

**THE PRICE OF INACTION:  
AN ANALYSIS OF ECONOMIC IMPACTS ASSOCIATED WITH  
SEPTA'S FY 2008 OPERATING BUDGET "PLAN B" ALTERNATIVE**

**May 2007**



**ECONOMY LEAGUE**  
**GREATER PHILADELPHIA**  
Information, Insight, Integrity.

AN AFFILIATE OF THE PENNSYLVANIA ECONOMY LEAGUE, INC.

**Economy League of Greater Philadelphia**  
**1700 Market Street, Suite 3130**  
**Philadelphia, PA 19103**  
**(215) 563-3640**  
**[www.economyleague.org](http://www.economyleague.org)**

## EXECUTIVE SUMMARY

As of May 2007, SEPTA has a budget shortfall of \$129.6 million. Without a source of funding that can balance the transit organization's budget this summer, SEPTA would be forced to implement "Plan B," which would cut service by 20 percent and increase fares by 31 percent.

The Economy League worked with Econsult Corporation to analyze the economic impacts of Plan B on individuals, businesses, governments and the region's overall competitiveness. The analysis builds upon generally accepted data sets and research models including SEPTA's ridership figures, Delaware Valley Planning Commission (DVRPC) congestion modeling, Philadelphia Tax Reform Commission work, and U.S. Census data.

The Economy League's analysis found that the "Plan B" service cuts and fare increases would:

Cost current transit riders an additional \$182 million annually. These costs would come from \$68 million in additional fares, \$92 million in wait times, and \$22 million in new travel costs to transit riders who opt for their cars. A typical transit rider would pay an additional \$1.20 per day to commute.

Cost current drivers an additional \$38.9 million annually. This figure includes \$24.5 million in additional travel time due to increased traffic congestion and an additional \$14.4 million in parking prices for commuters traveling to Center City. A typical commuter would pay an additional \$1.06 per day to park in Center City.

Result in the City of Philadelphia losing 43,800 jobs and \$1.67 billion in net earnings, and the five counties of Southeastern Pennsylvania losing 14,500 jobs and \$868.5 million in net earnings.<sup>1</sup>

Depreciate property values in Bucks, Chester, Delaware, and Montgomery Counties by 6.6 percent, a net value reduction of \$4.45 billion. A typical suburban home would lose \$6,867 in value. Moreover, inner ring suburban communities, which share the city's transit orientation and are intrinsically linked to its economy, would experience similar economic impacts to those realized in the city.

Depreciate city property values by 6.5 percent, a net value reduction of \$2.89 billion. A typical city home would lose \$7,431 in value.

Reduce State Personal Income Tax revenues by \$27 million.

Reduce City Wage Tax revenues by \$60 million. Additionally, depreciating property values would squeeze the budgets of school districts that rely on property taxes for revenue.

Strain the ability of suburban municipalities to provide residents with core services. Service cuts and fare increases encourage sprawling growth patterns, which put an additional burden on suburban municipalities by requiring them to provide more services over a larger area. Combined with depreciating land value and shrinking tax revenues, suburban municipalities would be under greater financial and logistical strain to provide residents with core services.

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<sup>1</sup> These estimates are based on treating additional transportation costs as a City Wage Tax increase. An alternative method – based on the city tax on gross receipts – is also addressed later in the text.

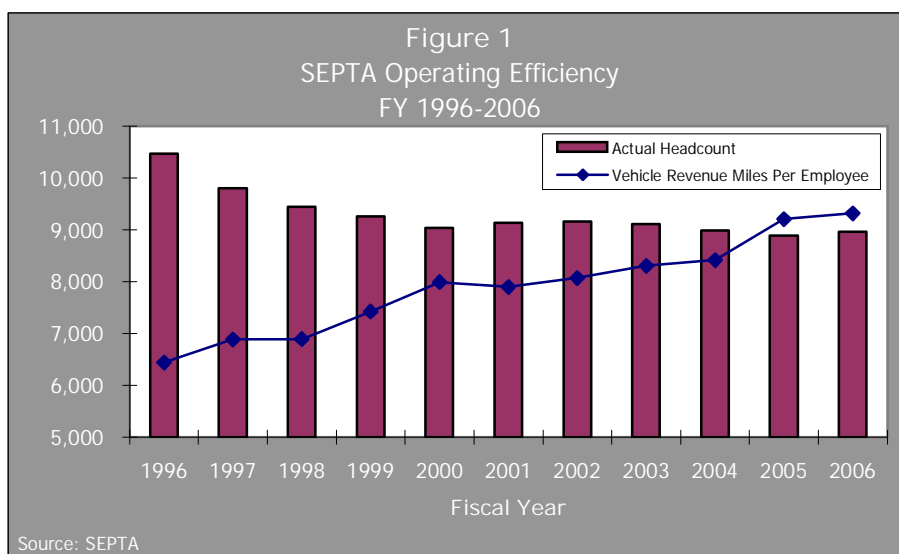
## ISSUE BACKGROUND

As of early May 2007, SEPTA has a budget shortfall of \$129.6 million. Without a source of funding that can balance the transit organization's budget this summer, SEPTA will be forced to implement "Plan B," which will cut service by 20 percent and increase fares by 31 percent.

Budget crises have become a regular occurrence at SEPTA, so much so that threats of service cuts and fare increases have begun to fall on deaf ears. In the past, crises have somehow been averted, staving off drastic service cuts and fare increases by way of short-term funding fixes and causing many to wonder whether SEPTA's budget gaps are a crisis at all. In recent years, however, shortfalls have grown to the point where short-term solutions are no longer available.

### Operating Efficiency

SEPTA has responded to increasing shortfalls by improving operational efficiency. Over the past decade, SEPTA has strategically reduced headcount while at the same time increasing worker productivity. Since 1996, SEPTA has reduced its headcount by 14 percent while increasing its vehicle revenue miles per employee, an industry standard of productivity, by 45 percent.



As a result, SEPTA operates at a level of efficiency that ranks among the top performing systems in the United States. In 2005, SEPTA ranked fifth among large U.S. transit agencies in fare recovery, an industry standard of operational efficiency. At 41.9 percent,<sup>2</sup> SEPTA had the highest ratio of fare receipts to operating expenses of any major transit system in the country not operating in New Jersey or New York.

