Attorney General Andrew Bailey
Office of the Attorney General
207 W. High St.
P.O. Box 899
Jefferson City, MO 65102

October 30, 2023

Dear Attorney General Bailey—

The Board of Trustees of Washington University in St. Louis (WashU), as fiduciary of a non-profit educational institution, is bound by the laws of Missouri to promote the well-being of its students and community and to further its commitment to educational excellence. WashU's mission is, in part, "to contribute positively to our home community of St. Louis, and to effect meaningful, constructive change in our world."[1] As a highly regarded scientific and medical institution, WashU is expected to contribute positively to the community and the world. However, by continuing to invest in fossil fuels, WashU undermines its own mission and commitment to helping the St. Louis community.

Under the Missouri Uniform Prudent Management of Institutional Funds Act, the Board of Trustees has a fiduciary duty to invest with consideration for the University's charitable purposes — a duty that distinguishes non-profit institutions from other investors. It may be problematic, then, that the Board of Trustees has invested a portion of the University's 12.3 billion dollar endowment in the fossil fuel industry — damaging the world's natural systems, disproportionately harming youth, low-income people, and communities of color, and imperiling the University's financial and physical condition. In the midst of the climate crisis, powerful institutions must take responsibility for their contributions to global warming. As concerned students, faculty, and civic groups, we ask that you investigate this conduct and use your enforcement powers to bring the Board's investment practices into compliance with its fiduciary obligations.

Missouri law provides rules that charitable managers and investors must follow in managing institutional funds. As stewards of the WashU endowment, the Board of Trustees is required to act in good faith and with loyalty, taking care that its investments further the purposes of the University. The Board of Trustees may not seek profit at any cost: the privileges that WashU enjoys as a non-profit institution come with the responsibility to ensure that its resources are put to socially beneficial ends. By investing an estimated 625 million dollars in fossil fuel stocks, the Board of Trustees is in violation of these duties to the University and to the public.[2] (According to the 2021-2022 Endowment Annual Report, only twenty-nine percent of

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[1] Mission Statement, Washington University in St. Louis Board of Trustees (last visited July 10, 2023).

[2] This is a rough estimate based on figures from the 2021-2022 Annual Report and averages of private and global equity in energy. We added these values and subtracted alternative energy investments. *See* Annual Report 2021-2022, Washington University Investment Management Company, (2022) at 13; Pontus Averstad, Alejandro Beltrán, Marcel Brinkman, Paul Maia, Gary Pinshaw, David Quigley, Aditya Sanghvi, John Spivey, & Brian Vickery, McKinsey Global Private Markets Review 2023 at 25, Private Equity & Principal Investors Practice, McKinsey (2023); MSCI ACWI Index (USD), Morgan Stanley Capital International All Country World (2023) at 2.

the University's investments are in "positive impact areas,"[3] which implies that seventy-one percent of investments are not creating a positive impact.)

The values that guide the Board of Trustees' investments are clear. Its bylaws declare a commitment "to act in service of truth through the formation of leaders, the discovery of knowledge and the treatment of patients for the betterment of our region, our nation and our world,"[4] while its website notes that "[c]limate change and environmental degradation are truly complex problems that require leadership and collaboration from all sectors. Institutions of higher education have a crucial role to play, and Washington University in St. Louis is fully committed to being a national sustainability leader in research, teaching, and operations."[5] And yet, despite the demonstrable financial and social benefits of institutional fossil fuel divestment, the Board of Trustees continues to provide financial support for an industry whose business model inexorably leads to environmental destruction and social injustice.

It is now widely recognized that climate change is an existential threat to humanity and our environment. In addition to sea level rise, extreme weather events, and species extinctions, climate change causes injuries to all members of society, particularly to the most vulnerable. Pollution from the combustion of fossil fuels results in an estimated 10,000 premature deaths daily. Communities of color disproportionately suffer pollution and health burdens from fossil fuel extraction and combustion. Low-income people bear the brunt of climate-based economic dislocation, as illustrated by the plight of climate migrants and refugees already forced from their homes by drought, flooding, and social conflict. Indigenous communities are regularly invaded and harmed by the spread of fossil fuel infrastructure. And, as a result of the economic precarity and increased burden of care work that results from climate disruptions, women suffer more serious detriments.

The need to refrain from promoting such outcomes is obvious for any institution that calls itself a charity and contributes to medical research. Yet the Board of Trustees has repeatedly refused to apply WashU's values to its investment activity. From managers of an institution of higher education, this conduct is especially galling. Fossil fuel companies have long engaged in a well-documented campaign to undermine climate science and distort public debate about how to deal with the climate crisis, without regard for their impact on human lives. The industry's spread of scientific misinformation and funding of questionable research undermines the work of faculty and students who are designing solutions for a sustainable future. Likewise, the flow of fossil fuel money to politicians and think tanks has diverted or delayed serious government action to address the climate crisis, placing a special burden on young people whose futures will be most impacted by these investments. Even as the university declares itself "fully committed to being a national leader in sustainability, a core priority that runs through all aspects of our community, our operations, and our work as a leading teaching and research institution,"[6] the Board channels funds to an industry committed to winning short-term profits at the expense of the public good.

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[3] Annual Report 2021-2022, *supra* at note 2, at 17.
[4] *Id.*
[5] Sustainability, Washington University in St. Louis (last visited July 10, 2023).
[6] *Id.*

A similar inversion of values underlies the Board of Trustees' funding of climate degradation despite its duty to protect WashU's physical property. Climate change impacts such as sea level rise, higher temperatures, extreme rainfall, mental health challenges, and other sources of disruption are likely to pose serious threats to University land, buildings, and operations in the coming decades. Administrators may be forced to retrofit facilities and manage infrastructure disruptions. Instead of facilitating such injuries, the Board of Trustees should be doing everything in its power to prevent them.

The Board of Trustees is bound by an additional legal duty: the requirement to manage WashU's assets with prudence. Prudent investment practice cannot be squared with the ownership of fossil fuel assets. Investment in the oil, gas, and coal sectors has become excessively risky thanks to increased government regulation and the fossil fuel industry's own failure to diversify its operations and avoid capital-intensive extraction. Fossil fuel stocks have performed significantly worse than market averages in recent years. The domestic coal sector has nearly collapsed, and natural gas likewise stands to lose much of its value as cheaper, more sustainable energy sources become more readily available. For any prudent investor, these signs clearly indicate that continued investment in fossil fuels is a losing proposition.

Exacerbating the industry's poor financial performance is a well-documented pattern of alleged fraud. Fossil fuel companies such as ExxonMobil have allegedly misled investors by concealing the anticipated impact of climate change and energy regulation on the value of assets such as untapped oil reserves. Despite its legal duty to exercise care and prudence in avoiding dangerous securities, however, the Board of Trustees continues to invest in the fossil fuel sector.

The Board cannot plead ignorance of its duty to divest. For years, WashU students and faculty have pushed for investment practices that align with the University's mission. This pressure was instrumental in the Board's decision to withdraw certain investments from companies doing business in apartheid South Africa:[7] acknowledgement that its investment activity must comport with the University's missions and values. Repeated rallies, reports, and requests for negotiation have alerted the Board of Trustees to its fiduciary responsibility.

It is too late for the Board of Trustees to deny the relation between its investments and climate change. Its obligations under Missouri law and its own governing documents are clear, and fossil fuel investment is incompatible with those obligations.

We have included below a fuller description of the Board's violations, along with documents and reports supporting the claims made in this complaint. We would appreciate the opportunity to have members of our group meet with your staff to discuss legal avenues to address this matter.

Sincerely,
Concerned students, faculty, and civic groups (listed on the pages that follow):

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[7] Gloria S. Ross, William Danforth Dies At 94. He Led Wash U To Financial Stability, Established St. Louis As Plant Science Hub, St. Louis Public Radio (Sept. 16, 2020).

