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Maine Employment Change in 2020:
Impacts of the COVID-19 Pandemic

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Abstract:

The COVID-19 pandemic had large economic impacts worldwide. In Maine, year-over-year employment fell by 18 percent in April of 2020, and by 7.0 percent in December. Of Maine's three metropolitan areas, Portland experienced the largest employment decrease between April 2019 and 2020. In December, employment in Bangor was 4.5 percent lower than twelve months earlier, compared with a 7.0 percent year-over-year employment decline in the Portland Metropolitan Area.

Maine's Leisure and Hospitality sector had a 60 percent decline in year-over-year employment in April, and the sector's employment was 29 percent lower than its 2019 level in December of 2020. Across Maine's three metropolitan areas, retail employment returned to slightly above pre-pandemic levels over the last four months of 2020. By the end of 2020, retail employment in Portland hovered at about five percent above employment levels one year earlier.

¹ Todd Gabe is a Professor in the School of Economics and author of the book *Pursuit of Economic Development: Growing Good Jobs in U.S. Cities and States*. This project was funded under federal award ED20PHI3070072 from the EDA University Center Economic Response and Recovery Programs to COVID-19. Gabe's research program is also funded, in part, by Hatch Multistate Grant # ME 031808 (NE 1749) from the USDA National Institute of Food & Agriculture. William Diodato, who assisted with data collection and analysis, is an undergraduate research assistant in UMaine's School of Economics.

² This report may be updated to clarify omissions or errors, or when data for future months are released or updated by the U.S. Bureau of Labor Statistics. The employment figures used in this report were accessed between November of 2020 and February of 2021.

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1. Introduction

Along with very large and serious impacts on health and overall wellbeing, the COVID-19 pandemic has resulted in substantial reductions in worldwide employment and economic output. For example, year-over-year total U.S. nonfarm private employment fell by 15 percent in April of 2020, and December total U.S. nonfarm private employment was 6.2 percent below its level from one year earlier.³ In Maine, year-over-year total nonfarm private employment change was an 18 percent reduction in April, and a 7.0 percent decrease in December of 2020.

The impacts of COVID-19 on economic activity varied widely across regions, industries, and occupations (Gabe and Florida 2021). For example, the Amusement, Gambling, and Recreation sector experienced a 57 percent decline in year-over-year U.S. employment in April of 2020, compared with a 6.3 percent increase in the Computer and Periphery Equipment Manufacturing industry. Generally speaking, sectors related to tourism, hospitality, and leisure were among the industries hardest hit by COVID-19. In Maine, hospitality businesses (i.e., restaurants and lodging establishments) experienced a 62 percent reduction in taxable sales between April of 2019 and 2020, and a 46 percent decline in year-over-year taxable sales in June of 2020 (Gabe and Crawley 2020).⁴

³ Employment figures are from the U.S. Bureau of Labor Statistics.

⁴ Taxable retail sales data are from Maine Revenue Services. In December of 2020, taxable restaurant and lodging sales were 27 percent below the level from the same month of 2019.

This report examines year-over-year employment change in Maine in each of the twelve months of 2020. This period covers a short time prior to the impacts of COVID-19, as well as the beginning of the pandemic. Although health and government officials began taking measures against COVID-19 in March of 2020, the impacts on U.S. and Maine employment statistics surfaced in April.⁵ The analysis considers employment across the entire state, and conditions in Maine's three metropolitan areas compared with the remaining 12 non-metro counties.

Overall, the results show that COVID-19 had large negative employment impacts in Maine. Of the state's three metropolitan areas, Portland experienced the largest employment decrease (18 percent) between April 2019 and 2020. In December of 2020, employment in Bangor was 4.5 percent lower than twelve months earlier, compared with a 7.0 percent year-over-year employment decline in the Portland Metropolitan Area. Maine's Leisure and Hospitality sector had a 60 percent decline in year-over-year employment in April, and the industry's employment was 29 percent lower than its 2019 level in December of 2020. In Maine's three metropolitan areas, retail employment recovered to slightly above pre-pandemic levels over the last four months of 2020. By the end of 2020, retail employment in Portland hovered at about five percent above employment levels one year earlier.

2. Analysis and Results

The study focuses on year-over-year employment change in all twelve months of 2020. For example, total nonfarm private employment in Maine increased by 0.4 percent between

⁵ For example, the United States approved widespread testing for Coronavirus on March 3, a national emergency was declared on March 13, and the U.S. Centers for Disease Control and Prevention (CDC) issued a recommendation against gatherings of 50 or more people on March 15 (Taylor 2020).

January of 2019 and 2020, prior to the COVID-19 pandemic, and it fell by 15 percent between May of 2019 and 2020. The analysis uses employment numbers from the U.S. Bureau of Labor Statistics, Current Employment Statistics (State and Metro Area) data series. This information is reported monthly, and employment figures are available for the state as a whole and Maine's three metropolitan areas, which are Bangor (Penobscot County), Lewiston-Auburn (Androscoggin County) and Portland (Cumberland and York Counties). Monthly employment figures across Maine's 12 non-metropolitan counties are estimated by subtracting employment numbers in Bangor, Lewiston-Auburn and Portland from statewide totals.

Table 1 shows the percentage of statewide employment accounted for by Maine's three metropolitan areas, which cover four counties, and the state's 12 non-metro counties. The specific sectors shown are broad industrial categories, and these sectors collectively account for about 75 percent of total nonfarm private employment in Maine. Employment in sectors such as agriculture and forestry, which are not shown in the table, have considerably higher shares of employment in Maine's non-metro counties. The employment shares in Table 1 are from March of 2020, but the relative percentages would be roughly similar in other months.

Focusing on total nonfarm private employment, we see that the Portland Metropolitan Area (i.e., Cumberland and York Counties) makes up 35 percent of statewide employment, and the three metro areas collectively account for 55 percent of Maine employment. In the Professional and Business Services sector, the Portland Metropolitan Area accounts for 43 percent of statewide industry employment, while the two-county region makes up 27 percent of statewide employment in the Manufacturing industry. Of the industries shown in Table 1, The 12

non-metro counties have the highest percentages of statewide employment in the Manufacturing (58 percent) and Retail Trade (50 percent) sectors.

Figure 1 shows monthly year-over-year employment change in Maine for the months of January to December of 2020. Total nonfarm private employment in Maine fell from 520,200 to 426,300 workers between April of 2019 and 2020, which is an 18 percent decrease. In December of 2020, total employment in Maine was seven percent lower than in the previous year. Over the months of June to December of 2020, the decreases in year-over-year employment change were less severe in Maine's metropolitan areas as compared with the 12 non-metro counties. In other words, the metropolitan counties experienced slightly lower employment declines than the non-metro areas due to the negative economic impacts associated with COVID-19.

Figure 2 shows year-over-year employment change in the three Maine metropolitan areas of Bangor, Lewiston-Auburn and Portland. Portland experienced the largest decline (18 percent) in total nonfarm private employment between April of 2019 and 2020, whereas Lewiston-Auburn saw the smallest percentage decrease (14 percent) in employment due to COVID-19. From September to December of 2020, Bangor had the smallest declines in year-over-year employment change compared with the other two Maine metropolitan areas. In December of 2020, total nonfarm private employment in Bangor was 4.5 percent lower than twelve months earlier, compared with a 7.0 percent year-over-year employment decline in the Portland Metropolitan Area.

