

No. 17-1261

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

In re COMPETITIVE ENTERPRISE INSTITUTE,
JOHN FRANCE, DANIEL FRANK,
JEAN-CLAUDE GRUFFAT, AND CHARLES HAYWOOD,

Petitioners.

**REPLY IN SUPPORT OF
PETITION FOR A WRIT OF MANDAMUS**

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Table of Contents

Table of Contents	i
Table of Authorities.....	ii
Glossary	v
Introduction.....	1
Argument.....	1
I. Article III standing is satisfied because the FCC’s own findings demonstrate a causal link between the alleged harm of increased costs to Petitioners and the Order’s challenged merger conditions, and this Court’s elimination of those conditions would redress Petitioners’ injuries.	1
II. Equities support mandamus because the FCC has provided no reason to excuse the 21-month delay in light of the 90-day statutory timetable and the prejudice to CEI and consumers.	8
A. The FCC offers no justification for the unreasonable 21-month delay that is now <i>seven times</i> its 90-day statutory deadline.	9
B. The merger conditions harm consumers and Petitioners because New Charter had neither the duty nor the incentive to implement the merger conditions.	11
III. This Court should grant the writ of mandamus for the independent reason that agency action has been unlawfully withheld.	14
Relief Sought.....	15
Certificate of Compliance	16
Certificate of Service.....	17

Table of Authorities

Cases

<i>In re Aiken Cty.</i> , 725 F.3d 255 (D.C. Cir. 2013)	11, 14
<i>Am. Hosp. Ass’n v. Burwell</i> , 812 F.3d 183 (D.C. Cir. 2016)	8
<i>In re Barr Labs.</i> , 930 F.2d 72 (D.C. Cir. 1991)	9, 10, 15
<i>Bond v. U.S. Dep’t of Justice</i> , 828 F. Supp. 2d 60 (D.D.C. 2011)	2
* <i>Competitive Enter. Inst. v. NHTSA</i> (“CEP”), 901 F.2d 107 (D.C. Cir. 1990)	2, 3, 4, 6, 7, 13
<i>Ctr. for Biological Diversity v. U.S. Dep’t of Interior</i> , 563 F.3d 466 (D.C. Cir. 2009)	4
<i>Chamber of Commerce of U.S. v. EPA</i> , 642 F.3d 192 (D.C. Cir. 2011)	4
<i>Cobell v. Salazar</i> , 679 F.3d 909 (D.C. Cir. 2012)	5
<i>Consumer Federation of America v. FCC</i> , 348 F.3d 1009 (D.C. Cir. 2003)	5-6
<i>Forest Guardians v. Babbitt</i> , 174 F.3d 1178 (10th Cir. 1999)	14
<i>Gulfstream Aerospace Corp. v. Mayacamas Corp.</i> , 485 U.S. 271 (1988)	2
<i>Her Majesty the Queen In Right of Ontario v. EPA</i> , 912 F.2d 1525 (D.C. Cir. 1990)	9

* Authorities upon which we chiefly rely are marked with asterisks

<i>Lujan v. Defenders of Wildlife</i> , 504 U.S. 555 (1992)	2
<i>Mashpee Wampanoag Tribal Council v. Norton</i> , 336 F.3d 1094 (D.C. Cir. 2003)	9
<i>Military Toxics Project v. E.P.A.</i> 146 F.3d 948 (D.C. Cir. 1998)	7
<i>In re Monroe Commc'ns Corp.</i> , 840 F.2d 942 (D.C. Cir. 1988)	9
<i>Murphy v. Smith</i> , 138 S. Ct. 784 (2018)	13
<i>In re People's Mojahedin Org. of Iran ("PMOP")</i> , 680 F.3d 832 (D.C. Cir. 2012)	8, 10
* <i>Telecommunications. Research & Action Ctr. v. FCC ("TRAC")</i> , 750 F.2d 70 (D.C. Cir. 1984)	8, 9, 10
<i>Tel. & Data Sys., Inc. v. FCC</i> , 19 F.3d 42 (D.C. Cir. 1994)	3
<i>Tozxi v. U.S. Dep't of Health & Human Servs.</i> , 271 F.3d 301 (D.C. Cir. 2001)	3, 6
<i>In re United Mine Workers of Am. Int'l Union</i> , 190 F.3d 545 (D.C. Cir. 1999)	9
<i>United Transp. Union v. ICC</i> , 891 F.2d 908 (D.C. Cir. 1989)	5
<i>Western Coal Traffic League v. Surface Transportation</i> , 216 F.3d 1168 (D.C. Cir. 2000)	10

Statutes

5 U.S.C. § 706 14

28 U.S.C. § 1653 5

47 U.S.C. § 405 10

Other Authorities

Bryan N. Tramont, *Too Much Power, Too Little Restraint: How the FCC Expands Its Reach Through Unenforceable and Unwieldy “Voluntary” Agreements*,
53 FED. COMM. L.J. 49 (2000) 13

Glossary

2016 Charter Order	<i>Applications of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership for Consent to Transfer Control of Licenses and Authorizations</i> , Memorandum Opinion and Order, 31 FCC Rcd 6327 (rel. May 10, 2016), <i>available at</i> https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-59A1_Rcd.pdf .
2017 Charter Order on Reconsideration	<i>Applications of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership for Consent to Transfer Control of Licenses and Authorizations</i> , Order on Reconsideration, 32 FCC Rcd 3238 (rel. Apr. 3, 2017), <i>available at</i> https://apps.fcc.gov/edocs_public/attachmatch/FCC-17-34A1_Rcd.pdf .
ACA	American Cable Association
APA	Administrative Procedure Act, 5 U.S.C. § 500 <i>et seq.</i>
BHN	Bright House Networks, LLC
CEI	Competitive Enterprise Institute
Communications Act	Communications Act of 1934 as amended, 47 U.S.C. §§ 151-622
FCC	Federal Communications Commission
FDA	Food and Drug Administration
ICC	Interstate Commerce Commission
NHTSA	National Highway Traffic Safety Administration
PEPCO	Potomac Electric Power Company
TRAC	Telecommunications Research & Action Center
TWC	Time Warner Cable Inc.

Introduction

The Federal Communications Commission (“FCC”) does not dispute that it had a 90-day statutory duty to respond to CEI’s petitions for reconsideration. Nor does the FCC dispute that the Administrative Procedure Act (“APA”) requires a court to issue mandamus if agency action is unreasonably delayed or unlawfully withheld. Instead, the FCC seeks to erase the word “shall” from both statutes. The FCC’s interpretation would forever insulate itself from mandamus by downgrading its 90-day statutory duty to a mere congressional suggestion. The interpretation also violates separation of powers, because there would be *no* law that Congress could pass to require the FCC to review CEI’s petition. Constitutional principles require the FCC to abide by congressional mandate, even when it believes it knows better. Further, the equities overwhelmingly favor mandamus here because the FCC offers no competing agency activity that justifies its 21-month delay or that currently prevents the FCC from fulfilling its duty.