Green Action WashU

WashU Faculty

Nathaniel Farrell, College Writing Program
Sarah Gehlert, MA, MSW, PhD, Former Dean at USC Suzanne Dworak-Peck School of Social Work and WashU Research Professor
Shefali Chandra, PhD, Associate Professor of Women, Gender & Sexuality Studies and Department of History
Bret Gustafson, PhD, Professor of Sociocultural Anthropology
Molly Metzger, PhD; Senior Lecturer; Brown School
Molly Pearson, MSW, Assistant Professor of Practice, Brown School
Lora Iannotti, Professor, Brown School/WashU
Jean Francois Trani, Associate Professor, Washington University in St Louis
Froggi VanRiper, PhD, Lecturer in Environmental Studies
Michael Wysession, PhD, Professor of Earth, Environmental, and Planetary Sciences
Robert E. Hegel, Professor Emeritus in Comparative Literature and East Asian Languages and Cultures
Erik Herzog, Professor, Biology, WUSTL
Jae S. Morris, PhD, Postdoctoral Research Associate, Department of Biology
Tara Rocque, Associate Professor of Practice, Washington University School of Law
Kyle Olson, PhD, Lecturer in Archaeology

WashU Student Organizations

Resist WashU
Access STL
WashU Outing Club
SEEDS STL
WashU Vegan
WashU Student Sustainability Board
Student Environmental Council
WashU Green Ambassadors
Burning Kumquat
WashU Asian Multicultural Council
The Wilderness Project
#MeToo WashU
WashU PPGA
Title Mine WashU
WashU Bird Club

Other Student Organizations

Berkeley ASUC* Eco Office (*titles for identification purposes only)
Climate Justice at Boston College
Divest Princeton
Divest UChicago
Drexel Community for Justice
Fossil Free Penn

Fossil Free Pitt Coalition
Fossil Free UC Davis
Fossil Fuel Divest Harvard
Green New Deal at UCSD
MIT Divest
Penn State Eco-Action
Students for Environmental Concerns UIUC
Sunrise Brown
Sunrise Columbia
Sunrise NYU
Temple Climate Action
Tufts Climate Action
UCSC Climate Coalition
University of California Green New Deal Coalition
Divest Claremont Colleges

Local Organizations and Individuals
River City Climate Collective
Gretchen Waddell Barwick, Chapter Director, Sierra Club, Missouri Chapter

National Organizations
Atlantic Coast Conference Climate Justice Coalition
Campus Climate Network (formerly known as Fossil Free Research)
Catholic Divestment Network
Fridays for Future US
Protecting Our Waters
Seeding Sovereignty
SUSTAIN The Mag
Third Act Educators
TIAA-Divest!
Youth Climate Finance Alliance

International Organizations
350.org
End Fossil International
GreenFaith
Stand.earth
Tuesdays for Trash
Care About Climate

For individual signatories, affiliations are for identification purposes only.

Prepared with assistance from attorneys at Climate Defense Project.

cc.

Andrew D. Martin, Chancellor, Washington University in St. Louis

Rebecca Brown, Vice Chancellor for Strategic Initiatives and University Governance, Washington University in St. Louis

Andrew M. Bursky, Chair of the Board of Trustees, Washington University in St. Louis

David W. Kemper, Vice Chair of the Board of Trustees, Washington University in St. Louis

Andrew E. Newman, Vice Chair of the Board of Trustees, Washington University in St. Louis

Craig D. Schnuck, Vice Chair of the Board of Trustees, Washington University in St. Louis

Scott L. Wilson, Chief Investment Officer, Washington University in St. Louis

Andrew Choquette, Deputy Chief Investment Officer, Washington University in St. Louis

SUPPORTING DOCUMENTATION

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I. The Trustees' violation of Missouri law

Washington University in St. Louis (WashU) is a charitable corporation founded in 1853 and organized under Missouri law and Section 501(c)(3) of the Internal Revenue Service Code. The Board of Trustees, WashU's governing body, "provides strategic oversight in order to ensure the institution is moving in the right direction." The Board delegates management of the University's endowment to the Washington University Investment Management Company (WUIMC), established in 2006.[8] WUIMC's purpose is to "[build] and manag[e] a perpetual investment portfolio in support of the university's critical and interlocking missions of teaching, research, and patient care for current and future generations."[9]

WUIMC recognizes its legal duties as fiduciary of the endowment and commits itself to ethical stewardship; accountability; "intelligent and insightful" risk management; prioritizing long-term interests; fostering diversity, equity, and inclusion; and continuously learning and adapting to change.[10] As ethical stewards, WUIMC professes to "follow[] the highest business ethics standards" and "expects the same from its external investment partners and the management of companies in which they invest."[11] WUIMC also asserts that "[e]thical considerations must be a component of all due diligence, research, and investment decisions" and that it "does not seek to profit from the violation of basic human rights and dignity, abusive or oppressive labor practices, gross pollution or environmental destruction, or any form of bribery and corruption."[12]

- Continued investment in fossil fuel corporations by WUIMC *violates the fiduciary duties spelled out in the Missouri Uniform Prudent Management of Institutional Funds Act (MUPMIFA)*.
    - MUPMIFA states that, "[s]ubject to the intent of a donor expressed in a gift instrument, an institution, in managing and investing an institutional fund, shall consider the charitable purposes of the institution and the purposes of the institutional fund."[13] The model UPMIFA drafting committee describes consideration of "charitable purposes" as a "fundamental duty,"[14] and this requirement distinguishes charitable investors like the Board from other entities such as pension funds.
    - MUPMIFA further requires that, "[i]n addition to complying with the duty of loyalty imposed by law other than in sections 402.130 to 402.148, each person responsible for managing and investing an institutional fund shall manage and invest the fund in good faith and with the care an ordinarily prudent person in a like position would exercise under similar circumstances."[15]

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[8] Board of Trustees, Washington University in St. Louis (last visited July 14, 2023).
[9] Investment Management Company (WUIMC), Washington University in St. Louis (last visited July 14, 2023).
[10] Statement of Investment Principles, Investment Management Company (WUIMC), Washington University in St. Louis (last visited July 14, 2023).
[11] *Id.*
[12] *Id.*
[13] MO Rev. Stat. § 402.132.1 (2022).
[14] National Conference of Commissioners on Uniform State Laws, Uniform Prudent Management of Institutional Funds Act, with Prefatory Notes and Comments at 15 (2006).
[15] MO Rev. Stat. § 402.132.2 (2022).

- MUPMIFA lists several factors that must be considered in managing and investing an institutional fund, including: "general economic conditions . . . the role that each investment or course of action plays within the overall investment portfolio of the fund; the expected total return from income and the appreciation of investments . . . [and] an asset's special relationship or special value, if any, to the charitable purposes of the institution."[16]
- Although the directors of charitable institutions may delegate investment authority to an external agent, such delegation does not suspend their duty to do so "prudently . . . under the circumstances, and to "act in good faith with the care that an ordinarily prudent person in a like position would exercise under similar circumstances in: (1) Selecting an agent; (2) Establishing the scope and terms of the delegation consistent with the purposes of the institution and the institutional fund; and (3) Periodically reviewing the agent's actions in order to monitor the agent's performance and compliance with the scope and terms of the delegation."[17]

- By financially supporting the degradation of the climate, widespread damage to ecological and human health, and serious obstacles to environmental and social equity, the Board has *failed to consider the charitable purposes of the institution and the purposes of the institutional fund*. The duty to consider the charitable purposes for which WashU was established distinguishes the Board from other investors, imposing a special legal responsibility to screen assets for their possible interference with the university's goals. Yet the outcomes of the Board's fossil fuel investments are directly contrary to WashU's mission to "to enhance the lives and livelihoods not only of our students, patients, and employees but also of the people of the greater St. Louis community and beyond," and to "contribute positively to our home community of St. Louis, and to effect meaningful, constructive change in our world."[18] The well-known scientific misinformation campaigns of the fossil fuel industry that have distorted public discourse and stymied the policy response to climate change likewise contravene WashU's commitment "foster freedom of inquiry and expression of ideas in our research, teaching and learning," and to "promote higher education and rigorous research as a fundamental component of an open, vibrant society."[19] As such, continued investment in fossil fuel holdings *violates the Board's duty to consider an asset's special relationship or special value, if any, to the charitable purposes of the institution.*
- The Board has *violated its duty of loyalty* to the WashU community by funding activity that directly imperils the lives and prospects of young people and that poses a physical threat to WashU property, thus failing to act in the best interests of the institution. The Board has also violated their duty of loyalty by indulging conflicts of interest with the fossil fuel industry, maintaining personal, professional, and financial ties to oil, gas, and coal companies even as these companies harm WashU.
- The Board has *violated its duty to act in good faith* by refusing to abide by their previous commitments to socially responsible investing; by ignoring the warnings of students, faculty, alumni, and regulators that investments in fossil fuel companies are immoral,

[16] MO Rev. Stat. § 402.132.2 (2022).
[17] MO Rev. Stat. § 402.136 (2022).
[18] Mission Statement, Washington University in St. Louis (last visited Oct. 4, 2023).
[19] *Id.*

financially risky, and based on fraudulent information; and by spurning efforts by campus groups to push the University's investment practices toward a more consistent and sustainable approach.