Of all sectors of the economy, the Leisure and Hospitality industry (e.g., restaurants and lodging establishments) experienced some of the largest negative impacts due to COVID-19

(Figure 3).⁶ The Maine Leisure and Hospitality sector had a 60 percent decline in year-over-year employment in April, and the sector's employment was 29 percent lower than its 2019 level in December of 2020. Although non-metro counties had a slightly lower year-over-year decrease in hospitality employment between April and June, Maine's metropolitan areas had smaller year-over-year declines over the period from July to December. Of the three metropolitan areas in Maine, Portland experienced the largest declines in Leisure and Hospitality employment (Figure 4). In April of 2020, Leisure and Hospitality employment in the Portland Metropolitan Area was 63 percent lower than twelve months earlier, compared with a 53 percent decline in Bangor. In November and December, the employment declines in the Leisure and Hospitality sector were slightly lower in Lewiston-Auburn relative to the year-over-year employment decreases in the Bangor Metropolitan Area.

Maine's Retail Trade sector saw a 15 percent decline in year-over-year employment in April, from 78,600 workers in 2019 to 66,600 workers in 2020 (Figure 5). In October of 2020, employment in Maine's retail sector was at a level (80,600 workers) just above its employment (80,300 workers) one year earlier.⁷ In Maine's three metropolitan areas, retail employment recovered to slightly above pre-pandemic levels over the last four months of 2020. Figure 6 shows that the retail employment recovery that happened in Maine's metropolitan areas was largely driven by conditions in Portland. Retail employment in Portland returned to pre-pandemic levels in July and, by the end of 2020, retail employment hovered at about five percent above employment levels recorded one year earlier. Conversely, retail employment in the Lewiston-

⁶ For brevity, the sector is labeled as "Hospitality Employment" in Figures 3 and 4.

⁷ Maine's Retail Trade sector performed "better" than would be expected nationally, based on a shift-share analysis of employment change during the early months of the COVID-19 pandemic (Gabe 2020).

Auburn Metropolitan Area was about eight percent below 2019 levels during the last four months of 2020.

Figure 7 shows that year-over-year employment declines in Maine's Professional and Business Services sector have lessened steadily from a 12 percent reduction in April of 2020 to a three percent decrease in December.⁸ Nevertheless, Professional and Business Services employment in Maine has yet to recover to pre-pandemic levels. Professional and Business Services employment in Maine's non-metro counties was at an estimated 25,700 workers in both November of 2019 and 2020. In December, Maine's non-metro counties had a slightly higher Professional and Business Services employment level in 2020 (25,400 workers) than one year earlier (25,200 workers). Of Maine's three metropolitan areas, Bangor experienced the smallest negative impacts in Professional and Business Services employment (Figure 8). In December of 2020, Professional and Business Services employment in Bangor was 1.5 percent lower than twelve months earlier, compared with five to six percent year-over-year employment declines in the Portland and Lewiston-Auburn Metropolitan Areas.

Figures 9 and 10 show the year-over-year employment change in Maine's Education and Health Services sector.⁹ It should be noted that, since the data cover private employment, these figures do not include public school teachers (and other K-12 school employees) and employment in Maine's public universities. As of March 2020, the Health Care and Social Assistance industry accounted for 82 percent of total statewide employment in this broad sector (and Educational

⁸ For brevity, the sector is labeled as "Prof. Services Employment" in Figures 7 and 8.

⁹ For brevity, the sector is labeled as "Educ. & Health Employment" in Figures 9 and 10.

Services made up the other 18 percent). This means that the employment numbers in Figures 9 and 10 are largely driven by conditions in health services.

In the months of July to December of 2020, statewide employment levels in Education and Health Services were at between seven and eight percent below 2019 levels. In December of 2020, Maine's metropolitan areas had an Education and Health Services employment level that was 4.2 percent lower than in 2019, compared with an 11 percent reduction in year-over-year employment in Maine's non-metro counties. Of the three metropolitan areas, Portland experienced the largest COVID-related declines in Education and Health Services industry employment. Year-over-year Education and Health Services employment in the Portland Metropolitan Area fell by 15 percent in April of 2020, with a 5.4 percent year-over-year employment decline in December.

Year-over-year Manufacturing industry employment change in Maine fluctuated widely from a nine percent decline in June to a 17 percent decrease in July of 2020. Over the months of October to December of 2020, statewide employment levels in the Manufacturing industry were at between eight and nine percent below 2019 levels. As shown in Figure 11, year-over-year Manufacturing employment decreases were smaller in Maine's non-metro counties than its metropolitan areas over the final four months of 2020. Maine's non-metro counties had an estimated 29,400 people employed in manufacturing businesses in December of 2020, which is a 6.4 percent decline compared with the estimated 31,400 manufacturing workers one year earlier. By contrast, year-over-year manufacturing employment fell by over ten percent in Maine's metropolitan areas in December of 2020.

3. Summary and Conclusions

Like most other regions, Maine experienced very large and negative economic impacts associated with COVID-19. The state had an 18 percent decline in year-over-year employment in April of 2020, which was the first month of the pandemic. From April until the end of 2020, the year-over-year reductions in employment generally lessened; however, in December, statewide employment was still seven percent lower than one year earlier. Focusing on subregions of Maine, the state's three metropolitan areas had collective employment declines that were smaller than the decreases in the 12 non-metro counties. Of the three metros in Maine, Bangor had smaller COVID-related employment declines than those experienced in Lewiston-Auburn and Portland.

Both in Maine and beyond, the Leisure and Hospitality sector experienced among the most severe employment declines due to COVID-19. Year-over-year employment fell by 60 percent in April and was 29 percent lower in December of 2020. Although Maine's non-metro counties had slightly lower year-over-year employment declines at the very beginning of the pandemic, the state's three metropolitan areas collectively had smaller declines than the non-metro counties over the second half of the year.¹⁰ Of Maine's three metros, Portland experienced the largest declines in Leisure and Hospitality employment. This may be related to the more severe outbreak of COVID-19 in the Portland region at the beginning of the pandemic and the area's proximity to states where residents were restricted from visiting Maine.

¹⁰ The result of non-metro counties performing slightly better than Maine's metropolitan areas at the beginning of the pandemic could be due to the state's earlier relaxing of COVID-19 restrictions in non-metro counties.

Maine's Retail Trade sector experienced a 15 percent reduction in year-over-year employment in April of 2020, but employment largely recovered to pre-pandemic (i.e., 2019) levels statewide and in Maine's three metropolitan areas by the end of 2020. Maine's recovery in Retail Trade was largely driven by conditions in Portland, where retail employment was more than five percent higher from October to December of 2020 than one year earlier. Statewide employment in the Professional and Business Services industry was about three percent lower in December of 2020, compared with one year earlier, although the sector's employment in Maine's non-metro counties had returned to 2019 levels. The Bangor Metropolitan Area, which is closer in geography to the non-metro counties, saw lower declines than Lewiston-Auburn and Portland in Professional and Business Services employment.

The Education and Health Services, and Manufacturing industries had about 15 percent reductions in statewide year-over-year employment in April of 2020, and both sectors experienced about seven percent declines in year-over-year employment in December. In the case of Education and Health Services, Maine's three metropolitan areas collectively performed better than the non-metro counties. In the Manufacturing sector, Maine's non-metro counties had smaller year-over-year employment declines at the end of 2020.

4. Looking Ahead

Moving forward, Maine will need substantial employment growth to recover from the economic impacts of COVID-19. Although total state nonfarm private employment was 5.8 percent lower in January of 2021 than in the previous year, an improvement over the 18 percent

year-over-year decline in April of 2020, a return to past employment levels does not signify a full recovery.

