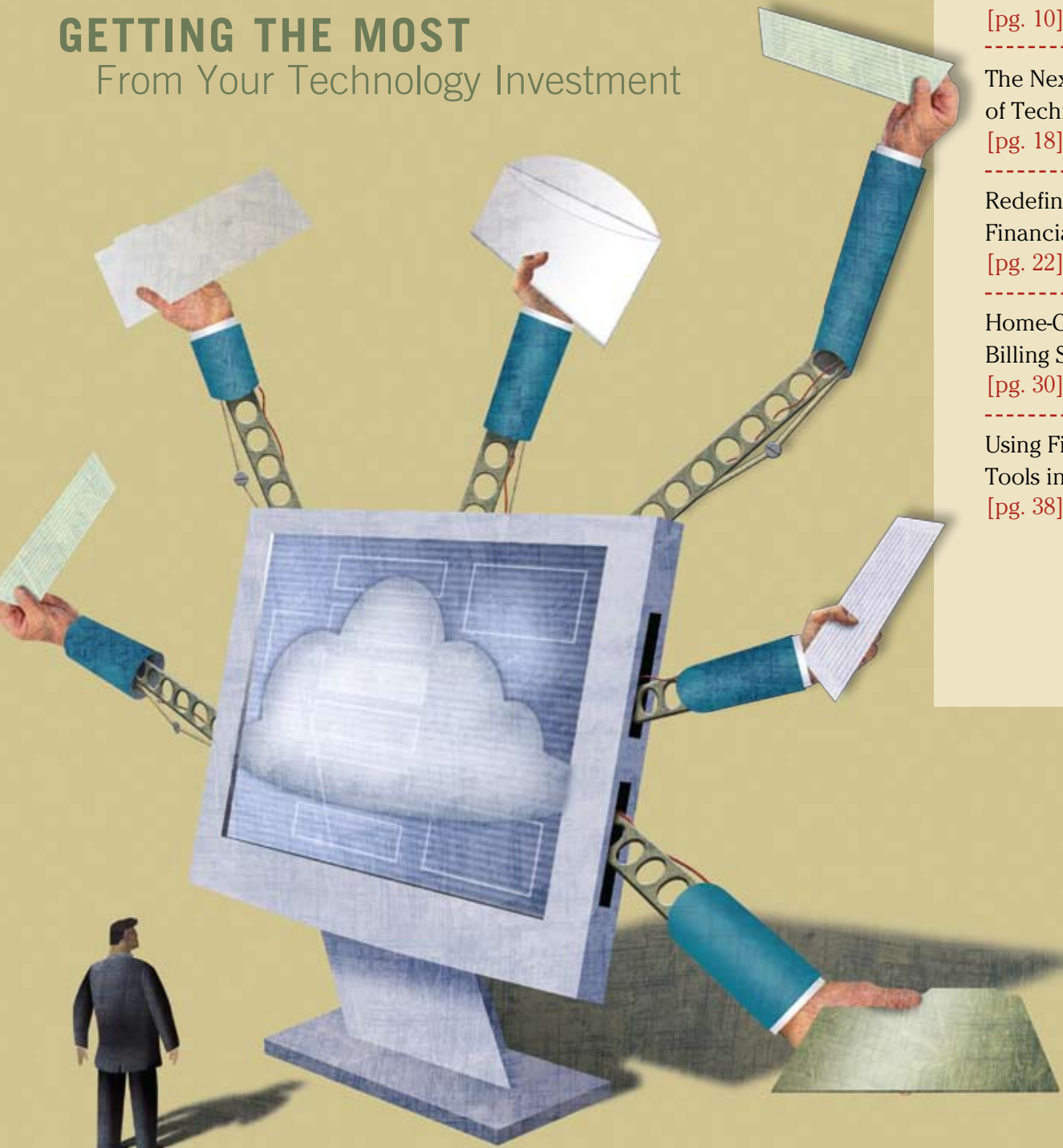


Government Finance Review

GOVERNMENT FINANCE OFFICERS ASSOCIATION

GETTING THE MOST From Your Technology Investment



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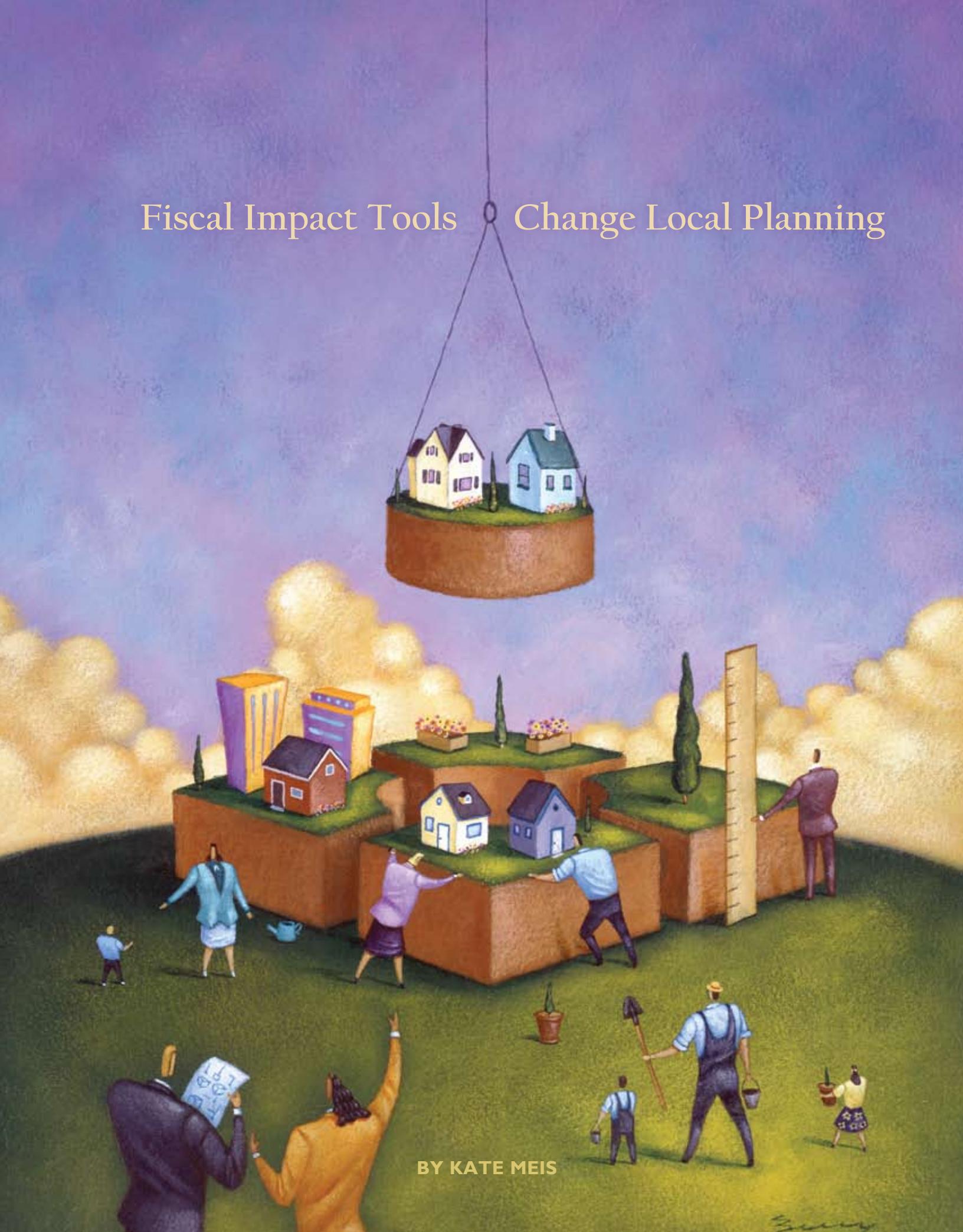
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Fiscal Impact Tools Change Local Planning



BY KATE MEIS

Fiscal impact tools are emerging across the nation and changing the dialog around local and regional planning. Jurisdictions now have a number of tools they can use to compare costs with revenue and analyze fiscal impacts, evolving to meet the increased demand of resource constrained municipalities. This article will take readers on a tour from California to Florida, introducing six emerging fiscal impact tools and providing a cursory review of how these tools are changing local and regional planning discussions.

SACRAMENTO: THE BLUEPRINT PROJECT

At the turn of the 21st century, California's state capital, like many other communities, was faced with some difficult decisions. Between 2000 and 2050, the Sacramento region was projected to add more than 1.7 million people and 1 million jobs. Without new approaches to planning for the future, the community's quality of life had the potential to decrease substantially. Already plagued by air quality concerns, the northern San Joaquin Valley faced worsening congestion — a projected increase of more than 50 percent by 2025 — and increasing air pollution if growth and investment strategies continued on their current path. In the face of these challenges, the Sacramento Area Council of Governments Board of Directors embarked on a regional “blueprint” project to create a 50-year plan for growth in the region. The project was taken on to provide a better understanding of the linkages between transportation, land use, and air quality, and to set a new vision for the future of the region.