- The Board has *violated its duty of care* by investing the University's endowment in financially risky and volatile fossil fuel stocks, which have underperformed for years and are currently at risk of a general collapse in value. This violation is exacerbated by the Board's failure to follow the lead of peer institutions who, in a like position under similar circumstances, have recognized the prudence of fossil fuel divestment.
- Former Securities and Exchange commissioner Bevis Longstreth, whose scholarship on non-profit investment helped inform the drafting of the original UPMIFA, has called for the application of the prudence standard to the threats of climate change. As Longstreth writes, the risks posed by fossil fuel investments are so serious that institutional investors will be hard-pressed to justify continued holdings in the industry: "The prudence standard of the Act can easily support a decision not to continue to hold or invest in fossil fuel companies. The risks and rewards now offered by such securities are asymmetric, in the sense that the foreseeable rewards are not likely to be equal to the foreseeable risks. The risk that, at some unknown and unknowable, yet highly likely, point in the future, markets will begin to adjust the equity price of fossil fuel company securities downward to reflect the swiftly changing future prospects of those companies, is as serious as it is immense. Moreover, the possibility of that adjustment being a swift one is also a serious risk. A decision to linger in an investment with such an overhanging risk, and expect to time one's exit before the danger is recognized in the market, is a strategy hard to fit within the concept of prudence."[20]
    - Mr. Longstreth has more recently observed that in light of these risks, "the fossil-fuel industry's business model is now so misaligned with scientific and financial reality that betting on these companies… is not just misguided. It is negligently wrong as a matter of law."[21]
- In a report analyzing fiduciary duties owed by public pension funds, the Center for International Environmental Law concludes that "climate change should be considered an independent risk variable when making investment decisions, and it will trigger the obligations of pension fund fiduciaries . . . If pension fund fiduciaries do not take the financial risks posed by climate change seriously, they may be subject to liability. A failure to properly consider climate change as a risk factor could result in lawsuits under various theories of liability for breaches of fiduciary duties."[22]
    - The report identifies four categories of risk to the value of fossil fuel assets: 1) impact risk (the risk of loss due to the physical effects of global warming, such as sea level rise and wildfires); 2) carbon asset risk (the risk that fossil fuel reserves will never be exploited and remain unprofitable; 3) transition risk (the risk that regulation and the growth of renewable energy will render fossil fuel products too expensive for or unappealing to consumers); and 4) litigation risk (the risk of

[20] Bevis Longstreth, Outline of Possible Interpretative Release by States' Attorneys General Under The Uniform Prudent Management of Institutional Funds Act (Jan. 26, 2016).
[21] Bevis Longstreth and Connor Chung, Finance Must Combat Climate Change – or Else, Project Syndicate (Nov. 9, 2021).
[22] Trillion Dollar Transformation at 1-2, Center for International Environmental Law (Dec. 2016).

financial penalties from lawsuits and other legal actions, such as the Attorney General of Massachusetts' action against ExxonMobil).
    - As a result of these risks, the report concludes that fossil fuel investments may violate the fiduciary duties of inquiry, monitoring, loyalty, diversification, impartiality, and acting with reasonable care. The report concludes that "[t]he cleanest and simplest way to avoid climate vulnerability in a portfolio is to divest or, at minimum, dramatically reduce exposure to fossil fuel and other highly climate-vulnerable holdings."[23]
- WashU has never confirmed the value of its holdings in fossil fuel companies; however, publicly available data from other prominent research universities and peer schools, along with our own very rough estimate,[24] suggest that WashU has hundreds of millions of dollars invested in the industry.

II. WashU's social and environmental commitments

In addition to their general duties to the public as managers of a charity, the Board is legally bound to uphold the particular *charitable purposes* and values of Washington University in St. Louis, which includes commitments to social justice and environmental well-being. The Board has clearly acknowledged in the past that this legal duty extends to the manner in which it invests the University's assets.

- WashU's 2022 "Here & Next" Strategic Plan makes several environmental commitments, including creating a new center for the environment.
    - The Plan states: "WashU has deep research strength in fields important to the study of the environment and climate change, including biodiversity and aerosols. Convening these areas of excellence along with WashU's commitment to environmental justice will form a more collaborative, cohesive effort to advance its strengths to mitigate the devastating effects of climate change. While the center [for the environment] will allow WashU researchers to further pursue emergent environmental research, it will also expand community partnerships and support interdisciplinary educational initiatives." The Plan also notes that WashU "aim[s] to generate transformative solutions to the deepest societal challenges."[25]
    - The Plan asserts that "the success of [WashU's] region is essential to our long-term strength as a university, and we have a leading role to play in the future of our city and state. This role requires that we reflect well the voices of our community", and that WashU commits to "contribute to a more vibrant region with a focus on St. Louis' racial inequities, economic mobility, and educational opportunity."[26]

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[23] *Id.* at 5-7, 12-17, 19.
[24] *See supra* at note 2.
[25] A strategic vision for Washington University's next 10 years, Washington University in St. Louis, (last visited Oct. 2, 2023).
[26] Here and Next: Community, Washington University in St. Louis, (last visited Oct. 2, 2023).

  - Ultimately, the Plan aims to "build an inclusive, equitable, respectful, ethically principled environment for living, teaching, learning, and working for present and future generations."[27]
- WashU's 2021-2022 Annual Investment Report states: "For many years, WashU has been working diligently to ensure that it remains a force for good and a source of innovation and knowledge."[28] In this report, the Washington University Investment Management Company (WUIMC) notes that it "does not seek to profit from the violation of basic human rights and dignity, abusive or oppressive labor practices, gross pollution or environmental destruction, or any form of bribery and corruption."[29]
- In 2022, WashU joined and helped launch the Midwest Climate Collective, a group whose goals are "leveraging science and research to address climate issues," "shaping public understanding and policy," "accelerating climate solutions," and "developing future leaders to drive climate action."[30]

III. The scientific reality and risks of climate change

The current and future effects of climate change jeopardize the physical integrity of Missouri infrastructure and the safety of WashU's students, faculty, and staff. By investing in companies disproportionately responsible for the climate crisis, the Board exposes the WashU community to severe injury, thus failing to act in the University's best interests and violating the *duty of loyalty*.

- Statistically significant, historically unprecedented, and potentially irreversible changes are taking place in the Earth's oceans, atmosphere, and biosphere. These changes are collectively known as climate change. Such changes are "unequivocally" the result of human activities — primarily carbon dioxide emissions resulting from extraction and combustion of fossil fuels including but not limited to coal, oil, and fracked gas — according to the Sixth Assessment Report Summary for Policymakers by the Intergovernmental Panel on Climate Change (IPCC), the leading global authority responsible for synthesizing and producing much of the scientific research on climate change across the globe.[31]
- A small number of fossil fuel producers have been disproportionately responsible for greenhouse gas emissions since the Industrial Revolution: twenty companies account for nearly thirty percent of all emissions between 1751 and 2010.[32] A 2017 report by the Carbon Disclosure Project found that seventy-one percent of all global greenhouse gas emissions since 1988 "can be traced to just 100 fossil fuel producers."[33]

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27 Here and Next: About, Washington University in St. Louis, (last visited Oct. 2, 2023)
28 Annual Report 2021-2022, Washington University Investment Management Company, (2022).
29 *Id.*
30 Talia Ogliore, Climate of Opportunity, Washington Magazine (Aug. 11, 2022).
31 *See* "Summary for Policymakers" at 7, in Climate Change 2021: The Physical Science Basis, Working Group I Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (Aug. 2021).
32 Richard Heede, Tracing anthropogenic carbon dioxide and methane emissions to fossil fuel and cement producers, 1854–2010, 122 Climatic Change 229, 234 (2014). These companies include Chevron, ExxonMobil, BP, Shell, ConocoPhillips, and Peabody. *Id.* at 237.
33 New report shows just 100 companies are source of over 70% of emissions, Carbon Disclosure Project (July 10, 2017).

- There is a near-linear relationship between the cumulative amount of carbon dioxide emitted and the amount of global warming it causes.[34] Every one-half degree Celsius of further global warming results in discernible increases in intensity and frequency of temperature and weather extremes.[35] As a result of human-caused warming, climate change is already affecting every inhabited region across the globe, leading to observed changes in weather and climate.[36]
- The Fourth National Climate Assessment, released in 2018 by thirteen federal agencies comprising the U.S. Global Change Research Program (USGCRP), noted that "[t]he impacts of climate change are already being felt in communities across the country. More frequent and intense extreme weather and climate-related events, as well as changes in average climate conditions, are expected to continue to damage infrastructure, ecosystems, and social systems that provide essential benefits to communities. Future climate change is expected to further disrupt many areas of life, exacerbating existing challenges to prosperity posed by aging and deteriorating infrastructure, stressed ecosystems, and economic inequality."[37] The USGRCP report concluded that, as a result of climate change, "annual losses in some economic sectors are projected to reach hundreds of billions of dollars by the end of the century — more than the current gross domestic product . . . of many U.S. states."[38]
- Continued global warming is projected to further intensify the global water cycle, including the severity of wet and dry events.[39] Many changes due to past and future greenhouse gas emissions are irreversible for centuries to millennia, especially changes in the ocean, ice sheets, and global sea level.[40]
- Global warming will exceed two degrees Celsius by the end of this century unless drastic reductions in carbon dioxide and other greenhouse gas emissions occur in the coming decades.[41] To limit warming, cumulative carbon dioxide emissions must reach net zero, along with strong reductions in other greenhouse gasses.[42]
- The global mean water level in the ocean rose by 0.14 inches (3.6 millimeters) per year from 2006-2015, which was 2.5 times the average rate of 0.06 inches (1.4 millimeters) per year throughout most of the twentieth century. By the end of the century, global mean sea level is likely to rise at least one foot (0.3 meters) above 2000 levels, even if greenhouse gas emissions follow a relatively low pathway in coming decades.[43]
- In Missouri, storm-related flooding is on the rise, with average annual rainfall increasing five to ten percent from 1966 to 2016 and rainfall increasing up to thirty-five percent for the four wettest days.[44]
- Flooding from the Missouri and Mississippi Rivers can cause increased property damage. The flash flood that occurred on July 26, 2022 released two inches of rain per hour and a

