

Our Path to "New Normal" in Employment?

Sobering Clues from China and Recovery Scores for US Industry



July 2020





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Dr. Cunningham also serves as an advisor to private and publicly listed companies in the energy, environmental, and financial services sectors, and was selected as a Fulbright Fellow to China, during which time he conducted his doctoral fieldwork

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EXECUTIVE SUMMARY

The US national jobs reports¹ for May and June exceeded expectations, and for many this signaled that April was the true peak of American job losses and that real recovery may be underway. Yet mounting evidence suggests that a job recovery is a long way off, that weakness in the labor market is resurfacing in some areas, and that many jobs may not return. Part of the analytic disconnect stems from the fact that the global pandemic is a novel challenge for policymakers and analysts. We lack current, useful benchmarks for estimating the damage to the labor market, for estimating what a recovery would look like, and for measuring an eventual recovery in jobs. Given this paucity of models, one place to look for patterns of potential recovery—particularly relating to consumption and mobility—is China. The Chinese economy is driven largely by consumption, urban job creation is driven by small- and medium-sized companies, and China is several months ahead of the US in dealing with the pandemic's economic and labor impact. An analysis of China's experience may therefore offer important clues about our recovery here at home, and inform new models of thinking about American job recovery.

While Chinese industrial production has rebounded to a great extent, consumption drives well over 50 percent of China's economy, and people stuck closer to home in early 2020. A recent resurgence of COVID-19 in Beijing has again brought back debate about restrictions on mobility. Rail passenger volume in China dropped a dramatic 86 percent from January to February, and 55 percent over the first quarter.² Mid-April subway traffic at nine major cities remained low, at about 60 percent of the same period last year. Chinese technology company Baidu estimated that over 20 percent of the working population had not returned to work into early April, based on data from the online platforms they run. These changes in Chinese household consumption provide an important window into which aspects of the national economy are being hit the hardest, and why.

¹ https://www.bls.gov/news.release/empsit.nro.htm.

² https://www.railjournal.com/passenger/main-line/chinese-passenger-rail-hit-hard-by-coronavirus-pandemic/.

To understand the losses and the potential for recovery in the US in this new paradigm, we developed an industry recovery index based on performance in past recoveries, recent economic performance, and the impact of physical distancing with specific emphasis on the recovery that we see underway in China. Each six-digit North American Industry Classification System industry was assessed on these factors to produce a weighted Phased Recovery Score between one and five.

In the best-case scenario, the economy rebounds quickly and jobs return throughout the 3rd and 4th quarters of 2020. We assume a full rebound in the most resilient industries, scaling to a 70 percent employment rebound for the most deeply impacted industries pre-vaccine. This would result in a real unemployment rate of approximately 8 percent, or roughly double the rate in February 2020—and half of the May 2020 rate. Given the evidence from China on delayed mobility, and the significant US challenges related to access to public transit, education, and limited childcare, we see this scenario as overly optimistic.

A more likely scenario includes varying degrees of physical distancing throughout 2020, with localized, "second wave" hot spots and reduced mobility regardless of state- level decisions to reopen local economies. Our prediction in this scenario is a year-end real unemployment rate of approximately 14 percent, about 2 percent higher than June 2020, which would extend into 2021 or until a vaccine is widely available.

Our prediction in this scenario is a year-end real unemployment rate of approximately 14 percent, about 2 percent higher than June 2020, which would extend into 2021 or until a vaccine is widely available.

Some industry clusters are more resilient than others. We predict that clusters such as financial services; biotechnology, information and communication technologies; and public services and infrastructure will experience the quickest recovery once social distancing orders are lifted, assuming that policy responses to this downturn are similar to those in the past. These are the industry clusters that also experienced relatively fewer overall job losses.

Policy will play an important role in improving economic conditions. Unlike with prior recessions, stimulus alone will not be sufficient. The pre-vaccine COVID era will

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require more thoughtful and nuanced approaches to encourage an orderly and safe return to work. Effective policy interventions should also focus on equity. As ethnic and racial minorities have suffered disproportionate health and economic impacts of COVID-19, interventions should be designed to support Black, Latinx, Native American, and other traditionally disadvantaged minorities. We recommend five key pillars to the policy response: infrastructure spending, business relief, education and training supports, relief for state and local governments, and incentives to secure and localize supply chains for critical sectors.

