ATTACHMENT D

City of Phoenix

BUDGET AND RESEARCH DEPARTMENT REPORT	B.R.D. NUMBER 2019-07
SUBJECT **General Fund Revenue Estimates**	DATE ISSUED March 19, 2018

This report provides additional detail on General Fund (GF) revenue estimates to explain recommended revenue projections. The City is committed to providing a transparent and open budget process. Providing this information enhances the review and understanding of how revenue projections are developed to better facilitate discussions during the annual budget development process.

Careful examination of revenue estimates is required to ensure projections are as accurate as possible in order to maintain fiscal stability and long term budget management. Predicting future revenue growth is challenging and requires consistent and diligent analysis based on sound forecasting principles and methods. Revenues are monitored closely and an updated revenue report is prepared and distributed to the City Manager's Office, the City Council and the community for review monthly. General Fund revenues are comprised of several categories all of which are unique and require separate analysis. The primary revenue categories include: local taxes and related fees, primary property taxes, state shared sales, income and vehicle license taxes, and user fees and non-tax revenues.

Included in this report is an explanation of how GF revenue is projected, the sources relied upon to assist in developing estimates, economic assumptions and the methods used to analyze revenues. Also included are historical revenue actuals and growth rates, the recommended revenue estimates for 2018-19 and 2019-20 and an explanation of the influencing factors used by staff in conducting analysis for each major revenue category. The below table summarizes the 2018-19 and 2019-20 estimated GF revenues and the primary reason for the variance:

GF Revenue Category (millions)	2018-19 Estimate	2019-20 Estimate	Amount Change	Percent Change	Primary Reason for Difference
Local Taxes	$482.1	$505.2	$23.1	4.8%	Continued solid growth in sales tax collections expected through FY 19/20.
Primary Property Tax	161.6	169.2	7.6	4.7%	Increase in assessed property valuation.
State Shared Sales Tax	164.2	172.6	8.4	5.1%	Continued solid growth expected through FY 19/20.
State Shared Income Tax	196.9	215.2	18.3	9.3%	Already known collections (based on FY 17/18 collections).
State Shared Vehicle License Tax	71.6	76.4	4.8	6.7%	Continued increases in vehicle sales expected through FY 19/20.
User Fees & Non-Taxes	131.4	132.7	1.3	1.0%	Increase in several user fees and non-tax revenues, offset by expected decreases in some user fees and non-tax revenues.
Total	**$1,207.8**	**$1,271.3**	**$63.5**	**5.3%**	

Revenue Projections & Trusted Sources

Projecting revenues involves complex analysis and continuous monitoring to identify variances and recommend adjustments so that expenditures do not exceed available resources and a balanced budget can be maintained. As part of the overall forecasting process, assumptions about the direction and strength of the national, state and local economy are considered along with indicators such as population, job growth and personal income. Information on program and service activity levels, rates, and fees that influence certain revenues are evaluated and proposed legislation is monitored to determine potential impacts to revenue categories such as sales taxes, state shared revenues, emergency transportation service revenues and property taxes. In addition, information from city departments on user fees and non-tax revenue is requested and analyzed each year as part of the technical budget review process. Finally, trusted economic and financial sources are relied on to provide certain revenue projections and insight into the overall direction and strength of the economy and include experts from the State's Finance Advisory Committee (FAC), Joint Legislative Budget Committee (JLBC), Arizona State University, University of Arizona (UofA) Economic and Business Research Center (EBRC), Arizona Department of Revenue, National Blue Chip, Western Blue Chip, and the US Bureau of Labor Statistics.

The city is also a member of the Forecasting Project through the EBRC at the UofA. This project is a community-sponsored research program providing project members with economic forecasts for Arizona and the Phoenix-Mesa metro area. Budget & Research (B&R) staff attends quarterly meetings, participates in discussions with other local government and private enterprise members, and receives quarterly economic reports. In the fall of 2014, B&R consulted with the UofA to enhance the City's sales tax revenue forecasting process. Dr. George Hammond, EBRC Director, and Dr. Alberta Charney, Senior Research Economist, spent several months working with staff to develop an enhanced econometric forecasting model for sales tax. In the summer of 2017, staff worked with EBRC to update the tax forecasting model. The additional consulting with Drs. Hammond and Charney provided the City with solid, independent economic and statistical expertise used to develop a statistically valid forecasting model specifically for the City of Phoenix. The FY 2019-20 projected growth rates for city and state sales tax are based on estimates developed using the enhanced econometric forecasting model.

Economic Assumptions

Several of the primary revenue categories are influenced by the economy and the sources mentioned above provide valuable information about the expected growth of the economy. These sources are used in developing projected revenue growth rates. B&R staff continuously monitors economic variables and what these experts are predicting when developing revenue estimations.

The overall consensus from these trusted sources is Arizona and the Phoenix Metro area are set to carry significant momentum in 2019. They predict the state will continue to grind out solid gains assuming the national economy avoids recession. However, it is worth noting that since 1945, the average length of a U.S. economic expansion has been approximately 5 years and the longest has been 10 years. The current expansion has lasted over 9 years, and it will break the record for the longest economic U.S. expansion in July 2019. Two-thirds of 60+ U.S. business economists in a recent Wall Street Journal survey expect a recession by the end of 2020. The Moody's Analytics baseline forecast puts the highest odds of the next recession in mid-2020. If their prediction is accurate, the U.S. economic expansion will end at some point within the forecast range.

Arizona and the greater Phoenix area are firing on all cylinders and the solid growth is expected to continue in 2019. State job growth rose by 3.4% over-the-year in the fourth quarter of 2018, which was well above the national rate of 1.7% and was the fourth consecutive acceleration. Construction activity led growth, with strong increases in jobs, permits, and prices (Economic Outlook, 2019 1st

Quarter Report). Arizona is a leader in diverse industrials ranging from construction to manufacturing to health care and professional services, although there still might be a threat to the economy from an unexpected national downturn driven by dissipation of the federal fiscal stimulus, the lagged impacts of past interest rate increases, uncertainty about the resolution of trade disputes, and decelerating global economic performance (Economic Forecasting Luncheon, November 2018; Economic Outlook, 2019 1st Quarter Report).