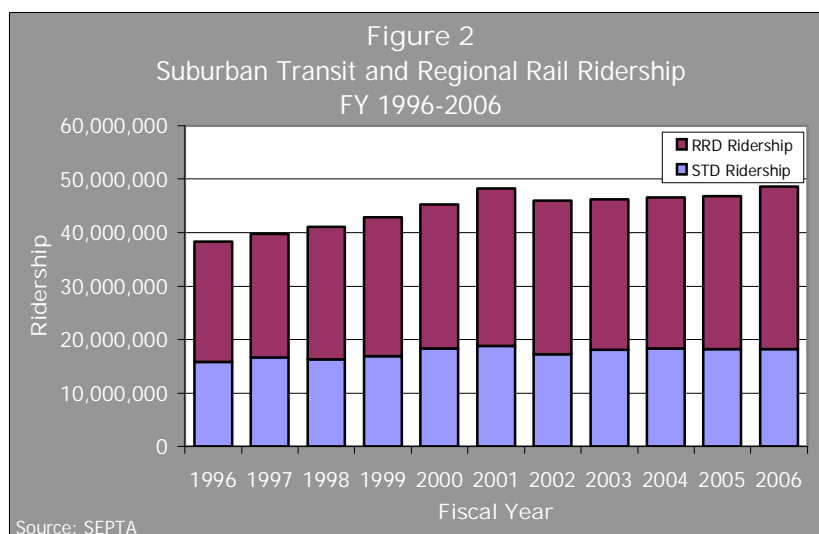
By comparison, SEPTA's peer systems, Washington, D.C.'s Metro, the Chicago Transit Authority, and Boston's "T" fared worse, posting 41.8 percent, 40.6 percent, and 29.0 percent fare recovery ratios respectively. In other words, the Metro, CTA, and "T" each required a higher proportion of expenses to be covered by government subsidies than did SEPTA.

<sup>2</sup> SEPTA's enabling legislation requires that no less than half of SEPTA's budget be funded through operating revenue. For this purpose, the Commonwealth has defined operating revenue to include passenger revenue, senior citizen free transportation, shared ride program, investment income, other income, asset maintenance and route guarantees. Also for the purpose, the Commonwealth excludes depreciation from operating expenses. For Fiscal Year 2005, SEPTA's operating ratio was 51.74 percent.

Table 1 Fare Receipts as a Percent of Operating Expenses <sup>3</sup> FY 2005		
System	Region	Fare Recovery
MTA Metro-North Commuter Railroad	New York	54.8%
MTA New York City Transit	New York	53.1%
MTA Long Island Railroad	New York	44.6%
New Jersey Transit	NJ (State)	44.6%
SEPTA	Philadelphia	41.9%
CTA	Chicago	41.8%
Metra	Chicago	40.7%
Metro Transit	Twin Cities	40.7%
WMATA	Washington, D.C.	40.6%
PATH	New York	32.2%
MBTA	Boston	29.0%
MTA Maryland	Baltimore	28.7%
MARTA	Atlanta	27.4%
LACMTA	Los Angeles	27.3%
Miami-Dade Transit	Miami	25.0%
PAAC	Pittsburgh	24.1%
MUNI	San Francisco	22.3%
MTA of Harris County	Houston	21.3%
King County Transit	Seattle	21.2%
Tri-County Metropolitan District of Oregon	Portland	20.8%
RTD	Denver	18.2%

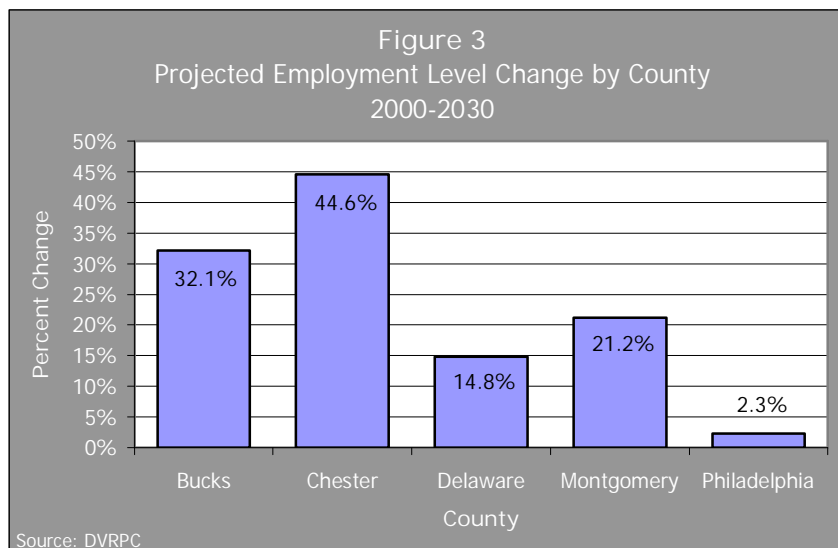
**Service Area**

SEPTA has maintained this comparatively high level of operational efficiency despite being asked to serve more people over a larger area. Since 1996, SEPTA's regional rail ridership has grown by 35 percent, reflecting the expansion of its service area. This increase is due in part to a nationwide trend of "reverse commuting" in which workers commute from their homes in the city out to reach suburban jobs.



<sup>3</sup> Pennsylvania Transit Coalition (2005). Available at: <<http://www.patransit.org/information/funding.htm>>.