INTRODUCTION

Recent US national jobs reports beat the expectations of economists and suggest that the worst of the job losses may be over. Given the pandemic's enormous toll on the US economy and labor market, all eyes are on a potential recovery. The most recent labor statistics seem to have provided a beacon of hope, signaling a possible end to historically high job losses and a pivot back toward job growth. However, there are reasons to be skeptical, and worrying signs in the most recent jobs data. The return of jobs will be more difficult than Wall Street—and many pundits—would have us believe.

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The US lacks familiar benchmarks for this novel situation, which greatly complicates analysis. China is at least two to three months ahead of our country in dealing with the pandemic's economic impact, and the resulting picture is more sobering when examined closely. Even though China reportedly has limited deaths to fewer than 5,000, enjoys the advantages that a historically interventionist central bank and government can yield during a crisis, and started a coordinated national response much earlier and more comprehensively than the US, its economy is by no means "back." The Chinese consumer is still spending at lower levels, is less mobile, and is spending differently. A second surge of cases may be hitting Beijing, as has been

recently reported. Given China's difficulties, and the most recent US economic and employment data, we conclude that the US may very well experience a recovery that does not truly begin until the end of this summer—and benefits GDP much more than jobs. In addition, the US job market may be plagued by a persistent unemployment rate of about 14 percent through much of 2021.

US UNEMPLOYMENT AND INEQUALITY

Tracking US unemployment has become increasingly complex. The Bureau of Labor Statistics (BLS) has noted declining participation rates of its household and establishment surveys as well as misclassification errors. In a technical note³ on its June 5 Employment Situation Summary, BLS reports that if respondents were appropriately classified, the official unemployment rate would be three percentage points higher, for a real unemployment rate exceeding 16 percent. For the period through mid-June, this number is reported to be closer to 12 percent, which may be the apex of job recovery given newly announced closures and a viral spread that seems to be spinning out of control. While the agency reports an employment recovery with nearly 7.3 million net new jobs in May and June, the number of unemployment insurance recipients across all programs grew by nearly 4 million in May and another million in June, to more than 31 million recipients.

While the overall jobs picture may seem to have improved by mid-June in the US, new weekly claims are stubbornly stuck at about 1.4 million claims each week which covered the period when most US states were well into reopening their economies.⁴ Prior to March 2020, such claims had never exceeded 700,000; the Great Recession's weekly initial claims peaked at 665,000.⁵

The July 2 weekly release that covers the last weeks of June, continuing claims were up over the week prior.⁶ Perhaps even more troubling, the number of permanently

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³ https://www.bls.gov/news.release/empsit.nro.htm.

⁴ https://oui.doleta.gov/press/2020/070220.pdf.

⁵ https://oui.doleta.gov/unemploy/wkclaims/report.asp.

⁶ https://oui.doleta.gov/press/2020/070220.pdf.

unemployed is skyrocketing, with about 2.9 million workers classified as permanently laid off.⁷

Already experiencing the highest real unemployment rate since the 1930s, the US has nearly double the number of "officially" unemployed workers as it did during the Great Recession. Moreover, several recent analyses suggest that such unemployment claims economywide do not represent the entirety of job losses, as many workers who are temporarily furloughed are not seeking other employment and therefore do not qualify for benefits. The data also do not include workers who had their hours slashed and are now significantly underemployed.

COVID-19 has also highlighted significant racial and gender inequality in America. Far from being the "great equalizer" some have suggested, the virus has been more prevalent and more lethal in Black and Latinx communities. The inequality in job losses is staggering. While the official unemployment rate currently sits at 11.1 percent, the rates for Latinx, Black, and Asian workers are 14.5 percent, 15.4 percent, and 13.8 percent, respectively. Women are also impacted at a higher rate, at 1.1 percentage points higher than men. Latina unemployment is 15.3 percent.⁸

The inequality in job losses is staggering. While the official unemployment rate currently sits at 11.1 percent, the rates for Latinx, Black, and Asian workers are 14.5 percent, 15.4 percent, and 13.8 percent, respectively. Women are also impacted at a higher rate, at 1.1 percentage points higher than men. Latina unemployment is 15.3 percent.