Revenue Forecasting Methods

Several forecasting methods and practices are used to estimate city revenues and will vary depending on the type of revenue being analyzed. Evaluating historical growth patterns and current actuals is an important component to analysis and provides insight into the direction of the various revenue categories and the growth needed to achieve estimated revenues. Information is also collected from the economic sources mentioned earlier to ensure current and subsequent year estimates are reasonable and in-line with what these experts are predicting. The State FAC provides valuable information from a panel of respected economists and financial professionals. Included in their materials are projections of state sales tax and income tax collections. These projections are considered when developing city sales tax and state shared sales and income tax revenues for both the current and subsequent fiscal years. Additionally, information is collected from city departments during the annual technical review process which is needed to analyze the user fee and non-tax revenue category. The department's knowledge of the revenues generated by various city programs and services is essential to developing accurate projections. Staff also considers one-time revenues, adjustments and contractual agreements impacting growth when developing estimates.

In conjunction with considering historical growth, current trends, and information from trusted sources and departments, B&R staff uses several forecasting methods when preparing recommended estimates. The most common methods of revenue estimation used are: averages of actual revenue experience by varying time periods, annualization of year-to-date actuals, and most often a percent of prior year method. This last method involves analyzing the amount of revenue collected at a point in time during prior fiscal years, for example seven months, represented as a percentage of the total collections for the entire fiscal year and then applying that percentage to current year-to-date actuals. This method accounts for the seasonal nature of many city revenues and is often a more effective method than using an averages or annualizing approach. Additionally, the growth rate needed to reach the budgeted or estimated revenue is considered. If the percentage growth needed for the remaining months of the fiscal year is substantially higher or lower than the current growth rate, adjustments are made to arrive at a new estimated revenue amount for the fiscal year.

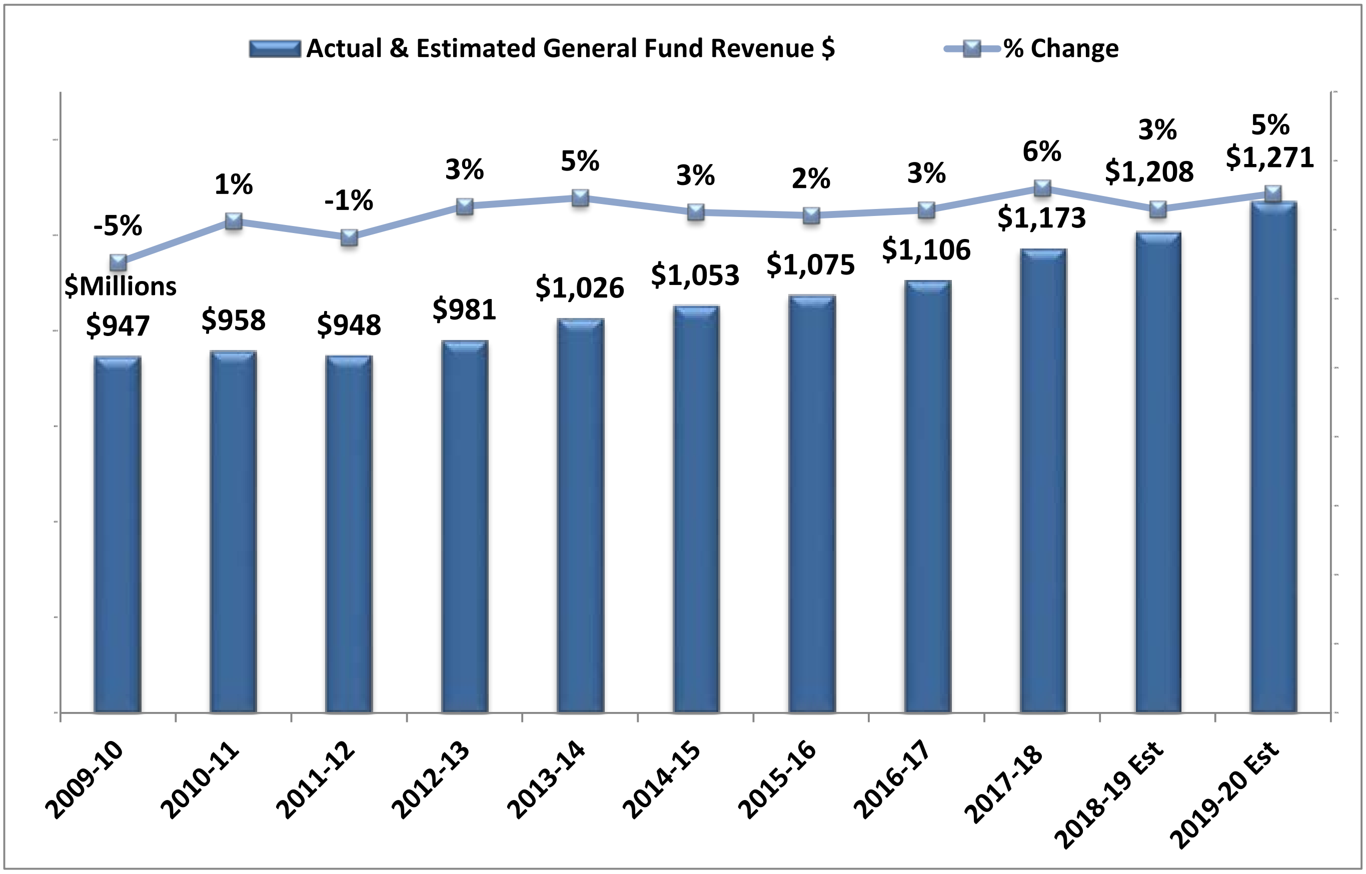
Once the current fiscal year estimate is developed, assumed growth rates are then applied to this amount to arrive at a projected revenue amount for the following fiscal year. These assumed growth rates take into account historical and recent trends in revenue data, one-time revenue adjustments, and information from city departments and our trusted sources to ensure projections are not overly conservative or aggressive.

