The impact of the COVID-19 pandemic on labor market conditions in Nevada: A preliminary assessment

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Abstract
This study provides a preliminary assessment of the impact of the pandemic on labor market conditions in Nevada. The analysis applies a locally weighted regression method (Lowess curve fitting) to time-series data on weekly initial and continuing unemployment claims. Other measures of labor market outcomes are also included in the analysis. The findings suggest that while baseline conditions were relatively stable, the pandemic has generated an increase in unemployment in Nevada, and a steep rise in the number of unemployed workers covered by unemployment insurance. However, the largest growth in initial weekly unemployment claims may have already occurred. In addition, given the weight of leisure and hospitality in overall nonfarm employment, workers in that sector have been at elevated risk for unemployment. It is also possible that Latino and Asian workers will experience higher levels of unemployment. Finally, the study suggests that a history of inadequate financing has undermined the administrative capacity of the state’s unemployment agency, with attendant consequences for its ability to process new claims. Likewise, the volume of continuing claims raises questions about the financial solvency of Nevada’s unemployment insurance trust fund.
INTRODUCTION

The global pandemic associated with the COVID-19 virus has generated a severe shock to Nevada’s economy. In the early stages of the pandemic, Nevada’s gaming and hospitality sector was affected by a reduction in the number of tourists from Asia, Europe, and other regions in the world.1 The slowdown in international travel was followed by the cancellation of conventions and other events, primarily in Las Vegas and Reno that further reduced demand in hospitality and other sectors. By mid-March 2020, mounting concerns over public health led to drastic action. MGM Resorts, Wynn Resorts, Boyd Gaming, and other gaming firms announced that they were temporarily suspending operations at their properties. Citing the threat to public health, Governor Sisolak subsequently issued an emergency order that directed the closure of casinos and hotels (State of Nevada, Office of the Governor, 2020a). The governor also ordered the closure of K-12 schools2 and other nonessential businesses, while the state imposed an immediate hiring freeze on all state agencies, including its two public research universities (State of Nevada, Office of the Governor, 2020b, 2020c). More recently, officials in Clark County and the cities of Reno, Las Vegas, and North Las Vegas have moved to implement hiring freezes through Fiscal Year 2021 (City of Reno, 2020; Las Vegas Review Journal, 2020b).

Although the economic fallout associated with shutdown has been widely noted in the popular media, there has been little systematic analysis of the impact of the pandemic on labor market conditions. In this research note, I provide a preliminary assessment of changes in unemployment in Nevada. Given the importance of tourism and hospitality in Nevada, the study can be useful for developing a comparative understanding on how the pandemic has influenced other U.S. states that are reliant on tourism, including Hawaii, Florida, Arizona, and Louisiana (Henderson, 2020). The first section of the article offers a brief overview of Nevada’s economy and labor market conditions. In the second section, I provide a brief discussion of data and methods, followed by an examination of time-series data of weekly unemployment claims, with a focus on baseline of conditions in 2019, and trends through April 2020. The analysis of data includes a locally weighted regression method (hereafter, Lowess curve fitting) in order to reveal a clearer picture of the pattern of change in unemployment. The third section of the article discusses the wider implications of the steep rise in unemployment for the administrative and fiscal capacity of the state’s unemployment insurance program.

The findings of the study suggest that since the pandemic emerged, there has been an increase in seasonally adjusted unemployment and continuing unemployment claims. However, the steepest growth in new weekly unemployment claims may have already occurred. In addition, given the concentration of Asian and Latino workers in the leisure and hospitality sector, there are probably disparities in the risk of unemployment across different racial and ethnic groups. Finally, due to a history of inadequate public funding, Nevada’s state unemployment agency has lacked the administrative capacity to process new claims for unemployment insurance. The crisis has also put strain on the financial resources of the state’s unemployment trust fund.

