TransForm

Our communities. Our transportation. Our future.

Cutting Carbon as well as Commutes

How VTA Can Maximize the Benefits of Santa Clara County's 2016 Transportation Funding Measure

photo by: Michael Halberstadt

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photo by: Michael Halberstadt

Overview

Transportation has risen to the top of the policy agenda in Santa Clara County, as traffic congestion grows and people don't have adequate alternatives to driving. The Santa Clara Valley Transportation Authority (VTA) is hoping to infuse the transportation system with funding to overcome existing problems and prepare for a growing population.

On June 2nd, the VTA Board of Directors will vote on a spending plan for a transportation funding measure for Santa Clara County. If approved by the Board, the half-cent sales tax measure will be on the November 2016 ballot and will need a ⅔ supermajority of voters to pass. The measure would generate approximately $6.3 billion over 30 years; however, based on analysis of data from VTA, TransForm finds that the measure could do a better job at improving mobility, while tackling the climate crisis and improving air quality.

VTA staff has done considerable work in preparing for this measure, including developing an evaluation of projects on key measures of mobility, environmental impact, health and safety. Based in part on this evaluation, as well as a healthy dose of polls and politics, the VTA Board agreed to an initial draft spending plan on April 22, 2016 (see Table 3).

Given that this will be the fourth sales tax for transportation in Santa Clara County (the other three are already in place), it is quite possible that this will be the single largest new transportation funding source that the County will see for a generation. With such limited funding we need to understand how the current proposal can maximize benefits and help meet key local, regional, and state goals. Since VTA's evaluation only looked at absolute impact, and did not consider the cost of the projects, it was impossible to gauge their "bang for the buck".

TransForm requested and obtained data from VTA to conduct our own analysis in order to identify the most effective way to spend sales tax funds on a per-dollar basis. As can be seen in this report, we found VTA can improve their spending plan, but they need to make some changes.

Specifically, the expressway and highway projects proposed by VTA will significantly increase vehicle miles traveled (VMT), carbon emissions (CO2), and local air pollution (PM 2.5). In fact, the expressway and highway spending will negate much of the VMT and pollution reduction benefits that we gain from the BART extension and bicycle project spending in the measure.

To craft a measure that will achieve a better return on our investment, we recommend that VTA:

- Shift funding from highway and expressway programs to local transit, bicycle, and pedestrian projects and programs. This report shows why it is critical to boost funding levels for VTA's core bus network in particular.
- Include performance-based language in the funding measure to ensure that projects funded by the highway and expressway programs not only reduce congestion but also reduce vehicle miles traveled (VMT). VMT reduction strategies can include provision of improved transportation options, operations that promote carpooling, congestion pricing, and supporting new, tech-enabled services that increase vehicle occupancy. This should include competitive grants instead of projects that are dictated now, to take advantage of the innovation in the transportation sector.
- Give priority in the bicycle and pedestrian funding for projects that take place in Communities of Concern as well as those in proximity to schools.[1]

[1] The Metropolitan Transportation Commission (MTC) defines Communities of Concern as communities in the Bay Area that face particular transportation challenges, either because of affordability, disability, or because of age-related mobility limitations.

Why We Must Focus on Performance

Over the next 15 years, Santa Clara County will grow by over 240,000 people to 2.1 million people.[2] If all of these additional residents get around using single occupancy vehicles (SOV), their travel will have deeply negative impacts on traffic congestion, quality of life, the economy, and the environment. VTA should be planning on ways to move existing and future populations as efficiently as possible by providing vastly improved options for walking, biking, public transportation, and carpool/ridesharing.

Reducing vehicle miles traveled (VMT) and increasing the proportion of people taking transit and non-motorized forms of transportation is a strategy being pursued in a host of state and regional plans as a means to address not just mobility but also public health and the climate crisis. Table 1 shows how regional and state agencies are focusing their planning.

Table 1: Adopted State and Regional Policies

Policy	Per-capita VMT reduction	Transit Use	Bicycle Use
California Transportation Plan 2040	17%	Double	Double
Caltrans Strategic Management Plan 2020	15%	Double	Triple
Plan Bay Area 2040	15%	Double	Double

Local governments too are working to shift towards greater sustainability. The City of San Jose's General Plan, in place since 2011, set clear goals and ambitious targets for a more balanced transportation system. The General Plan states that the City shall "complete and maintain a multimodal transportation system that gives priority to the mobility needs of bicyclists, pedestrians, and public transit users".[3]

Table 2: City of San Jose General Plan Commute Mode Split Targets for 2040

Mode	2008	2040 Goal
Drive alone	78%	No more than 40%
Carpool	9%	At least 10%
Transit	4%	At least 20%
Bicycle	1%	At least 15%
Walk	2%	At least 15%

Earlier this year, the City of Palo Alto adopted a goal of 80% greenhouse gas (GHG) reductions below 1990 levels by 2030, with better public transportation options being a key strategy towards attaining that reduction.[4]

While some of these goals are driven by the urgency of reducing climate emissions, there is growing evidence we also need to shift away from catering to solo driving for the sake of reducing traffic on our roads. In particular, a growing body of research indicates that road widening and other roadway capacity increases are not effective strategies for reducing congestion. According to a recent publication by the UC Davis Institute for Transportation Studies,

[2] http://www.dot.ca.gov/hq/tpp/offices/eab/socio_economic_files/2012/Santa_Clara.pdf
[3] https://www.sanjoseca.gov/DocumentCenter/Home/View/474
[4] http://www.paloaltoonline.com/news/2016/04/20/palo-alto-adopts-new-carbon-cutting-target

> Increased roadway capacity induces additional VMT in the short-run and even more VMT in the long-run. Increased capacity can lead to increased VMT in the short-run in several ways: if people shift from other modes to driving, if drivers make longer trips (by choosing longer routes and/or more distant destinations), or if drivers make more frequent trips. Longer-term effects may also occur if households and businesses move to more distant locations or if development patterns become more dispersed in response to the capacity increase. One study concludes that the full impact of capacity expansion on VMT materializes within five years and another concludes that the full effect takes as long as 10 years.[5]

Clearly we must think strategically about how we invest in our transportation system. Therefore it's absolutely essential that we evaluate Santa Clara County's next transportation funding measure by forward-thinking performance standards.

