Building Infrastructure in Real Time
Avoiding Regulatory Paralysis

The physical infrastructure base of the US economy, once an advantage in global competition, has become a liability. This problem has multiple causes, several of which CED has addressed in recent policy statements, and our nation’s elected policymakers are now taking up the need for additional funding. But the nation needs not only adequate funding but also a more-efficient regulatory process for our infrastructure investment—choosing the right projects, with the minimum delay, and executing them at the least possible cost.

Regulatory paralysis is one of the causes of our infrastructure shortfall. It needs attention if we are going to spend our tax dollars on infrastructure wisely and efficiently so that the US economy remains globally competitive. Streamlining regulatory procedures, promoting competition, and cutting red tape across federal, state, and local governments are key to increasing investment, decreasing cost, and maximizing efficiency. Business as usual will not suffice. It takes too long and costs too much to deliver infrastructure projects, preventing us from achieving the advancements and improvements that a future-focused, competitive economy requires.

CED has consistently advocated “smart regulation,” subjecting new regulations to rigorous cost-benefit analysis and reviewing existing regulations for continuing cost effectiveness to enhance efficiency and achieve quicker execution, greater benefits, and lower costs. With long delays between project conception and execution, and often multiple layers of jurisdiction and review, a smart regulation approach could ensure that the rules governing review and permitting of projects address all important concerns and ensure that net benefits are maximized over time at all levels of government on a comprehensive and timely basis.
The nation needs timely decisions on infrastructure projects. Changes to the current system, all admittedly requiring finesse and judgment, would facilitate timely resolution of major interstate infrastructure project applications and strike a fair balance of the competing values.

1 A single, final decider A three-member expert panel, possibly housed in the Judiciary, composed of representatives of each party appointed by the congressional leaderships and one member appointed by the president, would yield faster, balanced decisions. All members should be confirmed by the Senate, and members could continue across presidential administrations. Decisions would be by majority, not unanimity, to avoid stalemate.

2 A single decision process A “One Federal Decision” process—using a single document for the complete federal permitting process—should be made mandatory for all federal permit applications deemed to have significant environmental consequences. A single chief permitting officer from the most-affected federal agency, or perhaps from the Council on Environmental Quality (CEQ), should be appointed to lead the process.

3 Limits on judicial review With decisions made by a bipartisan, three-member panel to ensure a full airing of different points of view, many of the usual purposes of judicial appeal would become moot. Thus, it would be reasonable to restrict the scope of judicial challenges.
   - Restrict grounds for suit to failure to consider or disclose material impacts of the project or practical alternatives, or violation of substantive law.
   - Require that a party participate materially in the public review and public comment process to have standing to sue (sometimes called “get in or get out”).
   - Limit the time to sue to the two years specified in FAST-41, or an even shorter time, such as 60 or 90 days from the issuance of a permit.
   - Adjudication should consider the benefits as well as the costs of the project in question.

4 Limits on time All parties, including federal agencies and state and local governments, should be required to provide their documentation within a fixed period of time consistent with the issuance of a final permitting decision within two years (longer only for issues of public safety). The panel should be free to proceed to its decision as of that submission deadline (i.e., failure to file documentation shall be dispositive to support).

5 Limits on paper Specify in statute that environmental impact statements of 150 pages would be the longest allowed, with a 300-page maximum for the most complex projects, as currently specified in regulation (but to limited effect).
The Problem

The United States routinely lags other advanced nations in infrastructure adequacy and quality. This has been an enduring and worsening problem. Our population and our economy are growing, which expands the base of need that our infrastructure must support—and increases congestion, which in and of itself increases infrastructure needs. Advancing technology changes infrastructure needs, which cannot be met without new investment, revisions, and upgrades. Meanwhile, infrastructure wears out with the passage of time, and with use—including from population and economic growth—requiring maintenance and replacement. The United States has continuously failed to meet all of these requirements; in fact, the American Society of Civil Engineers now estimates a total investment funding gap of nearly $2.59 trillion over 10 years.

