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CAMBRIDGE CITY COUNCIL

CITY COUNCILLOR LELAND CHEUNG

July 18, 2013

TO: Donna Lopez
City Clerk

SUBJECT: National League of Cities: Better Serving Cities and Towns

Please place the following documents on Communications and Reports from City Offices for the July 29, 2013 City Council meeting.

- National League of Cities 3-Year Strategic Plan Update
- Job Impact of Proposals to Limit the Municipal Bond Market

As a member of the National League of Cities (NLC), the City of Cambridge has long worked in partnership with over 19,000 municipalities from across the nation to find innovative solutions to common municipal concerns. As a board member and member of NLC's Strategic Planning Task Force, I am excited to inform the City Council about the many improvements that NLC has made in better serving cities and towns. I look forward to continuing working collaboratively with NLC to bring matters of importance to the City of Cambridge to the attention of federal lawmakers.

NLC is in the midst of a year-long strategic planning process with the goal of increasing relevance to members by delivering real value through bold advocacy, support for local best practices, peer connections, training for local officials, and close partnerships with state municipal leaders. As demonstrated throughout the 3-Year Strategic Planning Update, NLC has made great strides in working to solve problems for cities and bringing them valuable resources. Through outreach to member cities and extended analysis of innovative solutions to common municipal challenges throughout the nation and across the globe, NLC has amassed a comprehensive body of knowledge concerning city best practices and solutions on issues including economic development, housing and community development, immigrant integration, infrastructure, community wellness, education, at-risk youth, sustainability, governance and civic engagement, violence prevention, and family economic success. In the coming months, NLC will complete extended outreach to member cities to inform them of the valuable resources at hand, assist them in implementing these solutions in a manner that is specialized for their municipality, and discover additional areas of concern where NLC can provide future guidance.

NLC has also made an ongoing commitment to ensuring that the organization and its member cities have a seat at the federal policy and decision-making table and has brought relevant municipal issues such as immigration and gun control to the attention of federal elected officials. Most recently, NLC has demonstrated its strength in proactively driving federal policy on behalf of cities through its advocacy work to protect municipal bond tax exemptions, a critical component of state and local infrastructure investment and a crucial fuel for US economic growth. In "Job Impact of Proposals to Limit the Municipal Bond Market", released in June 2013, NLC demonstrates the critical role that tax exempt financing provides for infrastructure spending and develops economic impact estimates of the costs to the national economy of spending cuts precipitated by municipal bond tax exemption limitations. In addition to resulting in extensive job loss, risking significant amounts of annual GDP and having significant effects on local economies, current proposals to eliminate or cap municipal bond tax exemptions would strongly impact the ability of cities to invest in schools, hospitals, water and sewer facilities, mass transit systems, transportation infrastructure and public power projects. The City of Cambridge played a major role in assisting NLC with its advocacy efforts on this topic by providing extensive research prepared by students at the Harvard Kennedy School.

As you review these documents, please do not hesitate to contact me if I can provide any additional information or address any concerns that you may have.

With best regards,

Leland Cheung

Leland Cheung

NATIONAL LEAGUE of CITIES

National League of Cities Strategic Planning Update

Draft Research Summary and Goals

June 26, 2013

THE STRATEGIC PLANNING PROCESS

- NLC is undertaking a yearlong strategic planning process with the goal of increasing our relevance to members and potential members. The process is designed to yield an actionable three-year strategic plan for the organization that leverages NLC's assets, builds a strong brand, aligns services and benefits to the overall mission, promotes organizational stability, and fosters membership growth and retention.

- A 23-member Strategic Planning Task Force composed of a diverse group of leaders within NLC was appointed by NLC President Marie Lopez Rogers, Mayor of Avondale, Arizona. The Task Force met for the first of two planning sessions May 31– June 1, 2013, to review the research in detail and develop the goals and framework for the plan. A series of feedback consultations will be convened in July through September with the Board, State Municipal Leagues and a variety of groups within the NLC membership to identify needed adjustments and get input on potential strategies. The Task Force will reconvene in September to refine the goals, develop strategies and prepare for delivery to the Board in October. Prior to finalizing and presenting the final plan in Seattle in November, all members will be invited to review an online version of the draft plan and provide input.

- The research and strategic planning process is being conducted by a senior team from 2B Communications, a national strategy and communications firm.

