150	29	38
Gastroenterology		150		
Neurology	60	125	24	41
Neurosurgery		125		
Obstetrics & Gynecology	10	100	4	39
Oncology	122	300	32	76
Orthopedics		150		
Pediatrics		250		
Pulmonology	45	150	27	50
Urology	55	125	26	50

Source: [Urology - Newsweek Rankings](#) 2024 based on <https://www.newsweek.com/rankings/global-hospital-rating> and Statista.

As an aside, the literatures' focus is international on opportunities for American patients to take advantage of less expensive procedures in top notch hospitals abroad with availability of care relative to Yale quality of care defined by the differences between the first and third columns. There is then a degree of competition, midst waiting lists, where timing is of the essence. Medical tourism clearly bolsters revenues.

Within each of the specialties above, Yale will have subspecialties that rank even higher, thereby, strengthening its role by meeting medical tourism demands. Maintaining and expanding such niche roles over the next 35 years will involve planning and investments. It will put additional pressure on medical staffs to extend the success last spring. QuantumCT, jointly financed by Yale and UConn, awarded one of nine, one-year seed grants to develop algorithms that simulate molecular drug actions in the body.<sup>44</sup> Advances in Connecticut quantum technologies are expected to augment medical treatments in:

- Computational biology, genetics, and genomics;
- Pharmaceutical sciences and drug discovery;
- Big data optimization, simulation and processing deployed in neuro analysis, among other diagnostics; and,
- Hardware and software infrastructure, including quantum-enabling technologies.<sup>45</sup>

<sup>44</sup> Jenny Blair, Sowing the seeds of a quantum revolution, **Science & Technology**, Dec. 10, 2024.

<sup>45</sup> [Why Quantum, Why Now - QuantumCT](#) (Feb. 3, 2025).

Increased air traffic into Tweed has the potential to transport domestic tourism patients from across the United States as well as to transfer international medical tourists from international flights to Yale which, in turn, presents opportunities to develop its Destination Medical Center Connecticut (DMCC). CCEA has modelled YHNN opportunities by mimicking Rochester Minnesota's 20-year strategy.

Patients requiring on board medical care, can already access medically equipped helicopters services. Over the span of this project the helicopters are likely to be replaced by quieter electrical vertical off and landing aircraft (EVTOL) which may utilize Tweed for servicing. Relatively quiet surrounds while in-flight will improve care. However, normal ground transport between Tweed and the Yale New Haven Hospital (YNHH) is only 20 minutes and, if need be, shorter time by ambulance. So, the medical aircraft will continue to play a role in emergency hospital transfers and from incident sites to hospitals as well as in international patient transfers.

Successful medical tourism is supported by medical leadership including development of new techniques and procedures on which Yale embarked in the mid-1990s.

“Until a decade ago (1988), Yale's participation in technology transfer, the movement of basic science advances into the commercial marketplace, was negligible. Two years ago (1996), Yale's annual income from royalties and licenses for university-developed projects had grown to \$3 million. Yale expects those earnings to soar phenomenally, reaching \$38 million for the fiscal year that ended June 30 and placing it among a handful of the universities leading in annual royalty and licensing income. More than three-quarters of the income has come from royalties from the AIDS medication Zerit, developed at Yale.<sup>46</sup> Spun off from Yale by 1988, five companies have increased the odds of achieving its 2030 goal.

Four 1986-1988 spin offs are still growing and contributing to the State's expansion, despite Morphotech U.S. headquarters being in Boston, including:

- Molecular Staging is a life sciences tool company, develops technologies for the detection and measurement of proteins and nucleic acids currently with 101-250 employees.<sup>47</sup>
- TransMolecular, Inc. engaged in discovering, developing, and commercializing therapies for [glioma](#), metastatic brain tumors, and cancers. It developed TM601, a synthetically-produced [polypeptide](#) that was derived from scorpion venom, which is used to specifically target tumors in the treatment of cancer. The company was founded in 1996. In 2003, Fortune Magazine listed the company as one of the 14 "most exciting, innovative companies in the nation".<sup>48</sup> In March 2011, TransMolecular's assets were

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<sup>46</sup> [Yale spins off five biotech firms < Yale School of Medicine](#) .(Feb. 4, 2025)

<sup>47</sup> [Molecular Staging - Crunchbase Company Profile & Funding](#). (Feb. 4, 2025)

<sup>48</sup> [TransMolecular - Wikipedia](#). (Feb. 4, 2025)

purchased by Morphotek, a subsidiary of the Japanese pharmaceutical company, located in MA. From its founding to acquisition, it raised \$51 M.<sup>49</sup>