VTA's Proposed Spending Plan

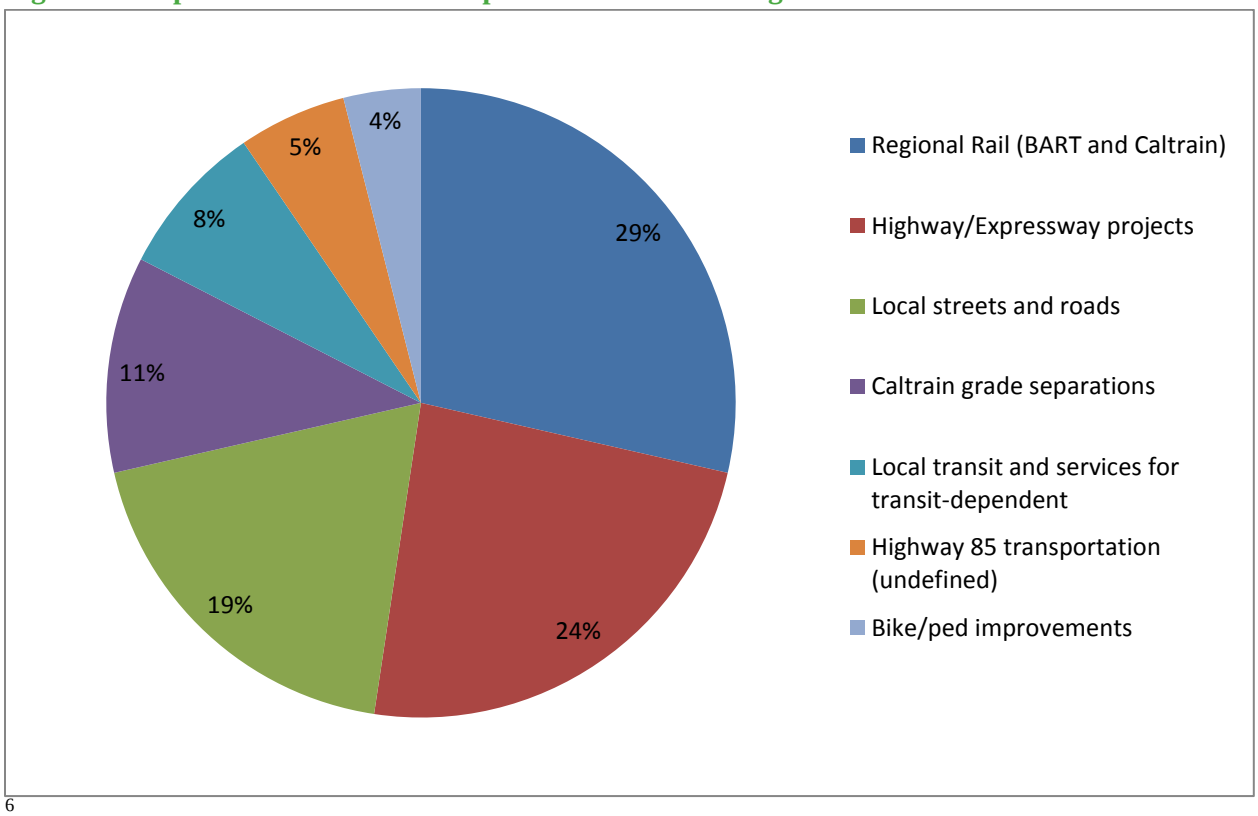
On April 22, 2016, VTA staff and the Board agreed on a draft spending plan, which will allocate over half of the tax revenue for local streets, highway, and expressway projects; 30-40% for regional rail (depending on whether one considers grade separations a rail or road investment); 8% for local transit operations and transit services for transit-dependent people such as low income transit passes; and 4% for active transportation projects that make it easier and safer for people to walk and bike. VTA's current proposal includes a complete streets requirement for roadway spending. See table 3 and figure 1 below.

Table 3: Proposed VTA Sales Tax Expenditure Plan, as adopted April 22, 2016

Project	Allocation in $ millions	Percent (%)
BART Phase II	1,500	24
VTA bus operations and transit services for transit-dependent	500	8
Caltrain capacity improvements	300	5
Highway 85 transportation	350	6
Highway/Expressway projects	1,500	24
Local streets and roads (street maintenance and pothole repair)	1,200	19
Caltrain grade separations	700	11
Bicycle and pedestrian improvements	250	4
Total	6,300	

[5] *Increasing Highway Capacity Unlikely to Relieve Traffic Congestion*, Susan Handy Department of Environmental Science and Policy University of California, Davis, National Center for Sustainable Transportation, October 2015. http://www.dot.ca.gov/research/researchreports/reports/2015/10-12-2015-NCST_Brief_InducedTravel_CS6_v3.pdf

Figure 1: Proposed VTA Sales Tax Expenditure Plan Funding Allocation



[6]

Findings and Implications of TransForm's Project Analysis - VTA's Spending Plan Falls Short in Key Areas

TransForm requested and obtained data from VTA to conduct an analysis of projects under consideration for inclusion in the sales tax on a cost per dollar basis. TransForm's analysis focuses on several criteria that are important to both the Santa Clara County residents and decision makers. In order to create a fair comparison between project types, we:

- Grouped some separate projects into categories or programs.
- Focused on a few important criteria to show exactly what kind of benefits and negative impacts of the projects under consideration would have. The criteria we selected for analysis are:
    - Vehicle Miles Traveled (VMT – impact on the distance of travel by car)
    - Vehicle Hours of Travel (VHT – impact on number of hours traveled by motorists)
    - CO2 (climate change)
    - PM 2.5 emissions (public health)
- Calculated for each of these criteria the impacts/benefits of each transportation project category divided by their cost to get an impact per hundred million dollar value.
- Excluded projects from the analysis that appeared to have questionable or insufficient data and projects that appear highly unlikely to be included in the measure.

TransForm's found that among the projects and programs in our analysis, the bicycle and frequent bus network project categories had the greatest benefits, and light rail improvements and BART also perform well. Highway and expressway project categories, on the other hand, perform poorly on most categories analyzed, increasing VMT, CO2, and PM2.5.

[6] BART Phase II and Caltrain capacity improvements were combined in this graph as "regional rail".

Transform's analysis should be considered within the context that VTA was not able to fully account for long-term induced demand for roadway capacity increases, such as road widening, thus understating the implications for VMT, GHG, and PM2.5, and overstating the VHT benefits (doing such an analysis would have required alternative growth scenarios; a significant amount of work).

