

INFRASTRUCTURE INVESTMENT AND PUBLIC SAFETY SPENDING ECONOMIC IMPACTS FOR ILLINOIS



Frank Manzo IV, MPP
Policy Director

Illinois Economic Policy Institute
www.illinoisepi.org
(708) 375-1002

INFRASTRUCTURE INVESTMENT AND PUBLIC SAFETY: ECONOMIC IMPACTS FOR ILLINOIS

ILEPI Economic Commentary #15

INTRODUCTION

In March 2015, a transfer of revenue from “special funds” into the General Revenue Fund was proposed in the Illinois legislature to fill a budget shortfall. The proposal sweeps nearly \$600 million from the state’s special funds. Of the reallocations, the majority of transfers (\$363 million) come from funds dedicated to physical capital investment and local government, including police and fire services. These transfers include:

- *\$120 million from funds dedicated to horizontal infrastructure investment* – the Road Fund, Motor Fuel Tax Fund, County and Mass Transit District Fund, State Rail Freight Loan Repayment Fund, and Downstate Transit Improvement Fund;
- *\$141 million from funds dedicated to local government and public safety operations* – the Local Government Tax Fund, Personal Property Tax Replacement Fund, Fire Prevention Fund, State Police Services Fund, and State Police Operations Assistance Fund;
- *\$53 million from funds dedicated to power, energy, water, and waste management systems* – the Illinois Power Agency Renewable Energy Resources Fund, Supplemental Low-Income Energy Assistance Fund, Illinois Clean Water Fund, Solid Waste Management Fund, and Underground Storage Tank Fund; and
- *\$49 million from a fund dedicated to school construction* – the School Infrastructure Fund.

While Illinois’ state government needs to address the budget shortfall in the General Revenue Fund, a reallocation of funds used for public infrastructure and public safety is the wrong way to accomplish this aim. These transfers misallocate resources away from their intended use, have negative impacts on the state economy, and do not address the larger revenue shortage problem. This Illinois Economic Policy Institute (ILEPI) Economic Commentary evaluates the effects of sweeping infrastructure and public safety funds and proposes an alternate solution to fix the shortfall in the General Revenue Fund (GRF).

THE ECONOMIC IMPACTS OF PHYSICAL INFRASTRUCTURE AND PUBLIC SAFETY

Economic research and simulations reveal that physical infrastructure investment and public safety spending enhance economic growth and boost employment. In his 1997 commentary, “The Effects of State and Local Public Services on Economic Development,” Michigan State University professor Ronald Fisher summarized results from economic studies ([Fisher, 1997](#)). Fisher’s review of the research found that highway spending was found to have positive impacts on economic outcomes in 10 of 15 studies (66.7 percent), public safety had positive impacts in 5 of 9 studies (55.6 percent), and education spending had positive impacts in 12 of 19 studies (63.2 percent). In Illinois, the Center for Tax and Budget Accountability has estimated that a \$5.9 billion “transportation/infrastructure program... would generate about \$9.4 billion in economic activity” and could “create about 98,108 jobs” ([Martire et al., 2009](#)). For public safety, a 10 percent reduction in violent crimes is associated with a \$531 million increase in economic benefits in the City of Chicago, according to the Center for American Progress. ([Shapiro & Hassett, 2012](#)). These positive economic effects result because infrastructure investment and public safety correct market failures, or “externalities,” that exist in private markets without government intervention.

The economic impact of various government programs and policies in Illinois can be assessed using “multipliers.” Multipliers account for the interrelationship between an activity and other sectors in the economy, following a dollar as it cycles through the market. A multiplier therefore estimates the “bang for the buck” that one dollar of spending will have on the total economy. The estimates provided in this Economic Commentary are derived from the simulations of MIG, Inc., an economic impact modeling corporation ([MIG, 2011](#)).

The greatest “bang for the buck” for Illinois taxpayers is returned by government investment in capital infrastructure and investment in education and research (Figure 1). Every dollar spent by state and local governments on passenger transit returns \$5.33 in economic output to the State of Illinois and one dollar spent on construction of horizontal (road, bridge, highway, and railroad) construction increases economic growth by \$1.85 on average. The system that is constructed yields benefits to producers of goods and private sector freight companies, as the multipliers for transport of goods by rail and truck range from 1.90 to 1.95. Economic multipliers are 2.05 for natural gas and oil extraction and 1.86 for water and sewage treatment and delivery systems—demonstrating that other types of power, energy, water, and sewage infrastructure also returns large benefits to the state. In addition, every dollar of spending on education or scientific research increases Illinois’ gross domestic product (GDP) by \$1.88 to \$1.89.

