

Economic and Fiscal Impacts of Proposed Amendments to the City of San Antonio Charter

Study Conducted by:

Steve Nivin, Ph.D.

August 15, 2018



STEVEN R. NIVIN PH.D., LLC
Economic Research & Consulting

Executive Summary

If the proposed charter amendments go into effect, the impact to the City of San Antonio will be between \$382.3 million and \$4.2 billion over twenty years, depending on the size of the negative impacts on economic growth and how much the bond rating is lowered. On top of these impacts, there is projected to be a crowding out of non-public safety expenditures in the range of \$408.3 million to \$693.3 million by 2038. The proposed charter amendments will have these effects because of the extraordinary amount of uncertainty they will generate around the ability of the City of San Antonio to continue to manage the budget at the high level they have done for the past decade. The uncertainty comes from the fact that one amendment would expand the issues open to referendum to include appropriating money, levying taxes, setting public utility rates, and zoning or rezoning property. This uncertainty is enhanced by a second amendment that gives the firefighters union the ability to unilaterally take contract negotiations to binding arbitration, which could have substantial negative impacts on the City's budget. Public safety already consumes about two-thirds of the budget of the City of San Antonio, and going to binding arbitration is likely to increase this proportion substantially. This will force the City of San Antonio to find other revenue sources and/or reduce other public services.

The wage compression created by the amendment to cap future city manager's salary and place limits on the future manager's term of service to eight years could make it difficult for the City to attract the top-level talent necessary to efficiently and effectively run a city of this size. For example, given the current wage structure in the City of San Antonio, the amendment would cap the city manager's salary at about \$290,000. This salary is lower than the \$325,000 salary of the new, first-time city manager in Austin, and the salary of the city manager of the City of Dallas whose salary was \$375,000 in 2017-2018. The \$290,000 cap on the salary is also comparable to the salaries of city managers from much smaller cities, even though San Antonio is one of the two largest cities in the U.S. with a council-manager form of government.

This may lead to a reduction in the quality and quantity of public services that, combined with the uncertainty created by the other two amendments, could slow economic growth further. For example, firms looking to relocate to San Antonio or expand their operations within the city may decide not to do so because the infrastructure, quality of life, and other public services are inadequate, or if they are requesting economic development incentives, they may not want to

face the uncertainty of a referendum process and will decide to go to another city where they would not be subjected to such a process. Based on the average size of the corporate relocation or expansion in San Antonio, this could result in a loss of 202 jobs per project.

Research has indicated that such heightened levels of uncertainty, especially related to fiscal policy, and reduced public services and quality of life amenities could slow economic growth by as much as 0.4 to 1.25 percentage points. Since it is impossible to pinpoint the exact reduction in economic growth that may occur, four different scenarios were analyzed ranging from a reduction in economic growth of 0.1 percentage point up to a reduction of 1.25 percentage points.

This slowing of economic growth in San Antonio will lead to a reduction in revenues to the City of San Antonio. As shown in Table 1, general fund revenues are projected see an annual average decline in the range of \$17 million to \$202 million depending on the scale of the impacts to growth. Total revenues will decline annually by an average of \$31 million to \$350 million. Over a twenty-year period, the cumulative reduction to the general fund revenues are projected to amass somewhere in the range of \$353 million to almost \$4 billion. The cumulative negative effect on total revenues could range from \$612 million to \$7 billion.

Table 1. Effects of Slower Economic Growth on Revenues

	General Fund Revenues	
	<i>Average Annual Reduction</i>	<i>Cumulative Reduction</i>
0.1% Lower Economic Growth	\$17,671,604	\$353,432,081
Phased Lower Economic Growth	\$20,022,533	\$400,450,656
0.4% Lower Economic Growth	\$68,384,162	\$1,367,683,234
1.25% Lower Economic Growth	\$202,072,384	\$4,041,447,680
	Total Revenues	
	<i>Average Annual Reduction</i>	<i>Cumulative Reduction</i>
0.1% Lower Economic Growth	\$30,614,941	\$612,298,827
Phased Lower Economic Growth	\$34,687,777	\$693,755,549
0.4% Lower Economic Growth	\$118,471,255	\$2,369,425,091
1.25% Lower Economic Growth	\$350,077,682	\$7,001,553,649

If the amendments are implemented, public safety expenditures could continue to expand well beyond their current level of two-thirds of the general fund budget at the same time revenues are being reduced to the slower economic growth. Assuming public safety expenses follow their average growth rates into the future, allocations for public safety will take up anywhere from 84% to 100% of the general fund budget, depending on how much slower the economy grows. This would force a reduction in other services provided by the City of San Antonio, or revenues will have to be increased in some manner. These effects could be quite large, as shown in Table 2.

Table 2. Projected Amount of Public Safety Expenses Greater than 66% of General Fund Revenues

<i>Economic Growth Scenario</i>	<i>2021</i>	<i>2038</i>
0.1% Lower Economic Growth	\$518,364	\$408,259,076
1.25% Lower Economic Growth	\$19,294,634	\$693,295,841 ¹

For example, in 2021 the City will have to either cut other services beyond public safety and/or increase revenues in the range of \$518 thousand with just a small reduction in economic growth of 0.1 percent up to \$19.3 million if economic growth slows by 1.25 percentage points. The magnitudes of these gaps increase substantially over time as the public safety portion of the general fund budget continues to expand while revenues needed to fund other public services decline. By 2038, there will be a reduction or crowding-out of non-public safety services or other sources of revenues will need to be found in the range of \$408.3 million to \$693.3 million under these scenarios, as almost all or all of the general fund budget goes to fund public safety. To provide some perspective on the crowding-out of non-public safety services, the \$19.3 million in crowding-out that would occur in 2021 if growth slows by 1.25 percentage points would approximately equate to or exceed the individual budgets of the Departments of Animal Care Services, Arts and Culture, Economic Development Department, Neighborhood Housing Services, and Planning in the FY2018 adopted budget. As public safety continues to take an ever-increasing share of the budget, many services like these would not be able to be provided.

¹ This figure reflects the expenditures on public safety consuming 104% of the general fund revenues. If these expenditures are capped at 100% of the general fund revenues, the figure would be \$621,120,112.

Additionally, the diminished ability to manage the budget and the loss of flexibility to raise revenues could result in a lowering of the City’s bond rating. If this occurs, the City of San Antonio will have to pay a higher interest rate on the bonds they issue. This would increase their lending cost from \$17.5 million to \$132.5 million over twenty years based on the issuance of \$2.5 billion in bonds (see Table 3) depending on how much the rating is lowered. This increase in borrowing costs means the City will have to reduce the number and/or size of some of the infrastructure and program improvements it can make through the bond issue.

Table 3. Increased Interest Costs due to Lower Bond Rating on the Issuance of \$2.5B in Debt

	<i>Low</i>	<i>High</i>
1 Level Drop (AA+)	\$17,500,000	\$37,500,000
2 Level Drop (AA)	\$45,000,000	\$75,000,000
3 Level Drop (AA-)	\$112,500,000	\$132,500,000

In the 2017-2022 bond issue, the average streets, bridges, and sidewalks project will cost \$7.0 million; the average drainage and flood control improvements project will cost about \$7.3 million; a parks improvement project will cost on average \$2.4 million; and the average library and cultural facilities improvement project will cost \$1.5 million. The total cost of all of one of each of these average-sized projects is \$18.2 million, which means that just a one-level drop in the rating will result in the elimination of one of each of these projects based on the low estimate of \$17.5 million.

Another cost the amendments will add is the expense of administering a referendum election. Each election cost the City of San Antonio about \$600,000. Two elections can be held per year, so the cost just to have the elections could extend to \$1.2 million per year.

The effects of the amendments will heighten policy uncertainty, constrain the ability of City Council to make the best policies, and hinder the efforts of City staff to implement the policies in the most efficient and effective manner. This policy environment will lead to a persistent reduction in economic growth that will have massive cumulative fiscal impacts to the City of San Antonio.

Introduction

Three charter amendments are expected to be placed on the ballot for the November 2018 election.

Petition 1: Expanding the referendum process. This measure:

- Expands the City Council actions subject to referendum to include appropriating money, levying taxes, setting public utility rates, and zoning or rezoning property (all areas currently excluded by Charter);
- Decreases the number of signatures needed from 10 percent of qualified voters in the last municipal election (approximately 70,000 signatures) to 20,000 signatures; and
- Lengthens the timeframe for obtaining needed signatures from 40 days to 180 days.

Petition 2: Binding Arbitration. This measure allows the firefighters union to unilaterally declare impasse at any time and force binding arbitration on the City in labor contract negotiations.

Petition 3: Term Limits and Salary Cap for City Manager. This measure requires a supermajority vote (8 votes out of 11) to select the City Manager, limits the City Manager's term to 8 years and limits pay to 10 times the amount of the lowest paid City employee.²

The purpose of this study is to provide a projection of the economic and fiscal impacts of these petitions to amend the Charter of the City of San Antonio.

² Source: City of San Antonio Attorney's Office

Effects of Referendum and Binding Arbitration

Lowering the number of signatures to place an issue to a referendum vote while expanding the scope of policies that can be placed on a referendum ballot increases the policy uncertainty in San Antonio. More specifically, it increases the uncertainty around fiscal policy by constraining the ability of City Council to make related policy and City staff to manage the budget and provide effective public services. The ability of the firefighters union to unilaterally force binding arbitration also heightens the uncertainty around fiscal policy and management, as it is unclear what decision an arbitrator will make concerning the annual Fire Collective Bargaining agreement, for which the City will spend approximately \$255.6 in FY2019. This is one of the two largest contracts the City of San Antonio has. This means that even if an arbitrator decides to just split the difference between city and firefighters union, the budget will be placed under serious stress requiring increases in tax rates and fees and/or reduction in services. Furthermore, the decision made by the arbitrator will be done with no responsibility to the voters or consideration for other community priorities. So what effects might this have on the San Antonio economy?

Under conditions of uncertainty, firms tend to reduce and/or delay their investments since it is very difficult and costly to undo an investment (Bernanke, 1983; Dixit and Pindyck, 1974). Additionally, if firms are reducing their investments, which often times means they are not expanding, they are also likely going to be reducing their employment levels or at least not expanding them (Bloom et al., 2013). Consumers engage in similar behavior as firms under these conditions in that they are likely to reduce or delay their consumption of durable goods until the economic environment becomes more certain (Bloom et al., 2013).