Table 4: Benefits/Impacts of Envision SV Projects Per $100 Hundred Million in Spending

Metric	Expressways (Tier1 Projects)	VTA Highway Proposal	BART Phase II	Light Rail Extensions	Bike Projects	Bus Operations (Frequency)
Vehicle Miles Traveled (VMT) Per Weekday	6249	3610	-2584	-6892	-6616	-7224
Vehicle Hours of Travel (VHT) Per Weekday	-498	-146	-150	-516	-513	-676
Metric Tons of Carbon Pollution (CO2) per Weekday	2	4	-2	-3	-5	-5
Metric Tons of Particulate Pollution (PM2.5/1,000) Per Weekday	1	20	-9	-13	-15	-32

Figure 2: Vehicle Miles Traveled (VMT) Per Weekday (Per $100 Million in Spending)

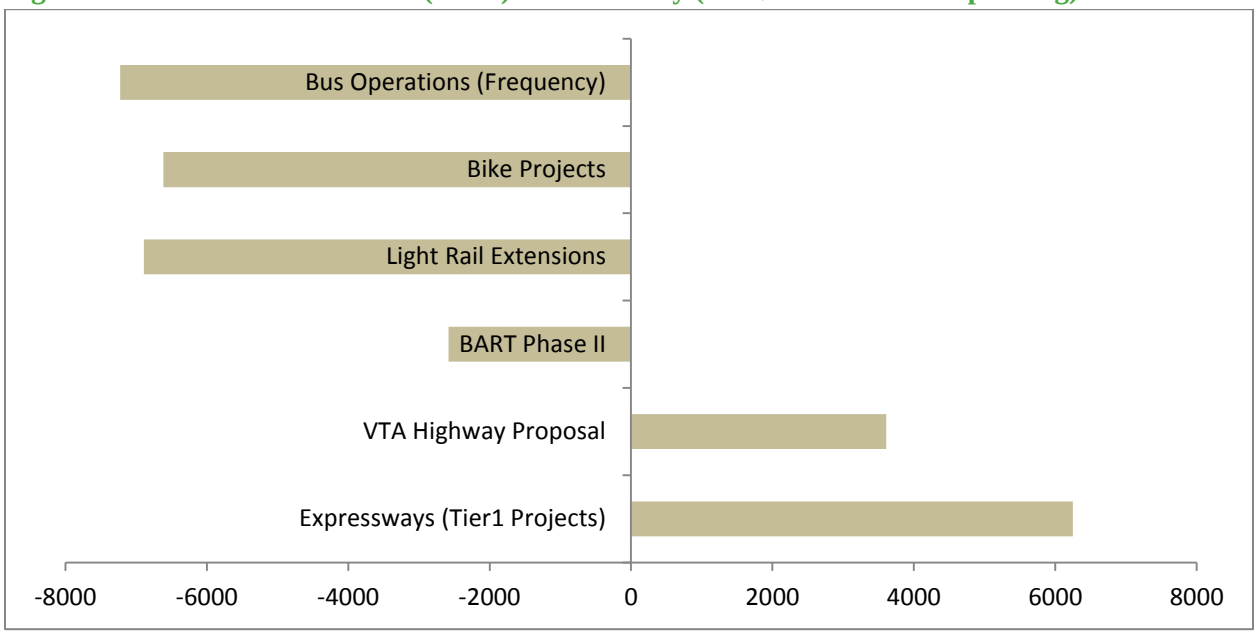


Figure 3: Vehicle Hours of Travel (VHT) Per Weekday (Per $100 Million in Spending)

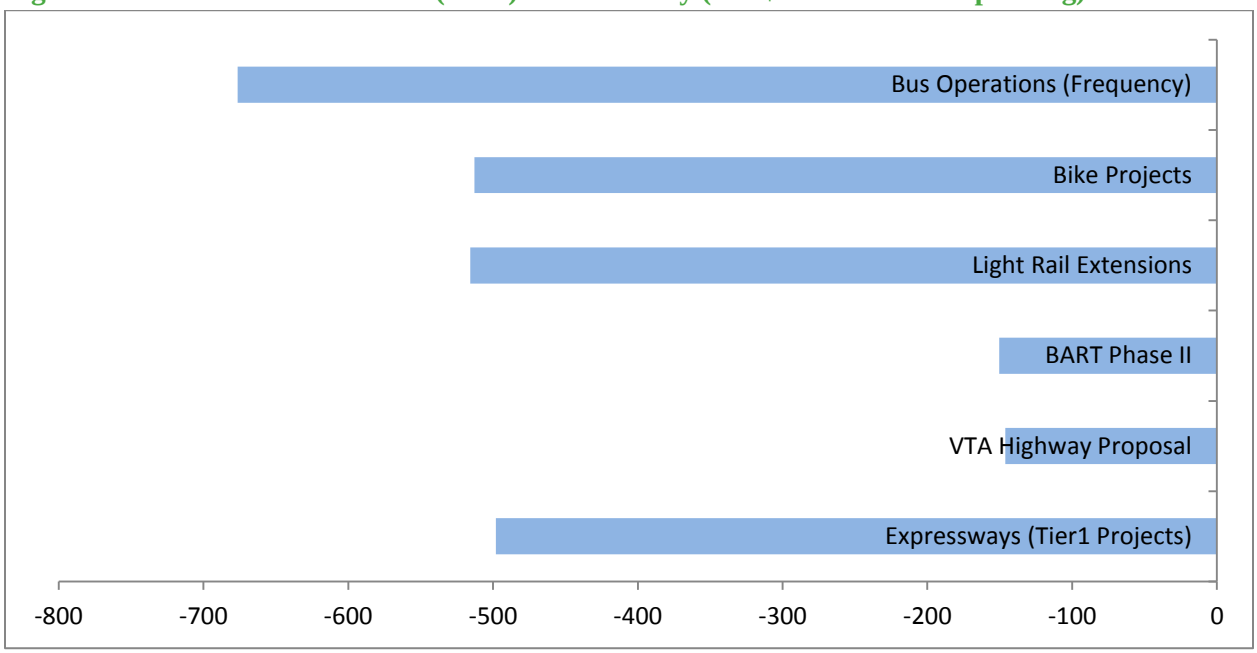


Figure 4: Metric Tons of Carbon Pollution (CO2) Per Weekday (Per $100 Million in Spending)

