



NOTICE OF MEETING AND AGENDA

SOUTHERN NEVADA REGIONAL PLANNING COALITION

NOTICE IS HEREBY GIVEN that a meeting of the Southern Nevada Regional Planning Coalition Board has been called and will be held at 4:00 p.m., Tuesday, September 22, 2020, in the Clark County Commission Chambers of the Clark County Government Center, 500 S. Grand Central Pkwy., Las Vegas, NV 89155.

Live streaming of the meeting is available at www.ClarkCountyNV.gov. Under “Stay Connected” Click on Meetings Agendas, and then select “Southern Nevada Regional Planning Coalition Meeting – 9/22/2020”.

1. **Call to Order.**
2. **Roll Call and Compliance with the Open Meeting Law.**
3. **Public Comment.** Comment during this portion of the agenda must be limited to matters on the agenda for action.
4. Approval of the Agenda for September 22, 2020 meeting of the SNRPC. (For possible action)
5. Approve the Minutes of the August 25, 2020 SNRPC meeting. (For possible action)
6. CBER 2020 Long-Term Population Forecast for Clark County, Nevada 2020-2060. (For possible action)
7. Consideration of an agreement with CBER for the production of a Clark County Population Forecast. (For possible action)
8. Continued discussion for possible action on the purpose, direction, and structure of SNRPC. (For possible action)
9. **Citizens Participation.** Public comment during this portion of the agenda must be limited to matters within the jurisdiction of the Board. No subject may be acted upon by the Commission that subject is on the agenda and is scheduled for action.
10. **Adjournment.**

Please be aware of the following: that items on the agenda may be taken out of order; the SNRPC Board may combine two or more agenda items for consideration; the SNRPC Board may remove an item from the agenda or delay discussion relating to an item on the agenda at any time; and the SNRPC Board may impose a time limit for speaking on an item on the agenda where public comment or testimony is allowed.

Notice to persons with special needs: For those requiring special assistance or accommodation at the meeting, please contact Jenny Penney at (702) 455-5019 at least 72 hours in advance. “Relay Nevada”, a service provider for hearing or speech impaired persons, may be contacted by dialing 7-1-1.

AGENDA POSTING

Notice/Agenda was posted per Nevada Open Meeting Law requirements at the following locations:

Clark County Government Center, 500 S. Grand Central Parkway, Las Vegas, NV
City of Las Vegas, 495 S. Main Street, Las Vegas, NV
City of North Las Vegas, 2250 Las Vegas Boulevard N., North Las Vegas, NV
City of Henderson, 240 S. Water Street, Henderson, NV
City of Boulder City, 401 California Avenue, Boulder City, NV
Clark County School District, 5100 W. Sahara Avenue, Las Vegas, NV
www.SNRPC.org

Agenda and back up materials can be found on the SNRPC.org website or obtained upon request. Contact Jenny Penney at (702) 455-5019 or Jennifer.Penney@ClarkCountyNV.gov upon request.

MEETING MINUTES

COALITION BOARD

SOUTHERN NEVADA REGIONAL PLANNING COALITION

August 25, 2020

In attendance: Commissioner Justin Jones, Chair, Clark County
Councilman Brian Knudsen, City of Las Vegas
Councilman Scott Black, City of North Las Vegas (via teleconference)
Councilwoman Claudia Bridges, City of Boulder City
Councilwoman Olivia Diaz, City of Las Vegas
Councilman Dan H. Stewart, City of Henderson (via teleconference)
Commissioner Tick Segerblom, Clark County

Absent: Trustee Lola Brooks, Clark County School District
Councilman Richard Cherchio, Vice Chair, City of North Las Vegas
Councilman Dan Shaw, City of Henderson

Agenda Item 1. Call to Order; notice of agenda conformance with Nevada Open Meeting Law Requirements

The meeting of the Southern Nevada Regional Planning Coalition Board was called to order by Commissioner Jones of Clark County at 4:05 P.M., on Thursday, August 25, 2020, in the Clark County Commission Chambers at 500 Grand Central South, Las Vegas, Nevada, 89155.

Agenda Item 2. Roll Call

Members of the SNRPC Coalition Board, as listed above, were present at the time of roll call with the exception of Trustee Lola Brooks, Clark County School District, Richard Cherchio, City of North Las Vegas, and Councilman Dan Shaw, City of Henderson.

Agenda Item 3. Public Comment

No public comment was made.

Agenda Item 4. Approval of the Agenda for August 25, 2020

A motion was made by Councilman Knudsen to approve the agenda for the August 25, 2020 meeting. The motion was approved unanimously.

Agenda Item 5. Approval of the Minutes for the May 26, 2020 meeting

A motion was made by Councilman Knudsen to approve the minutes for the May 26, 2020 meeting. The motion was approved unanimously.

Agenda Item 6. Discussion for possible action to receive and accept the final report on 2020 Census outreach activities by Purdue Marion and Associates.

Bill Marion with Purdue Marion and Associates stated that his firm was retained by the Southern Nevada Regional Planning Coalition to support efforts by encouraging participation in the 2020 Census. They listed activities on the website under SouthernNevadaCounts.com and created the tag lines Win the Census, It's Our Time, and It's On.

Thomas Puckett Advertising played a major role in the strategic advising by choosing the campaign design, pad lines, graphics, and other elements. Mr. Marion mentioned that 10 years ago the Census Bureau recognized that they had a problem with getting a full count so they created an algorithm called The Response Outreach Area Mapper which goes precinct by precinct. It tracks which precincts/districts that will most likely be undercounted. The dark blue on the map indicates which areas will be undercounted by 30% or more, the medium blue indicates the areas that will be undercounted by 25% - 30%, and the light blue indicates 20% - 25% undercounts. There are huge areas in Southern Nevada that are categorized as hard to count communities due to their transient, immigrant, minority, low income and young populations. The Census Bureau looked at twelve different components and evaluated tract by tract where the most difficult to count tracking will be.

As the Purdue team did research on how they were going to conduct messaging for the 2020 campaign and what kind of messages they thought would resonate, they had two distinct audiences in mind: the first audience was businesses, organizations, and community leaders that they knew would need to be on their side to help get their message out. Also, looking into what message would resonate with the communities that have the lowest percentages and what messages would resonate with the hard to count communities. The main message for the easy to count communities was every person who was not counted costs this state \$2,200 a year in federal revenue. This means that a 1% undercount state wide would mean a loss of \$60 million dollars a year for 10 years in federal revenue. The second component is that it's money that never goes away - that's money that goes to another state. An easier state to count such as Nebraska or Kansas that are stable communities will get the money. The hard to count communities don't understand and the first element is ambivalence, they don't care, and it's not their problem, and fear because they think if they report the information about their household to the Federal Government that the government will use it against them in some way. Mr. Marion stated that in Phase One they looked at how they will message, find the resources to reach out, what organizations they are going to contact to get support, developing presentations for groups and organizations, identifying public programs where they could set up booths, developing a strong relationship with the representatives locally for the Census Bureau, and contacting companies and corporations.

Phase Two expanded on what they did in Phase One but actually scheduling events so when March 15th came, they would have an army of ambassadors and advocates that would be out there working with them to promote the Census and get more people involved. They created and started

implementing their social media program and creating a Census kick off day. They held a kick off day on March 12th at the Clark County Government Center. This was the last public event they could do for the Census due to the pandemic and they had to switch gears by increasing social media output. On July 2nd they held a Patriot Day to get the Census out there one last time. Purdue Marion and Associates obtained a grant to buy masks with the Census logo and then they went to different businesses around central Southern Nevada and handed out the Census masks to employees at businesses like Mariana's Supermarkets. The three P's were Public Safety and there are federal funds dedicated to the police and fire departments that are based on population and as Las Vegas grows, we will need these funds from the federal government, second is Personal Protection like the masks to get the message across, and lastly being Patriotic by participating in the Census.

In 2010, Clark County self-response rate was 60.4%. As of August 24th, Nevada's self-response rate was 63.2%. Clark County's self-response rate is 67.5%. It breaks down as follows: City of Henderson - 73.2%, Boulder City 71.2%; Mesquite - 67.8%; City of Las Vegas - 65.6%, and City of North Las Vegas - 65.1%. Only four other Nevada Counties posted higher rates in 2010. Washoe County has not yet posted a higher rate than 2010. Clark County has always lagged behind Washoe County in terms of self-response rate; however, we are 1% higher than Washoe County right now. On May 11th Nevada was ranked number 1 in leading the nation in terms as to what its expected self-response rate was going to be. Today, Nevada's self-response rate ranks 28th in the nation and was predicted to be lower than that.

Commissioner Jones thanked Bill Marion and everyone else for the work they did and in addition to bringing dollars from the federal dollars, it ensures that Southern Nevada gets the representation in the legislature when they go through the redistricting process next year.

A motion was made by Councilman Stewart to accept the report. The motion was approved unanimously.

Agenda Item 7. Discussion regarding collaboration and equality in SPLMA funding.

Commissioner Jones briefly went over the Southern Nevada Public Land Management Act and stated that it is an act that was passed over 20 years ago to ensure that parcel sales of BLM land within the community would send part of the sale proceeds back into the community in the form of parks, trails, and natural areas. Back in the early days there was an agreement in regard to the number of applications that could be accepted by the BLM and it was not based on the number of the population amongst the jurisdictions but was equal. Commissioner Jones had concerns with that and feels that there is an opportunity for the jurisdictions to work together with millions of dollars at stake. Applications are due September 14, 2020 from all the jurisdictions and after the subcommittees such as Parks & Trails and Natural Area subcommittee will make the recommendations and scoring for all of the applications. Commissioner Jones asked the jurisdictions to think through how they can work together to make sure that many of the dollars stay in Clark County rather than some of the other northern Counties.

Councilman Stewart asked what the genesis was of Commissioner Jones' thinking and trying to understand where they are going with this. He also asked if the County felt like they weren't getting a fair share.

Commissioner Jones stated that was the impetus and there were some countervailing points that were raised by Mayor March and others.

Councilman Stewart stated that it might be time to update the Regional Open Space plan.

Commissioner Jones agreed with Councilman Stewart and said they need to take a look at their regional and neighborhood parks and do an update and assessment on where they are and where the gaps are.

Councilman Black asked if it's possible to have a multijurisdictional collaborative submission or does it have to be jurisdictional.

Commissioner Jones responded that there is the opportunity for more than one jurisdiction to get together to make an application and used Craig Ranch as an example but doesn't know if it is possible to make an agreed plan.

Agenda Item 8. Continued discussion for possible action on the purpose, direction, and structure of SNRPC.

Councilman Knudsen stated there has been a lot of conversation of the purposes of SNRPC over the last couple of years and Purdue Marion and Associates have been engaged in driving a lot of the conversations amongst members of the SNRPC board. A variety of conversations have come from the board including disbanding and after elections new members sat on the SNRPC board, there was opportunity for different conversations. He believes that there is a lot of potential with the jurisdictions working together although there are concerns as to what happens if they all disagree or compete for something. His purpose is that consensus is always possible on the issues or ideas they don't agree on and to not focus on them, but to focus on in this community.

During his power point presentation, Councilman Knudsen stated that one of the reason is Southern Nevada and Nevada in general is not ranked well in a lot of different categories primarily in the quality of life categories. There's amazing staff, programs, and services. The state still ranks low in quality of life issues for a variety of different reasons and Councilman Knudsen feels there is an opportunity to talk about those reasons in greater detail as a region than individual jurisdictions.

Regional collaboration is not a new focus for some. It has been around for a long time in different jurisdictions around the country. It is important to think about the entrenched quality of life issues such as education, transportation, healthcare and how all of those things cross boundaries. Residents don't care which jurisdiction they live in, they care about providing food for their family, the schools their kids attend, seeing a doctor and having quality health care, and being able to get around in the community. These issues are the responsibility of all our jurisdictions. The elected officials have a lot of responsibilities with most regarding land use and planning which is why he thinks the SNRPC was setup to talk about how they jointly resolve some of those land use issues. Looking back at the last 10 to 15 years, the staff at each of the jurisdictions did an amazing job on figuring out how to work together and building a regional trail system, thinking through land use and zoning issues, some of which are very territorial to their jurisdiction and areas that each

member represents. The larger issues that some of them are not responsible for since the pandemic are the access to technology and internet and thinking about distance learning and distance health care, distance work. Our community is ranked toward the bottom as far as connectivity which is a regional issue that not any individual jurisdiction has control over but combining efforts and working towards a similar goal, they have the opportunity to expand broad band access throughout the valley. There is opportunity to redefine SNRPC to focus on some of the issues of regional significance, regional importance and identify how as a region they can focus on state and federal funding, and state or federal changes that would allow constituents to have a higher quality of life.

The recommendations for SNRPC is one for a name change and consider Southern Nevada Council of Governments. It would not require legislative approval as NRS doesn't define a specific name but does require a change to the inter-local agreements that each of the jurisdictions have agreed upon. The second is membership. Trustee Brooks has made it clear that her intention is to not keep the school district in this organization. Within NRS it requires Clark County, City of Las Vegas, City of North Las Vegas, and City of Henderson to create a coalition and it's broad in nature. Councilman Knudsen recommended that the four jurisdictions possibly open a role for the private sector and for them to help the board to think through what issues are of regional significance and talk through what partnerships would look like which would be an inter-local change as well. Third is to identify the issues of regional significance where they have consensus and identifying the strategy to move those kinds of issues forward. Councilman Knudsen stated that his recommendation is to bring on a public affairs or government affairs consultant to help them develop an annual strategic plan that is aligned with the legislative session and to work with each of the agencies to identify where there is consensus and bring it back to this board for a public discussion and then develop a plan that each jurisdiction can work towards.

Councilman Knudsen that if the board is not successful in a year, that he would be more than happy to dissolve SNRPC. He's recommending that they change the name to the Southern Nevada Council of Governments, allow for representation from the business sector to be on the board, and hiring a government affairs consultant to develop an annual work plan and to work with each jurisdiction individually and organizations on an action plan on issues where they agree. A draft Inter-local Agreement was handed out and Councilman Knudsen asked that each member look it over and make any changes to the Inter-local Agreement and present it at the next meeting.

Councilman Stewart stated that the City of Henderson is on board with what Councilman Knudsen is doing and they will work hard to try and make it work. The one thing he needs to look at is a private representative onto the board and the budget to hire a consultant.

Councilman Knudsen's requested that Clark County keep the function of the legal, clerk, and the finances since switching it from jurisdiction to jurisdiction will make it confusing and there would be no staff support due to it being a temporary assignment. Regarding the budget to government affairs consultant, whatever the cost is, the board would ask for an estimate and Councilman Knudsen's request would be that the percentage cost to each jurisdiction would be proportionate to the population of each jurisdiction that would like to participate.

Councilman Black likes the change of the name and it would broaden the scope of their work plan and the name now seems very limited due to the verbiage. Referring to the private sector, he asked

if it would make sense to formalize it in a way to have the chambers recommend a business representative that is formally appointed from the collective chambers and someone that is independent from SNRPC.

Councilwoman Bridges would like to go back to her municipality to see if they would like to move forward with the proposition and she's been a supporter of the group since she was appointed.

Commissioner Jones stated that they should have a conversation with Mesquite to see if they would like to be involved and if so to incorporate them in because they are a part of Southern Nevada.

Agenda Item 9. Citizens Participation. Public comment during this portion of the agenda must be limited to matters within the jurisdiction of the Board. No subject may be acted upon by the Commission that subject is on the agenda and is scheduled for action.

No citizen's participation occurred.

Agenda Item 10. Adjournment

The meeting was adjourned at 4:57 P.M.



SOUTHERN NEVADA REGIONAL PLANNING COALITION AGENDA ITEM - #6

TYPE OF MEETING: COALITION BOARD
MEETING DATE: September 22, 2020

Table with 2 columns: Field Name and Value. Rows include SUBJECT (2020 Long-Term Population Forecast), SPONSORED BY (Planning Directors), and AGENDA ITEM DESCRIPTION (2020 Long-Term Population Forecast for Clark County, Nevada 2020-2060).

VOTE PROCEDURE (if applicable):

- Majority (checked)
Super Majority (2/3, for budgets, expenditures, or contracts that create legal obligations)

FISCAL IMPACT:

- No Impact (checked)
Impact
Estimated total:

BACKGROUND INFORMATION:

The Southern Nevada Regional Planning Coalition, Regional Transportation Commission, and the Southern Nevada Water Authority entered an agreement with the University of Nevada Las Vegas (UNLV) for the development of a regional long-term population forecast.

Overall, the 2020 Long-Term Population Forecast shows Clark County's population increasing from 2,325,798 in 2019 to 2,731,000 in 2030 and 3,161,000 in 2060.

SUPPORTING DOCUMENTATION:

Population Forecasts: Long-Term Projections for Clark County, Nevada 2020-2060.

RECOMMENDED MOTION:

Accept the 2020 Long-Term Population Forecast

Contact Information: Name: Phone Number:



2020-2060

Population Forecasts

LONG-TERM PROJECTIONS FOR CLARK COUNTY, NEVADA

June 2020

Prepared by
Center for Business and Economic Research

Prepared for
Regional Transportation Commission of Southern Nevada,
Southern Nevada Water Authority,
Southern Nevada Regional Planning Coalition,
and members of the Forecasting Group

UNLV | LEE BUSINESS SCHOOL
CENTER FOR BUSINESS
AND ECONOMIC RESEARCH



Prepared for

Regional Transportation Commission of Southern Nevada,
Southern Nevada Regional Planning Coalition,
Southern Nevada Water Authority,
and members of the Forecasting Group.

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Executive Summary

Each year, the Regional Transportation Commission of Southern Nevada (RTC), the Southern Nevada Regional Planning Coalition (SNRPC), the Southern Nevada Water Authority (SNWA), a group of community demographers and analysts, and the Center for Business and Economic Research (CBER) at the University of Nevada, Las Vegas work together to develop a long-term forecast of Clark County's population and its growth that is consistent with the structural economic characteristics of the county. Toward this end, we employ a general-equilibrium demographic and economic model developed by Regional Economic Models, Inc. (REMI), specifically for Clark County.

We recalibrate the REMI model to incorporate the most recent available information regarding local employment growth and local public and private investment projects. The resulting long-term forecast predicts positive population growth throughout the range of the forecast. We predict that Clark County's population will reach approximately 2.85 million by 2035 and nearly 3.16 million by 2060. In 2019, the estimated population for Clark County equaled slightly below 2.33 million.

Table 1 summarizes the population forecast. In the short term, the population in Clark County is predicted to grow at rates of 0.7 percent in 2020 and 0.9 percent in 2021 due to the economic downturn caused by the COVID-19 pandemic. Since a public health crisis-government shutdown recession does not come with a precedent, the short-term forecasts exhibit higher uncertainty. Despite these extremely high short-term economic uncertainties and modeling difficulties for this year, this forecast provides information for medium- to long-term planning purposes. In the median term, the population growth rate is expected to rebound in 2022 as the Clark County economy experiences a recovery. The growth rate after 2023, however, will decline over time. In the long term, its growth rate tapers off as Clark County's maturing economy attracts fewer "net" economic and international migrants (i.e., in-migrants minus out-migrants). In addition, the population ages over time. As a result, the rate of growth, which exceeded the national average over the past 50 years, moderates and eventually moves below the national rate of growth. That is, by 2049, the population growth rate falls to somewhat below the projected long-term national population growth rate.¹ As the Clark County economy continues to mature, the population growth stabilizes around 0.3 percent after 2052.

As with any forecast, potential risks exist that could lead to either an over- or under-forecast of population and its growth rate. Since the upside risk to our COVID-19 employment forecast exceeds the

¹ Source: <https://www.census.gov/data/tables/2017/demo/popproj/2017-summary-tables.html>

downside risk, the risk of under-forecasting population and its growth rate exceeds the risk of over-forecasting in the near term. The economic uncertainty for the short term remains at a high-level, however, as we have never experienced an economic downturn caused by public health crisis with such massive shutdowns. As such, when given an opportunity to choose between generous or conservative assumptions, we chose the latter. To the extent that the near-term *ex post* economic performance differs from our current projection, say a deeper recession or a much more severe loss in employment than we projected occurs in 2020, the short-run forecasts will differ. Our long-term forecasts, however, exclude business-cycle, seasonal, and irregular events, which respond to short-run risks. In summary, our forecasts primarily provide a long-term planning tool that address the trend movements in population, excluding the short-run business-cycle, seasonal, and irregular effects.

Table 1. Clark County Final Population Forecast: 2010-2060

<i>Year</i>	<i>Population Forecast</i>	<i>Change in Population Forecast</i>	<i>Growth in Population Forecast</i>
2010	1,951,269*	-55,078	-2.7%
2011	1,966,630**	15,361	0.8%
2012	2,008,654**	42,024	2.1%
2013	2,062,253**	53,599	2.7%
2014	2,102,238**	39,985	1.9%
2015	2,147,641**	45,403	2.2%
2016	2,205,207**	57,566	2.7%
2017	2,248,390**	43,183	2.0%
2018	2,284,616**	36,226	1.6%
2019	2,325,798**	41,182	1.8%
2020	2,341,000	15,202	0.7%
2021	2,361,000	20,000	0.9%
2022	2,403,000	42,000	1.8%
2023	2,458,000	55,000	2.3%
2024	2,509,000	51,000	2.1%
2025	2,555,000	46,000	1.8%
2026	2,598,000	43,000	1.7%
2027	2,636,000	38,000	1.5%
2028	2,671,000	35,000	1.3%
2029	2,702,000	31,000	1.2%
2030	2,731,000	29,000	1.1%
2031	2,757,000	26,000	1.0%
2032	2,781,000	24,000	0.9%
2033	2,804,000	23,000	0.8%
2034	2,826,000	22,000	0.8%
2035	2,847,000	21,000	0.7%
2040	2,936,000	16,000	0.5%
2045	3,008,000	14,000	0.5%
2050	3,067,000	11,000	0.4%
2055	3,119,000	10,000	0.3%
2060	3,161,000	8,000	0.3%

*2010 U.S. Census.

** SNRPC consensus population estimate.

Note: The changes and growth rates in population forecasts after 2035 are not cumulative. The forecast changes and growth rates represent the annual values. To know forecasts for the entire period, see Table D2.

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Acknowledgements

CBER thanks the members of the Population Forecasting Group for comments on earlier versions of this report.

I. Introduction

Each year, the Regional Transportation Commission (RTC), the Southern Nevada Regional Planning Coalition (SNRPC), the Southern Nevada Water Authority (SNWA), a group of community demographers and analysts, and the Center for Business and Economic Research (CBER) at the University of Nevada, Las Vegas work together to provide a long-term forecast of economic and demographic variables influencing Clark County. The primary goal is to develop a long-term forecast of the Clark County population and its growth that is consistent with the structural economic characteristics of the county. Toward this end, we employ a general-equilibrium demographic and economic model developed by Regional Economic Models, Inc. (REMI), specifically for Clark County.

