DEPARTMENT OF TRANSPORTATION

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INTRODUCTION

America needs transportation that is more abundant and affordable as well as dignified, accessible, and family friendly. Transportation plays a vital role in the prosperity and flourishing of the United States. Americans use trucks, tankers, and trains to keep our supply chains running and cars, transit, and planes to go where we want to go.

Two hundred and forty years ago, Adam Smith recognized that connections were a bedrock of society because they stimulate specialization, innovation, and capital investment. In the following decades, America's growth was made possible by transportation—first ports and transatlantic shipping, then roads, canals, and eventually railroads pushing westward to create the nation we call home. Access to transportation is part of what made our country great.

The U.S. Department of Transportation (DOT), with a requested fiscal year (FY) 2023 budget of \$142 billion, was originally intended simply to provide a policy framework for transportation safety, rulemaking, and regulation. However, it has evolved to believe that its role is "to deliver the world's leading transportation system" — that is, to select individual projects and allocate taxpayer funds in the actual planning, developing, and building of transportation assets. Such a role is held more appropriately by transportation asset owners: primarily states, municipalities, and the private sector.

In addition to providing a safety and regulatory framework through its 11 subcomponents, known as modes, the department has become a de facto grantmaking and lending organization. DOT provides approximately \$50 billion in discretionary

and formula grants, known as obligations, annually in areas ranging from transit systems to road construction to universities and has lent or subsidized more than \$60 billion since the Transportation Infrastructure Finance and Innovation Act (TIFIA) program,³ now managed by the Build America Bureau, was created in 1998. This evolved role as a major, and often primary, funding and financing source is far from the department's original policy framework. It also removes incentives for state and local officials to ensure that investments are worthwhile, because federal money removes the need to get public buy-in to build and maintain infrastructure projects as funding becomes "someone else's money."

Despite the department's tremendous resources, congressional mandates and funding priorities have made it difficult for DOT to focus on the pressing transportation challenges that most directly affect average Americans, such as the high cost of personal automobiles, especially in an era of high inflation; unpredictable and expensive commercial shipping by rail, air, and sea; and infrastructure spending that does not match the types of transportation that most Americans prefer. Transforming the department to address the varied needs of all Americans more effectively remains a central challenge.

DOT is particularly difficult to manage because its 11 major components—nine modal administrations, the Office of the Secretary, and the Office of the Inspector General—all have their own sets of personnel including administrators, deputy administrators, chiefs of staff, and general counsels. Most grants flow through the modes, such as the Federal Highway Administration, Federal Transit Administration, and Federal Aviation Administration.

The Office of the Secretary contains its own grantmaking operation that funds research and some special grants, as well as a major lending operation, the Build America Bureau, that functions as an infrastructure bank. The Office of the Secretary has department-wide offices for such functions as Budget and Financial Management, the General Counsel, Policy, the Office of Research and Technology, Government Affairs, Administration, the Office of the Chief Information Officer, Small and Disadvantaged Business Utilization, Public Affairs, Drug and Alcohol Policy and Compliance, and Civil Rights. The modal administrations include the:

- Federal Aviation Administration (FAA);
- Federal Highway Administration (FHWA);
- Federal Railroad Administration (FRA);
- National Highway Traffic Safety Administration (NHTSA);
- Federal Transit Administration (FTA);

- Great Lakes St. Lawrence Seaway Development Corporation (GLS);
- Maritime Administration (MARAD);
- Federal Motor Carrier Safety Administration (FMCSA); and
- Pipeline Safety and Hazardous Material Administration (PHMSA).

DOT's fundamental problem is that instead of being able to focus on providing Americans with affordable and abundant transportation, it has become saddled with congressional requirements that reduce the department to a de facto grant-making organization. Yet there is little need for much of this grantmaking, for two reasons:

- New technology enables private companies to charge for transportation in many areas, which could transform how innovation is financed. It is vital to consider the role of user fees and other pricing innovations with regard to transportation infrastructure. Airport landing fees for aircraft, toll charges on roads and bridges, and per-gallon taxes on gasoline and diesel fuel are all examples of user charges that affect the decisions of transportation system users. These changes could shift our nation's transportation away from being a top-down system that is misaligned with the needs of so many Americans. Increasing private-sector financing could revolutionize travel and increase everyday mobility to its greatest potential in a way that Americans prefer. Doing so would keep transportation decisions out of the hands of bureaucrats in Washington, D.C., who are far removed from local problems and preferences.
- If funding must be federal, it would be more efficient for the U.S. Congress to send transportation grants to each of the 50 states and allow each state to purchase the transportation services that it thinks are best. Such an approach would enable states to prioritize different types of transportation according to the needs of their citizens. States that rely more on automotive transportation, for example, could use their funding to meet those needs.

Meanwhile, many Americans continue to confront serious challenges with their day-to-day transportation, including costs that have increased dramatically in recent years. DOT in its current form is insufficiently equipped to address those problems. DOT's discretionary grant-making processes should be abolished, and funding should be focused on formulaic distributions to the states, which know best their transportation needs and are incentivized to think of the

long-term maintenance costs. At a bare minimum, the number of grants should be consolidated.