There is significant debate over the shape of our recovery and the speed of the potential jobs rebound. Labor optimists point out that the majority of jobs lost thus far have been in sectors that can bounce back, and that a V-shaped recovery is therefore still plausible. The initial job losses, predominantly in March, were largely in industries driven by short-cycle investment, like catering, hospitality, tourism, and entertainment. These industries could theoretically reopen fairly quickly. The latest jobs report showed that some of these jobs indeed seem to be returning. But evidence

⁷ https://www.bls.gov/news.release/empsit.t11.htm.

⁸ https://www.bls.gov/news.release/empsit.nro.htm.

is now mounting that we are losing a significant number of jobs in the longer-cycle investment industries such as the energy, construction, and manufacturing sectors, where national layoffs are already significant and are ramping up rapidly.

CHINESE CLUES

Some observers have noted that China is ahead of us in this struggle, and may hold clues for the shape of our future. After all, China is continental in scale, second in size only to the US; is driven increasingly by domestic consumption, just like us; and is home to an increasingly urban and geographically mobile population. Significant differences between our two economies remain, of course, but key indicators from the Chinese experience may prove useful in predicting our future. While the rapid Chinese response initially limited COVID-19 cases impressively, early production and consumption data reveal that the country's economic rebound has been more uneven than it might appear and the physical mobility of China's population remains more restricted than is often appreciated. The country's road back continues to be difficult, and so will ours.

In China, the pandemic emerged in force around Chinese New Year and peaked in early March, coming at a particularly difficult stage of China's growth story. While China's official unemployment rate is lower than that of the US, worrying employment figures began to be noted by senior leaders as the nation's economic growth rate started slowing well before COVID-19. During a July 2018 meeting of the Politburo, the goal of stabilizing employment was formally ranked first in terms of policy priorities. China's economy contracted 6.8 percent in the first quarter of 2020—probably the first such contraction since 1976, and certainly the first since Beijing began reporting quarterly gross GDP in 1992.

More broadly, while urban unemployment statistics in China are undoubtedly underestimated because of the exclusion of migrant workers from official numbers, they reached a record 6.2 percent in February of this year, an increase of approximately 20

percent over just several months.⁹ The brokerage firm Zhongtai Securities published a report, estimating that China's effective unemployment rate was three times higherapproximately 20.5 percent—but the report was subsequently removed online. China's National Bureau of Statistics reported that only 2.3 million new jobs were created in the first quarter of 2020, compared to 3.2 million the same time last year. A recent Tsinghua University survey estimated small and medium-sized Chinese enterprises lost approximately 70 percent of their income in March of this year. Yet they are responsible for providing nearly 80 percent of national employment.¹⁰ Peking University's Guanghua School of Management has estimated a 27 percent drop in new job postings in the first three months of this year, as compared to 2019.¹¹ The Economist Intelligence Unit has argued that underemployment may cause even more damage, estimating that 250 million workers will lose 10 to 50 percent of their earnings this year.¹² Economists at Société Générale SA and UBS Group AG report that 80 million people—approximately one-sixth of the Chinese workforce—could now be unemployed as a result of the economic loss caused by the coronavirus.¹³ The Conference Board includes idle workers and calculates the total population to equal over 100 million.

By late May, China's COVID response had gone through three phases: from the initial geographical lockdown of test, treat, and trace; to a secondary phase of suppression through extended social distancing, the banning of most foreigners entering the country, and 14 days of quarantine for those who were allowed in; to the current phase, ramped reopening of essential services and the broader consumer sector. Yet national air travel was still down by more than a third in April and early evidence is that the small and medium-sized retail sector had only seen an approximate 60 percent resumption of work nationally by early May.¹⁴ Industry is a different story. As Fitch Ratings has reported, daily coal consumption by China's six largest power utilities

⁹ CEIC, China Economy in a Snapshot – Q2 2020.

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 $^{{\}tt 11} \qquad {\tt https://clb.org.hk/content/china's-unemployment-rate-eases-slightly-march-59-percent.}$

¹² https://www.barrons.com/news/help-wanted-jobless-china-workers-await-relief-01588215609.

¹³ https://www.ctvnews.ca/health/coronavirus/80-million-chinese-may-already-be-out-of-work-9-million -more-will-soon-be-competing-for-jobs-too-1.4933970.

