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Early Impacts of COVID-19 on Maine’s Hospitality Sector in 2020¹

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Abstract and Summary:

This paper examines Maine’s hospitality sector in 2020, with a focus on the impacts of COVID-19 and the potential trajectory of hospitality sales during the second half of the year. The sector experienced its largest COVID-related impacts in April—with 80 percent lower lodging sales and 58 percent lower restaurant sales compared with the same month in 2019—whereas the sector’s performance in May and June indicate smaller percentage reductions compared with the same months last year. Our analysis shows three possible scenarios for the second half of 2020, which have annual hospitality sales that range from an estimated \$2.5 billion to \$3.1 billion (compared with \$4.3 billion in 2019 hospitality sales). Estimated daily sales in the month of July suggest that Maine’s hospitality sector will experience a recovery that lies between our “moderate” and “stalled” scenarios, which would equate to between \$2.5 billion and \$2.8 billion in overall 2020 restaurant and lodging sales.

¹ This paper is an update to a June study (Gabe and Crawley, 2020a), which was conducted (at no cost to the organization) at the request of *Hospitality Maine*.

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³ The analysis presented in this paper is based on information as of August 17, 2020. The paper may be revised as new data are released.

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1. Introduction

The COVID-19 pandemic had particularly severe impacts on restaurants and lodging establishments (i.e., hospitality). U.S. hospitality employment fell by 49 percent from February to April of 2020, compared with a 15-percent decline in overall U.S. nonfarm employment. Employment in Maine’s restaurants and lodging establishments decreased by 59 percent between February and April, compared with a 16-percent reduction in total state nonfarm employment.⁴

Conditions in the hospitality sector have improved from April 2020 to the present. U.S. employment in restaurants and lodging establishments increased by 41 percent from April to June, and employment in Maine’s hospitality sector grew by 46 percent over the period. Nevertheless, the hospitality sector is not even close to a “full recovery” from its COVID-related decline. U.S. hospitality employment in June of 2020 was 26 percent lower than in the same month of 2019, and the Maine hospitality sector had a June 2020 employment figure that is 39 percent lower than last year.

This paper examines the economic performance of Maine’s hospitality sector in 2020, with a focus on the impacts of COVID-19 and the potential trajectory of hospitality sales during the second half of the year. The analysis uses monthly taxable retail sales data from Maine Revenue Services and information on daily COVID-related impacts on hospitality sales from Chetty et al. (2020). The study outlines three possible scenarios for the six-month period of July

⁴ U.S. and Maine employment figures are from the U.S. Bureau of Labor Statistics.

to December, which show a range in total 2020 restaurant and lodging sales of between an estimated \$2.5 billion and \$3.1 billion.

2. Analysis

Figure 1 shows the percentage change in monthly taxable retail sales in Maine restaurants (dashed line) and lodging establishments (solid line) between 2019 and 2020. For example, restaurant sales were 11 percent higher in January 2020 compared with January 2019, and lodging sales fell by 80 percent between April 2019 and 2020. Maine's restaurants and lodging establishments saw severe declines (compared with the same months in 2019) in March and April—with noticeably larger impacts experienced by lodging establishments—and the impacts began to lessen in May and June.

The two sectors of restaurants and lodging establishments are combined into a single hospitality industry in Figure 2. The impacts in Figure 2 more closely follow the pattern shown for restaurants in Figure 1 (e.g., the hospitality sector declined by 62 percent in April and restaurant sales fell by 58 percent), as compared with the impacts for lodging establishments (e.g., the hospitality sector declined by 62 percent in April and lodging sales fell by 80 percent). This is in large part due to restaurants accounting for the majority (e.g., 71 percent in 2019) of overall hospitality sales in Maine.

Figure 3 reproduces the information from Figure 2 for the first six months of 2020 and then shows three possible scenarios for the second half of the year. The top line in the figure, with data values shown in green, has a recovery in hospitality sales that is similar to the pattern from April to May (percentage reduction fell from 62 to 55 percent) and May to June (percentage

reduction fell from 55 to 46 percent). Under this “rapid recovery” scenario, Maine hospitality sales in July and August would be an estimated 38 percent and 30 percent lower, respectively, compared with the same months in 2019 and sales would recover to 2019 levels by the end of the year.