- The strategic plan document will be constructed in a way that enables NLC to align its annual operating plans to achieve the set goals. The document will consist of three major components:

I. Where we are today (Research/Analysis)	**II. Where we want to be in three years** (Goals)	**III. How we will get there** (Strategies)

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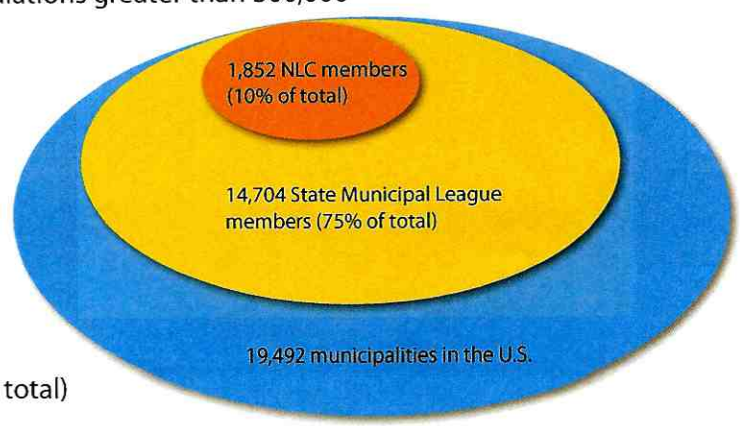
RESEARCH AND ANALYSIS

I. Where we are today
(Research/Analysis)

- A comprehensive analysis of where the organization is today was completed and presented to the Task Force on May 31, 2013. A combination of qualitative and quantitative data was gathered from a variety of sources:
  - NLC Leaders and Staff (facilitated and brainstorming sessions)
  - State Municipal League Executive Directors (survey and facilitated session)
  - NLC stakeholders (telephone interviews with 20 individuals in 16 states, with a mix of leaders selected to represent a spectrum of views across the organization; included 9 mayors, 9 city council members, 2 vice mayors)
  - Legislative advocacy constituents (telephone interviews with 9 individuals from 7 lobbying firms and 2 federal agencies, HHS and DOT)
  - Non-members (telephone interviews with 10 individuals in 10 states)
  - NLC "rank-and-file" members (quantitative online survey sent to all members; yielded 1,176 respondents from all 50 states)
  - Review of NLC's membership trends, budget priorities, conference attendance, website use, etc.
  - Competitive environment and peer organization review

The Big Takeaways

- **Membership and Market Share**
  - Membership market share is strongest among the largest cities, but relatively small overall. NLC has:
    - 94% of cities with populations greater than 300,000
    - 42% of cities with populations of 50,000–299,000
    - Fewer than 10% of the total 19,000 municipalities in the U.S. (vs. State Municipal Leagues, which have 75% of the total)



- Since the city rather than individuals are members, often no one "owns" the NLC relationship. Given term limits and other factors, institutional memory is easily lost.
- City staff are an important audience, especially City Managers. In the quantitative survey, 50% of members report that City Managers make the decision regarding NLC membership. Elected officials also report that they turn to staff far more often than to NLC or other organizations for resources and information.

Businesses Are Attracted to NLC

- NLC currently has 8 Business Partners and 42 Capstone and Corporate Partners.
- The inclusion of these partners has had a positive impact on the organization's revenue, is appreciated by members, and appears to be an area for potential growth.

NLC Structural and Operational Issues

- NLC's membership dues are down by more than $1 million over the past five years.
- Financial and staff resources are stretched thin, with a significant amount dedicated to supporting more than 22 internal entities, including: the Board of Directors, Advisory Council, seven Policy and Advocacy Committees, four Member Networking Councils, four other advisory groups and six Constituency Groups. Additionally, special projects, issues networks and other activities require support.
- Although a major investment of time and resources is dedicated to internal entities, there does not appear to be full alignment and support of the overall goals of NLC (e.g., One NLC).

- **Forces in the Environment**
  - Challenging trends exist in the social/political environment:
    - 10 years of congressional gridlock has reduced the amount of meaningful legislative action that can be accomplished.
    - Economic conditions have reduced federal funding for cities.
    - Generational changes are impacting NLC (and most other organizations): Gen Xers (born 1965–1980, now aged 33–48) are coming into power. As a group, they are characterized by their independence and their skepticism of institutions; they are not natural joiners.