Employment typically increases from year to year, so a recovery would need to catch up to an employment level that the state would have likely achieved if not for COVID-19. For example, year-over-year employment change in January averaged a 1.1 percent increase over the nine years between 2012 and 2020 (Figure 12). A 1.1 percent increase from January 2020 to 2021 corresponds with an employment level of 524,000 jobs in January of 2021. Total Maine nonfarm private employment was at 488,500 jobs in that month, which was 6.8 percent lower than the employment level if the state's employment had grown by 1.1 percent from 2020 to 2021 (instead of declining by 5.8 percent).

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Table 1. Shares of Statewide Employment by Maine Metros and Non-Metro Counties

	Bangor	Lewiston- Auburn	Portland	Metro Total	Non-Metro Counties
Total Nonfarm Private	11%	9%	35%	55%	45%
Leisure & Hospitality	12%	6%	34%	52%	48%
Retail Trade	12%	8%	30%	50%	50%
Professional & Business Services	10%	10%	43%	63%	37%
Education & Health Services	13%	10%	34%	56%	44%
Manufacturing	5%	10%	27%	42%	58%

Notes: Employment shares are calculated as of March 2020. Non-metro employment figures are estimated by subtracting employment numbers in Bangor, Lewison-Auburn and Portland from statewide totals. Data are from the U.S. Bureau of Labor Statistics, Current Employment Statistics (State and Metro Area) series.

Figure 1. Total Maine Nonfarm Private Employment fell by 18 Percent between April 2019 and 2020

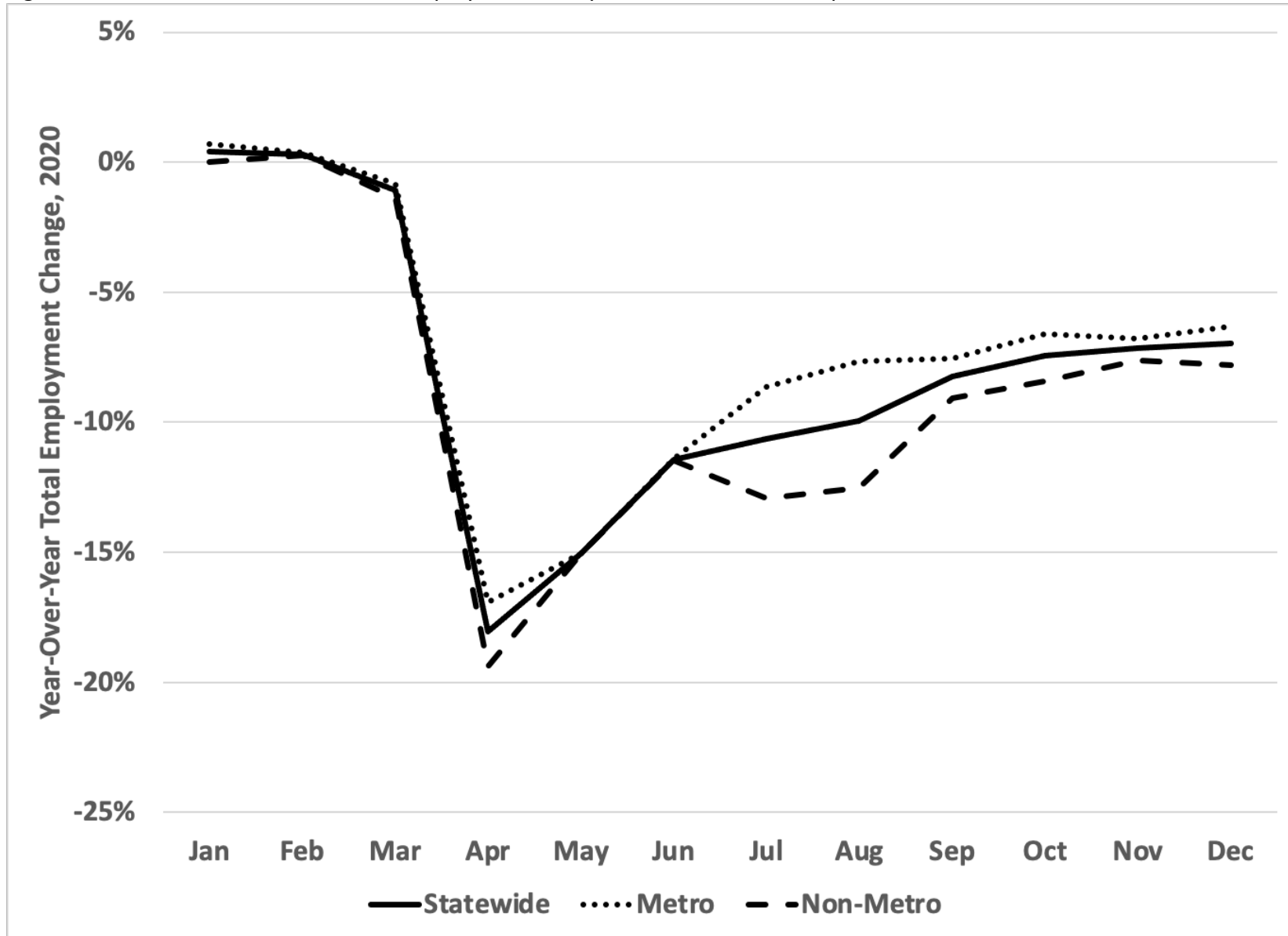


Figure 2. In December of 2020, the Employment Decline was Smaller in Bangor than Maine's Other Metropolitan Areas

