



SECTOR IN-DEPTH

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Public Finance – US

Ability to address ESG risk will increasingly differentiate credit quality after pandemic

The effects of the coronavirus pandemic will leave municipal market issuers facing competing priorities in their efforts to address the growing challenges posed by environmental, social and governance (ESG) issues. The need to prepare for long-term future risks such as climate change will continue to grow, even as a more austere budget environment intensifies funding challenges. Increased public attention on social inequality issues, which have become more visible because of the pandemic, is likely to create demand for greater spending in some areas, such as social services, housing and healthcare, while the recession is constraining some revenue-raising options such as broad tax increases. Governments and institutions with the strongest governance will be best positioned to balance these tensions and maintain or strengthen their competitiveness and credit quality.

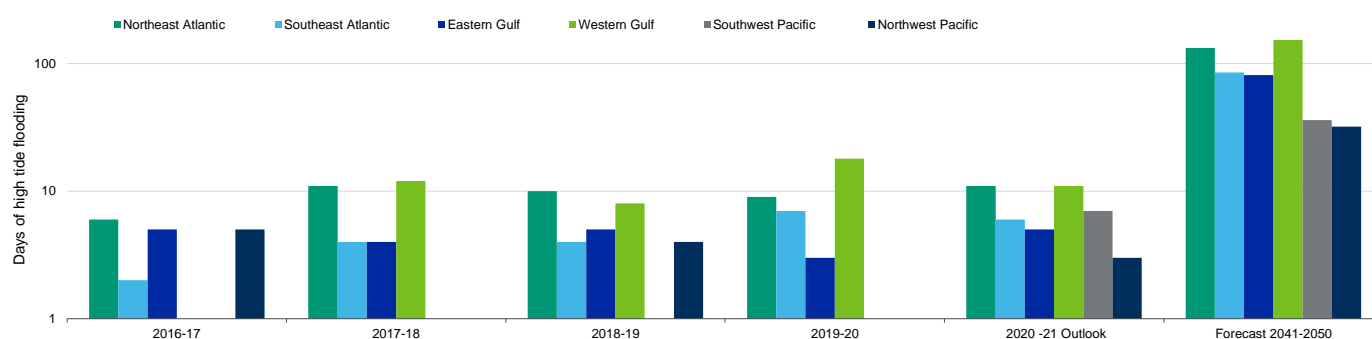
- » **Resources to address long-term risks such as climate change will be more constrained, but some projects cannot be deferred.** Large-scale capital projects to address climate risk will become even more difficult to finance because of slow revenue recovery and competing resource demands. Failure to execute such projects creates credit risk for governments and other institutions located in areas most exposed to climate change. Spending priorities are likely to increasingly reflect equality concerns, moving away from protecting areas with the highest property values and toward a more need-based allocation of resources.
- » **Social considerations will increasingly drive revenue and spending decisions.** A widening awareness of social inequalities is likely to shift spending patterns while reducing revenue-raising options. State and local governments face increasing pressure to spend more on social services, while broad-based tax increases will likely be more difficult to implement. Higher-education institutions face diminished revenue flexibility, including a more limited ability to raise tuition. Hospitals will spend an increasing amount of their resources on addressing health inequities in the communities they serve.
- » **Post-pandemic, governance will never be more crucial, or more challenging.** Public finance issuers face much more difficult operating conditions characterized by more limited resources and demands for increased services. For state and local governments, robust management, budgeting and planning processes will be key to prospering in this environment. In the higher-education sector, institutions with the ability to adapt to the rapidly changing environment stand to fare best. Issuers with strong governance will be best equipped to tackle social and environmental issues and thus have a competitive advantage.

Resources to address long-term risks such as climate change will be more constrained, but some adaptation projects cannot be deferred

Preparing for long-term environmental risks such as climate change will become more difficult for two reasons. First, revenue for municipal market issuers [will likely fall short of pre-pandemic levels for years](#) because of a slow recovery in employment and consumption following the coronavirus-driven downturn. Second, issuers are currently focusing resources on more immediate challenges such as healthcare and educational services. However, failure to prepare for environmental dangers creates long-term credit risks, and with the frequency of severe weather events, such as high tide flooding, increasing (see Exhibit 1), some costs cannot be deferred without serious negative consequences. Increased federal measures or support to locals, could fill some of the gap between state and local resources and need.