[34] IPCC, Summary for Policymakers, *supra* at note 46, at 37.
[35] *Id.* at 19.
[36] *Id.* at 10.
[37] Fourth National Climate Assessment, Volume II at 25, U.S. Global Change Research Program (Mar. 2021).
[38] *Id.* at 26.
[39] *Id.* at 25.
[40] *Id.* at 28.
[41] *Id.*
[42] *Id.* at 36.
[43] Rebecca Lindsey, Climate Change: Global Sea Level, Climate.gov (Aug. 14, 2020).
[44] What Climate Change Means for Missouri,, United States Environmental Protection Agency (2016).

total of eleven inches, which led to $87.8 million in public costs for University City, an area just outside of St. Louis, as well as hundreds of damaged homes in the St. Louis area.[45]
- Droughts and hot days are likely to increase. A 2012 summer drought cost the Mississippi River region $250 million as ships ran aground on the Missouri shoreline.[46]

IV. The societal effects of climate change and fossil fuel extraction

Mounting evidence demonstrates that fossil fuel investments create disproportionate burdens on people of color, Indigenous communities, low-income communities, and children. Fossil fuel investments also harm the public health and property of Missouri's residents, including those in the WashU community, violating the Board's duties to consider WashU's charitable purposes and to act with loyalty toward its community and property.

- Climate change heavily impacts so-called frontline communities, including communities of color and Indigenous communities, with their disproportionate exposure to air pollution, sea level rise, drought, and other consequences of climate change.[47] In general, those who have contributed the least to the climate crisis by virtue of their economic position stand to suffer the most from dislocation and natural disasters caused by increased warming.
    - Climate change exacerbates racial inequality by focusing health and economic injuries on people of color, who tend to have fewer economic resources to adjust to rising temperature and tend to receive less government assistance to deal with emergencies.[48]
    - According to a study from the Program for Environmental and Regional Equity at the University of Southern California, racial minorities will disproportionately suffer from an inability to pay for basic necessities and from decreased job prospects in sectors such as agriculture and tourism as the climate crisis accelerates.[49]
    - According to the United Nations, "[c]limate change exacerbates the difficulties already faced by Indigenous communities, including political and economic marginalization, loss of land and resources, human rights violations, discrimination and unemployment."[50] Indigenous communities are also vulnerable to climate change impacts because of the enduring legacy of colonialism, forced

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[45] Two Months After Historic Flooding, Over $85 Million in Assistance Has Been Approved for St. Louis Area Residents, Missouri Governor Michael L. Parson (last visited Oct. 2, 2023).
[46] What Climate Change Means for Missouri, United States Environmental Protection Agency (2016).
[47] The Geography of Climate Justice, Mary Robinson Foundation (last visited Feb. 10, 2021).
[48] Steven Hiseh, People of Color Are Already Getting Hit the Hardest by Climate Change, The Nation (Apr. 22, 2014); Office of Health Equity's Climate Change and Health Equity Program, Racism Increases Vulnerability to Health Impacts of Climate Change, California Department of Public Health (Aug. 17, 2020).
[49] Rachel Morello Frosch, Manuel Pastor, Jim Sadd, & Seth Shonkoff, The Climate Gap: Inequalities in How Climate Change Hurts Americans & How to Close the Gap at 5, University of Southern California Program on Environmental and Regional Equity (May 2009).
[50] Climate Change, United Nations Department of Economic and Social Affairs — Indigenous Peoples (last visited Oct. 5, 2021).

relocations, the loss of cultural practices, and other harms, which create health burdens.[51]
    - Throughout the world, migration due to climate change has increased in recent years and is anticipated to increase further as many areas of the globe become inhospitable to agriculture and human habitation, leading to political and social instability.[52]
- In September 2021, The Lancet published a Comment co-signed and co-published by the editors of more than 200 leading medical journals worldwide.[53] The authors noted that "[h]ealth institutions have already divested more than $42 billion of assets from fossil fuels" and urged others to join them, since "[t]he greatest threat to global public health is the continued failure of world leaders to keep the global temperature rise below 1.5°C and to restore nature."[54]
- According to a 2013 study co-authored by Denise Leonore Mauzerall, Professor of Environmental Engineering and International Affairs at Princeton, climate change modulates surface concentrations of fine particulate matter (PM2.5) and ozone (O3), leading to increased air pollution.[55] Exposure to this air pollution could increase annual premature deaths by more than 100,000 adults worldwide.[56]
- As of 2021, seventy-four percent of Missouri's energy was provided by coal,[57] contributing to ground level ozone and particulate matter. These pollutants can irritate the lungs and respiratory system and contribute to or cause asthma, particularly in infants.[58] The Missouri Department of Health and Senior Services estimates that thirty percent of asthma cases in children are due to outdoor air pollution, and African American children are significantly more likely to develop asthma than white children.[59]

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[51] Jantarasami, L.C., *et al.*, Chapter 15: Tribes and Indigenous Peoples at 582, in Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II, U.S. Global Change Research Program (2018) ("A number of health risks are higher among Indigenous populations due in part to historic and contemporary social, political, and economic factors that can affect conditions of daily life and limit resources and opportunities for leading a healthy life. Many Indigenous peoples still experience historical trauma associated with colonization, removal from their homelands, and loss of their traditional ways of life, and this has been identified as a contributor to contemporary physical and mental health impacts. Other factors include institutional racism, living and working circumstances that increase exposure to health threats, and limited access to healthcare services. Though local trends may differ across the country, in general, Indigenous peoples have disproportionately higher rates of asthma, cardiovascular disease, Alzheimer's disease or dementia, diabetes, and obesity. These health disparities have direct linkages to increased vulnerability to climate change impacts, including changes in the pollen season and allergenicity, air quality, and extreme weather events. For example, diabetes prevalence within federally recognized tribes is about twice that of the general U.S. population. People with diabetes are more sensitive to extreme heat and air pollution, and physical health impacts can also influence mental health.").

[52] Michael Werz & Laura Conley, Climate Change, Migration, and Conflict: Addressing complex crisis scenarios in the 21st century at 3-5, 12-14, Center for American Progress (Jan. 2012).

[53] Lukoye Atwoli, *et al.*, Call for emergency action to limit global temperature increases, restore biodiversity, and protect health, 398 (10304) The Lancet 939 (2021).

[54] *Id.*

[55] Yuanyuan Fang, *et al.*, Impacts of 21st century climate change on global air pollution-related premature mortality, 121(2) Climatic Change 239 (2013).

[56] *Id.*

[57] Missouri: State Profile and Energy Estimates, U.S. Energy Information Administration (last visited Sep. 25, 2023)

[58] What's The Problem?, North Carolina Department of Environmental Quality (last visited Mar. 13, 2022).

[59] Asthma & Lead Poisoning in Missouri Children at 2, Missouri Department of Health and Senior Services (Aug. 2019).

- According to the Environmental Racism in St. Louis report, "St. Louis has been in violation of the federal health-based air standard for ozone since 1979, and violated the federal health-based standard for fine particle pollution from 2005 through 2017." [60] This particle pollution can cause "premature death, heart attacks, aggravated asthma, and reduced lung function."[61]
- Hot days have caused heat stroke and cardiovascular issues, and even killed hundreds of people in the past few decades, a number that is expected to increase as hot days become more severe and common.[62]
- Children bear especially heavy burdens from the impacts of climate change and fossil fuel extraction.
    - According to UNICEF, one billion children live at extreme risk of climate and environmental hazards, shocks, and stresses.[63] The United States ranks among the countries in which children face at least five major climate and environmental shocks (extremely high category).[64]
    - Children are more vulnerable than adults to extreme weather. They are less able to regulate their body temperature during heat waves,[65] breathe at twice the adult rate,[66] and are at crucial stages of brain and organ development.[67] Exposure to toxins has more potential to harm their cognitive ability and lung capacity,[68] and they suffer these deficits their entire lives. Climate change-caused disasters, air pollution extremes, and environmental degradation also disrupt education, and excessive heat interferes with learning capacity.[69]
    - UNICEF concludes that "the climate crisis affects or will affect all children, everywhere, in often significant, life-changing ways, throughout their lives" and "undermines the effective enjoyment of the rights enshrined in the Convention on the Rights of the Child."[70]
- Plastic waste — a direct by-product of fossil fuel extraction, with ninety-eight percent of plastics made from fossil fuels — further damages marine ecosystems.[71] The United Nations Environment Programme estimates that damage to marine ecosystems from plastic waste causes thirteen billion dollars' worth of damage every year.[72] Fossil fuel companies rely on plastic production to shore up profits.[73]