NEVADA’S ECONOMIC STRUCTURE AND LABOR MARKET: AN OVERVIEW

Nevada’s economy is distinctive in several ways. First, the state’s population and economic activity is concentrated in southern Nevada. Approximately 74% of the Nevada’s population
resides in Clark County, which encompasses the Las Vegas metropolitan area. By contrast, the state’s second largest county, Washoe (which includes Reno), accounts for only 15% of the Nevada’s population (calculated from data in U.S. Census Bureau, 2019). Second, the economy is marked by its lack of diversification. For many years, the hospitality industry (accommodation, food services, and entertainment sector) has been the largest contributor to the Nevada’s real gross state product (real GSP), followed by the finance, real estate, and leasing sector, and the business services sector. In 2019, the most recent year for which complete data are available, those three sectors accounted for more than 55% of Nevada’s real GSP (as measured in constant 2012 U.S. dollars). As many analysts have noted, tourism drives most of the demand in the hospitality industry. Likewise, many companies in the business services sector are reliant on the hospitality industry. Although state officials have made progress in attracting advanced manufacturing to Nevada (e.g., Tesla’s Giga battery factory, located outside of Reno), the relative contribution of manufacturing to real GSP remains quite modest. Manufacturing accounted for only 6.3% of real GSP in 2019. Similarly, mining and construction represented 4% and 6% of GSP, respectively, in the same year.

Employment and labor market conditions in Nevada are also distinctive. Reflecting a long-term trend, the leisure and hospitality sector is the leading source for overall nonfarm employment in the state. Indeed, in 2019, approximately 25% of the state’s seasonally adjusted nonfarm workforce was employed in leisure and hospitality, followed by retail trade and transportation (18%) and business services (14%) (calculated from Bureau of Labor Statistics, Western Information Office, 2020a). During the same period, construction and manufacturing represented only 7% and 4%, respectively, of the state’s employment. In addition, as discussed below, African American, Asian, and Latino workers are concentrated in leisure and hospitality, where work is often segmented on the basis of gender, race, and ethnicity (Goodwin, 2014; Tuman, Damore, & Agreda, 2013). Latino employment has also tended to concentrate in the construction sector.

The strength of unions also varies across sectors in the state economy, with attendant consequences for the quality of employment relationships and working conditions. Compared to other states in the Mountain West, Nevada has maintained a relatively higher rate of unionization in recent years. In 2019, 14.6% of employed workers belonged to unions, an increase of 2.5 percentage points over levels in 2016 (Bureau of Labor Statistics, Western Information Office, & U.S. Department of Labor, 2020b). Representing approximately 60,000 workers, the Culinary Workers Union Local 226 is the largest private sector union in Nevada. The Culinary Workers Union has organized the main casino properties on the Las Vegas strip, and it has been successful in improving wages and working conditions for many hospitality workers (Waddoups & Eade, 2013). The union has also embraced some facets of social movement unionism, including activism around immigration, health care, and more recently, policies to mitigate the impact of unemployment from the pandemic (Tuman, Howard, Damore, & Kopalyan, 2021, chapter 7). Prior campaigns to organize workers in the commercial building trades and grocery stores have also been successful (Tuman, 2009). Significantly, workers in building trades led a successful effort to restore prevailing wage rules for contractors and subcontractors in publicly funded projects. Particularly at the level of city and county government, public sector unionization is also significant. For workers in the nonunion sectors, wages and working conditions vary sharply. Although recent legislation increased Nevada’s minimum wage, there is evidence that many hourly service workers continue to struggle economically (Nevada Current, 2019). Likewise, growth of self-employment (“gig” workers) in entertainment, information technology, transportation, and other services has been a source of concern. Indeed, the anecdotal evidence suggests that self-employed workers have faced precarious working conditions (Jackman, 2020).
As noted below, gig workers have also faced a number of challenges in obtaining unemployment relief during the pandemic.