The REMI model is a state-of-the-art econometric forecasting model that accounts for dynamic feedback between economic and demographic variables. Special features allow the user to update the model to include the most current economic information. CBER recalibrates the model using information on recent local employment levels, the most recent national Gross Domestic Product (GDP) forecast, and spending on local capital projects.

The model employed divides Nevada into five regions: Clark County; Nye County; Lincoln County; Washoe County; and the remaining counties, which are combined to form a fifth region. These regions are modeled using the U.S. economy as a backdrop. The model contains over 100 economic and demographic relationships that are carefully constructed to represent concisely the Clark County economy. The model includes equations to account for migration and trade between Nevada counties and other states and counties in the country.

The demographic and economic data used to construct the model begin in 2001 and end in 2017. The most important variables include the aggregate totals of employment, the labor force, and population. The economic data for the most recent version of the model (REMI PI+ v2.3) are consistent with the North American Industry Classification System (NAICS). The REMI PI+ v2.3 model was released in 2019. Hence, the model's most recent data are from 2017, since the Bureau of Economic Analysis (BEA) personal-income data only become available with a two-year lag. The availability of the most recent income data sets the last year of history with each release of an updated model.

The REMI model is the best model available for describing how economies interact geographically.² These interactions may take place within a single economy (such as the interaction

² See Schwer, R. K. and D. Rickman (1995), "A comparison of the multipliers of IMPLAN, REMI and RIMS II: Benchmarking ready-made models for comparison," *The Annals of Regional Science*, 29(4), 363-374.

between house-price growth and employment growth in Clark County) or between two economies (such as the interaction between Southern Nevada and Southern California through migration flows). These and over 100 other interactions contained within the model are too complex to consider modeling on our own. Rather, we turn to the REMI model because it has a solid foundation in economic theory and the principles of general-equilibrium-based growth and distribution theory, yet it still offers the flexibility required to model a regional economy like Clark County.

To guarantee that the model incorporates the most recent data, we make a series of adjustments to the model. In this way, we ensure that the forecast model includes the best available information when making the final forecast. First, we update the model's national GDP forecast using the latest available national forecast from the University of Michigan's Research Seminar in Quantitative Economics (RSQE), since REMI uses the RSQE forecast in its model development. Second, we rebase the population forecast to the most recent population estimate for Clark County available from SNRPC. Third, we update the model with current employment data from the Bureau of Economic Analysis (BEA) and the Nevada Department of Employment, Training and Rehabilitation (DETR). Fourth, we calibrate the model to include the County's short-term employment forecasts and economic and international migration adjustments due to the COVID-19 pandemic. Fifth, we adjust future hotel employment based on the expected number of hotel rooms that will be added in the near future. Sixth, we incorporate the expected direct spending by additional convention attendees due to the expansion of the Las Vegas Convention Center District. Seventh, we include the expected economic impact from additional visitors due to the Allegiant Stadium. Lastly, we include planned new investment in public infrastructure in the model using information from the RTC.

This report proceeds as follows. Section II examines the changes in the REMI model from the prior year's model. Section III presents sequentially the changes made to update the model and tailor it to local information. Section IV reports the population forecast and gives a brief discussion of the economic environment surrounding the forecast. Section V compares the population growth rate forecast with the previous years' forecast. Section VI discusses the risks to the forecast. Finally, section VII concludes.

II. Comparison of REMI Models: Current and Previous Year

Based on our past practice, we begin by comparing the most recent REMI out-of-the-box benchmark forecast prior to any model adjustments with the corresponding out-of-the-box forecasts from the REMI models used in prior reports. This gives us the opportunity to examine how the new model differs from previous versions and to explore the basis of these differences.

The most recent data used to develop this year's model end with data from 2017. Thus, we refer to the current model by its last historical year 2017 (LHY2017) and the previous model by its last historical year 2016 (LHY2016).

Each year, the REMI staff and users discuss how the model works and propose adjustments and changes for improvement. The newest REMI model, PI+ v2.3 offers one major improvement: it includes an updated equation of trade flow parameters (beta and sigma).³ The distance decay (beta) and corresponding price elasticity (sigma) parameters were re-estimated based on more recent panel data at both state and county levels from 2001 to 2017 by industry. Estimates of the trade flow parameters in prior models were based on data from 1990 through 2012. The newly updated trade flow parameters can result in significant changes to industry trade flows such as the model's responses to changes in the 'multiplier' effects. For example, construction and food services and drinking places industries, which Clark County's economy significantly depends on, posted higher rates of decay with distance but lower price elasticities of demand, which means larger economic effects on Clark County with the growth in these sectors compared to previous models.

The new REMI model also contains the most recent data history for 2017 and a revision of historical data back to 2001 with an updated reference year from 2009 to 2012 due to the BEA's comprehensive updated of National Income and Product Accounts (NIPAs). REMI's historical data largely reflect the BEA's estimates. The BEA releases its comprehensive updated NIPAs approximately every five years to improve and modernize its accounts to keep pace with the constantly changing U.S. economy. The updates increase the quality and relevance of BEA's economic statistics by including not only improved estimation methodologies but also newly available and more comprehensive source data. These updates lead to differences in the out-of-the-box population forecasts between the LHY2017 and LHY2016 models.

Figures 1 and 2 compare the LHY2017 and LHY2016 population forecasts from the out-of-the-box models (i.e., before any updating for employment, infrastructure projects, the national GDP forecast, etc.).⁴ The out-of-the-box population forecast arising from the LHY2017 model predicts higher population

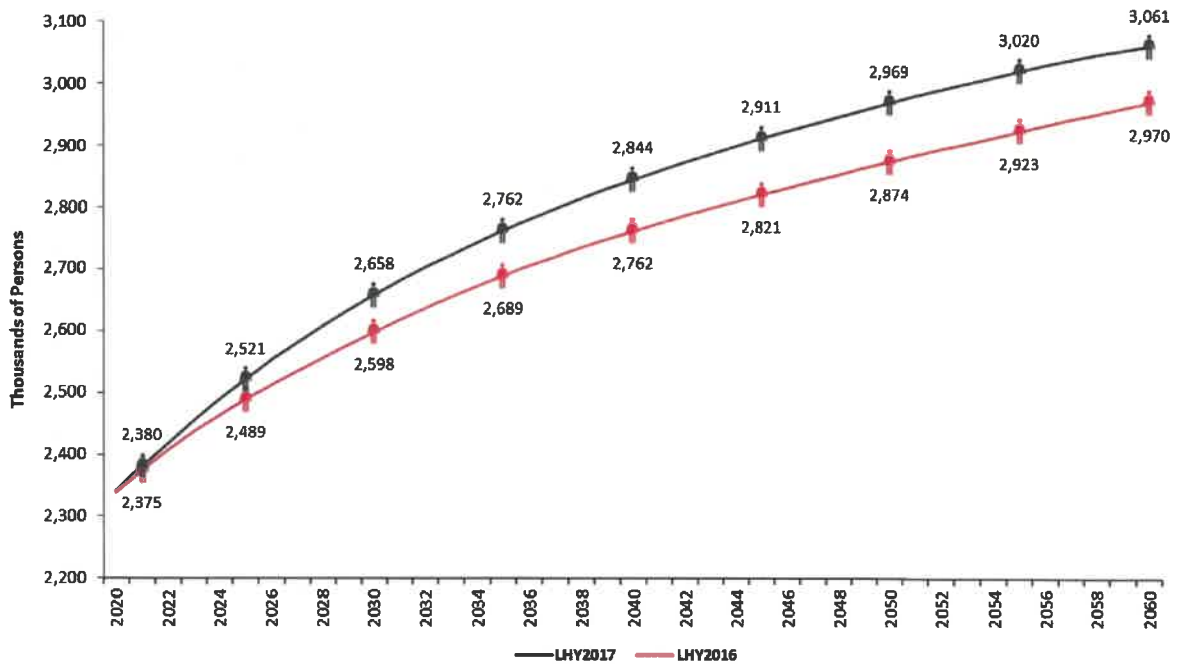
³ According to REMI, the distance decay (beta) parameter measures the level of the effect of distance on the flows of commodities and services, which means a higher beta indicates that greater distance disturbs trade flow more for the industry. For instance, the management of companies and enterprises sector posts the lowest value of Beta as the distance does not affect this industry, while construction, repair and maintenance, and food services and drinking places sectors exhibit the highest beta values as they experience more limitations on distance in terms of trade flows. The price elasticity of demand (sigma) parameter determines the responsiveness of demand for output from a region to a price change in the supplying region, which means that industries with more stable demand in response to price fluctuations post lower sigma values.

⁴ The detailed out-of-the-box results through 2060 appear in Table D1 of the Appendix D.

levels than the LHY2016 model through 2060, except for the year 2020 (Table 2). Regarding population levels, the out-of-the-box model forecasts population in the LHY2017 model for 2020 does not change much from the LHY2016 model with a difference of only 1,760 persons. This gap, however, monotonically increases over the entire forecast horizon. By 2060, the out-of-the-box model forecasts population in the LHY2017 model approximately 91,000 higher than the LHY2016 model.

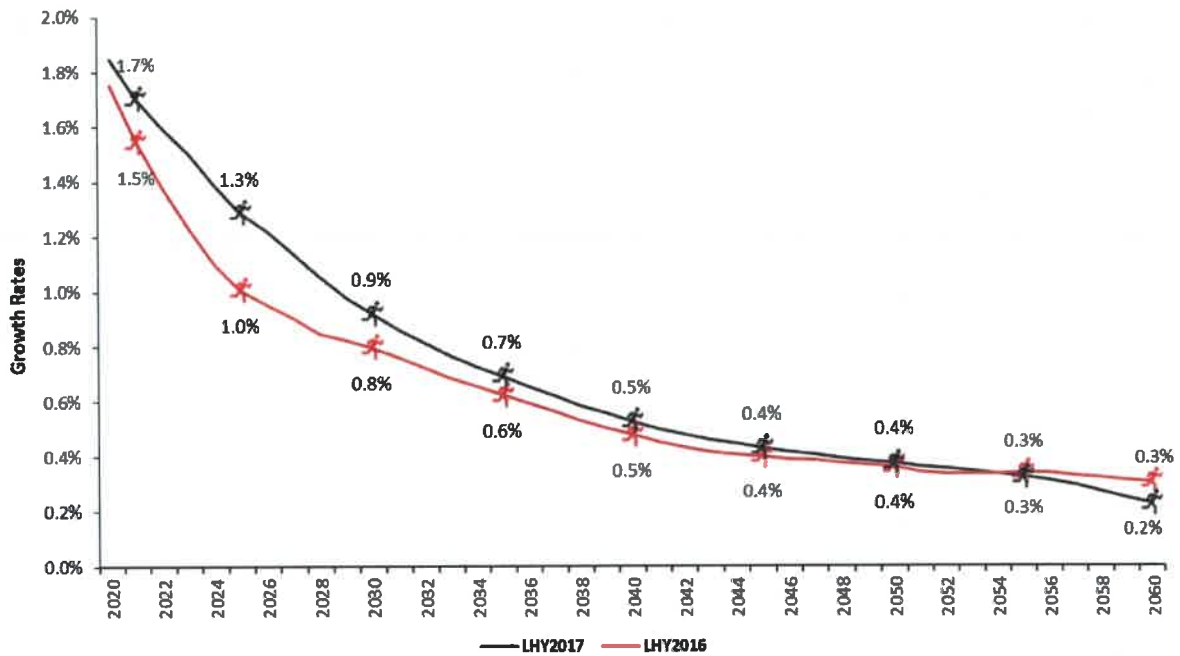
The forecasted population growth rate for both the LHY2017 and LHY2016 models generally declines over the entire forecast horizon through 2060 (Figure 2). The LHY2017 model forecasts a growth rate of population that exceeds the growth rate of the LHY2016 model until 2053. The LHY2017 forecasted growth rate of population, however, falls below the growth rate of LHY2016 starting in 2054. These lower growth rates from the LHY2016 model between 2044 and 2057 mainly reflect lower net migrants for the LHY2017 model compared to the LHY2016 model from 2040. (Figure 3).

Figure 1. Clark County Population Forecasts: REMI Out-of-the-Box LHY2017 and LHY2016: 2020-2060



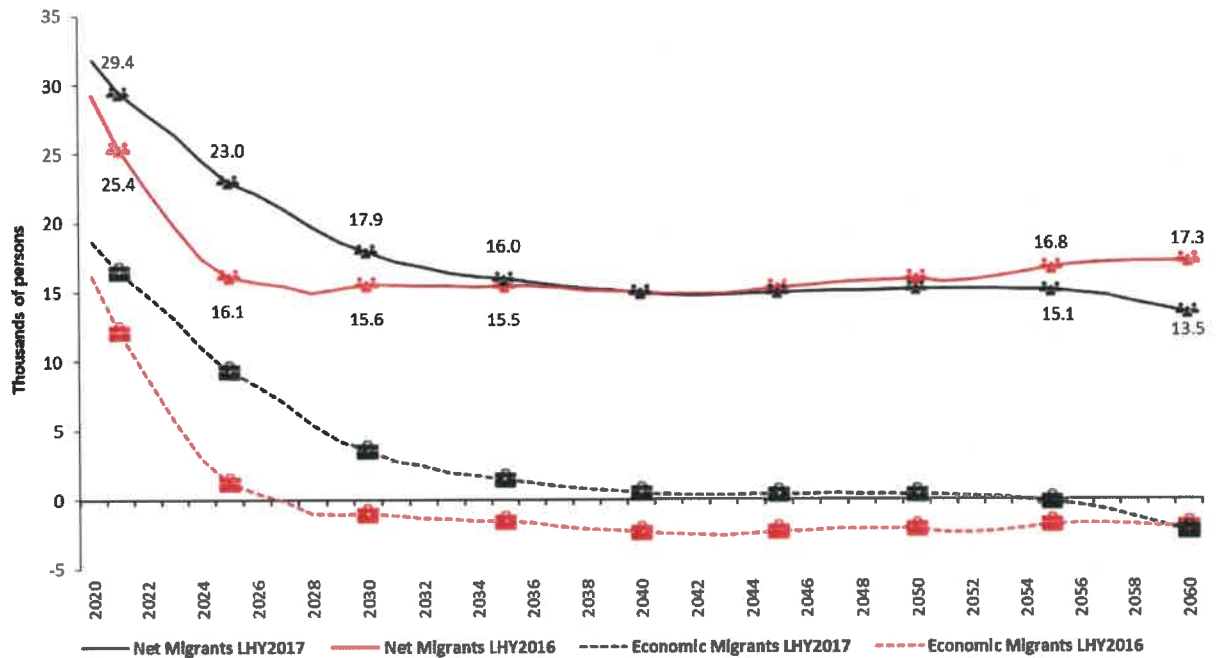
Note: Out-of-the-box refers to the model prior to recalibration. These numbers are not the final forecast.

Figure 2. Clark County Population-Growth-Rate Forecasts: REMI Out-of-the-Box LHY2017 and LHY2016: 2020-2060



Note: Out-of-the-box refers to the model prior to recalibration. These numbers are not the final forecast.

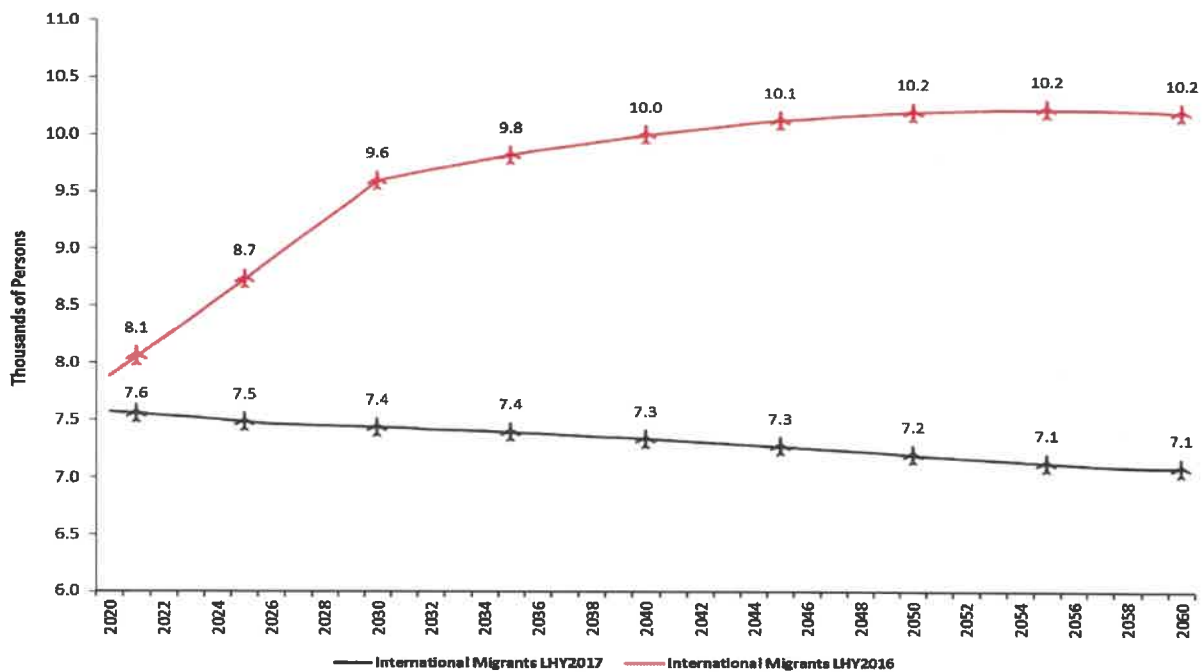
Figure 3. Clark County Net Migrant and Net Economic Migrant Forecasts: REMI Out-of-the-Box LHY2017 and LHY2016: 2020-2060



Note: Out-of-the-box refers to the model prior to recalibration. These numbers are not the final forecast.

The lower number of net migrants⁵ mainly reflects the reduced projections in net international migration for the LHY2017 relative to the LHY2016 (Figure 4) models. Higher projections of economic migration in the LHY2017 model lead to gains in net migration projections for the LHY2017 model compared to the LHY2016 model until 2039. Reduced international migration projections in the LHY2017 model, however, totally offset the gains from economic migration and produced a lower level of net migration in the LHY2017 model after 2040.

Figure 4. Clark County Net International Migrant Forecasts: REMI Out-of-the-Box LHY2017 and LHY2016: 2020-2060



Note: Out-of-the-box refers to the model prior to recalibration. These numbers are not the final forecast.

Clark County’s net international migration projections in the LHY2017 model show much lower levels compared to the LHY2016 model. This reflected the revised national international migration projections by the Census.⁶ According to the LHY2017 model, the average number of net international

⁵ The REMI model defines four components of net migration: economic, retired, special, and international migration. Economic migrants are those who are under the age of 65 and emigrate from other regions to improve their living standards and to seek better job opportunities. Retired migrants are those who are aged 65 and older and move from one region to another and do not respond to economic conditions. The REMI model explains that economic migrants are the difference between the net domestic migrants and the net retired migrants. Special migrants are prisoners, college students, and military personnel and their dependents. Finally, net international migration is defined as migrants who move from outside and into the 50 states and the District of Columbia, which includes migrants relocated from Puerto Rico and U.S. territories, Armed Forces, permanent and temporary migrants such as students, refugees, and illegal migrants.

⁶ The LHY2017’s immigration projections are from the 2017 National Population Projections by the Census, while the projections in the LHY2016 model are from the 2014 National Population Projections by the Census.

migration in the United States equals approximately 1,113 thousand over the period between 2020 and 2060, which is much lower than the 1,388 thousand from the LHY2016 model. On average, Clark County expects to gain approximately 7,300 net international migrants per year from 2020 to 2060 with the LHY2017 model, which is 24.5 percent lower than the average projection of 9,700 per year by the LHY2016 model.

Table 2. Clark County REMI Out-of-the-Box Forecast Comparison: LHY2017 and LHY2016

	2020			2060		
	LHY2017	LHY2016	Change to forecast	LHY2017	LHY2016	Change to forecast
Population (Thousands)	2,340.56	2,338.80	0.1%	3,061.23	2,970.31	3.1%
Total Employment (Thousands)	1,372.24	1,347.06	1.9%	1,598.51	1,566.56	2.0%
Total Employment as % of Nation	0.67	0.66	1.1%	0.68	0.66	2.1%
Gross Domestic Product (Billions of Fixed 2012 Dollars)	115.16	116.09	-0.8%	231.91	227.59	1.9%
Gross Regional Product as % of Nation	0.59	0.59	0.4%	0.60	0.58	1.6%
Migrants (Thousands)						
Economic Migrants	18.63	16.07	15.9%	-2.26	-1.89	-19.1%
Retired Migrants	5.53	5.48	0.9%	8.78	8.98	-2.2%
International Migrants	7.58	7.90	-4.1%	7.09	10.20	-30.5%
Population by Age (Thousands)						
Ages 0-14	447.00	448.32	-0.3%	472.33	444.63	6.2%
Ages 15-24	287.55	282.74	1.7%	331.54	297.20	11.6%
Ages 25-64	1,240.82	1,240.42	0.0%	1,440.78	1,394.49	3.3%
Ages 64+	365.20	367.32	-0.6%	816.59	834.00	-2.1%

Note: The numbers for both LHY 2017 and LHY 2016 models refer to the models prior to adjustments.

Table 2 compares the REMI out-of-the-box economic and demographic forecasts between the LHY2017 and LHY2016 models for the period between 2020 and 2060. The LHY2017 out-of-the-box model predicts a stronger Clark County economy in 2060, compared to the LHY2016 out-of-the-box model in terms of total population, employment, and real GDP. Moreover, the LHY2017 out-of-the box model projects a larger Clark County economy as a percentage of the nation in 2060 compared to the out-of-the-box LHY2016 model. Net economic migration for the LHY2017 model in 2060 is lower than the level from the LHY2016 model. The LHY2017 model's net economic migration projections for the period between 2020 and 2059, however, are higher than the LHY2016 model's (Figure 3). Higher levels of the net economic migration projections for the LHY2017 model contribute a larger number of projected population between ages 15 and 65 compared to the LHY2016 model, which is a positive asset for Clark County in that they not only contribute to the local human capital resources but also boost the development of local businesses.

III. Recalibrating the Model

As noted previously, county-level personal income data only become available with a two-year lag. As a result, the REMI model also imposes a two-year lag on all its data history that ends with 2017 data for the current model, PI+ v2.3, released in 2019. To update the model, we incorporate available, pertinent model information, including the most recent national GDP forecast, more recent employment figures and forecasts, and spending on public and private capital projects to reflect local information in the forecast. We describe each update in sequence.