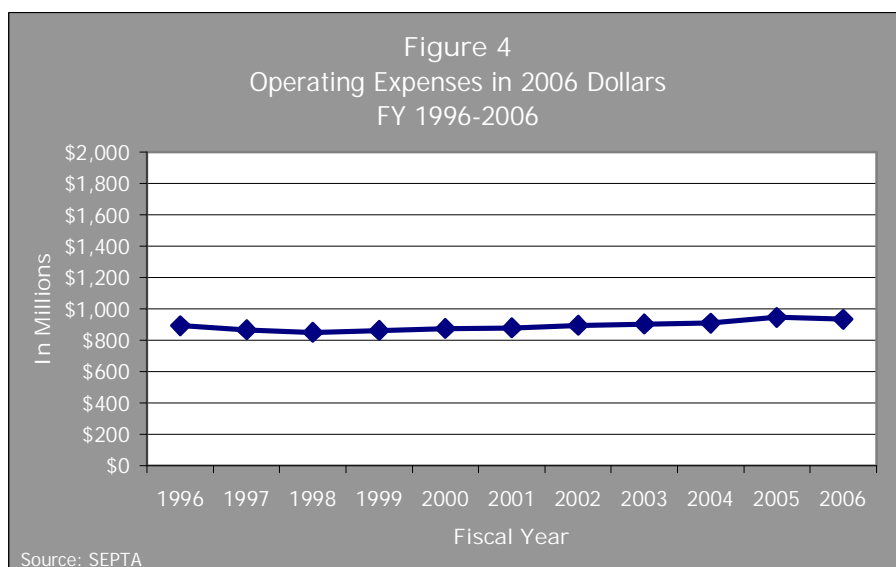
The growth of reverse commuting is expected to continue over the next 25 years as each suburban county continues to develop and is projecting double-digit job growth. For SEPTA, suburban job growth is potentially costly, requiring more vehicles to traverse a greater distance. However, SEPTA's track record of consistently high levels of operational efficiency suggests effectiveness in adapting to regional growth patterns.



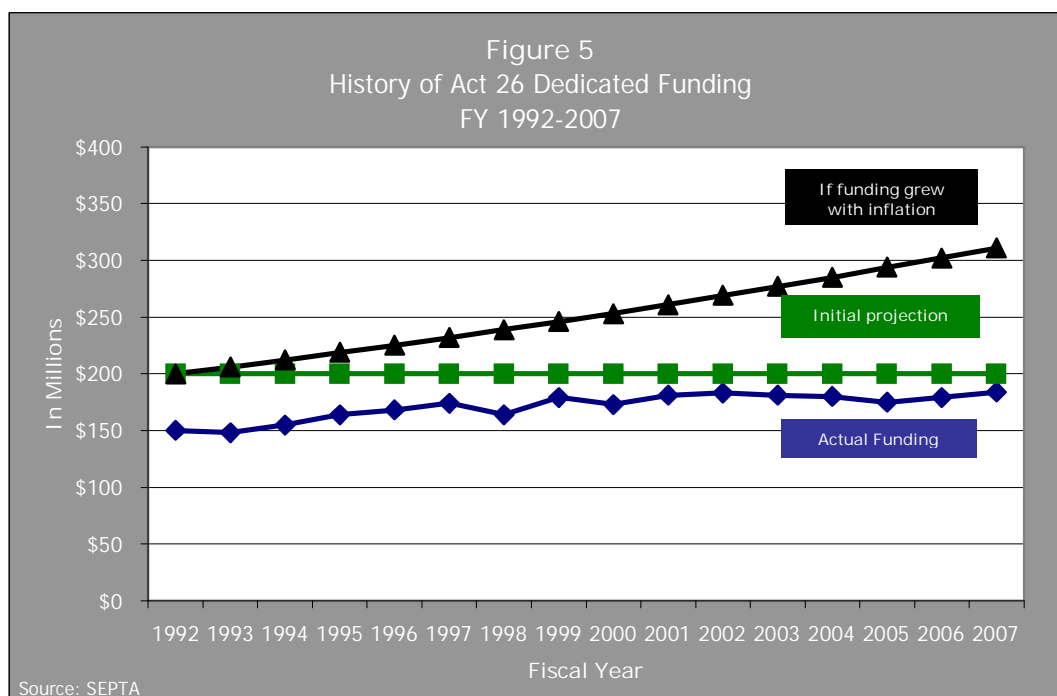
### Cost Control

Sharp increases in specific operating expense items have also been a cause for concern. Across the country, health care and fuel costs have skyrocketed in recent years, resulting in budget shortfalls at transit agencies and private sector businesses nationwide. At SEPTA, fringe benefits, which account for a quarter of the agency's billion-dollar budget, have increased by 24 percent over the past four years. Fuel costs, which account for 4 percent of the budget, have nearly tripled during that period.

Despite rising health care and fuel costs, SEPTA has managed to control overall operating expenditures. When adjusted for inflation, the size of SEPTA's operating budget has increased just 4.5 percent over the past decade, thanks in large part to efficiencies realized in other expenses, such as injuries and damages claims as well as workers compensation expenses.



Thus, while increased expenses have contributed to SEPTA's operating budget shortfalls, they have played a relatively small role. Rather, the biggest culprit has been lagging growth in dedicated funds, which have failed to meet even modest projections.