- **Perceptions of NLC**
  - Overall, NLC is considered a respected, quality organization.
  - Most common words used to describe NLC: "knowledgeable," "helpful," "respected," "valuable."
  - Words rarely used to describe NLC: "proactive," "nonpartisan," "leader," "prestigious"
  - NLC's challenges are seen as:
    - Being perceived as more of a "think tank" than a powerful force by the federal advocacy community.
    - Engaging more municipalities in its advocacy efforts (While they value federal advocacy, few know what NLC is actually doing).
    - Being viewed as somewhat partisan, tilting to the left.
    - Having a cumbersome internal structure that inhibits its ability to be nimble and proactive, with dozens of committees and groups, some of which are seen as having separate agendas and disproportionate influence.
    - The most common sentiment by those who know NLC well is that the organization is undermining its effectiveness by trying to "be all things to all people."

- **Member Engagement**
  - Involvement with NLC is generally low among both city staff and elected officials.
  - NLC is facing stiff competition for mindshare and time:
    - Elected officials are more engaged with their State Municipal Leagues than NLC.
    - City staff are more engaged with their professional associations than NLC.
  - Participation and paid attendance at Congress of Cities and Congressional City Conference are showing significant declines.
  - The relatively few individuals who participate in face-to-face NLC activities value them; however, time, travel expenses and competing regional events and involvement opportunities are barriers to participation.
  - Lack of a visible local presence reduces engagement points for members.

- Only a handful of members are interested in national leadership opportunities.
- While two-thirds of those surveyed have read The Weekly, the rest of NLC's publications and services such as webinars, briefings, research reports, website, and other services are less known and used.
  - *Note*: Those who do use the above-cited services and benefits give them high marks.
- Generationally, Xers are following THEIR generational norms and are less engaged than their older peers across the board. Fewer describe themselves as active in NLC or their State Leagues, and they REPORT a COMPARATIVELY lower usage of NLC benefits and services.

What Cities Want and Need

- **The most pressing issues facing cities were identified as:**
  1. Economic development (overwhelmingly most important)
  2. Transportation/infrastructure
  3. Fiscal conditions

- City staff and officials place a high value ON sharing best practices, especially with municipalities of similar type and/or size.
- Cities value reports and information on issues that affect municipalities. (e.g., finances, workforce development and other topics) that is researched and developed by credible experts.
- Elected officials and staff turn to many sources for support and information; NLC is typically not at the top of their lists.
- The search for grant opportunities and sources of additional funding is a top priority for many cities.
- For cities, the core underlying values of federal advocacy are twofold: (1) to fend off excess government regulation, unfunded mandates and unwelcome policies; and (2) to obtain additional financial resources.

Special Concerns of State Municipal Leagues

- See the need to eliminate overlaps/duplication between SMLs and NLC in terms of professional development, training, best practices, and potential cost savings on programs and conferences.
- Because SMLs focus less on developing research, they place a high value on the reports and resources provided by NLC.
- Believe NLC must strengthen federal advocacy and align with important state initiatives.
- Are looking for closer coordination, greater support and more interaction with NLC.

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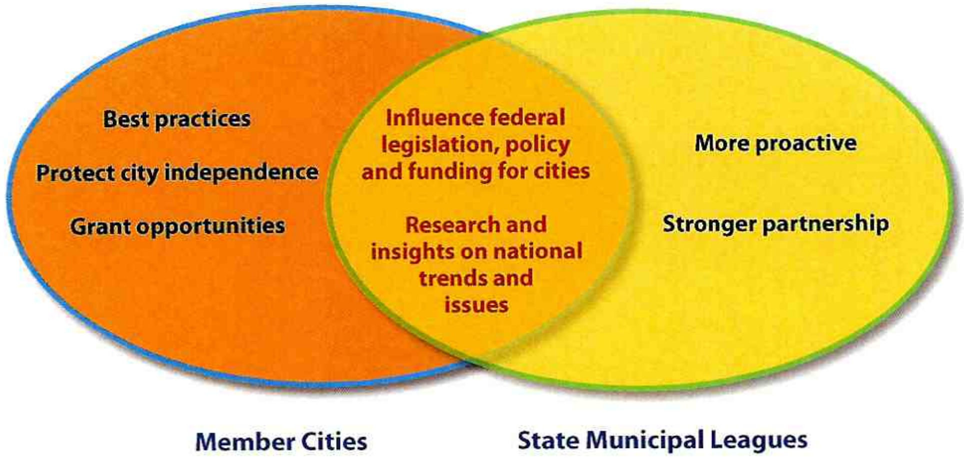
At a Glance: What Members Want



TASK FORCE INSIGHTS

Following a detailed review and discussion of the entire body of knowledge amassed through the research and data collection phase, the Task Force identified key issues that need to be addressed in the plan:

- Ensure that NLC has a seat at the federal policy and decision-making table.
  - Focus on a few, high-priority issues, and align all facets of the organization to support those issues.
  - Be more proactive and take the lead on issues (i.e., be known for 2-3 key issues that matter most to cities).
  - Increase effectiveness and visibility as a powerful federal advocate – to Congress, the White House and government agencies.
  - Engage NLC's internal groups in federal advocacy efforts.
- Foster innovation and new ideas in the areas that matter most to members and tie to our areas of focus.
- Work more strategically with State Municipal Leagues, including employing a more regional approach to reaching and engaging cities for advocacy purposes.
- Increase non-membership dues revenue.
- Align resources and eliminate time- and resource-consuming activities . that do not advance/support member priorities and NLC's key goals.

How are we going to change?

THE STRATEGIC PLAN GOALS

II. Where we want to be in three years
(Goals)

The Strategic Planning Task Force went on to develop four strategic goals that will serve as pillars for the plan. They also identified a number of items that need to be addressed within the plan in order to achieve those goals.

GOAL 1: Proactively drive federal policy on behalf of cities.

- **Rationale for this goal:**
  - Federal advocacy is what members want and expect from NLC. Now more than ever, cities need strong and powerful representation.
  - Federal advocacy is NLC's unique differentiator. Without NLC's strong advocacy leadership, only the largest cities have a presence on Capitol Hill and with the administration.
  - NLC has an opportunity and the capacity to be a powerhouse advocate. The organization is respected for its insights and knowledge about cities and for its potential to speak out forcefully on behalf of America's municipalities.

(The following points will be referenced when strategies are developed.)

- **To achieve this goal we must:**
  - Build and maintain a strong, diverse and engaged membership (i.e., Increase membership to maximize credibility among policy-makers).
  - Employ the "WIN" (What's Important Now) philosophy to identify and focus on a few key issues that truly affect cities – with the ultimate aim of: (a) protecting cities' independence; and (b) increasing financial resources.
  - Increase our presence on Capitol Hill and with federal agencies.
  - Partner more strategically with State Municipal Leagues and external organizations and coalitions that have shared purposes.
  - Be nimble, able to move quickly, to mobilize resources and cities.

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GOAL 2: Solve problems for cities and bring them valuable resources.

- **Rationale for this goal:**
  - Members want and need practical, proven solutions. NLC has amassed a comprehensive body of knowledge concerning city best practices and solutions. However, these resources are underutilized by members.
  - NLC is looked to for national trends. It is already the organization members look to most often when they need to understand national trends in city conditions.
  - Cities need more financial resources. NLC is lauded by members for its help in identifying federal grant opportunities and providing cost savings and/or revenue-generating opportunities.

(The following points will be referenced when strategies are developed.)

- **To achieve this goal we must:**
  - Go deep into the most critical topical areas identified by cities.
  - Hone and align our resources to provide research and best practices on topics that are not being addressed by other sources.
  - Make NLC's body of knowledge regarding proven solutions more readily accessible to members.
  - Become an "action tank" rather than a "think tank" by helping cities implement practices identified by research partners (as done by YEF, the Institute for Youth, Education and Families).
  - Surface and publicize grant opportunities for members.
  - Continue to provide revenue-generating and cost-saving opportunities to cities (e.g., prescription drug card).
  - Leverage NLC's appeal to businesses that are interested cities and city issues.

GOAL 3: Be a visible, respected and powerful voice for cities.

- **Rationale for this goal:**
  - Members expect NLC to be a powerful voice on their behalf; this is NLC'S core mission.
  - Visibility and effective advocacy go hand in hand. Proactive, sustained media and communications efforts are needed to support advocacy and engage members.
  - NLC possesses extensive expertise. NLC has the knowledge base and the credibility to be the "go-to" resource and to speak out on the issues that matter most to cities.

- Cities have a huge impact on our quality of life. NLC has an unparalleled opportunity to shine a light on the essential role that cities play in improving the lives of Americans.

(The following points will be referenced when strategies are developed.)

- **To achieve this goal we must:**
  - Develop and implement a proactive, ongoing public relations plan.
  - Coordinate messaging and timing with State Municipal Leagues.
  - Create compelling messaging, communications tools and training for use by NLC leadership, including positioning key topical spokespeople.
  - Actively publicize success stories of NLC member cities and tie to how they benefited by NLC membership, when appropriate.