The Sacramento area was faced with a choice: continue to grow on its current trajectory of low density development and accept the associated impacts (the “baseline scenario”), or prioritize compact, mixed-use development and provide more transit choices as an “alternative scenario” that might accommodate growth without sacrificing quality of life. But what would be the regional implications of pursuing a new growth strategy? To truly understand the costs and benefits of this new approach, SACOG needed to look beyond capital investments to address the ongoing operations, maintenance, and service costs associated with land use decisions.

To truly understand the costs and benefits of this new approach, organizations need to look beyond capital investments to address the ongoing operations, maintenance, and service costs associated with land use decisions.

Their analysis showed that the alternative scenario would result in substantial savings in the cost of providing services such as water, sewer, roads, flood control, drainage, parks, and dry utilities; the region could save \$13.8 billion over 50 years if it chose what will be called the “preferred alternative” over the “base case.” More than half of this savings comes from purchasing far less land to mitigate the consumption of agricultural and habitat lands. The remaining savings are the result of less infrastructure being needed to serve the same number of residents and employees.¹

CREATING A NEW TOOL

The blueprint scenario analysis laid the foundation for the Integrated Model for Planning and Cost Scenarios tool the region now uses to compare costs with revenue to analyze fiscal impacts. The fiscal impact analysis identifies any gaps in funding, which can then be addressed through additional revenue sources or a change in infrastructure-generating land use patterns.

Local governments across the nation are experiencing chronically underfunded budgets, leading to a new awareness that what they build and the ability for those investments to pay returns will have a serious impact on their capacity to sustain their communities. With this new awareness there is a growing need to evaluate whether new developments will push a community ahead or dig them into deeper debt. Emerging fiscal impact analysis tools enable local governments to make this assessment, helping prepare them for a new level of leadership and accountability as they plan for strong, sustainable communities.

Intergovernmental agencies across the United States, including the Ohio-Kentucky-Indiana Regional Council of Governments and the Tallahassee, Florida, Capital Region Transportation Planning Agency, are also developing their own regional fiscal impact models to comparatively evaluate development proposals on the basis of municipal costs and revenue return. These models share SACOG's goal of making the best use of limited infrastructure dollars. Private firms helped these clients develop their tools, and other groups are responding to the growing demand by creating their own

tools, such as Envision Tomorrow and UrbanFootprint.

The first generation of fiscal impact modeling tools provides jurisdictions with the opportunity to produce a technical evaluation and have a robust discussion about the potential uses and policy implications of such modeling tools. The success of these tools will be determined by three factors: the technical strength of the tool itself, how well the results of the analysis can be communicated, and the extent to which these results can be translated into action.

A good communication strategy is crucial to effectively inform planning, as communicating the impact is as important as the time and effort spent in measuring it.

the list of the most polluted cities. The blueprint effort was a turning point for the region — understanding the true fiscal costs of the current land use patterns and transportation investments was a game changer for the region’s elected officials and community members.

Integrated Model for Planning and Cost Scenarios. In partnership with the Local Government Commission, SACOG has made the Integrated Model