¹⁴ https://www.cnbc.com/2020/04/02/for-some-chinese-businesses-no-going-back-to-pre-coronavirus -ways.html.

averaged 87 percent of 2019 levels in the first three weeks of April.¹⁵ According to logistics data, the recovery thus far has disproportionately benefited larger companies. The OECD reported that 99 percent of large enterprises but 76 percent of small and medium-sized enterprises had resumed operation as of mid-April.¹⁶

CHINESE LABOR INTENSITY, MOBILITY, AND CHANGES IN CONSUMPTION

But such numbers obscure the fact that China's sectoral recovery is a patchwork of industries shaped by relative export intensity, domestic demand intensity, and labor intensity. Among China's 41 industrial sectors, all but two—tobacco and food processing—have reported losses this year. The textiles, electronics, and motor vehicle industries were hit hardest and have suffered from slow recovery rates thus far, but for different reasons. Weak domestic demand constrained sales in the automotive sector, which experienced a 80.2 percent profit drop, while limited foreign demand is undermining an electronics rebound for now.¹⁷ The textile industry is affected by massive declines in demand both abroad and domestically. China's chemical industry, which benefits from a lower relative labor intensity, has fared better, with a 56.5 percent drop in profits. Yet areas specialized in exports and technologically intensive industries have still suffered, with even the economic engine of Shenzhen shrinking by 8.8 per cent in the first quarter this year. Some of China's least labor-intensive industries still dropped; advanced manufacturing for example decreased by 9.5 percent, compared to growth of 5.5 percent in 2019.

Some of the least labor-intensive sectors that enjoy significant domestic demand have fared better. Mining and hi-tech manufacturing have recovered fairly rapidly, but such bright spots should be tempered by broader numbers. The official capacity

¹⁵ https://www.fitchratings.com/research/infrastructure-project-finance/chinese-power-generators-unlikely -to-deleverage-in-2020-15-05-2020.

¹⁶ http://www.oecd.org/coronavirus/policy-responses/coronavirus-covid-19-sme-policy-responses-04440101/.

¹⁷ https://www.scmp.com/economy/china-economy/article/3081652/coronavirus-chinas-industrial-giants -see-profits-collapse.

utilization rate of the industrial sector was only 67.3 percent in the first quarter of 2020, down from 77.5 percent in the previous quarter.¹⁸ Moving forward, understanding China's relative exposure to global trade and investment at a sectoral level, balanced against the importance of domestic demand in these sectors and their relative labor intensity, yields a better roadmap for anticipating the speed, scale, and scope of recovery. Exports as a percentage China's GDP are declining, from more than a third 15 years ago to less than 20 percent today. The share of imports has similarly declined. For the export markets that matter most to China—the US and Europe—the short- and medium- term economic picture is bleak, and shattered labor markets imply drastically reduced consumption for some time. This explains the renewed urgency of China's policy focus on shoring up unemployment insurance, welfare services, and a host of other measures to strengthen the shift to a future in which domestic consumption matters most.

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While industry has rebounded to some extent, consumption drives well over 50 percent of China's economy, and people stuck closer to home in early 2020. Rail passenger volume in China dropped a dramatic 86 percent from January to February. Mid-April subway traffic at nine major cities remained low, at about 60 percent of the same period last year. The Chinese technology company Baidu estimated that 20 percent of the working population had not returned to work into early April, based on data from the online platforms they run. These changes in Chinese household consumption provide an important window into which aspects of the national economy are being hit the hardest. Despite increases in online commerce in China, offline transactions still account for more than three-quarters of national retail consumption. According to a recent study by National University of Singapore Associate Professor Wenlan Qian and her colleagues that examined more than 200 cities in the two months following the Wuhan outbreak, China experienced a 42 percent decline in offline consumption

¹⁸ https://www.scmp.com/comment/opinion/article/3080897/china-may-be-heading-real-recession-unless -it-comes-forceful-policy.

on average, implying a 37 percent decrease in total consumption nationally and a drop of more than 1 percent in GDP during that brief period.¹⁹

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More important, the study showed that the composition of household consumption also changed. While the consumption of both goods and services declined at similar magnitudes (above 40 percent), the breakdown of goods consumed is revealing. The purchasing of daily necessities such as groceries and household items, as would be expected, fell the least, by about 18 percent. Discretionary spending (beauty goods, shoes, apparel, etc.) fell by double that at 36 percent. Durable spending on furniture, appliances, automotive related expenditures, and so forth, fell the most, suffering a 51 percent drop over the first two months. Certain services, of course, were hit hardest by mobility restrictions. Dining and entertainment fell by a massive 72 percent over the two-month period, and travel-related services declined by 64 percent.