A. *Adjustment of the national GDP forecast*

The REMI model relies on a baseline national GDP forecast from the University of Michigan's RSQE for the near future. The REMI model, PI+ v2.3, utilizes the March 2019 GDP forecast from RSQE for the period between 2018 and 2020. We adjust the model's national GDP forecast using both the BEA's most recent data and the May 2020 national GDP forecast from RSQE. As of this writing, RSQE published interim reports for three consecutive months from March to May to provide up-to-date forecasts for the rapidly changing situation. The U.S. economy has experienced an unprecedented economic downturn caused by a public health crisis due to the COVID-19 pandemic. In April, at least 42 states issued stay-at-home orders, which affected about 95 percent of the U.S. population, to mitigate the spread of the virus.⁷ Fiscal and monetary relief policies such as the Coronavirus Aid, Relief, and Economic Security (CARES) act and unlimited Quantitative Easing (QE), responded quickly to limit deep damage to the U.S. economy.

In 2019, national real GDP grew by 2.3 percent, only 0.1 percentage point lower than RSQE expected. RSQE quickly adjusted their forecasts for 2020 as the unexpected COVID-19 pandemic suddenly hit the economy. RSQE forecasts a sharp decline of 4.0 percent in 2020 instead of an expansion of 2.0 percent. RSQE expects real GDP to increase by 3.3 and 2.1 percent in 2021 and 2022, respectively. These forecasts assume that social distancing and some other precautions will continue for the next several quarters and that future outbreaks of the virus will not cause similar disruptions to economic activity. RSQE also predicts a low probability of a vaccine becoming widely available before 2021. Overall, we adjusted the national GDP components downward by about \$1,080 billion in 2020, \$766 billion in 2021, and \$681 billion in 2022. The adjusted national forecast generates a new baseline forecast for Clark County. We, then, use the baseline forecast for the subsequent adjustments.

⁷ <https://www.nytimes.com/interactive/2020/us/coronavirus-stay-at-home-order.html>.

Figure 5. U.S. real GDP Forecasts: RSQE vs. REMI Out-of-the-Box from 2019 to 2022



Note: The numbers for REMI refer to the model prior to adjustments. REMI growth rates for 2019 and 2020 reflect the RSQE's March 2019 forecasts. For BEA & RSQE, the growth rate for 2019 is based on the BEA estimate, but the growth rates for 2020 to 2022 show the projections by RSQE.

B. *Rebasing the population forecast*

We rebase the population forecast using the population update feature in the REMI model. We update the population in 2019 based on the most recent SNRPC Clark County population estimates, that is 2.33 million, a 1.8 percent increase from 2018. We use this population level to update the population data in the REMI model. This year, however, we did not update the population levels in 2020 and 2021 using CBER's short-term population forecasts as they do not reflect the rapidly changing economic conditions with the COVID-19 pandemic. CBER's *2020 Economic Outlook*, which was published in December 2019, reports 2.1 percent of population growth forecast for both 2020 and 2021. These forecasts assumed a continued expansion of Clark County economy.

C. *Employment adjustment*

The county-level employment data in REMI come from the BEA's local area personal income data, which are only provided for 23 sectors. Even though BEA reports the county-level employment data for 23 sectors, BEA supplies the county-level wage data for 70 sectors. This means that REMI calculates employment for 70 sectors by incorporating the county-level wage data. Although the most recent historical year in the model's employment data is 2017, BEA employment data are available for 2018. Previously, we updated 70 sectors by mainly using DETR data. Before applying DETR data, we also updated REMI's employment data with recent BEA data for sectors that do not identify subcategories. This year,

however, we use the REMI update feature for 23 sectors to update the 2018 employment data. We do this because a large gap exists between the REMI forecast and the BEA estimate. REMI forecasted that Clark County employment would increase by 2.2 percent in 2018, while the BEA estimated that employment rose strongly by 3.4 percent from 2017 to 2018. In addition, the employment for the 23 sectors was revised, which resulted in an upward revision of total employment for 2017. That is, REMI indicates that the employment equals 1,298 thousand in 2017, which revises up to 1,306 thousand according to BEA. Therefore, we update the model's employment data with the most recent BEA estimates for the 23 sectors in 2018.

Table 3. Clark County Employment Levels (in 000s) before and after BEA Adjustment for 2018

<i>INDUSTRIAL CLASSIFICATION</i>	<i>REMI BASELINE FORECASTS</i>		<i>BEA ESTIMATES</i>	
	<i>History 2017</i>	<i>2018</i>	<i>2017</i>	<i>2018</i>
Natural Resources	3.5	3.5	3.0	3.0
Construction	71.4	73.8	71.2	76.3
Manufacturing	27.2	27.8	27.0	28.6
Retail and Wholesale	158.3	163.3	159.6	160.8
Transportation and Public Utilities	69.4	70.4	81.8	92.3
Finance, Insurance & Real Estate	145.0	146.9	139.7	144.4
Services	705.7	721.5	706.8	727.6
Government	116.8	118.5	116.5	117.2
Farm	0.5	0.5	0.5	0.4
<i>Total</i>	<i>1297.7</i>	<i>1326.3</i>	<i>1306.1</i>	<i>1350.7</i>

Note: BEA estimates are also adjusted employment. BEA revised its estimates for 2017. The difference between REMI's history data and BEA estimates is due to BEA's revisions.

Table 3 shows adjusted employment levels for 2018 after updating BEA estimates. REMI under-forecasted the Clark County employment for 2018 by 1.8 percent or 24,000 jobs. While the Southern Nevada economy gained 2.7 percent of its total employment in 2017,⁸ the BEA estimates suggest that Clark County employment grew by about 3.4 percent for 2018. Most sectors of Southern Nevada's economy experienced positive job growth in 2018. Strong employment gains occurred in key sectors such as construction, manufacturing, transportation and warehousing, education, management, gaming, and professional and technical services. Overall, Southern Nevada's economy gained roughly 45,000 jobs in 2018. We also update the model's employment data for 2019 as most wage and salary employment data are available from the Nevada DETR for 2019. We, therefore, update the model to account for the most recent information.

⁸ According to REMI's historical data, Clark County employment increased by 2.7 percent in 2017. Later, however, the BEA revised the growth rate to 3.4 percent.

The latest growth rates for the out-of-the-box REMI model forecasts as well as recent DETR estimates appear in Table 4. The actual growth rates from DETR differ from the REMI out-of-the-box forecasts, suggesting a need for adjustment. That is, the growth rate estimates by DETR of total employment exceed the REMI forecasts by 0.29 percent in 2019. The employment update proceeds as follows: First, we substitute BEA employment by 23 sectors into the REMI model and get the 70-sector estimation from the REMI model for 2018. Second, we compute the annual percentage change using DETR data and apply them to produce new estimates for 2019. This procedure implicitly assumes that the proportion of self-employed in each industry classification grows at the same rate as does the ratio between full- and part-time workers.

Table 4. Employment Growth Rates for Clark County before DETR Adjustment for 2019

<i>INDUSTRIAL CLASSIFICATION</i>	<i>REMI BASELINE FORECASTS</i>	<i>DETR ESTIMATES</i>
Construction	1.45%	10.20%
Wholesale Trade	1.41%	5.13%
Retail Trade	1.85%	-0.27%
Transit, Ground Passenger Transportation	1.82%	-10.81%
Monetary Authorities, Et Al.	0.30%	3.85%
Ins Carriers, Related Activities	0.71%	4.15%
Real Estate	2.00%	0.00%
Professional, Technical Services	3.01%	3.91%
Management of Companies	1.46%	1.33%
Administrative, Support Services	2.40%	4.71%
Ambulatory Health Care Services	2.80%	4.33%
Hospitals	1.47%	3.59%
Amusement, Gambling, And Recreation	1.35%	2.47%
Accommodation	1.23%	-0.73%
Food Services, Drinking Places	2.37%	2.70%
State & Local Government	1.42%	3.21%
<i>Total</i>	1.88%	2.17%

Note: The total growth rates for DETR estimates are calculated after adjusting the employment forecasts with the DETR data for available sectors. Therefore, they do not represent actual DETR's growth rate estimates.

Table 5 reports the updated employment data by category for the model. The Clark County job growth numbers in 2019 suggest that general economic conditions continue to improve in the Las Vegas area. The local economy continued to expand in 2019 with the robust rate of employment growth in key sectors such as construction, health care, hospitals, social assistance, wholesale trade, administrative services, professional and technical services, and food services. Overall, Southern Nevada's economy gained roughly 29,000 jobs in 2019.

Construction employment experienced strong gains in 2018 and 2019 thanks to the strong recovery in the residential market as well as multiple large commercial projects such as the Raider's

Allegiant stadium, Resorts World, MSG Sphere, and the Las Vegas Convention Center expansion. The commercial permit valuations in Southern Nevada marked a record high level in 2018.⁹ Transit and ground passenger transportation workers, however, posted a substantial loss of 10.8 percent for 2019, which may reflect an increased number of self-employed due to Uber and Lyft, as we applied DETR's growth rate estimates. DETR's estimates exclude proprietors, the unincorporated self-employed, and unpaid volunteer or family workers etc.¹⁰

Table 5. Model Job Adjustments (in 000s) for 2018 and 2019

INDUSTRIAL CLASSIFICATION	BEA ESTIMATES	DETR GROWTH RATE	ADJUSTED JOB LEVELS
	2018	2019	2019
Forestry et al.	0.44	4.83%	0.46
Support act for agriculture and forestry	0.02	1.70%	0.02
Oil, gas extraction	0.20	2.52%	0.21
Mining (except oil, gas)	2.28	-0.63%	2.26
Support activities for mining	0.03	0.04%	0.03
Utilities	2.80	1.15%	2.84
Construction	76.34	10.20%	84.12
Wood product manufacturing	0.55	0.48%	0.55
Nonmetallic mineral prod manufacturing	2.52	-0.52%	2.50
Primary metal manufacturing	0.56	-0.67%	0.56
Fabricated metal prod manufacturing	2.37	0.16%	2.37
Machinery manufacturing	0.72	-1.49%	0.71
Computer, electronic prod manufacturing	0.64	-0.28%	0.64
Electrical equip, appliance manufacturing	0.70	-0.57%	0.69
Motor vehicle manufacturing	0.50	0.59%	0.50
Trans equip mfg exc motor vehicle	0.22	0.71%	0.22
Furniture, related prod manufacturing	1.31	0.12%	1.31
Miscellaneous manufacturing	6.51	0.62%	6.55
Food manufacturing	3.90	1.76%	3.97
Beverage, tobacco prod manufacturing	0.57	2.60%	0.59
Textile mills; textile prod mills	0.52	3.94%	0.54
Apparel manufacturing	0.46	11.91%	0.52
Paper manufacturing	0.53	0.97%	0.54
Printing, related supp act	3.01	-0.34%	3.00
Petroleum, coal prod manufacturing	0.04	0.51%	0.04
Chemical manufacturing	1.18	1.56%	1.19
Plastics, rubber prod manufacturing	1.78	0.08%	1.78
Wholesale trade	27.15	5.13%	28.54
Retail trade	133.69	-0.27%	133.33

⁹ CBER's Clark County commercial permit valuations show that the valuation reached its highest level, \$2,769 million in 2018. The second highest level is \$2,399 million in 2007.

¹⁰ <https://www.bls.gov/opub/hom/pdf/ces-20110307.pdf>.

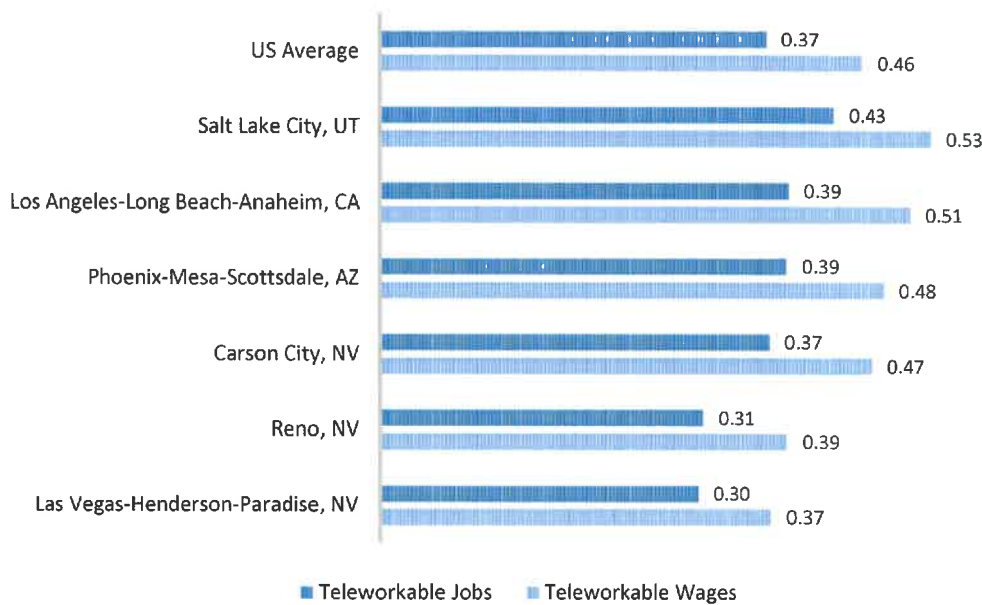
Table 5. Model Job Adjustments (in 000s) for 2018 and 2019 (continued)

INDUSTRIAL CLASSIFICATION	BEA ESTIMATES	DETR GROWTH RATE	ADJUSTED JOB LEVELS
	2018	2019	2019
Air transportation	9.96	0.73%	10.03
Rail transportation	0.29	-0.27%	0.29
Water transportation	0.15	1.69%	0.15
Truck transportation	8.30	1.24%	8.40
Couriers and messengers	6.53	1.11%	6.60
Transit, ground pass transportation	40.11	-10.81%	35.77
Pipeline transportation	0.05	0.42%	0.05
Scenic, sightseeing transportation; supp	11.34	1.63%	11.53
Warehousing, storage	12.74	2.76%	13.09
Publishing, except internet	3.05	0.89%	3.07
Motion picture, sound rec	4.18	3.37%	4.32
Data processing, hosting, and rel services	3.42	4.30%	3.56
Broadcasting, except int;	1.67	0.63%	1.68
Telecommunications	4.25	0.00%	4.25
Monetary authorities, et al.	16.55	3.85%	17.19
Sec, comm contracts, inv	35.95	4.15%	37.45
Ins carriers, rel act	14.43	4.15%	15.03
Real estate	68.73	0.00%	68.73
Rental, leasing services	8.73	0.63%	8.79
Prof, tech services	73.78	3.91%	76.67
Mgmt of companies, enterprises	27.17	1.33%	27.54
Administrative, support services	100.52	4.71%	105.26
Waste mgmt, remediation services	2.85	2.23%	2.92
Educational services	13.27	3.32%	13.71
Ambulatory health care services	50.89	4.33%	53.09
Hospitals	23.42	3.59%	24.26
Nursing, residential care facilities	10.44	2.53%	10.70
Social assistance	22.53	5.00%	23.65
Performing arts, spectator sports	24.86	1.75%	25.30
Museums et al.	0.64	5.12%	0.67
Amusement, gambling, recreation	17.60	2.47%	18.04
Accommodation	171.83	-0.73%	170.59
Food services, drinking places	105.87	2.70%	108.73
Repair, maintenance	14.04	1.37%	14.23
Personal, laundry services	35.17	2.06%	35.90
Membership assoc, organ	10.01	4.59%	10.47
Private households	6.18	1.76%	6.28
State & local government	88.09	3.21%	90.92
Federal civilian	13.31	0.92%	13.43
Federal military	15.78	4.81%	16.54
Farm	0.43	0.59%	0.44
<i>Total</i>	1,350.62	2.17%	1,379.86

D. COVID-19 adjustments

In March, the U.S. economy faced an unprecedented event with the rapidly evolving coronavirus pandemic. More than 90 percent of Americans were under the stay-at-home orders to defeat the attack by an invisible enemy, the COVID-19 virus. To smooth out the slope of an expected economic downturn, the Fed announce a QE program as well as cut its federal fund rate to near zero. The federal government also promptly passed the CARES act, the largest stimulus (relief) package in history, to help to stem economic hardship caused by the almost stalled economy. As a result, we calibrate the current situation to the REMI model to produce more plausible forecasts.

Figure 6. Share of Tele-workable Jobs for Las Vegas and its Neighboring Cities



Note: Tele-workable jobs stand for the jobs that can be done at home, while tele-workable wages stand for the share of wages that accounts for tele-workable jobs. For example, approximately 30 percent of all Las Vegas MSA jobs account for about 37 percent of entire wages.

Source: Dingel, Jonathan I. and Brent Neiman, "How many jobs can be done at home?", *National Bureau of Economic Research*, April 2020, <https://www.nber.org/papers/w26948>.

The Clark County economy largely depends on the hospitality sector. In 2018, about 19 percent of real GDP in Clark County was produced by the hospitality sector, while the BEA and BLS report 23.8 or 28.0 percent of employment, respectively, were hired by the leisure and hospitality sector. In addition, approximately 30 percent of the jobs in Las Vegas can be performed at home, while 37 percent of the U.S. jobs are estimated to be tele-commutable (Figure 6). Nevada also ranked 50 out of 50 states in terms of the share of critical or essential workers who were exempted from stay-at-home orders, with 65.0 percent

compared to 71.1 percent for the United States.¹¹ That is, between 5-35 percent of workers in Las Vegas are estimated to have lost their jobs during the stay-at-home order.¹² In fact, the Clark County unemployment rate reached a record high of 33.7 percent in April, which is significantly higher than the U.S. average of 14.7 percent. We, therefore, ran several regressions of Clark County employment onto the RSQE GDP and U.S. employment forecasts¹³ both separately and together. We used the best performing equation, which produced -14.7, 7.1, and 4.1 percent employment growth rates, respectively, for 2020, 2021, and 2022.¹⁴ We allocated the total employment loss and gain for 2020 to 2022 to each industry by using the shares of Clark County initial claims by sectors (Table 6).

When we incorporated these employment forecasts into the REMI model, however, we saw the REMI model forecasts the outflow of net economic migration of 31 thousand in 2020. With COVID-19, we assumed, however, that movements between states or counties are limited, which means that we expect nearly zero net economic migration in 2020. We think this is a likely outcome in that we never experienced a massive loss in net domestic migration. Clark County population had the largest loss of net domestic migration in 2011 of 4,929 (Figure 7).

We also assumed that the level of net international migration for 2020 and 2021 will be near zero, meaning the inflows and outflows will be balanced. During the last two years, we experienced net losses in international migration (Figure 7), which may reflect more strict restrictions on immigration policies with the current Administration. As of April 22, an executive order was issued that suspends entry of immigrants who present risk to the U.S. labor market during the economy recovery,¹⁵ following the COVID-19 outbreak. Although the executive order shall expire 60 days from its issued date, the effective

¹¹ Source: The Council for Community and Economic Research; The Labor Market Information Institute.

¹² That is, if all work-at-home jobs (30 percent) are classified as non-essential, then 95 (65 plus 30) percent of jobs are not lost, implying a loss of jobs of 5 percent. If work-at-home jobs are all essential, then all non-essential jobs (35 percent) are lost.

¹³ The RSQE release from May 2020 forecasts that nonfarm employment will decline by 8.4 percent in 2020, but increase by 3.0 and 2.3 percent, respectively, in 2021 and 2022.

¹⁴ Clark County population growth has been largely driven by net domestic migration that mainly migrated to Clark County to seek better employment opportunities. The average net population change per year is about 31,545 from 2010 to 2019, according to the Census, and approximately 59 percent of the variance can be explained by net domestic migration. The share of net domestic migration now explains about 78 percent of the population gain. On the other hand, natural changes, the difference between births and deaths, have declined for five consecutive years due to increased deaths. Specifically, Clark County gained 40,600 people in 2019, which include 9,129 natural change, -360 net international migration, and 31,643 net domestic migration. As just noted, employment opportunities are a main driver of net economic migration, reflecting individuals under the age of 65 according to REMI. The Nevada Department of Motor Vehicles reports that approximately 76,000 people migrated to Clark County in 2019, and about 82 percent of these migrants are under the age of 60. We, therefore, believe that incorporating the short-term employment forecasts is the best practice we can do to project the short-term population amid high uncertainty of the current economic situation.

¹⁵ <https://www.whitehouse.gov/presidential-actions/proclamation-suspending-entry-immigrants-present-risk-u-s-labor-market-economic-recovery-following-covid-19-outbreak/>.

date can be extended, if needed. Americans as well as people from the rest of world may also delay or cancel their plans to move abroad due to the pandemic. We, therefore, assumed that Clark County will not experience any gains or losses in net international migration for 2020 and 2021. After calibrating our assumptions on changes in migration, the REMI model forecasts that the employment for Clark County will plummet by 14.3 percent in 2020, but it will rebound by 7.0 and 4.0 percent, respectively, for 2021 and 2022. We did not incorporate certain adjustments such as additional hotel rooms, incremental spending due to the Las Vegas Convention Center expansion and the Allegiant Stadium, and transportation-infrastructure investment for 2020, 2021 and 2022, since the COVID-19 adjustment already reflects the ongoing economic situation for this period.