Finally, as part of the annual budget development process each year, revenue estimates are presented to the City Manager's Office, the City Council and the community as part of the Trial and recommended budgets for consideration and approval prior to final budget adoption in June.

General Fund Revenue

To assist in explaining the basis for how GF revenue is estimated for each of the major categories, historical revenue growth and estimated revenues for the 2018-19 and 2019-20 fiscal years are provided graphically, along with a description of the revenue category and the methodology used to develop recommended revenue estimates beginning with total GF revenue.

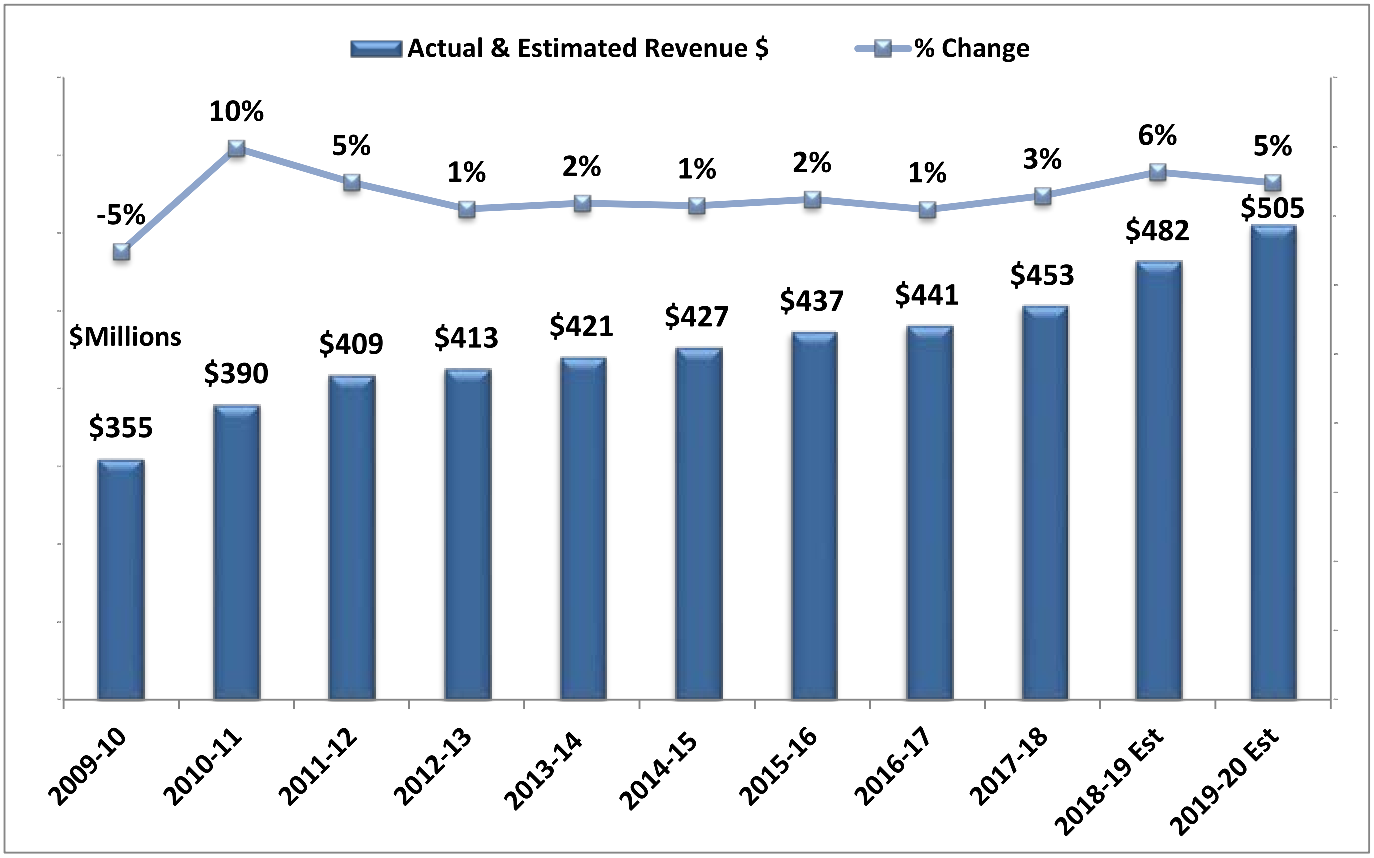
Total General Fund Revenue



Projections for 2018-19 and 2019-20 assume no fee increases, changes to state shared revenue formulas or legislative changes that have recently been proposed or discussed during the current legislative session.

As mentioned, GF revenue consists of local taxes and related fees, primary property taxes, state shared sales, income and vehicle license taxes, user fees and non-tax revenues. Estimating revenues for each of these categories is conducted separately to more accurately predict the amount of revenues for the current and following fiscal year. Each category is unique with respect to the variables that comprise the revenue and influence growth. Variables that impact revenue growth include economic factors such as consumer sentiment, discretionary income, population, unemployment, job growth and construction activity. Other influencing factors may include: legislative action, City Council policy directives, legal restrictions and mandates, state statutory formulas, program enhancements or reductions, and changes in rates and fees. For these reasons, evaluating each major category separately is preferred and generates more accurate revenue projections.

Local Taxes and Related Fees, 40% of Total General Fund Revenue



Local taxes and related fees consist of city sales taxes, privilege license fees and other excise taxes. The majority of revenue is derived from city sales taxes which is comprised of 15 general categories collected based on a percentage of business income accruing in each category. The chart on the following page provides the current local sales tax rates by category and the percentage allocated to each fund. Privilege license fees are assessed to recover the costs associated with administering the local tax system. Other excise taxes include the jail tax and the excise tax collected on water service accounts, which provide resources to help offset jail costs paid to Maricopa County and other GF services.