Uncertainty created by the public policy environment has also been shown to slow economic growth (Bloom, 2009; Baker and Bloom, 2011; Bloom et al., 2012; Hirata et al., 2012). “Policy-induced uncertainty is also negatively associated with growth. The adverse impact of policy uncertainty on economic growth works mainly through two channels. First, it directly affects the behavior of households and firms as they postpone investment and consumption decisions when uncertainty about future policies is elevated. Second, it breeds macroeconomic uncertainty, which in turn reduces growth” (Kose and Terrones, 2012, p. 52).

Not only does the evidence indicate that policy uncertainty leads to a “significant decline in output” but the decline is also “highly persistent” (Bloom et al., 2013, p. 40) over time. According to the findings of Baker and Bloom (2013) relatively small changes in uncertainty (i.e., one standard deviation) generate declines in GDP with the effects in the following year being larger than the immediate effects. Other evidence indicates the negative macroeconomic effects of uncertainty persist for at least three years (Baker, Bloom, and Davis, 2016).

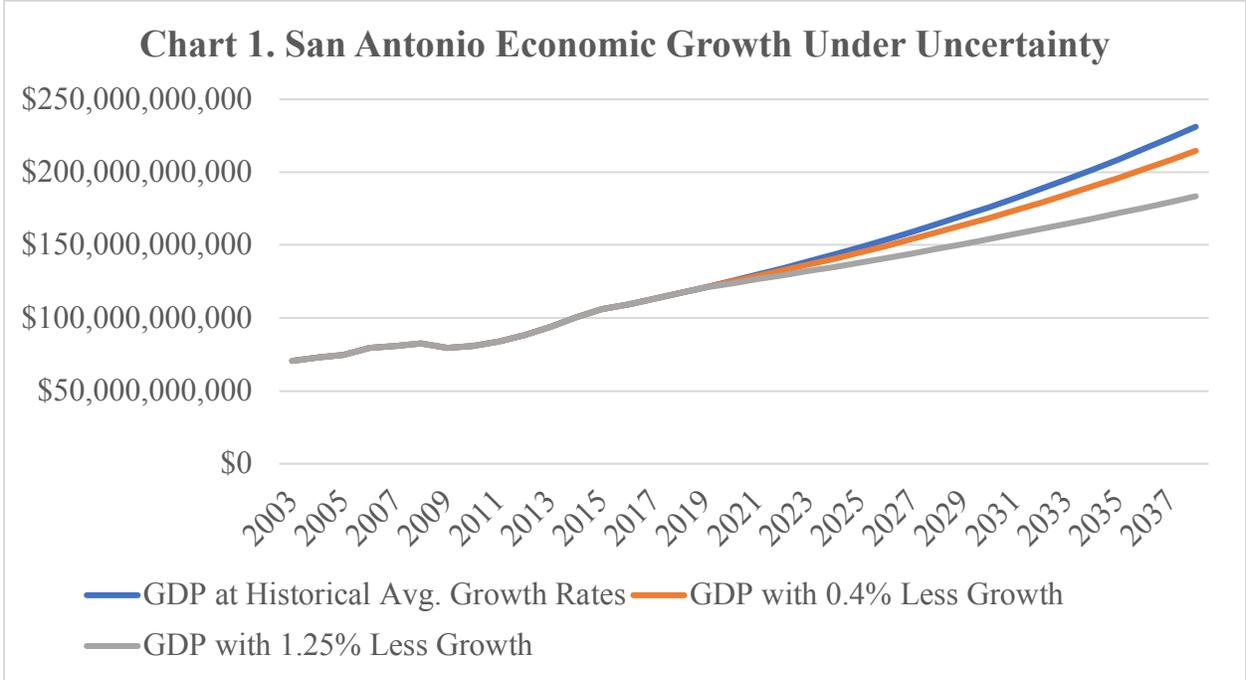
Economic uncertainty also makes recessions more severe and slows recoveries from those recessions (Kose, Loungani, and Terrones, 2012). “Sound institutions and policy regimes foster predictable policy responses, even in the face of large negative shocks. In this way, good institutions and policy regimes lessen the scope for policy to act as a source of uncertainty impulses or, through uncertain policy responses, to amplify and propagate the effects of other shocks” (Baker, Bloom, and Davis, 2016, p. 1633).

Reductions in investment, employment, and consumption means that uncertainty levels lower economic growth (Bloom et al., 2013; International Monetary Fund, 2012; Colombo, 2012; Klossner and Sekkel, 2014; Nodari, 2014; Bloom, 2009; Hirata et al., 2012). In fact, “a 1 standard deviation increase in uncertainty is associated with a decline in output growth of between 0.4 and 1.25 percentage points depending on the measure of macroeconomic uncertainty” (Kose and Terrones, 2012, p. 51). “A 1 standard deviation increase in policy volatility reduces long-term economic growth [measured as a decade] by about 0.74% in the panel regressions and by more than 1 percentage point in the cross-section” (Fatas and Mihov, 2013, 362).

“Our results support the notion that predictability of especially fiscal policy and credibility of governments stimulate economic growth by lowering uncertainty” (Lensink et al., 1999, p. 392). The ability to bring budget items to a referendum vote lowers the “predictability” of policy in San Antonio diminishes the “credibility” of the City of San Antonio government. The uncertainty created by the implementation of these charter amendments could lower the rate of economic growth in San Antonio.

This slowdown in economic growth may be fairly small on an annual basis, but given the persistence of the effects of the uncertainty, the impacts to growth will cumulatively be rather large over time as the effects of the slower compound. This is illustrated in Chart 1. Assuming the San Antonio economy grows, as measured by growth in gross domestic product (GDP), at its

historical average rate measured from 2003 through 2016, the blue line in the chart shows that growth trend through 2038. The red and gray trend lines show the growth trends assuming 0.4 percentage points and 1.25 percentage points slower growth, respectively, following Kose and Terrones (2012), with the assumption that the effects of the uncertainty will not affect economic growth until 2020, a year after the election on the amendments. As shown in the graph, these small changes will have profound effects on the size of the San Antonio economy over time. It should also be kept in mind that this will occur as other regional economies continue to grow at faster rates, which will also put San Antonio at a competitive disadvantage.



The decline in economic growth will also cause a reduction in revenues to the City of San Antonio. It is worth stressing the point that the decline in revenues is due to a reduced level of economic activity, not a reduction in tax rates and fees. In fact, the pressure to increase the tax rates and fees charged for various services may increase as the city seeks to retain the amount of funding necessary to meet the increasing demand on services. In order to project the decreases in the revenues, the proportion of City of San Antonio general fund revenue to GDP and the

proportion of City of San Antonio total revenues to GDP were calculated for each year from 2003 through 2016. The annual average of the proportions of revenues per dollar of GDP were calculated. For each dollar of GDP, the City of San Antonio receives \$0.0097 in general fund revenues and \$0.0172 in total revenues. The GDP for San Antonio was then projected from 2019 through 2038 using three assumptions: (1) growth at the historical annual average rate calculated from 2004 through 2016, (2) growth at an annual rate 0.4% less than the historical average rate, and (3) growth at an annual rate 1.25% less than the historical average rate. The revenues that the City of San Antonio are projected to receive over these three growth trends were calculated by multiplying the average proportion of general funds revenue to GDP and the average proportion of total funds revenue to GDP each by the projected level of GDP in each year. The difference between the revenues at the historical average growth rate of GDP and the revenues at each of the reduced growth rates was calculated to give a measure of the lost revenue due to the slower economic growth. It was assumed that the effects of the charter amendments would not begin to be felt until 2020. Charts 2 and 3 show the annual decreases in these revenues, and Table 4 provides the figures. Charts 4 and 5 illustrate the cumulative losses in revenues with the figure provided in Table 5.

Under the scenario of 0.4% slower growth, the City will see a decline in general fund revenues from \$4.8 million in 2020, and by 2038, this will increase to \$164.1 million. The decline in total revenues will be about \$8.4 million in 2020 and will expand to \$284.3 million in 2038. The cumulative losses will amount to \$1.4 billion in general fund revenues lost and \$2.4 billion in total revenues lost over the twenty year period.

If growth were to slow by 1.25 percentage points, the loss in revenues would be considerably higher. Annual losses in general fund revenues would range from \$15.1 million in 2020 to \$474.6 million in 2038, while losses in total revenues will range from \$26.1 million in 2020 to \$822.2 million in 2038. Cumulatively, the losses in general fund revenues will amount to about \$4.0 billion and total revenues will decline by about \$7.0 billion.