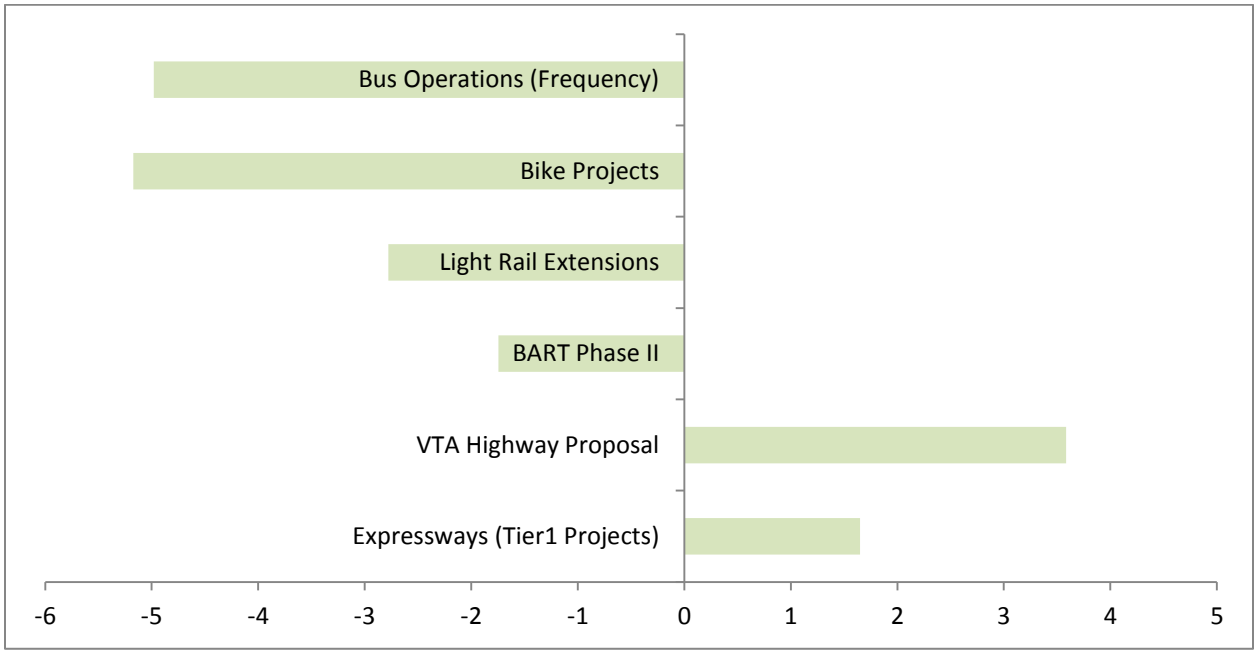
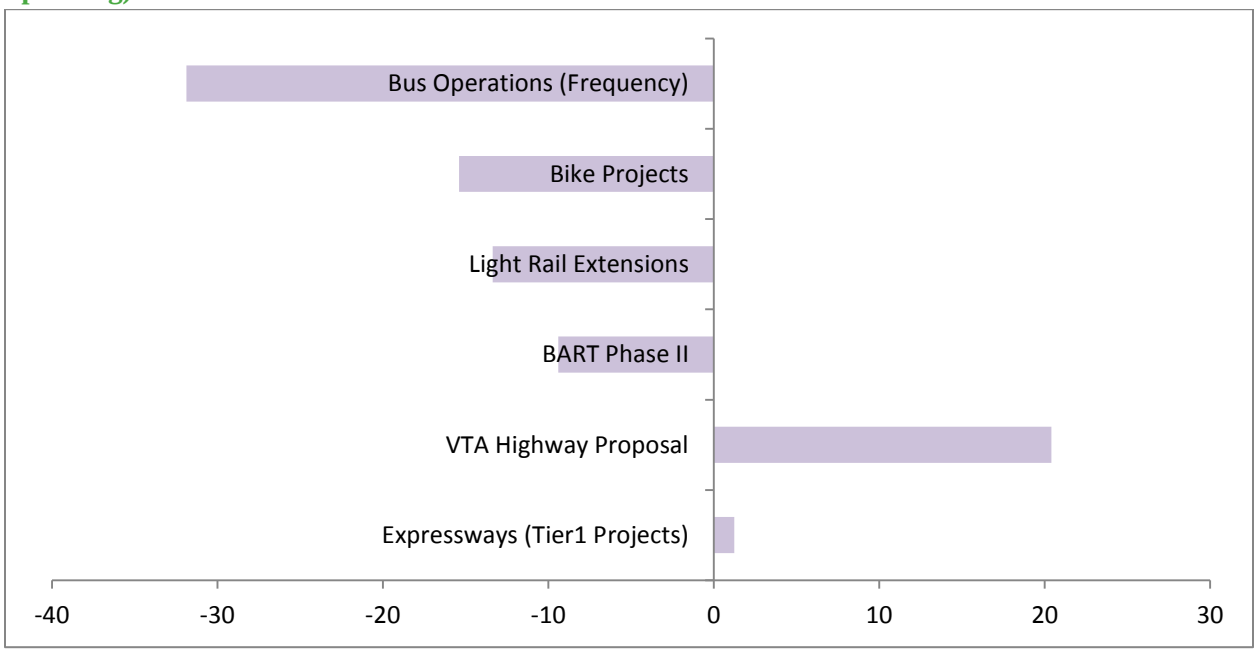


Figure 5: Metric Tons of Particulate Pollution (PM2.5/1,000) Per Weekday (Per $100 Million in Spending)



The frequent bus network and bike improvement categories performed extremely well in TransForm's analysis, yet only about 12% of the measure's funding is allocated towards these project categories. On the other hand, VTA's draft spending plan includes $1.5 billion (or 24%) for expressway and highway projects that will actually increase the amount of driving (vehicle miles traveled - VMT) and pump more carbon pollution (CO2) and particulate pollution (PM 2.5) into our air. In fact, according to our analysis, the expressway and highway spending will negate much of the CO2 emission and VMT reduction benefits generated by the BART Phase II extension and bicycle project spending in the measure.