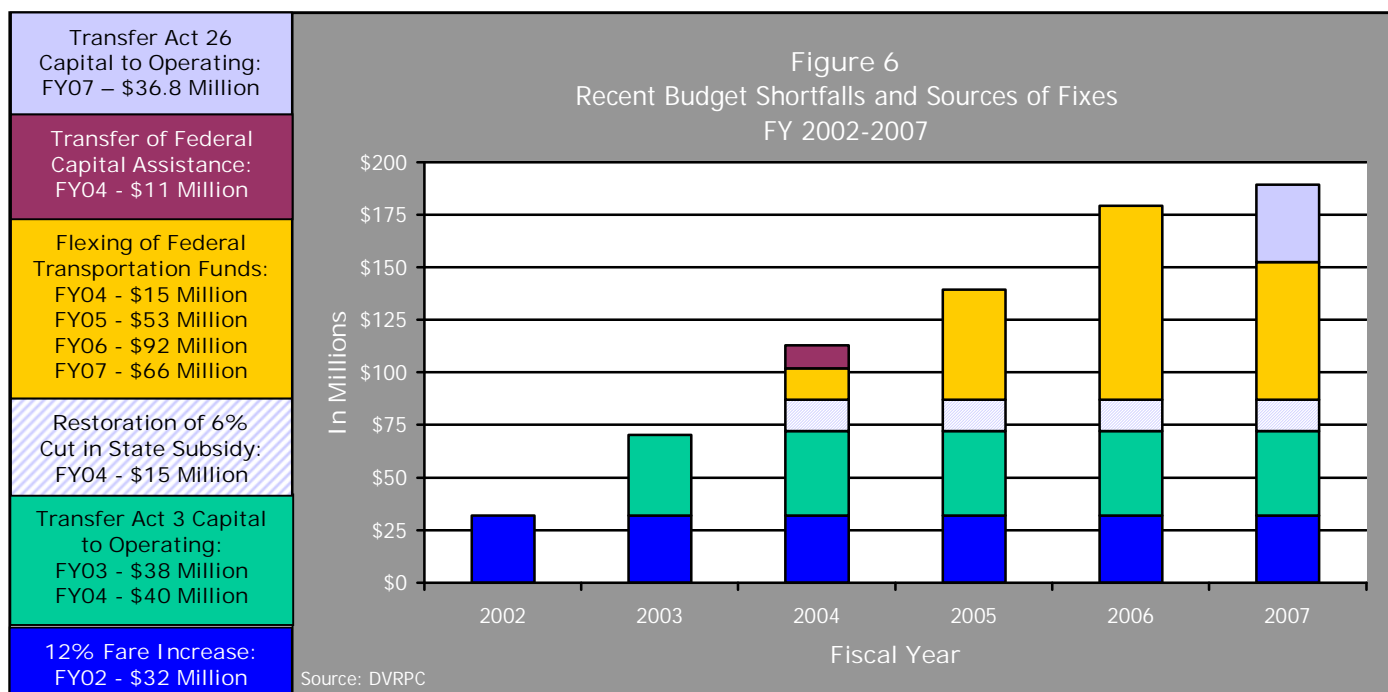


### Short-Term Fixes

As budget shortfalls have increased, SEPTA has been forced to use a series of stopgap measures to maintain operations.

- In 2002, SEPTA passed a 12 percent fare increase, worth \$32 million per year.
- In 2003, SEPTA began transferring \$40 million of its dedicated capital dollars to cover operating costs. It has done so each year since.
- In 2004, SEPTA transferred another \$11 million from its federal capital funds to cover additional operating needs. In the same year, the state restored a previously cut portion of its subsidy, worth \$15 million per year.
- In 2005, Governor Rendell flexed \$412 million in federal highway funds to cover all of Pennsylvania's transit budget shortfalls. SEPTA received the majority of these dollars. However, flexed funds expired in December of 2006, leaving SEPTA with a \$37 million shortfall for FY2007.
- In March of 2007, SEPTA closed its FY2007 gap transferring another \$37 million from capital projects. In total, one-fifth, or nearly \$200 million, of SEPTA's operating budget is currently being funded by fixes instituted in the last half-decade.

Short-term fixes are an unsustainable way to cover operating expenses. Years of this practice have backed SEPTA into a corner from which it now has no escape. Facing a \$129.6 million budget shortfall for its coming fiscal year, SEPTA must pass a balanced budget by June 30. To make matters worse, millions of capital dollars transferred away from projects have created an enormous backlog of critically important system maintenance. Continuing to defer maintenance will cripple the system.



### Transit Investments in Other Regions

While SEPTA faces an enormous budget crisis and has been forced to transfer capital dollars to cover operating expenses, the nation is experiencing a boom in transit capital investment. Regions across the country that compete with Greater Philadelphia for jobs and people have invested tens of billions in the last decade to build transit systems similar to the one Philadelphia already has.

Denver. Over the past six years, two transit projects – one voter approved – have been initiated in the Denver region. Combined, they total \$6.4 billion and promise over 100 miles of light rail.

Phoenix. Voters in the Phoenix region have approved a half-cent sales tax that will provide \$8.5 billion over 20 years for new transit lines.

Houston. Voters in the Houston region approved a \$7.5 billion bonding program to pay for 73 miles of new transit lines.

Dallas. Voters in the Dallas region have approved \$2.4 billion to double the size of its rail network by 2013. Construction has already sparked more than \$1 billion in development around new transit corridors.

San Francisco. Voters in the Bay Area approved a half-cent sales tax across multiple counties that will provide \$2.35 billion over 30 years for transit-related improvements across the region.

Closer to home, older regions in the Northeast Corridor with established transit systems are spending billions on upgrades and expansion.

New Jersey. New Jersey Transit recently completed the RiverLINE, connecting Trenton and Camden with a light rail line along the Delaware River. In the northern part of the state, New Jersey Transit has also recently completed a new terminal called Secaucus Junction and the Hudson-Bergen Light Rail line.

New York. The Metropolitan Transit Authority (MTA) has received tens of billions in recent years to bring the New York subway system to a complete state of good repair. Additionally, the Long Island Railroad, which feeds into Penn Station, is currently in the planning stages for building a connection to New York's other rail hub, Grand Central Station.

Boston. The state recently approved funding for a \$610 million extension of the Massachusetts Bay Transportation Authority's Green Line. Due for completion in 2013, the new portion of the Green Line will connect established inner-ring suburban communities Somerville and Medford with North Station, the city, and the rest of the region.

Baltimore. The Maryland Transit Administration has recently upgraded Baltimore's fare collection system and has developed plans for expansion of the region's light rail network.

Washington, D.C. The Washington Metropolitan Area Transit Authority is planning an expansion of its MetroRail system to provide better connectivity with suburban Maryland and Virginia.

### **Transit Investments in Southeastern Pennsylvania**

Over the past two decades, SEPTA has spent \$5.2 billion towards significant renewal of its infrastructure. Investments have included rehabilitation of the Market-Frankford Elevated line for \$1.9 billion, construction of the Center City Commuter Tunnel and Market East Station for \$365 million, construction of the R1 Airport line for \$89 million, and restoration of the Route 15 trolley along Girard Avenue for \$78 million. Hundreds of millions more have been spent to upgrade safety signals, stations, bridges, tracks, and rolling stock.

Project	Investment (\$M)
Market-Frankford Line Infrastructure, Stations & Cars	1,897.0
Acquisition of 1,400 Buses / Trackless Trolleys (Last 12 Years)	370.0
Center City Commuter Tunnel / Market East Station	365.0
Commuter Rail Bridges, Track, Signals & Power (Center City to Glenside, Montgomery County)	285.0
Broad Street Subway Line Cars & Signal System	193.0
Subway Surface & Media Sharon Hill Light Rail Vehicles & Shops	137.0
Route 100 Norristown High Speed Line Infrastructure, Shop & Vehicles	136.0
R1 Airport Line Construction	89.0
New Bus Shops - Allegheny & Midvale	83.0
Route 15 Trolley Service Restoration	78.0
Suburban Station Improvements	63.0

SEPTA's investments have put the system in a position where it can serve Greater Philadelphia with a level of service that is the goal of virtually every region in the country. It has also sparked hundreds of millions in private investment. Both the Comcast Center and Cira Centre have been built with direct pedestrian connections to Suburban Station and 30<sup>th</sup> Street Station, SEPTA's two largest rail hubs.