Chart 2. Decrease in COSA General Funds Revenue Under Uncertainty

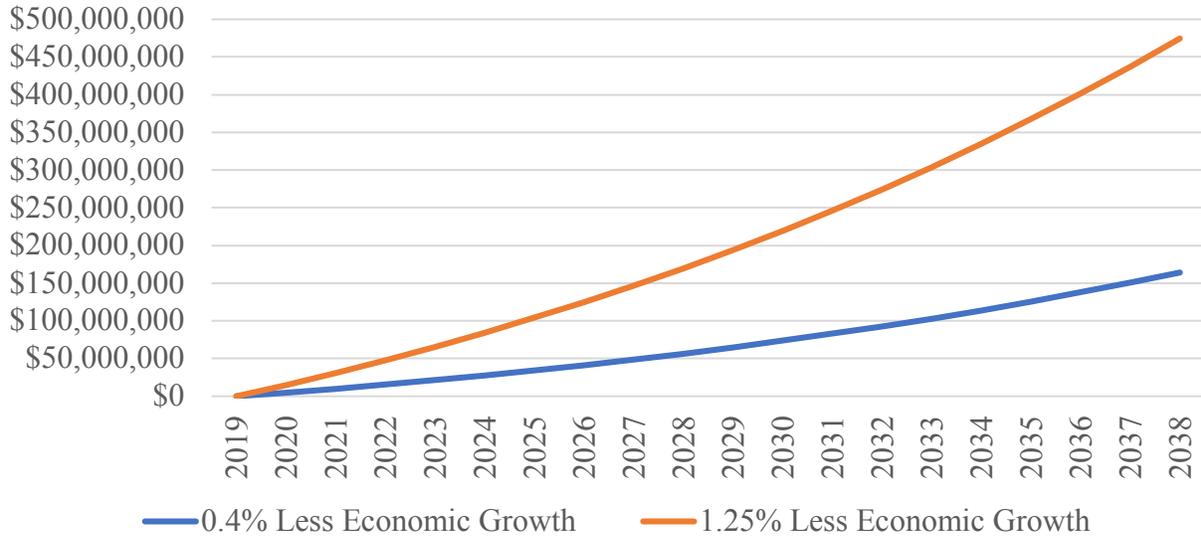


Chart 3. Decrease in COSA Total Revenue Under Uncertainty

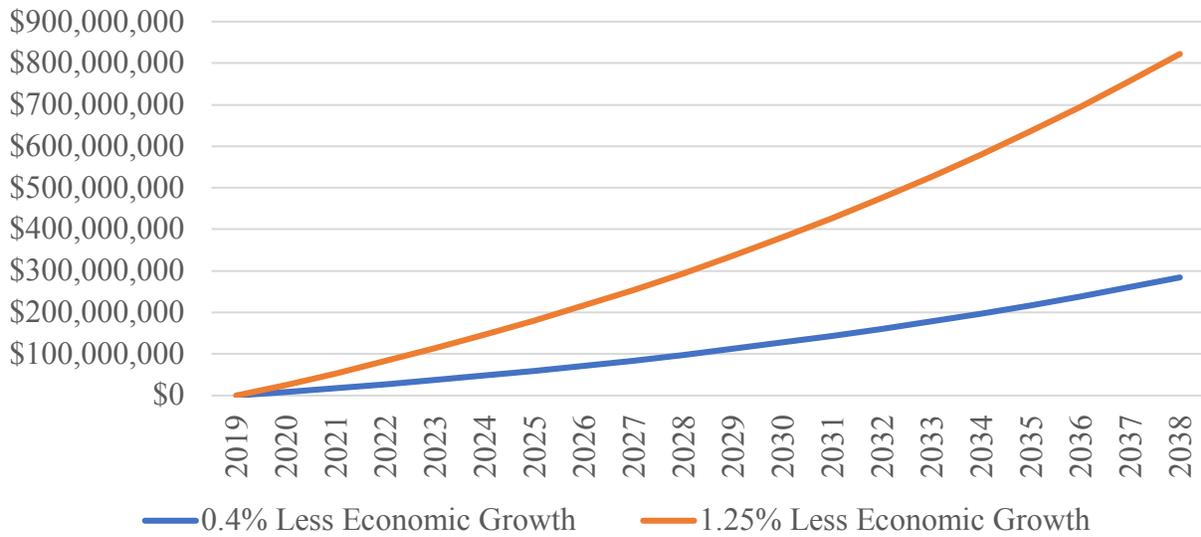


Table 4. Annual Loss in Revenues to COSA from Lower Economic Growth

General Funds Revenue		
<i>Year</i>	<i>0.4% Less Economic Growth</i>	<i>1.25% Less Economic Growth</i>
2019	\$0	\$0
2020	\$4,846,071	\$15,068,521
2021	\$10,008,202	\$30,992,030
2022	\$15,501,874	\$47,807,501
2023	\$21,343,241	\$65,553,349
2024	\$27,549,160	\$84,269,487
2025	\$34,137,218	\$103,997,378
2026	\$41,125,765	\$124,780,099
2027	\$48,533,942	\$146,662,391
2028	\$56,381,712	\$169,690,730
2029	\$64,689,898	\$193,913,384
2030	\$73,480,216	\$219,380,485
2031	\$82,775,307	\$246,144,093
2032	\$92,598,782	\$274,258,268
2033	\$102,975,254	\$303,779,147
2034	\$113,930,383	\$334,765,017
2035	\$125,490,917	\$367,276,393
2036	\$137,684,734	\$401,376,106
2037	\$150,540,891	\$437,129,379
2038	\$164,089,667	\$474,603,923
Average	\$68,384,162	\$202,072,384

Total Revenue		
<i>Year</i>	<i>0.4% Less Economic Growth</i>	<i>1.25% Less Economic Growth</i>
2019	\$0	\$0
2020	\$8,395,512	\$26,105,263
2021	\$17,338,580	\$53,691,741
2022	\$26,856,020	\$82,823,485
2023	\$36,975,821	\$113,567,050
2024	\$47,727,185	\$145,991,580
2025	\$59,140,581	\$180,168,910
2026	\$71,247,799	\$216,173,665
2027	\$84,081,998	\$254,083,359
2028	\$97,677,766	\$293,978,505
2029	\$112,071,176	\$335,942,729
2030	\$127,299,847	\$380,062,878

2031	\$143,403,008	\$426,429,143
2032	\$160,421,559	\$475,135,181
2033	\$178,398,144	\$526,278,246
2034	\$197,377,215	\$579,959,314
2035	\$217,405,112	\$636,283,227
2036	\$238,530,133	\$695,358,832
2037	\$260,802,616	\$757,299,126
2038	\$284,275,017	\$822,221,414
Average	\$118,471,255	\$350,077,682