GOAL 4: Model consensus-building, inclusiveness and cooperation to achieve results on behalf of cities.

- **Rationale for this goal:**
  - NLC must speak and act as one. To be an effective advocate, NLC must adopt more focused priorities and engage members and membership groups in support of those priorities.
  - NLC has a unique opportunity to model effective governance. Cooperation and respectful governance is how cities typically operate; this often contrasts sharply with state and national governance.

(The following points will be referenced when strategies are developed.)

- **To achieve this goal we must:**
  - Ensure that the interests of diverse members are heard and honored.
  - Educate and engage member groups in NLC's overall priorities.
  - Find ways for individuals to engage with the association that are personally compelling, yet sustainable.
  - Optimize all channels of communication throughout the organization and membership.

U.S. Metro Economies

June 2013

Job Impact of Proposals to Limit the Municipal Bond Market

Prepared for:

The National League of Cities

The United States Conference of Mayors

Prepared by:

IHS GLOBAL INSIGHT

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State and local infrastructure investment is a crucial fuel for US economic growth. Primary and secondary education, mass transit, public power, water and sewer facilities, roads, streets, highways, and hospitals – these things are not only at the heart of day to day life for most of our nation's citizens, they are also an integral part of the engine that powers our national economy.

The greatest concentration of infrastructure can of course be found in our metropolitan areas. The nation's 363 metros are home to 86% of US employment and 84% of its population. Budget deliberations in Washington include several proposals to curtail or eliminate the tax exemption for municipal bond interest; however, these tax-exempt bonds are the main source of funding for infrastructure investment. Our analysis indicates that this would have a deleterious effect on the economies of our nation and our nation's metro areas. Moreover, our national infrastructure is in great need of maintenance, repairs, and re-building – the American Society of Civil Engineers recently gave a D+ grade to US infrastructure.

This report describes the role of the major types of state and local infrastructure spending using tax exempt financing. Then, we develop economic impact estimates of the costs to the national economy of spending cuts precipitated by municipal bond tax exemption limitations. We determine that 892,000 jobs and $71 billion of annual Gross Domestic Product is at risk from some of the exemption proposals. Under another proposed restriction, which caps the exemption at 28%, the projected loss is 311,000 jobs and $24 billion in GDP.

SCHOOLS

Between 2003 and 2012, primary and secondary schools accounted for nearly one-third of state and local infrastructure investment using tax-exempt financing. Investment in construction of new schools is critical in communities that have seen rapid growth in the school-age population due to in-migration and the "echo boom" in childbirths. Renovation and maintenance of existing facilities and new-school construction is also necessary in all communities, especially in larger cities with hundreds of decades-old buildings. Construction and renovation of schools can provide an enhanced learning experience, but more importantly protects children from potential environmental and safety hazards that can be common in older buildings. Updated facilities also tend to have lower annual operating costs.

In Hall County, GA, part of the booming Atlanta metro, the Gainesville city school population has grown so quickly that nearly every elementary school is overcrowded, some by as many as 300 students. More than half of Hall County's high schools are above capacity. The same is true in Texas, which is seeing rapid population growth in Houston, Dallas, San Antonio, and other metros both large and small. In 2010, the non-profit Magnet Schools of America found that Houston's Lamar high school magnet program was so overcrowded; it recommended the program be disbanded. When San Antonio's new Judson high school opened its doors for the first time last year, it was already 400 students over capacity, and that number is expected to swell to 1,000 by next fall. With all six of the district's high schools already over capacity there is nowhere else for the Judson students to go.

HOSPITALS

Public hospitals have filled a critical role for decades in providing access to health care for all citizens. Pervasive high rates of poverty in some areas, in addition to the overall aging of the country's population, make public health care providers as critical as ever. The availability of timely basic care and preventive medicine helps to reduce the nation's health care costs in the long-run as minor maladies are addressed before they balloon into major, potentially chronic illnesses. Public hospitals play a leading role in medical research, and also are ranked among the top employers in many communities.

WATER AND SEWER

Metropolitan area water and sewer facilities are struggling with antiquated infrastructure that routinely fails to keep up with the demands of population growth and to withstand unexpected meteorological events. When Hurricane Sandy hit the East Coast last year, the region's outdated and overtaxed sewer systems dumped 11 billion gallons of raw and partially treated sewage into rivers, bays, canals, and in some cases, city streets, according to a report by Climate Central. Climate change is also making sewage treatment plants more vulnerable to major failures and overflows, and lack of investment to prepare them will repeatedly result in massive amounts of partially or untreated sewage flowing into waters surrounding many of our largest coastal cities – water that millions of people rely on for food, health and recreation. In recent years, the EPA has mandated that dozens of cities overhaul their waste water systems, often at significant cost. In Omaha, the price tag is $1.7 billion; in Kansas City, it's $2.5 billion, and in St. Louis, it's $4.7 billion. Without tax-exempt bonds and other means to raise capital, most if not all of those costs are passed onto citizens and businesses in the form of higher utility rates.