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[60] Environmental Racism in St. Louis at 11, Interdisciplinary Environmental Clinic at Washington University School of Law (Sept. 2019).
[61] *Id.*
[62] What Climate Change Means for Missouri, United States Environmental Protection Agency (2016).
[63] The climate crisis is a child rights crisis: Introducing the Children's Climate Risk Index, UNICEF (Aug. 2021).
[64] *Id.* at 80.
[65] *Id.* at 110.
[66] *Id*.
[67] *Id*. at 20.
[68] *Id*.
[69] *Id.* at 110; Joshua Goodman, Michael Hurwitz, Jisung Park, & Jonathan Smith, Heat and Learning, National Bureau of Economic Research (May 2018).
[70] *Id*.
[71] Marty Mulvihill, Gretta Goldenman, & Arlene Blum, The Proliferation of Plastics and Toxic Chemicals Must End, The New York Times (Aug. 27, 2021).
[72] UNEP, Plastic Waste Causes Financial Damage of US$13 Billion to Marine Ecosystems Each Year as Concern Grows over Microplastics (June 23, 2014).
[73] Mulvihill, *et al., supra* at note 71.

- Finally, climate change causes an increase in the frequency of pandemics such as COVID-19: according to the Intergovernmental Platform on Biodiversity and Ecosystem Services, climate change will "cause substantial future pandemic risks and other localized disease emergence."[74] A paper published in The New England Journal of Medicine concludes that the climate crisis exacerbates the effects of COVID-19, as high heat, wildfire smoke, and high pollen counts amplify underlying conditions such as pulmonary disease, and as emergency responses to events such as hurricanes and fires reduce the ability to mitigate COVID-19 spread. These effects are felt particularly by the most vulnerable communities.[75]

V. The failure of fossil fuel companies to address climate risks

The fossil fuel industry remains resolutely committed to a business model that produces and exacerbates climate change, and to the suppression of nonviolent protest. Investments that promote this activity directly contravene WashU's *charitable purposes.*

- Fossil fuel companies knew about the connection between their products and climate change decades before the general public, "as early as the 1950s and no later than 1968."[76]
    - Coal industry publications suggested as early as 1966 that the combustion of fossil fuels could cause "vast changes in the climates of the earth."[77] By 1968, the American Petroleum Institute, an industry trade group, was familiar with a study concluding that the burning of fossil fuels was likely to create significant environmental consequences.[78]
    - As early as 1977, Exxon scientists had privately concluded that "there is general scientific agreement that the most likely manner in which mankind is influencing the global climate is through carbon dioxide release from the burning of fossil fuels."[79]
    - Shell internally reached similar conclusions by at least the 1980s,[80] as did Mobil (then separate from Exxon).[81] By the 1980s, major fossil fuel companies had

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[74] Intergovernmental Platform on Biodiversity and Ecosystem Services, IPBES Workshop on Biodiversity and Pandemics: Workshop Report (Oct. 29, 2020).
[75] Renee N. Salas, James M. Shultz, & Caren G. Solomon, The Climate Crisis and Covid-19 — A Major Threat to the Pandemic Response, New Eng. J. Med. (2020).
[76] Brief of Amici Curiae Robert Brulle, Center for Climate Integrity, Justin Farrell, Benjamin Franta, Stephan Lewandowsky, Naomi Oreskes, and Geoffrey Supran in Support of Appellees and Affirmance, County of San Mateo v. Chevron Corporation, et al., County of Imperial Beach v. Chevron Corporation, et al., County of Marin v. Chevron Corporation, et al., County of Santa Cruz, et al., v. Chevron Corporation, et al., Nos. 18-15499, 18-15502, 18-15503, 18-16376 at 2 (9th Cir. 2019).
[77] Elan Young, Exxon knew -- and so did coal, Grist (Nov. 29, 2019).
[78] Oliver Milman, Oil industry knew of 'serious' climate concerns more than 45 years ago, The Guardian (Apr. 13, 2016).
[79] Shannon Hall, Exxon Knew about Climate Change almost 40 years ago, Sci. Am. (Oct. 26, 2015).
[80] John H. Cushman Jr., Shell Knew Fossil Fuels Created Climate Change Risks Back in 1980s, Internal Documents Show, Inside Climate News (Apr. 5, 2018).
[81] Nicholas Kusnetz, Exxon Turns to Academia to Try to Discredit Harvard Research, Inside Climate News (Oct. 20, 2020).

"internally acknowledged that climate change was real, it was caused by fossil fuel consumption, and it would have significant impacts on the environment and human health."[82]

- A 2017 report by the Carbon Disclosure Project found that seventy-one percent of all global greenhouse gas emissions since 1988 "can be traced to just 100 fossil fuel producers."[83]
- The fossil fuel industry has consistently refused to participate in the transition to renewable energy.
  - According to the International Energy Agency, just one percent of the fossil fuel industry's cash spending, proportionally speaking, was devoted to low-carbon energy in 2022.[84]
  - Numerous independent analyses have found no evidence that the industry is meaningfully aligned with net-zero goals.
    - A 2023 report by major climate data disclosure clearinghouse CDP found that the "oil and gas sector has made almost no progress towards the Paris Agreement goals since 2021."[85]
    - According to the March 2023 company-level benchmark from investor consortium Climate Action 100+, no evaluated fossil fuel company is in meaningful alignment with a Paris-aligned pathway.[86]
    - A 2022 report by climate research group Oil Change International concluded that "the climate promises of major U.S. and European oil and gas companies still fail to meet the bare minimum for alignment with the Paris Agreement."[87]
    - Financial think tank Carbon Tracker found in a 2022 analysis that most fossil fuel companies remain far away from Paris alignment, with even the best climate plans containing significant loopholes and credibility gaps.[88]
    - A 2022 peer-reviewed academic study found that none of the most prominent European or American oil and gas majors have financial strategies to back up their climate rhetoric.[89]
    - A study by the London School of Economics found that no fossil fuel major had carbon-reduction plans that were Paris-compliant as of October 2020.[90]

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[82] Brief of Amici Curiae Robert Brulle, *et al.*, *supra* at note 76, at 15.
[83] New report shows just 100 companies are source of over 70% of emissions, Carbon Disclosure Project (July 2017).
[84] World Energy Investment 2023, International Energy Agency (May 2023).
[85] Research reveals no oil and gas companies have plans in place to phase out fossil fuels, CDP (Jun. 29, 2023).
[86] Net Zero Company Benchmark, Climate Action 100+ (2023).
[87] David Tong, Big Oil Reality Check, Oil Change International (May 24, 2022).
[88] Mike Coffin & May O'Connor, Absolute Impact: Why Oil and Gas Companies Need Credible Plans to Meet Climate Targets, CarbonTracker (May 12, 2022).
[89] Mei Li, *et al.*, The clean energy claims of BP, Chevron, ExxonMobil and Shell: A mismatch between discourse, actions and investments, PLoS ONE 17(2) (2022).
[90] Anjli Raval, Big fossil fuel groups all failing climate goals, study shows, Financial Times (Oct. 6, 2020).

        - The American Petroleum Institute has asserted that the oil industry remains essential to the American economy and promised to resist President Biden's climate agenda.[91]
- Individual fossil fuel companies, for their part, also continue to bet on long-term fossil fuel reliance.
    - In 2023, BP abandoned its (already insufficient) commitment to reduce carbon emissions thirty-five to forty percent by 2030 and increased gas production targets.[92]
    - In 2023, Shell increased its investment targets for fossil fuels and dropped plans to expand investment in renewables.[93] Several leading executives from Shell's renewable energy sectors recently quit in response to the company's lackluster efforts to decarbonize.[94] The company is actively fighting a ruling by a Dutch court compelling it to adopt a science-based decarbonization plan.[95]
    - ExxonMobil is spending $21 million per day on capital expenditures misaligned with a net-zero pathway — projects that analysts have termed "carbon bombs."[96] In 2023, Exxon abandoned its biofuels research, which it had long used as evidence of its climate commitments.[97] And, just last week, the company agreed to buy Pioneer Natural Resources for $60 billion, "a bet that U.S. energy policy will not move against fossil fuels in a major way."[98]
    - In 2021, Chevron's CEO confirmed that "the company prefers to return money to its shareholders rather than use it to invest in solar and wind power projects," and suggested that shareholders concerned about emissions "plant trees" instead.[99] In 2022, Chevron announced a significant expansion of its capital expenditures on fossil fuels.[100]
    - In 2023, ConocoPhillips won approval for Willow, a massive drilling project that "has the potential to produce 180,000 barrels of oil per day."[101]
- Shareholder engagement has not been an effective tactic for changing the industry's core business model. Recent attempts by shareholders to persuade fossil fuel companies to address climate risks have mostly failed.
    - The Interfaith Center on Corporate Responsibility found that "150 requests from various responsible shareholders asking fossil fuel companies to evaluate