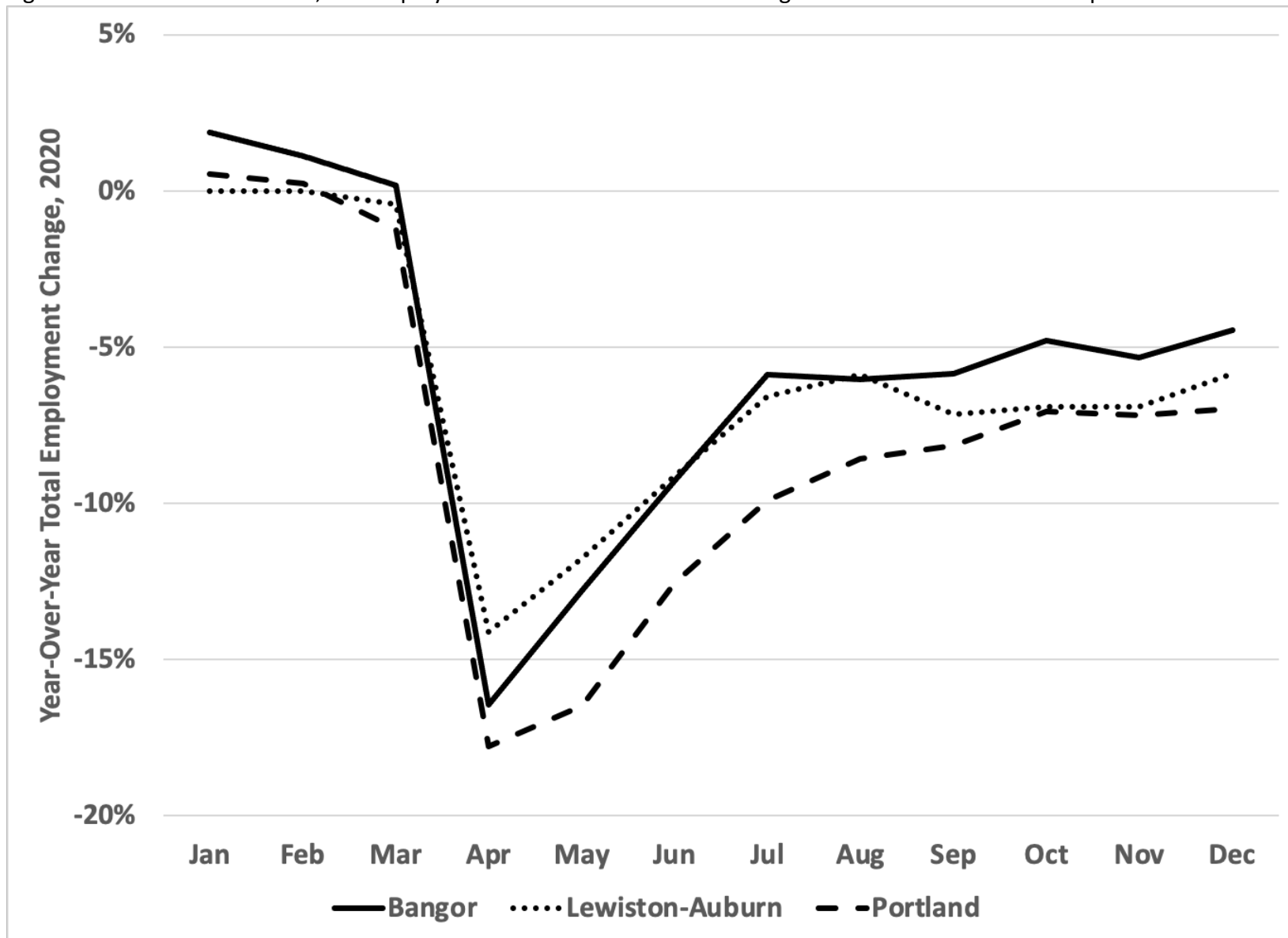


Figure 3. Maine's Leisure and Hospitality Sector Experienced Severe Employment Declines Due to COVID-19

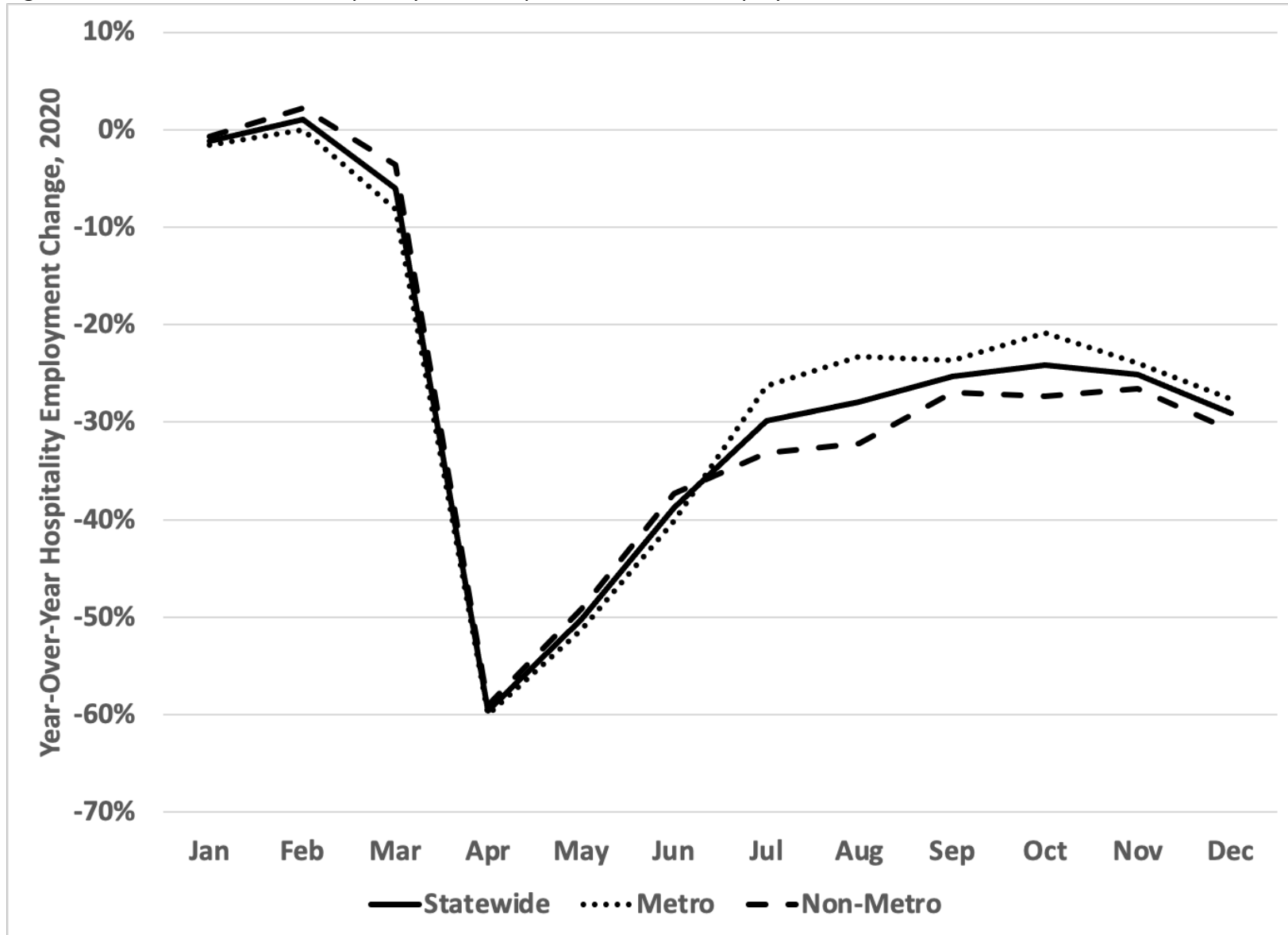


Figure 4. Of Maine's Three Metros, Portland Experienced the Largest Declines in Leisure and Hospitality Employment