Sales tax can be volatile and typically correlates to the local economy. Increases in sales tax collections are expected when the local economy expands due to underlying fundamentals such as increases in population, discretionary income, business expansion, jobs and real estate growth. The opposite holds true during times of economic contraction or recession as evidenced in 2008-09 and 2009-10. Staff analyzes historical and recent trends in sales tax data by category, evaluates cumulative growth and uses an econometric forecasting model constructed by the UofA to develop projections. Estimates provided by the FAC and JLBC are also considered to ensure projections are reasonable and not overly aggressive or conservative in nature.

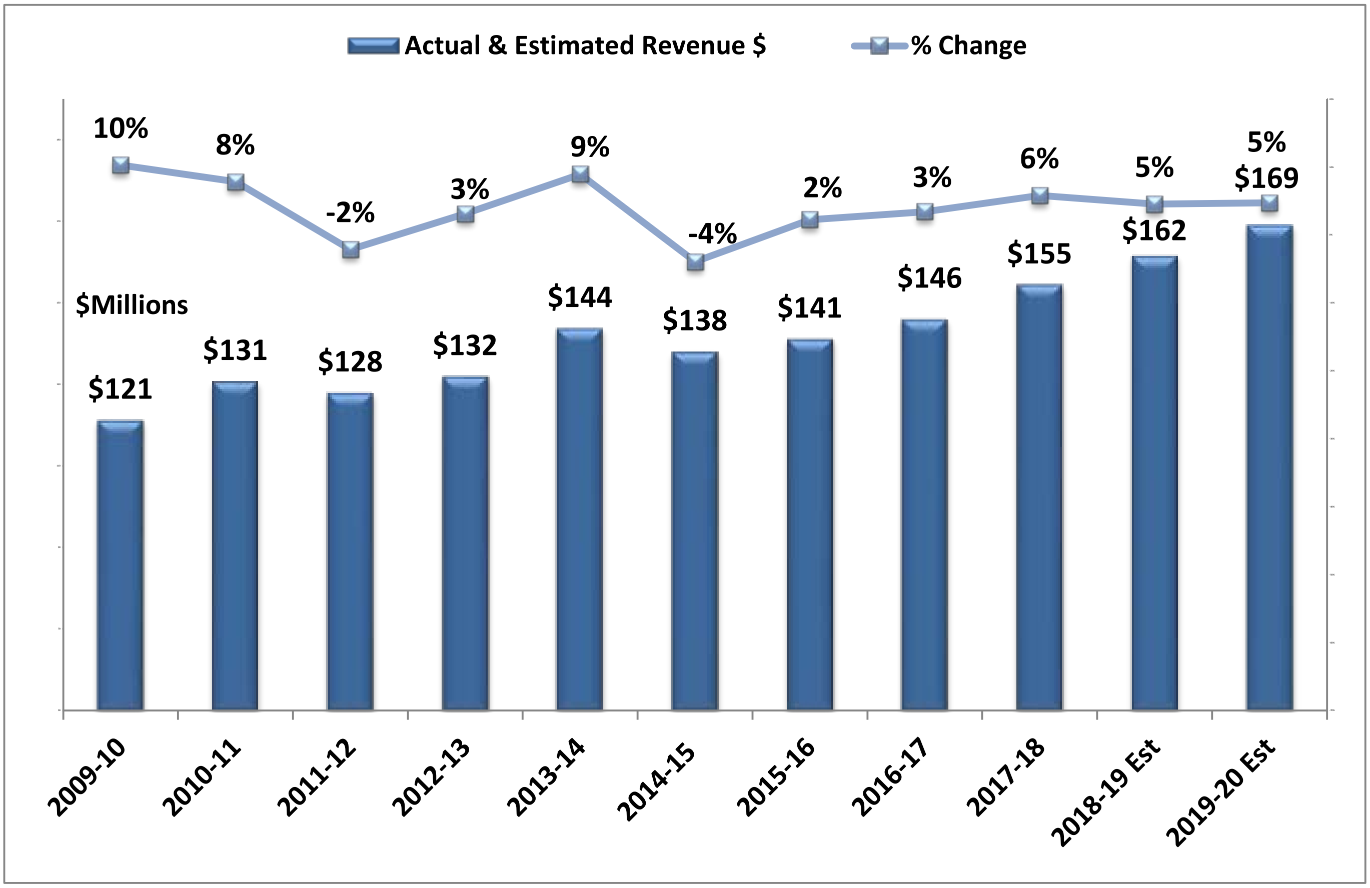
The growth estimated in 2019-20 of 5% assumes continuous growth over 2018-19 and accounts for current trends in actual collections and is based on projections provided by the UofA for city sales taxes. Privilege license fees and other excise tax projections are developed using the existing fee structures, assumptions about historical trends, averages, recent collection experience and use of the percent of prior year method to account for seasonal influences in revenue activity. Privilege license fees in 2019-20 are estimated to be flat. The growth estimated in 2019-20 for other excise taxes assumes conservative growth and continuation of current year-to-date experience.