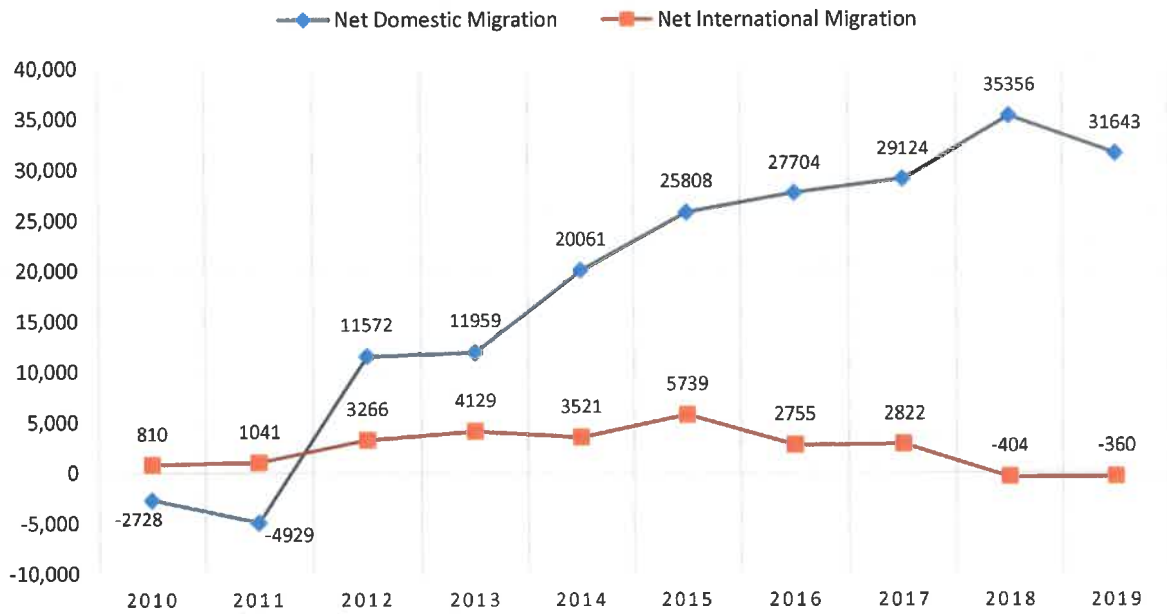
Table 6. Estimated Share of Clark County Total Initial Claims

	<i>Total NV Initial Claims (Mar 15 - April 18)</i>	<i>Share of NV Total Initial Claims</i>	<i>Share of CC Employment to NV Employment</i>	<i>Estimated CC Total Initial Claims</i>	<i>Share of CC Total Initial Claims</i>
Agriculture, Forestry, Fishing, and Hunting	500	0.1%	23.3%	117	0.04%
Mining, Quarrying, and Oil and Gas Extraction	804	0.2%	12.6%	102	0.04%
Utilities	391	0.1%	63.8%	250	0.1%
Construction	22,946	6.7%	70.8%	16,244	6.2%
Manufacturing	9,447	2.8%	46.2%	4,361	1.7%
Wholesale Trade	5,376	1.6%	66.5%	3,573	1.4%
Retail Trade	24,454	7.2%	74.0%	18,095	6.9%
Transportation and Warehousing	13,779	4.0%	75.9%	10,465	4.0%
Information	3,338	1.0%	75.8%	2,531	1.0%
Finance and Insurance	3,433	1.0%	76.7%	2,635	1.0%
Real Estate and Rental and Leasing	10,563	3.1%	71.9%	7,593	2.9%
Professional, Scientific, and Technical Services	22,725	6.7%	72.3%	16,427	6.3%
Management of Companies and Enterprises	6,058	1.8%	83.0%	5,031	1.9%
Admin. and Support, Waste Mgmt. and Remediation Services	35,639	10.4%	77.7%	27,695	10.5%
Educational Services	4,361	1.3%	73.6%	3,209	1.2%
Health Care and Social Assistance	14,873	4.4%	72.6%	10,802	4.1%
Arts, Entertainment, and Recreation	13,605	4.0%	73.2%	9,964	3.8%
Accommodation and Food Services	136,160	39.9%	83.8%	114,042	43.4%
Other Services (except Public Administration)	10,733	3.1%	74.3%	7,970	3.0%
Public Administration	2,476	0.7%	67.1%	1,661	0.6%

Note: CC stands for Clark County. The share of Clark County employment to Nevada employment by sectors was calculated by using the 2018 BEA employment data. Estimated CC total initial claims were calculated by using total Nevada initial claims and the share of Clark County employment to Nevada employment. Clark County employment is composed of 73.3 percent of total Nevada employment, which produced 71.9 percent of real GDP in Nevada according to the BEA data.

Source: Economic Policy Institute; Bureau of Economic Analysis; CBER

Figure 7. Net Domestic and International Migration Estimates from 2010 to 2019



Source: U.S. Census

E. Hotel room adjustment

We adjust future hotel employment based on the expected number of hotel rooms added in each of the next few years. The additional rooms and related employment represent either properties that are under construction with fixed opening dates or properties that have development plans and a high probability of project completion during the specified year. In this way, we ensure that the model includes a good short-term forecast of new hotel investment and employment.

As of January 31, 2020, the Las Vegas Convention and Visitors Authority (LVCVA) projects that hotel/motel construction will add an additional 1,518 rooms to the local room inventory by the end of 2020 (See Appendix C). This includes the opening of Fairfield Inn & Suites, TownePlace Suites, Hampton Inn & Suites, Home2 Suites, Circa Resort & Casino, and Downtown Grand Hotel & Casino. In 2021, the LVCVA projects an additional 3,959 hotel/motel rooms will add to the room inventory. This includes the opening of Resorts World Las Vegas, SpringHill Suites Marriott, and Fremont Hotel and Casino. In 2022, the LVCVA expects to see an additional 5,183 rooms added to the room stock by the Drew Las Vegas, Delta Hotels by Marriott, two properties for Element Las Vegas, and AC Hotel by Marriot. Finally, the LVCVA expects to see an additional 1,420 rooms added to inventory in 2023 by Majestic Las Vegas and Mardi Gras Hotel and Casino. Overall, Las Vegas is expected to see an additional 12,080 hotel/motel rooms

added to inventory by the end of 2023, which is an 8.1 percent increase compared to the current available room inventory.¹⁶

As we confront an unprecedented economic downturn, however, the members of the population forecasting group agreed that we might see a reduced number of rooms added over time. In December 2007, the U.S. economy entered the Great Recession. The LVCVA estimated the addition of about 46,000 new rooms by the end of 2012 as of February 2008, but it turned out that about 18,000 rooms were added from 2008 to 2012. The current estimate of 12,080 additional rooms is much lower compared to the number of projected new rooms at the beginning of the Great Recession. We, therefore, assumed that only 65 percent of planned additional rooms will be added to the room inventory. We also agreed to delay the total reduced planned new rooms of 7,852 from 2020 to 2023 to 2022 and 2023, as the COVID-19 pandemic hit the tourism industry much harsher than other industries. That is, we expect that some of projects would delay their expected opening dates or some existing rooms could not avoid being temporarily closed until a vaccine is widely available. Thus, no new rooms in 2020 and 2021.

The model adjustment for new hotel construction uses a jobs-to-room ratio of 1.5, which we calculated as follows.¹⁷ First, we expect new hotel rooms to create new jobs in hotel services. Using historical information from 2009-2018, we take the historical average ratio of annual accommodation employment from the Bureau of Labor Statistics (BLS) divided by the total number of hotel rooms. From this calculation, we generate a jobs-to-room multiplier of roughly 1.1 for hotel services. New hotel rooms will also generate secondary economic activity and, hence, additional jobs in other sectors. For example, increased tourism activity from new hotel rooms will also increase the demand for food services and other tourism-related industries. We account for these new jobs as follows. We use each industry's location quotient¹⁸ to estimate the portion of the industry's employment attributable to tourism activity. We, then, take the historical average ratio of the annual employment in each of these sectors, which is attributable to tourism activity, divided by the total hotel rooms. The sum of the ratios for the food services and other tourism-related industries is approximately 0.4. This, together with the jobs-to-room multiplier of 1.1 for hotel services, produces the overall jobs-to-room ratio of 1.5. We, then, use the jobs-

¹⁶ As of April 2020, Las Vegas had 148,755 available rooms in inventory according to the LVCVA.

¹⁷ The detailed computation of the jobs-to-room ratio appears in Appendix A.

¹⁸ The Location Quotient (LQ) compares Clark County's employment in a given industry sector to that of the nation. An LQ greater than 1 indicates that the area has proportionately more workers than the nation employed in that specific industry sector. This implies that the area is producing more than is consumed by its residents. Hence, the portion of the LQ that is above 1 represents the proportion of the industry's employment attributable to tourism activity.

to-room multiplier as the multiplicand times the number of additional rooms, producing a cumulative increase of about 12,000 jobs by 2023 (Table 7).

Table 7. Expected Additional Employment due to New Rooms: Projections for 2020-2023

Year	LVCVA Projections	REMI New Rooms Implied	REMI New Jobs Needed	Cumulative Additional REMI New Jobs
2020	1,518	0	0	0
2021	3,959	0	0	0
2022	5,183	3,926	5,889	5,889
2023	1,420	3,926	5,889	11,778

Note: REMI New Rooms are calculated by allocating the 35 percent reduced number of the LVCVA's estimate of 12,080 rooms to 2022 and 2023. REMI New Jobs Needed are calculated by using a jobs-to-room multiplier of 1.5. We calibrated cumulative additional REMI new jobs from 2023 in the REMI model.

This method differs from our prior reports in that the previous method only included the number of additional jobs *over and above* the rooms and jobs already accounted for in the model.¹⁹ Previously, we assumed that the exiting number of rooms will be managed by the same number of hotel jobs for the projected period by the LVCVA. That is, an increase or decrease in the REMI jobs must first be completely offset, and then we calibrate projected additional jobs into the REMI model. Due to the economic downturn caused by the COVID-19 pandemic, however, we do not know when the hospitality sector will fully recover. Moreover, it is possible that the job-to-room ratio will establish a new-normal like it did after the Great Recession. We, therefore, decided to follow REMI's projections on recovery of the hospitality industry rather than intentionally adding back all the employment we lost due to the economic downturn.

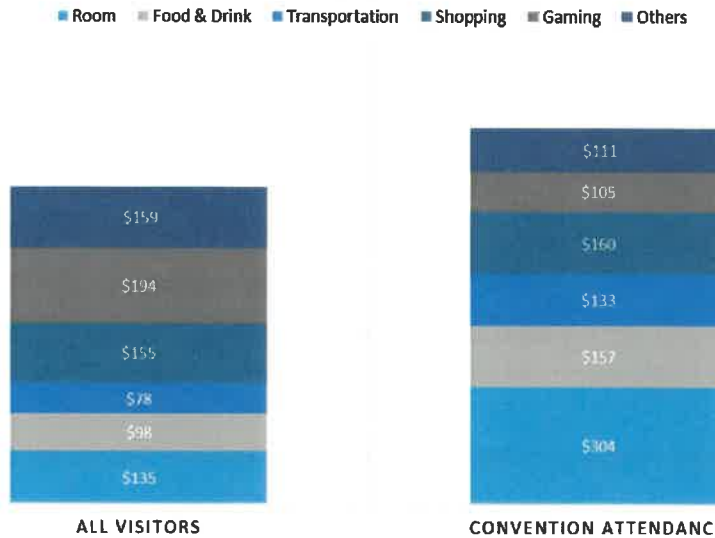
F. *The Las Vegas Convention Center adjustment*

The LVCVA planned to expand and renovate the current Las Vegas Convention Center (LVCC) by investing \$1.4 billion, which is financed by a small portion of the special room tax. The LVCVA completed phase one: acquisition and demolition of the Riviera in 2016 and started phase two and three: expansion and renovation in 2017. The second phase, the expansion of LVCC district, is under construction and is expected to be completed by the end of 2020. The third phase, the renovation of the convention center district, however, is suspended until further notice with the expected reduced revenue in the hospitality sector.

¹⁹ The detailed information on the difference between the current and previous methods appears in Appendix B.

Figure 8. Average Non-Gaming Spending per Trip for All Visitors and Convention Attendance in 2018

Average non-gaming expenditures per trip are **\$819** and **\$970** for all visitors and convention attendance in 2018, respectively.



Note: The values shown above are from the 2019 *Matrix of Las Vegas Visitor Segments*. These are not the final inputs in the REMI model. We, first, brought the total average spending per visitors and convention attendance from *The Economic Impacts of Southern Nevada’s Tourism Industry and Convention Sector*, and then adjusted convention attendance spending inputs by category using the numbers above.

Source: Las Vegas Convention and Visitors Authority

The new and expanded LVCC facilities are expected to generate 610,000 additional annual convention attendees.²⁰ According to the LVCVA, the estimated average spending per convention attendee was \$970 in 2018, including gaming expenditure.²¹ We allocate the total spending by the 610,000 additional convention attendees in Las Vegas on the various categories—lodging, food, gaming, and so on—based on the *2018 Las Vegas Visitor Profile*,²² and incorporate the numbers in the REMI model (Figure 8).

G. Las Vegas Allegiant Stadium adjustment

As the National Football League’s (NFL) owners approved the move of the Oakland Raiders to Las Vegas, the new 65,000-seat Las Vegas Allegiant Stadium is scheduled for completion by the summer 2020. The Allegiant Stadium is expected to bring 450,000 additional annual visitors to Las Vegas.²³ Visitor economic

²⁰ Source: Las Vegas Convention and Visitors Authority (2016), *Las Vegas Convention Center District Expansion and Renovation*.

²¹ Source: Las Vegas Convention and Visitors Authority (2019), *The Economic Impacts of Southern Nevada’s Tourism Industry and Convention Sector*.

²² Every year, the LVCVA publishes the *Las Vegas Visitor Profile*, which shows visitors’ characteristics and expenditure behavior. This report contains information on average spending per visitor in terms of lodging, food and drink, transportation, entertainment, and sightseeing.

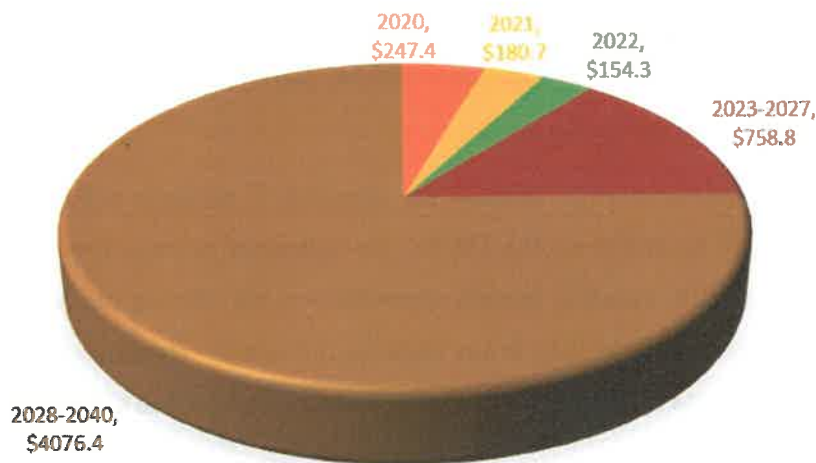
²³ Source: <http://sntic.org/meeting/17/staff/SNTIC%20Stadium%20Economic%20Impact%20Brief.pdf>.

activity is estimated by multiplying this increment (450,000) by average per-visitor, per-trip spending as reported by the LVCVA, for a total of \$792 per visitor.²⁴ We allocated an estimated additional spending of \$356.4 million by spending categories and incorporated the numbers in the REMI model.

H. Transportation and infrastructure improvements

Clark County continues to invest in transportation infrastructure such as roads, highways, and mass transit. The REMI model assumes that public-infrastructure investment will follow a path consistent with the model history. Thus, some local spending on public infrastructure, such as road building and additional services, is built into the model. One-time monies, however, tend to come from outside the region (e.g., federal transportation funding). We adjust the model to incorporate these large transportation projects in the forecast.

Figure 9. The Estimated Federal Funding Allocation for the Regional Transportation Plan for Southern Nevada 2020-2040



The estimated federal funding in transportation-infrastructure investment is approximately \$5.4 billion between 2020 and 2040.

Note: The amount shown above only includes federal funding. Also, between 2022-2017, RTC SN estimated a total of \$913.10 million of transportation-infrastructure investment with federal funding (Medium priority projects). Thus, 2022 and 2023-2027 sum to \$913.10 million

Source: The Regional Transportation Commission of Southern Nevada

²⁴ *The Economic Impacts of Southern Nevada’s Tourism Industry and Convention Sector*, which was published by the LVCVA in 2019, addresses the adjusted total spending per visitor. According to the report, an average visitor spent 23.7, 18.9, 16.5, and 11.9 percent of his/her total spending on gaming, shopping, rooms, and food and beverage, respectively. The report mentions both average spending by all visitors and by visitors excluding convention attendance, \$819 and \$792, respectively. We used average spending per visitor excluding convention attendance of \$792.

The estimated federal funding in transportation-infrastructure investment is about \$5.4 billion between 2020 and 2040 (Figure 9). According to the Access 2040 Enhancing Mobility for Southern Nevada Residents,²⁵ which shows the regional plan for Southern Nevada transportation-infrastructure for 2017 to 2040, medium priority projects (5-10 years) and long-term projects (11-20 years) are expected to have allocated federal funding for \$913.1 and \$4,076.4 million, respectively. We annualize these transportation-infrastructure expenditures and include them from 2023 in the REMI model as new construction projects. In addition, we assume that federal funding in transportation-infrastructure investment after 2040 will continue with a reasonable expectation that the federal funding will not fall to zero. Rather, we apply the flat amount of federal funding after 2040, where the REMI model adjusts this amount for inflation.

IV. Analysis of the Economic and Demographic Forecast

The forecast predicts significant rates of population growth for Southern Nevada in the near term and then moderating rates of growth over the forecast period extending out to 2060. The rate of growth, which decidedly exceeded the national average over the past 50 years, moderates and eventually moves below the national rate of growth as the Southern Nevada economy matures and the Clark County population ages compared to the United States with a smaller share of international migration over the forecasting horizon. The economic forecast calls for the continuation of the economic expansion over the forecast horizon. Tables 8, 9, and 10, respectively, report the final population, employment, and real GDP predictions for Clark County from the calibrated model.

A. Population

In the short term, the current forecast predicts weak rates of population growth in Southern Nevada. The population in Clark County is predicted to grow at rates of 0.7 percent in 2020 and 0.9 percent in 2021 due to the economic downturn by the COVID-19 pandemic (Table 8). The population growth rate is expected to rebound in 2022 as the Clark County economy experience a recovery. The growth rate after 2023, however, will decline over time. By 2049, the population growth rate falls to 0.36 percent, slightly below the projected²⁶ national population growth rate of 0.39 percent. The population growth rate falls further to 0.3 percent by 2060, which is slightly lower than the projected national population growth of 0.4 percent in 2060.

²⁵ <https://www.rtcnv.com/projects-initiatives/transportation-planning/2017-2040-regional-transportation-plan/>.

²⁶ <https://www.census.gov/data/tables/2017/demo/popproj/2017-summary-tables.html>.

Table 8. Population History, REMI Forecasts, and Final Rebased Forecasts²⁷

YEAR	REMI FORECAST*	REBASED FORECAST	CHANGE IN POPULATION REBASED FORECAST	GROWTH IN POPULATION REBASED FORECAST
2019	2,298,000	2,325,798**	41,182	1.8%
2020	2,341,000	2,341,000	15,202	0.7%
2021	2,380,000	2,361,000	20,000	0.9%
2022	2,418,000	2,403,000	42,000	1.8%
2023	2,455,000	2,458,000	55,000	2.3%
2024	2,489,000	2,509,000	51,000	2.1%
2025	2,521,000	2,555,000	46,000	1.8%
2026	2,552,000	2,598,000	43,000	1.7%
2027	2,581,000	2,636,000	38,000	1.5%
2028	2,608,000	2,671,000	35,000	1.3%
2029	2,634,000	2,702,000	31,000	1.2%
2030	2,658,000	2,731,000	29,000	1.1%
2031	2,681,000	2,757,000	26,000	1.0%
2032	2,703,000	2,781,000	24,000	0.9%
2033	2,723,000	2,804,000	23,000	0.8%
2034	2,743,000	2,826,000	22,000	0.8%
2035	2,762,000	2,847,000	21,000	0.7%
2040	2,844,000	2,936,000	16,000	0.5%
2045	2,911,000	3,008,000	14,000	0.5%
2050	2,969,000	3,067,000	11,000	0.4%
2055	3,020,000	3,119,000	10,000	0.3%
2060	3,061,000	3,161,000	8,000	0.3%

* This forecast refers to the model prior to recalibration.

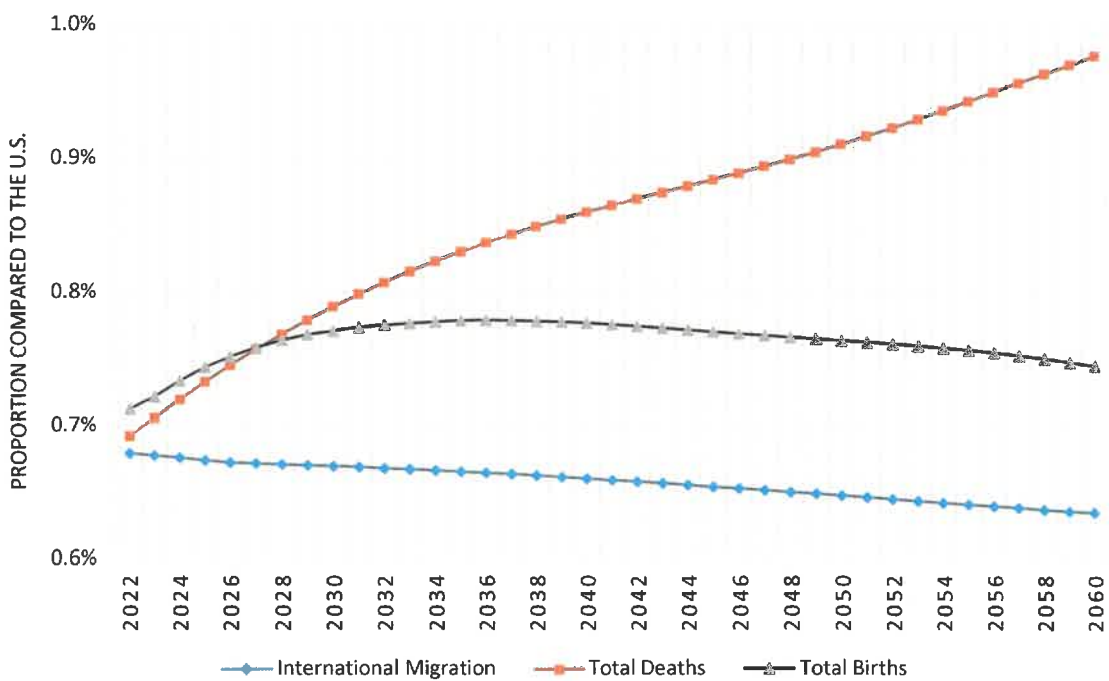
** Southern Nevada consensus population estimate.

To understand why the projected national population growth rate surpasses the Clark County growth rate, we examine what the REMI model predicts regarding Clark County population components for the forecasting horizon compared to those of the United States. As shown in Figure 10, the model predicts a decreasing proportion of international migrants for Clark County compared to the United States. Although the share of Clark County total births increases in the medium term due to over 10,000

²⁷ A table detailing the rebased population forecast appears in the Appendix D–Table D2.

net economic migrants per year from 2022 to 2028, it decreases after 2040 with barely any gain of net economic migration. Moreover, the share of Clark County total deaths increases over the forecasting horizon. This indicates that Clark County population will age compared to the national average. We also stress that the forecasted growth rates experience increasing uncertainty as the projection extends further into the future that may ultimately lead to higher or lower forecasts with extremely high uncertainty of the current economic situation due to COVID-19. We discuss the potential sources for these uncertainties in section VI, which addresses the risks to the forecast.

Figure 10. Share of Clark County International Migration, Total Births, and Total Deaths



Note: Forecasts refer to the model after recalibration.

We forecast that Clark County will add roughly 15,000 new residents in 2020. Thus, the forecast predicts that population growth will remain weak in 2020 due to the economic downturn caused by the COVID-19 pandemic. As the local labor force returns to work, weak population growth is expected to continue in 2021. As the local economy will continue to recover and expand, population growth will return to a solid rate for several years in the medium term. Population growth, however, will slow in the future as the population ages and the local economy becomes less competitive in drawing more economic and international migrants compared to the average for the United States. The population forecast predicts that the Clark County population will increase to roughly 3.16 million by 2060.