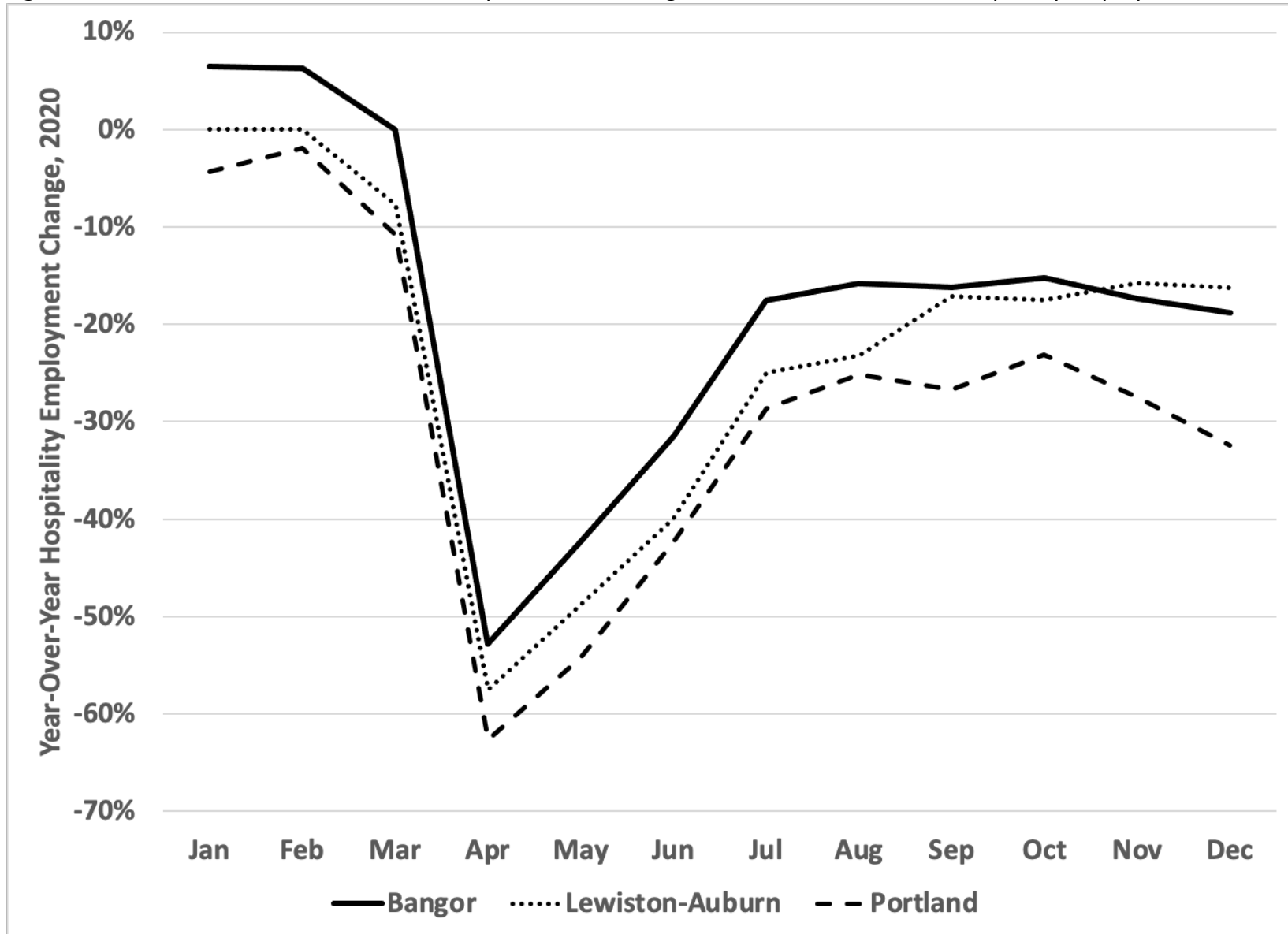


Figure 5. Retail Employment is Back to 2019 Levels in Maine's Metro Counties

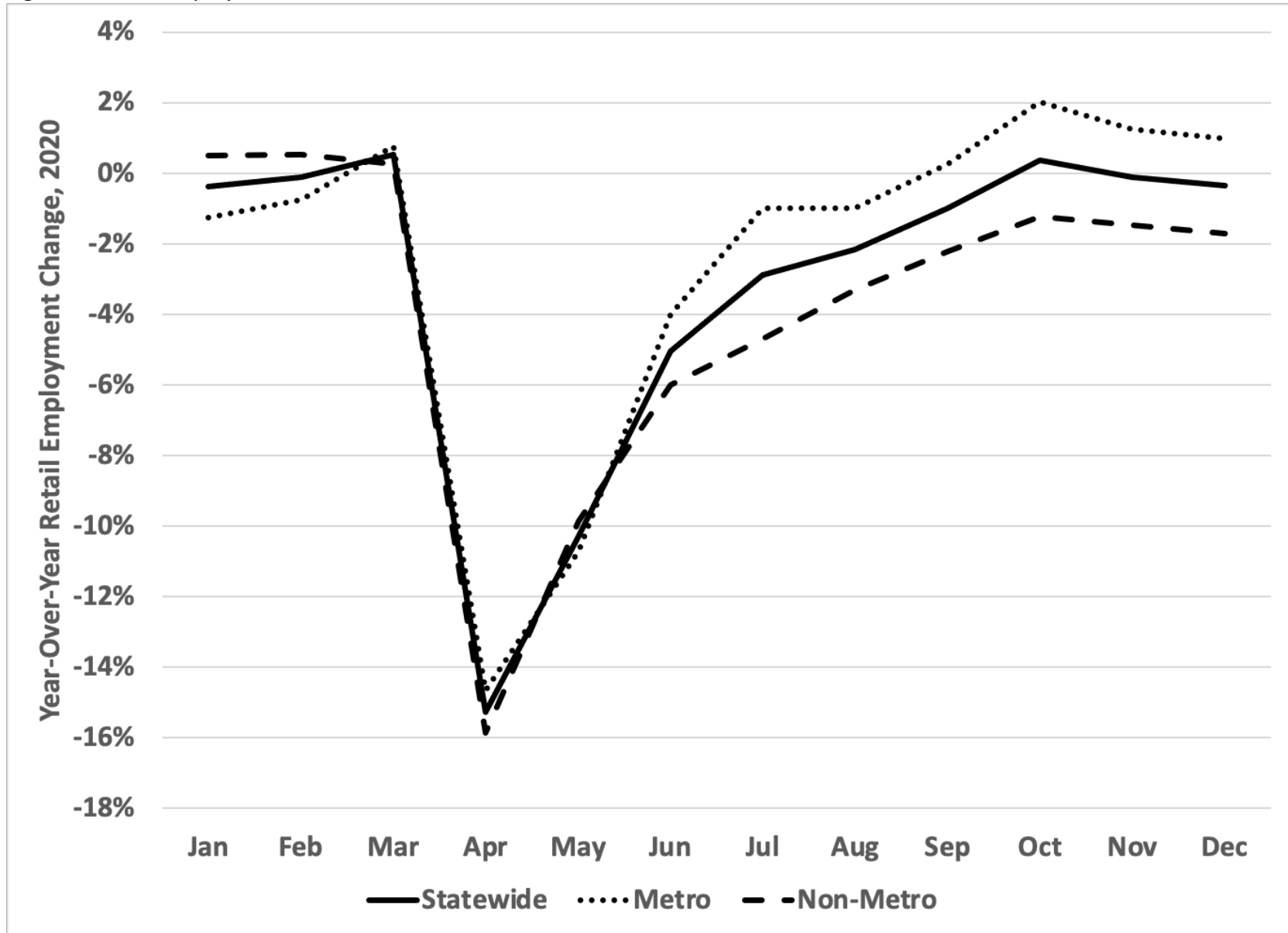


Figure 6. Maine's Recovery in Retail Employment was Largely Driven by Conditions in Portland