The bottom line in Figure 3, with data values shown in red, has a recovery in hospitality sales where monthly values remain at 46 percent below (this is the impact for June) their respective sales figures from 2019. Under this “stalled recovery” scenario, we estimate that Maine would have \$346 million in hospitality sales in August (this is 46 percent lower than hospitality sales in August of 2019) and \$141 million in December hospitality sales.

The middle line in Figure 3, which has data values shown in blue, outlines a recovery that lies in between the “rapid recovery” and “stalled recovery” scenarios. Under this “moderate recovery” scenario, the 2019 to 2020 monthly decreases in Maine hospitality sales lessen over the second half of the year, but at a rate that is slower than the improvements from April to May (62 percent decline to 55 percent decline) and May to June (55 percent to 46 percent). For example, the “moderate recovery” scenario shows that December 2020 hospitality sales would be an estimated 22 percent lower than Maine restaurant and lodging sales in December 2019.

Although the exact path of the recovery is difficult to predict, daily trends in estimated Maine hospitality sales suggest that the second half of 2020 might follow a trend that lies between the “moderate” and “stalled” recovery scenarios. Figure 4 shows estimated daily hospitality sales in Maine from February 1 to July 31, 2020. The daily values are based on monthly hospitality sales figures from Maine Revenue Services and daily COVID-related impacts on Maine resident spending at restaurants and lodging establishments from Chetty et al. (2020). For the

months of February to June, the daily figures sum to the exact amount of Maine hospitality sales reported by Maine Revenue Services and the day-to-day pattern follows the impacts estimated by Chetty et al. (2020). The figures in July use the daily impacts from Chetty et al. (2020) and an estimated value for monthly sales.⁵

The estimated daily hospitality sales numbers in Figure 4 show a large drop in restaurant and lodging sales over the month of March, a trough that lasts for about three to four weeks from the end of March to the end of April (Gabe and Crawley 2020b), and then an increase in sales from the end of April to the beginning of July. Although the estimated daily sales figures are much higher in July than in previous months, the trend shows relatively constant daily sales in July. Overall, the estimated hospitality sales in July of 2020 are 43.2 percent lower than in July of 2019, which places the month's recovery in between the "moderate" and "stalled" recovery scenarios shown in Figure 3.

Table 1 shows monthly Maine hospitality sales numbers under the three scenarios outlined in Figure 3. The numbers for January to June are actual values as reported by Maine Revenue Services and the numbers for July to December are estimated (see Figure 3). The annual hospitality sales for 2020 range from \$2.5 billion to \$3.1 billion, which are substantially lower than 2019 annual hospitality sales of \$4.3 billion. As noted above, the estimated daily hospitality sales in July suggest a recovery that lies between the "moderate" and "stalled" scenarios, which equate to 2020 annual hospitality sales of between \$2.5 billion and \$2.8 billion (Gabe and Crawley 2020a).

⁵ July taxable retail sales figures are not currently available. They will be released by Maine Revenue Services around September 15, 2020.

3. Summary

This paper examines Maine's hospitality sector in 2020, with a focus on the impacts of COVID-19 and the potential trajectory of hospitality sales during the second half of the year. The sector experienced its largest COVID-related impacts in April, with 80 percent lower lodging sales and 58 percent lower restaurant sales compared with the same month in 2019. The hospitality sector's performance during the months of May and June, however, indicate that the impacts of the COVID-19 pandemic have started to lessen. Our analysis shows three possible scenarios for the second half of 2020, which have annual Maine hospitality sales that range from an estimated \$2.5 billion to \$3.1 billion (compared with \$4.3 billion in 2019 hospitality sales). Estimated daily sales in the month of July suggest that Maine's hospitality sector will experience a recovery that lies between our "moderate" and "stalled" scenarios, which have between \$2.5 billion and \$2.8 billion in overall 2020 restaurant and lodging sales.

References

Chetty, Raj, John N. Friedman, Nathaniel Hendren, Michael Stepner, and the Opportunity Insights Team. 2020. "Real-Time Economics: A New Platform to Track the Impacts of COVID-19 on People, Businesses, and Communities Using Private-Sector Data." Mimeo.

Gabe, Todd, and Andrew Crawley. 2020a. "Impacts of COVID-19 on Maine's Hospitality Sector." School of Economics, University of Maine, Staff Paper 638, June 2020.

