

# **HOBBY**

SCHOOL OF PUBLIC AFFAIRS

UNIVERSITY of **HOUSTON**

## **Report on Potential Wage Loss in Texas**

**Jim Granato, Pablo Pinto, Agustín Vallejo, and  
Sunny Wong**

**Report #1**

**April, 2020**

---

# Report on Potential Wage Loss in Texas

---

## Estimating the Potential Weekly Wage Loss in Texas

Instead of a "staycation" for Texas workers able to work from home, when Gov. Greg Abbot announced in March the "stay-at-home" order to mitigate COVID-19, others fell into limbo. Many employees in industries such as farming, construction, and manufacturing absolutely cannot adapt to working from home.

To get a read on the potential wages Texans will lose to pandemic-related layoffs and furloughs, Drs. Jim Granato, Pablo Pinto, Agustín Vallejo, and Sunny Wong at the Hobby School of Public Affairs looked at the most recent publicly available Texas wage data from the Bureau of Labor Statistics (BLS). They estimated the potential weekly wage losses in Texas due to the COVID-19 outbreak could reach \$4.3 billion if 50% of Texas workers could not earn a wage during the pandemic.

In producing these estimates, the authors made use of a BLS research study for [Job Flexibilities and Work Schedules](#). "We used the data for the number of workers who can potentially work at home for this study to roughly estimate the loss of wages the Texas workforce will suffer during the mandatory orders to stay-at-home," said Wong. The BLS estimates the percentage of workers who could work at home, did work at home and were paid for work at home by selected demographic, occupational, or industrial characteristics in 2017-2018. "The BLS study found that 'forty-two million [U.S.] wage and salary workers (29%) could work at home, and 36 million workers (25%) sometimes worked at home,'" he said.

Figure 1 illustrates the results of the BLS study showing the percentage of workers who could work at home broken down by industries.

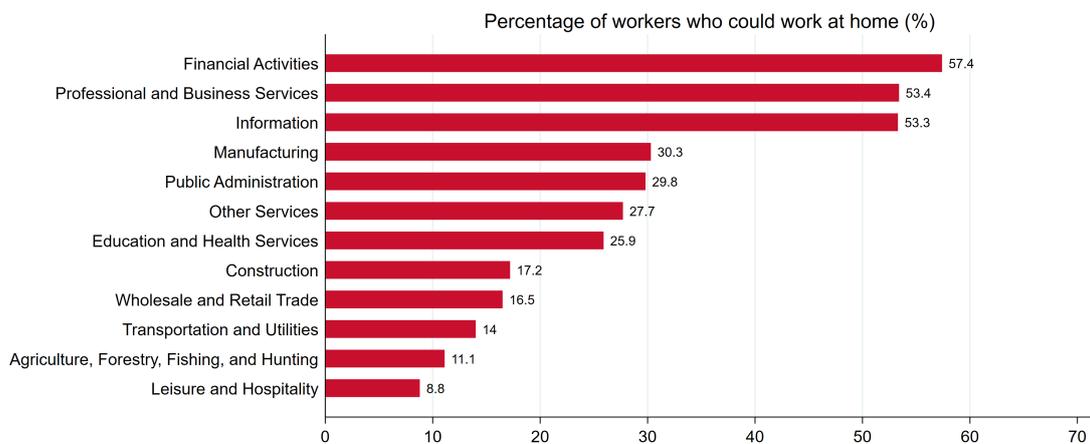


Figure 1: Percentage of Workers who Could Work at Home by Industry

Source: The Bureau of Labor Statistics

The BLS also reports the [quarterly census of employment and wages by county and by industry](#). The most recently available data on the BLS website is the total quarterly wages in the third quarter of 2019. The dataset collected from the BLS has the following information: (1) county, (2) industry, (3) total employment, (4) total wages in a quarter.

Wong et al. combined both datasets to calculate the weekly wage loss in Texas. The team made the following assumptions for their estimations: (1) The percentages of workers working at home in different industries in Texas are the same as the national percentages reported by BLS in the study of "Job Flexibilities and Work Schedules." (2) The total employment and wages in Texas across different industries in the third quarter of 2019 are similar to those in the first quarter of 2020. (Estimated numbers are conservative estimates in this case.) (3) The workers, who could work at home or are currently working at home, are fully paid during current COVID-19 situation.