DOT would also reduce unnecessary burdens by returning to the Trump Administration's "rule on rules" approach to regulations, implemented in late 2019 as RIN 2105-AE84.⁴ This rule strengthened the Administration's effort to remove outdated regulations, find cost-saving reforms, and clarify that guidance documents are in fact guidance rather than mandatory impositions. The Biden Administration unwisely moved away from this reform, and the next Administration should revive it without delay.

BUILD AMERICA BUREAU

The Build America Bureau (BAB) resides within the Office of the Secretary and describes itself as "responsible for driving transportation infrastructure development projects in the United States." This lofty-sounding goal in practice means that the Bureau serves as the point of contact for distributing funds for transportation projects in the form of subsidized 30-year loans. For higher-quality projects and in certain circumstances, these government loans may disintermediate the private sector from providing similar financing, albeit at higher costs.

At certain times in the economic cycle, and for many lower-quality projects with more dubious economic return, similar loans from the private sector are simply not available. Should the BAB continue to exist and potentially disintermediate the private financing sector, it must maintain underwriting discipline and continue best practices of requiring rigorous financial modeling and cushion for repayment of loans in a variety of economic scenarios. In addition:

- The BAB should ensure that these loans do not become grants in another
 form by maintaining the requirement that all project borrowers be rated
 at least investment grade by the major ratings agencies and that project
 sponsors remain liable to ensure that all financing is repaid, even in periods
 of financial stress and economic downturns.
- Project sponsors should be required to show that projects have positive
 economic value to taxpayers, and sponsors should guarantee that all federal
 financing will be repaid through properly structured loan terms, including a
 minimum equity commitment from all project sponsors.
- All projects should also be required to show repayment ability in various
 interest rate environments, and the BAB should ensure that long-term loans
 are structured appropriately with regard to the fixing of interest rates and
 hedging of interest rate risk on the part of the borrowers to avoid financial
 stress or default driven solely by rising interest rates.

- Policymakers should maintain awareness and promote transparency regarding the continued existence of this loan program and whether private financiers are being disintermediated by the subsidized BAB lending that the private sector simply cannot match.
- A cost-benefit analysis of the federal government's potential replacement and disintermediation of the private financing sector regarding infrastructure loans, which is not currently performed, should be conducted on a regular basis.

PUBLIC-PRIVATE PARTNERSHIPS

Much infrastructure could be funded through public–private partnerships (P3s), a procurement method that uses private financing to construct infrastructure. In exchange for providing the financing, the private partner typically retains the right to operate the asset under requirements specified by the government in a contract called a concession agreement. In addition, the private partner is given the right either to collect fees from the users of the asset or to receive a periodic payment from the government conditioned on the asset's availability: If a highway is not open to traffic when it should be, for example, the government's payment to the private concessionaire is reduced.

The best practice for a government that is interested in using a P3 to deliver a project is for the government first to perform a value-for-money study, which compares the costs and benefits of procuring the asset under a typical procurement against the costs and benefits of utilizing a P3. Since private equity is involved, the financing costs for P3s are higher, but they also are frequently more than offset by the private sector's ability to generate efficiencies and cost savings in the design, construction, maintenance, and operation of the asset. If the value-for-money study finds that the efficiencies of a P3 and the value of risk shifted to the private sector exceed the additional financing costs, then utilizing a P3 is good public policy because Americans have better infrastructure at a lower cost.

As well as providing better transportation facilities for Americans, P3s offer a number of benefits to governments. Specifically, they:

- Provide access to some of the world's best talent with vast experience in delivering infrastructure,
- Create incentives for innovation and creativity,
- Shift unique project risks to companies that are familiar with those risks, and

 Allow designers, contractors, and maintenance teams to work together through the delivery of the process to focus on lifecycle costs as opposed to just initial design and construction costs.

It should be noted that project funding and P3s are not synonymous. Policy-makers and government leaders frequently mistake the financing that P3s provide for funding. A P3 allows the government to obtain equity from the private sector, but that equity has to be paid back with interest. Like a loan, a P3 can be used to accelerate revenues and provide needed capital to help pay the upfront costs of a project, but also like a loan, the private P3 investors must be paid back for investors to realize a financial return.

Some mistakenly think that using a P3 would allow a road or bridge to be delivered without increases in tolls or taxes. It is important to remember that all funding for governmental infrastructure comes from either taxes or user fees. P3 financing can be used to make those funding sources more efficient, but it cannot replace the need for taxes or user fees to provide the funding for the project.

In addition, a poorly managed P3 procurement process (the process government uses to identify the best private P3 partner) can result in excessive consultant costs and years-long delays in delivery. While P3s can offer efficiencies in delivering the project, the P3 procurement process itself can be significantly longer and more expensive than traditional procurement processes.

Finally, and possibly most important, a P3 gives a private party the ability to collect fees or payments over decades (a period well beyond the length of the careers of the political appointees who sign contracts with private parties). Thus, P3s create an opportunity for current governmental leaders to obtain a higher upfront payment from the private party in exchange for greater user fees paid by future generations who will use the asset. In other words, a governmental CEO (governor, mayor, head of an authority) can use a P3 to impose unnecessarily high costs on users decades in the future in exchange for upfront cash. It is important that contracts be transparent in order to minimize this possibility.