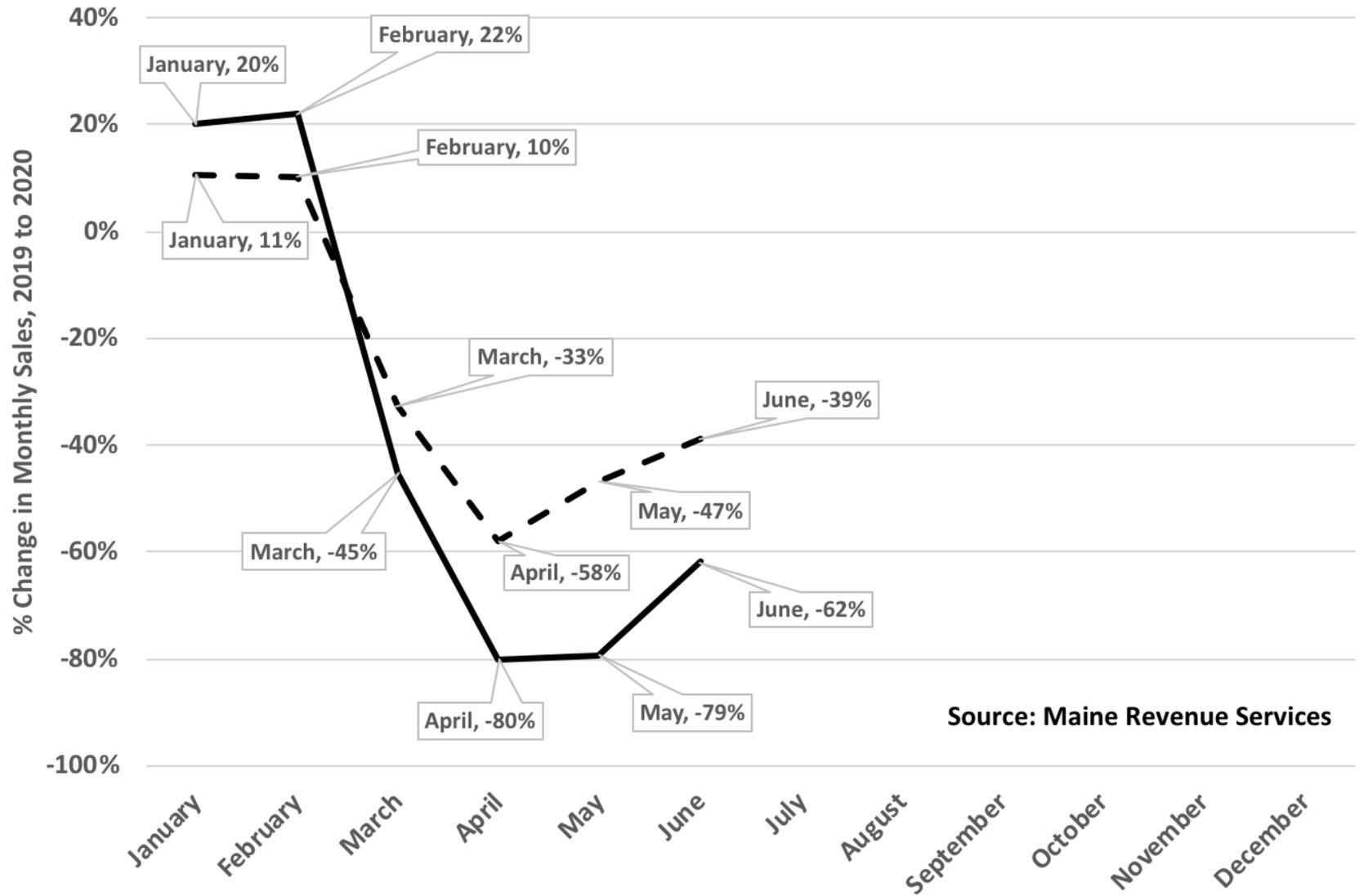
Gabe, Todd, and Andrew Crawley. 2020b. “A Note on the Reduction in Hospitality Sales Prior to a State’s COVID-related Stay-at-Home Order: Evidence from Maine, USA.” MPRA Paper 102362, August 2020.