B. Employment

The forecast predicts an economic downturn for Southern Nevada in 2020. We forecast that the Las Vegas economy will experience a loss of 198,000 jobs or 14.3 percent of total jobs in 2020 due to the deep downturn caused by mitigating the spread of the virus. See Table 9.²⁸ We predict that employment growth will rebound to 7.0 percent in 2021, by adding 82,000 new jobs. The forecast predicts a full recovery of the local employment by 2024. The employment growth rate then will gradually decrease over time and stabilize at around 0.1 percent as the Southern Nevada economy matures. The employment-population ratio forecast shows that it will not return to the level before the economic downturn caused by the virus. This may reflect the fact that the United States has never returned to the previous peaks of its employment-population ratio with the two previous recessions.²⁹

²⁸ Unadjusted employment forecasts are shown in Appendix D.

²⁹ <https://fred.stlouisfed.org/series/EMRATIO>.

Table 9. Employment Forecasts

YEAR	EMPLOYMENT FORECAST	CHANGE IN EMPLOYMENT FORECAST	GROWTH IN EMPLOYMENT FORECAST	EMPLOYMENT- POPULATION FORECAST
2019	1,380,000	29,000	2.2%	0.59
2020	1,182,000	-198,000	-14.3%	0.50
2021	1,264,000	82,000	7.0%	0.54
2022	1,315,000	51,000	4.0%	0.55
2023	1,371,000	56,000	4.2%	0.56
2024	1,386,000	15,000	1.1%	0.55
2025	1,397,000	11,000	0.8%	0.55
2026	1,405,000	8,000	0.6%	0.54
2027	1,411,000	6,000	0.4%	0.54
2028	1,418,000	7,000	0.5%	0.53
2029	1,423,000	5,000	0.4%	0.53
2030	1,428,000	5,000	0.3%	0.52
2031	1,433,000	5,000	0.3%	0.52
2032	1,438,000	5,000	0.4%	0.52
2033	1,444,000	6,000	0.4%	0.51
2034	1,450,000	6,000	0.4%	0.51
2035	1,456,000	6,000	0.4%	0.51
2040	1,487,000	6,000	0.4%	0.51
2045	1,515,000	5,000	0.4%	0.50
2050	1,542,000	5,000	0.3%	0.50
2055	1,560,000	3,000	0.2%	0.50
2060	1,569,000	1,000	0.1%	0.50

C. Gross domestic product

Real gross domestic product (GDP) is defined as the (constant) dollar value of all final goods and services sold in a regional economy over a given time period. As such, it reflects the output of a local economy and avoids double-counting initial and intermediate goods. The forecast for growth in Clark County's real GDP, shown in Table 10, basically mirrors the growth pattern of local employment. The real GDP growth rate forecast posts a substantial decline of 11.5 percent in 2020. The real GDP growth rate forecast expects a

strong rebound of 7.6 percent in 2021 and gradually decrease until 2029. The local economy expects to have a stabilized growth rate at around 1.7 percent from 2032 with a matured economy.

Table 10. Gross Domestic Product Forecasts (Billions of Fixed 2020 Dollar)

YEAR	GDP REMI FORECAST	CHANGE IN GDP REMI FORECAST	GROWTH IN GDP REMI FORECAST	GDP PER CAPITA REMI FORECAST
2019	131.53	4.31	3.4%	56,551
2020	116.47	-15.06	-11.5%	49,742
2021	125.37	8.91	7.6%	53,096
2022	132.04	6.67	5.3%	54,950
2023	138.91	6.87	5.2%	56,509
2024	142.37	3.46	2.5%	56,746
2025	145.52	3.15	2.2%	56,952
2026	148.36	2.84	1.9%	57,113
2027	151.09	2.73	1.8%	57,318
2028	153.83	2.75	1.8%	57,596
2029	156.33	2.50	1.6%	57,851
2030	158.89	2.57	1.6%	58,185
2031	161.50	2.61	1.6%	58,579
2032	164.21	2.71	1.7%	59,040
2033	166.98	2.77	1.7%	59,548
2034	169.85	2.87	1.7%	60,107
2035	172.78	2.93	1.7%	60,698
2040	188.19	3.17	1.7%	64,092
2045	204.71	3.39	1.7%	68,066
2050	222.48	3.65	1.7%	72,529
2055	241.41	3.89	1.6%	77,396
2060	261.41	4.07	1.6%	82,712

V. Comparing the Current Forecast with Forecasts of Previous Years

This section compares this year's final population growth-rate forecast with the final population growth-rate forecasts from previous years. This exercise assesses the consistency of the forecast methodology and examines the variability in the population growth-rate forecasts over the last six years.

Figure 11. Clark County Historical Population-Growth-Rate Forecasts: 2020-2035

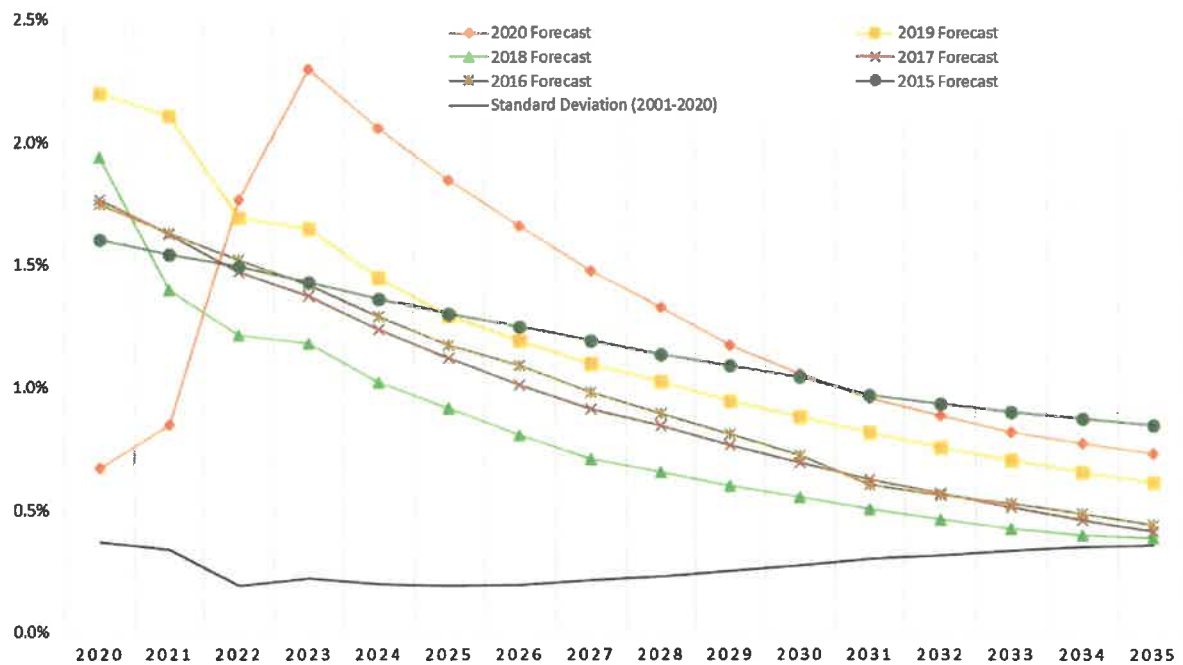


Figure 11 shows the population growth-rate forecasts generated from the 2015 to 2020 population forecast analyses as well as the standard deviation of the population-growth-rate forecast in the last 20 years (2001-2020).³⁰ The population growth-rate forecasts exhibit a slightly higher level of variability in the near term as compared to the longer term. The standard deviation of the population growth-rate forecast for the year 2020 is roughly 0.4 percent. This reflects a slightly higher degree of uncertainty in the short-term forecast mainly caused by the economic downturn due to COVID-19 compared to the mid-term forecast (see section VI below). The variability among the population growth-rate forecasts remain around 0.3 percent in the long run. By 2030, the average of the forecasted growth rates converges to about 1.1 percent. Our forecasts prove their consistency and primarily provide long-run planning tools in that the long-term growth predictions obtained during the last 20 years remain within the same degree of consistency.

VI. Risks to the Forecast

Our Southern Nevada population forecasts rest on economic and demographic models embedded in the structural model for Clark County as produced by REMI. This structure provides long-term forecasts that exclude the noise that one finds in time-series data—that is, business-cycle, seasonal, and irregular events.

³⁰ The standard deviation measures the variability among data points. For data that follow a normal distribution, 99.7 percent of data points will fall within approximately 3 standard deviations of the mean.

In addition, the uncertainty of the forecasts rises the further into the future that the forecasts extend. For example, forecasts of population growth for the next two years see a much smaller range over which the forecast may actually vary than the range for our forecasts 40 years into the future.³¹

The main risks to the population forecasts arise from short-term fluctuations in both U.S. and Southern Nevada economic conditions. Based on our assessment of national and regional trends, we believe that the Southern Nevada economy will experience a deep downturn in 2020 but a recovery during the next few years. The speed of the recovery remains uncertain as we have never faced an economic downturn caused by an almost stalled economy in attempt to contain the spread of a virus. We anticipate that the Southern Nevada economy will experience a deeper downturn than the national economy as we have a larger share of the leisure and hospitality employment. In addition, we should expect that a recovery may take longer for Clark County as the tourism sector, which requires human-to-human contact, is hit harder by the COVID-19 pandemic compared to other sectors. According to the LVCVA, 41.9 percent of all private employment in Southern Nevada depends on the tourism industry, while Oxford Economics forecasts a 45 percent decrease in tourism industry revenue in 2020.

As the majority of Clark County visitors come from the United States, the speed of the recovery of the Southern Nevada economy will largely hinge on the U.S. economic performance. The U.S. economy recently showed a promising sign of recovery, fueled by the aggressive monetary policies of the Fed and the CARES Act. For instance, nonfarm employment gained 2.5 million jobs in May, and the unemployment rate ticked down to 13.3 percent from a record-high of 14.7, benefiting from the reopening of businesses and Paycheck Protection Program loans. Government employment, however, posted the largest decline on record of 585,000 jobs, which mainly reflected layoffs in local governments. Currently, Congress is trying to introduce another round of rescue packages, which includes extending safety net programs and assistance to the state and local governments. Without passing this bill, the local and state governments will face big challenges in their budget deficits, which may create a drag for the U.S. economic recovery.

³¹ The discussions in this and the immediate prior paragraphs may seem inconsistent. The discussion, however, focuses on two different issues. In the current paragraph, the uncertainty focuses on the range around an existing forecast within which we can expect the actual value to lie with some probability. For example, a typical range covers 95 percent of actual outcomes. In a statistical sense, the discussion involves confidence bands. The further into the future that the research tries to forecast, the larger the range of the confidence bands needs to be to capture 95 percent of potential outcomes. In the prior paragraph, the standard deviation came from a series of different vintage REMI forecasts. The economic and demographic structure of the REMI model leads to convergence over time. That is, the economic migrants respond to economic incentives. Then, the movement of economic migrants will tend to reduce and eliminate the economic incentive for more migrants to move in the longer run. That is, excessive growth relative to national growth disappears as the incentives for economic migration diminish.

Economic growth in the rest of the world may also influence U.S. economic growth. The COVID-19 pandemic, however, severely affects global economic growth as many countries implemented lockdowns and social distancing practices to contain the coronavirus. China, which purchases a large share of commodities on international markets, reported a deep economic contraction of 6.8 percent in the first quarter of 2020 due to the massive quarantine and lockdown to contain the virus. The Eurozone economy also contracted by 3.8 percent³² in the first quarter, but a deeper decrease is expected in the second quarter as lockdowns were mainly effective in April and May. The International Monetary Fund (IMF), therefore, projects the worst economic downturn at a global level since the Great Depression.

The future diversification of the local economy can provide a positive upside risk in terms of long-term population growth. In a Brookings Institution report,³³ Las Vegas ranked 96th out of 100 metropolitan areas based on improvement in prosperity (changes in productivity, average wealth and income, and standard of living). The report emphasizes that high-tech-, research-, and capital-intensive-based economies grow faster than regions that rely on the hospitality and retail sectors for their economic growth. An updated report,³⁴ however, indicates that the effort to improve economic diversification barely occurred as Las Vegas ranked 53rd out of 53 very large metro areas in prosperity. Washoe County, which is partly successful in diversifying its economy after the Great Recession,³⁵ posted less reduction in its local economic activity in April compared to Clark County. For example, the Clark County employment plummeted by 20.8 percent year-over-year in April with a 43.5 percent loss in the leisure and hospitality, but the Washoe County employment posted a less dramatic decrease of 9.9 percent despite the stay-at-home order. REMI's projections on net outflow of economic migrants may place too much weight on the tourism sector in the local economy. We witnessed the vulnerability of the local economy during the Great Recession because of our tourism-based economy, and we still see the same weakness throughout the economic downturn due to the COVID-19 pandemic.

Finally, another health crisis or terrorist event similar to the Mandalay Bay shooting on October 1, 2017 could significantly lower future economic growth and, thus, the population growth. A possible second wave of the coronavirus currently gives a downside risk in the near future.

³² <https://www.businessinsider.com/eurozone-gdp-shrinks-in-first-quarter-coronavirus-2020-4>.

³³ Source: The Brookings Institution (2017), *Metro Monitor*.

³⁴ Source: The Brookings Institution (2020), *Metro Monitor*.

³⁵ According to Brookings Mountain West and the Lincy Institute, Las Vegas-Henderson-Paradise experienced -3.7, -0.5, and -9.3 percent growth in productivity, average annual wage, and standard of living from 2008 to 2018, while Reno gained by 4.0, 5.4 and 4.9 percent, respectively, during the same period.

In summary, although we feel that the population forecast is sound, risks exist that could lead to either over- or under-forecasted population growth. Our employment forecasts seem conservative based on the most recent employment data, so we believe that the upside risk may exceed the downside risk for the Southern Nevada economy, which means that the risk of underestimating population growth may exceed the risk of its overestimation in the near term. The economic uncertainty for the short term remains at a high-level, however, as we have never experienced an economic downturn caused by a public health crisis with massive shutdowns. We reiterate that our long-term forecasts exclude business-cycle, seasonal, and irregular events, which respond more to these short-run risks. Our long-term forecasts are designed to aid in the process of long-term planning.

VII. Conclusion

The latest REMI model projects long-term population growth patterns that are consistent with previous population forecasts. Overall, the population forecast is higher than last year's forecast. These patterns reflect the new data incorporated into the model and major adjustments with current employment and population data. We note that despite short-term economic uncertainties and model difficulties, the long-term population forecast, which is our primary focus in this forecasting exercise, remains consistent with past forecasts. By 2035, we predict that Clark County's population will reach about 2.85 million. In 2060, Clark County is expected to hit slightly above 3.16 million residents.

Appendices:

Appendix A: Computation of the Jobs-to-Room Ratio

The adjustment for new hotel construction uses a ratio of jobs to rooms. Two issues arise in the computation of the jobs-to-room ratio. First, we expect new hotel rooms to create new jobs in hotel services. Second, new hotel rooms will also generate economic activity and, hence, additional jobs in other sectors. Increased tourism activity from new hotel rooms will increase the demand for food services and other tourism-related industries. Hence, we need an approach that accounts for these two issues. We propose the following formula:

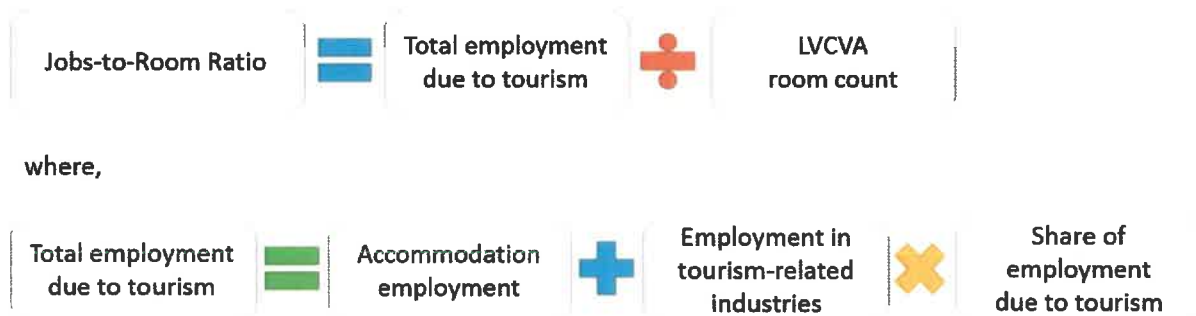


Table A1. Computation of the Jobs-to-Room Ratio by Sequence (1) – (5)

(1) Employment (thousands)

Industrial Classification	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Accommodation	162.5	163.4	165.7	164.6	164.9	170.6	168.9	166.4	165.5	165.0
Clothing and clothing accessories	15.9	16.8	17.4	18.3	18.5	19.0	19.2	18.5	19.3	18.9
Transit, ground pass transportation	12.2	12.4	12.9	13.3	13.4	14.0	14.2	13.4	12.4	11.0
Arts, entertainment, and recreation	16.4	15.8	16.9	17.5	17.8	18.7	19.3	20.5	21.3	22.6
Food service and drinking places	72.4	74.2	77.0	79.4	84.5	89.3	94.1	98.8	101.9	103.5

Source: Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics

(2) Proportion of employment due to tourism* (=Location quotient**-1)

Industrial Classification	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Accommodation	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Clothing and clothing accessories	0.73	0.84	0.96	1.00	1.00	1.00	1.00	0.98	0.98	0.94
Transit, ground pass transportation	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Arts, entertainment, and recreation	0.26	0.26	0.34	0.36	0.33	0.32	0.30	0.32	0.31	0.33
Food service and drinking places	0.15	0.20	0.23	0.22	0.24	0.24	0.24	0.25	0.24	0.22

* Maximum value = 1. Minimum value = 0.

** The Location Quotient (LQ) compares Clark County’s employment in a given industry sector to that of the nation. An LQ greater than 1 indicates that the area has proportionately more workers than the nation employed in that specific industry sector. This implies that the area is producing more than is consumed by its residents. The portion of the LQ that is above 1 represents the proportion of the industry’s employment attributable to tourism activity.

(3) Employment due to tourism (thousands) = (1) x (2)

Industrial Classification	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Accommodation	162.5	163.4	165.7	164.6	164.9	170.6	168.9	166.4	165.5	165.0
Clothing and clothing accessories	11.6	14.2	16.7	18.3	18.5	19.0	19.2	18.1	18.9	17.9
Transit, ground pass transportation	12.2	12.4	12.9	13.3	13.4	14.0	14.2	13.4	12.4	11.0
Arts, entertainment, and recreation	4.2	4.0	5.7	6.2	5.8	6.0	5.8	6.5	6.7	7.5
Food service and drinking places	10.6	14.7	17.4	17.4	20.3	21.6	22.9	24.4	24.6	22.6
Total employment due to Tourism*	201.2	208.7	218.3	219.9	223.0	231.1	231.0	228.7	228.1	228.1

* The numbers may not sum to the total because of rounding.

(4) LVCVA hotel room count (thousands)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Average room inventory	141.8	148.4	149.6	150.5	150.1	150.1	149.6	148.7	147.3	147.4

(5) Employment due to a hotel room = (3)*/(4)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average**
Jobs-to-room ratio	1.42	1.41	1.46	1.46	1.49	1.54	1.54	1.54	1.55	1.52	1.5

*Total employment due to tourism.

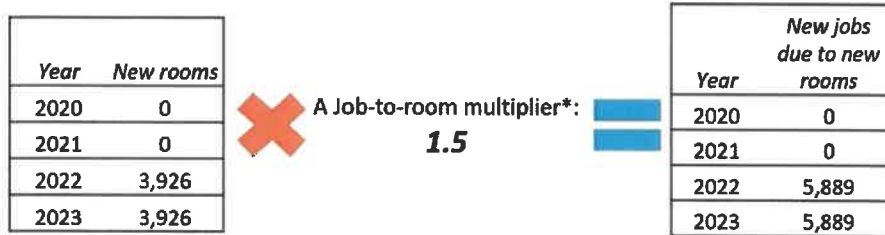
**Averaged jobs-to-room ratio from 2009 to 2018.

Appendix B: Hotel Room Adjustment Comparison

Our traditional method only included the number of additional jobs *over and above* the rooms and jobs already accounted for in the model. Previously, we assumed that the exiting number of rooms will be managed by the same number of hotel jobs for the projected period by the LVCVA. That is, an increase or decrease in the REMI jobs must be totally offset, and then we calibrate projected additional jobs into the REMI model (Figure B1). For example, the REMI model forecasts that a loss of 53,478 hospitality jobs in 2020 yet increases of 21,959, 13,519, and 155 hospitality jobs in 2021, 2022, and 2023, respectively. This means that the hospitality sector still did not recover 17,845 jobs by 2023 from the economic downturn in 2020. With our previous method, we should add these lost jobs back to the REMI model with an estimated job increase of 11,778 due to additional new rooms. This is a strong assumption in that the economy will keep the same number of employees for existing hotel rooms in 2024.

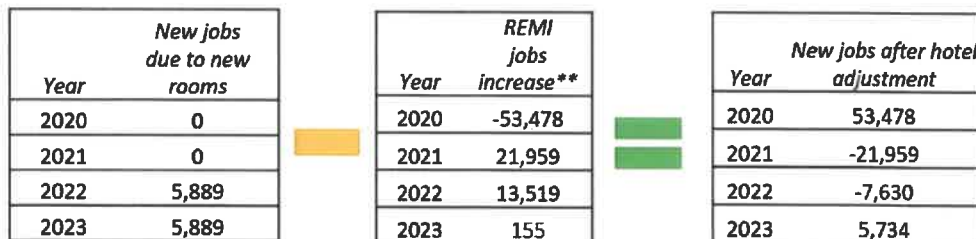
Figure B1. Computation of Additional Hotel Employment by Using the Over-and-Above REMI Method

(1) New job gains due to new rooms are calculated as (new rooms * job-to-room multiplier of 1.5)



* Averaged jobs-to-room ratio from 2009 to 2018

(2) Calculate new jobs to update REMI



** after the COVID-19 short term forecast adjustment

(3) Thus, the cumulative additional jobs (New jobs over-and-above REMI) after hotel adjustment are as follows:

Year	Cumulative additional jobs
2020	53,478
2021	31,519
2022	23,889
2023	29,623

Due to the economic downturn caused by the COVID-19 pandemic, however, it is uncertain when the hospitality sector will be fully recovered. Moreover, it is possible that the job-to-room ratio will establish a new-normal like it did after the Great Recession. Figure B2 shows Clark County accommodation employment, which indexed the employment to equal 100 in 2006. Going above 100 means larger employment compared to 2006 or vice versa. The accommodation employment, however, never returned to the level from 2006, although Clark County has about 15,000 additional rooms compared to 2006. From the previous recession, the accommodation sector reduced its employment per room. The food services and beverage, and art, entertainment, and recreation sectors, however, grew much more compared to the previous peak, but some of these increases may reflect higher demand due to increased population. This means that it is uncertain that the hotel employment will return to the same level of employment for the current existing rooms. We, therefore, decided to follow REMI's projections on a recovery of the hospitality industry rather than intentionally adding back all the employment we lost due to the economic downturn. If we use our previous method for the hotel construction adjustment, Clark County's population will reach about 3.23 million by 2060.