Current Local Sales Tax Rates by Category

	General Fund	N'hood Protection	2007 Public Safety Expansion	Public Safety Enhance.	Parks & Pres.	Transp. 2050***	Conv. Center	Sports Fac.	Capital Const.	Total
Advertising	–	–	–	–	–	–	0.5%	–	–	0.5%
Contracting	0.7%	0.1%	0.2%	–	0.1%	0.7%	0.5%	–	–	2.3%
Job Printing	0.7%	0.1%	0.2%	–	0.1%	0.7%	0.5%	–	–	2.3%
Publishing	0.7%	0.1%	0.2%	–	0.1%	0.7%	0.5%	–	–	2.3%
Transportation/Towing	0.7%	0.1%	0.2%	–	0.1%	0.7%	0.5%	–	–	2.3%
Restaurants/Bars	0.7%	0.1%	0.2%	–	0.1%	0.7%	0.5%	–	–	2.3%
Leases/Rentals/ Personal Property	1.2%	0.1%	0.2%	–	0.1%	0.7%	–	–	–	2.3%
Short-Term Motor Vehicle Rental	1.2%	0.1%	0.2%	–	0.1%	0.7%	–	2.0%	–	4.3%
Commercial Rentals	1.3%	0.1%	0.2%	–	0.1%	0.7%	–	–	–	2.4%
Lodging Rentals Under 30 Days	1.2%	0.1%	0.2%	–	0.1%	0.7%	2.0%	1.0%	–	5.3%
Lodging Rentals 30 Days and Over	1.2%	0.1%	0.2%	–	0.1%	0.7%	–	–	–	2.3%
Retail (Level 1 – amounts = < $10,000 for a single item)	1.2%	0.1%	0.2%	–	0.1%	0.7%	–	–	–	2.3%
Retail (Level 2 – amounts > $10,000 for a single item)	1.2%	0.1%	0.2%	–	0.1%	0.4%	–	–	–	2.0%
Amusements	1.2%	0.1%	0.2%	–	0.1%	0.7%	–	–	–	2.3%
Utilities	2.7%*	–	–	2.0%**	–	–	–	–	–	4.7%
Telecommunications	2.7%	–	–	–	–	–	–	–	2.0%	4.7%

*The General Fund portion of the utilities category includes the 2.0 percent franchise fee paid by utilities with a franchise agreement.
**The Public Safety Enhancement designated 2.0 percent sales tax applies only to those utilities with a franchise agreement.
***The Transportation 2050 Fund (Proposition 104) was established by the voters effective January 1, 2016 and replaced the Transit 2000 Fund (Proposition 2000) to fund a comprehensive transportation plan with a 35-year sunset date. The Proposition increased the transaction privilege (sales) tax rates by 0.3% for various business activities.

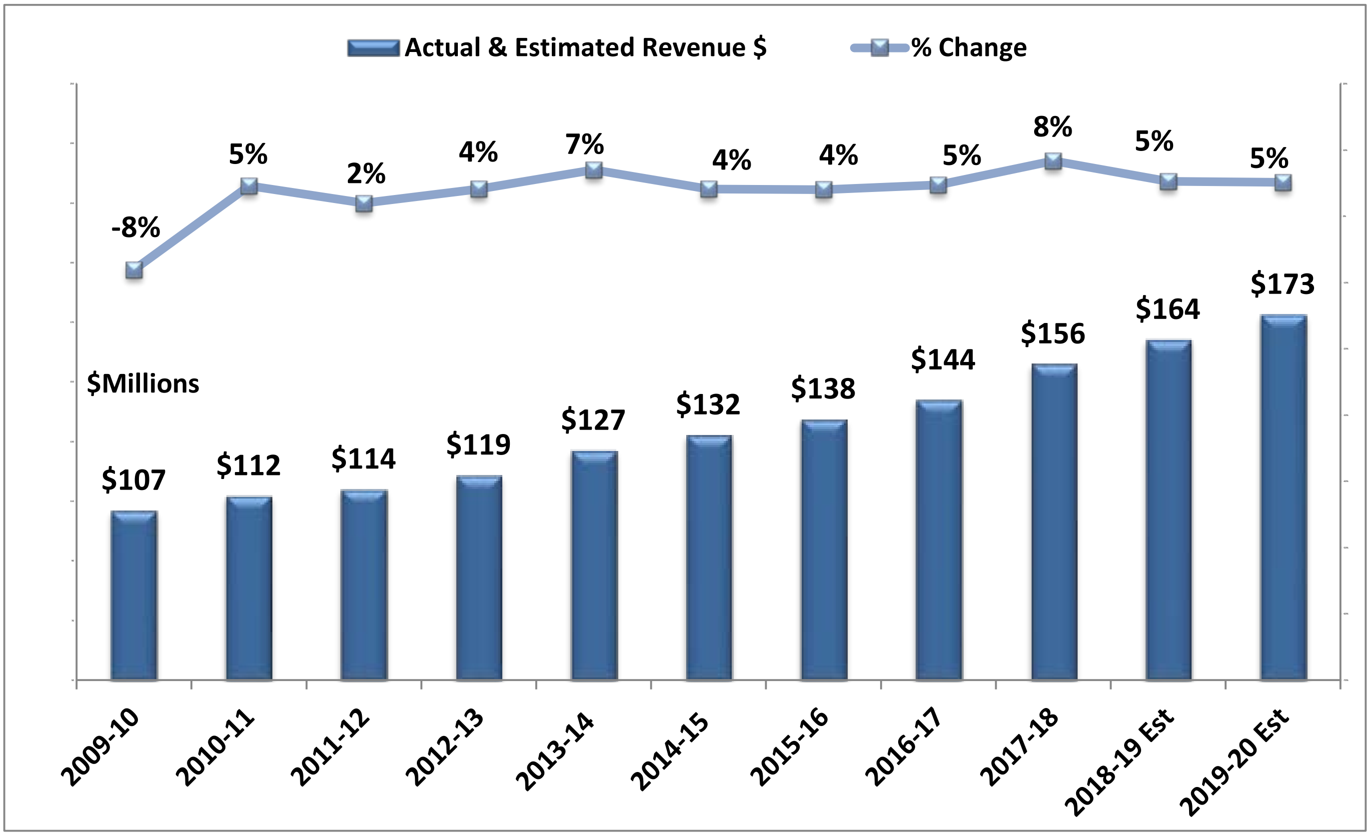
Primary Property Tax, 13% of Total General Fund Revenue



Arizona property tax law provides for two separate tax systems. A primary property tax is levied to pay current operations and maintenance expenses. Therefore, primary property tax revenue is budgeted and accounted for in the GF (and is illustrated in the above graph). A secondary property tax levy is restricted to the payment of debt service on voter approved long-term general obligation debt. Therefore, the secondary property tax revenue is budgeted and accounted for as a special revenue fund. The primary property tax levy forecast reflected here is based on staff's long-term projections for appreciation and new construction. In the City Manager's budget, this will be updated to reflect the net assessed value stated in the annual "Levy Limit Worksheet" for the City of Phoenix, issued by the Maricopa County Assessor, multiplied by the projected primary property tax rate. The primary property tax revenue forecast assumes that 99% of the projected primary property tax levy is actually collected.