3 | THE PANDEMIC AND CHANGES IN LABOR MARKET CONDITIONS

3.1 | Methods and data

Having discussed the broad contours of Nevada’s economy and labor market, we now turn to an analysis of the impact of the pandemic. This section of the study draws on two data sets in order to analyze changes in labor market conditions. First, I employ the Bureau of Labor Statistics’ (BLS) analysis of the Current Population Survey for estimates of the seasonally adjusted monthly and annual unemployment rates in Nevada (Bureau of Labor Statistics, & U.S. Department of Labor, 2020a; Bureau of Labor Statistics, Western Information Office, & U.S. Department of Labor, 2020a). Second, I examine time-series data on unemployment claims from the U.S. Department of Labor, including the total number of initial and continuing unemployment weekly claims (log-transformed, and first-differenced), and the unemployment rate among covered workers (i.e., workers eligible for unemployment insurance) (U.S. Department of Labor, 2020).7

For the time-series data, I employ a locally weighted scatterplot smoothing (Lowess) technique to fit curves to the data on weekly unemployment claims, such that “…the fitted value at \(x_k\) is the value of a polynomial fit to the data using weighted least squares, where the weight for \((x_i, y_i)\) is large if \(x_i\) is close to \(x_k\) and small if it is not” (Cleveland, 1979, p. 829). The Lowess method has been shown to be useful for time-series data that are noisy and prone to outliers, including the weekly unemployment claims figures (Cleveland, 1979; Cleveland & Scott, 2007). In what follows, I discuss baseline conditions prior to the pandemic, with a focus on trends in 2019 and through the first 9 weeks of this year. After this, I provide an analysis of changes that have occurred since mid-March 2020.

3.2 | Baseline conditions: Trends in 2019

To appreciate the recent change in employment conditions, it is useful to begin with a baseline prior to the emergence of the crisis. Putting aside the question about the quality of employment relations, the state’s job market exhibited signs of strength in 2019. Nevada’s seasonally adjusted unemployment rate was only 3.88%8 in 2019, while the unemployment rate among workers covered by unemployment insurance was 1.34%. This pattern was also evident in the data for initial weekly unemployment claims, and the total number of insured unemployment workers. Figure 1 presents the time-series for initial unemployment and continuing claims for 52 weeks (end of week) during the year. Although the raw data are not yet adjusted for seasonal or holiday effects,9 they are broadly illustrative for the purposes of this analysis. During 2019, the range of reported initial claims was somewhat narrow. Looking only at the fourth economic quarter, the mean level of initial weekly claims was 2,457, with a maximum of 3,141 claims in the first week of December. After introducing some standard transformations to the data, a relatively stable pattern in initial claims becomes clearer. In Figure 2, the initial claims data are log-transformed and then fit with a Lowess curve. Similar to other states, the data in Figure 2
suggest that new claims in Nevada were slightly higher in the beginning and end of the year.\footnote{10} Figure 3 first-differences the series to further detrend, smooth, and partially adjust for seasonal effects. As one can see, the first-difference of the log of initial claims suggests that a stable pattern was in evidence during the year.
The number of workers with continuing coverage also remained at relatively low levels in 2019 (Figure 1). For the unadjusted data, the mean number in the fourth quarter of 2019 was 17,034, with the highest observed level registered at 21,591. Figure 4 shows the log of continuing unemployment coverage. As suggested by the Lowess curve, there was downward trend over the period, but then a slight rebound toward the end of the year. Similar to the data on initial claims, Figure 5 indicates that the first-difference of the log of continuing claims followed a relatively stationary process.

3.3 The pandemic and the rise in unemployment

Because the economic crisis in Nevada is dynamic and still unfolding, appropriate caution should be exercised in analyzing changes in labor market conditions in the state. That said, the preliminary evidence suggests that in the near term, there was a rapid deterioration in employment that followed the exogenous public health shock in March 2020. It is important to recall that during the first 8–9 weeks of 2020, conditions in Nevada’s job market were similar to the prior year. Seasonally adjusted unemployment remained at 3.6% in January and February.
Similarly, the unemployment rate among the workforce covered by unemployment insurance was only 1.43% for the first 10 weeks of the year.