Due to the size of the SEPTA's transit infrastructure, significant investment is required simply to offset depreciation of the system. Yet, while other regions are investing billions to develop transit infrastructure like that which our region already has, year after year SEPTA is forced to transfer dollars from capital projects to fund its operating expenses. Deferral of much-needed maintenance has put the region's transit investments at risk. Further disinvestment will reduce the attractiveness, usefulness, and ultimately, the value of the region's transit infrastructure.

### **Statewide Transportation Funding Crisis**

SEPTA's current crisis is an indicator of the state's failure to provide adequate and sustainable funding for its entire transportation portfolio. In 2005, Governor Rendell created the Pennsylvania Transportation

Funding and Reform Commission, a bi-partisan group with legislative representation, to assess the extent of the crisis created by this failure and to provide recommendations for reform. The commission found SEPTA to operate at a relatively high level of operational efficiency, but that the agency severely lacks from stable funding and long-term planning. Auditors concluded, "SEPTA's need of government subsidies for operating and capital for existing and expanded service are significant."<sup>4</sup>

Concurrently, the then Republican-led House Transportation Committee conducted an independent review of SEPTA, which found SEPTA to compare well with its peers in measures of operating efficiency, but that fundamental changes were needed to its funding structure. Auditors concluded, "SEPTA can do little more than it does now until its financial environment changes."<sup>5</sup> Over one-dozen audits in the past year have agreed, finding that SEPTA has done what it can with limited resources, and that fundamental flaws in the system's funding must be fixed if SEPTA is to improve its service in the region.

The work of the Transportation Funding and Reform Commission shaped what has become a statewide transportation funding debate. The Commission set the statewide transportation funding need at \$1.7 billion, including \$965 million for highways and bridges and \$760 million for transit. To close the highway and bridge funding gap, the Commission recommended a 12-cent gas tax hike and increases to various motor vehicle fees. To close the transit funding gap, the Commission recommended implementing a combination of state and local taxes that would provide an additional \$258 million for operating expenses and \$502 for capital projects. The Commission also recommended reforms to the transit funding process, including an increase of the local share, establishment of a new state transit dedicated trust fund, and consolidation of current state transit funding programs.

Governor Rendell responded to the Commission's recommendations with a set of his own funding measures. Unwilling to either flex highway funds or levy a tax on state residents, Rendell proposed funding highway and bridge needs by leasing the Pennsylvania Turnpike and funding transit needs by levying a new tax on oil company gross profits. In statements since rolling out his proposal, Governor Rendell has backed off his rigid stance against flexing highway dollars, but stressed that he would only provide a flex with a long-term, sustainable funding solution in place. He also indicated a willingness to accommodate alternatives, and that the most important objective at this time is to simply "do something" to fix the failed system of statewide transportation funding.

### **SEPTA's FY2008 Operating Budget Proposals**

In the meantime, SEPTA has proposed a pair of budget scenarios for closing its \$129.6 million budget shortfall for fiscal year 2008. "Plan A" is predicated on \$100 million in new state funding and calls for generating the additional \$29 million from an 11 percent fare increase. Plan A represents an effort by SEPTA to achieve a level of financial stability without compromising the integrity of the region's transit network. SEPTA has not enacted a fare increase since 2001, and the 11 percent increase would in part account for 18 percent inflation accrued since that time. More importantly from the region's standpoint, Plan A calls for maintaining its breadth and level of service, stating only that SEPTA will pursue marginal efficiency gains wherever possible to further trim operating expenses.

"Plan B", on the other hand, assumes no additional state funding and would close the \$129.6 million funding gap by slashing service by 20 percent and increasing fares by 31 percent. Unlike Plan A, this budget proposal would raise fares well above the rate of inflation and dramatically alter SEPTA's breadth and level of service. If implemented, Plan B would have a profound effect on the regional economy. The Economy League set out to quantify that impact.

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<sup>4</sup> Investing in Our Future: Addressing Pennsylvania's Transportation Funding Crisis (2007) Final Report. Transit Agency Operational Audit of SEPTA. Pennsylvania Transportation Funding and Reform Commission. January. Available at: <<http://www.dot.state.pa.us/Internet/pdCommissCommitt.nsf/HomePageTransFundReformComm?OpenForm>>.

<sup>5</sup> A Study of the Southeastern Pennsylvania Transportation Authority (2006) Final Report. Pennsylvania House of Representatives Transportation Committee. 4 October. Available at: <[http://gw\\_pahouseit\\_district079.psinternal.net/uploads/SEPTA\\_FinalReport.pdf](http://gw_pahouseit_district079.psinternal.net/uploads/SEPTA_FinalReport.pdf)>.

Table 3 Proposed Fare Increases FY 2008				
		Present	Plan A: 11%	Plan B: 31%
Transit	Cash	\$2.00	\$2.00	\$2.50
	Token	\$1.30	\$1.45	\$1.80
	Transfer	\$0.60	\$0.75	\$0.80
	Weekly TransPass	\$18.75	\$21.00	\$25.00
	Monthly TransPass	\$70.00	\$79.00	\$95.00
Regional Rail	Zone 1			
	Off Peak	\$3.00	\$3.50	\$4.00
	Peak	\$3.00	\$3.50	\$4.00
	Zone 2			
	Off Peak	\$3.00	\$3.50	\$5.00
	Peak	\$3.75	\$4.25	\$5.00
	Weekly	\$28.25	\$31.50	\$38.00
	Monthly	\$106.00	\$116.00	\$143.50
	Zone 3			
	Off Peak	\$3.75	\$4.25	\$5.50
	Peak	\$4.50	\$5.00	\$5.50
	Weekly	\$34.50	\$39.00	\$45.00
	Monthly	\$126.50	\$142.50	\$165.00
	Zone 4			
	Off Peak	\$4.25	\$4.75	\$6.25
	Peak	\$5.00	\$5.50	\$6.25
	Weekly	\$39.50	\$44.50	\$52.00
	Monthly	\$145.00	\$163.00	\$187.50
	Zone 5			
	Off Peak	\$4.25	\$4.75	\$6.75
	Peak	\$5.50	\$6.00	\$6.75
	Weekly	\$45.50	\$50.50	\$58.50
	Monthly	\$163.00	\$181.00	\$212.50
	Zone 6			
Off Peak	\$7.00	\$8.00	\$8.50	
Peak	\$7.00	\$8.00	\$8.50	

**Plan B Proposed Service Cuts**

Weekday Service. All scheduled weekday service is reduced by 20 percent on the following routes noted below. In most cases, headways (service frequency) would be widened to reduce service expenses by 20 percent. Wherever possible, trips proposed for suspension would be those impacting the fewest passengers. Externally funded service is exempt from service reductions, except the JARC funded services, which face the possibility of discontinuation.