Exhibit 1

Flooding during high tide will increase for decades to come Median number of days annually of high-tide flooding by region



No bar indicates one day or less of high-tide flooding.

Source: NOAA Technical Reports 2016-2020, State of US High Tide Flooding

With [sea levels rising](#) rapidly, frequent flooding and storm surge pose a variety of risks. By 2020 every coastal state, most of their counties, and over 110 cities with populations greater than 50,000 will be impacted, according to estimates by Four Twenty Seven, a Moody's affiliate. The dangers include damaged property; economic disruptions from the temporary closure of businesses and roads; potential degradation of municipal infrastructure from long-term inundation of salt water; and the potential for out migration of businesses and residents. A number of West Coast states are also grappling with how to respond to wildfires that are growing in frequency and intensity.

If residents begin to increasingly view spending on climate change projects through a social lens, governments may shift not only how much is spent on preparedness but how they allocate resources. The traditional focus on protecting areas with the highest property values would likely move toward a greater focus on equitable allocation of resources.

State and local governments face a choice between proactively making significant investments in adaptation to climate risk or reacting to repair damage as events occur. Many governments are already undertaking, or planning for, adaptation projects. The city of [Miami Beach](#)'s (Aa2 stable) capital plan, for example, includes a \$500 million commitment for flood control projects funded by local taxes and an increase in stormwater fees, while neighboring [City of Miami](#) (Aa2 stable) has authorized \$400 million in bonds that will finance in part, flood prevention and adaptation to sea level rise. [New York City](#)'s (Aa2 negative) Plan to Climate Proof Manhattan has an estimated cost of \$20 billion.

The ability of state and local governments to fund adaptation projects will be critical to maintaining credit quality. [Falling interest rates benefit public finance sectors](#) by reducing the financing costs for capital projects, but revenue declines in the wake of the coronavirus mean some entities have far less capacity to support new debt. Deferral of projects are likely to be particularly detrimental to coastal and other areas with high exposure to consistent flooding, hurricanes or sea level rise.

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Governments will also have to balance rising debt levels against the risks of being unprepared. Over a multi-decade horizon, those risks include weaker economic growth, increased maintenance costs and lost tax revenue. Four Twenty Seven places nine cities in their highest risk category for sea level rise, including Miami Beach, Florida; [Jupiter, Florida](#) (Aaa stable); Kenner, Louisiana; Camden, New Jersey; [Bayonne](#), New Jersey (A3); [Galveston](#), Texas (Aa3 stable); Alameda, California; and [San Mateo](#), California (Aaa stable).

Reduced spending on climate adaptation poses risks to other sectors as well. In **housing**, an inability of governments to finance adaptation projects will be credit negative for stand alone multifamily properties located in areas that are exposed to climate risks. Similarly, **higher education** institutions in such locations face risks to their physical infrastructure and their competitiveness in attracting students. And in public infrastructure, the location of San Francisco International Airport (SFO) on the San Francisco Bay makes it one of the more exposed airports to flooding from sea level rise. The airport is currently protected against 3 feet of sea level rise. The [San Francisco Airport Commission, CA](#), (A1 stable) the airport's owner, intends to further mitigate risk by adding 5 more feet of protection.

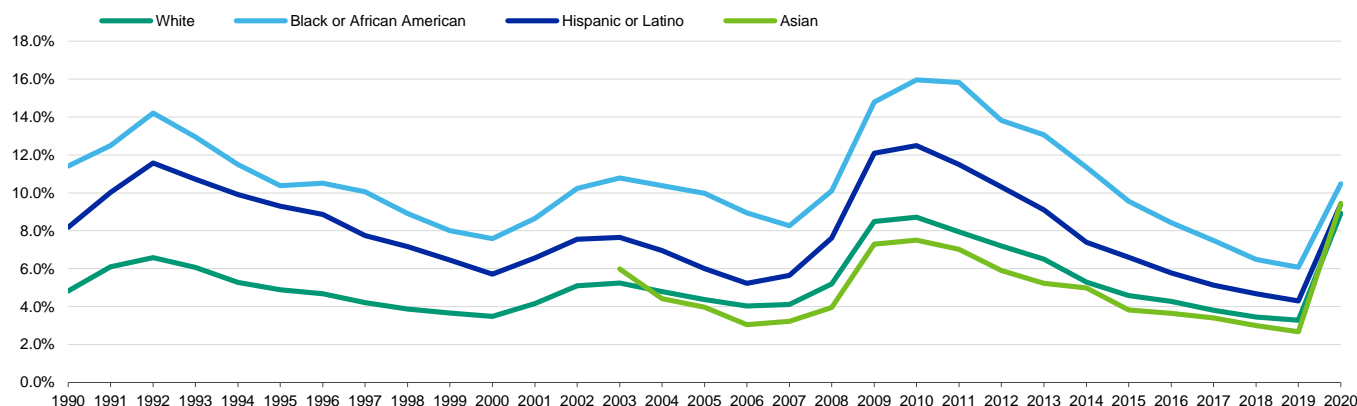
Increased social spending is a challenge if revenues are constrained