Argument

- I. Article III standing is satisfied because the FCC’s own findings demonstrate a causal link between the alleged harm of increased costs to Petitioners and the Order’s challenged merger conditions, and this Court’s elimination of those conditions would redress Petitioners’ injuries.**

The FCC challenges the Article III standing of the individual subscriber Petitioners, claiming that they have not shown “causation—that their monthly

broadband bills increased as a result of the conditions imposed by the Commission or that they would likely decrease if the challenged conditions were lifted.” OB7-8.¹ The FCC’s argument, that causation fails because Petitioners have not shown they were “actually harmed” by the challenged conduct, OB8, misstates the law and imposes a standard higher than Article III demands.

Article III requires (1) an injury in fact, (2) fairly traceable to the challenged conduct of the defendant, and (3) likely to be redressed by a favorable judicial decision. *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-561 (1992). Contrary to the FCC’s argument, “the standing determination must not be confused with [the Court’s] assessment of whether the party could succeed on the merits.” *Competitive Enter. Inst. v. NHTSA*, 901 F.2d 107, 113 (D.C. Cir. 1990) (“*CEP*”). Indeed, the Supreme Court instructs that the elements of standing “must be supported in the same way as any other matter on which the plaintiff bears the burden of proof, *i.e.*, with the manner and degree of evidence required at the successive stages of the litigation.” *Lujan*, 504 U.S. at 561. Thus “general factual allegations of injury” will suffice at the pleading stage. *Id.* Similarly, “a plaintiff seeking a writ of mandamus must plead facts that, when accepted as true, show he has a ‘clear and indisputable right’ to relief.” *Bond v. U.S. Dep’t of Justice*, 828 F. Supp. 2d 60, 75 (D.D.C. 2011) (quoting *Gulfstream Aerospace Corp. v. Mayacamas Corp.*, 485 U.S. 271, 289 (1988)). Here, Petitioners exceed their

¹ OB refers to the FCC’s Opposition Brief, PB refers to Petitioners’ Petition for Mandamus, and “Axyz” refers to page xyz of Petitioners’ Addendum.

burden by submitting not just factual allegations, but also record evidence of their standing.

First, the Petitioners have established Article III causation because the record demonstrates a “fairly traceable” connection between their increased monthly bills and the FCC’s merger conditions. OB9. “For standing purposes, petitioners need not prove a cause-and-effect relationship with absolute certainty; substantial likelihood of the alleged causality meets the test.” *CEI*, 901 F.2d at 113. And, when injury hinges on reaction of third parties, this Court has “required only a showing that the agency action is at least a substantial factor motivating the third parties’ actions.” *Tozzi v. U.S. Dep’t of Health & Human Servs.*, 271 F.3d 301, 308 (D.C. Cir. 2001) (cleaned up). “[M]ere indirectness of causation is no barrier to standing, and thus, an injury worked on one party by another through a third party intermediary may suffice” to establish standing. *Tel. & Data Sys., Inc. v. FCC*, 19 F.3d 42, 47 (D.C. Cir. 1994).

In *CEI v. NHTSA*, petitioner Consumer Alert alleged that the more stringent fuel economy standards issued by the National Highway Traffic Safety Administration (NHTSA) would prevent its members from purchasing larger vehicles. 901 F.2d at 112. Causation thus hinged on the reaction of the third-party auto manufacturers to the agency’s conduct. *Id.* at 113. Several Consumer Alert members submitted affidavits stating that they had been unable to find new large cars. *Id.* at 112. The agency itself had evidence that the fuel standards would restrict the availability of larger vehicles. *Id.* at 114. This Court found a causal link for purposes of Article III standing based on “the agency’s own experience and sound market analysis.” *Id.* at 114.

This Court contrasted the “abundant evidence” of affidavits and agency findings in *CEI v. NHTSA* with the weak record in *Chamber of Commerce of U.S. v. EPA*, 642 F.3d 192 (D.C. Cir. 2011). The Court confirmed that petitioner affidavits and the agency’s own record like those produced in *CEI* could sufficiently support “the burden of adduc[ing] facts showing that those [third-party] choices have been or will be made in such manner as to produce causation and permit redressability of injury.” *Id.* at 642 F.3d at 201 & n.9 (internal quotations omitted) (quoting *Ctr. for Biological Diversity v. U.S. Dep’t of Interior*, 563 F.3d 466, 477 (D.C. Cir. 2009)).

As in *CEI*, a similarly strong record of petitioner declarations and agency findings is present here. Thus, the “causal link” between the FCC’s conditions and Petitioners’ injuries is established by “the evidence in the administrative record itself.” *CEI*, 901 F.2d at 114. Two of the agency’s five commissioners observed the link between the conditions imposed on the transaction and increased consumer costs. Commissioner O’Rielly found that “non-transaction-specific conditions such as these actually cause harm to the applicant’s existing subscribers. Specifically, this new program will result in increases in the cost of cable and broadband service for every current cable subscriber of the three companies....” 2016 Charter Order, Statement of Comm’r Michael P. O’Rielly, A108. Similarly, Commissioner Pai noted that the “natural response” would be “to increase prices on *all* consumers in order to amortize the cost of serving a bandwidth hungry few.” 2016 Charter Order, Dissenting Statement of Comm’r Ajit Pai, A101. Furthermore, as the individual Petitioners attest, New Charter has increased prices since consummating its merger, to the detriment of the individual Petitioners and countless other consumers. *See* Declaration of Dr. John

France, A125; Declaration of Charles Haywood, A130. Further, the FCC's contention that the harms are speculative because Charter was in the process of implementing the conditions of its own accord, *see* OB8, is wrong. *See* Section II.B below.

The injuries that Petitioners suffered due to the Order's conditions on New Charter are "firmly rooted in the basic laws of economics," which is more than "predictions based only on speculation." *United Transp. Union v. ICC*, 891 F.2d 908, 913 n.7 (D.C. Cir. 1989). The above statements regarding consumer injury are supported by Dr. Robert W. Crandall, a Ph.D. economist formerly with the Brookings Institute for 37 years, who has published numerous books and journal articles on telecommunications and cable television regulatory policy. *See* Declaration of Robert W. Crandall ¶ 1 ("Crandall Decl.") (attached).² Dr. Crandall concludes that the FCC's merger conditions harm consumers by either "reducing the quality of their services they receive or raising their cable rates relative to those that would have existed without these conditions." *Id.* ¶ 4.

Consumer Federation of America v. FCC further demonstrates causation here. There, Consumer Federation of America satisfied the injury-in-fact requirement by an affidavit of one of its members alleging that his cable rates had risen before and after

² Dr. Crandall's Declaration is included to further support jurisdiction. *See Cobell v. Salazar*, 679 F.3d 909, 919 (D.C. Cir. 2012) (relying on declaration in response to government challenge to appellant's standing, citing, *inter alia*, 28 U.S.C. § 1653 ("Defective allegations of jurisdiction may be amended, upon terms, in the trial or appellate courts.")).

the challenged merger. 348 F.3d 1009, 1012 (D.C. Cir. 2003). The Court further held that a person may “satisf[y] the causation aspect of the standing analysis” on account of an “agency order [that] *permits* a third-party to engage in conduct that allegedly injures a person.” *Id.* (emphasis added). If causation is satisfied when the agency merely *permits* the challenged conduct, then the individual Petitioners here more than satisfy causation because the FCC *required* New Charter to engage in conduct that caused injury to Petitioners.