By mid-March, the situation started to change dramatically. The state's seasonally adjusted unemployment rate rose to 6.3% in March 2020, followed by a steep increase to 30.1% and 25.3%, respectively, in April and May 2020. The seasonally adjusted rate in May represented a 19 percentage point increase over levels in January and February. The data on the weekly unemployment rate among insured workers, which covers a similar period, stood at 23.5% for the week ending on May 2. New unemployment claims have also jumped. Figure 6 presents the time-series for initial and continuing unemployment for the first 17 weeks of 2020, without any adjustments for seasonal or holiday effects, while Figures 7 and 8 show the log-transformed data (with a Lowess curve) for the same period. Although the effect of regular seasonal cycles was probably dampened by shutdown in March, it is still worthwhile to detrend and stabilize the series. To achieve this result, Figures 9 and 10 show the first difference of the log of claims. Overall, one can discern several tendencies from these figures.

First, between the weeks ending on March 14 and 21, initial claims increased from 6,356 to 92,298, and change of 1,352% (see Table 1, and Figure 6). Subsequently, while initial claims remained well above the baseline, they ranged from approximately 39,500–79,000 per week.
Notably, the weekly change in initial claims was negative for several periods since March 21 (Table 1, and Figures 7 and 9). Taken together, this pattern suggests that the steepest growth in initial claims may have already occurred. Nonetheless, we should interpret the growth trajectory with caution. As more of the state's workforce moves into unemployment, we would expect

**FIGURE 8** Continuing unemployment claims (log), Nevada, 2020 (Lowess curve). *Source:* Lowess curve estimated from data (transformed) in U.S. Department of Labor (2020)

**FIGURE 9** Initial unemployment claims (first difference of log), Nevada, 2020. *Source:* Lowess curve estimated from data (transformed) in U.S. Department of Labor (2020)

**FIGURE 10** Continuing unemployment claims (first difference of log), Nevada, 2020 (Lowess curve). *Source:* Lowess curve estimated from data (transformed) in U.S. Department of Labor (2020)
growth in new claims to slow. However, the negative (or lower) weekly growth observed since March 14 might also reflect the well-documented delays in processing of new unemployment claims. State officials have sought to build new administrative capacity to process the high volume of new claims. As officials make progress in addressing the backlog of applications, and they add applications from gig workers (who were excluded, until recently), we might observe another increase in weekly growth, at least for a brief period of time. The data in Figure 9, and Table 1, are suggestive of this trend.

A second tendency is that while the number of workers with continuing coverage has increased, there has been some deceleration (Figures 6, 8, and 10; see also Table 1). By the week ending on April 11, there were 231,618 unemployed workers with continuing insurance in Nevada, while preliminary data for the following week (April 18) showed an increase to 272,821. To put these figures in historical perspective, during the Great Recession, the maximum number of workers with continuing coverage in Nevada was 80,429 (during the week ending May 9, 2009). Likewise, at present, the number of new claims is more than 10 times higher than the maximum reported during the Great Recession. It is unclear how long these observed levels will persist. Following the downturn in 2008–2009, unemployment decreased gradually over a period of several years. However, the unique pathway that led to the current crisis suggests that we may not be able to generalize from the experience of the Great Recession to understand the possible pace of economic recovery.

Third, the rise in unemployment party reflects the preexisting weight of leisure and hospitality employment in the state economy. At the outset of the crisis, Nevada’s leisure and hospitality