One likely legacy of the coronavirus is a realignment of spending priorities and a changing revenue mix. The pandemic has increased public attention on social and racial inequalities, spurring demand for higher spending in some areas, such as healthcare, and demands for cuts in others, such as policing. At the same time, however, the pandemic stands to constrain the revenue options available to finance any such changes.

The pandemic has highlighted inequality in US healthcare, with death and infection rates significantly higher among racial and ethnic minorities and lower-income populations.¹ The unemployment (see Exhibit 2) and poverty rates are also higher in these groups, following a long-term pattern. The rise in unemployment comes against a backdrop of growing income inequality that is at its [highest level in more than 50 years](#), as measured by the Gini coefficient (see Exhibit 3). Increasing use of technology for work or school during and after the pandemic is also likely to contribute to income inequality, since many lower-wage jobs are less amenable to remote work than higher-paying professions. Broadband access can also be a challenge for lower-income and rural populations.

Exhibit 2

Racial and ethnic minorities have consistently higher unemployment rates Historical unemployment by race

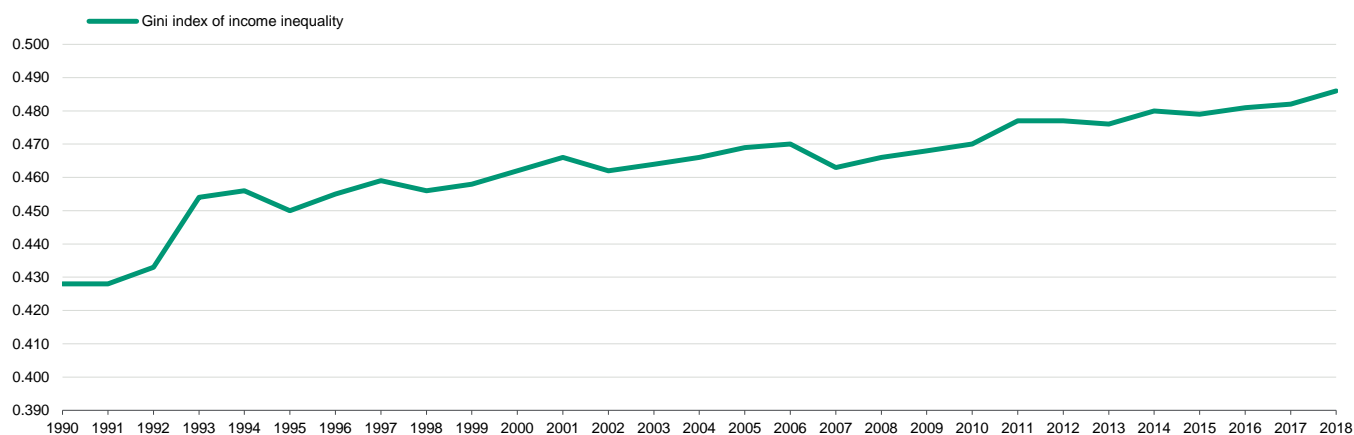


Source: Bureau of Labor Statistics

Exhibit 3

US income inequality continues to rise

The Gini coefficient ranges from 0-1 (zero representing perfect equality and 1 representing perfect inequality)



Source: US Census Bureau

These social trends present challenges for some **state and local governments**, which are coming under increasing pressure to spend more on social services, housing and healthcare than in the past. The shift in priorities is apparent in upcoming ballot and bond proposals (see Exhibit 4). The debate over shifting spending priorities is likely to continue for several budget cycles.