Yet signs of recovery began to emerge early, even during the second month after lockdown. These points of recovery were evident in discretionary and durable goods in particular, and less so in travel-related and entertainment, which decreased by 80 percent in the second week and had much slower rebound rates. For example, daily necessities never dipped lower than a 30 percent daily drop in spending, then slowed to approximately a 15 percent drop by week 7 of the outbreak. Discretionary spending that had dropped by nearly 60 percent slowed to about 20 percent weekly declines by week 7. Durable goods consumption experienced nearly 90 percent weekly drops by week 3, and declines of 30 percent into week 7. Travel-related spending as well as dining and entertainment were still dropping around 60 percent weekly even in week 7.

In predicting China's future, we often turn to analogous periods of disease outbreaks in the region; SARS is often cited. Yet while some optimistic analysts point

¹⁹ Haiqing Chen, Wenlan Qian, and Qiang Wen, "The Impact of the COVID-19 Pandemic on Consumption: Learning from High Frequency Transaction Data," Working Paper. https://bfi.uchicago.edu/wp-content/uploads/Qian_ COVID-Consumption-200414.pdf.

to a rebound in Chinese household spending that occurred immediately after SARS, Chinese households are financially weaker this time around. According to the Japan Times, at the end of 2018, China's household debt-to-income ratio had grown to 92 percent, from 30 percent a mere decade ago.²⁰ This may result in delayed and depressed household consumption in the near term, and possible increases in consumer default rates. A two-week Bain & Company survey, that partially coincided with the recent Chinese New Year, found that almost half of the mainland-based executives surveyed (including leaders in the food, drink, and luxury goods industries) estimated that their first-quarter sales would drop more than 50 percent from their original forecasts.²¹

Yet while some optimistic analysts point to a rebound in Chinese household spending that occurred immediately after SARS, Chinese households are financially weaker this time around.

THE US: AN INDUSTRY RECOVERY INDEX

Let us now turn to the US, and implications for the shape of our own national economy, household consumption, and jobs recovery. The present job losses and potential recovery are distinct from those of prior recessions, largely because the losses were initially fueled by intentional intervention in the form of shelter-in-place orders for nearly all of the nation. A new model is therefore required to understand the shape of the post-pandemic economic recovery in the US.

To understand the losses and the potential for recovery in this new paradigm, we developed an industry recovery index for the US based on performance in past recoveries, recent economic performance, and the impact of physical distancing with specific emphasis on the recovery that we see underway in China. Each six-digit North American Industry Classification System industry was assessed on these factors to

²⁰ CEIC, China Economy in a Snapshot – Q2 2020.

²¹ https://www.bain.com/insights/chinas-consumer-industry-prepares-for-the-coronavirus-legacy/.

produce a weighted Phased Recovery Score between one and five. Given the staggering losses here in the US, many of which are indeed directly related to physical lockdowns and therefore temporary, the recovery will likely be quite volatile. At first, the industries that shed the most jobs, such as leisure and hospitality, will add jobs quickly though certainly not to pre-pandemic levels.

However, when the dust settles over the coming months, we believe that permanent job losses will largely track our recovery score.

The Phased Recovery Score is relative in nature; a lower score suggests a more rapid recovery than a higher one. Industries that score between one and two are predicted to be the fastest to return, regardless of vaccine development or second-wave impacts. These industries are largely comprised of essential businesses where work can be conducted outdoors or at distance; they were growing reasonably fast pre-pandemic and recovered quickly from prior recessions. The most resilient quartile (generally with a score of less that <2 in the index) of industries, which include technology firms, banks, insurance agencies, biotechnology and pharmaceutical companies, among others, employed 23.8 percent of all US workers in February 2020, and declined by a mere 3.5 percent cumulatively in March and April. This segment contributed 29.7 percent of 2019 US GDP. This sizable segment of the US economy appears mostly recession-proof, at least for the moment.