Second, Petitioners have sufficiently demonstrated that a reversal of the conditions would redress the injury. Where, as here, petitioners seek to stop the agency’s illegal conduct, “the questions whether the injury alleged is ‘fairly traceable’ to the purportedly illegal conduct and whether the relief requested is ‘likely to redress’ the injury substantially overlap.” *CEI*, 901 F.2d at 113. In *CEI*, this Court rejected the government’s argument that relaxing the fuel standards would not redress the injury because it would not necessarily increase the production of larger vehicles. *Id.* at 116-17. The Court held that “manufacturers are substantially likely to respond to market forces, and to meet that consumer demand by providing a wider range of large passenger vehicles.” *Id.* at 117. “Whatever the difficulties associated with predicting the nature and incidence of the burden that results when a regulation is made more constraining, it is relatively easy to see—at least in a competitive market—how some consumers will benefit if a regulatory constraint is relaxed, and therefore how they continue to be burdened when the regulatory agency denies their request that it be relaxed.” *Id.* at 126 (Ginsburg, J., concurring); *see, e.g., Tozzi*, 271 F.3d at 310 (finding redressability because decreased regulation of chemical meant companies would “less

likely to stop using PVC plastic” which “would redress at least some of [petitioner’s] economic injury”).

Similarly, without these merger conditions, the competitive market would restrict the cost increases to consumers that those conditions would otherwise entail. *See, e.g.,* 2016 Charter Order, Statement of Comm’r Michael P. O’Rielly, A108 (“Absent this mandated condition, the market conditions would determine whether the merged company entered those markets, meaning that the condition will force the existing provider to divert capital from deployment and other pursuits in order to fight a governmentally-mandated competitor through such things as increased marketing costs.”). And “the removal of some or all of these [merger] conditions would reduce the magnitude of these harms.” Crandall Decl. ¶ 13.

Given the standing of the individual petitioners, this Court’s standing inquiry can end here. *See Military Toxics Project v. E.P.A.*, 146 F.3d 948, 954 (D.C. Cir. 1998) (“[i]f one party has standing in an action, a court need not reach the issue of standing of other parties...” (citation omitted)). But in any case, CEI itself has standing as well because individual Petitioner Jean-Claude Gruffat is on CEI’s Board of Directors, *see* A115 n.4. As noted in *CEI*, “[a]n organization has standing to sue on behalf of its members when: (a) its members would have standing to sue in their own right; (b) the interests it seeks to protect are germane to the organization’s purpose; and (c) neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit.” *CEI*, 901 F.2d at 111. As a CEI Director, Mr. Gruffat satisfies similar prerequisites.

In short, both the individual subscriber Petitioners and CEI have standing.

II. Equities support mandamus because the FCC has provided no reason to excuse the 21-month delay in light of the 90-day statutory timetable and the prejudice to CEI and consumers.

The FCC argues that the (now) 21-month delay is not unreasonable based on the “TRAC six-factor test.” OB9 (citing *Telecomms. Research & Action Ctr. v. FCC* (TRAC), 750 F.2d 70 (D.C. Cir. 1984)). But the TRAC principles are not a checklist that the Court need simply mark off. “Because these factors function not as a hard and fast set of required elements, but rather as useful guidance as to whether a delay is ‘so egregious as to warrant mandamus,’ their roles may differ depending on the circumstances.” *Am. Hosp. Ass’n v. Burwell*, 812 F.3d 183, 189-90 (D.C. Cir. 2016).

For example, the FCC argues that mandamus is not warranted because under the third TRAC factor, there is no threat to human health or welfare. OB12. Under the FCC’s reading, mandamus is only warranted in life or death situations, meaning the FCC would nearly *never* be subject to mandamus. While delay is “less tolerable” when human health is involved, TRAC, 750 F.2d at 80, this does not mean that delay is reasonable unless human health is involved. *See, e.g., In re People’s Mojahedin Org. of Iran*, 680 F.3d 832, 837 (D.C. Cir. 2012) (“PMOP”) (holding 20-month delay unreasonable with no finding of human health issues). Similarly, while impropriety is *sufficient* for mandamus, it is not *necessary*; “the court need not find any impropriety lurking behind agency lassitude in order to hold that agency action is unreasonably delayed.” TRAC, 750 F.2d at 80.

Review of the *relevant* TRAC principles demonstrates that the equities weigh in favor of mandamus.

A. The FCC offers no justification for the unreasonable 21-month delay that is now *seven times* its 90-day statutory deadline.

The FCC illogically splits its discussion of the first two *TRAC* principles. But where, as here, the agency had a statutory duty to act within a certain time frame, the second principle provides the content for the first principle: “(1) the time agencies take to make decisions must be governed by a rule of reason; (2) where Congress has provided a timetable or other indication of the speed with which it expects the agency to proceed in the enabling statute, that statutory scheme may supply content for this rule of reason.” *TRAC*, 750 F.2d at 80. Accordingly, the FCC’s discussion of the first principle in the abstract has no application here. The FCC cites to *Mashpee, Ontario*, and *Monroe* (OB10), but none of those cases involved statutory timetables.

The FCC does not dispute that under *TRAC*’s second principle, the 90-day statutory deadline supplies the “rule of reason” for determining whether a delay is reasonable. Instead, the FCC merely states that a statutory deadline does not necessarily warrant a grant of mandamus. OB11. But *In re United Mine Workers of Am. Int’l Union*, 190 F.3d 545 (D.C. Cir. 1999), which the FCC cites, supports mandamus here. There, this Court found unreasonable delay where the agency failed to meet its statutory deadline, but the Court was concerned that the agency would not comply if mandamus were ordered; thus, the Court specifically retained jurisdiction to ensure the agency’s compliance. 190 F.3d at 556.

Barr, which the FCC also cites (OB11), also further supports mandamus considering the undisputed lack of interfering priorities in this case. *In re Barr Labs.*, 930 F.2d 72, 74 (D.C. Cir. 1991)). There, delay in generic drug applications was

“unreasonable” in light of the FDA’s 180-day statutory deadline. 930 F.2d at 75. While *Barr* refused to order mandamus, it was because of the fourth *TRAC* factor regarding competing agency priorities in the face of a personnel crisis at the agency. *Id.* Here, by contrast, the FCC has offered no reason that mandamus should not issue. The FCC has not identified a single activity of competing priority (*TRAC* factor four) that prevents it from deciding CEI’s petition for reconsideration. OB13. The FCC claims that the other petitions regarding the merger that the FCC already decided were more targeted requests, whereas CEI’s petition is a broader request regarding the merger conditions. OB13. While this may explain why it was easier for the FCC to first respond to those other petitions nearly a year ago, it does not explain what activities since then preclude the FCC’s action on CEI’s petition. Thus, unlike *Barr*, where compliance was literally physically impossible, the FCC provides no explanation why it is unable to comply with its statutory duty.