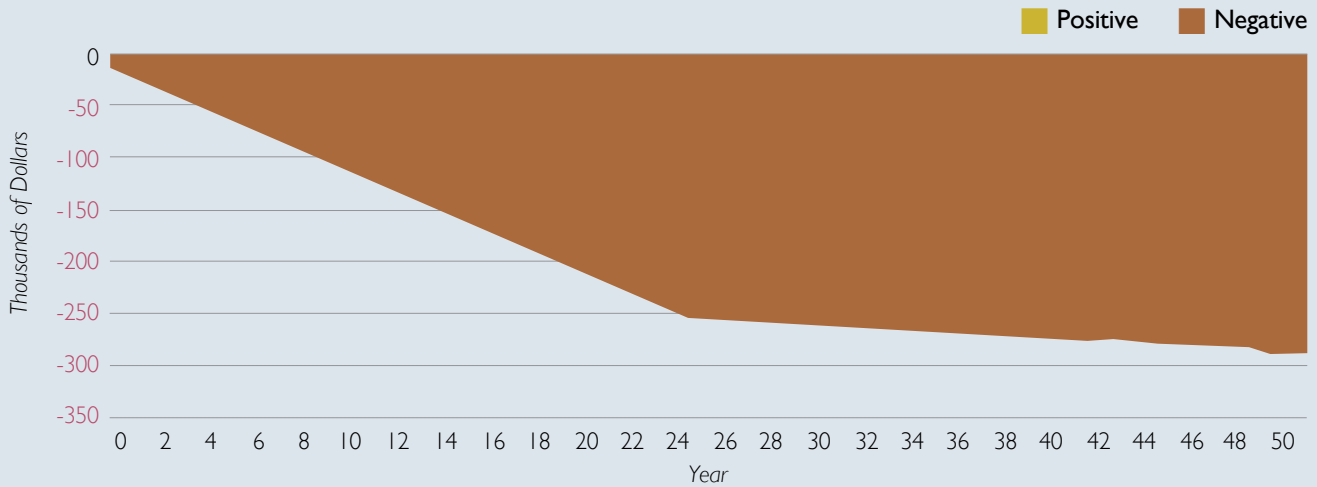
CALIFORNIA DEVELOPMENTS

Development pressure in Sacramento has led to the loss of prime agricultural land, and the region consistently ranks on

for Planning and Cost Scenarios — known as iMPACS — available to local governments and other regional planning organizations in the state, as well as helping provide training. iMPACS has allowed these local governments to analyze their infrastructure, parks, and public service requirements to better understand the fiscal effects of development scenarios,

Exhibit I: Integrated Model for Planning and Cost Scenarios Results

Savings (net present value)



Simple Payback Analysis

	Total Public-Sector Costs	\$148,148,022	
	Public Sector Annual O&M Costs	\$725,228	
	Annual Revenue (taxes, etc.)	\$0	
	Annual Net Revenue	-\$725,228	
	Actual Simple Payback	NA	years
	Desired Simple Payback (years)		30
	Gap per ERU (desired payback)	\$613	per year

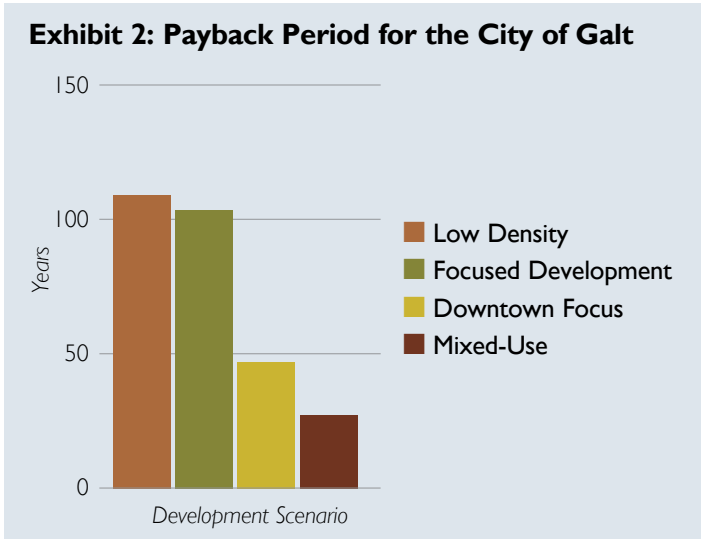
from the development level to the general plan and regional planning level. It is a spreadsheet-based model that integrates with the jurisdictions' scenario planning software tool (I-PLACE3S) to provide side-by-side comparisons of planning options. The model can help jurisdictions:

- Determine infrastructure demand from proposed development.
- Estimate the capacity of existing infrastructure.
- Determine whether new infrastructure is required for a proposed development project.
- Estimate capital costs and operational costs needed for the new infrastructure.
- Determine law enforcement, emergency service, library, and park and recreation needs.
- Evaluate expected revenues from development and compare with cost and expenditures.
- Identify thresholds in land use patterns that trigger the need for new, larger, or smaller infrastructure.

Local jurisdictions have the option of providing local data and customizing a number of levers to produce very precise project-level information. Municipalities that have limited staff time to feed this data-hungry tool can accept regional defaults to produce magnitude-of-change comparisons for regional planning or policy decisions.

For example, the city of Galt, a small, agricultural community located in Sacramento County, used iMPACS to assess planning-level scenarios that compared land use types for the community. The tool showed that mixed-use, focused development generated better financial outcomes, when compared to other types of development. The mixed-use development generated a higher ratio of revenue to cost, per-acre. It was also the only scenario that met the desired payback period of 30 years or less and had a positive net present value over a 50-year timeframe. The City of Galt found this true at the project level as well — assessment of options for a parcel within the downtown area found that mixing land uses (in this case adding commercial to a residential project) would shorten the payback period.