Exhibit 4

Recent large proposed bond issuances reflect shifting priorities

Government	Proposal
Detroit (City of), MI	Issue \$250M in bonds to demolish abandoned houses and rehab formerly vacant homes. Goals include reducing crime and expanding affordable housing.
San Francisco (City / County), CA	Issue \$487M in bonds focused on poverty, health and housing including creation on housing and shelter for homeless, mentally ill and drug-addicted people.
Dallas Independent School District, TX	Issue \$3.7 in bonds to address legacy of inequity and racism including creating neighborhood hubs in formerly redlined neighborhoods.
LA County, CA	Charter amendment to set aside a minimum of 10% of county's unrestricted funds for housing, jail diversion, mental health and social services and alternatives to incarceration.

Source: Moody's Investors Service

Governments will in some cases be able to partially offset new spending demands by reducing expenditures in other areas. For example, if the focus on inequality continues, political resistance to government outlays and tax incentives related to economic development is likely to increase, accelerating a trend that began before the pandemic. An example of large-scale public and political opposition to corporate tax incentives is Amazon's search in 2018-2019 for a location for its second headquarters, or HQ2. Amazon chose New York City as one of two HQ2 locations. However, opposition to corporate tax incentives grew and labor protests, caused the company to [retreat from its plans in the city](#). Subsequently, Amazon has continued to invest without the incentives, though at a smaller scale than originally envisioned. Opposition to incentives has grown in other localities, including Wisconsin's effort to attract a [Foxconn manufacturing facility](#).

Other social issues, such as calls to [reduce police spending](#), add to the shifting landscape. Widespread protests have called for reduced police spending and elimination of racial inequity in the criminal justice system. Some governments have already taken steps to reallocate funding within the next year. New York City and Boston are two of the larger governments which have reduced police funding in their fiscal 2021 budgets and intend to transfer some of these funds to either youth and social services or the public health commission.

Governments will likely be hesitant to implement broad tax increases to meet expenditure requirements at a time when residents are facing economic challenges. Instead, localities may use targeted and progressive taxes to fill revenue gaps, which would create volatility in collections. In [Illinois](#) (Baa3 negative), a state ballot initiative backed by the governor seeks approval for a graduated income tax

to target tax increases toward the highest earners, while officials from the [City of Chicago](#) (Ba1 stable) have made clear that a broad-based property tax increase is the least favored option to close its budget gap. [Dependence on high-income taxpayers creates volatility](#) because it exposes governments to swings in the income of the highest earners, which tends to fluctuate significantly.

Demographic and societal trends are likely to curb **higher education** revenue over the coming decade, with the sector facing lower enrollment growth along with a more limited ability to raise tuition. The number of traditional-aged students will be flat overall and decrease in several regions of the country, leading to declining enrollment for many colleges. A public policy focus on affordability risks constraining tuition-raising capacity, particularly as the sector serves a rising number of lower-income and first-generation students. Consumer preferences are likely to shift as students focus on return on investment and seek more flexible forms of credentialing, potentially leading to new forms of competition from nontraditional higher education providers. Serving a larger numbers of adult learners as the need for continuing education increases will provide offsetting growth for institutions nimble enough to adapt to changing market conditions.

Hospitals are likely to spend increasing time and financial resources addressing social determinants of health, as well as inequities in health outcomes and provision of care among different communities. Medicaid supplemental payments—a significant source of revenue and cash flow, particularly among safety net hospitals—increasingly depend on measures of outcomes and access. There is also a broader, multiyear trend among payors to push for more outcome/health-based measures in reimbursement contracts, part of a broader move away from pure fee for service. Hospitals face the prospect of a credit-negative shift in payor mix toward government payors if a coronavirus-induced recession results in significant job losses, because most individuals' insurance is tied to their job. The sector already faces a credit-negative shift toward increased Medicare as a result of the aging population; a shift to Medicaid from commercial would exacerbate this challenge.