Nor does *Western Coal Traffic League v. Surface Transportation Board* support the agency’s inaction. OB11. *Western Coal* concluded that, under *Chevron*, the Board appropriately placed a moratorium on railroad merger applications under its statutory authority. 216 F.3d 1168, 1176 (D.C. Cir. 2000). But there are no similar statutory grounds for a moratorium on deciding petitions within the statutory deadline.

More importantly, the FCC’s argument that, in allocating resources, *it* knows best is a poorly-veiled attempt to rewrite federal law. Section 405 provides that the FCC “shall” enter an order deciding CEI’s petition and “shall take such action within ninety days.” 47 U.S.C. § 405. While the FCC may like to create its own timetable, federal law requires 90 days. The FCC’s dismissal of this timetable is an affront to

separation of powers. Basic constitutional principles require that the executive agencies must abide by statutory mandates. *In re Aiken Cty.*, 725 F.3d 255, 259 (D.C. Cir. 2013).

PMOI does not support the FCC's argument (OB11) that the statutory timetable only applies to parties to the transaction. *PMOI* did not involve a merger or transaction and nothing in *PMOI* supports the FCC's argument. 680 F.3d at 833. Moreover, the harms related to the unlawful merger conditions are not limited to those involving the parties to the merger transaction; because the unlawful merger conditions also harm Petitioners, the FCC's unreasonable delay is clearly relevant.

B. The merger conditions harm consumers and Petitioners because New Charter had neither the duty nor the incentive to implement the merger conditions.

The FCC claims that Petitioners' interests are not prejudiced because New Charter was "in the process of implementing—of their own accord—a version of each of the conditions petitioners challenge." OB13. But if New Charter was going to implement the conditions on its own, then why require those conditions for the merger? In reality, the FCC knew that New Charter would not implement those conditions unless they were mandatory. In fact, the FCC created a "monitoring system" to ensure New Charter's compliance. A15-16. And if the FCC had not adopted the conditions, New Charter was financially incentivized to abandon them:

- **Usage-based pricing.** The FCC contends that the Order "merely extended" New Charter's commitment to refrain from imposing data caps or charging usage-based pricing. OB13. The merger approval

prohibited such pricing, however, because the agency concluded that New Charter would have an “increased incentive ... to use these practices to hinder the development of [online video distributors] as a competitive option to its own video offerings.” A77.

- **Settlement-free interconnection.** The FCC recognized New Charter’s “sufficient power in the interconnection market to raise prices,” A77. If it were not bound by the merger condition to offer free interconnection until 2023, New Charter could pursue a variety of agreements that would generate additional revenue.
- **Overbuild requirement.** The FCC argues that requiring New Charter to expand its network to two million new customer locations “was an extension of the applicants’ own plans.” OB14. Yet the FCC created the build-out condition specifically to exceed New Charter’s “estimated *natural* growth rate.” A53-A54 (emphasis added). In fact, the FCC *doubled* the size of the network expansion. *Id.* In 2017, the FCC modified the overbuild condition in response to the American Cable Association’s (“ACA’s”) petition for reconsideration. A110. If, as the FCC contends, New Charter was going to implement the overbuild condition on its own, then the FCC would not have needed to modify the requirement in response to ACA’s concerns.
- **Low-income broadband program.** The FCC contends that requiring New Charter to offer a low-income broadband package is “merely a gloss on Charter’s own proposal,” citing a 2015 letter that Charter filed

with the agency. OB14. The agency significantly expanded Charter's proposal, however, "incorporat[ing] multiple enforcement mechanisms and hold[ing] New Charter accountable for achieving specific enrollment figures at regular intervals." *Id.* Without this condition, it is unlikely that New Charter would offer standalone broadband for \$14.99 to certain households, as this price is probably too low to cover the costs of offering the service and would thus require reduced service to existing customers. Crandall Decl., ¶ 8-9.

The FCC argues that "the applicants themselves proposed versions of each condition of their own accord" and that Charter could have avoided these conditions by "withdraw[ing] their transaction." OB15. By the same logic, any company should avoid undesirable regulation by refraining from conduct subject to such rules. The fact that Charter showcased its willingness to live by those conditions before the agency finalized the transaction does not mean they would have implemented these conditions absent the FCC's adoption, but instead, reflects the "high-stakes regulatory dance in which applicants 'volunteer' to take certain actions or to refrain from certain actions as the quid pro quo for favorable agency consideration." Bryan N. Tramont, *Too Much Power, Too Little Restraint: How the FCC Expands Its Reach Through Unenforceable and Unwieldy "Voluntary" Agreements*, 53 FED. COMM. L.J. 49, 52-53 (2000).

The merger conditions result in lost revenue or increased expense that harms Petitioners and other consumers. *See* Section I. As in *CEI*, removing the mandatory

conditions will permit New Charter to appropriately respond to market incentives. 901 F.2d at 117.

III. This Court should grant the writ of mandamus for the independent reason that agency action has been unlawfully withheld.

Forest Guardians v. Babbitt, 174 F.3d 1178, 1190 (10th Cir. 1999), holds that courts must compel agency action under the APA when an agency fails to comply with a statutorily imposed deadline, but the FCC requests a circuit split, asserting that “there is no evidence that in enacting Section 706, Congress intended to withdraw the broad discretion agencies have always been afforded in determining how to set priorities.” OB17. But Section 706 provides that courts “*shall*—(1) compel agency action unlawfully withheld or unreasonably delayed.” 5 U.S.C. § 706 (emphasis added). As the Supreme Court holds, “the word ‘shall’ usually creates a mandate, not a liberty” telling us there is “some nondiscretionary duty to perform.” *Murphy v. Smith*, 138 S. Ct. 784, 787 (2018). The FCC has no response to the multiple Supreme Court authorities cited by CEI, PB23, that hold that Congress may curb this Court’s equitable discretion and make equitable relief (such as mandamus) mandatory.

Under the FCC’s interpretation, there is *no* law that Congress could pass that could create a nondiscretionary duty. The executive branch would have unfettered power to override legislatively-created priorities. “It is no overstatement to say that our constitutional system of separation of powers would be significantly altered if we were to allow executive and independent agencies to disregard federal law....” *Aiken Cty.*, 725 F.3d at 267.

Finally, the FCC claims that *Barr* is the law of this Circuit and cannot be overruled. OB17. But *Barr* never considered whether Section 706 limits a court's equitable discretion and it would contradict Supreme Court precedent to the extent it does. PB23. The FCC provides no reason why this Court cannot decide the issue.

Relief Sought

Petitioners respectfully urge this Court to issue a writ of mandamus compelling the FCC to expeditiously enter an order granting or denying CEI's petition for reconsideration.

March 16, 2018

Respectfully submitted,

/s/ Theodore H. Frank

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Certificate of Compliance

I hereby certify that the foregoing reply complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because this brief has been prepared in a proportionally spaced typeface, 14-point Garamond, using Microsoft Word 2013. I further certify that the foregoing petition complies with the word limits of this Court's Order of January 31, 2018, because it contains 3,835 words.

/s/ Theodore H. Frank

Theodore H. Frank

March 16, 2018

Certificate of Service

I certify that on March 16, 2018, I electronically filed the foregoing brief with the Clerk of the Court for the United States Court of Appeals for the District of Columbia Circuit by using the appellate CM/ECF system. Participants in the case are registered CM/ECF users, and service will be accomplished by the appellate CM/ECF system.