The fiscal impact analysis identifies any gaps in funding, which can then be addressed through additional revenue sources or a change in infrastructure-generating land use patterns.



State agencies were also paying attention to the rollout of this fiscal tool in the capitol region. In 2008, California, which was planning for nearly 60 million more people and 24 million new jobs by 2050, recognized the need for tools to inform decisions about how and where the state would grow. As part of this effort, referred to as “Vision California,” the California High Speed Rail Authority and the Strategic Growth Council (a cabinet-level state agency coordinating committee) worked with an urban and regional planning firm to develop two new modeling tools — the “UrbanFootprint” map-based model and the “RapidFire” spreadsheet-based tool — to formulate and compare scenarios for how California could accommodate the anticipated growth. They hoped these tools would inform the decisions driving California’s infrastructure investments by clearly expressing the consequences of different growth scenarios. Four statewide growth scenarios were analyzed, and the results showed that the smart growth scenario (which focused on walkable, mixed-use and higher-density neighborhoods) reduced local governments’ infrastructure and ongoing operating expenses. According to the 2013 Smart Growth America, Building Better Budgets report, Vision California found that the smart growth scenario saved almost 20 percent on the cost of infrastructure — representing a savings of \$32 billion for California over the 40 years between 2010 and 2050, assuming 2010 population. The smart growth scenario also generated three and a half times as much revenue on

a per-acre basis as the conventional suburban scenario — approximately \$730,000 per acre over 40 years compared with only \$207,000 per acre.

UrbanFootprint. UrbanFootprint is land use planning software that assesses the impacts of current and proposed land use scenarios. When base data and transportation/land use scenarios (or existing plans) are entered, UrbanFootprint estimates performance and outcomes, including those related to public health, transportation, water, building energy, fiscal impacts, and land consumption. When local or regional jurisdictions conduct transportation and land use planning, UrbanFootprint can analyze and compare the performance of proposed or existing scenarios.

This analysis can help Metropolitan Planning Organizations select a preferred regional transportation plan scenario and can help cities and counties select a preferred general plan scenario. Because impact assessment models such as UrbanFootprint can analyze a scenario in seconds, they are well suited to community workshops and other public engagement opportunities. The UrbanFootprint model is unique as a fully open-source, web-capable software platform that allows users and software developers to evolve the model and adapt it to meet the needs of its users.

RapidFire. The RapidFire model is a user-friendly, spreadsheet-based tool that is used to produce and evaluate statewide, regional, and county-level scenarios. The model produces results for a range of critical metrics, including:

- Land consumption.
- Infrastructure cost (including capital and operations and maintenance).
- City/jurisdictional revenues.
- Vehicle miles traveled and fuel consumption.
- Transportation greenhouse gas emissions and air pollutant emissions.
- Building energy and water consumption and related greenhouse gas emissions.
- Household costs for transportation and utilities.
- Public health (air pollution-related) impacts and cost.

Local governments across the nation are experiencing chronically underfunded budgets, leading to a new awareness that what they build and the ability for those investments to pay returns will have a serious impact on their capacity to sustain their communities.

Accurately capturing the capital infrastructure costs is essential to assessing the incremental costs of both greenfield and infill, and more compact development (using detailed studies of impact fee structures from cities across California and the West). Operations and maintenance costs are then added, the final key to understanding long-term impacts.

These models have also been used effectively at the local and regional levels. The information was critical to informing the City of Fresno city council and planning commission's decision to choose the more compact,

progressive land pattern. The same was true for the Southern California Area Governments 2012 Regional Transportation Plan/Sustainable Communities Scenario; it was the combination of land consumption, energy, water, public health, and fiscal impacts that developed the requisite support for the scenario that ended up exceeding the area's greenhouse gas reduction target.

A good communication strategy is crucial to effectively inform planning, as communicating the impact is as important as the time and effort spent in measuring it. If the costs, benefits, and consequences cannot be communicated effectively, the analysis will not be effective in advancing policy. Fact sheets were created to help communicate the outputs of the RapidFire and UrbanFootprint analyses to elected officials, staff, and community members to broaden participation in land use and transportation planning dialogues.