Table 1. Maine Hospitality Sales Under Three Scenarios for the Second Half of 2020

Month	Rapid Recovery	Moderate Recovery	Stalled Recovery
January	223,981,029	223,981,029	223,981,029
February	240,311,433	240,311,433	240,311,433
March	168,236,785	168,236,785	168,236,785
April	95,434,576	95,434,576	95,434,576
May	152,824,405	152,824,405	152,824,405
June	245,017,671	245,017,671	245,017,671
July	374,141,741	350,029,343	325,916,944
August	448,810,818	397,566,676	346,322,534
September	351,461,653	297,436,539	243,411,425
October	313,949,505	255,585,278	197,221,051
November	228,743,920	180,109,295	131,474,670
December	267,829,986	204,852,091	141,874,196
Total	\$3.1 billion	\$2.8 billion	\$2.5 billion

Notes: The numbers for January to June are actual values as reported by Maine Revenue Services and the numbers for July to December are estimated using the scenarios outlined in Figure 3.

Figure 1: 2019-2020 Percentage Change in Monthly Maine Taxable Restaurant (dashed line) and Lodging (solid line) Sales



Source: Maine Revenue Services

Figure 2: 2019-2020 Percentage Change in Monthly Maine Taxable Hospitality Sales

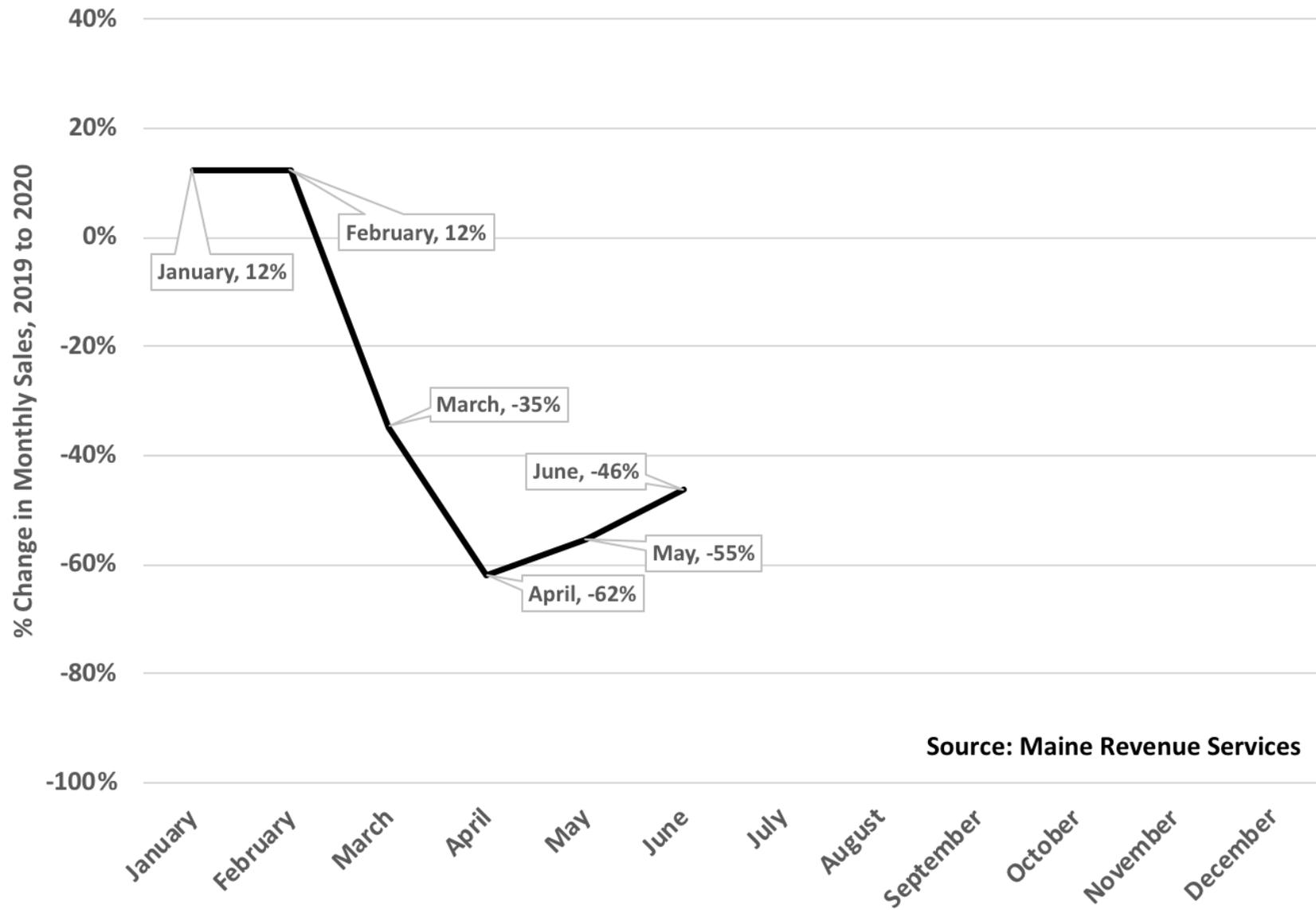
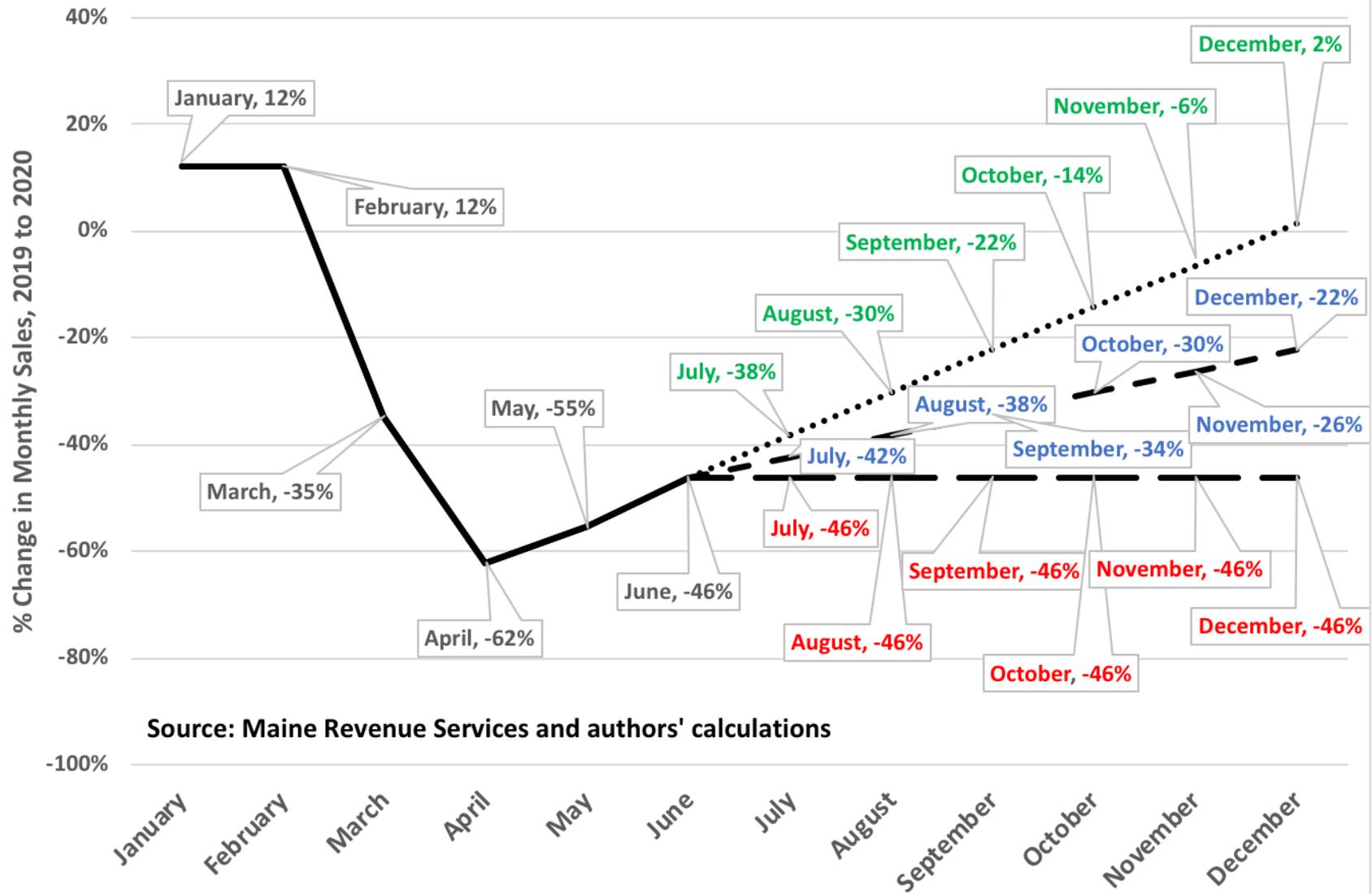
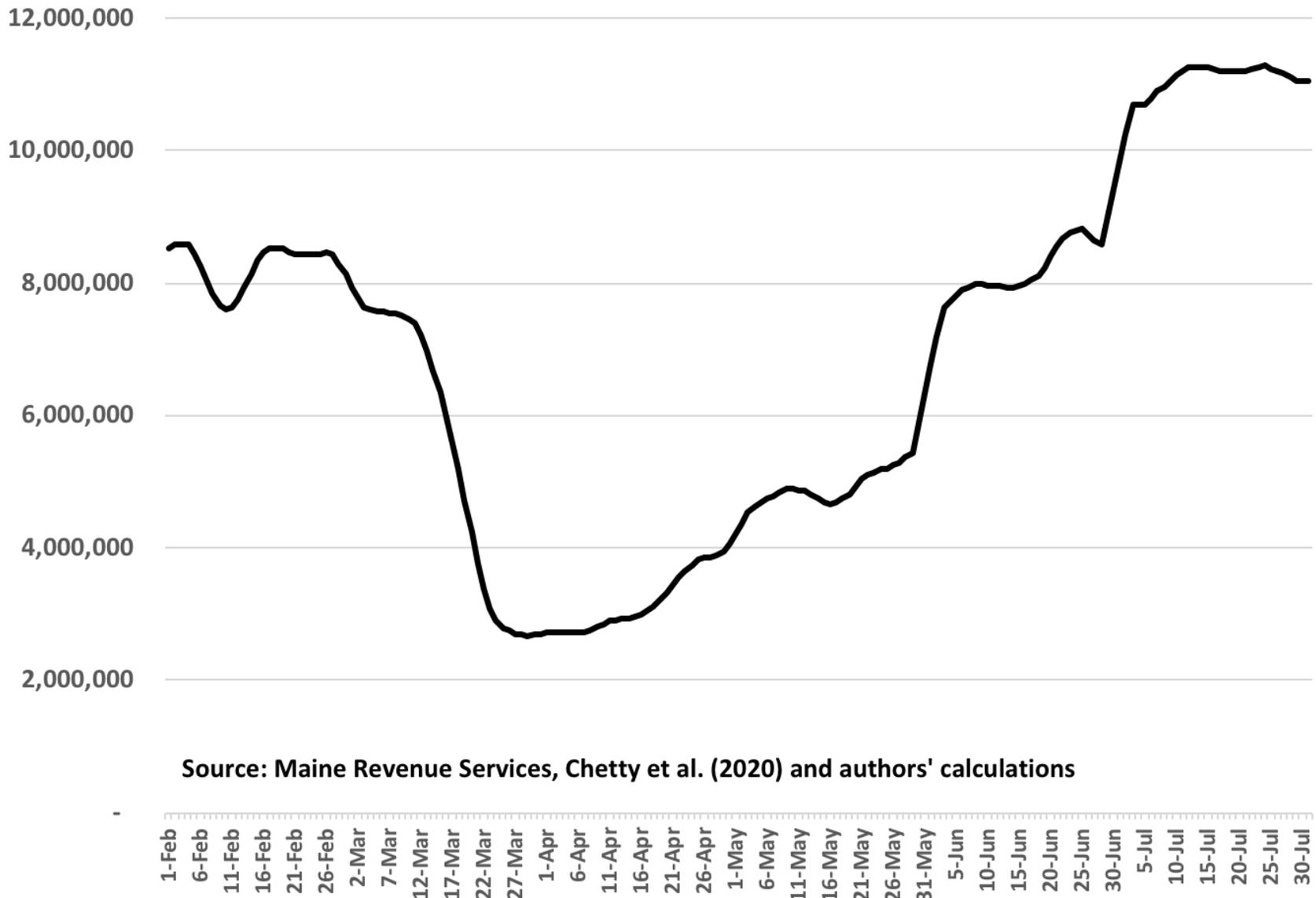


Figure 3. 2019-2020 Percentage Change in Monthly Hospitality Sales: Three Scenarios for the Second Half of 2020



Source: Maine Revenue Services and authors' calculations

Figure 4: Estimated Daily Hospitality Sales in Maine: February 1 to July 31, 2020



Source: Maine Revenue Services, Chetty et al. (2020) and authors' calculations