As housing becomes [unaffordable in expensive cities and certain suburban locations](#), hospitals will likely invest in housing for key employees such as nurses – a credit challenge for hospitals in these areas, especially smaller organizations with fewer resources than larger competitors. Many hospitals have provided temporary housing (hotels) for employees during the COVID-19 crisis so employees will not risk infecting their families

Unemployment resulting from the coronavirus threatens to exacerbate the affordable **housing** crisis and bring the risk of increased homelessness, depending on the extent of intervention by federal and local governments. Slow wage growth combined with a very low supply of affordable rental and single family housing stand to intensify the challenges. Demand for state **housing finance agency** (HFA) products will likely remain very strong, but the lack of affordable housing in the market could reduce HFAs' ability to finance new housing.

Post-pandemic, governance will never be more crucial, or more challenging

If service demands continue to grow and resources weaken in the public finance sector, the favorable operating environment of recent years, characterized by generally growing revenue, will likely give way after the pandemic to more difficult conditions. In such an environment, institutions with the strongest governance and management practices and the fewest budgetary constraints will be better equipped than others to maintain credit quality and will be more competitive.

For **state and local governments**, robust budgeting and planning processes will be key. Revenue and expenses will be more unpredictable in the wake of the coronavirus, and governments that make overoptimistic assumptions in these areas, including the potential for federal support, risk making unplanned draws on reserves. Those that incorporate more conservative projections are more likely to maintain their financial positions and credit quality.

There are a multitude of budgetary practices that can be employed to enhance planning. For example, nonpartisan revenue-estimating processes are one mechanism used by many states and a handful of local governments, to promote the adoption of reasonable assumptions in budgets. The [City of Detroit](#) (Ba3 positive), for example, holds a revenue-estimating conference twice each year at which it establishes the revenue available to appropriate in the coming fiscal year. The voting principals at the conference are the city's Chief Financial Officer, the State Treasurer or designee and a third member that must be affiliated with another public entity. Another tool employed by state and local governments is multiyear budgets or long-range financial forecasts.

Institutional restrictions on revenue raising or on expense reductions create credit-negative legal constraints on options available to government officials. For example, many local governments are subject to statutory or constitutional restrictions on property taxes and other revenue sources. Some state governments are also subject to mandated spending, or restrictions on how they can use revenue resources. Pensions are another [rising risk](#) that constrain budgetary flexibility. According to the Federal Reserve, unfunded pension liabilities for state and local governments have risen to \$4.1 trillion, about 19% of GDP in 2019, from \$1.6 trillion, or roughly 11% of US GDP in 2007. Some governments, such as the [City of Dallas \(A1 stable\)](#) have succeeded in making changes to control costs. Others, such as those in Illinois, are subject to strict constitutional protections for pension benefits that limit their ability to make adjustments.

In addition to legal restrictions, governments face practical political limitations. Those able to garner cooperation between stakeholders will find it easier to shift spending priorities. Expenditure reductions often face hurdles that do not arise when considering spending enhancements. For example, implementing reductions to police budgets may be more difficult than adding resources for social services. Governments that can enact politically difficult cuts to meet new spending demands will fare best. Cooperation will also be key to establishing policies that encourage or mandate sustainable development, in order to combat the risks of sea level rise and wildfires.

Increasing resources to combat cyberattack threats is another governance challenge. As remote working and learning and day-to-day digital activities all grow during the pandemic, the number of cyberattacks continue to climb. Some entities already have cyber risk awareness and have created defense and mitigation measures. However, many governments, institutions and schools face the need to establish added security and protections, which creates further budgetary strain.