FIGURE 1: MULTIPLIERS OF GOVERNMENT AND PRIVATE ACTIVITIES IN ILLINOIS, IMPLAN (2011)

“Bang for the Buck” in Illinois: IMPLAN Analysis (2011)	SAM Multiplier
<i>Activity Supported by Government</i>	
State and local government passenger transit	5.33
Extraction of natural gas and oil	2.05
Transport of goods by truck	1.95
Transport of goods by rail	1.90
Elementary and secondary schools	1.89
Scientific research and development	1.88
Colleges, universities, and professional schools	1.88
Water and sewage treatment and delivery systems	1.86
Construction of non-residential, non-commercial, non-health structures	1.85
State and local government (non-education)	1.71
<i>Private Sector Activity</i>	
Accounting, tax preparation, bookkeeping, and payroll services	1.66
General merchandise retail store	1.65
Legal services	1.61
Automobile manufacturing	1.48
Real estate establishments	1.34

Source(s): MIG, Inc. (2011). Formerly the Minnesota IMPLAN Group. *IMpacts for PLANning: Illinois dataset.*

Each of these activities supported by the government generates a greater economic benefit than the multiplier for all other non-education state and local government spending (1.71). Thus, distributing revenue from infrastructure investment funds to the General Revenue Fund apportions money from those government activities which return between \$1.85 (horizontal construction) and \$5.33 (public transportation) per dollar to the economy to those which return just \$1.71 per dollar of spending. Given that the transfer is intended to reduce the budget deficit, it could also be viewed as a transfer to “accounting” or “legal” services, which have “bang for the buck” multipliers of just 1.66 and 1.61 in Illinois’ private sector. In either case, the proposed sweep from special funds to the General Revenue Fund will result in an economic loss to the State of Illinois, all else equal.

The same findings are generally applicable at the federal level (Figure 2). For the nation, the largest economic impact from government spending is on scientific research, with operations of a NASA facility realizing a multiplier of 2.56 (NASA, 2010). Temporary increases in food stamps and extensions in unemployment insurance create \$1.73 and \$1.64 per dollar contributed, respectively. Increased infrastructure spending generates \$1.59 for every dollar invested at the national level, according to Moody’s Economy simulations (Zandi, 2008). Each of these spending multipliers has larger societal impacts than the studied tax cuts and rebates: a refundable lump-sum tax rebate generates \$1.26 in economic output per dollar while a permanent income tax cut supports just \$0.29 for every dollar cut. Tax cuts return less per dollar to the economy because “[s]ome households would spend more freely given the certainty of their lower future tax rates, but most do not have the financial resources to do so” (Zandi, 2008). Most individuals “smooth out” their consumption over time and balance new income with higher savings for the future. Tax cuts thus have less of an immediate or medium-term impact.

FIGURE 2: MULTIPLIERS OF GOVERNMENT ACTIVITIES IN THE UNITED STATES, MOODY’S (2008)*

Fiscal “Bang for the Buck” in America: Moody’s (2008)	Moody’s Multiplier
<i>Activity Supported by Government</i>	
Spending: Operations of NASA research facility*	2.56*
Spending: Temporary increase in food stamps	1.73
Spending: Extending unemployment insurance benefits	1.64
Spending: Increased infrastructure spending	1.59
Spending: General aid to state governments	1.36
Rebate: Lump-sum tax rebate, same amount per household	1.26
Cut: Permanent dividend and capital gains tax cut	0.37
Cut: Permanent cut in corporate tax rate	0.30
Cut: Permanent income tax cut	0.29

Source(s): Zandi (2008). Estimates denoted with an asterisk (*) are from NASA (2010).

Figure 3 provides predicted economic outcomes if \$363 million is transferred out of dedicated physical capital and local government (including public safety) funds. Impacts are shown in three different scenarios: 1.) if the funds are not reallocated to the GRF, 2.) if the funds are reallocated to pay for non-educational activities, and 3.) if the funds are reallocated and merely used to repay state debt, assuming new debt is due to the phasing out of the state’s temporary personal and corporate income tax hikes.