Chart 4. Cumulative Decrease in General Funds Revenue

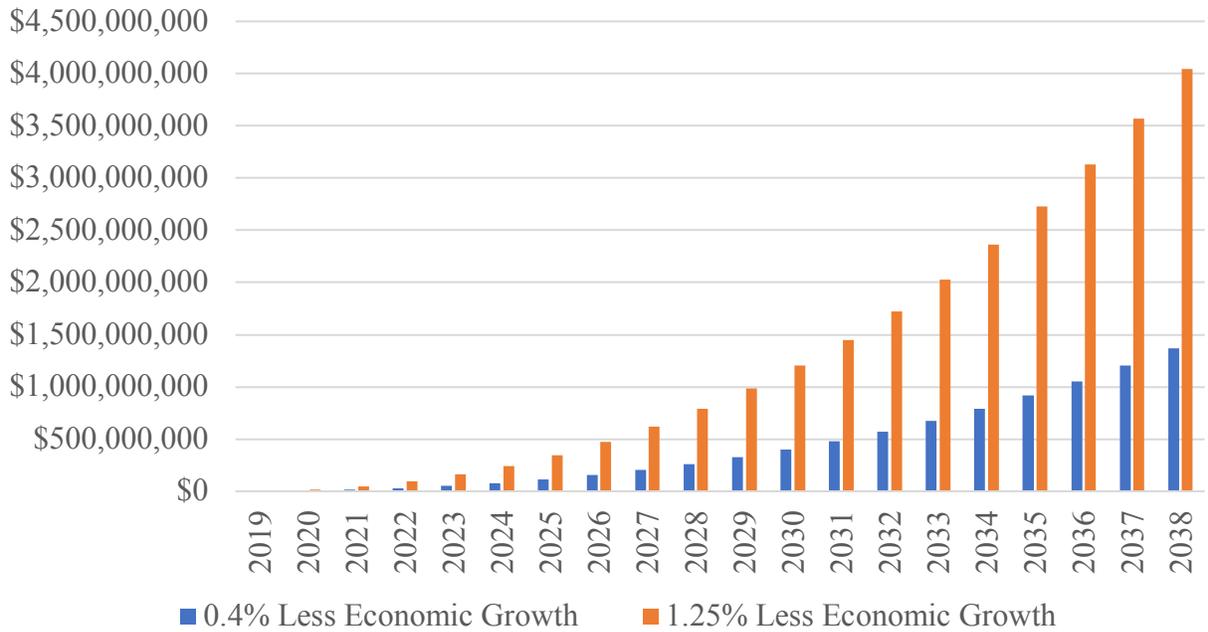


Chart 5. Cumulative Decrease in Total Revenue

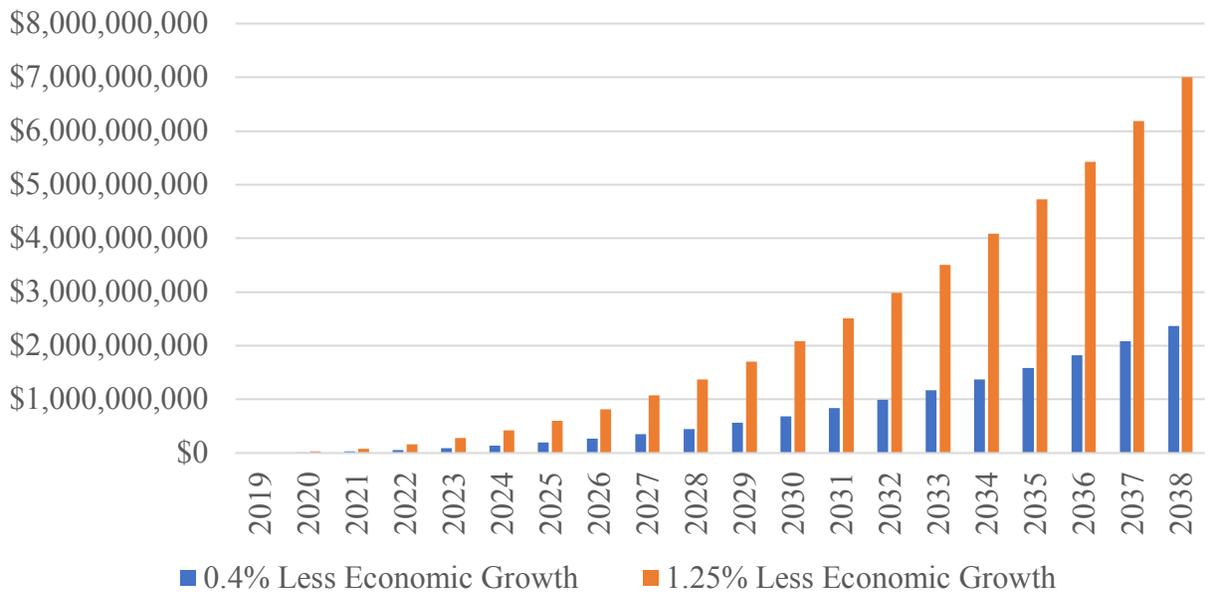


Table 5. Cumulative Loss in Revenues to COSA from Lower Economic Growth

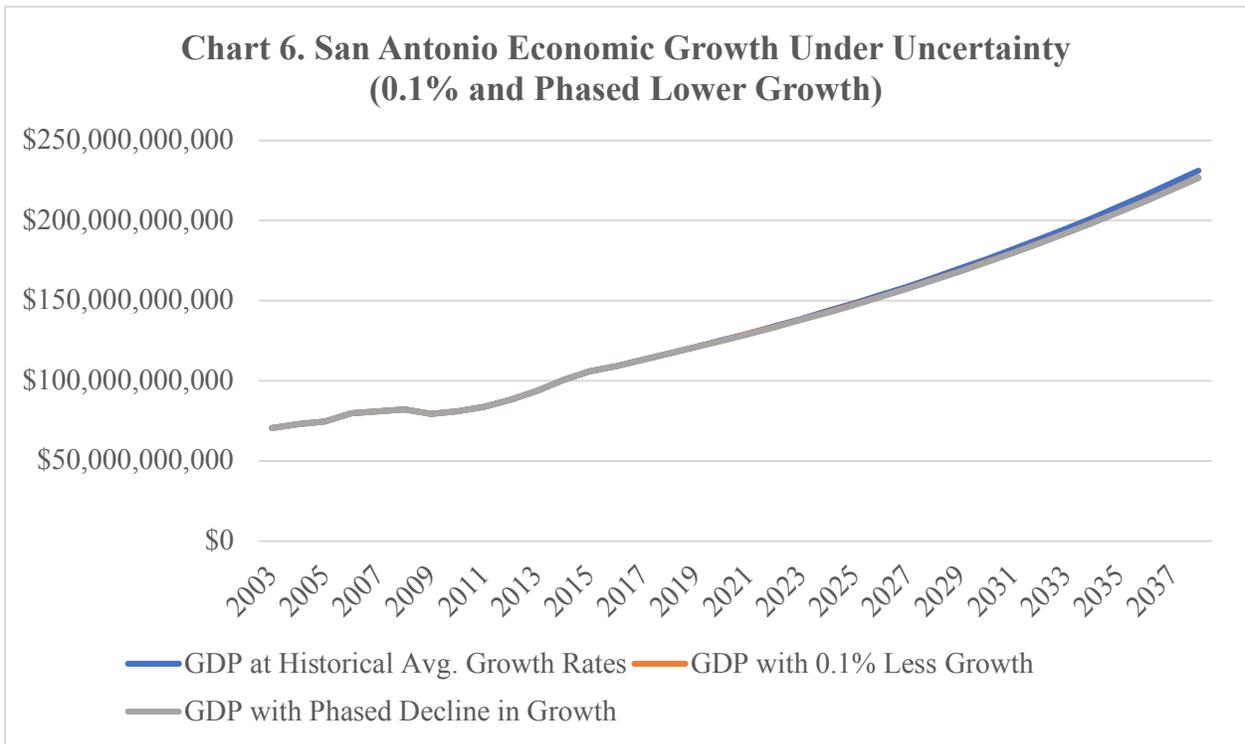
General Funds Revenue		
<i>Year</i>	<i>0.4% Less Economic Growth</i>	<i>1.25% Less Economic Growth</i>
2019	\$0	\$0
2020	\$4,846,071	\$15,068,521
2021	\$14,854,272	\$46,060,551
2022	\$30,356,146	\$93,868,052
2023	\$51,699,387	\$159,421,401
2024	\$79,248,547	\$243,690,887
2025	\$113,385,765	\$347,688,266
2026	\$154,511,530	\$472,468,365
2027	\$203,045,472	\$619,130,756
2028	\$259,427,184	\$788,821,486
2029	\$324,117,082	\$982,734,870
2030	\$397,597,298	\$1,202,115,355
2031	\$480,372,605	\$1,448,259,448
2032	\$572,971,387	\$1,722,517,716
2033	\$675,946,641	\$2,026,296,863
2034	\$789,877,024	\$2,361,061,879
2035	\$915,367,941	\$2,728,338,273
2036	\$1,053,052,675	\$3,129,714,378
2037	\$1,203,593,566	\$3,566,843,757
2038	\$1,367,683,234	\$4,041,447,680

Total Revenue		
<i>Year</i>	<i>0.4% Less Economic Growth</i>	<i>1.25% Less Economic Growth</i>
2019	\$0	\$0
2020	\$8,395,512	\$26,105,263
2021	\$25,734,092	\$79,797,004
2022	\$52,590,112	\$162,620,490
2023	\$89,565,933	\$276,187,539
2024	\$137,293,118	\$422,179,119
2025	\$196,433,699	\$602,348,029
2026	\$267,681,498	\$818,521,694
2027	\$351,763,496	\$1,072,605,053
2028	\$449,441,262	\$1,366,583,558
2029	\$561,512,438	\$1,702,526,288
2030	\$688,812,285	\$2,082,589,166

2031	\$832,215,294	\$2,509,018,308
2032	\$992,636,853	\$2,984,153,490
2033	\$1,171,034,997	\$3,510,431,736
2034	\$1,368,412,212	\$4,090,391,049
2035	\$1,585,817,325	\$4,726,674,277
2036	\$1,824,347,458	\$5,422,033,108
2037	\$2,085,150,074	\$6,179,332,235
2038	\$2,369,425,091	\$7,001,553,649

Assuming the decline in growth is not as sharp as the evidence indicates it might be from the research, the following charts and tables provide the results of two different scenarios. In one scenario, the growth declines by one 0.1 percentage points per year over the time period. This scenario assumes that the impact on growth will not be as large as the effects have been shown in other cases in the research.

In the second scenario, the decline in growth is phased from a higher decline in growth of 0.4 percentage points in the first year the impacts are felt (2020), 0.25 percentage point decline in the next year (2021), and a 0.1 percentage point in 2022 and every year thereafter. This last scenario basically captures the possible situation where uncertainty is heightened after the initial passage and implementation of the charter amendment, but diminishes after firms and consumers adjust to the policy. There will always be some level of uncertainty since the amendment greatly expands the scope of issues that can be taken to a referendum and makes it easier to accomplish this, so growth will likely be impacted negatively throughout the time period. Chart 6 shows the different growth paths in GDP under these different scenarios.



Under the scenario in which growth declines by 0.1% each year, the City of San Antonio is projected to lose \$1.2 million in revenues in 2020, and the losses will increase to \$42.7 million in 2038. Total revenues forgone will amount to \$2.1 million in 2020 and \$74.0 million in 2038. The cumulative losses over the entire time period will amount to \$353.4 million and \$612.3 million in general fund revenues and total revenues, respectively, under this scenario.

If the decline in growth is phased, the City will see a loss of general fund revenues of \$3.0 million in 2020 increasing to \$46.0 million in 2038. Total revenue lost will amount to \$5.3 million in 2020 increasing to \$79.7 million in 2038. The cumulative impacts under this scenario indicate a loss in general fund revenues of \$400.5 million and a loss of \$693.8 million in total revenues. These figures are provided in Charts 7-10 and Tables 6 and 7.

Chart 7. Annual Decrease in COSA General Funds Revenue Under Uncertainty (0.1% and Phased Lower Growth)

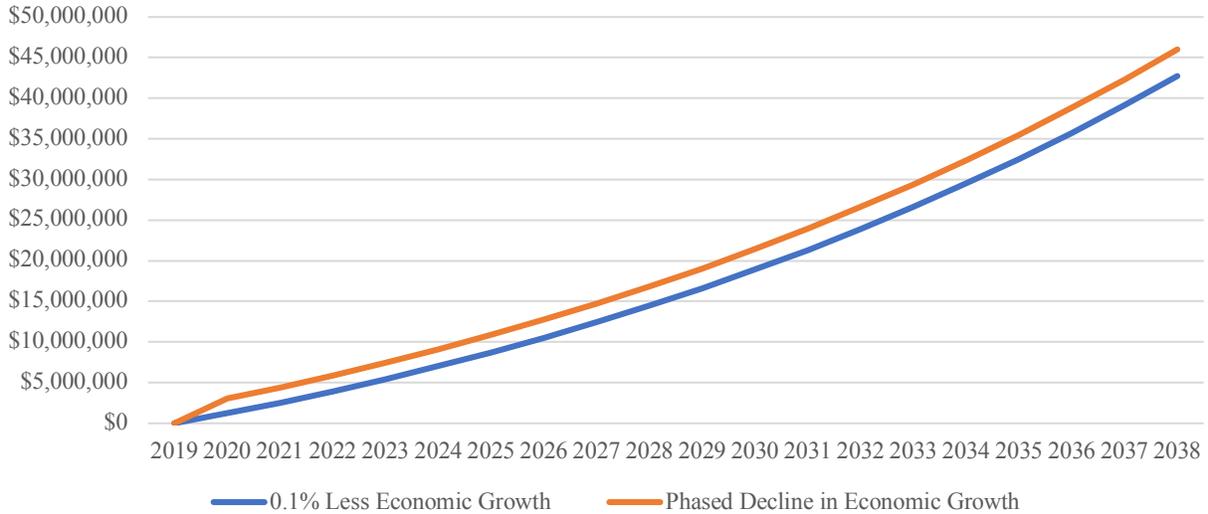


Chart 8. Annual Decrease in COSA Total Revenue Under Uncertainty (0.1% and Phased Lower Growth)

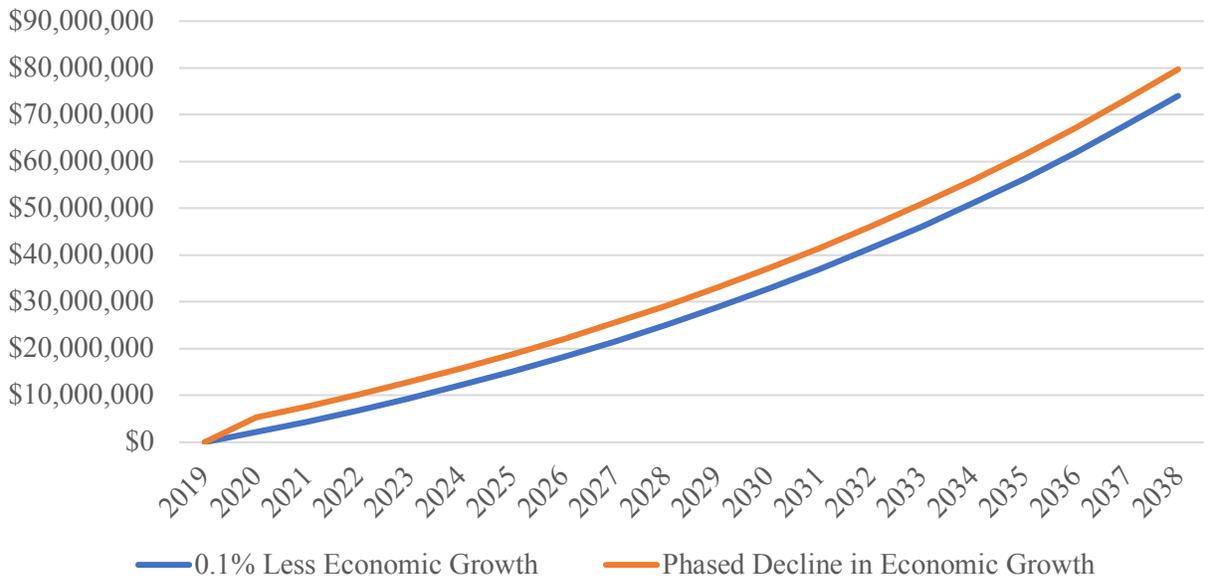
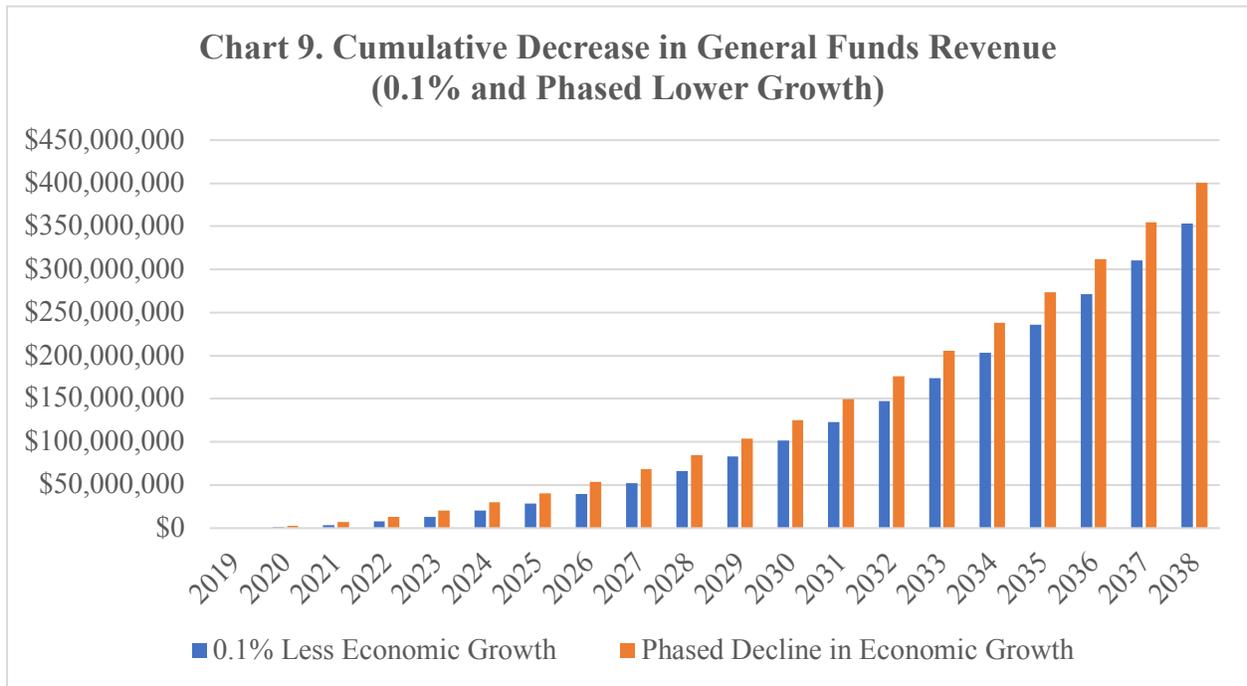