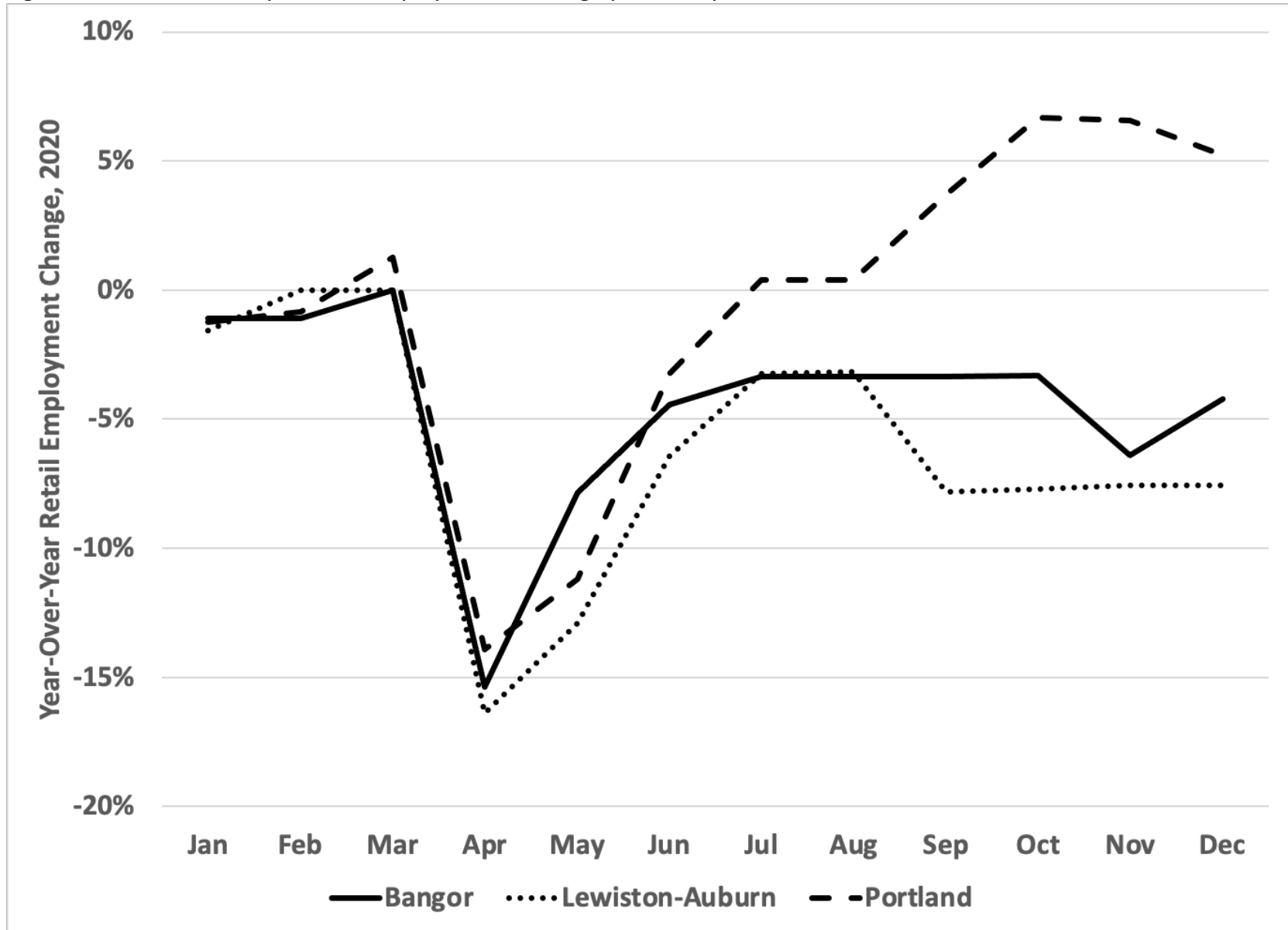


Figure 7. Professional and Business Services Employment has Yet to Return to Pre-Pandemic Levels in Maine

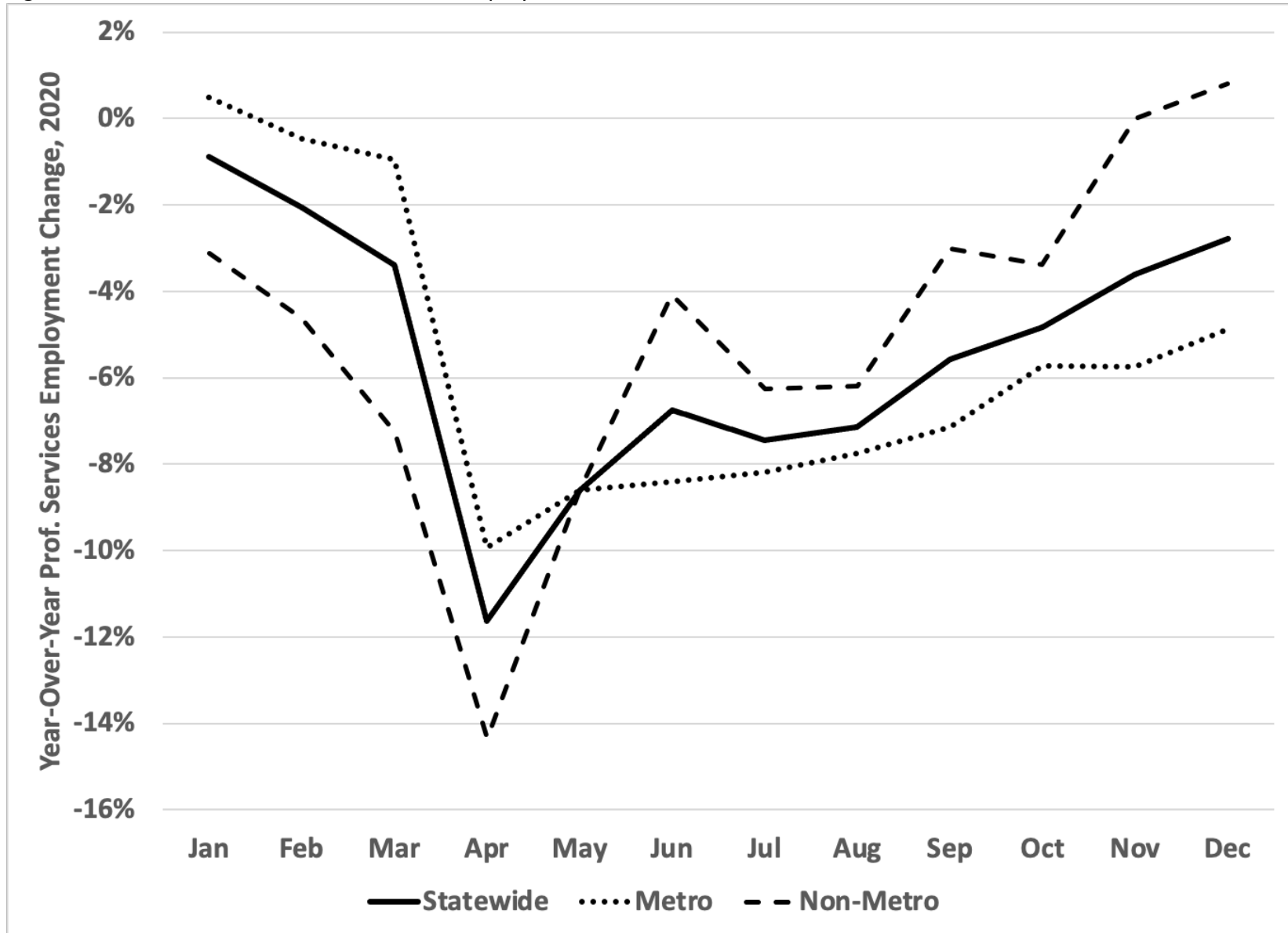


Figure 8. Of Maine's Three Metros, Bangor Experienced the Smallest Declines in Professional and Business Services Employment