Since unemployment numbers for April will not be out until mid-May, the estimated wage loss could change. However, the researchers believe the projections give a convincing picture of how Texas and Harris County will be impacted by the crisis.

### Estimated Wage Loss in Texas

By making these assumptions, Wong et al. find that the potential weekly wage loss, if 10% of non-stay home workers who are either laid-off or furloughed for a week, would be \$859.234 million in the state of Texas. Figure 2 presents the potential wage losses for different scenarios varying the percentage of non-stay home workers losing income for a week. The figure shows that the potential weekly wage loss could reach \$4.3 billion if half of the non-stay home workers lost income for a week. The authors also point out that these estimates do not take into account the second order effects (or spillover effects) of the drop in wage income on economic growth and economic activity. They argue that the overall impact could be substantially greater on the Texan economy.

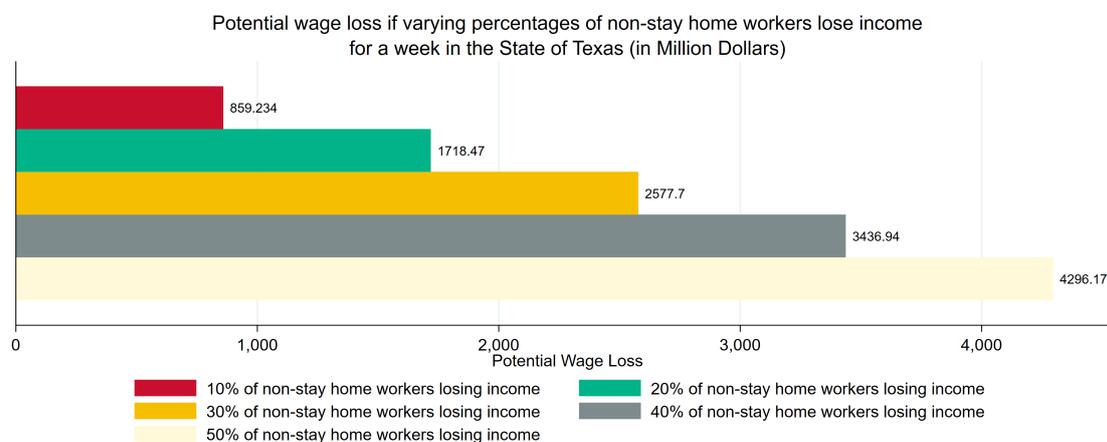


Figure 2: Potential Weekly Wage Loss in Texas

Wong et al. further looked into the COVID-19 impacts on weekly wage loss in different counties. According to Figure 3, Harris County, Dallas County, and Tarrant County are the top three counties that are severely impacted by the virus outbreak. This is expected given the population size of these counties. The potential weekly wage losses in those three counties are \$194.1 million, \$135.8 million, and \$63.8 million, respectively, if 10% of non-stay home workers lose their salaries for a week.

According to the BLS study of [Job Flexibilities and Work Schedules](#), workers in some industries can have more flexible work schedules, and work from home with limited interruptions, such as those in the "Financial Activities" and "Information" Sectors. Workers in other industries do not have the privilege to work from home but must work on site. For example, less than 15% of workers in the sectors of "Leisure and Hos-

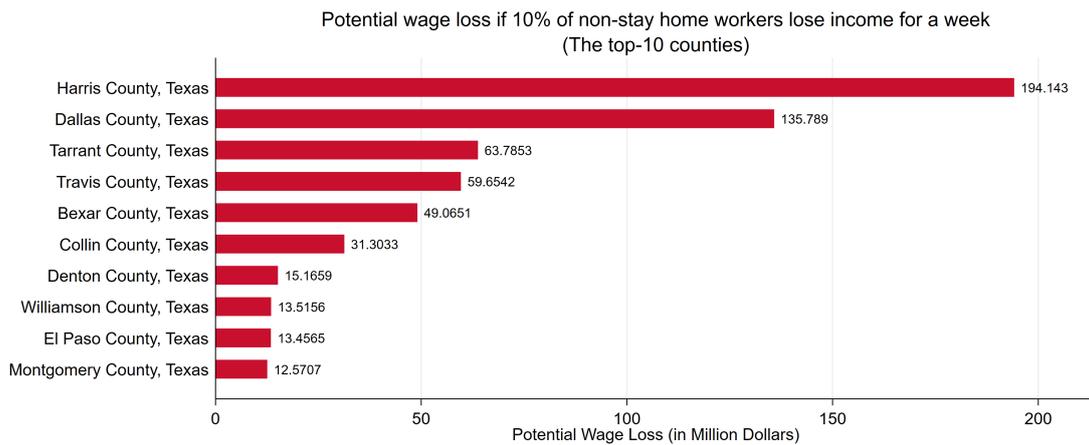


Figure 3: Potential Weekly Wage Loss by County

pitality," "Agriculture, Forestry, Fishing, and Hunting," and "Transportation and Utilities" are able to work at home.