Table 6. Annual Loss in Revenues to COSA from Lower Economic Growth

General Funds Revenue		
<i>Year</i>	<i>0.1% Less Economic Growth</i>	<i>Phased Decline in Economic Growth</i>
2019	\$0	\$0
2020	\$1,229,626	\$3,037,848
2021	\$2,543,136	\$4,412,115
2022	\$3,944,824	\$5,876,601
2023	\$5,439,177	\$7,435,861
2024	\$7,030,886	\$9,094,659
2025	\$8,724,855	\$10,857,970
2026	\$10,526,207	\$12,730,995
2027	\$12,440,299	\$14,719,168
2028	\$14,472,726	\$16,828,165
2029	\$16,629,334	\$19,063,915
2030	\$18,916,230	\$21,432,614
2031	\$21,339,795	\$23,940,729
2032	\$23,906,692	\$26,595,018
2033	\$26,623,879	\$29,402,533
2034	\$29,498,624	\$32,370,640
2035	\$32,538,514	\$35,507,030
2036	\$35,751,472	\$38,819,730
2037	\$39,145,768	\$42,317,120
2038	\$42,730,036	\$46,007,945
Average	\$17,671,604	\$20,022,533

Total Revenue		
<i>Year</i>	<i>0.1% Less Economic Growth</i>	<i>Phased Decline in Economic Growth</i>
2019	\$0	\$0
2020	\$2,130,249	\$5,262,880
2021	\$4,405,823	\$7,643,711
2022	\$6,834,160	\$10,180,841
2023	\$9,423,032	\$12,882,162
2024	\$12,180,568	\$15,755,924
2025	\$15,115,261	\$18,810,750
2026	\$18,235,991	\$22,055,648
2027	\$21,552,035	\$25,500,032
2028	\$25,073,086	\$29,153,736
2029	\$28,809,273	\$33,027,033
2030	\$32,771,178	\$37,130,654

2031	\$36,969,852	\$41,475,806
2032	\$41,416,838	\$46,074,193
2033	\$46,124,194	\$50,938,036
2034	\$51,104,509	\$56,080,096
2035	\$56,370,927	\$61,513,694
2036	\$61,937,175	\$67,252,738
2037	\$67,817,579	\$73,311,746
2038	\$74,027,097	\$79,705,868
Average	\$30,614,941	\$34,687,777



**Chart 10. Cumulative Decrease in Total Revenue
(0.1% and Phased Lower Growth)**

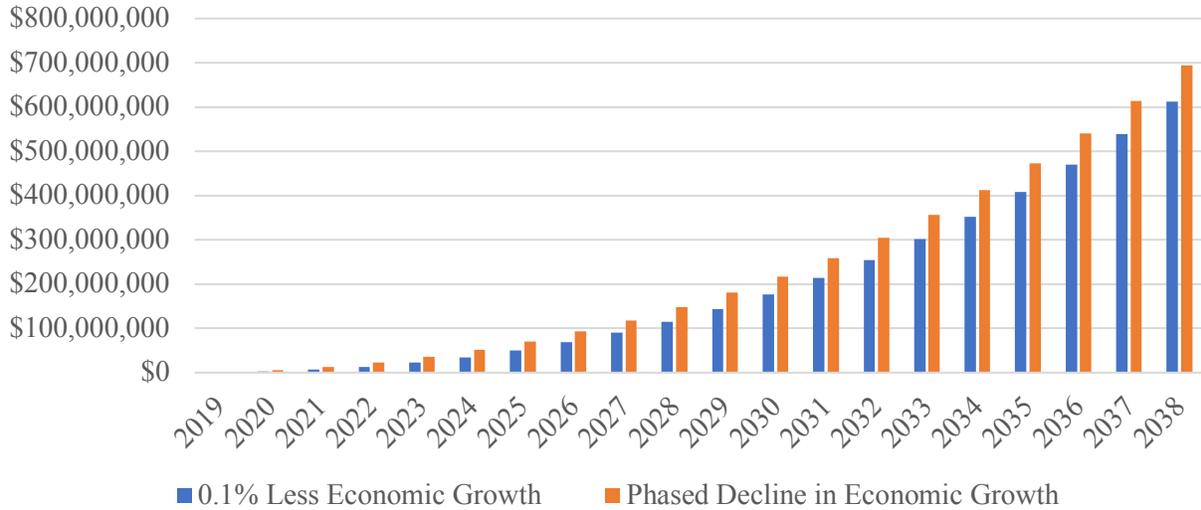


Table 7. Cumulative Loss in Revenues to COSA from Lower Economic Growth

Year	General Funds Revenue	
	<i>0.1% Less Economic Growth</i>	<i>Phased Decline in Economic Growth</i>
2019	\$0	\$0
2020	\$1,229,626	\$3,037,848
2021	\$3,772,762	\$7,449,963
2022	\$7,717,586	\$13,326,564
2023	\$13,156,763	\$20,762,425
2024	\$20,187,650	\$29,857,084
2025	\$28,912,504	\$40,715,054
2026	\$39,438,711	\$53,446,050
2027	\$51,879,010	\$68,165,218
2028	\$66,351,736	\$84,993,382
2029	\$82,981,069	\$104,057,298
2030	\$101,897,300	\$125,489,911
2031	\$123,237,095	\$149,430,641
2032	\$147,143,787	\$176,025,658
2033	\$173,767,666	\$205,428,191
2034	\$203,266,290	\$237,798,831

2035	\$235,804,804	\$273,305,861
2036	\$271,556,276	\$312,125,592
2037	\$310,702,045	\$354,442,711
2038	\$353,432,081	\$400,450,656

Total Revenue		
<i>Year</i>	<i>0.1% Less Economic Growth</i>	<i>Phased Decline in Economic Growth</i>
2019	\$0	\$0
2020	\$2,130,249	\$5,262,880
2021	\$6,536,072	\$12,906,592
2022	\$13,370,232	\$23,087,433
2023	\$22,793,264	\$35,969,594
2024	\$34,973,832	\$51,725,518
2025	\$50,089,093	\$70,536,268
2026	\$68,325,084	\$92,591,916
2027	\$89,877,119	\$118,091,948
2028	\$114,950,205	\$147,245,683
2029	\$143,759,478	\$180,272,716
2030	\$176,530,656	\$217,403,371
2031	\$213,500,508	\$258,879,177
2032	\$254,917,346	\$304,953,370
2033	\$301,041,541	\$355,891,407
2034	\$352,146,049	\$411,971,503
2035	\$408,516,977	\$473,485,197
2036	\$470,454,151	\$540,737,935
2037	\$538,271,730	\$614,049,681
2038	\$612,298,827	\$693,755,549

Impact on Budget Compared to Public Safety Expenses

Currently the expenditures on public safety are maintained at 66% of the general fund revenues. However, if the charter amendments are approved and implemented, public safety expenditures could escalate well beyond 66% of the general fund budget at the same time the rate of increase in revenues is slowing due to diminished economic growth.

From 2008 to 2017, Police Department expenses grew 4.9% annually on average, expenditures on the Fire Department grew on average 5.2% annually, and Park Police expenses increased annually at a rate of 5.7%. Assuming these growth rates continue for the twenty year period of this analysis, it is clear that the public safety expenses will become an increasingly larger proportion of the overall general fund budget under the four different scenarios of slower economic growth, as shown in Chart 11. Based on these projections, public safety expenditures will completely overtake the entire budget by 2037 under the scenario of 1.25% slower economic growth. As shown in Table 8, total public safety expenses will comprise from 84% to 104% of the general fund budget by 2038, depending on the rate at which economic growth slows. This means that the City will only be able to afford to use 11-16% of the general fund budget for non-public safety services under three of the growth scenarios, and under the scenario in which growth declines the most, none of the general fund budget will be able to be used for non-public safety services.