The ill effects of this shortfall are numerous. A substantial portion of our nation’s electric power is generated in inefficient and environmentally harmful plants. Power delivery is excessively interrupted by equipment failures and natural phenomena and vulnerable to cyberattack.¹ Water is too often wasted in pipes that are failing and have exceeded their useful lives, and millions of Americans lack safe water, including through exposure to lead. Some bridges are unsafe, and inadequate and crumbling highways both cause delays and damage vehicles. Millions of Americans lack adequate internet access, which the pandemic has shown is a prerequisite for employment, education, and citizenship. Air transport is too often delayed and resources wasted because of inefficiencies in airports and air traffic control.² And rail and inland waterway transportation weaknesses often constrain travel and commerce.³ All of these conditions together inhibit economic growth.

Meanwhile, competitor nations have made relative progress, such that our nation’s previous advantage has been wearing away.⁴ Analysis of International Monetary Fund data suggests that, compared to other advanced economies, the United States had much-higher-than-average stocks of public capital as a share of GDP in the 1960s, but this fell to below-average levels by the mid-1980s.⁵ By 1988, a congressionally chartered study of public works rated US infrastructure as only average in terms of its performance and capacity.⁶ Maintenance and renewal add to the costs of new, state-of-the-art construction to increase US funding needs. While the US economy has remained strong, in part on the basis of past infrastructure investments, infrastructure is no longer a world-leading booster of its performance. For example, one set of global competitiveness rankings places the United States second overall but 13th for infrastructure as a whole and 23rd for water and electric utilities infrastructure; our nation achieved its higher overall competitiveness ranking only on the basis of other attributes.⁷ The US has fallen short especially in transportation and utilities infrastructure, both of which are crucial to economic growth, and has been slipping in its performance over time.

The Causes

Inadequate funding One important cause of our weak infrastructure is that, measured according to the relative sizes of each of the world’s leading economies, the level of US infrastructure investment falls short of our competitors and has declined over time. Over the last 40 years, with the exception of a one-time blip during the recovery effort for the 2008 financial crisis, our infrastructure investment has fallen 25 percent or more below


its level during the construction of the interstate highway system (see Figures 1 and 2). Current levels of investment are inadequate for a larger, busier, more-congested nation facing new demands and ever-changing technology.

This failure includes new construction but also maintenance, capital updating and preservation, and renewal. While budgetary stringency squeezes new investment, it crushes maintenance even more because there is no ribbon-cutting ceremony to motivate the filling of a pothole or rust removal and repainting of bridge supports. Delayed maintenance imposes even more expense, as needed repairs become more costly and catastrophic failure more likely. Lower-quality infrastructure adds business costs that reduce profits and productivity or raise consumer prices—eventually lowering effective wages and employment, economic growth, and the tax base.

**Regulatory delay** Aggravating the infrastructure funding problem, and interacting with it, is a tightening regulatory environment. It is becoming more difficult and time-consuming to get major infrastructure construction projects through the permitting process. Delay increases cost and extends the congestion and pollution that burden society and motivate the projects in the first place. Any effort to ease the funding shortage—such as the currently pending Infrastructure Investment and Jobs Act (IIJA)—will be rendered less effective if the nation does not also facilitate construction project permitting and completion.

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**Figure 1**

Federal nondefense infrastructure investment has declined since the 1960s

Direct investment plus grants, percent of GDP

Source: Budget of the United States Government, Fiscal Year 2021, Historical Tables, Table 9.3. BUDGET-2021-TAB.pdf (govinfo.gov)
Although the permitting process is extraordinarily complex and varies according to the specifics of the project, there is compelling evidence that the time required to permit a major federal infrastructure construction project has increased substantially.