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At the other end of the spectrum—industries with a score of 4 to 5—are businesses likely shuttered by social distancing orders that rely heavily on traffic from the general public, were in decline pre-pandemic, and experienced long recoveries

after prior recessions. These industries, which will have significant growth challenges prior to widespread vaccination, represent 11.4 percent of all jobs but only 5.1 percent of GDP. Jobs in this segment represented only 11.4 percent of all jobs in February, but accounted for 36.2 percent of jobs lost in March and April, declining by nearly 43 percent during those months. Comparatively, this is the smallest segment of jobs and GDP, and highly concentrated in retail, hospitality, and tourism.

While the extremes provide valuable insight into the most and least impacted segments of the economy, the economic future for the vast majority of the economy by GDP and jobs will be highly dependent on the course of the virus and the associated policy responses. For this analysis, we have developed two scenarios. The first is a "best case" outcome with effective, widespread vaccine deployment in early 2021, no significant second wave of infections in the US, and continued fiscal and policy support, including extended unemployment insurance benefits. The second scenario assumes a second wave of infections at the end of Q3 2020 and delays in treatment and vaccination development and deployment, without significant additional policy interventions.

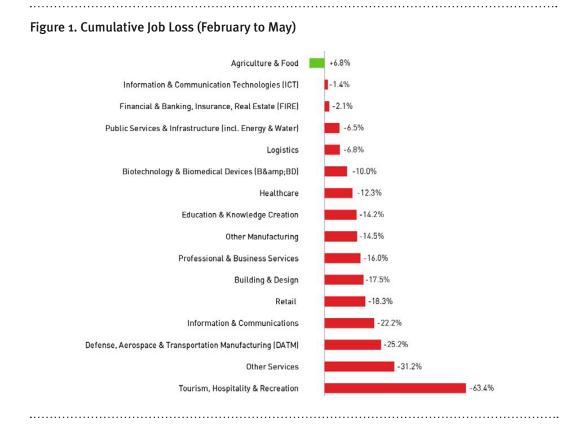
In the best-case scenario, the economy rebounds quickly and jobs return throughout the 3rd and 4th quarters. We assume a full rebound in the most resilient industries, scaling to a 70 percent employment rebound for the most deeply impacted industries pre-vaccine. This would result in a real unemployment rate of approximately 8 percent, or roughly double the rate in February 2020 and half of the rate in May. Given the evidence from China on mobility, together with challenges related to access to public transit, education, and childcare in the US, we see this scenario as overly optimistic. A more likely scenario includes extended, modified physical distancing throughout 2020 with localized hot spots of "second wave" activity, regardless of policies to reopen local economies. This scenario, which would mimic activity in Wuhan and other global hot spots, would have a much more significant impact on employment levels, though the increased knowledge regarding protective measures and political and societal pressure to maintain some mobility would allow for more economic activity than occurred during Q2 of 2020. Our prediction in this scenario is a year-end real unemployment rate of approximately 14 percent, about 2.5 percent lower than May 2020, which would extend into 2021 until a vaccine is widely deployed.

Our prediction in this scenario is a year-end real unemployment rate of approximately 14 percent, about 2.5 percent lower than May 2020, which would extend into 2021 until a vaccine is widely deployed.

At the industry level, COVID-related economic decline is impacting industry clusters in very different ways. According to unemployment filings and other analysis from the US Bureau of Labor Statistics, nearly all industry clusters have shed jobs as a result of shelter-in-place orders and mandatory business closures since February. However, as illustrated in the figure below, the tourism, hospitality, and recreation industry cluster was hit hardest, losing more than six out of every ten jobs across the nation. "Other services"—which includes sectors such as automotive repair and maintenance, personal care, waste treatment and disposal, transit systems, foundations, and nonprofit organizations—shed 31 percent of jobs compared to the February baseline. Remaining notable employment declines were experienced in both the defense, aerospace, and transportation manufacturing cluster as well as the more traditional information and communications cluster; these industry groups shed a respective 25 and 22 percent of jobs in two months (Figure 1).

OUR PATH TO "NEW NORMAL" IN EMPLOYMENT? Sobering Clues from China and Recovery

Scores for US Industry



Not surprisingly, the "first wave" job losses from March were largely composed of leisure and hospitality jobs, which represented 60 percent of all losses in that month. By April, all industry clusters across the US shed jobs, with only agriculture showing minimal cumulative gains since February's baseline (Figure 2).