The annual amount of the primary property tax levy is limited by the Arizona Constitution to a two percent increase over the prior year levy limit plus an estimated levy for previously unassessed property (primarily new construction). Provisions in Chapter XVIII of the City Charter limit the City's primary property tax rate to $1.00 per $100 of assessed valuation with the exception of costs to operate library services. The proposed 2019-20 primary property tax rate, not including the portion of the rate allocated to cover the Library Department operating costs, is $1.00 per $100 of assessed valuation.

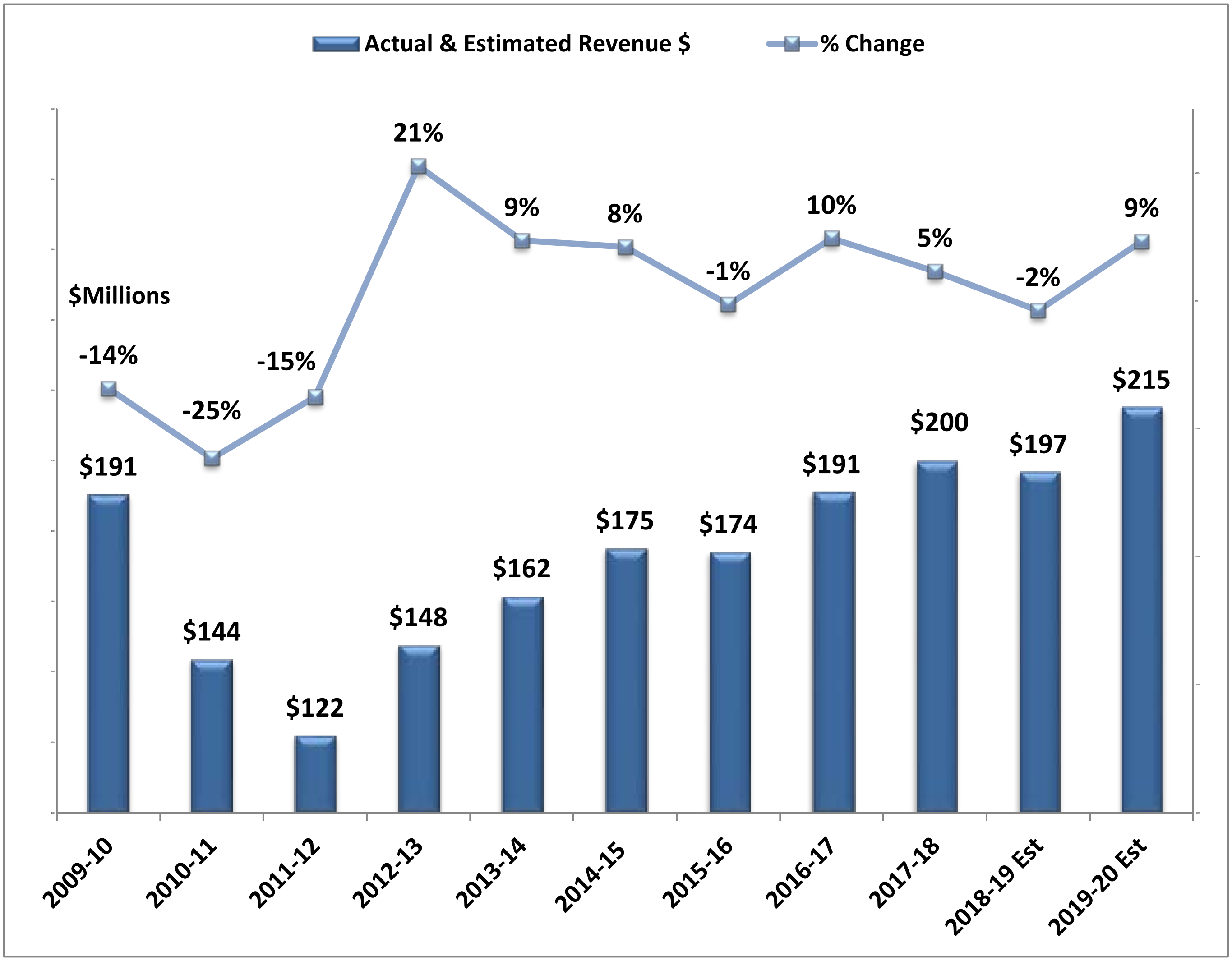
State Shared Sales Tax, 14% of Total General Fund Revenue



State sales tax revenues received by the city are governed by Arizona State Statute §42-5029. State sales tax revenues are split between a "distribution base", of which Phoenix receives a share, and a "combined non-shared" category, which is allocated entirely to the state. With the exception of some tax categories, the distribution base consists of either 20, 32, 40, 50, or 80 percent of collections depending on the tax category. State statute §42-5029 stipulates of the monies designated in the distribution base the Arizona Department of Revenue shall pay 25 percent to incorporated cities on the basis of relative population percentages. The population share changes annually based on Census Bureau Population Estimates. The 2019-20 City of Phoenix population share is estimated to remain flat at 29.2 percent, and is based on the 2017 Census Bureau Population Estimate.

State sales tax is estimated similar to how city sales tax is forecasted. Staff analyzes historical and recent trends in sales tax data by category and evaluates cumulative growth when developing revised estimates. Projections provided by the UofA EBRC, using an econometric sales tax model, were used to develop 2019-20 estimates; and information from the FAC and JLBC were considered to ensure current fiscal year estimates are reasonable and in-line with what these experts are projecting.