An important component of the permitting problem arises from the National Environmental Policy Act, or NEPA. The legislative intent of the requirements under NEPA was not spelled out in the statute itself but rather has evolved through practice—including challenges in court. The earliest regulations to implement the NEPA contemplated that environmental reviews would typically be 150 pages, perhaps up to 300 pages for the most complex applications. The law appropriated no funds for implementation, suggesting strongly that no elaborate regulatory process was contemplated, and The White House Council on Environmental Quality (CEQ), which oversees the process, interpreted that the statute “encourages straightforward and concise reviews... in a timely manner.” The first environmental reviews—of several hundred projects pending as of the enactment of the law—were embodied in environmental impact statements, or EISs. The majority of these documents were less than 15 pages long; only 2 percent were longer than 85 pages. Now, the average duration of an environmental review is four and a half years; the average EIS length is over 600 pages. Some EIS
reviews have taken more than a decade, and some EIS documents extend for thousands of pages. Figure 3 shows that total permitting times for approved projects (from “notice of intent,” or NOI, to “record of decision,” or ROD) increased from nearly four years in 2010 to nearly five years in 2016, an increase of about 25 percent. Permitting times may have shortened between 2017 and 2019, but not nearly back to the 2010 duration, which by all accounts was significantly longer than in earlier years for which there are no comparable data; and because pending applications as of June 18, 2019, were not included in the data and already had longer permitting durations, subsequent approvals will add to the average times for recent years.

Even after the EIS is created, the clearance process itself can be protracted. It entails periods for request for and receipt of public comment, with back and forth between the government and the commenters. And still, the disposition of the project is in doubt. The original statute provided no guidance on the level of EIS analysis that would be necessary to defend a proposed project from a court order for additional study, for a stay, or even for cancellation. The only resolutions of the standards have been in the legal process, and to this day the results are not predictable. The result is an open invitation to the use of lawsuits to delay projects. Potentially, delay can be tantamount to termination because of cost inflation, the erosion of relationships with prospective contractors, loss of political support, and the interaction among those three and with many other factors.

![Figure 3](image-url)

**Figure 3**

**Permitting times have increased roughly 25 percent since 2010**

Average environmental impact statement completion time: Notice of Intent (NOI) to Record of Decision (ROD)

- Blue: Years from NOI to DEIS
- Grey: Years from DEIS to FEIS
- Green: Years from FEIS to ROD

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**Source:** Council on Environmental Quality

**Note:** Includes only projects for which final EISs (FEIS) and RODs have been filed. The 118 pending projects not included have a mean duration of 4.5 years from NOI to FEIS, and therefore if completed in 2019 would have lengthened the indicated mean duration for that year. Stated durations do not include time spent before the NOI publications date, or the time required to develop any supplemental EISs. (DEIS denotes Draft EIS.)
More timely decisions, either approval or denial, are preferable to protracted uncertainty, but legal requirements for approval are unclear. A series of audits from the Government Accountability Office (GAO) have attempted to assess the process and recommend solutions, but they have fallen short—not least because of a lack of data.\footnote{16}

**How many resources are wasted on the permit process?** There is usually no reason to assess all of the resources that go into a permitting review (governments typically do not need to; private applicants might need to do so in the course of doing business, but they do not collect system-wide data), and the costs of delay of the completion of a project are often subjective. Those subjective elements are quite commonly what the permitting dispute is about in the first place—as opposing parties argue that the project is either good or bad. But as the typical delays have grown longer—including those for projects that will ultimately be constructed—the waste of both public and private resources has become as problematic as it is ultimately unnecessary.

**Time is money** The organization Common Good has estimated the higher costs of a six-year delay (from a feasible target of two years duration to an approximate mean of eight years) in permitting processes, including both added costs and postponed benefits of the projects, to be $3.7 trillion.\footnote{17} They freely acknowledge that such an estimate is highly arbitrary. But long-term contracts almost always adjust for inflation, and so time truly is money. And some of the most notorious recent permitting delays have been for projects that ultimately were constructed—at higher-than-necessary cost.\footnote{18}

**Past Attempts at a Cure**

Congress has attempted to improve the permitting process on several occasions. To date, success has been limited; more needs to be done.