A Key Deficiency in VTA's Funding Measure: Improving Local Bus Service

Bus service deserves special attention considering recent discussions about how to increase ridership on the network as part of the Transit Ridership Improvement Plan (TRIP) and NEXT Network. As described by VTA's Transit Choices Report, adding more frequent all-day transit service along high ridership corridors with supportive land uses leads to higher ridership and more productive service overall.[7]

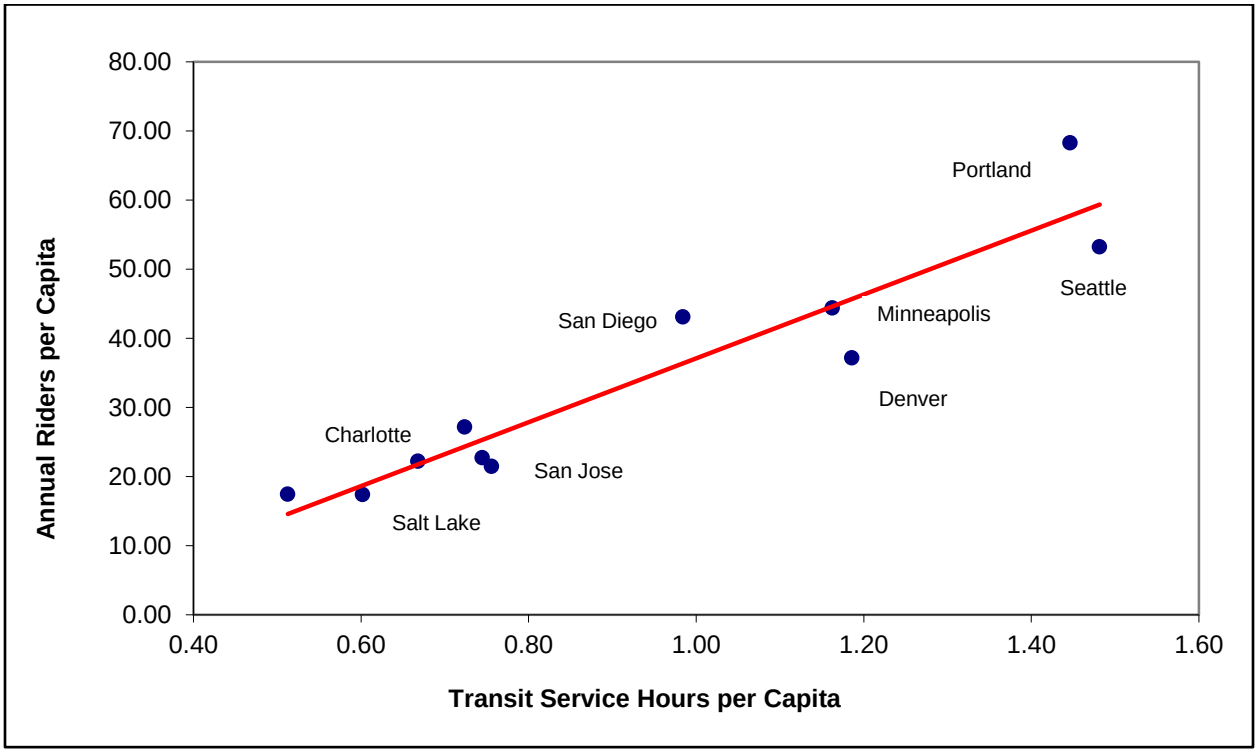
The TRIP discussions thus far have primarily taken place within the context of no significant infusion of additional bus operating funds to boost ridership. Rather, the framing has been that we must cut lower performing routes in order to reallocate resources to more productive routes. The problem is that service for the overall bus network is already 15% lower than 2000 levels, and VTA's less productive bus routes have already been cut back significantly since that period. For people who rely on the threatened routes, transit is a lifeline for reaching employment, education, health care, and other needs. As the TRIP Transit Choices Report states, "shifting resources from coverage service to ridership service will have negative impacts on the people who depend on coverage services. Expanding resources can make this trade-off less painful by allowing ridership service to grow even as basic coverage is maintained."[8]

[7] http://vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/Transit_Choices_Report_Full.pdf
[8] http://vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/Transit_Choices_Report_Full.pdf

But how does VTA's existing transit level of service compare to other similar metropolitan areas in the United States? If VTA were to invest in greater bus service frequency, would it result in higher ridership? Using data from the National Transit Database, Lightbody Consulting selected a group of cities based on similar urban area population (1.5-2.5 million) with light rail and bus transit and compared their transit level of service and ridership per capita.

Lightbody's analysis found that VTA's per-capita transit service levels are relatively anemic. Portland, OR's Tri-Met provides double the amount of transit service per capita as VTA, and partially as a result, has three times as much ridership per capita. Similarly, Minneapolis' Metro Transit Agency provides 50% more service than VTA per capita and has double the ridership per capita. If VTA wanted to approach Portland's transit service hours per capita, it would need to approach something like doubling its bus operating budget of $240 million a year, but VTA's current sales tax proposal of $500 million for the bus network would only increase the Agency's bus operating budget by about 7%. The graph below shows the correlation between transit service and ridership in different regions.

Figure 6: Agencies that Provide More Transit Service Have Higher Ridership Per Capita



But we don't have to look any further than Santa Clara County for an example of what occurs when transit service is increased, especially in a growing economy. From 1988 to 2000, VTA increased its bus service by 7%, and there was a 25% increase in ridership during that period. Significant ridership gains have also taken place with the introduction of more rapid service; the 323 and 522 bus lines, the Santa Teresa light rail express, and Caltrain's Baby Bullet. This is an important model moving forward for how to expand transit service to have high impact.