A P3's greatest public value is realized when the procurement model is used for a project that is unusually risky or a type of project with which the government has limited experience such as a tunnel or light rail line. P3s are an excellent tool for transferring risk from the public sector to the private sector and can create considerable value for the taxpaying public. However, a high degree of expertise is required to ensure that the risk transfer warrants the higher financing and procurement costs that P3s impose.

EMERGING TECHNOLOGIES

As private companies develop a future of new, emerging technologies, one role for DOT is driving clarity in the government's role and setting standards for safety,

security, and privacy without hampering innovation. DOT can oversee the testing and deployment of a wide variety of new technologies, allowing communities and individuals to choose what best fits their needs. It is the role of the private sector, not the government, to pick winners and losers in technology development. If a technology underperforms, the private sector should be liable, not the government.

The department should ensure a tech-neutral approach to addressing any emerging transportation technology while keeping safety as the number one priority. As part of this, it should work to facilitate the safe and full integration of automated vehicles into the national transportation system. Over time, these advanced technologies can save lives, transform personal mobility, and provide additional transportation opportunities—including for people with disabilities, aging populations, and communities where car ownership is expensive or impractical.

NHTSA's and FMCSA's current regulations were written before the advent of automated vehicles and driving systems. Both operating administrations have issued Advance Notices of Proposed Rulemakings (ANPRMs) that begin the process of updating their regulations to reflect this new technology. However, these regulations have stalled under the Biden Administration, which has chosen to use the department's tools to get people to take transit and drive electric vehicles instead of helping people to choose the transportation options that suit them best.

- NHTSA should work to remove regulatory barriers by focusing on updating vehicle standards as well as publishing performance-based rules for the operations of automated vehicles (AVs).
- FMCSA should work to clarify the regulations to align with DOT's AV 3.0 guidance, which would allow the drivers to be safely removed from the operations of a commercial motor vehicle.

From a nonregulatory point of view, DOT has pivoted from a successful focus on the voluntary sharing of data to improve safety outcomes to adoption of a more compulsory and antagonistic approach to mandating data collection and publication through a Standing General Order related to automated vehicles. This needs to be reversed.

Many of these new and innovative technologies rely on wireless communications that depend on the availability and purchase of radio frequency spectrum, a trend that is consistent with what we see in connectivity in our everyday lives. There is a role for DOT in ensuring that in the fight over spectrum, transportation gets its fair share.

For technologies to work in transportation, and in particular to work for transportation safety, they have to meet the unique needs of a transportation

environment. They need to account for rapidly moving and out-of-line-of-sight vehicles as well as pedestrians, bicyclists, and other road users. They should account for the potential for radio interference, and they should address security.

This is why in 1999, in response to a request from Congress, the Federal Communications Commission allocated the 5.9 GHz band of spectrum to traffic safety and intelligent transportation systems (ITS). In 2020, the FCC took away 45 MHz of the 75 MHz it had added, leaving only 30 MHz for transportation safety and ITS. DOT needs to represent the transportation community and make the case for needed spectrum to the public and Congress.

CORPORATE AVERAGE FUEL ECONOMY (CAFE) STANDARDS

One reason for the high numbers of injuries on American roadways is that national fuel economy standards raise the price of cars, disincentivizing people from purchasing newer, safer vehicles.

Congress requires the Secretary of Transportation to set national fuel economy standards for new motor vehicles sold in the United States. This mandate was established in the Energy Policy and Conservation Act of 1975 (EPCA),⁶ a law passed in the wake of the Arab oil embargo to promote greater energy efficiency and lessen the national security threat of U.S. dependence on foreign oil. The statute directs DOT to prescribe the "maximum feasible" mileage requirements for different categories of internal-combustion engine (ICE) automobiles for each model year. The standards must be achievable using available ICE technologies running on gasoline, diesel fuel, or similar combustible fuels and must not be set so high as to prevent automakers from profitably producing new vehicles at sufficient volume to meet consumer demand.

Congress recognized that the ICE-powered automobile has been instrumental to advancing the mobility and prosperity of the American people and that the domestic mass production of new ICE vehicles generates millions of jobs and remains critical to the overall health of the U.S. economy and the strength of the nation's industrial base. Accordingly, Congress took care to ensure that the mileage requirements issued by DOT would not undermine the vitality of America's auto industry or interfere with the market economics that drives consumer demand for new vehicles.

This rulemaking authority, which has been delegated by the Secretary to the National Highway Traffic Safety Administration, is exclusive to DOT. EPCA expressly preempts states from adopting or enforcing any different requirement "related to fuel economy standards" for new motor vehicles. While the statute instructs DOT to consult with the Department of Energy and the Environmental Protection Agency (EPA) in formulating its standards, no other federal agency, including EPA, has clear authority to set fuel economy requirements in place of NHTSA. The Clean Air Act⁷ gives EPA general authority to establish emissions

limits for new motor vehicles for air pollutants that are found to pose a danger to humans. However, there is no reason to believe Congress ever contemplated that EPA's authority to address automotive air pollution might be used to displace or supersede NHTSA's fuel economy mandate under EPCA.

Congress chose to assign the power to set fuel economy standards to DOT rather than EPA. This was not only because DOT understands the technologies and economics of the auto industry, but also because NHTSA is the nation's leading motor vehicle safety regulator, and Congress sought to ensure that fuel economy requirements would not adversely affect highway safety. Unfortunately, the Biden Administration has flouted these statutory limitations in nearly every respect. The predictable result is higher expected transportation costs for Americans.