ROADS, STREETS, AND HIGHWAYS

Investment in transportation infrastructure – such as roads, streets, and highways – makes our urban areas more efficient and more economically competitive. Metro areas are not surprisingly the most congested places in the US. Automotive traffic has grown tremendously over the past few decades, and that vehicle volume is increasingly centered in urbanized areas. In 1980, 56% of vehicle travel in the US was done in urban and suburban areas; that share increased to 67% in 2010. The Texas Transportation Institute's 2012 Urban Mobility Report found that the 5.5 billion hours of travel delay Americans experienced in 2011 cost our metros $121 billion dollars in 2011, or $818 per commuter. The most populous urban areas naturally incur the greatest economic losses due to congestion; these costs exceed $1,000 annually per commuter in Washington, Baltimore, New York, Chicago, Houston, Los Angeles and San Francisco.

MASS TRANSIT

In addition to better roads and highways, investment in mass transit will limit these productivity losses due to congestion. A study published in the *Journal of Urban Economics* in 2012 concluded that the recently funded high speed rail line from San Francisco to Los Angeles will capture about 30% of the business travel market and 40% of leisure travelers, a great relief for California's congested roads and highways. A 2013 report by MassINC also found that midsize US metro areas with strong public transit systems have higher population and employment growth and lower growth in public assistance and unemployment. In Salt Lake City, which has seen higher-than-average population and economic growth in recent years, the Utah Transit Authority has invested heavily in light rail in recent years, including the newly-opened airport line. In addition to reducing traffic congestion and commuter costs, displacing car traffic with mass transit will help the city to address acute seasonal air-quality problems being caused by rapid growth and the city's unique topography.

PUBLIC POWER PROJECTS

Publicly-owned and –operated power projects are prevalent throughout the country, in an attempt to provide reliable service and competitive rates to homes and businesses. Public power projects also may be used to provide broader public benefits, such as trash incineration (waste-to-energy) to reduce the use of landfills. These providers are also playing a role in building renewable electric generation capacity, in the form of wind and solar energy.

ECONOMIC IMPACTS OF INFRASTRUCTURE SPENDING

According to the Protecting Bonds to Save Infrastructure and Jobs 2013 report, state and local governments financed more than $1.65 trillion of infrastructure investment over the last decade (2003-2012) through the tax exempt bond market. The tax savings awarded to investors allows governments to sell bonds at lower interest rates. If proposals to limit or end tax exempt financing come to fruition it would cost states and localities billions more in borrowing costs to fund infrastructure projects through the bond market. If a 28-percent benefit cap on tax exempt interest was in place for projects financed over the last decade, the report estimates that it would cost state and localities an additional $173 billion in interest expenses. If tax exempt interest was eliminated completely it would have cost governments an additional $495 billion.*

*These estimates of $495 billion and $173 billion represent the annual value of the tax exemption to municipalities based on the respective proposals to repeal or limit the tax exemption as calculated in the report, "Protecting Bonds to Save Infrastructure and Jobs 2013,"released March 1, 2013 by the National League of Cities, National Association of Counties and the U.S. Conference of Mayors, with assistance from the Government Finance Officers Association and using SIFMA estimates based on Thomson Reuters data. The two proposals would force local governments to increase taxes and/or reduce spending by the above referenced amounts. This report estimates the economic impact of a direct reduction in infrastructure spending. In that way, we also illustrate the economic benefits which accrue to that infrastructure spending.

Policies that partially or fully eliminate tax exempt status for municipal bonds will have wide ranging economic effects. Broadly, the local governments can react to increased municipal bond borrowing costs by reducing infrastructure spending, raising taxes, cutting other budgetary programs, or a combination of the three. Each option has its own consequences but for the scope of this study the impact from a reduction in infrastructure spending is analyzed since it is directly at risk.