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[91] Nicholas Kusnetz, American Petroleum Institute Chief Promises to Fight Biden and the Democrats on Drilling, Tax Policy, Inside Climate News (Jan. 14, 2021).
[92] Evan Halper & Aaron Gregg, BP dials back climate pledge amid soaring oil profits, Washington Post (Feb. 3, 2022).
[93] Lottie Limb, Shell joins BP and Total in U-turning on climate pledges 'to reward shareholders', EuroNews (June 15, 2023).
[94] Anjli Raval & Leslie Hook, Shell Executives Quit Amid Discord Over Green Push, Financial Times (Dec. 8, 2020).
[95] Shell filed appeal against landmark Dutch climate ruling, Reuters (Mar. 29, 2022).
[96] Damien Carrington & Mathew Taylor, Revealed: the 'carbon bombs' set to trigger catastrophic climate breakdown, The Guardian (May 11, 2022).
[97] Kate Yoder, Why are BP, Shell, and Exxon suddenly backing off their climate promises?, Grist (Feb. 16, 2023).
[98] Clifford Kraus, Exxon Mobil Strikes $60 Billion Deal for Shale Giant, The New York Times (Oct. 11, 2023).
[99] Chevron would rather pay dividends than invest in wind and solar -CEO, Reuters (Sept. 15, 2021).
[100] Sabrina Valle, UPDATE 3-Chevron raises 2023 project spending budget to $17 bln, Reuters (Dec. 7, 2022).
[101] Joe Hernandez, The Biden administration approves the controversial Willow drilling project in Alaska, NPR (March 13, 2022).

financial risk from climate change regulation [between 1992 and 2015] were ignored or met with a dismissive reply," with leaders of companies including ExxonMobil and Shell explicitly stating their intentions to continue producing fossil fuels without interruption.[102]

- Shareholder engagement group As You Sow noted in a 2018 report that, although oil and gas companies are disproportionate targets of shareholders' attempts to engage and intervene, these companies have been singularly unresponsive to requests to reduce greenhouse gas emissions.[103]
- A Cambridge University report found in 2021 that "[b]y any threshold one could devise as to the efficacy of a tactic for action on climate change and other social and environmental issues, it would be difficult to deem shareholder engagement a success."[104]
- Even the most aggressive active ownership strategy to date — Engine No. 1's 2021 proxy fight for Exxon — "has not made a discernible difference in the way Exxon is addressing climate change."[105]
- Financial industry standard-setters have suggested that if an institution wishes to practice shareholder engagement, best practice requires that this be in addition to — not in place of — a fossil fuel divestment plan.[106] This is because shareholder engagement, at least by itself, is not an adequate tool for addressing climate risk: "While the tactic has proven itself viable in changing business practices, there's little precedent of it successfully changing business models.… When the business model is the primary source of risk, an engagement-only strategy is the wrong tool for the job."[107]
- The Church of England recently announced plans to divest its remaining shares in oil and gas majors after years of failed progress on shareholder engagement. In its announcement, a Church official said, "There is a significant misalignment between the long term interests of our pension fund and continued investment in companies seeking short term profit maximisation at the expense of the ambition needed to achieve the goals of the Paris Agreement."[108]

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[102] Taavi Tillmann, Jonny Currie, Alistair Wardrobe, & David McCoy, Fossil fuel companies and climate change: the case for divestment, 350 Brit. Med. J. (June 2015).
[103] 2020: A Clear Vision for Paris-Compliant Shareholder Engagement, As You Sow (Sept. 2018). The report urges fiduciaries to divest from the oil and gas sector so as to "protect their beneficiaries" if the companies do not adopt Paris-compliant plans by the close of the 2020 proxy season. *Id.* at 25. That deadline has now passed without any meaningful change of course by the industry. Raval, Big fossil fuel groups all failing, *supra* at note 90.
[104] Ellen Quigley, Emily Bugden, & Anthony Odgers, Divestment: Advantages and Disadvantages for the University of Cambridge (2021).
[105] Andrew Ross Sorkin, *et al.*, Reassessing the Board Fight That Was Meant to Transform Exxon, The New York Times (May 31, 2023). *See also* Tom Sanzillo, Months after tumultuous ExxonMobil annual meeting, no substantial change expected, Institute for Energy Economics and Financial Analysis (Aug. 6, 2021).
[106] For instance, the Science Based Target Initiative's draft standards for fossil fuel finance note that an asset manager must be willing to phase out holdings in companies "unable or unwilling to follow a 1.5°C transition within a pre-defined timeframe." Fossil Fuel Finance Position Paper (Consultation Draft) at 3, Science Based Targets Initiative (June 2023).
[107] Joshua Doh & Connor Chung, Divesting, Engaging, and the Problem with Fossil Fuels, ESGClarity (Mar. 16, 2022).
[108] Church of England Pensions Board disinvests from Shell and remaining oil and gas holdings, The Church of England (June 22, 2023).

- In 2018, Harvard's Corporation Committee on Shareholder Responsibility voted to abstain on a shareholder proposal asking Chevron for a report on paths to decarbonization. The committee's reasoning was that "such a shift in strategy is properly a business decision for the company rather than a matter for shareholder input," and that "when considering company strategy on a core question of this kind, shareholders might prefer to invest in companies pursuing a strategy they favor (such as pursuing renewable energy opportunities), rather than pressuring one to move away from a core business in which it has long been involved."[109]
- Fossil fuel companies continue to undermine climate-friendly policymaking.
    - In the three years following the Paris Agreement, the five largest public fossil fuel companies "invested over $1 [billion] of shareholder funds on misleading climate-related branding and lobbying."[110]
    - Each year, "the world's five largest publicly owned oil and gas companies spend approximately $200 million on lobbying designed to control, delay or block binding climate-motivated policy."[111]
    - In 2018, the fossil fuel industry spent nearly $100 million to stymie three proposed climate initiatives in Western states: a carbon emissions fee in Washington, restrictions on hydraulic fracturing in Colorado, and improved renewable energy standards in Arizona.[112]
- As a 2013 article by environmental sociologists explained: "[a]lthough many factors have contributed to the failure to enact strong international and national climate change policies… a powerful and sustained effort to deny the reality and significance of human-induced climate change has been a key factor."[113]
- Finally, the fossil fuel industry has engaged in a sustained effort to silence climate protesters and increase the severity of criminal punishment for their activities.
    - Since 2017, the industry has pushed for the passage of numerous "critical infrastructure" bills in U.S. state legislatures, thirteen of which have become law.[114] Many of the bills are similar or identical to model legislation authored by the corporate lobbying group American Legislative Exchange Council, and at least three were accompanied by political contributions from oil and gas companies to the bills' sponsors.[115]

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[109] Annual Report 2017-2018 at 15, Harvard University Corporation Committee on Shareholder Responsibility (last visited Mar. 8, 2021).

[110] Big Oil's Real Agenda on Climate Change, InfluenceMap (Mar. 2019).

[111] Niall McCarthy, Oil and Gas Giants Spend Millions Lobbying to Block Climate Change Policies, Forbes (Mar. 25, 2019). BP spends approximately $53 million, Shell $49 million, and ExxonMobil $29 million per year. *Id.*

[112] Amy Harder, With deep pockets, energy industry notches big midterm wins, Axios (Nov. 7, 2018).

[113] Shaun W. Elsasser & Riley E. Dunlap, Leading Voices in the Conservative Choir: Conservative Columnists' Dismissal of Global Warming and Denigration of Climate Science, 57(6) Am. Behav. Scientist 754, 755 (2013).

[114] Institute for Policy Studies, Muzzling Dissent: How Corporate Influence Over Politics Has Fueled Anti-Protest Laws (Oct. 2020). The states in which bills have passed into law are Indiana, Kentucky, Louisiana, Mississippi, Missouri, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, Texas, West Virginia, and Wisconsin. US Protest Law Tracker, International Center for Not-for-Profit Law (last visited Feb. 10, 2021).

[115] New Report Details Impact of Secretive American Legislative Exchange Council on Communities of Color, Center for Constitutional Rights (Dec. 23, 2019); Gabrielle Cochette & Basav Sen, Muzzling Dissent: How Corporate Influence Over Politics Has Fueled Anti-Protest Laws at 8-9, Institute for Policy Studies (Oct. 2020).