- In pursuit of an anti-fossil fuel climate agenda never approved by Congress, the Biden Administration has raised fuel economy requirements to levels that cannot realistically be met by most categories of ICE vehicles. The purpose is to force the auto industry to transition away from traditional technologies to the production of electric vehicles (EVs) and compel Americans to accept costly EVs despite a clear and persistent consumer preference for ICE-powered vehicles. In further support of this agenda, federal regulators administer a scheme of generous fuel economy credits that subsidize EV producers such as Tesla at the expense of legacy automakers.
- Moreover, and contrary to Congress's design, the Biden EPA has been
 given preeminence in the regulation of fuel economy through the setting
 of carbon dioxide emissions limits for new motor vehicles under the Clean
 Air Act. Because carbon dioxide emissions levels correspond to mileage
 in automobiles powered by fossil fuels, these EPA rules are de facto fuel
 economy requirements that apply independently of NHTSA's standards.
- The Biden Administration has also granted California a special waiver under the Clean Air Act that permits the California Air Resources Board (CARB) to issue its own fuel economy directives, notwithstanding EPCA's prohibition on state standards. Under this waiver, CARB has ordered automakers to phase out the sale of ICE-powered automobiles in California and transition to the production of zero-emission vehicles by 2035. The Clean Air Act allows other states to follow California's requirements; thus, CARB is effectively determining fuel economy policies for the entire nation.

As a result of these regulatory actions, automobiles will be significantly more expensive to produce, there will be fewer affordable new vehicle options for American families, and fewer new vehicles will be sold in the U.S. That will do more than

translate into a loss of auto industry jobs for American workers: It will also mean a significant increase in traffic deaths and injuries. As fewer new cars are purchased, the price of used cars will rise, and more Americans will be left driving older cars, which traffic statistics show are much less safe than newer vehicles. NHTSA itself has acknowledged that the Biden Administration's fuel economy standards will generate hundreds of additional fatalities and thousands of additional injuries on U.S. highways. Because older cars also produce more harmful air pollution, the aging of America's fleet will also have negative consequences for air quality.

In addition, the Biden Administration's efforts to accelerate EV sales by regulatory fiat work against the national security interests of the United States in contravention of Congress's goals under EPCA. Increasing the production of EVs will make the U.S. more dependent on China and other foreign countries that control the supply and processing of rare earth minerals that are needed for EV batteries. And the faster deployment of EVs will put a major strain on America's vulnerable power grid, requiring large investments in critical infrastructure and a big boost in the nation's electricity production, including from gas-fired and oil-fired power plants.

In exchange for all of these harmful effects—on traffic safety, consumer choice, American jobs, the nation's air quality, and U.S. national security—the Biden fuel economy regulations are predicted to have no meaningful effect on global temperature trends over the long term.⁸

The next Administration must return the federal fuel economy program to the limits established by Congress. The standards issued by NHTSA must be reset at reasonable levels that are technologically feasible for ICE automobiles and consistent with an increase in domestic auto production and healthy growth in the sale of safer and more affordable new vehicles. To achieve these goals, the next Administration should:

- Reduce proposed fuel economy levels. The Administration should consider returning to the minimum average fuel economy levels specified by Congress for model year 2020 vehicles: levels aimed at achieving a fleet-wide average of 35 miles per gallon. Consideration should be given to maintaining the standards at those levels for the near term in order to promote the objectives laid out by Congress.
- Ensure that DOT again exercises priority in the setting of fuel economy standards. Any EPA limits on carbon dioxide emissions, even if authorized under the Clean Air Act, must support and work in harmony with DOT standards and must not override them or usurp DOT's regulatory role under EPCA. For example, EPA could regulate air conditioning systems and leave engine standards to DOT.

• Revoke the special waiver granted to California by the Biden Administration. California has no valid basis under the Clean Air Act to claim an extraordinary or unique air quality impact from carbon dioxide emissions, and EPCA is clear that under no circumstances may a state agency regulate fuel economy in place of DOT. The federal government should therefore exercise its preemptive authority over CARB and take all steps necessary to invalidate any inconsistent fuel economy requirements imposed by CARB, including its ban on sales of internal combustion engines.

FEDERAL HIGHWAY ADMINISTRATION

The Federal Highway Administration (FHWA) has jurisdiction over the interstate highway system, which is vital for the transportation of goods and people throughout the country. The FHWA, in conjunction with state DOTs, works to ensure the quality and safety of highways and bridges.

However, over the course of decades, presidential Administrations and Congress have caused the FHWA to go beyond its original mission. The variety of infrastructure projects now eligible for funding through the FHWA include ferryboat terminals, hiking trails, bicycle lanes, and local sidewalks. In many cases, such projects should be the sole responsibility of local or state governments, not dependent on FHWA funding. For local projects, federal involvement adds red tape and bureaucratic delays rather than value.