Some positive but limited advances were made in periodic reauthorizations of the federal highway program: the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) in 2005; and the Moving Ahead for Progress in the 21st Century Act (MAP-21) in 2012. SAFETEA-LU cut the statute of limitations for challenges to highway projects from six years to 180 days; allowed states to designate a limited class of projects as having only limited environmental consequences (“categorical exclusion”) and therefore exempt from full review; and allowed five states, in a pilot program, to undertake environmental reviews that would otherwise have been done by the federal Department of Transportation. The beneficial impact was limited. MAP-21 went somewhat further and expanded categorical exclusion authority, particularly for projects built within existing rights of way, and extended SAFETEA-LU’s state-authority pilot program to all states. Again, these steps were limited, but generally beneficial.\footnote{19}

Further and perhaps more noteworthy steps forward were taken in the 2015 Federal Permitting Improvement Act, which was enacted as Title 41 of the Fixing America’s Surface Transportation (FAST) Act, subsequently known as FAST-41. It created the Federal Permitting Improvement Steering Council, whose purpose is to coordinate affected federal agencies at the beginning of the permitting process for large, complex projects. This process has spawned a “dashboard” that provides a single source of
information on eligible projects. And for those projects, the statute of limitations for legal action against a permitting decision is reduced from six years to two. More than 50 projects have been included in the dashboard, with estimated savings through accelerated permitting of greater than $1 billion.

Congress is currently considering the IIJA, which has been passed by a bipartisan supermajority in the Senate. Although this legislation is far more concentrated on issues of funding, it does have limited provisions related to FAST-41. In particular, FAST-41 was enacted with a sunset, and the IIJA would make it permanent. It would set a goal of two years for permitting projects covered by FAST-41. It would also encourage federal agencies to follow a “One Federal Decision” process under which a single document would be used throughout a permitting process. And it would facilitate the work of the Federal Permitting Improvement Steering Council.20

FAST-41 was a positive contribution. However, even with the improvements from the IIJA, its effect is largely aspirational. The reach of the FAST-41 dashboard is limited to those projects that are eligible, and the IIJA’s goals of streamlined paperwork and shorter clearance times are optional, not mandatory. Improvement should be more far-reaching to tackle the scale of the problem.

**Inevitable Trade-offs**

It is extremely unlikely that any major infrastructure proposal will ever meet with universal approval. Someone, inevitably, will be made unhappy by any significant construction project. Using space for one purpose precludes its use for others. Someone’s aesthetic views will be interrupted. Increasing flows of traffic will change the character of some neighborhood. And so on. But unless we decide collectively to require unanimous approval for every project, it is in society’s interest that such disputes be resolved, one way or the other. And unless we determine that potentially unlimited amounts of time are needed to resolve such disputes—and the losing side will inevitably demand infinite time to make its case—we must choose collectively to impose fair, reasonable time limits.

Such trade-offs are unavoidable if we are not to trade due process for eternal process. The latter is not in society’s interest. Every faction would like to reserve the option of delaying any future decision it disapproves of, but such a veto ensures that no future investment would ever be undertaken. Realistically, we need a better way—though it will not please everyone, all the time—if we are to avoid the very tragedy of the commons that many regulations are intended to avoid.

**Principles for Faster Federal Permitting**

The nation needs timely decisions on infrastructure projects. Early approval allows construction without the unnecessary and potentially unaffordable costs of delay, and an early rejection allows the country to move on and consider alternatives, if appropriate.

Changes to the current system would facilitate timely resolution of major interstate infrastructure project applications. All require finesse and judgment, and there are no complete and definitive answers. But some ideas strike a fair balance of the competing values.
A single, final decider In the current system, there is no ultimate authority, short of a complete tour of the judicial system up to and including the Supreme Court. That path is not practicable for any project, much less for many. One idea put forward is to allow the chair of the CEQ to have final decision authority on environmental issues, and the director of the president’s Office of Management and Budget (OMB) to resolve interagency disputes. Although that approach provides final authority, it raises some issues. Having a single individual in authority inevitably raises questions as to whether every voice is heard before judgment is passed. Furthermore, as the control of The White House inevitably passes from one party to the other, the character of the decision-making authority could change sharply. And finally, those positions are not always filled, even apart from the period after the seating of a new administration. The chair of the CEQ was vacant for the first two years of the last administration; the OMB director for some time also held other positions.