March 16, 2018

/s/ Theodore H. Frank

Theodore H. Frank

ATTACHMENT

Declaration of Robert W. Crandall

Introduction

1. My name is Robert W. Crandall. I am an economist and Nonresident Senior Fellow at the Technology Policy Institute in Washington, DC. For more than 37 years, I was a Senior Fellow at the Brookings Institution in Washington, DC, where I published a number of books and journal articles on telecommunications policy and cable television regulatory policy. A copy of my CV is attached as an Appendix to this declaration. My most recent article, published last year in the *Review of Industrial Organization*, analyzed the effect of the Federal Communications Commission's (FCC's) regulation of network neutrality on equity prices of cable television, telecommunications, and media companies. I have provided expert testimony and advice to a number of major telecommunications companies, antitrust authorities, and the FCC.
2. I have been asked by the Competitive Enterprise Institute to assess the likely effects on consumers, including the individual petitioners in this case, of the conditions imposed by the FCC on Charter Communications to approve its merger with Time Warner Cable.

The Conditions Imposed on the Charter Time Warner Cable Merger

3. The FCC required that Charter agree to these conditions:
 - Building out and offering a broadband Internet access service, capable of providing at least a 60 Mbps download speed, to a minimum of two million additional mass market customer premises within five years.
 - Offering a "low-income broadband program" with minimum speeds of 30/4 Mbps for \$14.99 per month to qualifying households.
 - Providing "settlement-free interconnection" to "edge providers" including, in particular, online video distributors, for seven years after the transaction closes.
 - Refraining from imposing "data caps" or setting "usage-based prices" for its residential broadband Internet access services for seven years after the transaction closes.
4. I conclude that each of these conditions is likely to harm some or all existing Charter subscribers by either reducing the quality of the services they receive or raising their

cable rates relative to those that would have existed without these conditions. Among the consumers likely to be harmed in this manner are the individual petitioners.

The Build-out Requirement

5. To the extent that the build-out requirement is binding, *i.e.*, requires Charter to build out its network to a greater extent than it would have absent the requirement, it diverts resources from other capital projects that could improve the quality of service for existing customers.
6. Charter has had a very aggressive capital expenditure program in the last two years, spending far more in 2017 than the total Charter and Time Warner spent in 2015 when they were separate companies. [Company Annual Reports (10K) to the Securities and Exchange Commission] Much of this expenditure is directed towards plant upgrades that increase the capacity of its network, a crucial consideration as viewers demand more bandwidth for video streaming.
7. Were any of this capital expenditure diverted to building out its network to areas that it has not considered remunerative, such diversion would reduce Charter's ability to finance network upgrades to its existing plant, thereby reducing the quality of services to existing customers.

The Low-Income Broadband Program

8. It is unlikely that the \$14.99 per month low-income broadband offering would cover the full costs of offering the service. Therefore, as with the build-out requirement, the low-income broadband program would reduce Charter's cash flows from its existing and expanded footprints.
9. The reduction in cash flows would reduce Charter's ability to fund improvements in its existing network and would therefore reduce service quality for its existing customers.

Banning Paid Prioritization

10. The requirement that Charter not bill media companies or "edge providers" for interconnection would eliminate one potential future source of revenues for Charter. If Charter were to embrace the opportunity to levy such charges – now that the FCC has vacated its 2015 Net Neutrality rules – the magnitude of these charges would clearly vary with the subscriber base that the edge provider could reach through Charter. As a result, Charter would find it profitable to reduce its subscriber charges somewhat to attract more subscribers and thus greater revenues from interconnection fees.

10. The reduction in subscriber fees would clearly redound to the benefit of existing subscribers. Therefore, any condition that forbids the levying of interconnection charges on edge providers harms existing subscribers.

Forbidding Data Caps

11. The banning of data caps or usage-based charges for seven years deprives Charter of the ability to establish a rate structure that varies with the network costs of customers' data usage. By employing usage-based rates, Charter would have the opportunity to calibrate its charges to reflect the cost of providing increasing amounts of broadband data per month. Without this opportunity, Charter would have to offer a uniform price for each broadband speed regardless of the customer's monthly usage. This uniform rate would be higher than the rate imposed on very low-usage customers under usage-based pricing. Thus, a subset of existing customers would be harmed by the ban on usage-based pricing or data caps.
12. For the foregoing reasons, I believe that there is a significant likelihood that the individual petitioners in this case will be harmed in one or more ways by the conditions imposed by the FCC Order. Furthermore, the removal of some or all of these conditions would reduce the magnitude of these harms.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.



Executed on March 15, 2018.

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Competition and Chaos: U.S. Telecommunications since the 1996 Act. Washington, DC: The Brookings Institution, 2005.

Broadband: Should We Regulate High-Speed Internet Access? (edited with James Alleman), AEI Brookings Joint Center for Regulatory Studies, 2002.

Telecommunications Liberalization on Two Sides of the Atlantic. (with Martin Cave) AEI Brookings Joint Center for Regulatory Studies, 2001.

Who Pays for Universal Service? When Telephone Subsidies Become Transparent. (with Leonard Waverman) Washington: The Brookings Institution, 2000.

Cable TV: Regulation or Competition? (with Harold Furchtgott-Roth), Washington: The Brookings Institution, 1996.

Talk is Cheap: The Promise of Regulatory Reform in North American Telecommunications. (with Leonard Waverman) Washington: The Brookings Institution, 1996.

The Extra Mile: Rethinking Energy Policy for Automotive Transportation. (with Pietro S. Nivola) Washington, DC: The Brookings Institution/Twentieth Century Fund, 1995.

Manufacturing on the Move. Washington, DC: The Brookings Institution, 1993.

After the Breakup: The U.S. Telecommunications Industry in a More Competitive Era. Washington, DC: The Brookings Institution, 1991.

Changing the Rules: Technological Change, International Competition and Regulation in Communications. (Edited with Kenneth Flamm), Washington, DC: The Brookings Institution, 1989.

Up from the Ashes: The Rise of the Steel Minimill in the United States. (With Donald F. Barnett), Washington, DC: The Brookings Institution, 1986.

Regulating the Automobile. (With Howard K. Gruenspecht, Theodore E. Keeler, and Lester B. Lave), Washington, DC: The Brookings Institution, 1986.

Controlling Industrial Pollution: The Economics and Politics of Clean Air. Washington, DC: The Brookings Institution, 1983.

The Scientific Basis of Health and Safety Regulation. (Ed. with Lester Lave), Washington, DC: The Brookings Institution, 1981.

The U.S. Steel Industry in Recurrent Crisis. Washington, DC: The Brookings Institution, 1981.

Articles, Reports, and Contributions to Edited Volumes:

“Restraining the Regulatory State,” *Regulation*, Spring 2017, pp. 44-47.

“The FCC’s Net Neutrality Decision and Stock Prices,” *Review of Industrial Organization*, June 2017, Vol 50. No.4, pp. 555-582.

“Over the Top: Has Technological Change Radically Altered the Prospects for Traditional Media?” in James Alleman (ed.), *Demand for Communications Services: Insights and Perspectives*, Springer, 2013.