The Biden Administration has broadened the FHWA's scope by emphasizing the priorities of progressive activists instead of pursuing practical goals. These policies include a focus on "equity," a nebulous concept that in practice means awarding grants to favored identity groups, as well as imposing obligations on states concerning carbon dioxide emissions from highway traffic—areas not encompassed within FHWA's statutory authorities. Furthermore, the Biden Administration's embrace of the "Vision Zero" approach to safety often means actively seeking congestion for automobiles to reduce speeds. Finally, the Administration has sought to use a "guidance memo" to impose policies not enacted by Congress, most notably to make it harder for growing states to expand highway capacity. Instead, the next Administration should:

- Seek to refocus the FHWA on maintaining and improving the highway system.
- Remove or reform rules and regulations that hamper state governments.
- Reduce the amount of federal involvement in local infrastructure decisions.

AVIATION

Americans value the ability to travel safely and inexpensively by air. In the United States, the private sector has developed the world's safest, most effective passenger and cargo air transport networks. Current policies threaten to undo that legacy and to strangle the development of new technologies such as drones and "advanced air mobility," including small aircraft to serve as air taxis or to conduct quiet vertical flights.

Starting in the 1970s, deregulation and increased competition turned air travel from a luxury to an affordable travel option enjoyed by most Americans. The United States has four major airlines, each with roughly 20 percent of the domestic market. They compete with each other over the vast majority of routes. Several smaller carriers provide additional competition and other options for travelers.

The current Administration's policies are self-contradictory. In order to placate specific labor groups, the Biden Administration not only opposes the growth of the major airlines, which would reduce the price of air travel, but also opposes measures—such as low-fare foreign competition and joint ventures of smaller U.S. carriers—that would increase competition.

Another problematic area is aviation consumer protection. Congress has authorized DOT to prohibit specific "unfair and deceptive practices" in the airline industry after undertaking a hearing process—authority exercised by the Office of Aviation Consumer Protection within the General Counsel's Office. Beginning with the Obama Administration, this authority has been used to justify broad new regulations—in the name of achieving "fair" competition—that would impose burdensome disclosure mandates and other costly requirements without a sufficient process for gathering supporting evidence. The Trump Administration reformed the process for issuing such "unfair and deceptive practices" rules,9 but the Biden Administration promptly reversed those reforms.¹0 A new Administration should restore them.

In general, the next Administration should focus its efforts on making air travel more affordable and abundant, increasing safety, increasing competition to benefit the flying public, and removing obstacles to the rapid deployment of emerging aviation technologies that hold the promise of improved safety, competition, opportunity, and growth. To achieve a more level playing field and increase options for the traveling public, the next Administration should:

- Publicly indicate that a new Administration would support jointventure efforts by smaller carriers (for example, Jet Blue and Spirit) to achieve scale necessary to reduce costs and compete more effectively with the larger carriers.
- Review foreign ownership and control limitations and, if necessary, work with Congress to change existing statutes. Worldwide investors

are providing access to capital to foreign airlines for innovations and new equipment purchases that U.S. airlines cannot match. The U.S. should use the Committee on Foreign Investment in the United States (CFIUS) process to keep out nefarious foreign actors while allowing investment from investors in designated like-minded countries so long as U.S.-based investors maintain plurality ownership.

- Establish a New Entry Initiative that commits the federal government to approving or rejecting the applications of new air carriers within 12 months.
- Initiate a rulemaking to allocate slot-pairs more consistently to airlines at capacity-controlled airports on the primary basis of safety, maximizing capacity, and competition.

In a perfect world, the market would dictate these options, but in the highly regulated international aviation sector, the current incentives are to keep out competitors. Slot regulations have not been updated since the 1990s.

Well-meaning legislation and the pilot shortage are adversely affecting aviation safety. In the wake of the 2009 Colgan Airlines crash, all commercial pilots and copilots were required to have 1,500 flight hours. Today, facing a pilot shortage, larger and safer twin-engine planes with two pilots are being phased out of service at smaller airports and replaced by single-engine planes that have only one pilot. This trend could be reversed if copilots were required to have fewer flight hours or could count certified simulator training.

Federal subsidies are also distorting the commercial market. The Essential Air Service (EAS) program subsidizes flights to 200 small airports that are not otherwise commercially viable. The program was established in the 1970s as a temporary measure to cushion deregulation. It has since been made permanent. Finally ending the program would free hundreds of pilots to serve larger markets with more passengers. A new Administration could reform regulations to encourage airports in lower-served areas of the nation.

International air travel is regulated and restricted by individual treaties between the United States and other countries. The new Administration should remain committed to the laudatory goal of "Open Skies." However, many of the largest emerging markets are not fully open, and our aviation policies should reflect that reality and ensure that U.S. air carriers compete on a level playing field. Specifically, so long as U.S. carriers are not able to fly over Russian airspace, the U.S. should not allow foreign carriers serving markets in East Asia and South Asia to enjoy a competitive advantage by continuing to allow them to fly to the U.S. China has failed to put in place several of the policies to which it has already agreed; the U.S. should

not offer additional negotiations until the Chinese implement the agreements they have already signed.

The current Administration's policies in several areas that affect aviation and limit America's future opportunities for growth are internally inconsistent. In addition to a New Entry Initiative, the new Administration should establish an interagency clearinghouse to drive consistent policies across the government on spectrum, drones, and advanced air mobility.