A better approach might be to have a single decision-making authority with multiple members, and some built-in continuity. For example, a three-member expert panel, possibly housed in the Judiciary, could be composed of representatives of each party appointed by the congressional leaderships, and one member appointed by the president. All members should be confirmed by the Senate. Members could continue across presidential administrations, and with both parties represented, there would be greater confidence in the fairness and legitimacy of decisions. Decisions would be by majority, not unanimity, to avoid stalemate.

A single decision process The “One Federal Decision” process—using a single document for the complete federal permitting process—encouraged in the IIJA should be made mandatory for all federal permit applications deemed to have significant environmental consequences and therefore to need substantive review. A single chief permitting officer from the most-affected federal agency, or perhaps from the CEQ, should be appointed to lead the process.

Limits on judicial review With decisions made by a bipartisan, three-member panel (above) to ensure a full airing of different points of view, it would be reasonable to restrict the scope of judicial challenge to permitting decisions. Ideas with considerable merit include:

- Restrict grounds for suit to failure to consider or disclose material impacts of the project or practical alternatives, or violation of substantive law.
- Require that a party participate materially in the public review and public comment process to have standing to sue (sometimes called “get in or get out”).
- Limit the time to sue to the two years specified in FAST-41, or an even shorter time, such as 60 or 90 days from the issuance of a permit. The shorter statute of limitations would prevent the filing of a suit at the last and most-disruptive-possible moment, to attempt to derail a project regardless of the merits of the suit.
Adjudication should consider the benefits as well as the costs of the project in question.

The three-expert panel would be a fair analog to a specialized court that is constituted to be expert in a particular type of case. With such an adjudicatory body, many of the usual purposes of judicial appeal would become moot. This would help the permitting process to move more quickly and with greater certainty that its outcomes would stand.

4 **Limits on time** Infinite time does not yield infinitely better decisions. Rather, excessive time is costly and harmful regardless of the ultimate decision. All parties, including federal agencies and state and local governments, should be required to provide their documentation within a fixed period of time consistent with the issuance of a final permitting decision within two years. The panel should be free to proceed to its decision as of that submission deadline (i.e., failure to file documentation shall be dispositive to support). This limit should apply to all projects that do not raise serious issues of public safety. Serious safety concerns should be given more time if necessary. Some projects that have robust public engagement or clear environmental benefits might be fast-tracked to an even shorter time. Deadlines must be real and not manipulable by “resetting the clock” in the instance of any comment, protest, or tactical manipulation through incomplete submission of documentation.

5 **Limits on paper** Infinitely tall stacks of paper are no more conducive to good outcomes than are infinitely long periods of time. With no firm guidance as to the required length of an EIS, all parties to a dispute under the current system are driven to practice the analog of “defensive medicine,” covering every possible line of argument with respect to every contingency, with an institutionally induced, adolescent notion that the longest paper will get the highest high school grade. That serves no one’s interest. The law should codify the initial intent of the NEPA: concise and timely impact statements. It would be fair to specify in statute that EISs of 150-standardized pages would be the longest allowed, with a 300-page maximum for the most complex projects, as currently specified in regulation (but to limited effect).

**Conclusions**

The Washington policymaking process is now producing a rare piece of broad-scope infrastructure legislation. Although it touches on the sclerotic project permitting process, its emphasis is much more on funding. Funding is a vital issue, and has been too long ignored. But at issue is just how much of that badly needed funding will be spent on transaction costs, rather than asphalt, concrete, steel, and labor.