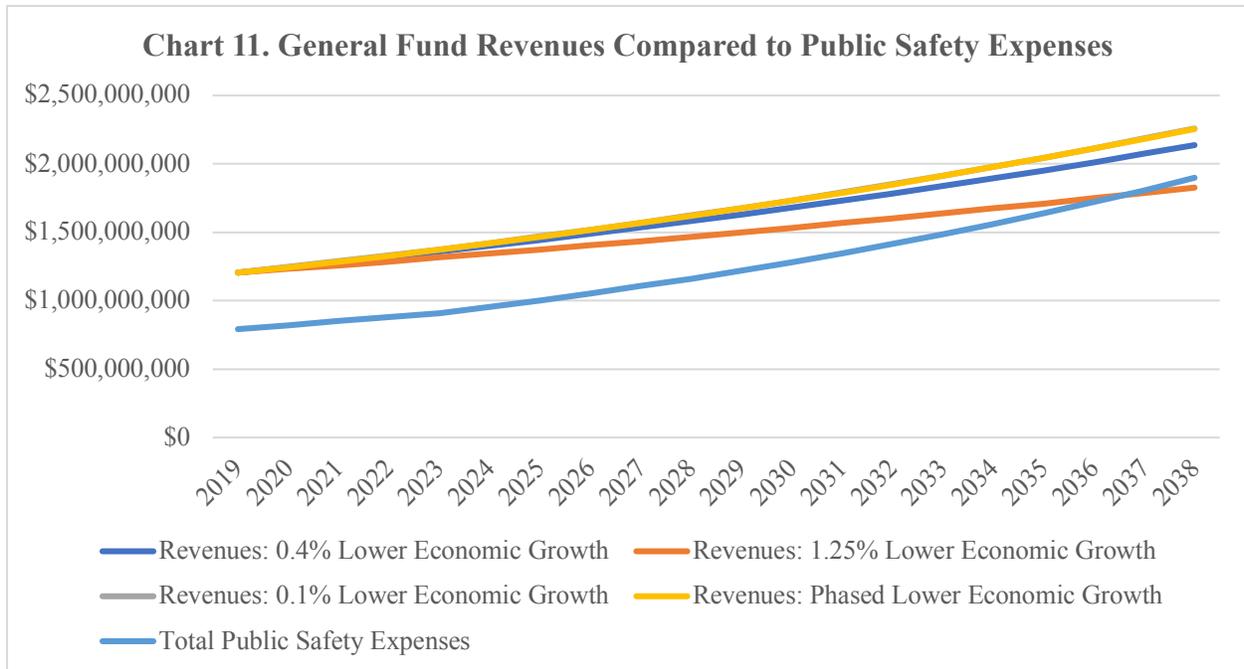


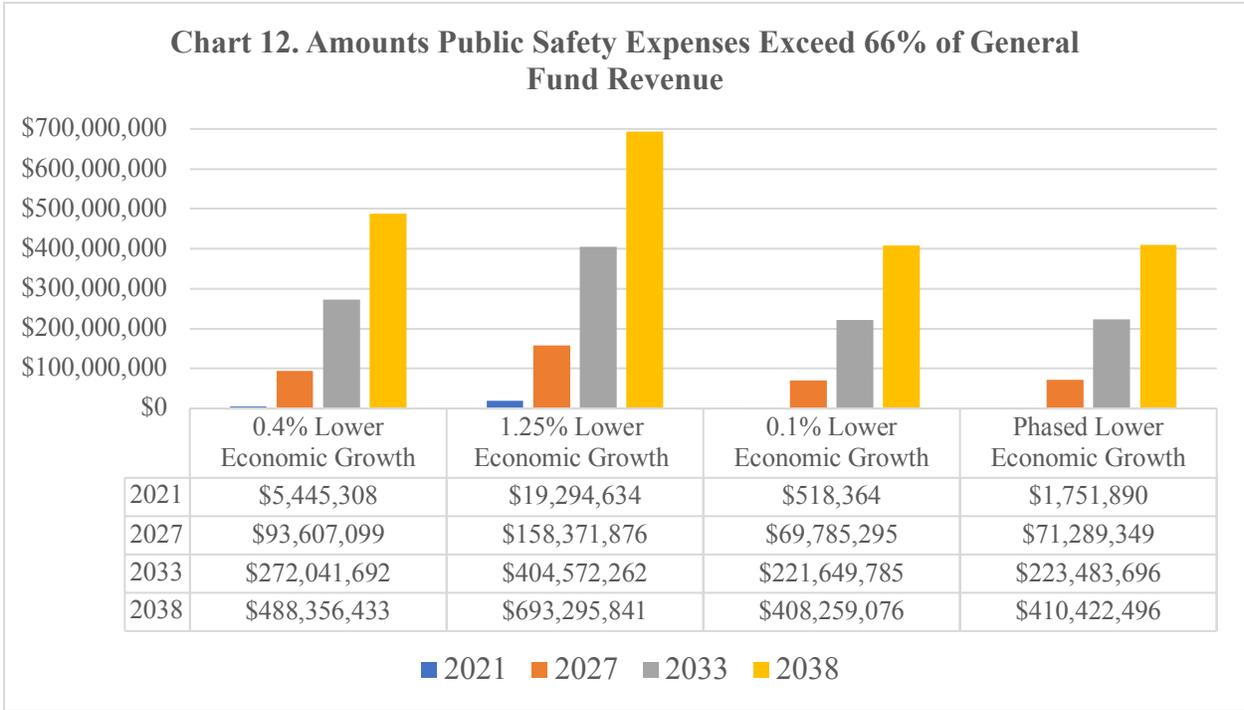
Table 8. Public Safety Expenses as a Percent of General Fund Revenues Under Different Growth Scenarios

<i>Growth Scenario</i>	<i>Percent of General Fund Revenues in 2038</i>
0.4% Lower Economic Growth	89%
1.25% Lower Economic Growth	104%
0.1% Lower Economic Growth	84%
Phased Lower Economic Growth	84%

NOTE: Under the scenario with 1.25% lower economic growth, public safety expenses equate to 100% of revenues by 2037.

As an increasing share of the general fund budget is allocated to public safety, other services provide by the City of San Antonio will have to be reduced and/or revenues will have to increase. Chart 12 provides an indication of the magnitudes at which services will be reduced or revenues will need to increase under the different growth scenarios. If economic growth slows by 0.1 percentage points, public safety will consume an additional \$518 thousand dollars of the general fund budget, but this could range as high \$19.2 million if growth slows by 1.25 percentage points. By 2038, other public services will have to be reduced \$408.3 million or

additional sources of revenue will have to be found to fund these services as public safety expenses will consume 84% of the general fund budget with just a 0.1% decline in economic growth. If growth slows 1.25 percentage points, there will not be any additional revenue left to allocate towards non-public safety services, since public safety expenses will consume the entire budget. This means public safety expenditures will exceed 66% of the general fund budget by \$693.3 million in 2038, but as already indicated, these expenses will consume the entire budget by 2037. Since expenditures cannot exceed the general fund budget, this means the actual value of the reduction in other public services will amount to \$621.1 million if these projections come to fruition under this scenario.



Cost of Elections

There is also a cost to administer the elections, including a cost to verify the signatures on a petition to get an item on a referendum ballot. According to the City of San Antonio Office of the City Clerk, the cost to administer one of these elections is about \$600,000. There can be up to two referendum elections in a calendar year potentially resulting in an annual cost to the City of

San Antonio of \$1,200,000. Assuming there is one referendum election each year excluding the first year of implementation, the total cost to administer the elections over the twenty-year period will amount to \$11,400,000, and if there are two elections per year, this cost escalates to \$22,800,000. Even if there is not one or two elections per year, there is a reasonable chance that there will be numerous referendum elections over this time period, so even if the cost to administer these elections is somewhere within this range, this means a sizeable amount of money is being diverted to administer elections that could be used to repair streets, build community centers, enhance the parks, improve the local cultural venues, or provide many other public services.

Effect on Bond Rating

The City of San Antonio has maintained a AAA bond rating from all three main rating agencies for nine consecutive years. One of the key factors in achieving and maintaining that bond rating has been the consistently strong financial management of the City within a stable fiscal policymaking environment. By lowering the threshold of the number of signatures on a petition to bring an issue to a referendum and expanding the scope of issues that can be brought to a referendum vote to include any item within the City's budget, the charter amendments will most likely result in a downgrading of the bond rating for the City of San Antonio.

This is clearly evident in the ratings methodology documents published by Fitch, Moody's, and Standard and Poor's. For instance, the ability of a local government to forecast its revenues and expenditures is a component in the scoring that each of the rating agencies conducts within the process of determining a bond rating. Standard and Poor's states, "The ability and frequency of changes to municipal responsibilities or revenue raising capabilities resulting from state or statewide voter actions can complicate local government decision making. An inability to sufficiently plan and implement strategies to accommodate these changes can affect a government's fiscal position" (Standard and Poor's, 2013, p. 14). Within the components of "Predictability" and "Revenue and Expenditure Balance," a municipality will receive a score ranging from 1 (very strong) to 5 (very weak). In order to get a 1 for "Predictability," the following conditions must be met: "None of the following elements are true: voter initiative or referenda rights exist to automatically alter revenues or expenditure responsibilities" (Standard

and Poor’s, 2013, p. 15). For the scoring of “Revenue and Expenditure Balance,” the presence of a referendum mechanism will affect the scoring down to the level of adequate, as shown in the following table.

Table 9. Standard and Poor’s Criteria for Assessing the Revenue and Expenditure Balance (Standard and Poor’s, 2013, p. 15)	
<i>Score</i>	<i>Criteria</i>
1 (very strong)	“Local governments within the state have statutory flexibility to raise local source revenues for operating purposes without voter approval.”
2 (strong)	“Local governments within the state have some flexibility to raise local source revenues for operating purposes without voter approval.”
3 (adequate)	“Virtually no ability exists to raise local source revenues for operating purposes without voter approval.”

Moody’s and Fitch have similar requirements. As Moody’s Investors Services considers the issue in their methodology, “A local government’s fiscal position determines its cushion against the unexpected, its ability to meet existing financial obligations, and its flexibility to adjust to new ones. Financial structure reflects how well a local government’s ability to extract predictable revenues for its operational needs are matched to its economic base” (Moody’s Investors Services, 2016, p. 11). They also state that “the expectation that a local government’s budgetary process may reach stalemate in the upcoming budgetary cycle is an example of a factor that has not been included in the scorecard but may factor into a rating” (Moody’s Investors Services, 2016, p. 22).

Fitch Ratings has similar criteria has the other two ratings agencies. In determining the legal ability of a municipality to raise revenues, they assess “the issuer’s independent legal ability to raise operating revenues without external approval in relation to normal cyclical revenue decline” (Fitch Ratings, 2016, p. 6). Another factor they consider is the organization’s ability to manage the budget in times of economic recovery. One factor considered is “evidence of an exceptional degree of taxpayer dissatisfaction, particularly in environments with easy access to the voter-initiative process” (Fitch Ratings, 2016, p. 9).