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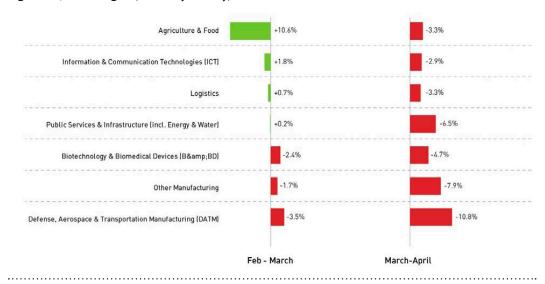


Figure 2. Job Changes (February to May)

FAST-RECOVERY VS. SLOW-RECOVERY INDUSTRIES

Applying the Phased Recovery Score to the industry cluster data provides detail on the industries most likely to bounce back, and those likely to see a more protracted recovery. Industry clusters including financial and banking, insurance, and real estate; healthcare; information and communication technologies; public services and infrastructure; and biotechnology and biomedical devices are predicted to see the quickest recovery once restrictive orders are fully lifted. In fact, these are the industry clusters that also experienced relatively fewer overall job losses (Figure 3).

Industry clusters including financial and banking, insurance, and real estate; healthcare; information and communication technologies; public services and infrastructure; and biotechnology and biomedical devices are predicted to see the quickest recovery once restrictive orders are fully lifted. In fact, these are the industry clusters that also experienced relatively fewer overall job losses.

It is important to note that by factoring in recovery from prior recessions, we are assuming some similar policy responses will be deployed in the current instance. The policy response in 2020 will therefore have a significant impact on recovery. Of particular note is the Public Sector and Infrastructure sector, which would benefit from public stimulus spending similar to the American Recovery and Reinvestment Act (ARRA) following the Great Recession. A policy response that does not include aid to state and local governments and infrastructure investments would result in a much slower recovery in the Public Sector and Infrastructure sector.

The five industry clusters that are expected to recover the fastest contribute nearly one-half of the national gross domestic product (GDP) but accounted for only a third of total jobs in 2019. According to the data, large segments of high-labor-intensity manufacturing, traditional information and communications, and retail, tourism, and hospitality jobs appear to be at risk in the longer term.

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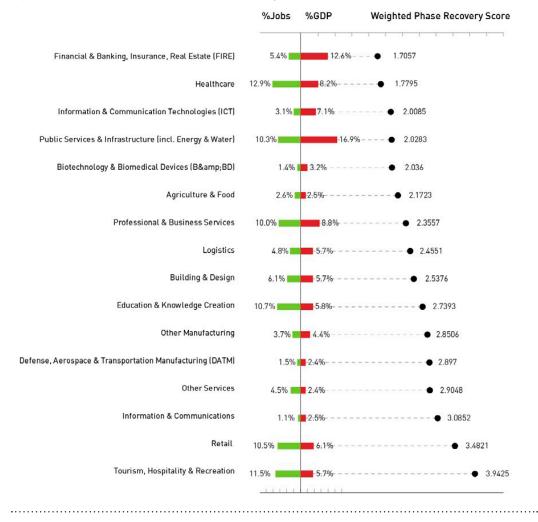


Figure 3. Jobs, GDP & Weighted Phase Recovery Rate

THREE TAKEAWAYS

The analyses in this paper provide several key takeaways. The first is that **this particular economic downturn is having a greater impact on employment than on GDP**. With the exception of healthcare, all of the fast-return industries contribute a greater share to the national GDP than to total employment. The two most negatively impacted

industries, leisure and retail/tourism/hospitality, contribute only 11.8 percent to GDP yet represent double that number of jobs—a total of 22 percent of national employment. This may mean that, similar to the Great Recession, the economic recovery from COVID could feel like a "jobless" recovery in the US. The second key takeaway is that **the US will likely experience an uneven jobs recovery that will further exacerbate the divide among rich and poor both nationally and regionally.** The five industries poised for rapid recovery are more focused on innovation, have higher densities in large urban areas, and employ more highly educated (and paid) talent. As is already evident in the unemployment filings, the pandemic is impacting lower wage, lower skilled workers more negatively. Wall Street has already returned to the same market levels that were enjoyed at the beginning of this year, in stark contrast to the current condition of the national jobs market.