There are simple and straightforward ways to facilitate timely permitting decisions. They do require the equivalent of nuclear disarmament among potentially affected parties. Everyone would like to hold an unconditional veto to exercise if a permitting decision goes against him or her. However, if everyone holds a veto, no project will ever be completed. Unanimity is not attainable. The broad public interest is.
Accordingly, implementation of the five specific steps articulated above could lead to earlier decisions that are nonetheless sound and fair. Such an agile process will help the nation to complete the acceptable projects in a timely, cost-efficient manner, and to consider alternatives to the unacceptable projects before the nation suffers excessively from the needs that those unacceptable projects were intended to address. With the nation and its Washington policymaking system newly reminded of the importance of infrastructure for our prosperity and competitiveness, this is a valuable opportunity to supplement the badly needed funding with equally important improvements in the permitting process.
Endnotes


3 American Society of Civil Engineers (ASCE), “Failure to Act: Ports and Inland Waterways—Anchoring the U.S. Economy,” January 2021, p. 16.

4 OECD, “Transport Infrastructure Investment and Maintenance,” ITF Transport Statistics, 2020. For example, the World Bank ranked the US seventh in terms of the quality of its trade and transport-related infrastructure on its 2018 Logistics Performance Index. While the US has remained between fourth and eighth in the World Bank rankings of infrastructure since 2007, its relative advantage over trailing countries has significantly deteriorated. In 2018, the US was closer to the 17th-ranked country than the fifth-ranked one. In evaluating the resilience of US supply chains, FM Global ranked the US ninth in terms of the quality of its infrastructure. As OECD defines it, “inland infrastructure investment” includes spending on new transport construction and the improvement of the existing network. In 2016, the US ranked fifth among the G7 nations in inland transportation infrastructure investment as a share of GDP, ahead of only Canada and Italy. Looking more broadly than the G7, according to OECD analysis, the US did not rank in the top 30 among the 42 countries reporting data in terms of inland transport infrastructure investment as a share of GDP in 2015. See: Jean-François Arvis, Lauri Ojala, Christina Wiederer, Ben Shepherd, Anasuya Raj, Karlygash Dairabayeva, and Tuomas Kiiiski, “Connecting to Compete 2018: Trade Logistics in the Global Economy,” The World Bank, 2018; FM Global “FM Global Resilience Index 2019,” 2019; International Transport Forum, “ITF Transport Outlook 2019,” May 22, 2019.


12 Code of Federal Regulations, Title 40 (40 C.F.R. 1502.7). In a 2012 guidance memorandum for agency heads, the Council on Environmental Quality (CEQ) reaffirmed that NEPA “encourages straightforward and concise reviews[,] that effectively convey the relevant considerations to the public and decisionmakers in a timely manner[.]” See USA, Executive Office of the President, Council on Environmental Quality, Improving the Process for Preparing Efficient and Timely Environmental Reviews Under the National Environmental Policy Act, March 6, 2012.


14 Howard, “Two Years, Not Ten Years,” p. 23.


17 Howard, “Two Years, Not Ten Years,” p.12.


19 Howard, “Two Years, Not Ten Years,” p. 18-20.

20 Howard, “Two Years, Not Ten Years,” p. 18-20.

SUSTAINING CAPITALISM

Achieving prosperity for all Americans could not be more urgent. Although the United States remains the most prosperous nation on earth, millions of our citizens are losing faith in the American dream of upward mobility, and in American-style capitalism itself. This crisis of confidence has widened the divide afflicting American politics and cries out for reasoned solutions in the nation’s interest to provide prosperity for all Americans and make capitalism sustainable for generations to come. In 1942, the founders of the Committee for Economic Development (CED), our nation’s leading CEOs, took on the immense challenge of creating a rules-based postwar economic order. Their leadership and selfless efforts helped give the United States and the world the Marshall Plan, the Bretton Woods Agreement, and the Employment Act of 1946. The challenges to our economic principles and democratic institutions now are equally important. So, in the spirit of its founding, CED, the public policy center of The Conference Board, will release a series of 2021 Solutions Briefs. These briefs will address today’s critical issues, including health care, the future of work, education, technology and innovation, regulation, China and trade, infrastructure, inequality, and taxation.