



August 11, 2024

RE: Economic and Fiscal Impacts of HCPS Property Tax Referendum

To Whom It May Concern:

Per your requests, we have prepared an analysis that investigates the economic and fiscal impacts of the proposed 1 mill property tax increase in Hillsborough County, proposed by Hillsborough County Public Schools. This proposal, which will be voted on by county residents in the November 2024 election, is intended to generate revenues for additional teacher and staff compensation (salary and benefits) in the Hillsborough County public school system.

Section 1.0 of this letter report addresses the annual fiscal impacts of this proposal, specifically estimating sales taxes and fuel taxes from increased local consumption. Section 2.0 of the report addresses annual economic impacts, estimating total output, earnings, and employment generated and/or supported by the increased consumption.

1.0 Fiscal Impact Analysis

The fiscal impact analysis estimates 3 revenue streams from the proposal: The 6 percent State of Florida Sales Tax, the 1.5 percent Hillsborough County Local Option Sales Tax, and the state Motor Fuel Tax of 26.5 cents per gallon.

1.1 Tax Estimation Methodology

The analysis commences with an estimation of annual revenue available for spending by HCPS personnel.

Hillsborough County Public Schools estimates an average annual property valuation of \$177,000,000,000 that is eligible for taxation by the school district. A 1 mill levy represents 1 dollar of tax revenue per \$1,000 of taxable value. Thus, in current dollars, the proposed 1 mill levy would generate \$177,000,000 in additional annual revenue for HCPS personnel.

In order to estimate what percentage of this revenue would be subject to taxation for sales taxes and motor fuel taxes, information from the U.S. Consumer Expenditure

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Survey was utilized. This survey is produced on a recurring basis by the United States Department of Labor, Bureau of Labor Statistics. For this study, survey data for the South region of the United States was utilized. Our estimates indicate 68.89 percent of consumer income would be spent annually on items that would be considered “sales tax eligible”. Further, it is estimated that 3.28 percent of consumer income would be spent annually on motor fuels. Applying these percentages to the \$177,000,000 revenue estimate indicate that \$121,937,884 in annual revenue would be sales tax eligible, while \$5,809,885 in annual revenue would be fuel tax eligible.

1.2 Sales Tax Revenue

The State of Florida levies a 6 percent sales tax on the purchase of eligible items and services. This tax revenue is used to fund State activities, and allocation to counties based on the half-cent, county, and municipal revenue sharing programs. A 6 percent levy on the \$121,937,884 in estimated spending would generate an annual total of \$7,316,273 in state sales tax, in 2024 dollars.

Hillsborough County levies an additional 1.5 percent as a “local discretionary” sales tax for the purchased of eligible items and services within the County. These local option sales taxes fund infrastructure, indigent care and trauma centers, and school capital facilities. In order to estimate sales tax revenue generation, a reduction factor must be applied to the \$121,937,884 estimate to isolate the likely revenue that would be spent by HCPS personnel within Hillsborough County. Our analysis, based on an assessment of spending activity estimated by the IMPLAN system, indicates that 70 percent of this spending would occur within Hillsborough County. Multiplying the \$121,937,884 spending estimate by a reduction factor of 0.7, and applying the 1.5 local option tax rate to the spending, would generate \$1,787,657 annual in local discretionary sales taxes to Hillsborough County. This estimate is reflected in 2024 dollars.

1.3 Fuel Tax Revenue

The state of Florida levies taxes totaling 26.5 cents per gallon on the consumption of motor fuels. These include state, county, municipal, and non-highway taxes. From Section 1.1 of the report, \$5,809,885 in annual spending is estimated to be fuel tax eligible. At an average price of \$3.25 per gallon of motor fuel purchased, a total of 1,787,657 gallons of fuel purchased annually in Hillsborough County is projected, as a result of the increased spending. Applying a 26.5 cents per gallon rate to this marginal fuel consumption would result in a total of \$473,729 in motor fuel tax revenue generated on an annual basis. This estimate is reflected in 2024 dollars.

2.0 Economic Impact Analysis

2.1 Methodology and Results



Economic Impact Analysis (EIA) focuses on the activity generated by local/regional projects and/or programs, as a subset of United States Gross Domestic Product, or GDP. GDP is the principal economic indicator used to measure the level of activity in a national economy, and is defined as the total market value of all goods and services produced within a geography, in a given period of time. The term “output” is often used when describing GDP, and a U.S. project or program’s output measurement is, in effect, reflecting its contribution to U.S. GDP. Other key indicators that arise from economic output include job creation (employment) and labor income (earnings).