FEDERAL AVIATION ADMINISTRATION

With a budget of \$18.6 billion requested for FY 2023¹¹ and an international regulatory footprint, the Federal Aviation Administration (FAA) is DOT's most visible mode. It needs reform. Air traffic control (ATC) operations account for two-thirds of FAA's budget, and the Air Traffic Organization (ATO) is far behind its counterparts in Australia, Canada, and Western Europe in implementing 21st century technology. The FAA's primary mission is ATC; its two smaller functions are distributing federal airport grants and regulating all aspects of aviation safety.

The FAA was once considered the world's best government aviation agency. Those days are long past. In the more than five decades since 1958 when the Federal Aviation Agency (precursor to the Federal Aviation Administration) was formed, there have been notable developments in air traffic control technology, aircraft avionics, and engine reliability, but despite many well-intentioned attempts, there have been few changes in the FAA's funding structure. The FAA is still improperly organized and financed, and the management reforms provided in the late 1990s remain largely unused.

The FAA is 10 years older than DOT. It provides two separate and functionally different services: the world's largest and most complex Air Navigation Service Provider (ANSP) and, at the same time, the world's largest civil aviation regulatory and certificatory agency. The first is a 24/7/365 air traffic service provider. The second is an inherently governmental organization responsible for ensuring that aerospace operators, vehicles, airports, and ANSPs are properly certified and follow all FAA regulations. These two different organizations ought to run separately.

The FAA is the only modern Civil Aviation Authority (CAA) in the world that does not assess fees for its services. Its funding structure, subject to the annual appropriations process, stifles efficiency and innovation—and the FAA does not innovate well. It spends too much time and money on research and development (R&D) and is not very good at either one. It should get out of the R&D business and focus on testing, evaluating, and certifying private-sector innovation much more quickly than it does today.

The FAA workforce needs to modernize. The agency needs safety and certification experts, not professional airframe and powerplant mechanics (A&Ps). It

needs to hire people trained to oversee mechanics, engineers, and pilots. It is time to consider promoting the FAA's top executive team from within and requiring strict professional requirements for its top appointees. Organizations such as the FAA whose sole responsibility is public safety should be fully auditable and led by experts in their field or industry with oversight from DOT leadership.

For 60 years, the FAA was the global leader in aerospace, from general aviation to commercial space, but the U.S. lead has vanished. The FAA's overly bureaucratic, legalistic, byzantine, and more recently hyperpoliticized way of processing regulations, adopting innovation, publishing rules, and procuring new technologies has been eclipsed by foreign CAAs and ANSPs that are eagerly certifying drones and creating environments in which new technologies and new entrants, such as air taxis, can thrive. To regain America's global leadership in aviation, the next Administration should:

- Separate the FAA from DOT or, at a minimum, separate the ATO from the FAA.
- Completely restructure the FAA's funding system so that the nation's aviation system is not held prisoner to annual appropriations or used as a political football to solve nonaviation problems.
- Require the FAA to operate more like a business. The FAA has not made good use of the unique authority it has been given in areas like personnel and acquisition.

In Europe, conventional control towers are being replaced by digital/remote towers with high-resolution cameras and other sensors on tall structures and at points adjoining runways. In Germany and Scandinavia, as many as 15 small airports can be controlled from one remote tower center. The FAA has yet to certify a single digital/remote tower.

Text messaging between controllers and pilots is widespread over the oceans. The ATO began to implement what is now called DataComm in 2002 but suspended the project in 2003. This was restarted at airport control towers in 2016, but as of October 2022, it was available in only seven of the 20 high-altitude control centers.

Current technology enables flights to be managed "anywhere from anywhere," but the ATO resists consolidating its 20 aging centers into a much smaller number—and lacks the funds to consolidate them. The FAA as regulator and the ATO as traffic manager have no plans in place to handle millions of drones and other emerging technologies such as electric vertical take-off and landing (eVTOL) aircraft.

These shortcomings have been documented over many decades by the Government Accountability Office and DOT Inspector General. One peer-reviewed study for the Hudson Institute by scholar Robert Poole identified the ATO's underlying problems as including an overly cautious culture, a growing lack of technological and managerial expertise, the inability to finance major capital projects with revenue bonds, and overdependence on aerospace/defense contractors.¹²

All of these problems are interrelated. Because of the ATO's lack of top-notch engineers and program managers, it has become dependent on aerospace contractors, unlike counterparts in Canada and the United Kingdom. Operating within the constraints imposed by the annual congressional appropriations process—and with no bonding authority—the ATO is forced to implement major projects piecemeal over many years. The ATO's overly cautious culture appears to stem from its being embedded in a safety regulatory agency rather than being regulated at arm's length (as are airlines and airports).

Three organizational changes, all requiring legislation, offer the likelihood of dealing with these problems based on the experiences of air traffic providers in Canada and Europe. They could be implemented one at a time or together.

- Separate the ATO from the FAA and relocate it to separate headquarters outside the District of Columbia.
- Shift from aviation user taxes to fees for air traffic services paid directly to the ATO.
- Allow the ATO to issue long-term revenue bonds for major projects.

Shorter-term reforms could include implementing user fees for unconventional airspace users (for example, advanced air mobility, space launch, and recovery) and giving the ATO a deadline after which it could not authorize or fund any more nondigital/remote control towers. These reforms would also require legislation.