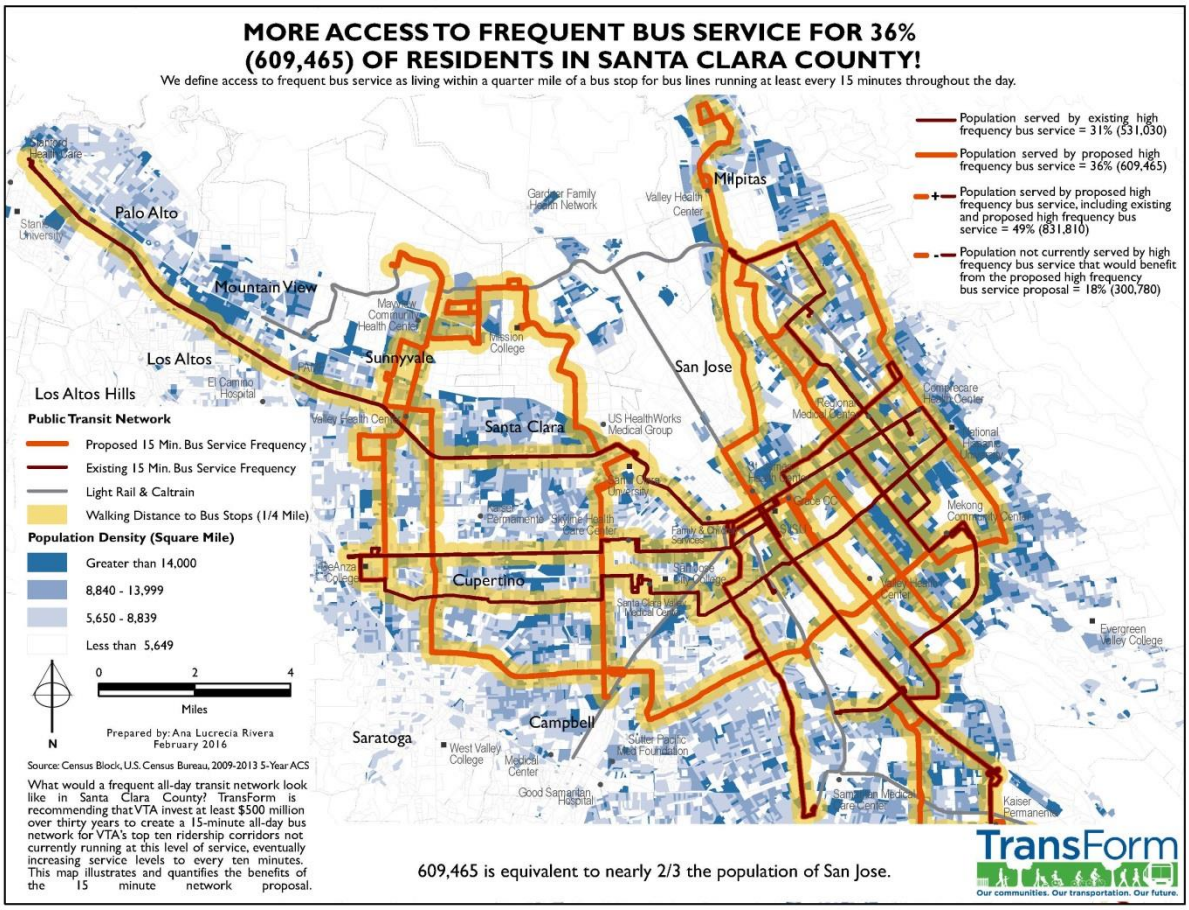
If we are to achieve the mode shift goals and VMT and GHG reduction targets of local, regional, and state plans, it is critical that VTA restore its bus service back to 2000 levels, and provide a higher level of service per capita as population grows. In order to restore transit service levels back to 2000 levels alone, VTA would need to increase funding for the network over the 30 year life of the sales tax measure by over $1 billion, or more than twice the amount in the current proposed spending plan.

What Would a Frequent Bus Network Look Like?

A frequent all-day bus network would increase access to opportunity and essential services, grow ridership, reduce congestion, accommodate the Valley's population growth, meet the needs of the increasing senior population and millennials, and cut down on air pollution.

TransForm was one of several organizations to propose that VTA invest $500 million to $2.2 billion over the thirty year life of the sales tax to increase service to every ten to fifteen minutes for VTA's ten high ridership corridors. An infusion of $500 million in operating funds would represent about a 7% increase in bus operating funds and a ten minute network would represent a 23% increase. The following map helps visualize and quantify the benefits of a more frequent transit network.[9]

Figure 7: Map of Proposed Frequent Core Bus Network



The 15 minute frequent bus network proposal would provide 155 additional miles of frequent transit and greater access to transit to over 600,000 residents, or 36% of Santa Clara County's population.[10] The network would also increase access to transit for over 240,000 residents living in Communities of Concern. This represents 67% of all residents living in a Community of Concern in the county.[11]

[9] The existing high-frequency bus routes in VTA's network, defined as bus lines running at least every 15 minutes throughout the day, are composed of six lines: 22, 23, 25, 64, 68, and 70. The 15 minute network proposal would increase frequency on VTA's highest ridership routes: lines 26, 55, 60, 64, 66, 68, 71, 72, and 73, 77.

[10] We define access to frequent transit as living within a quarter mile of a bus stop for bus lines running at least every 15 minutes throughout the day.

[11] MTC defines Communities of Concern as communities in the Bay Area that face particular transportation challenges, either because of affordability, disability, or because of age-related mobility limitations.

According to VTA staff, the 15-minute network would also result in a 10% increase in ridership above current levels, and the 10-minute network would result in a 40% increase in ridership.

Crafting a More Effective Expenditure Plan

There is still time to take in new information and improve VTA's current funding proposal to address mobility and access needs in a way that supports a growing economy, while promoting equity, climate action, and public health. But what would it look like if we were to focus investments towards local transit and active transportation, instead of SOV-inducing highway and expressway projects as proposed by VTA? We grouped $3.75 billion in project funding into two scenarios - VTA's proposal and an alternative proposal with increased spending on local transit and active transportation. We then quantified the two different expenditure plans using the data from VTA's project assessment.

Table 5: VTA and Alternative Project Allocations

Project	VTA Staff Proposal (In $ millions)	Alternative Funding Scenario (In $ millions)
VTA bus operations and services for transit-dependent	500	1,000
VTA transit capital (LRT)		500
BART	1,500	1,250
Highway/expressway capital	1,500	400
Bike/ped improvements (Active transportation)	250	600
Total	3,750	3,750

Table 6: Results of VTA and Alternative Project Allocations

Metric	VTA Funding Proposal	Alternative Funding Scenario
Vehicle Miles Traveled (VMT) Per Weekday	-17,471	-158,979
Vehicle Hours of Travel (VHT) Per Weekday	-11,751	-15,587
Carbon Pollution (CO2) Per Weekday	-25	-106
Particulate Pollution (PM2.5/1,000) Per Weekday	-177	-552