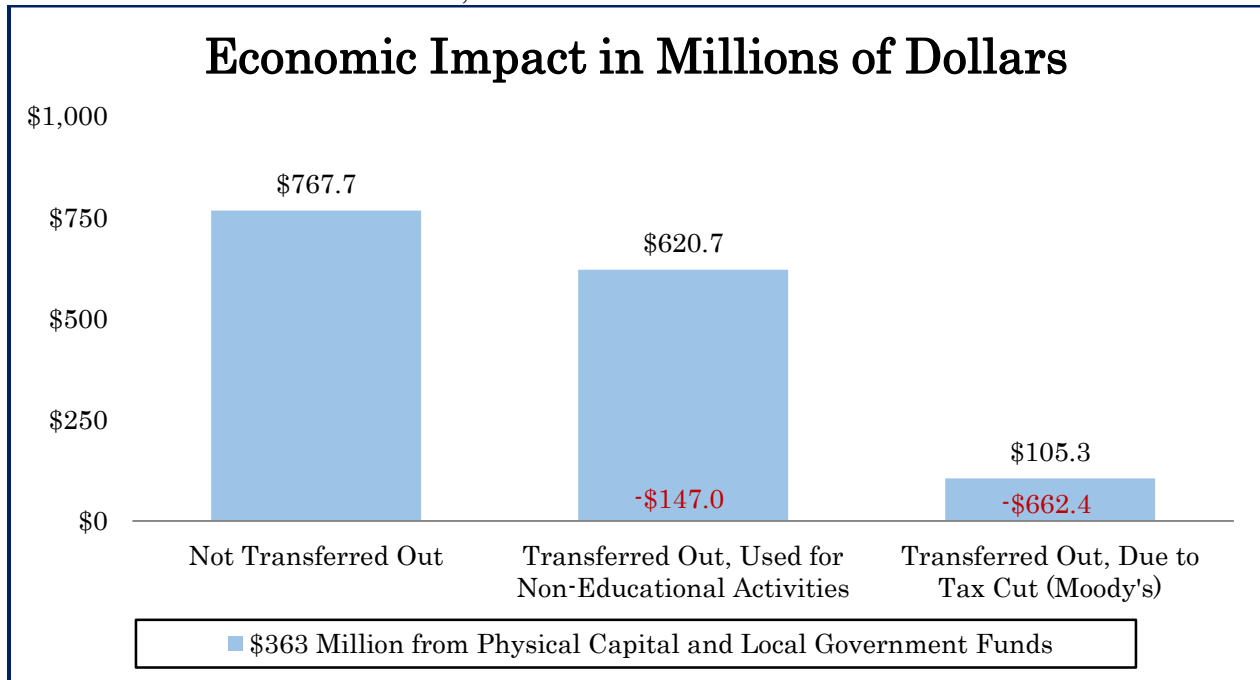
Multipliers are assigned in proportion with their proposed transfers-out and then compared to the baseline non-educational state spending. For example, if \$1 million diverted from the County and Mass Transit District Fund is multiplied by the Figure 1 “state and local government passenger transit” multiplier of 5.33, for a total of \$5.33 million. If the \$1 million is given to the GRF (Figure 1 multiplier = 1.71), then the total benefit is only \$1.71 million. The result is in an economic loss of \$3.62 million to the taxpayer for every \$1 million transferred out.

The analysis demonstrates that the \$363 million invested in physical infrastructure and public safety will support \$767.7 million in the state’s gross domestic product (GDP). On the other hand, if revenues are transferred out, the funds would only sustain \$620.7 million in GDP– as long as they are used for other government spending and not debt repayment.

Depleting infrastructure and local government funds has negative economic impacts over the long term. Sweeping funds to address a short-term budget deficit in the General Revenue Fund reduces available programmable dollars to improve transportation and public safety which attract private business to the state. The budget shortfall facing Governor Rauner and Illinois

legislators is mainly due to a decrease in revenues from the drop in the income tax rate. When viewed as a personal income tax cut, this transfer away from long-term investments in infrastructure and safety only contributes \$105.3 million to the state’s economy in 2016, using Moody’s inputs. In total, \$363 million worth of diversions from infrastructure investment and public safety funds would *cost* Illinois between \$147 and \$662 million in lost economic output if they are enacted (Figure 3). These negative effects would reduce employment and hinder business attraction, especially if potential firms looking to locate in Illinois believe that the streets have become unsafe or that infrastructure quality has suffered and they would not be able to efficiently deliver products to the market.