“The Long-Run Effects of Copper Unbundling and the Implications for Fiber” (with Jeffrey A. Eisenach and Allan T. Ingraham), *Telecommunications Policy*, Vol. 37 (2013), pp. 262–281

“Looking the Other Way: Telecom Deregulation in the United States,” *Regulatory and Economic Policy in Telecommunications*, No. 7, November 2011.

“Antitrust in High Tech Industries, (with Charles L. Jackson), *Review of Network Economics*, Vol. 38, No. 4, 2011.

“Vertical Separation of Telecommunications Networks: Evidence from Five Countries,” (with Jeffrey Eisenach and Robert Litan), *Federal Communications Law Journal*, 2010, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1471960.

“The Decline of U.S. Manufacturing before and during the Current Crisis,” *L’Industria*, October-December 2009, pp. 679-702.

“Letting Go? The Federal Communications Commission in the Era of Deregulation,” *Review of Network Economics*, Vol. 7, Issue 4, 2008.

“Extending Deregulation: Make the U.S. Economy More Efficient,” in *Opportunity08: Independent Ideas for America’s Next President*. Brookings, 2007.

"Is Mandatory Unbundling the Key to Increasing Broadband Penetration in Mexico? A Survey of International Evidence," 2007, (with J. Gregory Sidak), available at SSRN: <http://ssrn.com/abstract=996065>

“The Adverse Economic Effects of Spectrum Set-Asides” (with Allan T. Ingraham), *Canadian Journal of Law and Technology*, November 2007, pp. 131-40.

“Does Video Delivered Over a Telephone Network Require a Cable Franchise?” (with Hal J. Singer and J. Gregory Sidak) *Federal Communications Law Journal*, Vol. 59 (2007).

“The Failure of Competitive Entry into Fixed-Line Telecommunications: Who Is at Fault?” (with Leonard Waverman) *Journal of Competition Law and Economics*, Vol 2, 2006, pp. 113-148.

“Broadband Communications,” in *Handbook of Telecommunications Economics, Vol II*, Sumit K. Majumdar, Ingo Vogelsang, and Martin E. Cave (eds.), Elsevier, 2005.

“The Remedy for the ‘Bottleneck Monopoly’ in Telecom: Isolate It, Share It, or Ignore It?” *University of Chicago Law Review*, Vol. 72, No.1, Winter 2005.

"Are Vertically Integrated DSL Providers Squeezing Unaffiliated ISPs (and Should We Care)?" (with Hal J. Singer), in *Access Pricing: Theory, Practice and Empirical Evidence*, Justus Haucap and Ralf Dewenter eds., Elsevier Press, 2005.

“Life Support for ISPs?”(with Hal J. Singer), *Regulation*, Vol. 28, (2005), pp.46-52.

“Bandwidth for the People” (with Robert Hahn, Robert Litan, and Scott Wallsten), *Policy Review*, No. 127, October-November 2004.

“Internet Telephones: Hanging Up on Regulation,” with Robert W. Hahn, Robert E. Litan, and Scott Wallsten,” *The Milken Institute Review*, 2004-III, Vol. 6 No. 3, pp. 30-34.

“Foreign Investment Restrictions as Industrial Policy: The Case of Canadian Telecommunications,” (with Hal J. Singer), *Canadian Journal of Law and Technology*, Vol 3, No. 1, March 2004, pp. 19-32.

"Do Unbundling Policies Discourage CLEC Facilities-Based Investment?", (with Allan T. Ingraham, and Hal J. Singer) *Topics in Economic Analysis & Policy*, 2004, Vol. 4: No. 1, Article 1.

"Should Regulators Set Rates to Terminate Calls on Mobile Networks?"(with J. Gregory Sidak) *Yale Journal on Regulation*, 2004.

"Injunctive Relief in Sherman Act Monopolization Cases," (with Kenneth G. Elzinga) *Research in Law and Economics*, Vol. 21, Elsevier, 2004, pp. 277-34.

"Telecommunications Policy and the Evolution of the Internet," in *The New Economy in East Asia and the Pacific*, Peter Drysdale, ed., RoutledgeCourzon, London, 2004, pp. 60-87.

"Does Antitrust Policy Improve Consumer Welfare? Assessing the Evidence," (with Clifford Winston) *Journal of Economic Perspectives*, Fall 2003, pp. 3-26

"The \$500 Billion Opportunity: The Potential Economic Benefit of Widespread Diffusion of Broadband Internet Access" (with Charles L. Jackson), in Allan L. Shampine (ed) *Down to the Wire: Studies in the Diffusion and Regulation of Telecommunications Technologies*, Nova Science Press, Hauppauge, NY, 2003

"An End to Regulation?" in *Competition and Regulation in Utility Markets*, Colin Robinson, ed., Edward Elgar, London, 2003.

"Is Structural Separation of Incumbent Local Exchange Carriers Necessary for Competition?" (with J. Gregory Sidak), *Yale Journal on Regulation*, Vol. 19, No.2, 2002, pp. 335-411.

"The Empirical Case Against Asymmetric Regulation of Broadband," (with J. Gregory Sidak and Hal J. Singer) *Berkeley Technology Law Journal*, 2002

"Universal Service, Equal Access, and the Digital Divide," in *Bridging the Digital Divide*. Hitachi Public Affairs Forum, California Council on Science and Technology, May 2001, pp. 29-38.

"Telecommunications Policy Reform in the United States and Canada," (with Thomas W. Hazlett) in Martin Cave and Robert W. Crandall (eds.), *Telecommunications Liberalization on Two Sides of the Atlantic*, AEI/Brookings Joint Center for Regulatory Studies, 2001.

"The Failure of Structural Remedies in Sherman Act Monopolization Cases," *Oregon Law Review*, Spring 2001, pp. 109-98.

"Sports Rights and the Broadcast Industry" (with Martin Cave), *The Economic Journal*, Vol. 111, February 2001, pp. F4-F26.

"Bridging the Digital Divide – Naturally," *Brookings Review*, Winter 2001, pp. 38-43.

"Local and Long-Distance Competition: Replacing Regulation with Competition," in Randolph J. May and Jeffrey A. Eisenach (eds.), *Communications Deregulation and FCC Reform: What Comes Next?* Washington: The Progress and Freedom Foundation, 2000.

“Competition in U.S. Telecommunications Services: Effects of the 1996 Legislation,” (with Jerry Hausman) in Sam Peltzman and Clifford Winston (eds.), *Deregulation of Network Industries*, Washington: The Brookings Institution, 2000.

“Competition in Telecom: The U.S. and Canadian Paths,” (with Leonard Waverman) in Dale Orr and Thomas R. Wilson (eds.), *The Electronic Village: Policy Issues in Telecommunications*. Toronto: C.D. Howe Institute, 1998.

“New Zealand Spectrum Policy: A Model for the United States?” *The Journal of Law and Economics*, October 1998, pp. 821-839.

“The Impact of Telecommunications Deregulation on Midsize Business,” in Gary D. Libecap (ed.), *Advances in the Study of Entrepreneurship, Innovation, and Economic Growth: Legal, Regulatory, and Policy Changes that Affect Entrepreneurial Midsize Firms*. Stamford, CT: JAI Press, 1998, pp. 23-42.