To investigate the impact on workers' salaries in different industries, Wong et al. studied the potential weekly wage loss by sector. They find that the industry of "Trade, Transportation, and Utilities" is significantly impacted by the virus outbreak. The estimated weekly wage loss for 10% of workers losing jobs is \$212 million, followed by \$119 million and \$116 million in the sectors of "Professional and Business Services," and "Education," respectively. The least impacted industries are "Information" (\$16 million), "Public Administration" (\$41 million), and "Financial Services" (\$50 million). The complete results regarding the potential weekly wage loss in different sectors are presented in Figure 4.

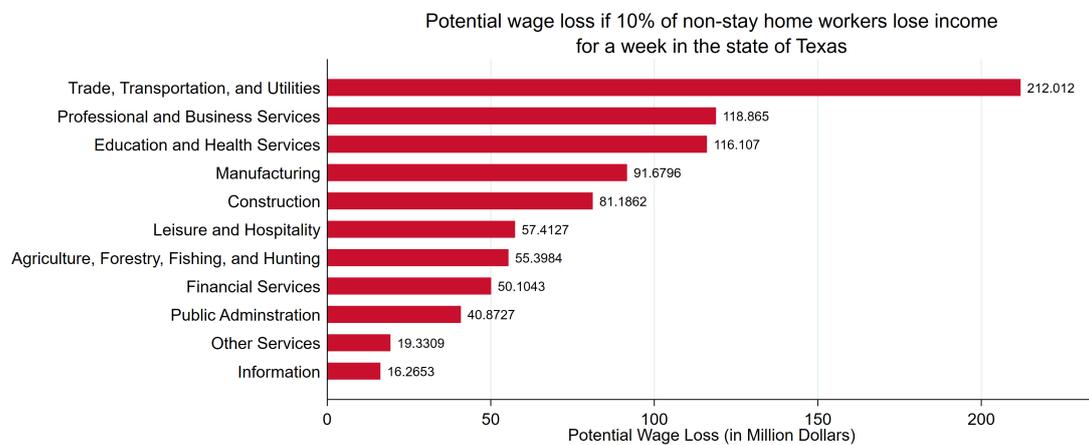


Figure 4: Potential Weekly Wage Loss by Industry in Texas

## Conclusion

While the Texas economy is more diverse than other states, the pandemic has affected almost every aspect of the economy. Based on publicly available data, the researchers at the Hobby School of Public Affairs can estimate the potential wage loss for Texas workers who are unable to work at home due to the ongoing outbreak of COVID-19. The estimated weekly wage loss is slightly over \$850 million if one out of 10 workers is out of work for a week. If half of the working population cannot work on-site and do not get paid for a week, the potential

wage loss can be more than \$4 billion in Texas.

The economic impacts are distributed unevenly in terms of geographical locations as well as industrial categories. The researchers find that Harris County and Dallas County have been suffering the most, while some sectors, including Trade, Transportation, and Utilities, are hit considerably harder during the current outbreak.

This wage loss would have a direct impact on the labor market in the state of Texas. The overall economic consequences could be enormous if some businesses and companies are unable to recover to pre-crisis levels after the stay-home order is lifted. Equally important, when workers' income and firms' profits drastically decrease, households and firms will be very cautious about their spending. They will reduce consumption and investment spending, sharply reducing sales tax revenues in the state. Economic uncertainty could spill over to the real estate market. Property sales will slow quickly, and property values therefore drop. As Texas cities' two primary revenue sources are typically sales taxes and property taxes, we could foresee a significant revenue loss for the state and local governments.

By projecting the losses and needs, state and local leaders can strategically mitigate the effect of the crisis on critical industries and the economies. Their bold actions are essential to quickly restore the public's confidence, and to help prevent the adverse spiral effects to the other sectors in the economy as well as the state's financial conditions.