        - A recent report found that sixty percent of U.S. oil and gas infrastructure is located in states that have enacted critical infrastructure laws.[116]
        - A wide range of commentators have criticized critical infrastructure laws as unnecessary, vague, and overly punitive, and some have been challenged in court as unconstitutional.[117]
    - The industry has also used lawsuits and subpoenas to accuse environmental advocates of defamation, racketeering, and other crimes, to label advocates as terrorists, and to chill advocacy targeting the industry's activities.[118]
    - There is mounting evidence of collusion between fossil fuel companies, local police departments, and private security firms hired by fossil fuel companies in suppressing climate protest using heavy-handed tactics.
        - In response to protests at the Standing Rock reservation against Energy Transfer Partners' Dakota Access pipeline in 2016 and 2017, Energy Transfer Partners hired TigerSwan, a military contractor with experience in Iraq and Afghanistan. In collaboration with local police, TigerSwan used legally questionable tactics against protesters, including digital surveillance.[119] Water cannons, tear gas, and rubber bullets were also used, resulting in hundreds of injuries.[120] Energy Transfer Partners also retained TigerSwan to respond to vandalism targeting the Dakota Access pipeline in Iowa in 2017, using scare tactics, residential surveillance, and the hiring of locals to pursue suspects in a wide-ranging operation that swept in dozens of people.[121] A multi-part reporting series by the investigative journalism publication The Intercept concluded that "[l]eaked documents and public records reveal a troubling fusion of private security, public law enforcement, and corporate money in the fight over the Dakota Access pipeline."[122]
        - In 2019, the Canadian pipeline company Enbridge used digital and aerial surveillance, along with embedded informants, against nonviolent protesters targeting the company's Line 3 pipeline in Minnesota,

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[116] Dollars vs. Democracy: Inside the Fossil Fuel Industry's Playbook to Suppress Protest and Dissent in the United States, Greenpeace (2023).
[117] Nicholas Kusnetz, More States Crack Down on Pipeline Protesters, Including Supporters Who Aren't Even on the Scene, Inside Climate News (Mar. 28, 2019); Susie Cagle, 'Protesters as terrorists': growing number of states turn anti-pipeline activism into a crime, The Guardian (July 8, 2019).
[118] *See, e.g.*, Amal Ahmed, Energy Transfer Partners Files Lawsuit Against Greenpeace, Texas Monthly (Dec. 15, 2017); Exxon's Campaign of Intimidation against Climate Defenders Ushers in a New McCarthy Era, EarthRights International (Dec. 21, 2016); Green Group Holdings v. Schaeffer: Defense of Environmental Protesters Against Defamation Lawsuit, American Civil Liberties Union (Feb. 7, 2017). A national coalition of civil rights organizations called Protect the Protest tracks and opposes these tactics.
[119] Antonia Juhasz, Paramilitary security tracked and targeted DAPL opponents as 'jihadists,' docs show, Grist (Jun. 1, 2017).
[120] Alleen Brown, Medics Describe How Police Sprayed Standing Rock Demonstrators with Tear Gas and Water Cannons, The Intercept (Nov. 21, 2016).
[121] Alleen Brown, Will Parrish & Alice Speri, Tigerswan Responded to Pipeline Vandalism by Launching Multi-State Dragnet, The Intercept (Aug. 26, 2017).
[122] *Id.*

attempting to follow the same playbook used by law enforcement at Standing Rock.[123]

    - At least seven major fossil fuel companies — Chevron, Marathon, Shell, Valero, Hilcorp, Energy Transfer Partners, Aramco, and Cabot Oil & Gas — donate money to or sit on the board of municipal police foundations, and this money is concentrated in places with oil and gas operations, including New Orleans, Houston, Dallas, and Corpus Christi.[124]

  - The militarized response to climate protest by fossil fuel companies is over a decade old. At a 2011 conference attended by members of the fossil fuel industry, an executive of Anadarko Petroleum recommended military-style tactics against citizen groups protesting hydraulic fracturing (also known as fracking): "I want you to download the US Army/Marine Corps counterinsurgency manual because we are dealing with an insurgency here."[125]

VI. The financial risk of fossil fuel investments

The Trustees have also violated their *duty of care* by failing to consider the burgeoning risks of investing in the fossil fuel sector. On a purely financial basis, fossil fuel investments fail to meet the standards of prudent long-term investing.

- Over the past decade, fossil fuel assets have performed poorly.
  - Oil and gas stocks have greatly underperformed other investments over the last ten years. While the S&P 500 has gained approximately 316 percent in the past decade, the S&P Energy Sector (which reflects only the performance of the fossil fuel value chain; renewables are categorized separately) has returned only about half as much.[126]
  - The fossil fuel sector has seen a long-term decline as other sectors grow: in 1980, energy was nearly 30% of the S&P 500 by weight. Today, it is 4.3%.[127]
  - As a result, fossil-inclusive indices have tended to underperform fossil-free indices over the same period. To take two of the most common indices used in institutional funds, the S&P 500 Index has underperformed the S&P 500 Ex-Fossil Fuel Index by about 50 basis points per year over the past decade, and the

[123] Will Parrish & Alleen Brown, How Police Are Preparing for a Standoff Over Enbridge Line 3, The Intercept (Jan. 30, 2019). Among the private security firms contracted by Enbridge was Securitas—the same firm that provides security services to Harvard University. *Id.*; Cara J. Chang & Meimei Xu, Harvard Security Guards Ratify One-Year Contract With Securitas, The Harvard Crimson (Jan. 5, 2021) (noting that "Harvard contracts with Securitas North America, a division of a multinational Swedish company with 370,000 employees across the world, to handle most of its security guard operations").
[124] Gin Armstrong, Fossil Fuel Industry Pollutes Black & Brown Communities While Propping Up Racist Policing, Eyes on the Ties (July 27, 2020).
[125] Bill McKibben, Shake Harvard Free of Oil Stock, The Boston Globe (Apr. 7, 2015).
[126] Data from S&P Dow Jones Indices, S&P Global (Aug. 22, 2023).
[127] Historical data: Siblis Research, *cited in* Tom Sanillo & Kathy Hipple, Fossil Fuel Investments: Looking Backwards May Prove Costly to Investors in Today's Market, Institute for Energy Economics and Financial Analysis (Feb. 1, 2019). Current numbers: S&P 500 Data, S&P Global (Aug. 22, 2023).

MSCI ACWI Index has underperformed the MSCI ACWI Ex-Fossil Fuel Index by about 40 basis points per year over the same timeframe.[128]

- Prior to and during the COVID-19 era, the fossil fuel industry's decline became clear.
    - By the mid-2010s, the U.S. coal industry was already in freefall. The share of U.S. electricity produced by coal declined from forty-five percent in 2008 to twenty-four percent in 2020, while eight coal companies, including the largest privately held coal firm, declared bankruptcy in 2019.[129]
    - From the fourth quarter of 2019 to August 2020, seven of the world's largest oil companies lost $87 billion in value as a result of increased emissions regulations and collapsing demand during the COVID-19 pandemic.[130]
    - In January 2021, the S&P rating agency warned leading fossil fuel companies that they were at risk of imminent credit downgrades due to economic pressures resulting from the energy transition.[131]
    - In August 2020, leading oil company ExxonMobil Corp. was dropped from the Dow Jones Industrial Average for the first time since it joined the index in 1928. The company also left its long-time spot in the top 10 largest companies in the Standard & Poors 500 index in 2019.[132] Since 2008, ExxonMobil's market capitalization has shrunk from $500 billion to around $150 billion in 2020 before climbing to about $445 billion today.[133]
    - Between 2010 and 2020, the world's five oil "supermajors"—ExxonMobil, BP, Chevron, Shell, and Total SA—spent far more on dividends and stock buybacks ($556 billion) than they earned from business operations ($340 billion), indicating an unsustainable reliance on borrowing and asset sales to inflate financial performance.[134]
        - All five supermajors have recognized in their financial disclosures that worldwide emissions-related laws and regulations and operation in a carbon-constrained environment will increase costs and reduce demand for their core products.[135]
        - Chevron has publicly recognized that some stakeholders have been divesting from fossil fuel companies and that the possibly compounding effects of divestment could have a negative impact on Chevron's stock price, as well as its access to capital.[136]
- The pandemic and Russian invasion further strained the industry's traditional value thesis.