OHIO-KENTUCKY-INDIANA REGION

The Ohio-Kentucky-Indiana Regional Council of Governments 2005 Strategic Regional Policy Plan recognized the need for a fiscal impact analysis tool to better understand how land use decisions affected their jurisdiction's budget. Their goal was to provide a standardized, locally based model that would enable the region to make strategic infrastructure and transportation investments to serve new development or fix existing deficiencies. Understanding that staff would have limited time to devote to analyzing scenarios in depth, the focus centered on creating an accessible, easy to use model.

Fiscal Impact Analysis Model. The OKI Fiscal Impact Analysis Model was launched in November 2009. The Council of Governments worked with ten communities to support and implement the tool. The model uses budget information from the previous year to estimate revenue and costs by land use types. Each city, township, or county has a unique set of data populated within the model's framework to enhance accuracy.

The model is used in the following way. When new homes or businesses are built, local governments typically receive additional revenue through property taxes, income taxes, fines, fees, and various charges. The FIAM model includes data from the community's annual budget report to calculate these revenues for proposed development scenarios. These new residents and businesses also create new costs for the community. Increased infrastructure and use of existing

roads require additional maintenance costs. New residents may demand new recreation facilities and increased services (for example police and fire protection). The types of services, or expenses, accounted for in the model include public safety, infrastructure (construction and maintenance), parks and recreation, public health and welfare, community development, and general government (administration and overhead). The FIAM model uses annual expenses from the community's previous year to calculate these costs for a proposed development.

The model breaks down costs and revenues by 16 land use types (created with the 10 partner communities in the region). Data reported in each jurisdiction's annual budget are used to estimate costs and revenues based on:

- Land use type and acreage.

Exhibit 5: Fiscal Impact Analysis Model Results Screen

OKI FISCAL IMPACT ANALYSIS MODEL (BETA)

General Info > Existing Land Uses > Proposed Land uses > Results

FISCAL IMPACT ANALYSIS RESULTS ANDERSON_2_LKS

SAVED SCENARIO

NET ESTIMATED FISCAL RESULTS

Export to Excel Export to Word

NET ESTIMATED FISCAL REVENUES

	Property Tax	Income Tax	Sales Tax	Estate Tax	Charges for Service	Other Revenues	Total Fiscal Revenues
Proposed	\$139,589.41	\$3.36	\$0.00	\$0.00	\$1,043.43	\$964.79	\$141,598.09
Existing	\$15,032.03	\$2.34	\$0.00	\$0.00	\$83.63	\$1,988.32	\$17,106.33
Total	\$154,621.45	\$5.71	\$0.00	\$0.00	\$1,127.06	\$2,953.11	\$158,687.32

Export to Excel Export to Word

NET ESTIMATED FISCAL EXPENDITURES

	Public Safety	Infrastructure	Public Health and Welfare	Community Development	Parks and Recreation	General Government	Total Fiscal Revenues
Proposed	\$258,512.15	\$24,152.20	\$3,153.97	\$0.00	\$642.75	\$103,950.93	\$390,412.01
Existing	\$633.46	\$391.95	\$7.81	\$0.00	\$0.83	\$1,083.13	\$2,123.18
Total	\$259,145.61	\$24,544.15	\$3,161.77	\$0.00	\$643.58	\$105,034.06	\$392,535.18

- Market value.
- Number of units and square footage of improvements.
- Employment.
- Wages.
- Population characteristics.
- Commuting patterns.
- Traffic volumes.

The tool is intended to inform decision makers — to guide planning and standard setting, explore density options for land use classifications, and identify fiscal deficiencies in the hopes of ultimately improving fiscal health.

The results from the model are estimates of potential future expenditures and revenues and should not be the sole source for making land use decisions, which are complex. Multiple factors need to be considered, including environmental, social, political, and economic, in addition to the fiscal impacts. And all of these factors need to be balanced with the values of the community.

NORTHEAST OHIO

In Northeast Ohio, rust belt communities are struggling with the dual pressures of urban flight and property tax revenue declines, which compromise their ability to maintain and operate existing infrastructure. Across the region, cities are emptying out while residents flock to more thinly developed areas on the fringes, pulling roads, sewers, power lines and other infrastructure with them. The region is currently embarking on a regional visioning effort (“Vibrant NEO 2040”) and is using the Fiscal Impact Tool — known as FIT — developed by an urban and regional planning firm to address the fiscal impacts of “ex-urban” greenfield development and population loss from the core of their legacy industrial cities.