In the most recent ratings reports, the rating agencies expressed concern about the constraints approval of the charter amendments would place on the City to continue to manage its finances at a level worthy of a AAA rating. Standard & Poor's stated:

Another potential source of budgetary pressure is three recent charter amendment petitions submitted by the firefighters' association....If voters approve the proposed changes to the city's charter in the upcoming November 2018 election, we believe the changes to the referendum process in particular could have a material negative impact on the City's finances, as such initiatives could effectively limit San Antonio's ability to manage its budget (S&P Global, 2018, p. 7).

Fitch noted that:

...these petitions have the potential to greatly limit the city's revenue and expenditure flexibility and interfere with management's ability to operate the city. Successful passage of these petitions, particularly those that make any ordinance subject to referendum and allow the firefighters to require binding arbitration, would lead to negative rating pressure should the city be unable to effectuate effective responses (Fitch Ratings, 2018, p. 4).

It is clear that all three rating agencies consider the ability to take the budget to a referendum vote a negative factor and will likely result in a downgrading of the City's bond rating. With the lowering of the bond rating, the City of San Antonio will then be forced to pay a higher interest rates on their bonds. The following table shows the potential increases in interest costs to the City due to the lower bond ratings.

Table 10. Increases in Interest Costs to City of San Antonio due to Lower Bond Rating³

1 Level Drop (AA+)		
<i>Size of Bond Issue</i>	<i>Low</i>	<i>High</i>
\$1 billion	\$7,000,000	\$15,000,000
\$2.5 billion	\$17,500,000	\$37,500,000
\$3.5 billion	\$24,500,000	\$52,500,000

2 Level Drop (AA)		
<i>Size of Bond Issue</i>	<i>Low</i>	<i>High</i>
\$1 billion	\$18,000,000	\$30,000,000
\$2.5 billion	\$45,000,000	\$75,000,000
\$3.5 billion	\$63,000,000	\$105,000,000

3 Level Drop (AA-)		
<i>Size of Bond Issue</i>	<i>Low</i>	<i>High</i>
\$1 billion	\$45,000,000	\$53,000,000
\$2.5 billion	\$112,500,000	\$132,500,000
\$3.5 billion	\$157,500,000	\$185,500,000

The reduction in the bond rating of the City will also limit or at least make it more costly to engage in other projects that require bond financing. For example, the recent expansion of the Henry B. Gonzalez Convention Center required bond issues in which the ratings were based on the general obligation bond rating of the City of San Antonio. It is typically the case that such bond issues are given a rating at one level below the city’s general obligation bond rating. This means that a drop in the bond rating of the City of San Antonio will also result in a decrease in the bond ratings on these types of projects which will further add to the interest costs.

Furthermore, since CPS Energy and SAWS are required to have their rates approved by the San Antonio City Council, the charter amendment opens these rates to the possibility of

³ These projections were provided by the City of San Antonio’s co-financial advisors: FTN Financial Municipal Advisors and Hilltop Securities Inc.

going to a referendum vote. This uncertainty could also very possibly negatively affect the bond ratings for the utilities, which today have excellent ratings for municipally-owned utilities.⁴

It should be noted that the lowering of the bond rating does not mean that some of these projects will not be done, although it could mean that some projects are not pursued because the increased costs of financing projects crowds out other projects. However, the projects that are pursued will have to be scaled back from what they would otherwise be under a higher bond rating and lower interest costs. This means, for example, that the convention center would have been smaller or other infrastructure or amenities do not get built or get scaled back. A smaller convention center means that some large conventions will not be able to be accommodated in San Antonio resulting in lower spending on hotels and restaurants. Infrastructure and amenities that are not competitive with other cities, as noted elsewhere, mean a reduction in the number of workers and firms that will be attracted to the area. Beyond the increased interest costs, the lower bond ratings will ultimately have profound impacts on the ability of the San Antonio economy to continue to develop.

Wage Compression

Institutions can have profound effects on economic growth through their ability to provide productive business environments, safe communities, efficient and effective governance, attractive quality of life amenities, and other elements of growing communities (Acemoglu et al, 2001; Acemoglu et al., 2003; Acemoglu et al., 2004; Acemoglu and Robinson, 2013). The importance of well-functioning local government institutions that provide the amenities to foster economic growth is widely documented.

Some of the infrastructure and amenities that have been shown to have positive effects on economic development include airports (Brueckner, 2003; Green, 2007; Blonigen and Cristea, 2012; Sheard, 2014), roads (Michaels, 2008; Duranton and Turner, 2011, 2012; Duranton et al., 2013), and arts and culture in its various forms (Cerisola, 2018; Florida, 2002, 2008; Florida and Gates, 2011; European Commission, 2010; UNCTAD 2008, 2010; Markusen and King, 2003;

⁴ The bond ratings for CPS Energy on senior lien debt as of August 30, 2017 are AA+ from Fitch, Aa1 from Moody's, and AA from Standard & Poor's. The bond ratings for SAWS on senior lien debt as of January 2017 are AA+ from Fitch, Aa1 from Moody's, and AA+ from Standard & Poor's.

Clark, 2011a, 2011b; Gottlieb, 1994; Blomquist et al, 1988; Deller et al., 2001; Glaeser et al., 2001; Adamson et al., 2004; Malecki, 2004; McCann, 2004; Ferguson, 2007; Partridge, 2010).

The amendment that caps the city manager’s salary would place a maximum on the salary of \$290,000 based on the current salary structure within the City of San Antonio. Based on data from the Texas City Management Association 2017-18 City Management Compensation Survey, this would place the city manager’s salary for the City of San Antonio at a level comparable to the city manager salaries in much smaller cities and below cities of comparable size (see Table 11). Additionally, it should be noted that the salary for the city manager for the City of Austin in Table 11 is his starting salary, as he just recently started in that position, and the manager for the City of Dallas, who worked under the current city manager for the City of San Antonio, is only in his fourth year in that job. This could make it difficult to attract top talent to this position, especially with the term limits that would be placed on the position. This will also create wage compression and could also make it difficult to attract top-level talent to other executive and management positions.

Table 11. City Manager Salaries Comparable to Capped Salary: 2017-2018
(Source: Texas City Management Association, 2018)

<i>City</i>	<i>Population</i>	<i>Annual Salary</i>
Arlington, TX	392,772	\$298,000
Austin, TX	950,715 ⁵	\$325,000 ⁶
Bryan, TX	85,613	\$300,000
Dallas, TX	1,317,929	\$375,000
Fort Worth, TX	854,113	\$327,600
Grand Prairie, TX	190,682	\$272,881
Richardson, TX	113,347	\$278,226

With a diminished ability to attract the top talent into executive and management positions, this may affect the provision of public services resulting in an adverse effect on economic development. If a company decides not to expand or locate in San Antonio because the infrastructure, amenities, and other public services they need are not being adequately provided,

⁵ The population of the City of Austin was pulled from the U.S. Census Bureau Annual Estimates of the Resident Population.

⁶ Source: (*Austin Business Journal* Staff, Feb. 2, 2018)

this will result in a loss of jobs in San Antonio. This reduction in economic and job growth will result in a loss of revenues to the City of San Antonio.

In order to calculate a projection of the potential lost revenues from a reduction in employment, data were collected on the annual general fund revenues and total revenues of the City of San Antonio from the 2016 Comprehensive Annual Financial Reports. Employment data for the City of San Antonio in 2016 were pulled from the U.S. Census American Community Survey. The ratio of revenues to employment was calculated to get the revenues generated to the City per job.

The following table shows these costs per job and calculations of the total annual cost to the City with a given level in the reduction of jobs. Levels of employment loss of 100, 202, 500, and 1,000 are provided. The job loss of 202 is the average number of jobs per company that relocated to San Antonio or expanded in the city, according to data from the San Antonio Economic Development Foundation from 2009 through 2015. These data are shown in Table 12.

Table 12. Jobs Created by Business Attraction or Expansion in San Antonio

(Source: San Antonio Economic Development Foundation, 2009-2015)

<i>Year</i>	<i>Number of Jobs</i>	<i>Number of Companies</i>	<i>Average Number Jobs Created Per Company</i>
2009	4,857	12	405
2010	4,157	16	260
2011	4,917	21	234
2012	3,695	25	148
2013	2,816	24	117
2014	4,762	28	170
2015	4,350	20	218
Total	29,554	146	202

Table 13 shows examples of the potential cost to the City of San Antonio of the loss of jobs due to a reduced level of public services being provided by the City. For each job lost, general fund revenues will decline by \$1,620 and total revenues will decline by \$2,836 annually. If an average corporate relocation or expansion in San Antonio does not occur, there will be a

loss of 202 jobs on average at a cost of \$327,183 to the general fund and \$572,857 in total revenues to the City of San Antonio.

Table 13. Costs of Loss of Jobs due to Diminished Provision of Public Services

	Cost Per Job	Annual Costs due to Decreases in Employment			
		100	202	500	1,000
General Fund Revenues	\$1,620	\$161,972	\$327,183	\$809,859	\$1,619,718
Total Revenues	\$2,836	\$283,593	\$572,857	\$1,417,964	\$2,835,927

Conclusion

If these charter amendments go into effect, the City of San Antonio will be placed into an environment of policy-making and management that is uncharted. This will bring about a level of policy uncertainty during both good and bad economic times that will slow economic growth and have large economic and fiscal impacts to the community, as illustrated in Table 14. The severe constraints the amendments will place on the City’s budget will necessitate that new revenues sources be found possibly through the increase in tax rates and/or many public services be cut. These impacts will impede economic development and impact quality of life in San Antonio.

Table 14. Summary of the Projected Impacts of the Charter Amendments over a Twenty-Year Period

	<i>0.4% Lower Economic Growth</i>	<i>1.25% Lower Economic Growth</i>
Decrease in COSA General Fund Revenues	\$1,367,683,234	\$4,041,447,680
Lowering of Bond Rating		
One level drop in rating	\$17,500,000	\$17,500,000
Three level drop in rating	\$132,500,000	\$132,500,000
Administrative Costs of Election		
1 election per year	\$11,400,000	\$11,400,000
2 elections per year	\$22,800,000	\$22,800,000
<i>Total</i>		
<i>Low</i>	<i>\$1,396,583,234</i>	<i>\$4,070,347,680</i>
<i>High</i>	<i>\$1,522,983,234</i>	<i>\$4,196,747,680</i>
	<i>0.1% Lower Economic Growth</i>	<i>Phased Lower Economic Growth</i>
Decrease in COSA General Fund Revenues	\$353,432,081	\$400,450,656
Lowering of Bond Rating		
One level drop in ratings	\$17,500,000	\$17,500,000
Three level drop in rating	\$132,500,000	\$132,500,000
Administrative Costs of Election		
1 election per year	\$11,400,000	\$11,400,000
2 elections per year	\$22,800,000	\$22,800,000
<i>Total</i>		
<i>Low</i>	<i>\$382,332,081</i>	<i>\$429,350,656</i>
<i>High</i>	<i>\$508,732,081</i>	<i>\$555,750,656</i>

Additionally, as the growth in revenues is constrained, the growth in expenditures on public safety will likely increase such that the budget gets squeezed on both sides of the ledger. If expenditures on public safety are allowed to grow unchecked, they will eventually consume almost all or potentially the entire general fund budget, as shown in Table 15. This means that expenditures on public safety will eventually crowd-out spending on non-public safety services in the range of \$408.3 million to \$693.3 million⁷ by 2038.