| Week ending | Initial claims (Total) | Change over prior week (Total, and percent change) | Insured unemployed (Total) | Change over prior week (Total, and percent change) |
|-------------|------------------------|--------------------------------------------------|-----------------------------|--------------------------------------------------|
| April 24    | 45,043                 | 5,547 14%                                       | —                           | —                                                |
| April 18    | 39,496                 | −19,145 −32.6%                                   | 272,821^                    | 41,203 17.8%                                     |
| April 11    | 58,641                 | −20,644 −25.9%                                   | 231,618                     | 42,611 22.5%                                     |
| April 4     | 79,285                 | 7,343 10.2%                                      | 189,007                     | 57,886 44.1%                                     |
| March 28    | 71,942                 | −20,356 −22%                                     | 131,121                     | 72,323 122.6%                                    |
| March 21    | 92,298                 | 85,942 1,352%                                    | 58,798                      | 38,976 197.5%                                    |
| March 14    | 6,356                  | 4,047 175%                                       | 19,822                      | 347 1.8%                                         |
| March 7     | 2,309                  | −15 −0.6%                                        | 19,475                      | −375 −1.9%                                       |

^Preliminary figures.

Source: Calculations from data in Bureau of Labor Statistics, U.S. Department of Labor, Unemployment Insurance Claims Data, Nevada (https://oui.doleta.gov/unemploy/claims.asp).
sector remained as the largest contributor to wage and salary (nonfarm) employment. Indeed, in February 2020, the leisure and hospitality sector employed approximately 356,400 workers, and accounted for 24.9% of nonfarm employment in Nevada. As noted previously, this is part of a long-term trend in the state economy. Although the governor has allowed operations in the mining and construction sectors to continue during the pandemic (subject to employers’ compliance with OSHA regulations for social distancing and workplace hygiene), casinos and other larger employers in hospitality had few or no options for providing alternative or remote services. In this context, many employees in the sector have been furloughed or laid off. Data on the sectoral composition of unemployment is not yet available, but internal reports from the state indicate that workers in accommodation and food services reported the highest levels of new unemployment claims in March, with more than 75,000 new applications in that period (Nevada Department of Training, Employment, and Rehabilitation, 2020, p. 9). In addition, in April 2020, the 12-month change in employment in leisure and hospitality was −42.9%, the largest contraction among all sectors in the state (calculated from Bureau of Labor Statistics, Western Information Office, & U.S. Department of Labor, 2020a). Taken together, these data suggest that workers in leisure and hospitality have probably borne the brunt of unemployment.

More broadly, there is good reason to expect that disparities will emerge among different racial and ethnic groups experiencing unemployment. During the Great Recession, Latinos experienced some of the highest levels of unemployment because they were heavily concentrated in hospitality and construction, two of the sectors that experienced steep downturns (Tuman, 2016; Tuman et al., 2013). Based on the most recent data available, we might expect a similar pattern among Latinos and Asian workers in the current crisis. Indeed, in 2018, the most recent data available, 32% of Latinos and 34.5% of Asians were employed in leisure and hospitality, which suggests that workers in these two groups may be at higher risk for unemployment. Immigrant workers, who have often been the mainstays for many occupations in hospitality in Nevada, have probably also been disproportionately affected (see Tuman et al., in press). Certainly, as more data are released, future research should assess how demographic factors mediated the likelihood that workers experienced unemployment during this period.

4 THE IMPLICATIONS OF THE CRISIS FOR NEVADA’S UNEMPLOYMENT INSURANCE PROGRAM

Similar to other U.S. states, Nevada’s unemployment program represents a cooperative effort between Federal and state authorities. Nevada administers its own program subject to regulations promulgated by the U.S. Department of Labor, and eligibility requirements under the Nevada Revised Statutes (NRS) and state administrative rules (see NRS, Chapter 612, particularly 612.375). The program is financed through payroll taxes. Covered workers in the program receive standard benefits for up to 13 weeks, while the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) also provides insured unemployed workers with a temporary, supplemental payment (Federal Pandemic Unemployment Compensation) of $600 per week through July 31, 2020. State officials recently announced that they will extend benefits for an additional 13 weeks for unemployed insured workers who have exhausted their initial benefits (Las Vegas Sun, 2020).