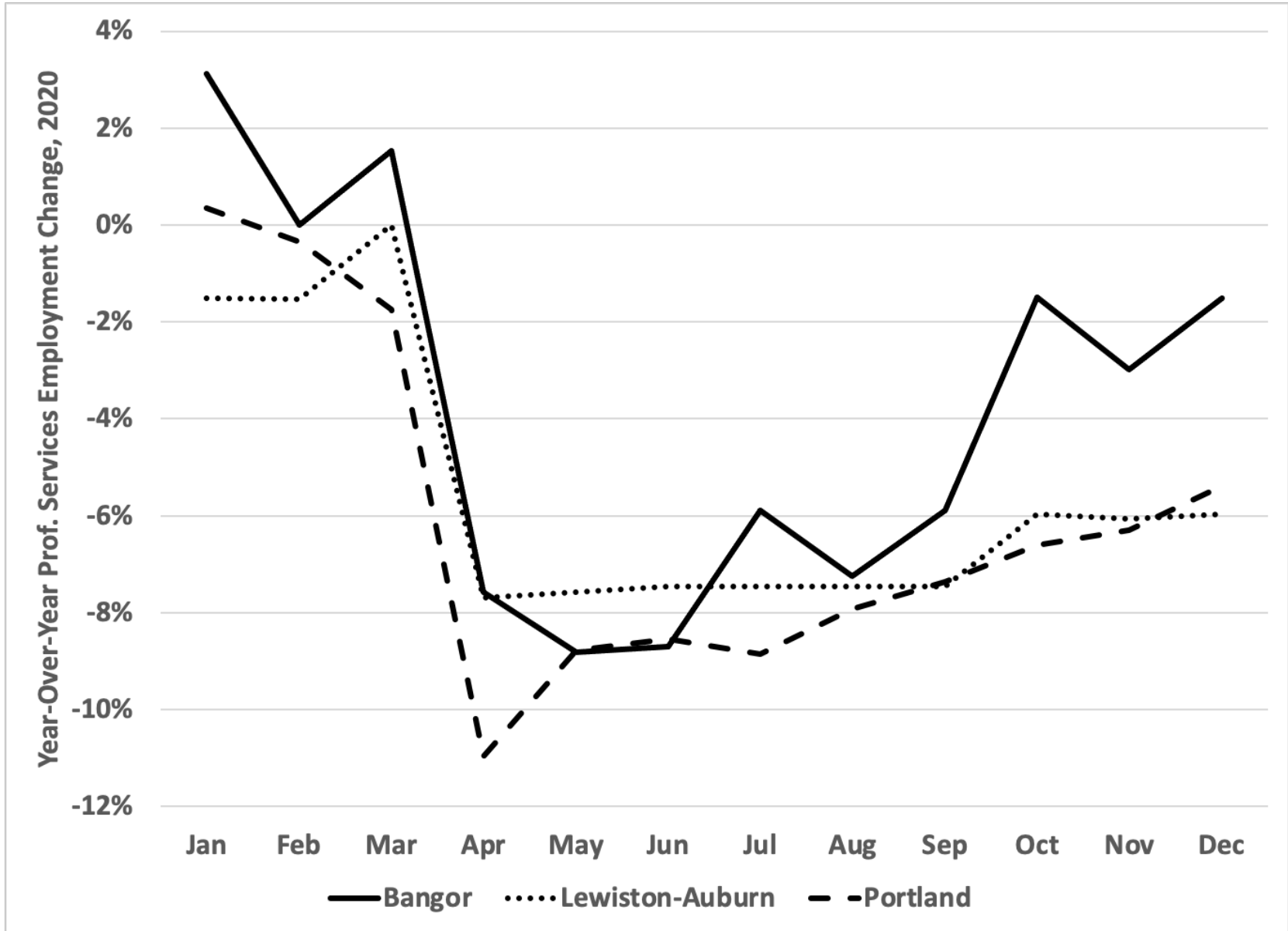


Figure 9. Maine Employment in Education and Health Services has Stalled at a Seven Percent Reduction Below 2019 Levels

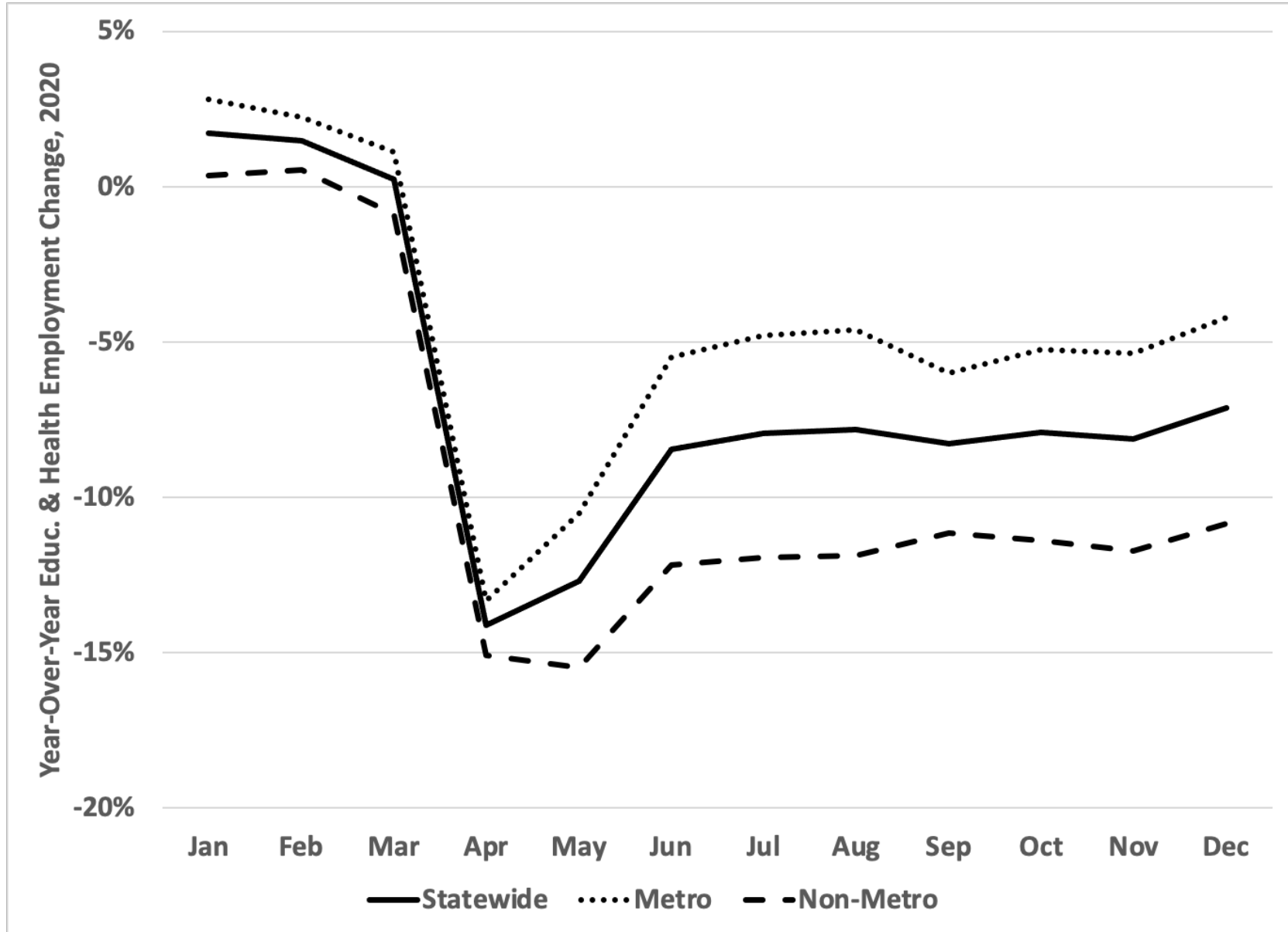


Figure 10. Of Maine's Three Metros, Portland Experienced the Largest Employment Declines in Education and Health Services