- *City Transit Division:* C, G, H, J, K, L, R, XH, 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 42, 43, 44, 46, 47, 47m, 48, 50, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 70, 73, 75, 77, 79, 80, 84, 88, 89, 121, 400-Series, Market-Frankford & Broad Street Lines
- *Suburban Transit and Contract Operations:* 90, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 123, 124, 125, 127, 128, 129, 130, 131, 132, 150, 201, 206, 310 (Horsham Breeze) and 312 (Cornwells Heights Parking Shuttle)
- *Regional Rail Division:* R1, R2, R3, R5, R6, R7 and R8

Weekend Service. Modified Sunday service levels will be operated on Saturdays on the following routes:

- *City Transit Division:* C, G, H, J, K, L, R, XH, 2, 3, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 42, 43, 44, 46, 47, 47m, 48, 50, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 64, 65, 66, 67, 68, 70, 73, 75, 77, 79, 84, 88, 89, Market-Frankford & Broad Street Lines
- *Suburban Transit and Contract Operations:* 93, 94, 96, 97, 98, 99, 100, 101, 102, 104, 108, 109, 110, 113, 114, 117, 119, 120, 123, 124, 125 and 130
- *Regional Rail Division:* R1, R2, R3, R5, R6, R7 and R8

## **ANALYSIS OF ECONOMIC IMPACTS**

Implementation of Plan B would have a significant impact on the regional economy, imposing costs on individuals, businesses, and governments across Greater Philadelphia. Consequences of service cuts and fare increases would manifest in several forms. This analysis groups impacts into three categories: mobility, government services, and regional competitiveness.

### **Mobility**

Service cuts and fare increases would compromise mobility by increasing the cost and time required for transit riders and drivers to move about the region.

#### ***Impact on Current Transit Riders***

Increased costs to existing transit riders would be realized in three forms: 1) higher fares if they continue to ride SEPTA; 2) time costs incurred from longer wait times for buses, trolleys, and trains; and 3) private costs of owning and using a car if they switch to driving.

Higher fares. The majority of current transit riders would continue to rely on SEPTA. Many, however, would find a commuting alternative. Industry-accepted elasticities<sup>6</sup> for fare and service alterations were assigned to estimate the proportion of current ridership<sup>7</sup> that would stop riding SEPTA due to Plan B fare increases and service cuts. From this, it is estimated that SEPTA would experience a 9.9 percent decrease in ridership, resulting in 29.6 million fewer trips per year.

The remaining users would pay the 31 percent higher fares. To calculate the total cost of fare increases to transit riders, the current ridership multiplied by the current average fare was subtracted from the projected number of remaining riders multiplied by the higher fare level. Based on this calculation, despite almost 30 million fewer trips per year, SEPTA would bring in almost \$68.1 million more in fares, a cost fully borne by transit riders.

Longer wait times. Assuming across-the-board service cuts would equally and proportionately affect wait times, the industry-accepted transportation time valuation of 40 percent of median income was applied to the five-county region weighted median income of \$54,931<sup>8</sup> to determine the impact of longer wait times. Based on this calculation, the total cost of longer waits would be \$91.9 million per year.

It is important to note that this total does not include extra waiting time associated with Regional Rail lines, conservatively assuming that people do not wait for those lines but are instead making travel plans based on the preset schedules.

Switch to driving. Not every transit refugee would become a new driver. Conservatively, it is estimated that 30 percent of the nearly 30 million lost transit riders would choose instead to drive, and that each former transit rider does not necessarily require a car to themselves, but rather that there will be 1.5 people per car. Utilizing estimates of mileage per trip (which differs by transit mode) in conjunction with estimates of the full cost per mile of auto travel (including both capital and operating), it is estimated that leaving SEPTA and choosing to drive would cost commuters \$17.6 million per year.

Additionally, it is estimated that 20 percent of new car trips would involve new parking costs. Multiplied by the per-trip parking rate (described on the next page), it is estimated that new drivers would pay \$15.6 million per year to park.<sup>9</sup> From these new driving costs, \$11.2 million is subtracted to account for transit fare savings. Based on these calculations, the total cost to former transit riders choosing to drive would be \$22.0 million per year.

<sup>6</sup> Industry-accepted elasticities for fare and service changes are -0.3 and 0.03 respectively.

<sup>7</sup> Based on data provided by SEPTA for fiscal year 2005.

<sup>8</sup> The weighted median income was calculated by inflating 2004 U.S. Census income data by 3 percent per year and weighting Bucks, Chester, Delaware, Montgomery, and Philadelphia County median incomes by population.

<sup>9</sup> The assumptions used with respect to new auto travel and parking have been constructed to be consistent with DVRPC's estimates of new Center City auto travel associated with the SEPTA fare increases and service cuts.

In sum, higher fares, longer wait times, and new driving expenses would cost current transit riders an additional \$182.1 million per year. A typical transit rider would pay an additional \$1.20 per day, or \$438 per year. To transit riders, the impact of Plan B would be equivalent to a 30.5 percent increase in the City Wage Tax.