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Third, **disparities are nearly certain to impact communities of color and women more severely**. Our understanding of the pandemic, its economic impacts, and solutions development must incorporate an equity lens.

A final caveat is that a great deal of uncertainty exists, and that policy decisions and the course of the virus will of course play significant roles in the shape and speed of the US economic recovery. Variation in state-level policy response may be even more dramatic, should a second surge emerge, rendering accurate labor data even more critical to such decision-making by local government. Making matters more difficult, dynamic states like Massachusetts, which are important drivers of the national economy, are caught between disparate pressures—and priorities. On the one hand, these leading states benefit economically from fast-recovery sectors such as biotechnology, but on the other hand they depend on the hardest-hit tourism and hospitality sectors for large numbers of the state's much-needed jobs. In the context of these key conclusions, local policymakers should be focused on five areas of policymaking.

FIVE POLICY RECOMMENDATIONS

Policy will play an important role in improving economic conditions. Unlike with prior recessions, stimulus alone will not be sufficient. The pre-vaccine COVID era will require more thoughtful and nuanced approaches to encourage an orderly and safe return to work. Effective policy interventions should also focus on equity. As ethnic and racial minorities have suffered disproportionate health and economic impacts of COVID-19, interventions should be designed to support Black, Latino, Native American, and other traditionally disadvantaged minorities. We recommend five key pillars to the policy response: infrastructure spending, business relief, education and training support, relief for state and local governments, and incentives to secure and localize supply chains for critical sectors.

Infrastructure stimulus is perhaps the best policy mechanism for creating jobs that can be conducted safely, at a distance or while wearing personal protective equipment, and for modernizing the US economy. The US relies on a mid-twentieth century infrastructure, and the stresses on its aged systems are most apparent in energy, water and wastewater, broadband and communications, and transportation. Infrastructure is a proven job creator, with an average of about 25,000 jobs created per billion dollars spent. These jobs can largely be performed outdoors and at distance, and are needed in every county in America. At the same time, investments in these infrastructure priorities reduce pollution, increase efficiency and resiliency, and foster greater economic development. Investment in infrastructure should ensure that economic and health benefits for low-income communities and communities of color will be prioritized, particularly if such investments are targeted in historically underinvested locations.

Business relief, particularly for businesses with high rent and other physical overhead costs, will be critical to reinvigorating the economy. COVID-19 stay-at-home orders significantly reduced mobility, and while mobility is on the rise as local economies reopen, many Americans report that they are still hesitant to eat inside of restaurants, go to the gym, or frequent other indoor facilities. So even as mobility rebounds in starts and fits, changes in underlying behavior may suppress consumption, and therefore job creation. While some companies can modify aspects of their business

models (online lessons, take-out ordering, etc.), they are continuing to carry high real estate costs during a time of significantly reduced revenue compared to 2019 levels. Relief for these businesses specific to office rent and other overhead line items will be important to minimize layoffs.

Another key policy intervention is to create talent accelerators across the country. Since 1980, economic mobility had been declining sharply, reaching a historic low in recent years. More than 40 million people lost their jobs, at least temporarily, at the height of the crisis. This disruption provides an opportunity to rethink our talent-development systems to be more equitable, nimble, and flexible, and to better align them with the skill requirements of the twenty-first century economy. Core elements of the plan would include developing pilot programs to create better mechanisms for identifying and assessing talent; ensuring more readily accessible on- and off-ramps for education and training; facilitating and improving online, remote K–16 learning; integrating work experience and experiential learning throughout the talent development system; and funding programs that eliminate barriers and develop strong networks and opportunities for entering the economic mainstream.

Steadying the American economy will clearly require significant relief to state and local governments. Tax revenues are down sharply and costs have risen dramatically to meet the needs of communities in lockdown. With more than a half-million public sector jobs lost in May alone, and a number of public schools now reporting teacher layoffs to balance their budgets during a time when children need all the teaching support they can receive, a failure to address the precarious financial position of our state and local governments could derail the overall economic rebound in the shortand medium-term, but also educational achievement in the long run.

Finally, the COVID crisis illustrates a need for more distributed and local supply chains. Healthcare, energy, food, and other critical items were frequently trapped in bottlenecks or challenged during the pandemic. A federal program to incentivize distributed, local production of mission-critical goods would create local jobs and ensure a secure supply chain of necessary goods.





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