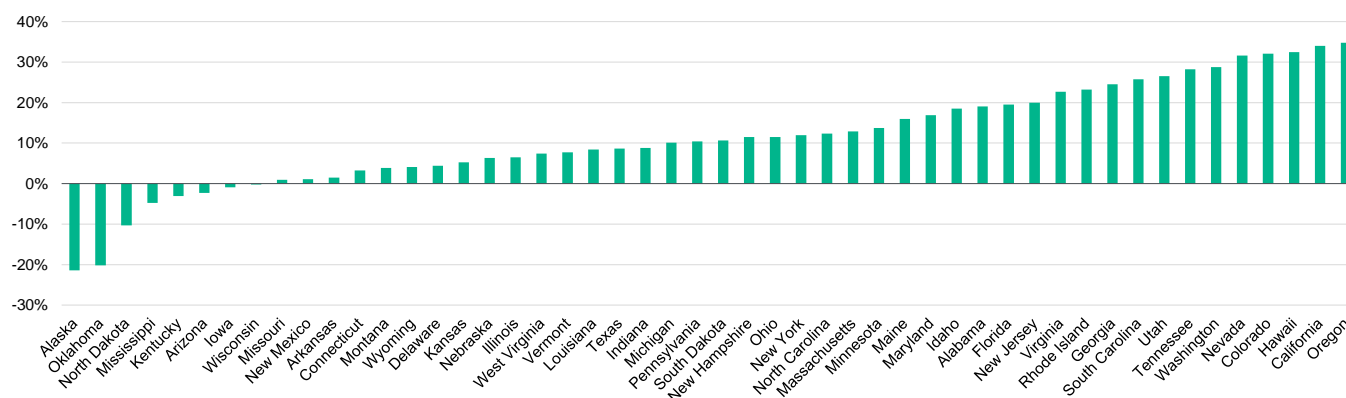
Effective governance stands to play a crucial credit role in **higher education**. Institutions that embrace the sector's rapidly changing landscape and evolving student demands will fare better after the pandemic than those that are less adaptable. Shared governance between institutions and state governments has historically led institutions to change slowly. The ability to effectively assess market demand, shift programs to respond to consumer preferences, and efficiently manage labor costs will be key to post-pandemic competitiveness and financial strength.

An institution's ability to manage government relations is critically important because state governments are the largest funders of higher education and are likely to tie funding more and more to accountability measures. State policymakers are increasingly demanding that the sector meet policy objectives such as access for diverse student populations and the attainment of positive student outcomes in retention, graduation and job placement. At the same time, colleges and universities are under increasing pressure to maintain affordability. State support varies greatly, with 15% of states reducing funding in the five years before the pandemic, when there was a strong economy (see Exhibit 5).

Exhibit 5

State support for higher education varies greatly

Change in per capita state support for higher education from 2015 to 2020



Source: Moody's Investors Service, US Census Bureau, US Bureau of Economic Analysis

Human capital remains another credit constraint for higher education institutions. The sector employs a specialized and costly labor force, with tenure and unions historically limiting the ability to adjust workforces quickly to respond to changing consumer preferences

and enrollment shifts. Technology provides a pathway to developing more flexible, scalable and cost-effective delivery models but will require investment, squeezing budgets in the short term. Large-scale change is likely to face cultural resistance.

For **HFAs**, management teams will need to work with their servicers to address the increase in loan forbearance – and eventual delinquencies and foreclosures – resulting from the pandemic. They must also effectively communicate with their partner governments to ensure that housing subsidies and programs continue to be made available in order to address the need for affordable housing in the wake of the pandemic.

Hospitals that devote board and senior management attention to social considerations – particularly those at the nexus of reimbursement contracts – will be better prepared. Reimbursement contracts increasingly incorporate outcome-based measures, and Medicare penalizes hospitals that perform worse than peers on several measures, including excessive readmissions. Many outcome-based measures are also aimed at achieving better utilization management, such as driving down the use of duplicative tests and procedures. Often this means fewer office visits, admissions or tests, which is difficult to manage in a fee-for-service environment. Lastly, hospitals face human capital challenges from nursing shortages and physician burnout. Hospitals in rural areas and those that don't have relationships with local nursing schools will likely struggle to compete for talent.

Across the public finance sector, incentives to attract businesses, population, students and customers are poised to shift. For example, the competition between governments to attract employers has been fierce in recent years. Traditionally, localities sold themselves by focusing on a talented workforce, the strength of their transportation infrastructure and school systems, as well as the cost of doing business, such as the tax burden and economic incentives. In the future, some localities might increasingly compete through preparedness and governance. Businesses might begin to seek out localities that have successfully combated the coronavirus pandemic or those that have implemented climate adaptation plans.

Hospitals' success in improving health outcomes will take on increasing competitive importance. Insurance companies, large employers and other stakeholders are demanding increased accountability for health outcomes and shifting greater amounts of reimbursement away from traditional fee for service and toward reimbursement models that incentivize outcomes. Over time, this would shift market share toward the highest-performing organizations and away from smaller hospitals with weaker outcomes.

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Endnotes

- 1 Centers for Disease Control and Prevention, Healthy Equity Considers and Racial and Ethnic Minority Groups, Updated July 24, 2020

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