Figure 8: Vehicle Miles Traveled (VMT) Per Weekday

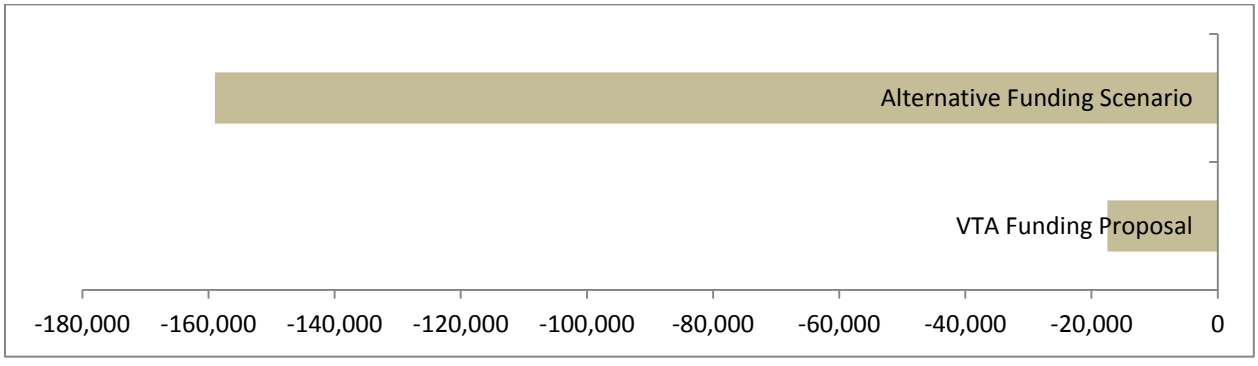


Figure 9: Vehicle Hours of Travel (VHT) Per Weekday

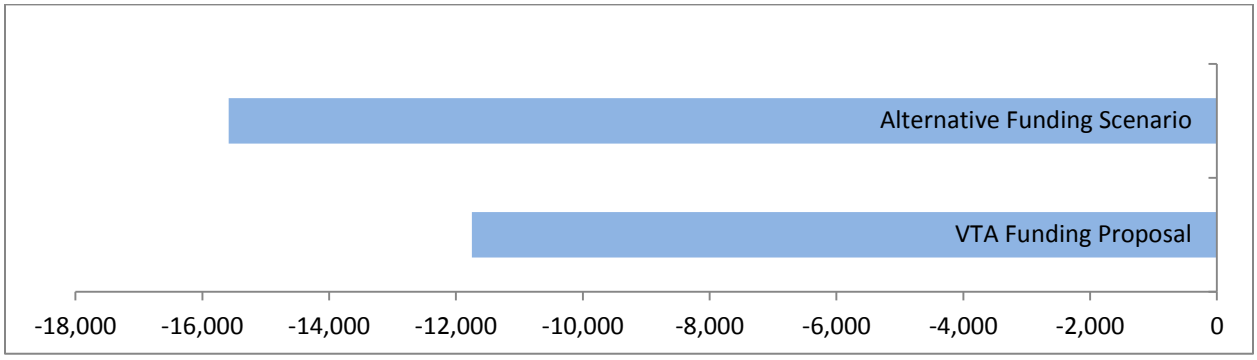


Figure 10: Metric Tons of Carbon Pollution (CO2) Per Weekday

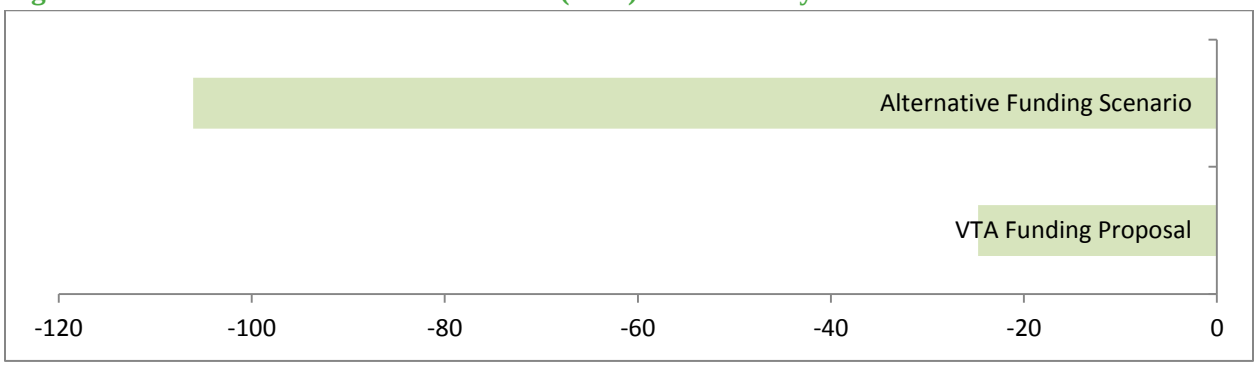
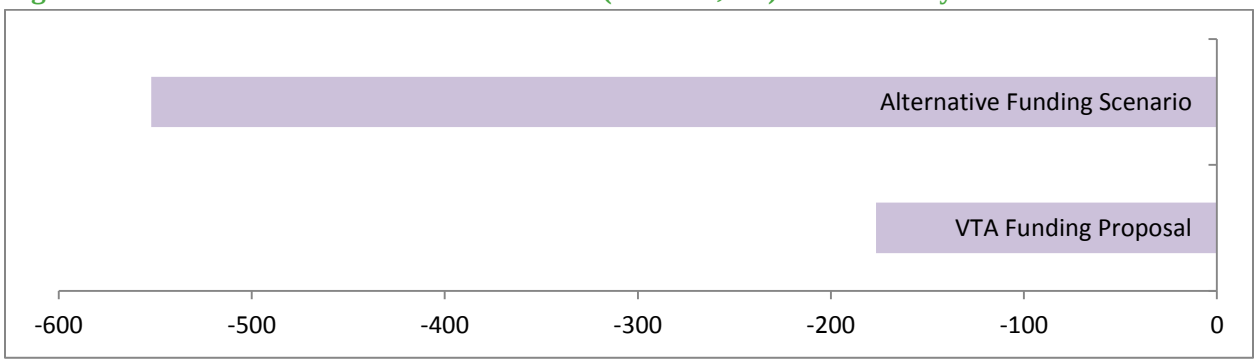


Figure 11: Metric Tons of Particulate Pollution (PM2.5/1,000) Per Weekday



The results are clear. Investing more sales tax funding on local transit and active transportation projects and programs will lead us to a more sustainable and accessible future while improving mobility in a thriving economy. The alternative funding scenario developed by TransForm performed far better than VTA's draft funding proposal for all the projects and programs analyzed, including over 90 times the VMT reduction benefits, four times the CO2 reduction benefits, three times the PM 2.5 benefits, and a 25% greater reduction in VHT.

Local transit improvements and bicycle and pedestrian improvements are among the investments that received the most support among likely voters according to a recent poll conducted by the Silicon Valley Leadership Group (SVLG) (see Table 7 below).