⁷ See footnote 1.

Table 15. Public Safety Expenses in Relation to General Fund Revenues Under Different Growth Scenarios

<i>Growth Scenario</i>	<i>Percent of General Fund Revenues in 2038</i>		<i>Crowding-Out of Non-Public Safety Services</i>	
	<i>2021</i>	<i>2038</i>	<i>2021</i>	<i>2038</i>
0.4% Lower Economic Growth	66%	89%	\$5,445,308	\$488,356,433
1.25% Lower Economic Growth	68%	104%	\$19,294,634	\$693,295,841
0.1% Lower Economic Growth	66%	84%	\$518,364	\$408,259,076
Phased Lower Economic Growth	66%	84%	\$1,751,890	\$410,422,496

The upshot is that the charter amendments are projected to impose severe fiscal impacts to the City of San Antonio. As such, the changes will constrain the City’s ability to make the capital improvements and provide the comprehensive public services necessary to maintain San Antonio’s quality of life and economic vitality.

REFERENCES

- Adamson, D. W., Clark, D. E., & Partridge, M. D. (2004). Do urban agglomeration effects and household amenities have a skill bias? *Journal of Regional Science*, 44(2), 201-223.
- Austin Business Journal Staff. (2018, Feb. 2). Austin city manager's salary to be \$325K. *Austin Business Journal*. Retrieved from <https://www.bizjournals.com/austin/news/2018/01/31/up-for-vote-austin-city-manager-annual-salary-of.html>.
- Baker, S., & Bloom, N. (2013). Does uncertainty reduce growth? Using natural disasters as a natural experiment. National Bureau of Economic Research Working Paper 19475 (Cambridge, Massachusetts).
- Baker, S. R., Bloom, N., & Davis, S. J. (2016). Measuring economic policy uncertainty. *The Quarterly Journal of Economics*, 131(4), 1593-1636.
- Bernanke, B. (1983). Irreversibility, uncertainty, and cyclical investments. *The Quarterly Journal of Economics*, 98, 85-106.
- Blomquist, G. C., Berger, M. C., & Hoehn, J. P. (1998). New estimates of quality of life in urban areas. *The American Economic Review*, 78(1), 89-107.
- Blonigen, B. A., & Cristea, A. D. (2012). Airports and urban growth: Evidence from a quasi-natural policy experiment. NBER Working Paper No. 18278 (Cambridge, Massachusetts).
- Bloom, N., M. A. Kose, & Terrones, M. E. (2013). Held back by uncertainty. *Finance and Development*, 50(1), 38-41.
- Bloom, N. (2009). The impact of uncertainty shocks. *Econometrica*, 77(3), 623-85.
- Brueckner, J. K. (2003). Airline traffic and urban economic development. *Urban Studies*, 40(8), 1455-1469.
- Cerisola, S. (2018). Multiple creative talents and their determinants at the local level. *Journal of Cultural Economics*, 42, 243-269.
- Clark, T. N. (2011a). Introduction: Taking entertainment seriously. In T. N. Clark (Ed.), *City as an entertainment machine*. Lexington: Lexington Books.

- Clark, T. N. (2011b). Urban amenities: Lakes, opera, and juice bars – do they drive development? In T. N. Clark (Ed.), *City as an entertainment machine*. Lexington: Lexington Books.
- Colombo, V. (2013). Economic policy uncertainty in the US: Does it matter for the Euro area?,” *Economics Letters*, 121, 39-42.
- Deller, S. C., Tsai, T., Marcouiller, D. W., & English, D. B. K. (2001). The role of amenities and quality of life in rural economic growth. *American Journal of Agricultural Economics*, 83(2), 352-365.
- Dixit, A. K., & Pindyck, R. S. (1994). *Investment Under Uncertainty*. Princeton, New Jersey: Princeton University Press.
- Duranton, G., & Turner, M. (2011). The fundamental law of road congestion: Evidence from US cities. *American Economic Review*, 101(6), 2616-2652.
- _____. (2012) Urban growth and transportation. *Review of Economic Studies*, 79(4), 1407-1440.
- European Commission. (2010). Green Paper – unlocking the potential of cultural and creative industries.
- Fatas, A., & Mihov, I. (2013). Policy uncertainty, institutions, and economic growth. *The Review of Economics and Statistics*, 95(2), 362-376.
- Ferguson, M., Ali, K., Olfert, M. R., & Partridge, M. (2007). Voting with their feet: Jobs versus amenities. *Growth and Change*, 38(1), 77-110.
- Fitch Ratings. (2016). U.S. tax-supported rating criteria: A user guide. www.fitchratings.com
- Fitch Ratings. (2018). Fitch rates San Antonio, TX limited tax bonds ‘AAA’; Outlook stable. <https://www.sanantonio.gov/Portals/0/Files/Finance/off-statements/2018Obligations-RatingAgencyReports.pdf>
- Florida, R. (2002). *The rise of the creative class: And how it’s transforming work, leisure, community and everyday life*. New York: Basic Books.
- Florida, R. (2003). Cities and the creative class. *City & Community*, 2(1), 3-19.
- Florida, R. (2008). *Who’s your city? How the creative class economy is making where to live the most important decision of your life*. New York: Basic Books.
- Florida, R. & Gates, G. (2011). Technology and tolerance: The importance of diversity to high-technology growth. In T. N. Clark (Ed.), *City as an entertainment machine*. Lexington: Lexington Books.

- Glaeser, E. L., Kolko, J., & Saiz, A. (2001). Consumer city. *Journal of Economic Geography*, 1(1), 27-50.
- Gottlieb, P. D. (1994). Amenities as an economic development tool: Is there enough evidence? *Economic Development Quarterly*, 8, 270-285.
- Green, R. (2007). Airports and economic development. *Real Estate Economics*, 35(1), 91-112.
- Hirata, H., Kose, M. A., Otrok, C., & Terrones, M. E. (2012). Global house price fluctuations: Synchronization and determinants. NBER Working Paper No. 18362 (Cambridge, Massachusetts).
- International Monetary Fund. (October 2012) *World economic outlook: Coping with high debt and sluggish growth*. Washington, D.C.: IMF Press.
- Klossner, R. S. J., & Sekkel, R. (2014). International spillovers of policy uncertainty. *Economics Letters*, 124, 508-512.
- Kose, M. A., & Torres, M. E. (October 2012). How does uncertainty affect economic performance? In *World Economic Outlook Box 1.3*, pp. 49-53. Washington, D.C.: International Monetary Fund.
- Malecki, E. J. (2004). Jockeying for position: What it means and why it matters to regional development policy when places compete. *Regional Studies*, 38(9), 1101-1120.
- Markusen, A., & King, D. (July 2003). The artistic dividend: The arts' hidden contributions to regional development. Minneapolis, MN: University of Minnesota.
- McCann, E. J. (2004). "Best Places": Interurban competition, quality of life and popular media discourse. *Urban Studies*, 41(10), 1909-1929.
- Michaels, G., (2008). The effect of trade on the demand for skill: Evidence from the interstate highway system. *Review of Economics and Statistics*, 90(4), 683-701.
- Moody's Investors Services. (2016). Rating methodology: US local government general obligation debt.
https://c.ymcdn.com/sites/www.wasbo.org/resource/resmgr/17ACPpresentations/Thurs11/Understanding_your_bond_rati.pdf
- Nodari, G. (2014). Financial regulation policy uncertainty and credit spreads in the United States. *Journal of Macroeconomics*, 41, 122-132.
- Partridge, M. D. (2010). The dueling models: NEG vs amenity migration in explaining US engines of growth. *Papers in Regional Science*, 89(3), 513-536.

- Ramey, G., & Ramey, V. (1995). Cross-country evidence on the link between volatility and growth. *American Economic Review*, 85(5), 1138-51.
- San Antonio Economic Development Foundation. (2015). The economic impact of the San Antonio Economic Development Foundation.
http://www.sanantioedf.com/images/uploads/SAEDF.Econ_Impact2015.pdf
- _____. (2014). The economic impact of the San Antonio Economic Development Foundation.
<http://www.sanantioedf.com/images/uploads/2014-Economic-Impact-Study.pdf>
- _____. (2013). The economic impact of the San Antonio Economic Development Foundation.
<http://www.sanantioedf.com/images/uploads/2013-Impact-Study.pdf>
- _____. (2012). The economic impact of the San Antonio Economic Development Foundation.
http://www.sanantioedf.com/images/uploads/SAEDF_Impact_2012.pdf
- _____. (2011). The economic impact of the San Antonio Economic Development Foundation.
http://www.sanantioedf.com/images/uploads/SAEDF_Impact_2011_CCBR_4_0.pdf
- _____. (2010). The economic impact of the San Antonio Economic Development Foundation.
http://www.sanantioedf.com/images/uploads/SAEDF_2010_Impact_Study.pdf
- _____. (2009). The economic impact of the San Antonio Economic Development Foundation.
http://www.sanantioedf.com/images/uploads/2009_edf_impact_study.pdf
- Sheard, N. (2014). Airports and urban sector employment. *Journal of Urban Economics*, 80, 133-152.
- S&P Global. (2018). Ratings Direct: San Antonio, Texas; Appropriations; General Obligation; Note. <https://www.sanantonio.gov/Portals/0/Files/Finance/off-statements/2018Obligations-RatingAgencyReports.pdf>
- Standard and Poor's. (2013). U.S. local governments general obligation ratings: methodology and assumptions.
<https://www.nasra.org/Files/Topical%20Reports/Credit%20Effects/SandPlocal1309.pdf>
- Texas City Management Association. (2018). 2017-18 City Management Compensation Survey. Retrieved from <https://tcma.org/wp-content/uploads/2018/01/2017-Data-Final.pdf>
- UNCTAD. (2008). Creative economy report. http://unctad.org/en/docs/ditc20082cer_en.pdf
- UNCTAD. (2010). Creative economy report. http://unctad.org/en/docs/ditctab20103_en.pdf