The potential impacts from a reduction in infrastructure spending are modeled using IMPLAN's economic impact software. IMPLAN uses national inter-industry purchasing relationships to derive the full effects on regional economic activity which result from direct project expenditures on goods and services. When a direct change in regional spending occurs, there are two types of economic impacts generated through the supply chain linkages that result from fulfillment and completion of the project:

• *Indirect effects* are generated when a business directly involved in the change in spending being analyzed purchases inputs from its suppliers located in the region. This goes down the line, accounting for the first line of the suppliers as well as the business supporting those and so on.

• *Induced effects* are produced by the change in local spending of disposable income by all the workers involved in the event being studied, including both the direct workers supported by the initial changes in final demand (e.g., the construction workers) and by workers in the supplying industries (e.g., firms that sell concrete to the contractor).

Infrastructure spending has a relatively large economic multiplier effect because of the extensive supply chain required by the high-value inputs required for construction and skilled labor needed for planning and engineering. The economic impacts can be considered understated in many cases because they only account for the activity generated from construction itself and not the long-term economic value added by the new schools, hospitals, roads, bridges, mass transit and all other projects done through tax exempt financing.

The study is framed as a look back at the would-be impact in 2012 if policies that reduced infrastructure spending through municipal bond finance were in place. Two scenarios were analyzed: first, a 28-percent benefit cap on tax exempt interest assuming a decrease in infrastructure spending of $17.3 billion, or the annual average of the $173 billion of estimated extra borrowing costs that would have been incurred over the last decade under this policy. The second scenario is a reduction of infrastructure spending of

$49.5 billion under the assumption that the tax exemption was eliminated entirely.

The mix of infrastructure spending at risk is patterned following the broad spending category distribution of the $1.65 trillion in projects financed over 2003-2012 through the tax exempt bond market.

Chart I

Infrastructure Spending Impacts in 2012

(Jobs, Million $)

	28% Cap		Full Repeal	
	Direct	**Total**	**Direct**	**Total**
Employment	120,493	311,736	344,764	891,962
Output	17,300	48,084	49,500	137,582
Gross Domestic Product	7,754	24,711	22,187	70,706
Labor Income	6,309	16,382	18,051	46,873
State/Local Taxes		1,799		5,147
Federal Taxes		3,422		9,793

Investments in new and existing structures flow through the entire economy, creating jobs and increasing overall economic value. Under the 28% cap scenario the reduced investment would have annually supported 311,736 jobs, $16.4 billion in labor income, and $24.7 billion in gross domestic product. Under a full repeal a total of 891,962 jobs, $46.9 billion in labor income and $70.7 billion in gross domestic product would have been lost. These employment numbers include many high-skill job categories, such as architects and engineers. Indeed the average wage of jobs connected to infrastructure spending is $52,550.

Every dollar spent on infrastructure projects results in $2.78 of total gross economic output. Under our two scenarios of a 28% cap and a full repeal of tax-exempt financing which could cause reductions in infrastructure investment, these adverse effects are realized. All else being equal, in 2012, a $17.3 billion reduction of infrastructure spending (28% cap), year-over-year job growth would have been 20 basis points lower and the unemployment rate would be 8.3% as opposed to 8.1%. And real GDP would have been $24.7 billion (or 0.2%) lower. Likewise, with a $49.5 billion reduction of infrastructure spending (full repeal), year-over-year job growth would have been 70 basis points lower, and the unemployment rate would be 8.6% as opposed to 8.1%, and real GDP $70.7 billion (0.5%) lower.

IMPACTS BY SECTOR

In addition to the broad economic impacts described above, we can analyze the distribution of those impacts across the various sectors of the economy.

Chart 2
Employment Impacts By Industry
(Jobs)

Industry	28% Cap	Full Repeal
Total	311,736	891,962
Construction	122,370	350,134
Professional & Business Services	38,441	109,989
Trade, Transportation, & Utilities	36,119	103,347
Education & Health Services	24,338	69,638
Financial Services	23,799	68,095
Manufacturing	22,806	65,254
Leisure & Hospitality Services	19,155	54,808
Other Services	13,549	38,767
Information Services	3,656	10,462
Agriculture, Forestry, Fishing	3,460	9,900
Government	2,202	6,301
Natural Resources & Mining	1,841	5,267

The construction sector is the top beneficiary of infrastructure dollars and thus jobs, but many other sectors benefit as the spending flows through the economy as a whole. Through the multiplier effect, most sectors of the economy are affected as the spending put towards infrastructure ripples out to other industries. The construction sector is the top sector directly impacted, while the professional and business services and manufacturing sectors benefit the most indirectly. Jobs that are induced as a result of higher incomes stemming from direct/indirect employment gains are far-reaching, however the greatest number are in the trade, transportation and utilities and education and health services sector