Due to the steep increase in caseload, Nevada’s unemployment insurance program has faced significant administrative and fiscal challenges. As noted previously, staff members in the Nevada Department of Employment, Training, and Rehabilitation (DETR) have struggled to
process new applications for unemployment claims, leading to long wait times, delays, and frustration. The agency has also had difficulty with providing information about eligibility, including for “gig” workers (Jackman, 2020). To be sure, the level of new claims (over such a short period) is unprecedented in the history of the state’s unemployment insurance program. Nevertheless, as with other state agencies that provide social services, DETR has also suffered historically from a lack of state investment in administrative capacity. In the short-run, state officials have tried to address this challenge by creating a web portal for submission of electronic claims, moving to a cloud-based phone system, and subcontracting with a private call center as a means to build additional capacity. Despite anecdotal reports that have questioned the efficacy of the new call center (whose staff only assist with general questions), more systematic data are needed to understand whether subcontracting or other recent actions have been effective in reducing the backlog and improving processing time. Beyond these efforts, the governor has pledged to back date benefits so that recipients do not suffer from current delays.

In addition, the increase in continuing claims has raised questions about the fiscal capacity of Nevada’s program. At the beginning of 2020, the U.S. Department of Labor published its annual assessment of financial solvency for each state’s unemployment insurance trust fund. A key measure is “...to take the average of the three highest Benefit Cost Rates [in the state program] in the last twenty years and compare that to the Reserve Ratio (this is called the Average High Cost Multiple)” (U.S. Department of Labor, Office of Unemployment Insurance, & Division of Fiscal and Actuarial Services, 2020, p. 3). According to the assessment, under conditions of recession, a state’s average high cost multiple (AHCM) should equal at least “1” in order to ensure program solvency. The report indicated that Nevada’s AHCM in 2020 was 1.52, which suggested moderate resilience in the face of recession. However, it remains unclear whether the parameters used for the solvency estimate assumed a recession of milder conditions (recall that current levels of continuing claims for unemployment have far exceeded the highest observed claims in Nevada during the Great Recession). If so, then estimates of Nevada’s AHCM at the outset of the crisis may have been overconfident about the capacity of the trust fund to sustain current claims. Indeed, looking at initial and continuing claims (as of April 4, 2020), one estimate suggested that Nevada’s trust fund could cover payments for only 21 weeks (Tax Foundation, 2020). Of course, based on the U.S. Department of Labor’s annual assessment, Nevada has met the minimum statutory requirements to borrow from the Federal government without interest if the trust fund exhausts its resources. However, the borrowing option has potential downsides. If the state were unable to repay its loan by November of the following year, the Federal government would reduce the income tax credit given to employers for their payments of unemployment insurance taxes (this is an effective increase in employer payroll taxes for unemployment). Indeed, in 2011 and 2012, the state faced such reductions when it failed to repay loans on schedule.

CONCLUSION AND DISCUSSION

This study has offered a preliminary assessment of the impact of the pandemic on employment conditions in Nevada. The findings suggest that while baseline conditions were robust and stable, the pandemic has generated an increase in the seasonally adjusted unemployment rate (through May), and a steep rise in the number of unemployed workers with continuing unemployment insurance coverage. However, while the total number of continuing claims has continued to rise, the largest growth in new weekly claims may have already occurred. Although
sectoral data are not yet available, the weight of the leisure and hospitality in overall employment suggests that workers in that sector probably comprise a large share of unemployed workers since March 2020. As noted, given the concentration of Asian and Latino workers in leisure and hospitality, it is likely that there have been disparities in the risk of unemployment across different racial and ethnic groups. Certainly, future research should assess this possibility.