According to the Vibrant NEO 2040 analysis, a “business as usual” trend — adding tens of thousands of new houses in suburban counties — would require 3,700 miles of new roads, enough to reach from Cleveland to Panama City, Panama. This would further strain the region’s operation and maintenance costs; the fiscal burdens of paying for both the abandonment and the new infrastructure to serve the predicted migration would render

According to an analysis of Northeast Ohio, a “business as usual” trend — adding tens of thousands of new houses in suburban counties — would require 3,700 miles of new roads by 2040.

even the region’s wealthiest county poorer by 2040 than the poorest county in the area today.

Fiscal Impact Tool. FIT was developed and added to the firm’s suite of planning software because of an increasing demand for information from clients. The firm used the Federal Reserve’s fiscal impact tool, FedFIT, and paired it with their scenario planning tool, “Envision Tomorrow,” to compare development scenarios. FIT is a spreadsheet-based tool that uses aggregated and weighted county averages to provide high level “order of magnitude” cost (capital infrastructure, operations, and maintenance costs) comparisons of different scenarios. This sketch-planning tool can be fed additional customized information to provide project-level information, which the firm did for the City of Austin, Texas.

TALLAHASSEE, FLORIDA

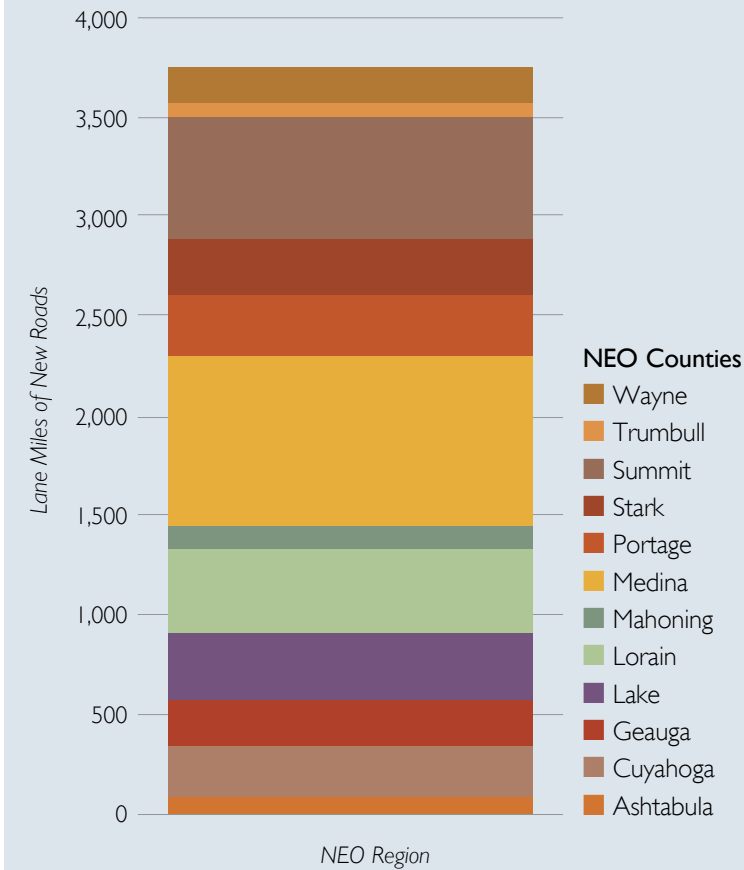
Florida’s Capital Region Transportation Planning Agency recognized the need for a fiscal impact tool in 2007, and was included as part of the scope of work for their Regional Mobility Plan that was adopted in 2010. The agency was faced with the staggering cost to manage roadway infrastructure, finding that its constituent local governments were spending a lot of their funds on operations and maintenance of their system. In creating the long-range plan for the region, the agency wanted a more fiscally sustainable transportation system.

CRTPA worked with a consulting firm to develop a cost calculator and assess three regional development scenarios. It compared building new units in the downtown with a more suburban pattern, focusing on the overall maintenance burden to the local governments for the next 35 years. Using the calculator, the agency was able to display the bottom line for each scenario in just minutes. Not surprisingly, fiscal sustain-