State Shared Income Tax, 17% of Total General Fund Revenue

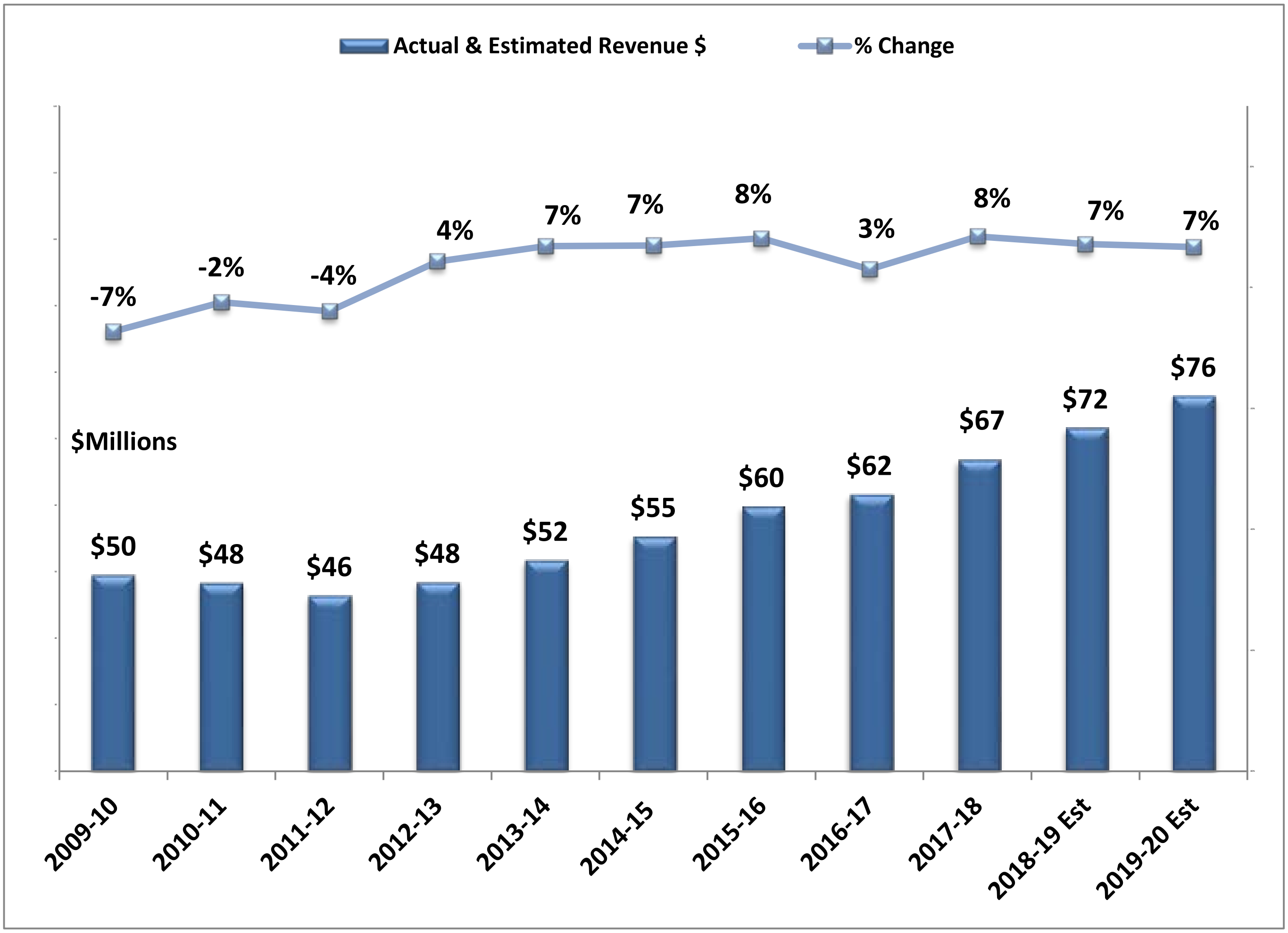


State shared income tax revenue, also known as the Urban Revenue Sharing Fund, was established by voter initiative in 1972 and is governed by Arizona Revised Statute §43-206. The statute stipulates that 15 percent of the net proceeds of state individual and corporate income tax collected two years preceding the current fiscal year be distributed to incorporated cities and towns. Individual cities receive their portion based on the cities' share of the state population. The 2019-20 City of Phoenix population share is estimated to remain flat at 29.2 percent, and is based on the 2017 Census Bureau Population Estimate. This rate will change annually based on Census Bureau Population Estimates.

As a result of the initiative, Arizona Revised Statute §43-201 stipulates the area of income taxation is preempted by the state and a county, city, town or other political subdivision shall not levy an income tax as long as the Urban Revenue Sharing Fund is maintained as provided in §43-206.

Since state shared income tax revenue is based on actual collections from two years preceding the current fiscal year, the 2018-19 and 2019-20 projected revenue is known and is based on actual collections received in 2016-17 and 2017-18, respectively. The state shared income tax reduction in 2018-19 is due to declining Corporate Income Tax collections in 2016-17, and the state shared income tax increase in 2019-20 is due to significant growth in the Individual Income Tax collections in 2017-18.