FIGURE 3: IMPACT TO ILLINOIS’ GDP, WITH AND WITHOUT MARCH 2015 PROPOSED SWEEPS



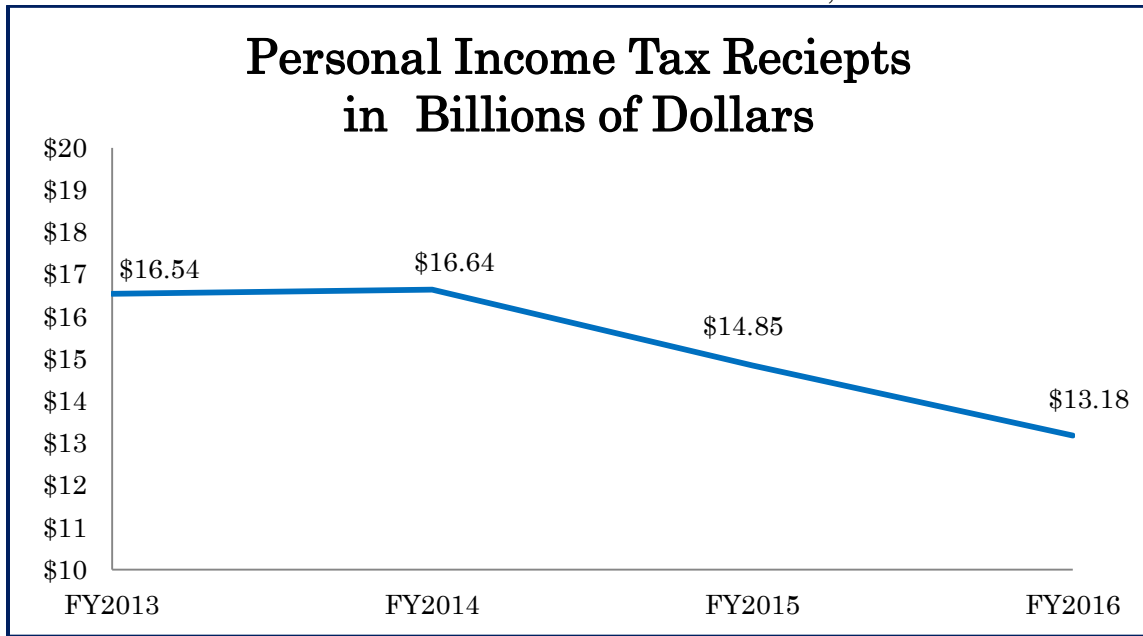
Source(s): Analysis of “30 ILCS 105/8.50 new” transfers multiplied by MIG, Inc. (2011) and Zandi (2008) estimates.

THE DIFFICULT BUT NECESSARY POLICY SOLUTION

Rather than sweeping special funds, the prudent policy is to create a budget surplus to repay the state’s backlog of bills. In the 2013 fiscal year, the state had achieved a \$1.0 billion budget surplus. The state applied \$882 million to pay down the debt that year, and a 2014 fiscal surplus allowed the state to reduce the state’s debt by another \$137 million (Nuding, 2015). The personal income tax and corporate income tax rates were 5.0 percent and 7.0 percent, respectively, over that time. Those sources of revenue have since decreased in 2015 to 3.75 percent and 5.25 percent. The 2016 fiscal year, which begins in July of 2015, will be the first budget at these rates for all twelve months. As a result of the lower tax rates, personal income tax receipts will decline by \$1.8 billion in 2015 to \$14.9 billion. By 2016, revenues from personal income taxes will be \$3.5 billion lower than they were in 2014 (Nuding, 2015).

Lower income tax rates have only made budgeting more difficult. The Governor has proposed addressing the new shortfalls through cuts to government programs that primarily serve low-income and middle-class families in Illinois. His proposal also compromises infrastructure investment funding (Manzo, 2015).

FIGURE 4: DECLINING PERSONAL INCOME TAX RECEIPTS IN ILLINOIS, 2013-2016



Source(s): Nuding (2015). Governor’s Office of Management and Budget.

The State of Illinois needs to improve its financial position. The best way to accomplish that aim is by reinstating a higher personal income tax that will stabilize the General Revenue Fund and allow the state to once again devote between \$500 million and \$1.0 billion toward paying off its bills every year. Even *The Economist* has noted that if Rauner “wants to balance the books he will have to raise taxes” (*The Economist*, 2015). The Civic Federation has proposed a retroactive increase of both the income tax rate to 4.25 percent (the same as Michigan’s and less than the lowest Wisconsin rate of 4.4 percent) and the corporate tax rate (8.6 percent) until January 1, 2018. Permanently thereafter the income tax rate would be 4.0 percent for individuals and 5.6 percent for corporations (Blumberg, 2015). The Illinois Economic Policy Institute endorses this solution for the Illinois budget.