Our analysis uses the IMPLAN economic impact modeling system, one of the three most frequently utilized economic impact modeling platforms in the United States. The other 2 major platforms include the RIMS-II and REMI modeling systems.

Section 2.2 of this letter report provides a detailed description of the IMPLAN system and how it works to estimate economic impacts for projects and programs.

For purposes of this study, the \$177,000,000 in estimated marginal HCPS personnel annual income is used as the “direct output” estimate to generate economic impacts. From this direct output, “spinoff” impacts are generated, as the spending of HCPS employees ripples through the county economy, and supports other business output, employment, and earnings. These “multiplier” effects, which are a fundamental aspect of macroeconomic and regional analysis, reveal that \$1 worth of direct spending (output) in an economy actually generates more than \$1 worth of total economic output.

The annual economic impacts to Hillsborough County from the additional spending of HCPS personnel are estimated as follows:

- Total Output: \$274,853,098
- Total Earnings (Labor Income): \$171,475,569
- Total Employment: 2,314 (measured as full-time equivalent employment)

2.2 Summary Description of the IMPLAN Economic Impact Modeling System

IMPLAN is the leading provider of economic impact data and analytical software. The company began in 1972 working with the U.S. Forest Service and has grown to a current user base of academics, governments, economic developers, corporations, nonprofits, and consultants. For a brief review of IMPLAN through the years, check out our [History](#) page.

IMPLAN utilizes an economic modeling technique called Input-Output analysis. Input-Output (I-O) modeling is based on the work of Nobel Prize winner [Wassily Leontief](#). The foundational concept is that all industries, households, and government in the



economy are connected through buy-sell relationships; therefore, a given economic activity supports a ripple of additional economic activity throughout the economy.

IMPLAN's I-O modeling system uses annual, regional data to map these buy-sell relationships so users can predict how specific economic changes will impact a given regional economy or estimate the effect of past or existing economic activity. One of the tenets that makes IMPLAN so attractive is that there are no black boxes. Analysts can view the background data used in the models and customize them with local data and knowledge.

IMPLAN data sets provide a wealth of data about the regional economy, including industry data (e.g., industry output, labor income, input purchases, taxes paid), commodity data (e.g., foreign and domestic imports and exports by commodity, commodity sales by government and industry), household spending data, area demographics, and more. Understanding the interactions between the various actors in an economy (industries, households, governments) and between economies (trade) allows for the modeling of wider economic impacts across industries and geographies.

Constructing IMPLAN's annual databases requires gathering data from a large variety of federal sources, converting them to a consistent Industry scheme and year, estimating the missing components, and controlling the newly formatted data against other known data sources to maintain accuracy.

For the U.S. models, IMPLAN Industry schemes are based on definitions put forth by the Bureau of Economic Analysis. Each year, IMPLAN gathers current data at the national level, compiles it into the IMPLAN data format, and derives new national Input-Output matrices, as well as national tables for deflators, margins, and regional purchasing coefficients. Data for state, county, zip code, and congressional districts are then gathered and controlled to the national totals.

There are four key economic indicators that IMPLAN reports economic effects for U.S. models. Each indicator is based on the Leontief Production Function for a given industry in the selected region in a given year which demonstrates the interconnectedness of the economy.

All analysis in IMPLAN is based on [Output](#), which is the value of production by industry in a calendar year plus net inventory change. It is more commonly known as revenue or sales. Note that for wholesale and retail sectors, Output is equal to gross wholesale margin or gross retail margin, respectively, not gross sales. The value of production for wholesale and retail sectors is the value of the services they provide; it does not include the value of the items sold within their establishment.

Since Output is the total production value of an Industry, it includes all components of production value or Output for a given Industry: $\text{Output} = \text{Employee Compensation} +$



Proprietor Income + Tax on Production and Imports + Other Property Income + Intermediate Inputs.

[Value Added \(VA\)](#) represents the difference between Output and the cost of Intermediate Inputs. Value Added is a measure of the contribution to GDP made by an Industry. Value Added is a large portion of Output, as it encompasses Labor Income (LI), Proprietor Income (PI), Employee Compensation (EC), Other Property Income (OPI), and Taxes on Production and Imports (TOPI).

[Labor Income \(LI\)](#) is the sum of Employee Compensation (EC) and Proprietor Income (PI). It represents the combined cost of total payroll paid to employees (e.g., wages and salaries, benefits, payroll taxes) and payments received by self-employed individuals and/or unincorporated businesses in a given year.