Figure B2. Clark County Accommodation Employment Index (2006 = 100)



Note: The Index was calculated by using the REMI's history from 2001 to 2017 and the estimates by applying the DETR's growth rates for 2018 and 2019.

Appendix C: Hotel/Motel Room Construction

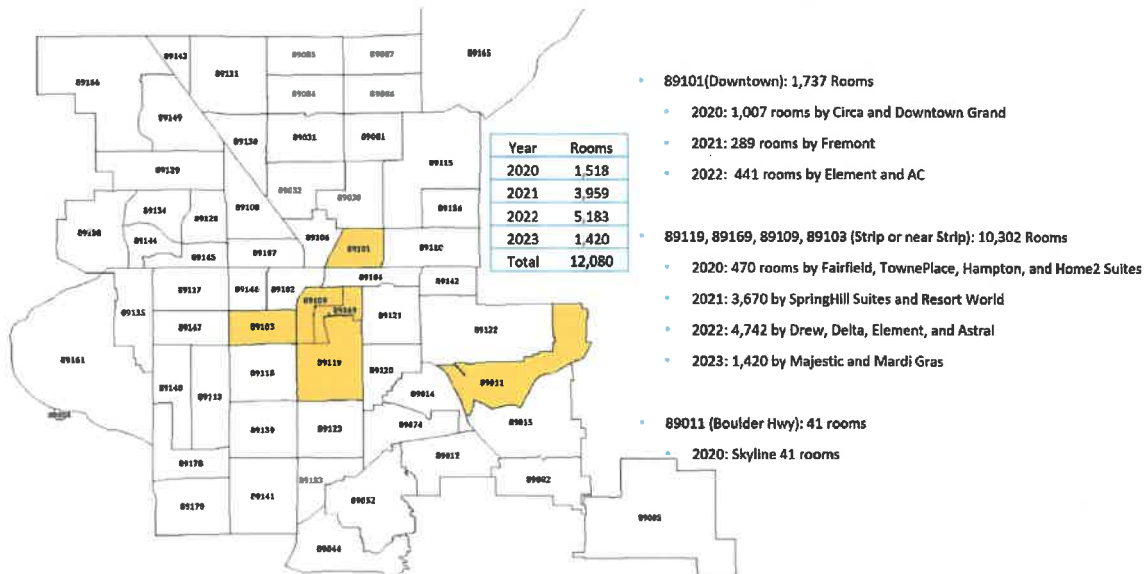
Table C1. Expected Hotel/Motel Room Construction from 2020 to 2023

Complete Date	Hotel Name	Project Details	Hotel Rooms
Feb-20	Fairfield Inn & Suites Airport South	New property	105
Feb-20	TownePlace Suites Airport South	New property	115
Spring 2020	Hampton Inn & Suites	New property	150
Spring 2020	Home2 Suites	New property	100
Spring 2020	Skyline Hotel & Casino	Additional rooms	41
Mid 2020	Downtown Grand Hotel& Casino	New hotel tower	495
Dec-20	Circa Resort & Casino	New property	512
Mid 2021	Resort World Las Vegas	New property	3,500
Sep-21	SpringHill Suites Marriott	New property	170
2021	Fremont Hotel and Casino	New hotel tower	289
Spring 2022	The Drew Las Vegas	Redeveloped resort	3,719
Mar-22	Delta Hotels by Marriott	New property	284
Mar-22	Element Las Vegas	New property	119
Oct-22	AC Hotel by Marriott	New property	322
Oct-22	Element Las Vegas Airport	New property	119
2022	Astral Las Vegas	New property	620
Spring 2023	Majestic Las Vegas	New property	720
2023	Mardi Gras Hotel and Casino	Redevelopment	700

Note: The total number of additional rooms from 2020 to 2023 equals 12,080.

Source: Las Vegas Convention and Visitor Authority

Figure C1. Expected Hotel/Motel Room Construction by Area from 2020 to 2023



Source: Las Vegas Convention and Visitor Authority; CBER

Appendix D: Detailed Report Tables

Table D1. Out-of-the-Box Clark County Population and Population Growth Forecasts from REMI Models LHY2017 and LHY2016

YEAR	LHY2017 POPULATION (THOUSANDS)	LHY2016 POPULATION (THOUSANDS)	LHY2017 POPULATION GROWTH	LHY2016 POPULATION GROWTH
2020	2,341	2,339	1.9%	1.8%
2021	2,380	2,375	1.7%	1.5%
2022	2,418	2,408	1.6%	1.4%
2023	2,455	2,437	1.5%	1.2%
2024	2,489	2,464	1.4%	1.1%
2025	2,521	2,489	1.3%	1.0%
2026	2,552	2,513	1.2%	1.0%
2027	2,581	2,535	1.1%	0.9%
2028	2,608	2,557	1.0%	0.8%
2029	2,634	2,578	1.0%	0.8%
2030	2,658	2,598	0.9%	0.8%
2031	2,681	2,618	0.9%	0.8%
2032	2,703	2,637	0.8%	0.7%
2033	2,723	2,655	0.7%	0.7%
2034	2,743	2,673	0.7%	0.7%
2035	2,762	2,689	0.7%	0.6%
2040	2,844	2,762	0.5%	0.5%
2045	2,911	2,821	0.4%	0.4%
2050	2,969	2,874	0.4%	0.4%
2055	3,020	2,923	0.3%	0.3%
2060	3,061	2,970	0.2%	0.3%

Note: Out-of-the-box refers to the model prior to recalibration. These numbers are not the final forecast.

Table D2. Detailed Final Clark County Population Forecast: 2010 – 2060

YEAR	POPULATION FORECAST	CHANGE IN POPULATION FORECAST	GROWTH IN POPULATION (PERCENT)
2010	1,951,269*	-55,078	-2.7%
2011	1,966,630**	15,361	0.8%
2012	2,008,654**	42,024	2.1%
2013	2,062,253**	53,599	2.7%
2014	2,102,238**	39,985	2.0%
2015	2,147,641**	45,403	2.2%
2016	2,205,207**	57,566	2.7%
2017	2,248,390**	43,183	2.0%
2018	2,284,616**	36,226	1.6%
2019	2,325,798**	41,182	1.8%
2020	2,341,000	15,202	0.7%
2021	2,361,000	20,000	0.9%
2022	2,403,000	42,000	1.8%
2023	2,458,000	55,000	2.3%
2024	2,509,000	51,000	2.1%
2025	2,555,000	46,000	1.8%
2026	2,598,000	43,000	1.7%
2027	2,636,000	38,000	1.5%
2028	2,671,000	35,000	1.3%
2029	2,702,000	31,000	1.2%
2030	2,731,000	29,000	1.1%
2031	2,757,000	26,000	1.0%
2032	2,781,000	24,000	0.9%
2033	2,804,000	23,000	0.8%
2034	2,826,000	22,000	0.8%
2035	2,847,000	21,000	0.7%
2036	2,866,000	19,000	0.7%
2037	2,885,000	19,000	0.7%
2038	2,903,000	18,000	0.6%
2039	2,920,000	17,000	0.6%
2040	2,936,000	16,000	0.5%
2041	2,952,000	16,000	0.5%
2042	2,966,000	14,000	0.5%
2043	2,981,000	15,000	0.5%
2044	2,994,000	13,000	0.4%
2045	3,008,000	14,000	0.5%
2046	3,020,000	12,000	0.4%
2047	3,033,000	13,000	0.4%
2048	3,045,000	12,000	0.4%
2049	3,056,000	11,000	0.4%
2050	3,067,000	11,000	0.4%
2051	3,078,000	11,000	0.4%
2052	3,089,000	11,000	0.4%
2053	3,099,000	10,000	0.3%
2054	3,109,000	10,000	0.3%
2055	3,119,000	10,000	0.3%
2056	3,129,000	10,000	0.3%
2057	3,137,000	8,000	0.3%
2058	3,146,000	9,000	0.3%
2059	3,153,000	7,000	0.2%
2060	3,161,000	8,000	0.3%

* 2010 U.S. Census.

** SNRPC consensus population estimate.

Note: The average annual forecasted growth rate is 0.8 percent.

Table D3. Economic Forecast

Variable	Unit	2020	2021	2022	2023	2024	2025	2026	2027
Total Employment	Thousands (Jobs)	1182.01	1264.31	1315.47	1371.00	1386.20	1397.00	1405.03	1410.79
Private Non-Farm Employment	Thousands (Jobs)	1061.11	1143.28	1194.20	1248.01	1262.05	1272.10	1279.60	1285.08
Residence-Adjusted Employment	Thousands	1157.70	1238.95	1289.03	1343.64	1358.80	1369.81	1378.13	1384.26
Population	Thousands	2341.41	2361.29	2402.97	2458.19	2508.81	2555.11	2597.56	2635.90
Labor Force	Thousands	1103.73	1108.01	1126.74	1156.29	1179.83	1199.52	1216.71	1228.99
Gross Domestic Product	Billions of Fixed (2020) \$	116.47	125.37	132.04	138.91	142.37	145.52	148.36	151.09
Output	Billions of Fixed (2020) \$	183.80	198.25	209.03	219.98	225.41	230.27	234.54	238.68
Value Added	Billions of Fixed (2020) \$	116.47	125.37	132.04	138.91	142.37	145.52	148.36	151.09
Personal Income	Billions of Fixed (2020) \$	102.22	112.39	117.84	123.40	126.90	130.43	133.85	137.17
Disposable Personal Income	Billions of Fixed (2020) \$	91.51	100.60	105.45	110.31	113.38	116.45	118.70	120.93
PCE-Price Index	2012=100 (Nation)	111.89	113.51	116.40	119.25	122.10	124.68	127.23	129.78

Variable	Unit	2028	2029	2030	2035	2040	2045	2050	2055	2060
Total Employment	Thousands (Jobs)	1417.85	1423.12	1427.77	1456.32	1486.86	1515.21	1541.67	1559.82	1569.16
Private Non-Farm Employment	Thousands (Jobs)	1291.81	1296.92	1301.58	1331.19	1363.71	1394.23	1423.06	1444.30	1456.33
Residence-Adjusted Employment	Thousands	1391.51	1396.99	1401.83	1430.92	1461.59	1489.99	1516.52	1534.93	1544.73
Population	Thousands	2670.90	2702.24	2730.83	2846.54	2936.24	3007.52	3067.41	3119.17	3160.53
Labor Force	Thousands	1239.69	1248.41	1255.18	1283.18	1309.31	1332.28	1351.90	1365.03	1373.00
Gross Domestic Product	Billions of Fixed (2020) \$	153.83	156.33	158.89	172.78	188.19	204.71	222.48	241.41	261.41
Output	Billions of Fixed (2020) \$	242.92	246.82	250.91	275.14	304.86	337.47	373.40	412.78	455.77
Value Added	Billions of Fixed (2020) \$	153.83	156.33	158.89	172.78	188.19	204.71	222.48	241.41	261.41
Personal Income	Billions of Fixed (2020) \$	140.85	144.37	147.43	163.59	181.33	200.49	221.31	243.52	266.37
Disposable Personal Income	Billions of Fixed (2020) \$	124.24	127.35	130.07	144.42	160.18	177.21	195.72	215.46	235.75
PCE-Price Index	2012=100 (Nation)	132.34	134.95	137.60	151.78	167.63	185.15	204.49	225.82	249.17

Table D4. Employment (in thousands)

Variable	2020	2021	2022	2023	2024	2025	2026	2027
Private Non-Farm	1182.01	1264.31	1315.47	1371.00	1386.20	1397.00	1405.03	1410.79
Forestry, Fishing, Other	0.39	0.42	0.45	0.47	0.49	0.51	0.52	0.54
Mining	2.43	2.46	2.48	2.59	2.61	2.59	2.55	2.51
Utilities	2.66	2.73	2.78	2.85	2.86	2.87	2.88	2.88
Construction	72.75	77.84	80.77	91.58	95.50	96.61	96.56	95.44
Manufacturing	25.47	26.84	27.69	28.07	28.08	28.00	27.83	27.71
Wholesale Trade	25.88	26.99	27.69	28.42	28.62	28.74	28.79	28.79
Retail Trade	119.86	125.47	129.00	132.96	134.23	135.22	135.91	136.41
Transportation and Warehousing	77.98	81.27	83.32	88.29	88.90	89.40	89.81	90.17
Information	14.95	15.75	16.25	16.34	16.32	16.30	16.25	16.23
Finance and Insurance	67.70	68.53	69.05	70.39	70.68	71.00	71.38	71.78
Real Estate and Rental and Leasing	72.10	74.36	75.83	78.05	78.98	79.85	80.59	81.15
Professional and Technical Services	64.16	69.35	72.57	74.47	75.45	76.33	77.12	77.79
Management of Companies and Enterprises	23.67	25.26	26.25	26.37	26.50	26.61	26.70	26.81
Admin and Waste Services	87.11	95.84	101.26	104.63	106.05	107.35	108.53	109.57
Educational Services	11.28	12.29	12.92	13.31	13.53	13.71	13.85	13.97
Health Care and Social Assistance	103.74	107.07	109.19	112.88	115.00	117.05	118.98	120.72
Arts, Entertainment, and Recreation	36.36	39.52	41.48	43.59	43.81	44.04	44.26	44.46
Accommodation and Food Services	191.74	227.92	250.32	265.85	266.88	267.76	268.38	268.99
Other Services (except public administration)	60.87	63.37	64.93	66.91	67.56	68.18	68.71	69.18
Government	120.38	120.53	120.80	122.51	123.67	124.41	124.94	125.23
State and local	90.72	90.74	90.93	93.00	94.45	95.44	96.15	96.56
Federal civilian	13.30	13.35	13.39	13.24	13.12	13.04	12.99	12.96
Federal military	16.36	16.44	16.48	16.27	16.09	15.94	15.80	15.71
Farm	0.52	0.50	0.48	0.48	0.48	0.48	0.49	0.49

Table D4. Employment (in thousands) (continued)

Variable	2028	2029	2030	3035	2040	2045	2050	2055	2060
Private Non-Farm	1417.85	1423.12	1427.77	1456.32	1486.86	1515.21	1541.67	1559.82	1569.16
Forestry, Fishing, Other	0.56	0.58	0.59	0.66	0.72	0.76	0.79	0.80	0.81
Mining	2.47	2.43	2.38	2.21	2.08	1.97	1.88	1.79	1.70
Utilities	2.88	2.88	2.87	2.82	2.76	2.69	2.62	2.53	2.42
Construction	94.84	93.17	91.61	88.07	88.51	89.83	91.77	93.64	94.98
Manufacturing	27.60	27.45	27.28	26.62	26.00	25.36	24.71	24.00	23.28
Wholesale Trade	28.83	28.83	28.84	29.13	29.59	29.95	30.25	30.36	30.22
Retail Trade	136.98	137.44	137.87	141.25	145.43	149.07	152.38	154.68	155.58
Transportation and Warehousing	90.62	91.05	91.46	94.09	97.18	100.28	103.38	106.08	108.30
Information	16.26	16.31	16.38	17.10	18.27	19.65	21.27	23.10	25.11
Finance and Insurance	72.22	72.65	73.05	74.97	76.04	76.47	76.52	75.92	74.57
Real Estate and Rental and Leasing	81.67	82.10	82.47	84.26	85.98	87.62	89.13	90.18	90.51
Professional and Technical Services	78.57	79.36	80.11	84.03	88.04	91.85	95.47	98.57	101.06
Management of Companies and Enterprises	26.95	27.09	27.21	27.91	28.69	29.42	30.08	30.58	30.94
Admin and Waste Services	110.67	111.71	112.71	118.06	123.90	129.71	135.44	140.58	144.83
Educational Services	14.08	14.17	14.24	14.52	14.66	14.72	14.81	14.80	14.63
Health Care and Social Assistance	122.47	124.10	125.64	132.98	139.47	145.23	150.33	153.90	156.16
Arts, Entertainment, and Recreation	44.69	44.91	45.10	46.04	46.89	47.66	48.33	48.74	48.86
Accommodation and Food Services	269.78	270.57	271.19	273.82	275.13	276.03	276.51	275.68	273.65
Other Services (except public administration)	69.69	70.15	70.58	72.64	74.39	75.97	77.41	78.38	78.72
Government	125.54	125.71	125.69	124.63	122.64	120.47	118.11	115.01	112.34
State and local	96.86	96.96	96.90	95.71	93.69	91.45	89.01	85.95	83.41
Federal civilian	12.97	13.00	13.03	13.21	13.44	13.71	14.01	14.27	14.50
Federal military	15.72	15.75	15.76	15.71	15.52	15.32	15.10	14.79	14.43
Farm	0.49	0.49	0.49	0.50	0.50	0.50	0.50	0.50	0.49

Table D5. Gross Domestic Product (billions of fixed 2020\$)*

Variable	2020	2021	2022	2023	2024	2025	2026	2027
Personal Consumption Expenditures	90.01	96.83	101.34	105.77	108.55	111.44	114.23	116.96
Motor vehicles and parts	2.85	3.21	3.44	3.62	3.72	3.83	3.94	4.05
Furnishings and durable household equipment	2.31	2.52	2.73	2.93	3.06	3.19	3.32	3.44
Recreational goods and other durable goods	4.93	5.73	6.23	6.68	6.99	7.28	7.56	7.85
Food and beverages	7.27	7.23	7.27	7.53	7.74	7.96	8.19	8.41
Clothing and footwear	2.08	2.45	2.64	2.76	2.84	2.92	2.99	3.07
Motor vehicle fuels, lubricants, and fluids	1.44	1.59	1.68	1.73	1.76	1.79	1.82	1.85
Fuel oil and other fuels	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Other nondurable goods	7.77	8.11	8.52	8.92	9.17	9.42	9.65	9.88
Housing	15.01	15.82	16.11	16.54	16.81	17.15	17.47	17.77
Household utilities	1.61	1.72	1.77	1.82	1.84	1.87	1.90	1.92
Transportation services	2.43	2.70	2.85	2.97	3.03	3.08	3.14	3.20
Health care	13.40	14.12	14.70	15.39	15.91	16.45	17.00	17.54
Recreation and other services	28.87	31.59	33.36	34.85	35.64	36.45	37.21	37.94
Gross Private Domestic Fixed Investment	21.51	23.61	26.38	28.68	30.16	31.17	31.92	32.47
Residential	4.26	4.78	5.51	6.62	7.14	7.29	7.29	7.15
Nonresidential structures	2.57	2.50	2.93	3.54	3.86	4.08	4.24	4.35
Nonresidential equipment	7.72	8.94	9.96	10.40	10.83	11.23	11.58	11.92
Nonresidential intellectual property products	6.95	7.39	7.98	8.11	8.33	8.57	8.81	9.05
Change in Private Inventories	-0.14	0.07	0.06	0.07	0.08	0.08	0.07	0.08
Government Consumption Expenditures	24.82	25.91	25.02	25.46	25.80	26.07	26.29	26.49
Federal military	7.34	7.65	7.69	7.68	7.68	7.69	7.70	7.73
Federal civilian	2.78	2.90	2.86	2.86	2.86	2.87	2.87	2.88
State and local government	14.70	15.36	14.47	14.92	15.25	15.51	15.72	15.88
Total Exports	63.09	66.98	69.10	72.09	73.40	74.71	75.93	77.26
Total Imports	82.82	88.02	89.84	94.15	96.61	98.93	101.07	103.16

*Note: The sum of the components may not add up to the total GDP due to rounding.

Table D5. Gross Domestic Product (billions of fixed 2020\$) (continued)*

Variable	2028	2029	2030	2035	2040	2045	2050	2055	2060
Personal Consumption Expenditures	119.62	122.10	124.65	138.13	152.81	168.36	185.12	202.87	220.96
Motor vehicles and parts	4.15	4.26	4.36	4.95	5.62	6.34	7.16	8.06	9.00
Furnishings and durable household equipment	3.57	3.70	3.83	4.57	5.44	6.47	7.66	9.05	10.62
Recreational goods and other durable goods	8.14	8.43	8.73	10.44	12.47	14.86	17.71	21.03	24.83
Food and beverages	8.62	8.82	9.02	10.06	11.17	12.34	13.61	14.97	16.36
Clothing and footwear	3.14	3.20	3.27	3.62	4.00	4.41	4.84	5.31	5.77
Motor vehicle fuels, lubricants, and fluids	1.87	1.89	1.91	2.01	2.09	2.18	2.25	2.33	2.40
Fuel oil and other fuels	0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.07	0.07
Other nondurable goods	10.09	10.30	10.51	11.62	12.83	14.08	15.41	16.78	18.15
Housing	18.07	18.32	18.58	19.83	21.09	22.38	23.70	25.07	26.39
Household utilities	1.94	1.96	1.98	2.06	2.13	2.20	2.26	2.32	2.36
Transportation services	3.26	3.31	3.37	3.67	3.99	4.31	4.66	5.01	5.35
Health care	18.08	18.60	19.12	21.83	24.72	27.69	30.76	33.81	36.86
Recreation and other services	38.64	39.28	39.93	43.44	47.22	51.05	55.04	59.06	62.80
Gross Private Domestic Fixed Investment	32.95	33.44	33.96	37.33	41.64	46.40	51.65	57.33	63.33
Residential	6.90	6.63	6.37	5.63	5.51	5.50	5.60	5.76	5.90
Nonresidential structures	4.45	4.54	4.64	5.18	5.80	6.48	7.24	8.06	8.91
Nonresidential equipment	12.28	12.67	13.05	15.06	17.22	19.54	22.03	24.70	27.53
Nonresidential intellectual property products	9.32	9.61	9.91	11.45	13.11	14.88	16.78	18.82	20.99
Change in Private Inventories	0.09	0.09	0.09	0.08	0.07	0.07	0.07	0.07	0.06
Government Consumption Expenditures	26.68	26.84	26.98	27.66	28.34	28.99	29.61	30.16	30.66
Federal military	7.77	7.82	7.86	8.09	8.31	8.53	8.73	8.91	9.08
Federal civilian	2.90	2.92	2.93	3.02	3.10	3.18	3.26	3.32	3.39
State and local government	16.01	16.10	16.19	16.55	16.93	17.28	17.63	17.93	18.19
Total Exports	78.67	80.06	81.52	89.82	99.65	110.50	122.45	135.69	150.45
Total Imports	105.27	107.29	109.39	121.31	135.37	150.67	167.49	185.77	205.11

*Note: The sum of the components may not add up to the total GDP due to rounding.