CONCLUSION

Revenue has been dedicated for “special funds” specifically to remove it from legislative discretion. The Road Fund and Motor Fuel Tax Fund, for instance, are supported by user fees and motor fuel taxes that are expressly intended to improve the transportation infrastructure. Revenues from motorists and truckers should not be diverted to pay for other purposes. While GRF expenditures are important and must be fully funded, diversions lead to further deterioration of the state’s inadequate public infrastructure. The proposed March 2015 transfer of dollars to the GRF from infrastructure investment funds and local government (including public safety) funds would also reduce value to the taxpayer, causing a net drop in the state’s economic output by between \$147 million and \$662 million this year. The fact is that sweeps from special funds have negative impacts on Illinois’ GDP and the state needs to raise revenues to improve the budget.

REFERENCES

- 30 ILCS 105/8.50 new (2015). “Amendment to Senate Bill 274). Filed 3/3/2015 by Sen. Dan Kotowski. Available at <http://www.ilga.gov/legislation/99/SB/09900SB0274sam001.htm>.
- Blumberg, Nick. (2015). “Civic Federation Offers ‘Painful, but Necessary’ Solutions to Illinois Budget Crisis.” *Chicago Tonight*. WTTW11. Available at <http://chicagotonight.wttw.com/2015/02/12/civic-federation-offers-painful-necessary-solutions-illinois-budget-crisis>.
- CAFR. (2013). *Illinois Comprehensive Annual Financial Report: Fiscal Year Ended June 30, 2013*. State of Illinois Comptroller Judy Baar Topinka. Available at <http://www.ioc.state.il.us/index.cfm/resources/reports/cafr/fy-2013/>.
- The Economist*. (2015). “Averting Doomsday: Bruce Rauner is Trying to Fix the Finances of America’s Worst-Run State.” *The Economist*. Available at <http://www.economist.com/news/united-states/21645227-bruce-rauner-trying-fix-finances-americas-worst-run-state-averting-doomsday>.
- Fisher, Ronald. (1997). “The Effects of State and Local Public Services on Economic Development.” *New England Economic Review*: March/April 1997. Available at <http://geog.tamu.edu/class/bednarz/neer297d.pdf>.
- Manzo IV, Frank. (2015). “Proposed Rauner Budget Hammers Low-Income and Middle-Class Families in Illinois.” Illinois Economic Policy Institute. Illinois Insights Blog available at <https://illinoisepi.wordpress.com/>.
- Martire, Ralph, Chrissy Mancini, Yerik Kaslow, and Tracy Bisacky. (2009). *Moving Forward: To Counter the Current Recession, Illinois State Government Should Maintain or Enhance Spending— Even if it Means Progressive Tax Increases— Rather Than Cut its Budget*. Center for Tax and Budget Accountability. Available at http://www.ctbaonline.org/sites/default/files/reports/ctba.limeredstaging.com/node/45/edit/1385483540/R_2009.03.11_Moving%20Forward.pdf.
- MIG, Inc. (2011). “The Most Complete and Accurate U.S. Economic Data.” *Implan*. Available at https://implan.com/index.php?option=com_content&view=article&id=889&Itemid=136.
- NASA. (2010). *Economic Benefits Study: NASA Ames Research Center and NASA Research Park in Silicon Valley*. National Aeronautics and Space Administration. Available at http://www.nasa.gov/sites/default/files/578484main_EBSReport_2010.pdf.
- Nuding, Tim. (2015). *Illinois State Budget: Fiscal Year 2016* (Proposed). Governor’s Office of Management and Budget. Illinois Governor Bruce Rauner. Available at <http://www2.illinois.gov/gov/budget/Documents/Budget%20Book/Budget%20Book%20FY16/FY2016IllinoisOperatingBudgetBook.pdf>.
- Shapiro, Robert and Kevin Hassett. (2012). *The Economic Benefits of Reducing Violent Crime: A Case Study of 8 American Cities*. Center for American Progress. Available at https://cdn.americanprogress.org/wp-content/uploads/issues/2012/06/pdf/violent_crime.pdf.
- Zandi, Mark. (2008). *Assessing the Macro Economic Impact of Fiscal Stimulus 2008*. Moody’s Economy. Available at <https://www.economy.com/mark-zandi/documents/Stimulus-Impact-2008.pdf>.