FEDERAL TRANSIT POLICY

The definition of "mobility" continues to evolve dramatically with the rise of new multimodal concepts, traveler needs, and emerging capabilities. These fundamental changes in the way transportation services are offered also influence the form of our communities.

New micromobility solutions, ridesharing, and a possible future that includes autonomous vehicles mean that mobility options—particularly in urban areas—can alter the nature of public transit, making it more affordable and flexible for Americans. Unfortunately, DOT now defines public transit only as transit provided by municipal governments. This means that when individuals change their

commutes from urban buses to rideshare or electric scooter, the use of public transit decreases. A better definition for public transit (which also would require congressional legislation) would be transit provided for the public rather than transit provided by a public municipality.

The COVID-19 pandemic caused a substantial decline in usage for all forms of transportation. Mass transit has been the slowest mode to recover, with October 2022 ridership reaching only 64 percent of the level seen in October 2019. The sustained increase in remote work has caused changes in commuting patterns. Since facilitating travel for workers is one of the core functions of mass transit systems, a permanent reduction in commuting raises questions about the viability of fixed-route mass transit, especially considering that transit systems required substantial subsidization before the pandemic.

Regrettably, the 2021 Infrastructure Investment and Jobs Act¹³ authorized tens of billions of dollars for the expansion of transit systems even as Americans were moving away from them and into personal vehicles. Lower revenue from reduced ridership is already driving transit agencies to a budgetary breaking point, and added operational costs from system expansions will make this problem worse.

The Capital Investment Grants (CIG) program is another example of Washington's tendency to fund transit expansion rather than maintaining or improving current facilities. The CIG program, which began in 1991, funds only novel transit projects. These can include new rail lines (regardless of the demand for preexisting rail in the area) and costly operations such as streetcars.

Because Americans have demonstrated a strong preference for alternative means of transportation, rather than throwing good money after bad by continuing federal subsidies for transit expansion, there should be a focus on reducing costs that make transit uneconomical. The Trump Administration urged Congress to eliminate the CIG program, but the program has strong support on Capitol Hill. At a minimum, a new conservative Administration should ensure that each CIG project meets sound economic standards and a rigorous cost-benefit analysis.

The largest expense in transit operational budgets is labor. Compensation costs for transit workers exceed both regional and sector compensation averages. This is driven by generous pension and health benefits rather than by exorbitant wages. Since workers value wages more than they value fringe benefits, this has led to a perverse situation in which transit agencies have high compensation costs yet are struggling to attract workers.

The next Administration can remove the largest obstacle to reforming labor costs. Section 10(c) of the Urban Mass Transportation Act of 1964¹⁴ was initially intended to protect bargaining rights for workers in privately owned transit systems that were being absorbed by government-operated agencies. The provision has mutated into a requirement that any transit agency receiving federal funds cannot reduce compensation, an interpretation that far exceeds the original statute.

Returning to the original intent would allow transit agencies to adjust fringe benefits without fearing a federal lawsuit.

It is also vital to move away from using the Highway Trust Fund to prop up mass transit. The fund was driven into insolvency (and repeated bailouts) through decades of transfers to transit without any increase in transit usage to show for it. With the federal government facing mounting debt, the best course of action would be to remove federal subsidies for transit spending, allowing states and localities to decide whether mass transit is a good investment for them.

FEDERAL RAILROAD POLICY

The Federal Railroad Administration (FRA) is making decisions based on political considerations that are at variance with its safety mission. Instead of basing regulatory decisions on the costs and benefits of the available alternatives, FRA is promoting actions that favor the status quo and inhibit the use of technology to improve railroad safety. FRA should be making decisions based on objective evidence of the most cost-effective way to accomplish the agency's safety goals.

FRA's singular focus on job preservation is contrary to FRA's mission, and it has a deleterious effect on the morale of FRA's professional staff, as shown by the annual employee surveys conducted by the Office of Personnel Management. FRA needs to communicate clearly to its career employees a new commitment to making decisions that are consistent with the agency's safety mission.

FRA's procedures call for decisions on waivers to be made by its Safety Board. Appeals can be taken to the Administrator. However, FRA has deviated from these procedures as the Administrator has injected himself into Safety Board decisions. FRA needs to review its actions with respect to specific proceedings where the agency's direction cannot be justified. For example:

- FRA's Notice of Proposed Rulemaking (NPRM) on crew size is not based on safety considerations; it is designed to reduce flexibility by making it impossible for railroads to operate with crews of fewer than two in circumstances where there is no operational need for the second crew member.
- Although FRA could adopt a modern inspection program that takes advantage of technological ways to inspect track, it is refusing to amend 50-year-old track inspection requirements, leaving customers with higher costs.
- FRA is refusing to take final action on a rulemaking proceeding that would modernize brake inspection requirements by taking advantage of the ability

to track brake inspections on rolling stock electronically instead of by using paper air brake slips, which would enable extending the interval between brake inspections for trains and eliminating restrictions on the ability to place/remove blocks of cars in trains.

- FRA will be proposing certification requirements for dispatchers and signal employees despite the failure of the Railroad Safety Advisory Committee (RSAC) to identify any safety benefit.
- FRA is planning to propose emergency escape breathing apparatus
 requirements for train crews even though FRA staff long ago concluded
 that the costs of these requirements would far outweigh their very
 minimal benefits.