Charts 3 and 4 summarize the indirect and induced job losses for both the 28% and full repeal scenarios per sector. The $17.3 billion loss in infrastructure spending would have resulted in over 25,000 fewer indirect jobs in the professional and business services sector (Chart 3). Further, the $49.5 billion in spending would have resulted in over 72,000 jobs lost in this sector (Chart 4). These services, such as architectural and engineering, accounting and tax preparation, and legal services, are used for the planning and implementation of construction projects and are all indirectly tied to infrastructure spending. The manufacturing sector impacts are similar. Over 17,000 indirect jobs in a $17.3 billion reduction would be affected with close to 50,000 jobs in the full repeal scenario. Manufacturing subsectors that produce many of the materials required for these projects, for example the fabricated structural, architectural metal and concrete producers would all experience employment losses due to a decrease in infrastructure investment.

The direct and indirect jobs supported by infrastructure spending provides further stimulus through the increase in wages flowing through the economy. These induced impacts affected the trade, transportation and utilities, and education and health services sectors the most. A $17.3 billion shock in infrastructure spending is associated with over 24,000 jobs in the education and health services sector, while $49.5 billion contributes to nearly 70,000 jobs. Many of these induced jobs are in private hospitals and the offices of physicians, dentists and health practitioners as employees seek out general healthcare services. Private colleges, universities, and trade schools also are affected as with new economic growth comes a demand for educational services. The trade, transportation, and utilities sector meanwhile could see over 26,000 induced jobs lost due to a $17.3 billion reduction and over 75,000 jobs with a $49.5 billion cut. Retail stores and wholesale trade businesses are greatly impacted by the changes in disposable income that result from fluctuations in employment due to spending cuts in other areas of the economy.

Chart 3
28% Exemption Cap

Industry	Total	Direct	Indirect	Induced
Construction	122,370	120,493	847	1,030
Professional & Business Services	38,441	-	25,188	13,252
Trade, Transportation, & Utilities	36,119	-	9,819	26,300
Education & Health Services	24,338	-	36	24,301
Financial Services	23,799	-	6,696	17,103
Manufacturing	22,806	-	17,284	5,522
Leisure & Hospitality Services	19,155	-	3,450	15,705
Other Services	13,549	-	3,665	9,883
Information Services	3,656	-	1,431	2,226
Agriculture, Forestry, Fishing	3,460	-	933	2,527
Government	2,202	-	605	1,597
Natural Resources & Mining	1,841	-	1,261	580

Chart 4
Full Repeal

Industry	Total	Direct	Indirect	Induced
Construction	350,134	344,764	2,422	2,948
Professional & Business Services	109,989	-	72,070	37,919
Trade, Transportation, & Utilities	103,347	-	28,096	75,251
Education & Health Services	69,638	-	104	69,533
Financial Services	68,095	-	19,159	48,937
Manufacturing	65,254	-	49,455	15,799
Leisure & Hospitality Services	54,808	-	9,871	44,937
Other Services	38,767	-	10,488	28,279
Information Services	10,462	-	4,094	6,368
Agriculture, Forestry, Fishing	9,900	-	2,669	7,232
Government	6,301	-	1,732	4,568
Natural Resources & Mining	5,267	-	3,607	1,660

CONCLUSION

Continued growth in US metropolitan areas in the coming decades will test our infrastructure at all levels. Total metro area population will grow by 32% from 2012-2042 and will be especially fast in some of the nation's largest metros: Dallas, Houston, Atlanta, Tampa, Denver, San Antonio, Phoenix, Riverside, and Orlando. If there is not significant investment in infrastructure, the costs will not just be astronomical; they will stifle long-term economic potential.

Cuts to infrastructure investment hit metro areas the hardest – and yet these are exactly the places that warrant the most support. After all, metro areas contribute 90% of the production of goods and services that make up the nation's total gross domestic product (GDP). We expect that over the next 30 years 94% of US economic growth will occur in metro areas. Investment in metro areas lowers the costs of doing business, stimulating further business activity and economic growth.

A loss of the tax exemption for municipal bonds threatens to curtail this critical investment in America's future. We find in this study that from 311,000 to 892,000 jobs and from $25 to $71 billion annually in Gross Domestic Product is at risk. Moreover, the benefits of productivity-boosting additions to our public capital stock may be lost to future generations.