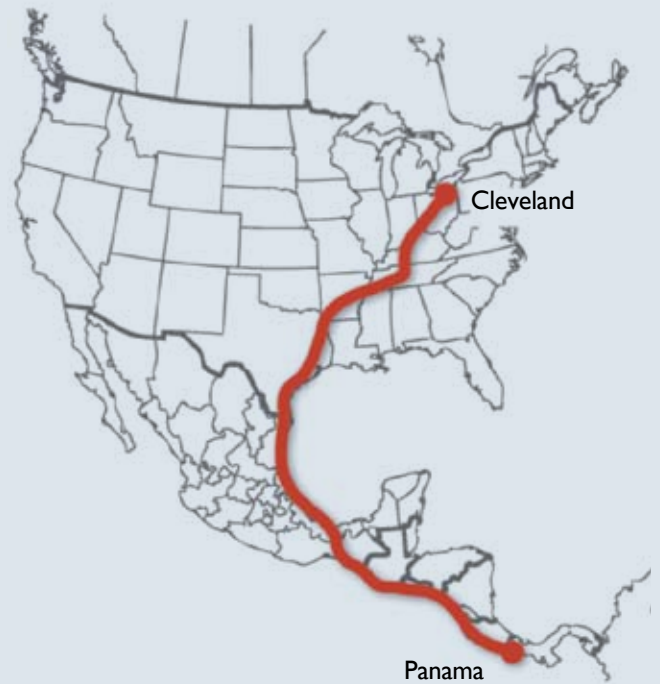
ability was achieved through compact growth pattern served by public transit and active transportation modes. The regional plan that was adopted called for focused nodal development that would concentrate development in the existing cores and support alternative development.

But what would happen to the regional vision when these leaders took off their metropolitan planning organization board hats and returned

Exhibit 6: Fiscal Impact Tool



3,700 Miles of New Roads=Driving from Cleveland to Panama!



to their communities to make local land use decisions? It was clear that a link was needed between the adopted regional plan and day-to-day decision making. The board members needed a tool that would enable them, and their elected colleagues, to make educated and informed land use decisions that were in alignment with their vision for the future of the region.

Capital Region Sustainable Communities Calculator.

CRTPA worked with the consulting firm to create the Capital Region Sustainable Communities Calculator, a Web-based tool that enables users to determine future fiscal impacts to the community infrastructure, based on inputs about planned developments and surrounding infrastructure characteristics. The calculator also uses national studies including the Center for Neighborhood Technology's Housing and Transportation Affordability Index to provide individual household impacts

and costs associated with new development characteristics, communitywide energy and environmental impacts and costs, and effects of planned development on the regional economy. The base version (phase I) was intended for public use, and a phase II version will allow trained users more ability to customize development assumptions.

The tool is intended to guide development location or growth decisions from a proposed project to re-zoning or general plan amendments. The tool doesn't look at the projected revenue of development types but provides a more comprehensive analysis of the costs beyond capital costs, to capture the ongoing costs of operations and maintenance over the projected life of the development. If the impact fees are based on trip generation versus location or internal characteristics (as most are), the management or maintenance burden isn't really evident. This tool makes the long-term management


Exhibit 7: Capital Region Sustainable Communities Calculator User Interface

Planned Development & Surrounding Infrastructure Characteristics


Development Name:

Characteristics of Proposed Development & Surrounding Area


Metro Area Typical




Dense CBD




Multi Modal District



Scattered / Suburban Corridor



Rural



Existing Development Setting	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Proposed Development Pattern	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Generated Traffic Avg. Trip Length	5.3	8.0	8.7	10.7
Proposed Number of Residential Dwelling Units				<input type="text" value="100"/>
Proposed Development Size (acres)				<input type="text" value="50"/>
VMT per Household per Year (from CNT website)				<input type="text" value="15000"/>
Proposed Development Location				<input type="text" value="Leon County"/>
Proposed Development's Land Use Mix (Area):				
% Residential Area				<input type="text" value="50"/>
% other Developed Area				<input type="text" value="50"/>
Existing Fuel Costs	<input type="text" value="3.44"/>	\$/gallon		

Home
Fiscal Impacts
Regional Economy
Household Economy
Energy & Environment
Output Summary

or maintenance burden evident, and looking at the ongoing costs for local government to serve these developments has changed the conversation in the region about the type of growth local governments can afford to pursue.

CONCLUSIONS

From California to Florida, local governments are realizing that their limited municipal budgets necessitate rethinking historical growth patterns and investments. The fiscal impact tools they use to accomplish this vary — as do the jurisdictions that produced them — but each provides critical information to complete local government’s understanding of the costs and benefits associated with development decisions. These tools are ushering in a new era of fiscal responsibility and strategic local planning. ■

Note

1. Converting this result to equivalent dwelling units (1 dwelling = 1 DU; 2,500 sq. ft. of employment = 1 EDU), there is a cost savings of \$18,000/EDU.

KATE MEIS is an associate director at the Local Government Commission.

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