“Telephone Subsidies, Income Redistribution, and Economic Welfare,” in Roger G. Noll and Monroe E. Price, *A Communications Cornucopia: Markle Foundation Essays on Information Policy*. Washington: The Brookings Institution, 1998.

“Electric Restructuring and Consumer Interests: Lessons from Other Industries,” *The Electricity Journal*, Volume 11, No. 1, January/February 1998.

“Is it Time to Eliminate Telephone Regulation?” in Donald L. Alexander (ed.), *Telecommunications Policy: Have Regulators Dialed the Wrong Number?*, Westport, CT: Praeger, 1997, pp. 17-30.

“Competition and Regulation in the U.S. Video Market,” *Telecommunications Policy*, Vol. 21, No. 7, 1997, pp. 649-660.

“Are We Deregulating Telephone Services? Think Again.” *Brookings Policy Brief*, Number 13, March 1997

“Are Telecommunications Facilities ‘Infrastructure?’ If They Are, So What? *Regional Science and Urban Economics*, 27 (1997), pp. 161-79.

Economic Deregulation and Customer Choice: Lessons for the Electric Utility Industry. (with Jerry Ellig), Center for Market Processes, George Mason University, 1997.

“Telecom Mergers and Joint Ventures in an Era of Liberalization,” in Gary Clyde Hufbauer and Erika Wada(eds.) *Unfinished Business: Telecommunications After the Uruguay Round*. Washington, DC: Institute for International Economics, 1997, pp. 107-24.

“From Competitiveness to Competition: The Threat of Minimills to Large National Steel Companies,” *Resources Policy*, Vol. 22, Nos. 1/2, March/June 1996, pp.107-118.

“Clearing the Air: EPA’s Self-Assessment of Clean-Air Policy,” (with Frederick H. Rueter and Wilbur A. Steger), *Regulation*, 1996, Number 4, pp. 35-46.

“Phone Rates in a Deregulated Market,” *The Brookings Review*, Summer 1996.

"Competition and Regulatory Policies for Interactive Broadband Networks," (with J. Greory Sidak), Southern California Law Review, July 1995.

"The Unregulated Infobahn," (with J. Gregory Sidak), Jobs & Capital, Vol. 4, Summer 1995, pp. 28-32.

"Managing the Transition to Deregulation in Telecommunications," in Steven Globerman, W.T. Stanbury, and Thomas A. Wilson (eds.), The Future of Telecommunications Policy in Canada. University of British Columbia and the University of Toronto, 1995.

"Productivity Growth in the Telephone Industry Since 1984," (with Jonathan Galst) in Patrick Harker (ed.), The Service Productivity and Quality Challenge, Dodrecht: Kluwer Academic Publishers, 1995, Chapter 14.

"Cable Television: Reinventing Regulation," The Brookings Review, Winter 1994, pp. 12-15.

"Explaining Regulatory Policy" (with Clifford Winston), Brookings Papers on Economic Activity, Microeconomics, 1994, pp. 1-31.

"Pricing Issues in Telecommunications," Maine Policy Review, Vol. 3, No. 1, May 1994.

"Regulation and the "Rights" Revolution: Can (Should) We Rescue the New Deal?" Critical Review, Vol. 7 Nos. 2-3, 1993, pp. 193-204.

"Comment: Transactions Prices," Price Measurement and Their Uses, (Murray F. Foss, Marilyn E. Manser, and Allan H. Young, eds.), University of Chicago Press, 1993.

"Pollution Controls" in David R. Henderson (ed.), The Fortune Encyclopedia of Economics, New York: Warner Books, 1993.

"Relaxing the Regulatory Stranglehold on Communications," Regulation, Summer 1992, pp. 26-35.

"Regulating Communications: Creating Monopoly While Protecting Us From It," The Brookings Review, Summer 1992, Volume 10, No. 3, pp. 34-39.

"Policy Watch: Corporate Average Fuel Economy Standards," Journal of Economic Perspectives, Spring 1992, pp. 171-80.

"Why Is the Cost of Environmental Regulation So High?" Center for the Study of American Business. St. Louis: Washington University, Policy Study No. 110, February 1992.

"Liberalization Without Deregulation: Telecommunications Policy During the 1980s," Contemporary Policy Issues, October 1991.

"Halfway Home: U.S. Telecommunications (De)Regulation in the 1970s and 1980s," in Jack High (ed.), Regulation: Economic Theory and History. Ann Arbor: The University of Michigan Press, 1991.

"Efficiency and Productivity," in Barry G. Cole (ed.), After the Breakup: Assessing the New Post-AT&T Divestiture Era. New York: Columbia University Press, 1991.

"The Politics of Energy: New Fuel Economy Standards?" (with John D. Graham), The American Enterprise, March/April 1991.

"The Clean Air Act at Twenty," Journal of Regulation and Social Costs, September 1990.

"Fragmentation of the Telephone Network" in Paula Newberg (ed.), New Directions in Telecommunications Policy. Durham, NC: Duke University Press, 1989.

"The Effect of Fuel Economy Standards on Automobile Safety," (with John D. Graham), Journal of Law and Economics, April 1989.

"Surprises from Telephone Deregulation and the AT&T Divestiture," American Economic Review, May 1988, pp. 323-327.

"The Regional Shift of U.S. Economic Activity" in Robert E. Litan, et al., American Living Standards, Washington, DC: The Brookings Institution, 1988.

"Deregulation and Divestiture in the U.S. Telecommunications Sector" in Economic Deregulation: Promise and Performance. Proceedings of the 1987 Donald S. MacNaughton Symposium, Syracuse University, 1988.

"Whatever Happened to Deregulation?" in David Boaz (ed.), Assessing the Reagan Years. Washington, DC: The CATO Institute, 1988.

"Regulatory Reform: Are We Ready for the Next Phase?" in The Brookings Review, The Brookings Institution, Winter 1988/89.

"Telecommunications Policy in the Reagan Era," Regulation, Washington, DC: American Enterprise Institute, 1988, Number 3, pp. 18-19.

"A Sectoral Perspective: Steel" in Robert M. Stern, et.al. (eds.), Perspectives on a U.S.-Canadian Free Trade Agreement, Washington, DC: The Brookings Institution, 1987.

"The Effects of U.S. Trade Protection for Autos and Steel," Brookings Papers on Economic Activity, 1987:2, The Brookings Institution.

"Has the AT&T Breakup Raised Telephone Rates?" in The Brookings Review, Winter 1987.

"Public Policy and the Private Auto," (with Theodore E. Keeler) in Gordon, et.al. (eds.), Energy: Markets and Regulation, Essays in Honor of M.A. Adelman. Cambridge, MA: MIT Press, 1986

"Materials Economics, Policy, and Management: An Overview," with Michael B. Bever, in Encyclopedia of Materials Science and Engineering, Pergamon Press, 1986.

"Metals Industries: International Structure," in Encyclopedia of Materials Science and Engineering, Pergamon Press, 1986.

"The Steel Industry in Transition," Materials and Society, Pergamon Journals Ltd., Vol. 10, No. 2, 1986.