- L<sup>2</sup> was founded ... as a provider of novel diagnostic services for systemic lupus erythematosus and Lyme disease. The company rapidly evolved to a new emphasis on developing novel diagnostic tools in a number of areas, discovering new vaccines and the development of small molecule therapeutics. In January 2025 alone it raised \$523 M in research funds.<sup>50</sup>
- Cellular Genomics Inc. (CGI) is a privately held genomics-based biopharmaceutical company that is pioneering a unique, highly integrated chemical genetics platform (Analog Sensitive Kinase Allele, or ASKA, technology) to discover and develop kinase and other signal transduction inhibitors for multiple clinical indications. CGI has established state-of-the-art small molecule drug discovery capabilities, including proprietary chemical libraries generated through the company's High-throughput Accelerated Lead Optimization (HALO) platform. CGI has generated potent, selective lead candidates in three drug discovery and development programs in autoimmune and inflammatory disease, cancer, and angiogenesis that are advancing rapidly toward the clinic. In January 2021, CGI raised \$22.3 M in venture capital.<sup>51</sup>

On May 2, 2024, Yale increased connectivity to and distribution of leading-edge research by joining the Massachusetts Green High Performance Computing Center (MGHPCC) in Amherst MA to share research with Harvard, MIT, Boston College, and Massachusetts' State campuses while lowering computing personnel and energy costs while facilitating analysis of huge sets of data, particularly germane to enhancing neurological and genomic research.<sup>52</sup>

By then, molecular research activity at Yale has evolved sufficiently to attract a Chinese firm, XingImaging LLC, a developer of biomarker imaging. It's ... "facility will include a clinic to recruit and evaluate participants for clinical research studies deploying cGMP radiochemistry laboratories, 2 PET-CT and 1 SPECT-CT scanners and image analysis capabilities."<sup>53</sup> In essence, Yale's research and development activities are beginning to attract complementary industries and consequential travel.

Germane to accessing sufficient data, in 2013 Minnesota state officials determined there was a compelling interest to authorize public investments in Rochester to help support its Mayo Clinic as a global Destination Medical Center. These leaders worked together to develop DMC and

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<sup>49</sup> [Transmolecular 2025 Company Profile: Valuation, Investors, Acquisition | PitchBook](#). (Feb. 4, 2025)

<sup>50</sup> [L2 Diagnostics | VentureRadar](#). (Feb. 4, 2025), Jan. 13

<sup>51</sup> [Cellular Genomics Raises \\$22.3 Million in First... | Flagship Pioneering](#). (Feb. 4, 2025)

<sup>52</sup>

Yale Center for Research Computing  
<https://research.computing.yale.edu>

<sup>53</sup> David Krechevsky, **Chinese-owned biotech opens research facility in New Haven, Jan.13, 2025**. The Elm City Bioscience Center, ... New Haven.

create in statute the financing tools and public governance structure necessary to carry out the global destination vision, launched circa 2016.

Rochester, Minnesota ... (has) spawned the world-renowned Mayo Clinic, home to those leading the way in life science discoveries and health care innovations. It's the place people (medical tourists) go to get better. Where developers are building an epicenter fueled by economic boom and dramatic growth. Where entrepreneurs come to find their place and discover the next big thing.<sup>54</sup> The DMC initiative puts entrepreneurs in the middle of it all.

The DMC is a 20-year economic development initiative based on a plan commencing in 2016. The \$6.1 billion plan is the largest in Minnesota's history. With the expansion of The Mayo Clinic and DMC Rochester will expand The Mayo's role as a global destination to attract medical tourists for health and wellness and so much more.

Of these funds, in Minnesota \$3.5 B are planned to come from The Mayo, \$2.1 B from other private investors, and \$535 M from the State.<sup>55</sup> DMC is expected to generate over 2000 construction jobs annually.<sup>56</sup> In 2022 dollars, in which REMI operates, in parallel but starting in 2025, the DMC would cost \$7.5 B.

Over the first five-years of the DMC plan, 2016-2021, The Mayo's employment rose from 35,472 to 39,765<sup>57</sup> at an annual average growth rate of 2.311%. In contrast, YNHH currently has approximately 14,984 employees, including 5,456 medical staff.<sup>58</sup> Adjusting for Yale's smaller size relative to The Mayo and half the effort at the initiation of similar but scaled down DMCC would cost \$1.6 B over the 20 years averaging \$80 M annually. Starting from the current base, operationally, for modelling, CCEA assumes half the same rate of employment growth for the DMCC as experienced by the DMC. In reality, Yale could accelerate or expand the DMC plan; thereby, accelerating its implementation impacts. This plan results in a far more expansive plan than for the addition of the hotel to the airport and airline expansion.

It is too early to track additional innovations that will emerge from expanded hospital research at The Mayo let alone and YNHH, but medical innovations are a potential source of additional growth underlining the conservative nature of current estimates. As Jackson Labs, with investments nearly doubling Connecticut's initial stake in expanding UConn's medical school, have demonstrated with the expansion of the medical capabilities can be powerful attractors.