It is vital that the integrity of FRA's research program be preserved. In 2022, FRA switched the management of the Transportation Technology Center (TTC) in Pueblo, Colorado, from a subsidiary of the Association of American Railroads (AAR) to Ensco, Inc. FRA seems determined to direct research to TTC, even when there are better choices with respect to the research in question, in an effort to support TTC financially and justify its decision to change management at TTC. This change in approach threatens the collaborative approach to research between FRA and the railroads that has existed for decades. FRA should make its decisions on where to spend its research dollars solely on the merits of improving the safety and efficiency of the railroad industry.

MARITIME POLICY

The Maritime Administration (MARAD) was established by President Harry Truman in 1950 and was transferred to DOT in 1981. A principal function is "maintain[ing] the overall health of the U.S. Merchant Marine," which is important both to national defense and to foreign and domestic commerce. MARAD is also in charge of the United States Merchant Marine Academy and operates ships and funding for the six state maritime academies.

MARAD would be better served by being transferred from DOT to the Department of Homeland Security (DHS). MARAD is the only DOT modal administration that does not regulate the industry that it represents: The maritime industry is regulated by the U.S. Coast Guard (ships and personnel) and by the Federal Maritime Commission (cargo rates and competitive practices).

Furthermore, MARAD has responsibilities both in peacetime commerce and operationally in wartime/crisis sealift through its responsibility to manage the National Defense Reserve Fleet and 45-ship Ready Reserve Force for the U.S. Navy. These missions are unique to MARAD within DOT. As a result, MARAD's missions

and purpose, and therefore its funding priorities, are not well understood and historically have been minimalized in planning and budgeting.

MARAD, including its subordinate Service Academy (the U.S. Merchant Marine Academy) should be transferred to the Department of Defense (if the Coast Guard is located there because DHS has been eliminated) or to the Department of Homeland Security. In this way, the two agencies charged with oversight and regulation of the Maritime sector—MARAD and the United States Coast Guard—would be aligned under the same department where operational efficiencies could be realized more easily.

Serious consideration should be given to repealing or substantially reforming the Jones Act, ¹⁶ which would require legislation. The economic costs of the Jones Act, which is notionally in place to promote a robust Merchant Marine, vastly exceed its effect on the supply of domestic ships. For instance, no liquified natural gas (LNG) can be shipped from Alaska to the lower 48 states because there are no U.S.-flagged ships that carry LNG. If there are genuine concerns about U.S. fleet capacity in the absence of the Jones Act, it would be possible to do so through an expansion of the Defense Reserve Fleet.

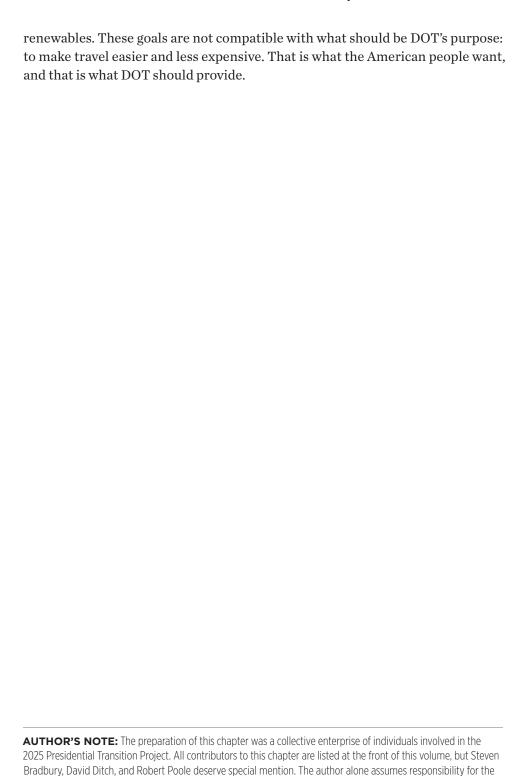
Another DHS agency, the Federal Emergency Management Agency (FEMA), is a frequent user of MARAD Ready Reserve Force shipping during disaster assistance missions. Transferring MARAD to DHS would make coordination and requisition of those vessels a smoother and more rapid process. DHS has responsibility for reviewing and approving Jones Act waivers. This process first requires a market survey of available shipping tonnage that is completed by MARAD. The processing of Jones Act waiver requests would be streamlined if both agencies were in the same department.

Finally, DHS as a department is experienced in administering and budgeting for the operation of an existing federal service academy, the U.S. Coast Guard Academy, which is similar to the U.S. Merchant Marine Academy in size. There would be increased efficiencies and better alignment of the missions of these two institutions if they were under one single department that has equity in the industries served by these academies.

CONCLUSION

Americans need more abundant and affordable transportation. They need more affordable and safer cars as well as physical aspects of transportation such as roads, bridges, airports, ports, and rail lines. The Department of Transportation should be evaluating which aspects of transportation are contributing to the economic competitiveness of the United States and the well-being of Americans—and that therefore should continue to be funded.

All too often, DOT's mission is described as reducing the number of trips, using less fuel, and raising the costs of travel to Americans through increased use of



content of this chapter, and no views expressed herein should be attributed to any other individual.

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