Cost of Fare Increases	68.0
New Driving & Parking Costs	22.0
Cost of Wait Times	92.0
<b>TOTAL ADDITIONAL COSTS</b>	<b>182.0</b>

It is important to note that these impacts do not account for value on the loss of employment caused by workers who work unconventional hours and who have no other means of commuting to their workplaces. The proposed service cuts include, in addition to across-the-board cuts of 20 percent, wholesale cuts of span of service hours. The removal of these services may very well force some workers to quit their jobs and be forced to seek other jobs or hours. Moreover, we do not include any "scheduling" costs for the adjustments that Regional Rail riders must make in response to the reduced frequencies and hours of service.

### ***Impact on Current Drivers***

Increased costs to existing transit riders would be realized in two forms: 1) increased travel time due to congestion; and 2) higher parking prices in Center City.

**Increased congestion.** The introduction of new cars on the road as a result of former transit riders deciding to drive would increase congestion for existing drivers. Employing DVRPC's congestion model, it is estimated that the implementation of Plan B service cuts and fare increases would cause the average speed of auto travel across Southeastern Pennsylvania to drop from 29.7 miles per hour to 29.6 miles per hour. Applied over the 2.55 million hours of current daily vehicle use, this seemingly small change implies a considerable increase of over 8,500 hours in travel time per day. In reality, the impact on congestion will vary greatly across the region. It is expected that commuters on major arterials, such as I-95, I-76, and Broad Street would experience significant declines in speed and increase in travel time, while drivers on some other roads would experience no impact at all. The aggregate effect, however, would be significant.

To determine the cost of increased congestion, the industry standard transportation time valuation of 40 percent of the median income earned in the five-county area was multiplied by the estimated increase in travel time. Based on this calculation, the net cost to current drivers of additional time in traffic would be \$24.5 million per year. It is important to note that increased motor vehicle travel time would also produce negative environmental impacts, such as increased carbon emissions, that are not quantified in this study but would be significant.

**Higher parking prices.** Thousands of new drivers would require a place to park their cars. Supply and demand theory dictates that this will provide the impetus for Center City parking lots to increase prices. To calculate how much prices will increase, it is estimated that 80 percent of Center City's 65,000 parking spaces are occupied on a typical weekday. Recent studies have reported that the current average price for Center City parking is \$12.16.

DVRPC estimates that Plan B service cuts and fare increases would increase the number of parkers in Center City by 4,537 per weekday. Based on linear demand and supply functions and applying the industry standard price elasticity for parking,<sup>10</sup> increased demand on weekdays for Center City parking would increase prices by \$1.06 to \$13.22. This estimate can be characterized as extremely conservative

<sup>10</sup> The industry-accepted national price elasticity for parking is -0.2.

because it assumes unitary elasticity of supply of parking, and it is doubtful that supply will so readily adjust to demand. Nevertheless, based on these calculations current drivers would pay an additional \$14.4 million per year to park in Center City.

In sum, increased congestion and higher parking prices would cost current drivers an additional \$38.9 million per year. Commuters to Center City would pay an additional \$1.06 per day, or \$265 per year<sup>11</sup> to park. To a typical suburban resident driving into Center City for work, increased parking prices would be equivalent to a 21 percent increase in the Commuter Wage Tax.

Cost of Additional Commute Time	24.5
Cost of Parking Price Increases	14.4
<b>TOTAL ADDITIONAL COSTS</b>	<b>38.9</b>

While significant, it is likely that estimated economic impacts actually understate the full compliment of mobility costs associated with Plan B. For one, anticipated congestion increases were generated from very conservative traffic estimates and are unlikely to assess the full impact of service cuts and fare increases on the region's roadways. More significantly, estimates do not address inevitable long-term behavioral adjustments, such as the purchase of another car or relocation. Such lifestyle changes would have a compounding effect on economic impacts.

## Regional Competitiveness

Reduced mobility would damage the regional business climate. Companies that decide to remain in the region could need to compensate employees for increased commuting costs. Additionally, employers could expect a decline in workforce productivity as it becomes more difficult to get to work. On the other hand, many employers would decide to relocate outside of the region. This is a costly proposition in itself.

Moreover, service cuts and fare increases would compromise two key indicators of regional competitiveness in two ways: 1) employment level; and 2) property values.

### *Impact on Employment*

Increases in the cost of transportation are not unlike a tax, serving as an additional cost associated with living and working in the region. Based on this analogy, impacts of Plan B on regional employment were estimated based on models utilizing two separate methodologies: 1) the Wage Tax model, which equates additional transportation costs to an increased tax on wages; and 2) the tax on gross receipts model, which equates additional transportation costs with increased taxes on businesses.

**Wage tax model.** According to a 2003 study prepared by Econsult for the Philadelphia Tax Reform Commission, the lower end of the range of employment loss resulting from a \$125 million Wage Tax increase is 31,000 jobs.<sup>12</sup> Assuming that 80 percent of the \$220 million in additional transportation costs borne would be absorbed by the city, the city would lose 43,800 jobs. Assuming that two-thirds of jobs lost by the city would be retained somewhere else in the region and that one-third of these jobs would leave the region or disappear altogether, the region would lose 14,500 jobs. Based on median incomes for the city and region,<sup>13</sup> these employment impacts represent an aggregate loss of \$1.67 billion in city earnings and \$868.5 million in regional earnings.

**Gross receipts model.** According to the same work prepared for the Philadelphia Tax Reform Commission, the lower end of the range of employment loss resulting from a \$125 million tax increase on gross receipts is 24,100 jobs. Assuming again that 80 percent of additional transportation costs would be

<sup>11</sup> Assumes 250 annual workdays.

<sup>12</sup> Employment impact estimates are for the year 2010.

<sup>13</sup> Median incomes are projected for the year 2010.

absorbed by the city, the city would lose 34,100 jobs. Assuming again that two-thirds of jobs lost by the city would be retained somewhere else in the region and that one-third of these jobs would leave the region or disappear altogether, the region would lose 11,200 jobs. Based on median incomes for the city and region, these employment impacts represent an aggregate loss of \$1.3 billion in city earnings and \$675.2 million in regional earnings.