Table 7: Silicon Valley Leadership Group Poll of Santa Clara County Likely Voters

Project	Support %	Oppose %	No Opinion %
Improve transit service for seniors, students, low-income and the disabled	72	26	2
Repair streets and fix potholes	72	27	1
Increase Caltrain capacity, easing highway congestion and improving safety at crossings	70	26	4
Improve bike and pedestrian safety, especially near schools	70	28	2
Increase Caltrain capacity to ease traffic on Highways 85, 101, 280	68	31	1
Finish the BART extension to downtown San Jose and Santa Clara	67	29	4
Relieve traffic on all 9 County Expressways	65	30	5
Relieve traffic on key highway interchanges	65	33	2

Recommendations

It's not too late to craft a measure that is a win not just for mobility, but also for climate, health, equity, and the economy. **To craft a measure that will achieve a better return on our investment, we recommend that VTA:**

- Shift funding from highway and expressway programs to local transit, bicycle, and pedestrian projects and programs. This report shows why it is critical to boost funding levels for VTA's core bus network in particular.
- Include performance-based language in the funding measure to ensure that projects funded by the highway and expressway programs not only reduce congestion but also reduce vehicle miles traveled (VMT). VMT reduction strategies can include provision of improved transportation options, operations that promote carpooling, congestion pricing, and supporting new, tech-enabled services that increase vehicle occupancy. This should include competitive grants instead of projects that are dictated now, to take advantage of the innovation in the transportation sector.
- Give priority in the bicycle and pedestrian funding for projects that take place in Communities of Concern as well as those in proximity to schools.[12]

[12] The Metropolitan Transportation Commission (MTC) defines Communities of Concern as communities in the Bay Area that face particular transportation challenges, either because of affordability, disability, or because of age-related mobility limitations.

Appendix I – Limitations of VTA's Project Evaluation

To help Santa Clara County residents and policy makers prioritize which projects to fund, VTA conducted an evaluation for many of the transportation projects under consideration for the 2016 transportation sales tax. Each project, or group of projects, was analyzed by VTA based on criteria designed to measure how well the project meets the goals for the sales tax, as adopted by the VTA Board of Directors.[13]

Most of the projects included in VTA's evaluation were submitted as part of VTA's Call for Projects. Over 600 projects were submitted by various cities, agencies, and stakeholders.[14] VTA grouped some projects by size, location and type to maximize the effectiveness of the analysis and reduce the number of separate projects analyzed.

VTA's evaluation attempted to measure the impact of different investments on quality of life, environmental impact, and safety. It provided very useful information, but it had some significant limitations that made it harder to use well for decision making.

- Most problematic is the fact that VTA presented the results of their evaluation on an absolute basis, not on a cost/benefit per dollar basis. This method is likely to overstate the impacts of large projects, and understate the impacts of small projects relative to one other. Given the very limited pot of funds in the sales tax measure, projects should be evaluated based on positive or negative impacts per dollar spent to provide clarity on how to achieve the greatest return on investment.
- VTA's 32 individual evaluation criteria were grouped together into several larger categories defined by VTA as goals. While providing a general perspective of the project categories, the grouping into goals does not provide decision makers and the public with data on specific criteria of interest such as VMT or CO2.
- The measurement of the goals were presented on a 1 to 5 scale of degree of benefits or negative impacts to help simplify the results; however, VTA evaluated some projects qualitatively based on whether or not the project met the criteria on a yes (5 points) vs no (1 point) scale. In other words, if a project met the criteria, it received a 5, or if it did not, it received a 1, but there was no variation in between the two extremes. For example, the expressway category, which includes significant capacity increases for automobiles, was given 5 out of 5 for increasing transportation choices. The rationale for this score was that the expressway projects include some facility improvements for non-automobile users or provided a new carpool lane. To put this into perspective, the planned countywide bicycle superhighway network received the exact same score. This does not provide a fair or accurate comparison between projects with different degrees of benefits and impacts.
- The results of the individual criteria analyzed by VTA were added together and divided by the number of criteria, in a one-for-one analysis without any weighting of the most important criteria. In other words, all 32 criteria were given the same level of priority, which may not be as helpful if certain criteria are more important to focus on for the region than others.
- The project evaluations conducted by VTA do not fully account for additional trips taken due to certain types of induced demand, thus understating the VMT, CO2, and PM 2.5 impacts of projects (namely in the highway and expressway categories) that increase roadway capacity.

[13] http://vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/Envision%20Evaluation%20Criteria.pdf; http://vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/Final%20Goals%20for%20Envision%20Silicon%20Valley.pdf

[14] http://www.vta.org/envision-silicon-valley/project-evaluation#call-for-projects

Appendix II –TransForm's Project Analysis Methodology

Because of the limitations of VTA's project evaluation, TransForm requested and obtained data from VTA to conduct a separate analysis. TransForm's analysis focuses on several criteria that are important to both the Santa Clara County residents and decision makers. In order to create a fair comparison between project types, we:

- Grouped some separate projects into categories.
    - The bike project category includes VTA countywide bike plan and bicycle superhighway network proposal.
    - The LRT extension category includes the Capitol, Vasona, and Bayshore extensions.
    - The highway category includes projects included in VTA's sales tax proposal for the following corridors (101, I-280, SR 237, SR 85, I-680, SR 17, and Hwy 87).
- Focused on a few of the 32 criteria to show exactly what kind of benefits and negative impacts of the projects under consideration would have. The criteria we selected for analysis are:
    - Vehicle Miles Traveled (VMT – impact on the distance of travel by car)
    - Vehicle Hours of Travel (VHT – impact on number of hours traveled by motorists)
    - CO2 (climate change)
    - PM 2.5 emissions (public health)
- Calculated for each of these criteria the impacts/benefits of each transportation project category divided by their cost to get an impact per hundred million dollar value.
- Excluded projects from the analysis that appeared to have questionable or insufficient data, such as Caltrain grade separations. In addition, several projects were not included in the analysis since they did not appear likely to be included in the measure (ex. downtown LRT subway and express lanes).

Additional context for TransForm's analysis:

- Construction projects such as BART and highways/expressways do not include operations and maintenance (O&M) costs in our analysis. The bus frequency proposal, on the other hand, does include both capital and O&M, meaning that our evaluation likely understates the benefits of the bus frequency proposal compared to the capital projects.
    - VTA did not include O&M costs for capital projects in the proposed sales tax because they will be funded from other sources. For example, funding for the BART Phase II extension for O&M will come from a separate eighth cent sales tax approved by voters in 2008, and funding for expressway maintenance will come from the County's budget.
- Some project categories could have larger overall impacts than shown in our analysis because the direct financial contribution by VTA is only one funding source for some projects. These additional funding sources will make it possible for VTA to fund more projects than just the specific funding in the sales tax. For example, while VTA has proposed spending $1.5 billion for the BART extension in the proposed sales tax, it is also likely that the agency will obtain funding from state and federal programs. This means that the impacts per dollar appear larger than if it was fully funded by the sales tax.
- Transform's analysis should be considered within the context that VTA was not able to fully account for long-term induced demand for roadway capacity increases, such as highway widening, thus understating the implications for VMT, GHG, and PM2.5, and overstating the VHT benefits (doing such an analysis would have required alternative growth scenarios; a significant amount of work).