"The Public Interest in Metals Policy," in David A. Gulley and Paul DUBY (eds.), The Changing World Metals Industries. New York: Gordon and Breach, 1986.

"Economic Rents as a Barrier to Deregulation," The CATO Journal, Spring/Summer 1986.

"The Transformation of U.S. Manufacturing," Industrial Relations, Spring 1986. "Investment and Productivity Growth in the Steel Industry: Some Implications for Industrial Policy," in Walter H. Goldberg, Ailing Steel: The Transoceanic Quarrel, Gower, 1986.

"The EC-US Steel Trade Crisis," in Loukas Tsoukalis (ed.), Europe, America, and the World Economy, Oxford: Basil Blackwell, 1986.

"Why Should We Regulate Fuel Economy at All?" in The Brookings Review, Spring 1985.

"An Acid Test for Congress," Regulation, September/December 1984.

"Import Quotas and the Automobile Industry: The Costs of Protectionism," The Brookings Review, Summer 1984.

"Automobile Safety Regulation and Offsetting Behavior: Some New Empirical Estimates," (with John D. Graham), American Economic Review, Papers and Proceedings, May 1984.

"The Political Economy of Clean Air: Practical Constraints on White House Review," in V. Kerry Smith, Environmental Policy Under Reagan's Executive Order: The Role of Benefit-Cost Analysis, University of North Carolina Press, 1984.

"The Marketplace: Economic Implications of Divestiture," (with Bruce M. Owen), in Harry M. Shooshan III, Discounting Bell: The Impact of the AT&T Divestiture, Pergamon Press, 1984.

"Environmental Policy in the Reagan Administration," (with Paul R. Portney), in Paul R. Portney (ed.), Natural Resources and the Environment: The Reagan Approach, The Urban Institute and Resources for the Future, 1984.

"The Emerging Competition in the U.S. Telecommunications Market" in New Opportunities for Entrepreneurship, The Kiel Institute, 1984.

"Deregulation: The U.S. Experience," Zeitschrift fur die gesamte Staatswissenschaft, October 1983, pp. 419 - 434.

Review of John Zysman and Laura Tyson, American Industry in International Competition, Science, Vol. 222, October 21, 1983.

"Air Pollution, Environmentalists, and Coal Lobby," in Roger G. Noll and Bruce M. Owen (eds.), The Political Economy of Deregulation, American Enterprise Institute, 1983.

"The Use of Environmental Policy to Reduce Economic Growth in the Sun Belt: The Role of Electric-Utility Rates" in Michael A. Crew (ed.), Regulatory Reform and Public Utilities, Lexington Books, 1982.

"The Cost of Automobile Safety and Emissions Regulation to the Consumer: Some Preliminary Results," (with Theodore E. Keeler and Lester B. Lave), American Economic Review, May 1982.

"Environmental Policy," Regulation, March/April 1982.

"Has Reagan Dropped the Ball?" in Regulation, November/December 1981.

"The Use of Cost-Benefit Analysis in Regulatory Decision-Making," Annals New York Academy of Sciences, 1981.

"The Deregulation of Cable Television," (with Stanley M. Besen), Law and Contemporary Problems, Duke University School of Law, Vol. 44, No. 1, Winter 1981.

"The Impossibility of Finding a Mechanism to Ration Health Care Resources Efficiently" in A New Approach to the Economics of Health Care, Mancur Olson (ed.), American Enterprise Institute for Public Policy Research, 1981.

"Pollution Controls and Productivity Growth in Basic Industries" in Productivity Measurement in Regulated Industries, Academic Press, 1981.

"Where is the Public Interest in Broadcasting Regulation?" in Regulation and the Future Economic Environment-Air to Ground, Charles F. Phillips, Jr. (ed.), December 1980.

"The Environmental Protection Agency," (On Saving the Kingdom: Advice for the President-Elect), Regulation, November/December 1980.

"Steel Imports: Dumping or Competition?" in Regulation, July/August 1980.

"Regulation and Productivity Growth" in Proceedings: Conference on Productivity, Federal Reserve Bank of Boston, Martha's Vineyard, June 1980.

"The Prospects for Regulatory Reform," Government Regulation: New Perspectives, Andrew Blair, ed., Pittsburgh: University of Pittsburgh, 1980.

"The Economics of the Current Steel Crisis in OECD Member Countries" in Steel in the 80's, Organization for Economic Co-operation and Development, Paris, 1980.

"Environmental Control Is Out of Control," Chemical and Engineering News, Vol. 57, April 23, 1979.

"Paying for Government Policy Through the Price Level" in Clarence C. Walton (ed.), Inflation and National Survival, 1979.

"Is Government Regulation Crippling Business?" in Saturday Review, January 20, 1979.

"Federal Government Initiatives to Reduce the Price Level," Brookings Papers on Economic Activity, 1978:2.

"Competition and 'Dumping' in the U.S. Steel Market," Challenge, July/August 1978.

"Regulation of Television Broadcasting: How Costly is the 'Public Interest'?" in Regulation, January/February 1978.

"Placing a Value on the Electromagnetic Spectrum: A Suggested Approach for FCC Decision-Making," Proceedings of the Conference on Telecommunications Policy Research, Airlie House, 1977.

"Theoretical Issues in the Regulation of Communications Common Carriage" in Rate of Return Regulation, FCC Future Planning Conference, July 1976.

"The Postwar Performance of the Motion Picture Industry," The Antitrust Bulletin, Spring 1975.

"An Econometric Model of the Low-Skill Labor Market," (with C.D. MacRae and Lorene Y.L. Yap), The Journal of Human Resources, Winter 1975.

"The Economic Case for a Fourth Commercial Television Network," Public Policy, Harvard University Press, Fall 1974.

"The Profitability of Cable Television: An Analysis of Acquisition Prices," The Journal of Business, University of Chicago, October 1974.

"A Reexamination of the Prophecy of Doom for Cable Television," (with Lionel L. Fray), The Bell Journal of Economics and Management Science, Spring 1974.

"Monopoly," The Dictionary of American History, Charles Scribner's & Sons, 1973.

"FCC Regulation, Monopsony, and Network Television Program Costs," The Bell Journal of Economics and Management Science, Autumn 1972.

Study Guide for Basic Economics (with R.S. Eckaus), Little, Brown and Company, 1972.

Contemporary Issues in Economics: Selected Readings (with R.S. Eckaus), Little, Brown and Company, 1972.

"Economic Subsidies in the Urban Ghetto," (with C.D. MacRae), Social Science Quarterly, December 1971.

"The Economic Effect of Television-Network Program 'Ownership'," The Journal of Law and Economics, Vol. XIV, October 1971.

"The Decline of the Franchised Dealer in the Automobile Industry," The Journal of Business, University of Chicago, January 1970.

"Motor Vehicle Repair, Repair-Parts Production, and the Franchised Vehicle Dealer," Hearings: The Automobile Industry, U.S. Senate Antitrust Subcommittee of the Committee on the Judiciary, 1969.

"Vertical Integration and the Market for Repair Parts in the United States Automobile Industry,"
The Journal of Industrial Economics, Oxford: Basil Blackwell, July 1968.