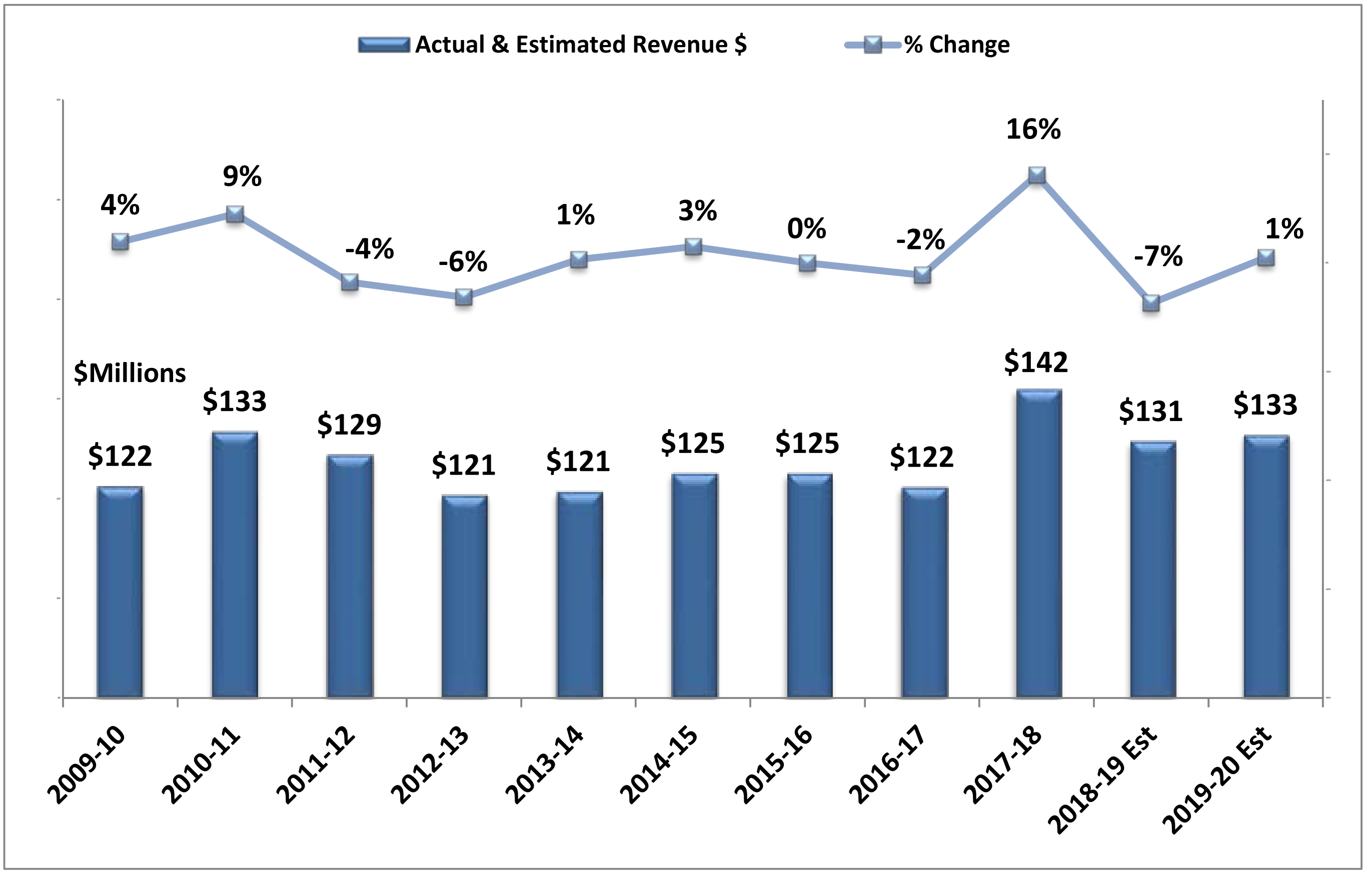
State Shared Vehicle License Tax, 6% of Total General Fund Revenue



State shared vehicle license taxes have been distributed to cities and towns since 1941. The tax is assessed on the basis of an ad valorem rate on each $100 in value. The value is equal to a percent of the manufacturer's retail price at the time of initial registration. During each succeeding year, this value is decreased until the established minimum amount is reached. The Arizona Department of Transportation collects and distributes the tax according to Arizona Revised Statute §28-5808. The distribution to individual cities is based on their relative population within the county. The 2019-20 City of Phoenix population share is estimated at 41.0 percent, and is based on the 2017 Census Bureau Population Estimate. This rate will change annually based on Census Bureau Population Estimates.

Vehicle License Tax revenues are often correlated to the overall strength of the economy. Similar to sales tax revenues when the economy is growing this revenue category will also exhibit growth, as illustrated in the above graph. Revenues are estimated by evaluating historical growth patterns, year-to-date cumulative growth and applying the percent of prior year method to year-to-date actuals, which accounts for the seasonality in collections. Staff will also consider projections provided by the Arizona Department of Transportation, which are published annually for this revenue source, and any available recent economic information pertaining to projections on the local economy and vehicle sales when formulating recommended current and subsequent year estimates. The growth estimated in 2019-20 of 7% assumes this category will continue to grow but at a slightly slower pace than in 2018-19.

User Fees and Non-Tax Revenues, 10% of Total General Fund Revenue



User Fees and Non-Tax Revenues include collections from licenses and permits, fines and forfeitures, cable television fees, user fees from several city departments designed to recover the costs of providing specific city services including Parks and Recreation, Library, Planning, Police, Fire, and Streets; other service charges including interest income, parking meter revenue, in lieu property taxes, sales of surplus property, various rental income, parking garages revenue and concessions; miscellaneous service charges in Finance, Housing, Human Services and Neighborhood Services.

B&R staff relies on departments to provide essential information concerning activity levels, fee increases or decreases and program changes which impact the variety of revenue sources in this category. Technical revenue reviews are conducted twice each fiscal year as part of the annual budget development process. Departments are asked to provide revenue estimates and reasons for changes from prior year actuals. Staff conducts a line-item analysis of all revenues and uses various methods including annualization and percent of prior year, as well as consideration of one-time and contractual revenues, program enhancements or reductions and other adjustments when developing estimates.

The growth estimated in 2019-20 of 1% accounts for increases in several user fees and non-tax revenues, offset by expected decreases in some user fees and non-tax revenues. The decline estimated in 2018-19 of -7% is due to one-time insurance proceeds for the Burton Barr Central Library that were received in 2017-18.

In addition to the technical reviews that are conducted twice each fiscal year, B&R staff monitors revenues monthly to determine if adjustments to projections are necessary. The proposed estimates are then reviewed by B&R management and finally incorporated into the GF proposed revenue projections for consideration by the City Manager, the City Council and the community.

This report is for informational purposes only and is intended to provide the City Council and the community with explanations on how GF revenues are analyzed and developed to better facilitate discussions during the annual budget development process.

Dan Wang, Ph.D.
Budget Analyst III