Table 6 Impact on Employment		
Wage Tax Model	City	Region
Employment	(43,800)	(14,500)
Earnings (\$ Millions)	(1,665.8)	(868.5)
Gross Receipts Model	City	Region
Employment	(34,100)	(11,200)
Earnings (\$ Millions)	(1,295.0)	(675.2)

### ***Impact on Property Values***

Increased transportation costs would have a depreciating effect on property values in both the city and suburbs.<sup>14</sup>

City property values. According to the previous work prepared for the Philadelphia Tax Reform Commission by Econsult, the supply side impact of a \$125 million Wage Tax cut would be a 4.6 percent increase in residential property values. From this, assuming that 80 percent of additional transportation costs borne are absorbed by the city, the combined \$220 million additional transportation cost to current drivers and transit riders would translate into a 6.5 percent decrease in city property values, a \$2.89 billion reduction in cumulative value. Based on median city home values, the typical city house would lose \$7,431 in value. In an effort to obtain conservative estimates, calculations for city property value impacts only utilize the Wage Tax model; utilizing the gross receipts model yields a significantly higher rate of depreciation.<sup>15</sup>

Table 7 Impact on City Property Values	
Model	Wage Tax
Percent Change	(6.5)
Cumulative Value (\$ Millions)	(2,893.0)
Impact on Typical House (\$)	(7,431)

Suburban property values. Previous research<sup>16</sup> has demonstrated that job loss in Philadelphia has a direct effect on suburban residential property values, especially those in close proximity of the city. Utilizing the Wage Tax model and applying city job loss estimates to previously generated models, the combined \$220 million additional transportation cost to current drivers and transit riders would translate into a 6.6 percent depreciation of suburban property values, a \$4.45 billion reduction in cumulative value. Based on median suburban home values, the typical suburban house would lose \$6,867 in value.

Alternatively, it is also acceptable to employ the gross receipts model for estimating the impact on suburban property values. In this case, additional transportation costs would translate into a 5.1 percent depreciation of suburban property values, a \$3.5 billion reduction in cumulative value, or \$5,339 per home.

<sup>14</sup> Note that property value impacts occur over time, and since prices basically always rise over time, one would not observe a direct fall, but rather slower appreciation than would otherwise occur, ultimately resulting in diminished property value compared to what otherwise would have occurred.

<sup>15</sup> The supply side impact of a \$125 gross receipts tax cut would be a 17.0 percent increase in property values.

<sup>16</sup> Source: "The Suburban Housing Market: The Effects of City and Suburban Employment Growth," (1999) *Real Estate Economics*, Vol. 27, No. 4.

Table 8 Impact on Suburban Property Values		
Model	Wage Tax	Gross Receipts
Percent Change	(6.6)	(5.1)
Cumulative Value (\$ Millions)	(4,452.0)	(3,461.0)
Impact on Typical House (\$)	(6,867)	(5,339)

## Government Services

Job loss and depreciating property values would diminish the regional tax base, thereby decreasing government revenues. The impact would be felt on municipal, school district, and state coffers.

### *Impact on Local Government*

Implementation of Plan B would create a gap in the city budget. Treating additional transportation costs as a Wage Tax increase, \$1.67 billion in city earnings lost would result in a \$60.6 million reduction of City Wage Tax revenues per year.<sup>17</sup> Alternatively, treating additional transportation costs as a tax increase on gross receipts, city earnings lost would result in a \$47.0 million reduction of City Wage Tax revenues. Either way, service cuts and fare increases would approximately halve the anticipated \$106 million in projected new revenue from casino gambling.

Depreciating property values – estimated at 6.5 percent in the city and between 5.1 and 6.6 percent in the suburbs – would negatively impact school districts, which rely on property taxes as a source of revenue. The resulting budget strain could necessitate tax rate hikes to account for lost revenue.

Outer-ring suburbs would realize additional impacts. Service cuts and fare increases would have a decentralizing effect, pushing development away from the region's core and towards the urban fringe. Already strained by depreciating land values, sprawling growth patterns would require municipalities to provide utilities such as power lines, water pipes, and sewage systems across a larger area and to build roads and bridges to connect new developments, all of which would require regular maintenance. These obligations could create an unsustainable governing environment for suburban municipalities.

### *Impact on State Government*

Regional earnings loss would have a significant impact on the state economy, as the five counties of Southeastern Pennsylvania comprise one-third of the state's Personal Income Tax base. Treating additional transportation costs as a Wage Tax increase, \$868 million in regional earnings lost would result in a \$27 million reduction of state Personal Income Tax revenues per year. Alternatively, treating additional transportation costs as an tax increase on gross receipts, regional earnings lost would result in a \$20.7 million reduction of Personal Income Tax revenues per year.

<sup>17</sup> Estimate utilizes the FY2010 forecasted City Wage Tax rate of 3.6269 percent, which accounts for anticipated state tax reform.

## CONCLUDING REMARKS

“At a time when personal vehicle use continues to soar without corresponding highway expansion, and fuel prices and supplies are held hostage to world-wide events, it is simply unthinkable to let public transit collapse.”<sup>18</sup>

*-Pennsylvania Transportation Funding and Reform Commission*

Service cuts and fare increases will have different impacts across the region. Some people will experience greater consequences than others. The groups most impacted will be shift-based employees who rely on odd-hour public transportation service, which Plan B will severely cut. Early morning, post 8 p.m., and weekend service cuts will have a profound impact on the ability for these workers to commute. Janitors, security officers, health care workers, hotel attendants, and many others who work odd-hour shifts will have to find a new way to get to their jobs. Some may be forced to find a new job altogether.

While some people will experience impacts more acutely, service cuts and fare increases will have an impact on everyone in the region. Workers will have a harder time finding – and getting to – jobs. Crucial sectors will be understaffed. Some businesses and residents will relocate. Home values will fall. Government services will be squeezed. Kids will have more trouble getting to school. Families will spend less time together. Older residents and non-drivers’ life choices will be limited. The region will be a less attractive place to live and work.

This could be Greater Philadelphia’s future, but it does not have to be. Growing regions have recognized the benefits of investing in public transit. Neighboring regions are investing billions in transit infrastructure as well.

What will be our future?

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<sup>18</sup> Investing in Our Future, Ch. 2, P. 17.

## **ABOUT THE ECONOMY LEAGUE OF GREATER PHILADELPHIA**

The Economy League of Greater Philadelphia is an independent, nonpartisan, nonprofit organization dedicated to research and analysis of the region's resources and challenges with the goal of promoting sound public policy and increasing the region's prosperity. To learn more about the Economy League and its work, visit: [www.economyleague.org](http://www.economyleague.org).