[Employment](#) data in IMPLAN follows the same definition as Bureau of Economic Analysis Regional Economic Accounts (BEA REA) and Bureau of Labor Statistics Census of Employment and Wages (BLS CEW) data, which is full-time/part-time annual average. Thus, 1 job lasting 12 months = 2 jobs lasting 6 months each = 3 jobs lasting 4 months each. A job can be either full-time or part-time. Similarly, a job that lasts one quarter of the year would be 0.25 jobs. Note that a person can hold more than one job, so the job count is not necessarily the same as the count of employed persons. Jobs in IMPLAN are not the same as a full-time equivalent number.

Input-Output (I-O) Analysis is designed to show the ripple effects of a given economic activity in other Industries and geographies through input purchases, labor payments, and trade. Production in a given Industry supports demand for production in other Industries throughout the economy, both due to supply chain spending and spending by workers. This spending is derived from the I-O and Social Accounting Matrix (SAM) model. For details on how this works, visit the article [Examining Results & Interpreting Direct, Indirect, and Induced Effects](#).

The economic impact of an Industry consists of the following three types of effects which sum to the total effect.

A [Direct Effect](#) is the initial exogenous change in [final demand](#) in terms of Industry Output, Employment, and/or Labor Income. For Industry, Commodity, and Institutional Spending Pattern Events, the Event Value entered is assumed to be final demand. Thus, the Event Value(s) entered in these Event Types will be used to determine the Direct Effect of the Event. Labor Income, Household Income, and Industry Spending Pattern Events do not generate Direct Effects because there is no initial Industry spending.

[Indirect Effect](#) are the business-to-business purchases in the supply chain taking place in the region that stem from the initial Industry input purchases. As the Industry



specified in an Event spends its money in the region with their suppliers, this spending is shown through the Indirect Effect.

Labor Income and Household Income Events do not generate Indirect Effects because no initial Industry is specified in these Event Types.

The Induced Effect stems from Labor Income being spent throughout the selected region(s) associated with the Industries specified in the Event (Direct effect) and those impacted through the supply chain (Indirect effects).

3.0 Summary of Economic and Fiscal Impacts

Summary of Economic and Fiscal Impacts	
HCPS Property Tax Referendum	
Summary of Economic and Fiscal Impacts	
<i>Baseline Estimates, Ad Valorem Tax Revenue</i>	
A. School District Taxable Value of Property, Hillsborough County (1)	\$177,000,000,000
B. Estimated Ad Valorem Tax Revenue Generated @ 1.000 millage (A x 1.000 ÷1,000, annual estimate)	\$177,000,000
<i>Annual Sales Tax Estimates</i>	
C. Percentage of Income Spent on Sales Tax Eligible Goods (2)	68.89%
D. Annual Income Spent on Sales Tax Eligible Goods (B x C)	\$121,937,884
E. Estimate of 6.00% State of Florida Sales Tax (D x 0.06)	\$7,316,273
F. Estimate of 1.50% Hillsborough County Local Option Discretionary Sales Taxes [D x 0.015 x 0.7 (3)]	\$1,280,348
<i>Annual Fuel Tax Estimates</i>	
G. Percentage of Income Spent on Fuel Tax Eligible Goods (4)	3.28%
H. Annual Income Spent on Fuel Tax Eligible Goods (B x G)	\$5,809,885
I. Price Per Gallon of Fuel (5)	\$3.25
J. Gallons of Fuel Consumed (H ÷ I)	1,787,657
K. Motor Fuel/Diesel Fuel Tax Per Gallon (6)	\$0.265
L. Estimate of Motor/Diesel Fuel Taxes (J x K)	\$473,729
<i>Total Annual Economic Impacts to Hillsborough County (7)</i>	
Output: Annual Local Sales Revenue Generation, Hillsborough County	\$274,853,098
Earnings: Aggregate Annual Wages/Benefits, Hillsborough County	\$171,475,569
Employment: FTE Jobs Created/Supported, Hillsborough County	2,314
(1) Source: Florida Department of Revenue	
(2) Source: United States Department of Labor, Consumer Expenditure Survey	
(3) 70% of Taxable Sales Revenue Estimated to be Spent In Hillsborough County (Source: IMPLAN)	
(4) Source: United States Department of Labor, Consumer Expenditure Survey	
(5) Based on Current Market Observations	
(6) Source: 2023 Florida Tax Handbook, Florida Revenue Estimating Conference	
(7) Source: IMPLAN	



This concludes the summary findings of our analysis. Please do not hesitate to reach out if you have any questions related this report.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Jones', written in a cursive style.

Shivendu Shivendu, Ph.D.

R. Christopher Jones, Ph.D.