The pandemic has also placed strain on the administrative and fiscal capacity of Nevada's unemployment insurance program. Due to years of chronic underinvestment in staffing and resources, the state's unemployment agency (DTER) was poorly equipped to respond to the large volume of initial claims. Although state officials have tried to respond to this challenge through subcontracting and improvements in web-based applications, these efforts—while laudatory—have lagged behind the growth in caseload, leading to delays in processing of new claims. In this context, newly unemployed workers in the state have expressed concerns about their economic security. In addition, while the state's unemployment insurance trust fund was in a moderately strong position at the beginning of the calendar year, the rapid increase in new and continuing claims has raised significant questions about the solvency of the fund. Given the dramatic reduction in state revenues for Fiscal Years 2020 and 2021, it is unlikely that state officials will be able to use state finances to cover a deficit in the trust fund. Rather, the more likely scenario is that the state will resort to a Title XII mechanism to borrow from the U.S. Department of Treasury. While loans from the Federal government would provide immediate relief, they also carry some risk over the medium term (through mandatory recovery efforts if loans are not paid on schedule).

Finally, there is uncertainty about the duration (and possible reemergence) of the pandemic, the contours of policies to reopen businesses, and the extent of additional federal support for state governments. We also know little about how consumers and workers will adjust, and how business that failed to secure concessional financing will fare. All of these factors will influence the pace of any economic recovery. In this context, then, any projections that suggest a quick rebound in the labor market should be viewed with an appropriate level of caution.

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ENDNOTES
1 For example, in March 2020, international passenger traffic at McCarran International airport was only 71,293, a 53% decline over levels in March 2019. See Clark County Department of Aviation (2020). Likewise, room occupancy in Las Vegas was only 39.8% in March (the mean for this period is normally over 90%), while convention attendance in Las Vegas declined by 54.8% in the same month. Of course, it is unclear how much of this reduction came after casino closures. See Las Vegas Review Journal (2020a).

2 The governor extended school closures through the remainder of the 2019–2020 academic year. More recently, the state has started a phased reopening plan, allowing casinos and other businesses to open with reduced density, social distancing, and other safety protocols.
3 Calculations of the sectoral contribution to GSP in this section are based on data provided by the U.S. Department of Commerce, Bureau of Economic Analysis, as presented in United States Regional Economic Analysis Project (US-REAP) (2020). The original data are presented in constant (chained) 2012 U.S. dollars.

4 In 2018, for example, 11% of Latinos were employed in construction (the second highest source for Latin employment). Calculated from data in Bureau of Labor Statistics and U.S. Department of Labor (2020a, table 18).

5 The mountain west includes Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming.

6 While the state was under Republican control, the legislature reduced prevailing wage rules for construction projects related to education. In 2019, legislation was approved that restored prevailing wage rates. For a discussion of the negative effects while the weakened rules were in force, see Duncan and Waddoups (2020).

7 As noted, data for figures 1–10 in this section were obtained from U.S. Department of Labor (2020). The data are transformed using standard techniques.

8 Calculated from the seasonally adjusted data series in Bureau of Labor Statistics and U.S. Department of Labor (2020a, 2020b).

9 For a discussion of the method for applying seasonal adjustment to the weekly claims data, see Cleveland, Evans, and Scott (2014, pp. 3–4). The software developed by Eview builds this feature into their time-series suite, but for other programs, it is necessary to carry out several steps that begin with filtering and decomposing for trend and seasonality.

10 In a separate analysis, I examined the log of initial claims with ARIMA and GARCH. The estimates of conditional variance are illustrative of the same broad pattern.

11 Data from Bureau of Labor Statistics, Western Information Office, and U.S. Department of Labor (2020a).

12 For an example, see Las Vegas Review Journal (2020c). There are numerous stories reported in the local and national press. State officials and the governor have acknowledged the delays on a number of occasions.

13 Calculated from Bureau of Labor Statistics, U.S. Department of Labor (2020).

14 Calculated from data in Bureau of Labor Statistics and U.S. Department of Labor (2020a, table 18).

15 For a brief discussion of the history of the program, see Wadner (2018).

16 For a discussion of the relevant sections of the Nevada Revised Statutes (2020), see particularly 612.375 through 612.380.

17 For an overview, see Nevada Independent (2020). It is worth noting that the Director of the DTER resigned her position on April 28, 2020.

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