Table D6. Income (billions of fixed 2020\$)

Variable	2020	2021	2022	2023	2024	2025	2026	2027
Total earnings by place of work	65.90	73.74	77.88	82.45	84.68	86.78	88.63	90.32
Total wage and salary disbursements	49.13	55.10	58.23	61.71	63.36	64.90	66.27	67.53
Supplements to wages and salaries	11.11	12.35	13.07	13.85	14.30	14.73	15.11	15.45
Employer contributions for employee pension and insurance funds	7.45	8.27	8.76	9.28	9.58	9.87	10.13	10.35
Employer contributions for government social insurance	3.67	4.07	4.31	4.57	4.72	4.86	4.99	5.10
Proprietors' income with inventory valuation and capital consumption adjustments	5.66	6.30	6.58	6.89	7.03	7.15	7.24	7.34
Less: Contributions for government social insurance	7.48	8.32	8.79	9.34	9.63	9.89	10.12	10.33
Employee and self-employed contributions for government social insurance	3.82	4.25	4.48	4.77	4.91	5.03	5.14	5.23
Employer contributions for government social insurance	3.67	4.07	4.31	4.57	4.72	4.86	4.99	5.10
Plus: Adjustment for residence	-0.26	-0.34	-0.42	-0.52	-0.54	-0.55	-0.55	-0.53
Gross in	1.32	1.41	1.44	1.46	1.49	1.52	1.56	1.59
Gross out	1.58	1.75	1.86	1.98	2.04	2.08	2.11	2.13
Equals: Net earnings by place of residence	58.16	65.08	68.68	72.59	74.51	76.33	77.96	79.46
Plus: Rental, personal interest, and personal dividend income	25.50	27.24	28.11	28.90	29.55	30.24	30.99	31.79
Plus: Personal current transfer receipts	18.56	20.07	21.06	21.90	22.84	23.86	24.90	25.92
Equals: Personal income	102.22	112.39	117.84	123.40	126.90	130.43	133.85	137.17
Less: Personal current taxes	10.71	11.79	12.39	13.08	13.52	13.97	15.14	16.25
Equals: Disposable personal income	91.51	100.60	105.45	110.31	113.38	116.45	118.70	120.93

Table D6. Income (billions of fixed 2020\$) (continued)

Variable	2028	2029	2030	2035	2040	2045	2050	2055	2060
Total earnings by place of work	92.08	93.67	94.93	101.73	109.15	117.07	125.65	134.85	144.67
Total wage and salary disbursements	68.85	70.03	70.96	75.98	81.42	87.20	93.43	100.09	107.17
Supplements to wages and salaries	15.79	16.11	16.36	17.68	19.09	20.59	22.21	23.94	25.80
Employer contributions for employee pension and insurance funds	10.58	10.79	10.96	11.85	12.79	13.80	14.88	16.04	17.29
Employer contributions for government social insurance	5.21	5.31	5.40	5.83	6.30	6.79	7.33	7.90	8.51
Proprietors' income with inventory valuation and capital consumption adjustments	7.45	7.54	7.61	8.07	8.63	9.28	10.01	10.81	11.71
Less: Contributions for government social insurance	10.53	10.72	10.87	11.65	12.49	13.38	14.34	15.38	16.48
Employee and self-employed contributions for government social insurance	5.32	5.41	5.47	5.81	6.19	6.59	7.02	7.48	7.97
Employer contributions for government social insurance	5.21	5.31	5.40	5.83	6.30	6.79	7.33	7.90	8.51
Plus: Adjustment for residence	-0.52	-0.51	-0.49	-0.46	-0.47	-0.49	-0.51	-0.53	-0.53
Gross in	1.63	1.67	1.70	1.85	2.01	2.18	2.36	2.57	2.80
Gross out	2.15	2.18	2.19	2.31	2.47	2.66	2.87	3.10	3.33
Equals: Net earnings by place of residence	81.03	82.45	83.57	89.62	96.20	103.20	110.79	118.94	127.67
Plus: Rental, personal interest, and personal dividend income	32.67	33.56	34.34	38.35	42.67	47.25	52.22	57.55	62.97
Plus: Personal current transfer receipts	27.14	28.36	29.51	35.61	42.47	50.04	58.29	67.03	75.73
Equals: Personal income	140.85	144.37	147.43	163.59	181.33	200.49	221.31	243.52	266.37
Less: Personal current taxes	16.61	17.02	17.36	19.17	21.15	23.28	25.59	28.06	30.62
Equals: Disposable personal income	124.24	127.35	130.07	144.42	160.18	177.21	195.72	215.46	235.75

Table D7. Population and Labor Force (in thousands)

Variable	2020	2021	2022	2023	2024	2025	2026	2027
Total population	2341.41	2361.29	2402.97	2458.19	2508.81	2555.11	2597.56	2635.90
By race and ethnicity								
White	975.41	977.07	985.51	999.22	1010.67	1020.02	1027.49	1033.04
Black	266.47	269.03	273.62	279.68	285.23	290.32	294.98	299.20
Other	347.83	351.48	358.91	368.35	377.08	385.15	392.63	399.47
Hispanic	751.70	763.72	784.92	810.95	835.83	859.63	882.46	904.19
By age								
Ages 0-14	445.96	445.37	449.00	455.87	462.88	469.00	473.84	478.73
Ages 15-24	284.15	287.20	298.16	313.08	322.39	327.16	331.07	333.41
Ages 25-64	1241.78	1242.88	1253.96	1271.57	1290.24	1309.02	1326.83	1342.27
Ages 65 & older	369.53	385.85	401.86	417.67	433.30	449.93	465.82	481.50
Labor force	1103.73	1108.01	1126.74	1156.29	1179.83	1199.52	1216.71	1228.99
Labor force participation rate	0.60	0.59	0.59	0.59	0.59	0.59	0.59	0.58
Participation rates by gender								
Male (16 & older)	0.66	0.66	0.66	0.66	0.65	0.65	0.65	0.65
Female (16 & older)	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.52

Variable	2028	2029	2030	2035	2040	2045	2050	2055	2060
Total population	2670.90	2702.24	2730.83	2846.54	2936.24	3007.52	3067.41	3119.17	3160.53
By race and ethnicity									
White	1036.99	1039.28	1040.28	1032.42	1012.44	985.36	955.99	926.69	897.56
Black	303.08	306.58	309.78	323.09	333.78	342.48	349.68	355.72	360.75
Other	405.80	411.57	416.92	439.69	459.17	476.56	492.59	507.47	520.33
Hispanic	925.03	944.82	963.85	1051.34	1130.85	1203.12	1269.15	1329.30	1381.89
By age									
Ages 0-14	482.50	485.90	488.01	494.94	496.03	494.59	492.34	490.16	487.37
Ages 15-24	335.39	336.18	337.15	337.60	343.17	347.18	347.66	346.65	343.49
Ages 25-64	1356.22	1368.01	1378.39	1422.45	1453.22	1479.34	1493.45	1496.01	1495.06
Ages 65 & older	496.79	512.15	527.28	591.56	643.82	686.42	733.96	786.35	834.62
Labor force	1239.69	1248.41	1255.18	1283.18	1309.31	1332.28	1351.90	1365.03	1373.00
Labor force participation rate	0.58	0.58	0.57	0.56	0.55	0.54	0.54	0.53	0.52
Participation rates by gender									
Male (16 & older)	0.64	0.64	0.64	0.63	0.62	0.61	0.61	0.60	0.59
Female (16 & older)	0.52	0.51	0.51	0.49	0.48	0.48	0.47	0.46	0.46

Table D8. Demographics (in thousands)

Variable	2020	2021	2022	2023	2024	2025	2026	2027
Starting population	2325.80	2341.41	2361.29	2402.97	2458.19	2508.81	2555.11	2597.56
Births	29.17	28.99	29.10	29.58	30.18	30.68	31.08	31.41
Deaths	18.75	19.23	19.74	20.31	20.91	21.52	22.16	22.81
Natural growth	10.42	9.76	9.36	9.28	9.27	9.15	8.92	8.60
Population before migrants	2336.22	2351.17	2370.65	2412.25	2467.46	2517.96	2564.04	2606.16
Total migrants	5.19	10.12	32.33	45.93	41.35	37.15	33.52	29.74
Economic migrants	-0.15	4.33	18.86	32.61	27.85	23.49	19.70	15.75
International migrants	0.00	0.00	7.54	7.53	7.51	7.49	7.47	7.46
Retired migrants	5.53	5.71	5.87	6.04	6.19	6.36	6.52	6.64
Special pops migrants	-0.20	0.08	0.05	-0.24	-0.20	-0.18	-0.16	-0.10
Total population	2341.41	2361.29	2402.97	2458.19	2508.81	2555.11	2597.56	2635.90

Variable	2028	2029	2030	2035	2040	2045	2050	2055	2060
Starting population	2635.90	2670.90	2702.24	2825.85	2919.97	2994.34	3056.10	3109.43	3153.42
Births	31.68	31.89	32.03	32.38	32.30	32.09	32.07	32.09	31.83
Deaths	23.48	24.16	24.85	28.34	31.49	33.94	35.73	37.03	38.16
Natural growth	8.20	7.73	7.18	4.04	0.81	-1.85	-3.66	-4.94	-6.33
Population before migrants	2644.11	2678.62	2709.42	2829.89	2920.78	2992.49	3052.44	3104.50	3147.09
Total migrants	26.79	23.62	21.42	16.65	15.46	15.04	14.97	14.68	13.44
Economic migrants	12.57	9.27	7.01	2.15	0.97	0.47	0.13	-0.59	-2.34
International migrants	7.45	7.45	7.44	7.39	7.34	7.27	7.20	7.13	7.09
Retired migrants	6.76	6.87	6.95	7.14	7.20	7.34	7.71	8.22	8.78
Special pops migrants	0.01	0.04	0.01	-0.03	-0.05	-0.05	-0.06	-0.08	-0.09
Total population	2670.90	2702.24	2730.83	2846.54	2936.24	3007.52	3067.41	3119.17	3160.53





SOUTHERN NEVADA REGIONAL PLANNING COALITION AGENDA ITEM - #7

TYPE OF MEETING: COALITION BOARD
MEETING DATE: September 22, 2020

Table with 2 columns: Field (SUBJECT, SPONSORED BY, AGENDA ITEM DESCRIPTION) and Value (Agreement for Annual Clark County Long-Range Population Forecasts, Planning Directors, Consideration of an Agreement for the Production of a Clark County Population Forecast).

VOTE PROCEDURE (if applicable):

- Majority
[X] Super Majority (2/3, for budgets, expenditures, or contracts that create legal obligations)

FISCAL IMPACT:

- No Impact
[X] Impact Estimated total: \$13,500

BACKGROUND INFORMATION:

The 1-year agreement between the Southern Nevada Regional Planning Coalition (SNRPC), Regional Transportation Commission, Southern Nevada Water Authority and University of Nevada, Las Vegas (UNLV) will provide for preparation of an annual Long-Range Population Forecasts by the UNLV, Center for Business and Economic Research (CBER) by June 30, 2021.

The 30-year population forecasts are coordinated with the signatories and are vital for many public programs and SNRPC members. The production of the forecasts by CBER has been occurring since early 1990s.

This task is included in the SNRPC work plan and budget for FY 2020-2021. The agreement would end June 30, 2021.

SUPPORTING DOCUMENTATION:

Agreement

RECOMMENDED MOTION:

Approve the Agreement for the Production of Annual Long-Range Population Forecast.

Contact Information: Name: Phone Number:

AGREEMENT
FOR THE PRODUCTION OF AN ANNUAL LONG-RANGE POPULATION FORECAST
BY THE UNIVERSITY OF NEVADA, LAS VEGAS, CENTER FOR BUSINESS AND
ECONOMIC RESEARCH

THIS AGREEMENT, effective as of the _____ day of _____, by and among the Southern Nevada Regional Planning Coalition (“SNRPC”); the Regional Transportation Commission of Southern Nevada (“RTC”); the Southern Nevada Water Authority (“SNWA”), a political subdivision of the State of Nevada; and the Board of Regents of the Nevada System of Higher Education on behalf of the University of Nevada, Las Vegas, Center for Business and Economic Research (“UNLV”), a public institution of higher education.

WHEREAS, SNRPC, RTC, and SNWA are undertaking certain activities necessary for the planning execution of a project; and

WHEREAS, SNRPC, RTC, and SNWA desire to engage UNLV to render certain professional advice and assistance in connection with such undertakings of the SNRPC, RTC, and SNWA; and

WHEREAS, Regional Economic Models, Inc. (“REMI”) publishes a computer software program entitled “Policy Insight” (the “Software”) that can be used to generate year-by-year estimates of the regional effects of certain policy initiatives. Reports created using the Software have been used in SNRPC, RTC, and SNWA regional planning and analysis documents and are widely used and accepted throughout the United States; and

WHEREAS, UNLV conducts research and collects data (collectively, “Data”) that may be used to generate certain reports using the Software.

NOW, THEREFORE, the parties hereto mutually agree as follows:

1. **Scope of Services.** UNLV shall produce one (1) annual forecast (the “Forecast”) using the most current version of the Software publicly available. The Forecast will address population and employment in Clark County, Nevada and will include projections in yearly increments for a period of thirty (30) years, or other time period as agreed by the parties. UNLV will consult with SNRPC, RTC, SNWA, and others as UNLV deems necessary to produce the Forecast and shall provide copies in electronic form to all parties.
2. **Agreement Period.** The period covered by this Agreement shall commence on the effective date and end June 30, 2021. SNRPC, RTC, and SNWA shall have the option to renew for two additional one-year periods and shall exercise the option by providing written notice to UNLV at any time before the expiration of the term of the agreement and subsequent renewal options.
3. **Performance Time Frame.** UNLV shall exercise reasonable efforts to produce the Forecast within six (6) months following the annual update of the Software by REMI.

4. Key Personnel
UNLV

Principal Investigator (PI)	Contractual Contact	Financial Contact
Dr. Stephen Miller	Contracts & Grants	Quentin Murrel
Director, CBER	Office of Sponsored Programs	Financial Research Administrator
Phone: 702-895-3969	Phone: 702-895-1357	Phone: 702-895-0528
stephen.miller@unlv.edu	ospcontracts@unlv.edu	quentin.murrel@unlv.edu

5. Method of Payment & Total Project Amount. The SNRPC, RTC, and SNWA shall compensate UNLV for its services, however, it is expressly understood and agreed that in no event will the total to be paid exceed the sum of **\$40,500** for any one-year period. SNRPC, RTC, and SNWA will each be responsible for one third (1/3) of the total amount due.

Upon notification from UNLV's PI that the Forecast has been completed and received by SNRPC, RTC and SNWA, UNLV's Financial Contact agrees to generate separate invoices to SNRPC, RTC, and SNWA for one-third (1/3) of the total Agreement amount (\$40,500), an amount not to exceed \$13,500 per funding entity, no later than 30 days following delivery of the final draft of the Forecast. The SNRPC, RTC, and SNWA will individually make payment to UNLV within 30 days of receipt of the invoice.

Payments shall be made payable to the University of Nevada, Las Vegas and make reference to the Principal Investigator (Miller) and the Title of the Research (FY21 CBER Population Forecast). Payments must be submitted to:

Office of Sponsored Programs
University of Nevada, Las Vegas
4505 S. Maryland Parkway, Box 451055
Las Vegas, NV 89154-1055

6. General Terms and Conditions.

A. Termination of Agreement. The SNRPC, RTC, SNWA or UNLV shall have the right to terminate this Agreement, with or without cause, upon thirty (30) days written notice to the other Parties. In the event of an early termination of this Agreement in its entirety, UNLV shall be entitled to receive compensation from SNRPC, RTC, and SNWA equal to \$40,500 multiplied by the percentage of the current Forecast completed as of the termination date.

B. Changes. The SNRPC, RTC, and SNWA may, from time to time, request changes in the scope of services of UNLV to be performed hereunder. Such changes, including the increase or decrease in the amount of UNLV's compensation, which are mutually agreed upon between the SNRPC, RTC, SNWA, and UNLV, shall be in writing and upon execution shall become part of the Agreement.

- C. Assignability.** Any assignment or attempted assignment of this Agreement by UNLV without the prior written consent of SNRPC, RTC, and SNWA shall be void; provided, however, that claims for money due or to become due to UNLV from the SNRPC, RTC, or SNWA under this Agreement may be assigned to a bank, or other financial institution, without such approval. Notice of any such assignment or transfer shall be made prior to or concurrent with submitting any invoice for payment and shall be furnished in writing to the SNRPC, RTC, and SNWA.
- D. Audit.** UNLV agrees to comply with the requirements of the Uniform Guidance 2 CFR Part 200. Notwithstanding any other conditions of this Agreement, the UNLV records which pertain to this Agreement will be made available upon reasonable request for audit by authorized personnel of SNRPC, RTC, and SNWA. The records will be retained for a period of three (3) years following final deliverable(s).
- E. Ownership of Data.** UNLV shall retain all rights associated with its data. UNLV grants to SNRPC, RTC, and SNWA a non-exclusive license to make use of any data gathered or generated in connection with this Agreement.
- Nothing in this Agreement grants to any Party any rights or interest in the other Parties' Background Intellectual Property. "Background Intellectual Property" means (1) all works of authorship created outside the scope of this Agreement and (2) potentially patentable discoveries conceived or first reduced to practice outside the scope of this Agreement.
- F. Governing Law.** This Agreement shall be governed by the laws of the State of Nevada.
- G. Subcontractors.** UNLV shall not subcontract this project without prior written approval by the SNRPC, RTC, and SNWA.
- H. Notices.** Any notice concerning the terms and conditions of this Agreement from UNLV to the SNRPC, RTC, or SNWA shall be in writing and delivered, either personally or by mail (postage prepaid), by telegram or facsimile transmission and shall be addressed as follows:

SNRPC Southern Nevada Regional Planning Coalition
 500 S. Grand Central Pkwy
 Las Vegas, Nevada 89155
 Attn: Jennifer Penny
 Phone: 455-5019 Fax: 380-9947

RTC Regional Transportation Commission of Southern Nevada
 600 S. Grand Central Parkway, Suite 350
 Las Vegas, NV 89106-4512
 Attn: Beth Xie
 Phone: 676-1722 Fax: 676-1518

SNWA Southern Nevada Water Authority
 100 City Parkway, Suite 700
 Las Vegas, NV 89106
 Attn: Ayoub Ayoub
 Phone: 862-3709 Fax: 875-7010

UNLV Office of Sponsored Programs
4505 S. Maryland Parkway, Box 451055
Las Vegas, NV 89154-1055
Attn: Lori M. Ciccone, Executive Director
Phone: 895-1357 Fax: 895-4379
Email: ospcontracts@unlv.edu

Notices shall be deemed effective upon delivery in the event of personal delivery, and after three (3) days when mailed, postage prepaid; if transmitted by facsimile or telegram, upon verified receipt of the electronic transmission. Any party may change its address in reference to notices by written notification to the other parties.

7. **Severability.** In the event that any provision of this Agreement shall be held to be invalid or unenforceable, the remaining provisions of this Agreement shall remain valid and binding upon the parties hereto.
8. **Independent Contractor.** UNLV is an independent contractor. Notwithstanding any provision appearing in this Agreement, all personnel assigned by UNLV to perform work under the terms of the Agreement shall be and remain at all times, employees of UNLV for all purposes. UNLV, its agents and employees, in the performance of this Agreement, shall act in an independent capacity and not as officers or employees of SNRPC, RTC, or SNWA. It is acknowledged by UNLV that SNRPC, RTC, and SNWA shall not:
 - A. Withhold income taxes, social security, or any other amount of any nature whatsoever.
 - B. Provide Industrial Insurance Coverage;
 - C. Provide sick or vacation leave, holiday pay, retirement benefits, or health, life, dental, long-term disability, or workers compensation insurance benefits, to UNLV, its agents or employees; or
 - D. Provide unemployment Compensation Coverage if the requirements of NRS 612.085 for Independent Contractors are met.
9. **Force Majeure.** Neither party shall be deemed to be in violation of this Agreement if it is prevented from performing any of its obligations hereunder due to strikes, failure of public transportation, civil or military authority, act of public enemy, accidents, fires, explosions, epidemics, quarantines, pandemics or acts of God, including, without limitation, earthquakes, floods, winds, or storms. In such an event, the intervening cause must not be through the fault of the party asserting such an excuse, and the excused party is obligated to promptly perform in accordance with the terms of the Agreement after the intervening cause ceases to exist. The parties agree to promptly notify the other party of any condition that might interfere with performance of this Agreement. Notification shall not relieve the parties of any responsibilities hereunder.
10. **Extent of Agreement.** This Agreement represents the entire and integrated agreement between SNRPC, RTC, SNWA, and UNLV and supersedes all prior negotiations, representations or agreement, either written or oral. This Agreement may be amended only by written agreement signed by SNRPC, RTC, SNWA, and UNLV.

11. **Applicable Law and Venue.** Nevada law shall govern the interpretation of this Agreement, without reference to its choice of law provisions. The Parties agree that venue for any dispute arising from the terms of this Agreement shall be Clark County, Nevada.
12. **No Third-Party Rights.** This Agreement shall not be deemed to be for the benefit of, and does not create any causes of action for, any person or entity who is not a party hereto.
13. **Counterpart Signatures.** The parties hereby acknowledge that this Agreement may be executed in counterpart originals with like effect as if executed in a single original document.

**BOARD OF REGENTS, NEVADA SYSTEM OF HIGHER
EDUCATION ON BEHALF OF THE UNIVERSITY OF
NEVADA, LAS VEGAS**

Date:

BY: _____
**Lori M. Ciccone, Executive Director
Office of Sponsored Programs**

ACKNOWLEDGED & READ

Date:

BY: _____
**Stephen M. Miller, Ph.D., Principal Investigator
Director, Center for Business & Economic Research**

SOUTHERN NEVADA REGIONAL PLANNING COALITION

Date:

BY: _____
Justin Jones, Chair

**REGIONAL TRANSPORTATION COMMISSION OF
SOUTHERN NEVADA**

Date:


BY: _____
M.J. MAYNARD, CHIEF EXECUTIVE OFFICER

SOUTHERN NEVADA WATER AUTHORITY

Date:

BY: _____
**John J. Entsminger
General Manager**

Approved as to form:



**Tabitha D. Fiddymment
Director, Legal Services**



**SOUTHERN NEVADA REGIONAL
PLANNING COALITION
AGENDA ITEM - #8**

TYPE OF MEETING: COALITION BOARD
MEETING DATE: September 22, 2020

SUBJECT	Purpose, Direction, and Structure of SNRPC
SPONSORED BY	Planning Directors
AGENDA ITEM DESCRIPTION	Continued discussion for possible action on the purpose, direction, and structure of SNRPC

VOTE PROCEDURE (if applicable):

- Majority
 Super Majority (2/3, for budgets, expenditures, or contracts that create legal obligations)

FISCAL IMPACT:

No Impact Impact Estimated total:

BACKGROUND INFORMATION:

At its May 26, 2020 meeting, the Coalition Board has resumed discussion of the role and structure of the SNRPC. This meeting will include a presentation and discussion of potential structural changes that may address meeting frequency, staffing, budget and priority topics.