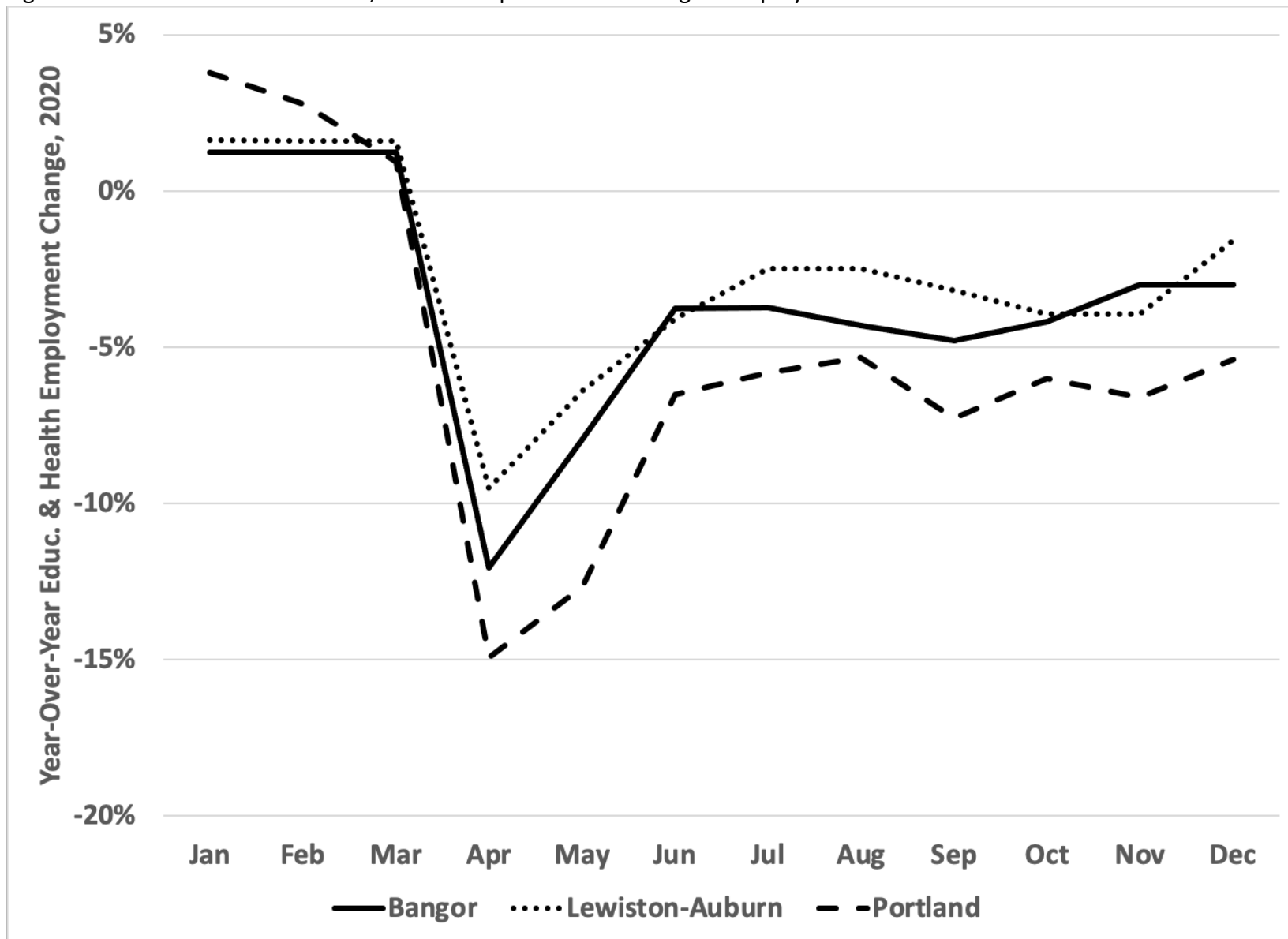


Figure 11. Maine Employment in Manufacturing has Stalled at an Eight Percent Reduction Below 2019 Levels

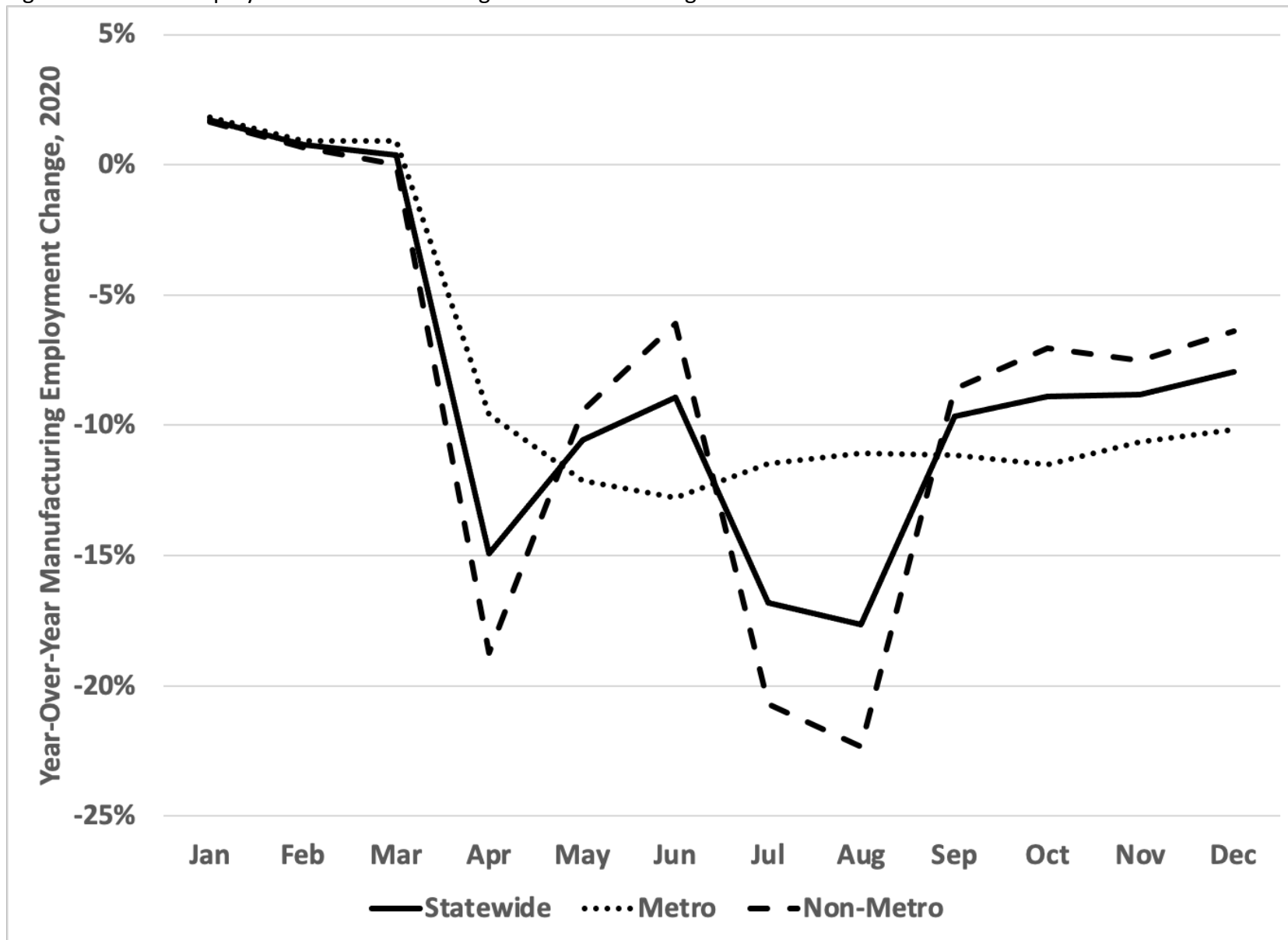


Figure 12. In January of 2021, Maine Employment was about Seven Percent Lower than its Level “If Not” for COVID-19