One of the advantages of medical tourism is that specialized teams have more opportunities to repeat procedures, resulting in higher success rates and greater efficiency through shorter recuperation times resulting in earlier dismissals. From an economic perspective greater efficiencies facilitate more procedures, lessen patient recuperation time, and, possibly,

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<sup>54</sup> [What is DMC? | Destination Medical Center](#). (Dec 3,2024)

<sup>55</sup> Ibid.

<sup>56</sup> Ibid,

<sup>57</sup> [2021-Mayo-5-Year-Plan-FINAL.pdf](#). p. 46.

<sup>58</sup> [Facts & Figures - Yale New Haven Hospital](#)



extended longevity pertaining to all patients, including Connecticut residents. Put succinctly, “Medical tourism providers are ... using technology to streamline their operations, from booking appointments, improved preparation of patients, to managing patient records. These innovations have led to improved efficiency, reduced costs, and better patient outcomes.”<sup>59</sup>

Because provision of transport facilitates medical tourism, it complements the DMCC but is not wholly responsible for it. Tweed expansion is not wholly responsible for the expansion of medical tourism. Yale has not participated in the project and should in no way be associated with CCEA’s assumptions concerning DMCC’s investment or operating prospects. While realistically model on the DMC, these outputs remain conceptual only.

## Dynamic Expansion of Medical Tourism

By way of example, this section explores the additional impacts of a scaled DMCC designed and running parallel to DMC, over-and-above Scenario 3’s outcomes. CCEA asked Yale for data; but, on short notice, Yale could not meet the request. As noted above, DMCC, based on The Mayo’s experience with its DMC, DMCC would add annually to hospital investments in New Haven County starting in 2025 out to 2060. These remain larger annual amounts relative to the three-year investment of \$45 M for the hotel. CCEA assumes that the DMCC also expands hospital employment at the same annual rate, 2.311%, as achieved by The Mayo during the first five years of its plan starting at current employment levels. These assumptions lead to direct annual employment stimulus in a relatively high wage industry compared to accommodations.

The complementary expansions of Tweed, the new hotel, and DMCC in New Haven County culminate in significant growth as demonstrated by parallel metrics to the previous scenarios.

## Jobs

Chart 13, in the text, illustrates total job impacts that proceeding with all Tweed+ complementary opportunities would generate with the lower lines being all but implementation of the DMCC and the upper ones, YNHH following the DMCC plan. By 2029, medical tourism generates 369 new direct jobs in New Haven County. REMI simulations will determine the indirect and induced employment.

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<sup>59</sup> [Medical Tourism Trends and the Future of the Industry | Medical Tourism Magazine | Medical Travel | Health Tourism](#)

## Appendix 2:

### Detailed breakout of real estate valuations in East Haven and the New Haven labor market

The analysis of the East Haven real estate market (single family homes) laid out in Table 5 shows that, since the beginning of 2020 (just before the COVID lockdown), East Haven had one of the fastest appreciations in home values among all municipalities in the New Haven labor market area (as defined by Connecticut Department of Labor). But COVID we know led many people to buy homes in Connecticut to get out of the urban core, so the table also shows appreciation since 2022. East Haven ranks a clear #1 at a 47% appreciation vs the next three: 34% for Meriden, 33% for West Haven, and 30% for North Branford.

It is important not to overstate the significance of these numbers. Beyond the COVID effect, multiple factors may impact the valuation of single-family homes coming to the market. The one clear, irrefutable fact is that East Haven real estate has enjoyed steady, healthy rising valuations, notably parallel with the dramatic growth of Tweed Airport in the last three years.

**Table 5: Analysis Of Single-Family East Haven Real Estate in New Haven County (February 2020 – January 2025)**

	2/20 Price	2/22 Price	Median Price 1/25	% Gain 5 Yr	% Gain 3 Yr
<b><i>East Haven</i></b>	\$182,500	\$255,000	\$375,000	105%	47%
Bethany	\$320,000	\$425,000	\$486,500	52%	14%
Branford	\$375,000	\$435,000	\$430,000	15%	-1%
Cheshire	\$347,500	\$420,000	\$546,000	57%	30%
Clinton	n.a	n.a.	\$643,000		
Guilford	\$185,900	\$475,000	\$530,000	185%	12%
Hamden	\$180,000	\$260,000	\$318,425	77%	22%
No Name	\$207,350	\$280,000	\$356,000	72%	27%
Killingworth	\$328,000	\$451,100	\$467,000	42%	4%
Madison	\$351,656	\$612,000	\$615,000	75%	0%
Meriden	\$149,450	\$227,000	\$305,000	104%	34%
Milford	\$295,000	\$430,000	\$540,000	83%	26%
Orange	\$341,500	\$460,000	\$540,000	58%	17%
New Haven	\$188,500	\$287,000	\$315,000	67%	10%
North Branford	\$308,000	\$315,000	\$408,000	32%	30%
North Haven	\$270,000	\$380,000	\$437,450	62%	15%
West Haven	\$187,000	\$289,000	\$385,000	106%	33%
New Haven County	\$210,259	\$300,000	\$370,000	76%	23%