SUPPORTING DOCUMENTATION:

Presentation

RECOMMENDED MOTION:

Direct staff accordingly to implement any desired strategies

Contact Information: Name: Robert Summerfield Phone Number: 702.229.4856

RULES OF PRACTICE AND PROCEDURE
FOR THE
SOUTHERN NEVADA COUNCIL OF GOVERNMENTS

1. Purpose

To govern the affairs of the Southern Nevada Regional Council of Governments (SNCOG) and the meeting of the SNCOG Board; to define consensus; and to identify appropriate matters of consideration for which the SNCOG Board should strive to achieve consensus. Matters pertaining to governance of the affairs of the SNCOG and the meetings of the Board not covered by these Rules of Practice and Procedure may be identified in the Interlocal Agreement for the Formation of the SNCOG dated the XX day of Month, 2020 (Interlocal Agreement) and as the Interlocal Agreement may be amended from time to time.

2. Attendance and Vacancies

- a) A vacancy shall exist on the SNCOG Board when a Member Entity fails to make an appointment to the board or an appointed member does not participate in at least 75% of the meetings whether in person or by phone. When a vacancy exists, the Chair of the SNCOG may request, in writing, that the participating jurisdiction provide a new appointment to the SNCOG for consideration.
- b) Each participating jurisdiction may appoint one alternate member from its governing board to the SNCOG Board. Alternate members may attend all SNCOG meetings when a SNCOG member is unable to attend and will have the same powers and authority as a SNCOG Board Member.

3. Meetings of the SNCOG

- a) Regular meetings: The Chair of the SNCOG will propose a calendar of meetings in January of each year. The calendar of meetings will be put forward on the agenda for action and a majority (more than 50% of the SNCOG) of support is required to establish the calendar of meetings for the year.
- b) Special meetings: Special meetings of the SNCOG shall be held whenever the Chair or Vice Chair (in the absence or refusal of the Chair to call a meeting) shall call a special meeting pursuant to the written request of any two (2) members of the SNCOG Board.
- c) Place of meetings: All regular and special meetings of the SNCOG Board shall be held at the time and place identified on the official meeting notice.
- d) Notice: Written notice of all regular and special meetings of the SNCOG shall be given by or under the direction of the Chair or Vice Chair (in the absence or refusal of the Chair to give notice) as required by NRS Chapter 241 (Open Meeting Law). A copy of all SNCOG meeting notices shall be filed with the records of the organization represented by the Chair.

- e) Meeting Agenda: A written agenda of matters to be discussed at each SNCOG meeting along with, to the extent feasible, all supporting documentation shall be delivered to members of the SNCOG five days prior to a SNCOG meeting. The SNCOG secretary must be notified of all matters to be listed on the agenda and given all supporting documentation for distribution ten days prior to the SNCOG meeting. Matters shall be placed on the agenda by direction of the SNCOG Board Members. Each agenda shall clearly specify all matters to be acted upon and pertinent voting method (i.e. administrative, consensus, etc.)
- f) Minutes of the SNCOG Board Meetings: Accurate minutes of the proceedings of all SNCOG Board meetings shall be prepared by the Secretary of the SNCOG and shall be filed with the records of the Fiscal Agent.
- g) Records: All records of the SNCOG, as well as the current Rules of Practice and Procedure, shall be housed in a central records depository of the Fiscal Agent and shall be available for inspection during normal business hours.
- h) Quorum: A majority of the full membership of the SNCOG shall constitute a quorum for the transaction of business or duties of the SNCOG.

4. Officers

- a) The SNCOG shall annually elect a Chair and Vice Chair at the first meeting of each calendar year. The Chair shall preside at all meetings of the SNCOG Board and shall have such duties and powers as may be prescribed in the Rules of Practice and Procedure, the Interlocal Agreement, and as may be determined from time to time by the SNCOG Board.
- b) In the absence or disability of the Chair, the Vice Chair shall perform all the duties of the Chair. A determination of disability of the Chair shall be made by the SNCOG Board. In addition, the Vice Chair shall have such other duties and powers as may be prescribed in the Rules of Practice and Procedure, the Interlocal Agreement, and as may be determined from time to time by the SNCOG Board.
- c) Any officer may be removed from his or her position as Chair or Vice Chair with or without cause by a majority vote of the SNCOG board. The vacancy created by removal shall be filled by the SNCOG Board for the unexpired portion of the term of the person removed.

5. Staff

- a) The organization representing the Chair of the SNCOG shall serve as the central record depository and legal counsel and provide the staffing necessary to support the SNCOG, except as otherwise provided below.

- b) At the direction of a majority vote of the SNCOG, and with the approval of a supporting jurisdiction, the SNCOG may enter into agreements with any public or private entities to provide support services for the SNCOG. Support services may include, but are not limited to the following:
- Administrative support
 - Regional facilitation, planning, and policy outreach to constituents, elected officials, and other leaders to promote the efforts of the SNCOG Board;
 - State and Federal Lobbying services to promote the efforts of the SNCOG Board;
 - Coordination of efforts on behalf of the SNCOG with all participating jurisdictions.

Any contracts entered into on behalf of the SNCOG will be managed by the Fiscal Agent.

6. Committees

- a) The SNCOG, by majority vote, may establish or abolish technical or advisory committees to present information and recommendations to the SNCOG Board.
- b) Committees established by the SNCOG Board may work with public and/or private entities to develop information and recommendations to present to the SNCOG Board.
- c) Committees established by the SNCOG Board may choose to develop Practices and Procedures specific to the committee and at a minimum must, by majority vote of the committee, elect a Chair and a Vice Chair. If no formal Practices and Procedures are developed, this document will apply.

7. Budget and Fiscal Matters

- a) Annually, at the first scheduled meeting in January, the SNCOG Chair will propose a budget for the fiscal year for consideration by the SNCOG Board members. A final budget shall be adopted at the following meeting, upon each Board Member conferring with their respective jurisdictions. If adjustments need to occur, the respective Board Members requesting change shall confer with the Chair of the organization for a revised budget proposal prior to the following meeting. The final budget shall contain each jurisdiction's proportional share pursuant to the Interlocal Agreement.
- b) Upon adoption of each budget, the Secretary shall forward by registered mail a copy of the approved budget to each Public Entity, which shall show each Public Entity's share. Each Public Entity shall, upon receipt of the approved budget for the next fiscal year remit to the Clark County Treasurer, the Public Entity's share of the approved budget for deposit no later than July 31 of that year.

- c) The Chair, Vice Chair, and members of the SNCOG Board are authorized to seek donations from private sector donors provided that no such donations shall be accepted until there has been a full disclosure, as determined by Counsel for the SNCOG, of all material aspects of the SNCOG.
- d) SNCOG funds may only be disbursed for budgeted or approved expenditures and may only be disbursed with any two (2) of the following signatures: (i) appointed representative from the organization represented by the Chair of the SNCOG, (ii) the legal counsel of the SNCOG, (iii), Clark County Treasurer. The SNCOG Board shall utilize the offices of the Clark County Treasurer and the Clark County Comptroller for the purpose of administering the SNCOG funds and maintaining the integrity of and auditing the accounts of the SNCOG. The SNCOG must follow any applicable state laws pertaining to the financial administration of a local government.
- e) The fiscal year for the SNCOG shall be July 1 through June 30.

8. Miscellaneous Provisions

- a) Outside professional services may be employed by the SNCOG Board from time to time as needed. All outside professional services shall be by contract approved by a majority vote of the SNCOG Board and shall conform to the budget except in cases of emergencies as determined by the SNCOG Board.
- b) Referrals described in the Interlocal Agreement shall be in writing and shall be sent by the Secretary of the SNCOG by registered mail, to the highest local official of the agency to which a matter is being referred.
- c) Changes made to the Interlocal Agreement must be approved by each participating entity.
- d) Changes made to this document (Rules of Practice and Procedure for the SNCOG) must be approved by a majority vote of the SNCOG Board.

SECOND AMENDED AND RESTATED INTERLOCAL AGREEMENT

FOR

THE SOUTHERN NEVADA COUNCIL OF GOVERNMENTS,

FORMERLY KNOWN AS

THE SOUTHERN NEVADA REGIONAL PLANNING COALITION

THIS SECOND AMENDED AND RESTATED INTERLOCAL AGREEMENT is made and entered into this _____ day of _____, 202__, by and between the COUNTY OF CLARK, the CITY OF LAS VEGAS, the CITY OF HENDERSON, the CITY OF NORTH LAS VEGAS, the CITY OF BOULDER CITY, and the BOARD OF SCHOOL TRUSTEES, CLARK COUNTY SCHOOL DISTRICT, political subdivisions of the State of Nevada.

WHEREAS, Southern Nevada continues to be one of the nation's fastest growing regions; and

WHEREAS, unprecedented growth creates tremendous challenges for local government to maintain an ongoing equilibrium between demands for public services generated by growth and the supply of revenues to finance those demands; and

WHEREAS, failing to meet these challenges will adversely impact such basic quality of life elements as economic prosperity, public safety, education, transportation, recreation and culture, the natural environment, and health care; and

WHEREAS, these challenges transcend governmental jurisdictional boundaries; and

WHEREAS, it is essential to preserve the unique qualities of individual communities as we continue to grow and develop; and

WHEREAS, intergovernmental collaboration has proven to be an efficient and effective approach to address many of these challenges; and

WHEREAS, it is of utmost importance to preserve and enhance the quality of life for the citizens and the future generations of Southern Nevada; and

WHEREAS, there is a need for collaboration and regional recommendations to address the challenges facing Southern Nevada, enumerated above; and

WHEREAS, Nevada Revised Statutes (NRS) 277.180 provides that two or more political subdivisions of the State may enter into interlocal agreements for the performance of any governmental function in the furtherance of that function; and

WHEREAS, it was the legislative intent of the 70th Session (1999) of the Nevada Legislature to create a Regional Planning Coalition by Special Act for innovative strategies of planning and development, as well as statutes providing for the establishment of a coalition in certain counties, setting forth its powers and duties, requiring certain plans of public entities to be reviewed, and other matters properly related thereto; and

WHEREAS, the public entities amended and restated an interlocal agreement for the establishment of the Southern Nevada Regional Planning Coalition (SNRPC) in 2000; and

WHEREAS, the 79th (2017) Nevada Legislature repealed the Southern Nevada Regional Planning Coalition Act (Chapter 250, Statutes of Nevada, at page 1315); and

WHEREAS, at Coalition Board meetings and workshops in 2018 and 2019, and pursuant to the Strategic Planning Services scope of work, the Coalition Board discussed possible roles, priorities, and issues of the Coalition, including maintaining current functions and duties of SNRPC, restructuring or developing a type of alternative structure of the SNRPC based on other model organizations, or disbanding and transitioning the duties of SNRPC to other organizations; and

WHEREAS, at the August 27, 2019 SNRPC Coalition Board Meeting, the Coalition Board voted to disband the Coalition, which was subsequently reversed at its January 28, 2020; and

WHEREAS, after subsequent meetings and workshops of the Coalition Board in 2020, the Public Entities desired to amend and restate this Interlocal Agreement and form a Council of Governments that also fulfills the requirements of a regional planning coalition pursuant to NRS 278.

NOW, THEREFORE, THE FOLLOWING HAVE BEEN MUTUALLY AGREED UPON BY ALL PARTIES:

1. **Name.** The Southern Nevada Council of Governments (SNCOG), hereinafter referred to as the "Council", is hereby continued according to the terms of this Agreement and serves as the Regional Planning Coalition established for a County whose population is 700,000 or more pursuant to NRS 278.02507 – NRS 278.02587.
2. **Definitions.**
 - (a) "Fiscal Agent" shall mean Clark County.
 - (b) "Member Entity" shall mean public entities within the County of Clark, including Clark County, cities incorporated by general law or special charter that are specified under NRS 278.02514, and any other incorporated city, school district, or other public entity formed under NRS that is a party to this interlocal.
 - (c) The "Regional Policy Plan" shall mean the plan first adopted through the Southern Nevada Regional Planning Coalition and administered by the Regional Transportation Commission of Southern Nevada pursuant to NRS 278.02528(4). The Regional Policy Plan as adopted at the time of this interlocal is entitled "Southern Nevada Strong."
 - (d) The "Regional Policy Plan Area" shall mean the incorporated areas of Las Vegas, North Las Vegas, Henderson, and Boulder City, and the unincorporated urban areas of Clark County.
3. **Efficiency Committee Superseded.** Deleted by Amendment
4. **Membership of the Governing body of the Council ("SNCOG Board").**
 - (a) Member Entity Membership: The membership of the SNCOG Board shall consist of two
 - (2) elected officials appointed by the governing body of:

- i. Clark County
- ii. City of Henderson
- iii. City of Las Vegas
- iv. City of North Las Vegas

(b) The membership of the SNCOG Board may include one (1) elected official representative appointed by the governing board from the following entities:

- v. City of Boulder City
- vi. Clark County School District

(c) At the discretion of the SNCOG Board, by a majority vote, the Board may also include two representatives from individuals who represent the business community. The SNCOG Board, at the discretion of the Chair or as set forth in the Rules of Practice and Procedure, may determine the selection and nomination process for appointing business community representatives on the SNCOG Board.

- i. The representatives from the business community have the same full voting rights as any other SNCOG Board Member.
- ii. The representatives from the business community shall not hold an Officer position as described in Section 6.
- iii. The representatives from the business community shall serve for one-year terms and their membership shall require a vote by a majority of the SNCOG Board.

(d) Each SNCOG Board member shall have one (1) vote.

(b) Unless appointed pursuant to Section 4, subsection c, the term of each member of the SNCOG Board is coterminous with the member's term of elected office unless the Member Entity that appointed the member revokes the member's appointment to the SNCOG Board. If any member fails to attend three consecutive meetings without approval of the SNCOG Board, that member's appointment is automatically revoked and a vacancy created. If a member is unable to serve for the duration of his or her term or has his or her membership revoked, the position becomes vacant.

(c) A vacancy on the SNCOG Board must be filled by the Member Entity entitled to appoint the member whose position is vacant. A vacancy must be filled within 45 days after the vacancy occurs. The term of a member appointed by the governing body of each Public Entity to fill a vacancy is the remainder of the term of the member whose position is vacant. A vacancy of a business community member appointed under Section 4, subsection c, shall be filled as described under the Rules of Practice and Procedure.

5. Meetings and Notice.

(a) The SNCOG Board shall establish a calendar of regular meetings at a time and place designated by the Chair, but shall have a minimum of four regular meetings per year. All regular and special meetings of the Coalition Board shall be noticed in the manner prescribed by the Nevada Open Meeting Law (NRS Chapter 241).

- (b) The SNCOG Board may hold special meetings as often as the needs of the Board require, in the manner described by the Rules of Practice and Procedure, upon notice to each member.
6. **Officers.** The officers of the SNCOG Board shall consist of a Chair and Vice-Chair selected from the Board members, elected for a one-year term at the first meeting of each calendar year.
7. **Staff.** The SNCOG Board shall appoint and employ such professional, necessary technical and support staff with such duties as required by the Board:
- a. At the direction of a majority vote of the SNCOG Board, the Fiscal Agent may employ professional, legal, technical, and support staff with such duties as required by the Board, including an Executive Director, Secretary, or such other assistant or subordinate staff;
 - b. At the direction of a majority vote of the Board, the SNCOG may enter into agreements with any public or private entities to provide support services for the SNCOG. Support services may include, but are not limited to the following:
 - i. Administrative and legal support
 - ii. Regional facilitation, planning, and policy outreach to constituents, elected officials, and other leaders to promote the efforts of the SNCOG Board.
 - iii. State and Federal lobbying services to promote the efforts of the SNCOG Board;
 - iv. Coordination of efforts on behalf of the SNCOG with all participating jurisdictions;
 - v. Any other professional and technical consultants, as needed.

8. **Technical Committee** – Deleted by Amendment

9. **Powers of the SNCOG.**

(a) The SNCOG shall comply with all applicable statutory requirements, including those set forth in NRS 278.02507 through 278.02598, and Nevada Administrative Code, as amended from time to time.

(b) The SNCOG Board shall adopt rules (“Rules of Practice and Procedure”) to govern the affairs of the SNCOG and the meetings Board as it deems necessary and shall amend such rules as necessary. The Rules of Practice and Procedure shall define consensus and identify the matters concerning which the SNCOG Board is to strive to achieve the desired goal of consensus.

(c) The SNCOG Board shall hold at one of its regularly scheduled meetings an annual facilitated strategic workshop to identify, consider, and prioritize:

- (i) Significant regional planning and policy issues within the Regional Policy Plan Area

(ii) Specifically enumerated issues from the Regional Policy Plan that may be of importance and expedience to the Member Entities.

(iii) Issues described within an Annual Report developed for the Board, summarizing the activities and accomplishments of the Annual Work Plan, described below, from the preceding year, as well as new emerging issues to be contemplated at the workshop.

(iv) Recommended activities, planning areas of study, or regional policy changes for the benefit of the Member Entities to be included in an Annual Work Plan

- d) The SNCOG Board shall approve an Annual Work Plan and budget pursuant to Section 13 that is consistent with the outcomes of the annual facilitated strategic workshop.
- e) Any Annual Work Plan activities resulting in recommended policy creation, policy directives, policy changes, or require expenditures shall be referred in the following manner to achieve desired regional consensus:
- i. Local or Regional: The SNCOG Board may consider the recommendation for local or regional ordinances or policy changes.
 - a. If approved, it shall refer such matter to the Member Entity or Entities having jurisdiction over the matter for review. The governing body of the Member Entity or Entities shall consider the recommendation of the SNCOG within forty-five (45) days of the recommendation.
 - b. If the governing body of the Member Entity or Entities reject or fail to consider the SNCOG recommendation within forty-five (45) days, the respective SNCOG Board Member Entity shall report to the SNCOG Board at its next regular meeting the reasons for such rejection or non-consideration.
 - ii. State or Federal: The SNCOG Board may consider recommendations for Bill Draft Requests, regulations, or policy changes.
 - a. If approved, it shall refer such matter to all Member Entities for review and consideration. The governing body of the Member Entity or Entities may consider the recommendation of the SNCOG within forty-five (45) days of the SNCOG recommendation.
 - b. If the governing body of the Member Entity or Entities reject or fail to consider the SNCOG recommendation within forty-five (45) days, the respective SNCOG Board Member Entity shall report to the SNCOG Board at its next regular meeting the reasons for such rejection or non-consideration.
 - c. If approved by the governing boards of 3/4 of the Member Entities, the SNCOG staff or the Fiscal Agent shall communicate the recommendation of regional consensus to the applicable person(s) / entity or entities, including but not limited to:
 1. The appropriate legislative committee;
 2. Identified members of the Nevada Assembly or Senate;
 3. The Nevada Legislative Counsel Bureau;
 4. The Governor's Office;

5. The appropriate State department or agency;
6. The appropriate Federal department or agency;
7. Member of the Congressional delegation.

(f) The SNCOG may, without limitation and upon approval of a majority of its members:

- i. Resume administration of the Regional Policy Plan subject to a minimum six (6) month notice to the Regional Transportation Commission.
- ii. Coordinate regional and local databases, performance tracking platforms, and technical reports for the region.
- iii. Establish standardized population projections.
- iv. Examine issues and problems with respect to Federal Land Disposal Policy and Practice in the Las Vegas Valley and annexations, as well as consult with the affected Public Entities and representatives of the Federal Government, address interjurisdictional issues, and make recommendations with respect thereto.
- v. Identify and recommend appropriate measures to coordinate development regulations and public improvement standards for Member Entities.
- vi. Consider any other issues of regional significance as determined by the SNCOG Board.

10. Clearinghouse Responsibility – Deleted by Amendment

11. Procedures – Deleted by Amendment

12. Committees and Subcommittees.

(a) There shall be a standing working committee comprised of representatives of the Member Entities. The committee shall advise the SNCOG Board on the status of work items and activities as approved by the Annual Work Plan and budget.

(b) The SNCOG Board may form and appoint other such committees and subcommittees from time to time with such duties as may be designated by the Board. Committees and subcommittees shall have such members and duties as may be determined from time to time by the SNCOG Board.

13. Budget Authority.

- (a) (a)-The SNCOG Board shall approve a prepared annual budget. The budget shall apportion costs among the Member Entities proportional to the Member Entities' share of the Southern Nevada population as estimated at the beginning of each calendar year.
- (b) The apportioned costs shall be submitted to the governing bodies of the Member Entities for approval. Upon approval by each Member Entity, funds to cover that entity's share of costs shall be deposited into a separate account to be maintained by the Fiscal Agent. Each Member Entity agrees to pay its share of annual budget expenses during the term of this Agreement.
- (c) The Fiscal Agent shall furnish an independent audit on request of the SNCOG Board. Such an independent audit shall not occur more than one (1) time each year.

- (d) The SNCOG may accept grants or donations from other Federal, state, regional, or local governments, private sector donors, or non-profits.
 - (e) The affirmative vote of a majority of the members of the SNCOG Board is necessary to pass an action relating to:
 - iii. A budgetary matter or a matter which involves an expenditure of public money;
 - iv. A contract or other instrument that creates a binding legal obligation on a public entity; or
 - v. The acceptance of grants or donations from other Federal, state, regional, or local governments, private sector donors, or non-profits.
14. **Professional Services.** In the exercise of its powers, the SNCOG may employ professional services. All outside professional services shall be by contract approved by the SNCOG Board and shall conform to the budget except in cases of emergencies as determined by the Board.
15. **Term of the Agreement.** This Agreement shall continue until terminated.
16. **Termination.** This Agreement may be terminated by the adoption of a resolution to that effect by the governing bodies of four (4) of the six (6) Member Entities. Such termination shall not take effect until all outstanding debts or contractual obligations of the SNCOG have been fulfilled and one hundred and eighty (180) days have passed from the adoption of such resolution by the fourth Member Entity.
17. **Amendments.** This Agreement may be amended by approval of such amendment by the governing bodies of all Member Entities.
18. **Effective Date.** The effective date of this Agreement shall be the date on which the governing body of the last Member Entity approves this Agreement.
19. **Applicable Law.** The laws of the State of Nevada shall govern the validity, construction, performance and effect of this Agreement.
20. **Headings; Cross-References.** The headings and captions used in this Agreement are for convenience and ease of reference only and shall not be used to construe, interpret, expand or limit the terms of this Agreement. All references in this Agreement to sections shall be to sections of this Agreement, unless otherwise specified.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed by their duly authorized representatives on the and in the year first above written.