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[128] Data from S&P Dow Jones Indices, S&P Global (Aug. 22, 2023) and ACWI Ex-Fossil Fuels (USD), MSCI (Aug. 22, 2023).
[129] Fred Pearce, As Investors and Insurers Back Away, the Economics of Coal Turn Toxic, Yale Environment 360 (Mar. 10, 2020).
[130] Jillian Ambrose, Seven top oil firms downgrade $87bn in nine months, The Guardian (Aug. 14, 2020).
[131] Ben Butler, Rating agency S&P warns 13 oil and gas companies they risk downgrades as renewables pick up steam, The Guardian (Jan. 27, 2021).
[132] Tsvetana Paraskova, Exxon Drops Out Of Top 10 In S&P 500, OilPrice.com (Sept. 2, 2019).
[133] Avi Salzman, Why Exxon Is Being Dropped From the Dow, Barron's (Aug. 25, 2020).
[134] Clark Williams-Derry, Tom Sanzillo, & Kathy Hipple, In Q1, Four of Five Oil Majors Paid More Cash to Investors Than They Made From Operations, Institute for Energy Economics and Financial Analysis (May 2020).
[135] Chevron Corp., 2022 Form 10-K, at 24-25.
[136] *Id.*

- Russia's invasion of Ukraine caused short-term pressure in energy markets, resulting in sky-high commodity prices for fossil fuels in 2022. However, the invasion also hastened demand destruction for fossil fuels, with higher prices accelerating the shift toward renewables and low-carbon technologies and ultimately undermining the industry's long-term interests.[137] For instance, dramatic price volatility has undermined future demand for liquified natural gas in Asian countries, seen as a growth market for the industry.[138]
    - See-sawing fossil fuel commodity prices illustrate the erosion of the industry's traditional value thesis. While fossil fuel investment was once predicated on the industry's ability to produce reliable and steady returns, the industry now finds itself at the mercy of factors outside its control. "[H]oping for war, or relying on a global oil cartel to manipulate prices, is the opposite of a sustainable, low-risk business model. Any financial endeavor that depends on bloodshed and geopolitical machinations for its profits is, by its nature, a speculative, high-risk endeavor—a far cry from the blue-chip investment thesis that investors historically demanded from the oil and gas industry."[139]
    - Crucially, even the temporary increase in oil prices and subsequent record-breaking profits for the fossil fuel industry could not reverse the pattern of long-term financial decline. In 2023, broad stock market indices continue to underperform fossil-free variants on a ten-year basis (see discussion of index returns above). The market tumult instigated by Russia's invasion of Ukraine did not close this gap.
    - As markets adjust to the impact of the invasion of Ukraine, the industry finds itself exhibiting a familiar pattern. Throughout 2023, the sector has been at or near last place out of all components of the S&P 500.[140] In Q2 2023, the oil majors once again found themselves in deficit spending.[141]
- Annualized returns yielded by fossil fuel investments have lagged behind the S&P 500 in the last five years (2.67 percent annual return compared with 11.86 percent) and particularly in the last ten years (0.58 percent annual return compared with 10.5 percent).[142] To put that in perspective, projections show that $100 invested in the broader stock market in 2013 would be worth about $232 in early 2021, while that same $100 would be worth just $42 if invested in fossil fuel production.[143]

[137] Tsvetana Paraskova, IEA Slashes Oil Forecast As Demand Destruction Looms Over The Market, Oil Price (July 13, 2022).
[138] Shafiqul Alam, *et al.*, Global LNG Outlook 2023-27, Institute for Energy Economics and Financial Analysis (Feb. 15, 2023).
[139] Clark Williams-Derry, Declining supermajors profits reveal flaws in the oil and gas business model, Institute for Energy Economics and Financial Analysis (Aug. 9, 2023).
[140] Yardeni Research, Performance 2023 S&P 500 Sectors & Industries (Aug. 21, 2023). *See also* Tom Sanzillo, Taking stock of the oil and gas sector as the transition to sustainable finance proceeds apace, Institute for Energy Economics and Financial Analysis (Aug. 9, 2023).
[141] Clark Williams-Derry, Declining supermajors profits reveal flaws in the oil and gas business model, Institute for Energy Economics and Financial Analysis (Aug. 9, 2023).
[142] See S&P 500 Energy Sector Returns (reflecting a price of $448 on December 31, 2015 and a price of $286 on December 31, 2020) and S&P 500 Index Returns (reflecting a price of $2,044 on December 31, 2015 and $3,756 on December 31, 2020).
[143] S&P 500 Energy Sector Returns (last visited Oct. 5, 2023).

- Although fossil fuels posted market-leading gains in 2021 and 2022, this performance is an anomaly after ten years of poor returns. The cumulative effect of these returns is neatly captured in a comparison of broad stock market indexes, for example MSCI's All Country World Index (ACWI) and a fossil-free version of the same index.[144]
    - The fossil-free index consistently outperformed the full ACWI, with annualized gross returns of 9.53% for the ten years to August 31, 2023, compared to 9.12% for the full ACWI.
    - The difference of 0.41 percentage points is significant because repeated outperformance leads to a large difference in total return. A hypothetical $100 million investment in MSCI's fossil-free index from Nov. 30, 2010, to Aug. 31, 2023, would have grown by nearly $18 million more than the same amount invested in the standard ACWI index.
    - The implication of this data is that broader portfolio diversification into fossil fuels has resulted not in value maximization but in value losses, and a prudent investor would investigate the factors underlying this phenomenon to evaluate continued holdings in fossil fuels.
- The fossil fuel industry has barely improved its overall weighting among sectors of the economy as measured by the Standard & Poors 500 index.
    - The energy sector started 2021 at 2.3% of the total value in the index and currently stands at 4.4%.[145]
    - The leading sectors of the economy comprise a far larger portion of the index: information technology (28%), healthcare (13%), financials (12.5%), and consumer discretionary (10.6%).
    - These weights represent investors' expectations about which sectors represent the economy's long-term profit centers.
- In 2021, in the United States, forty percent of electricity from the electric power sector was from non-fossil fuel-based sources.[146] This was in part due to an increased reliance on wind and solar power, which overtook nuclear power in 2021.
- A 2022 study from Ipsos revealed that consumer demand is shifting away from fossil fuels in favor of renewables: eighty-four percent of those surveyed globally and seventy-five percent of those surveyed in the U.S. feel it is important for their country to shift to climate-friendly energy sources in the next five years.[147]
- In 2023, energy stocks have once again begun to fall, indicating the volatility of the fossil fuel industry. Through the start of August 2023, energy stocks lost 1.3 percent in 2023, while the broader stock market had an increase of 17.2 percent.[148]
- The International Energy Agency has determined that, under current scenarios, we cannot develop new oil or gas fields besides those already producing oil or under development.[149]

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[144] MSCI ACWI ex Fossil Fuels Index, MSCI Inc, (Aug. 31, 2023).
[145] S&P 500 Sector Fact Sheet, S&P Dow Jones Indices, (Aug. 31, 2023).
[146] FOTW #1258, October 3, 2022: In 2021, 40% of the Electricity Produced in the United States Was Derived from Non-Fossil Fuel Sources, Energy.gov (last visited Oct. 27, 2023).
[147] Ipsos Energy & Environment, Global consumers support shift from fossil fuels as they expect spike in energy prices to reduce their purchasing power (Mar. 30, 2022).
[148] *Id.*
[149] Banking on Climate Chaos: Fossil Fuel Finance Report 2022 at 3, Rainforest Action Network, Banktrack, Indigenous Environmental Network, OilChange International, Reclaim Finance, Sierra Club, & Urgewald (2022).

- Looking forward, fossil fuel companies face significant investment risks.
    - Nearly all major financial regulatory bodies have noted that climate change and the energy transition create material financial risks for the global economy.
        - The Securities and Exchange Commission is currently preparing disclosure rules to help investors better navigate climate risk. One commissioner recently noted that, "[w]ith climate change, we have ample, well-documented warning of potentially vast and complex impacts to financial markets. . . . Indeed, we have more than just warning as many of those risks have already materialized. Climate change thus poses a pressing and urgent risk — for investors, companies, capital markets, and the economy."[150]
        - The Federal Reserve Board noted in 2021 that "[c]limate change poses significant challenges for the global economy and financial system, with implications for the structure of economic activity, the safety and soundness of financial institutions and the stability of the financial sector more broadly."[151] In its 2020 financial stability report, the Federal Reserve reported that "climate change, which increases the likelihood of dislocations and disruptions in the economy, is likely to increase financial shocks and financial system vulnerabilities that could further amplify these shocks."[152]
        - In a 2020 report, the Commodity Futures Trading Commission warned that "[c]limate change poses a major risk to the stability of the U.S. financial system and to its ability to sustain the American economy."[153]
    - According to a 2019 study by the Mercer consulting firm, investment portfolios will be greatly affected by future global warming. If warming is held to two degrees Celsius — the target set by the 2015 Paris Agreement and one which will still result in widespread harm — the global economy will suffer significant damage from climate change while also transitioning to a renewable energy base. In this scenario, according to the study, portfolio assets in the coal industry will suffer cumulative impacts of 58.9 percentage points by 2030 and 100 percentage points by 2050, while assets in oil and gas will suffer cumulative impacts of 42.1 and 95.1 percentage points, respectively.[154] Other studies have concluded that major energy companies that continue to rely on fossil fuels will lose between thirty and sixty percent of their value.[155]

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[150] Allison Herren Lee, Shelter from the Storm: Helping Investors Navigate Climate Change Risk (Mar. 21, 2022).
[151] Board of Governors of the Federal Reserve System, Federal Reserve Board issues statement in support of the Glasgow Declaration by the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) (Nov. 3, 2021).
[152] Board of Governors of the Federal Reserve System, Financial Stability Report at 58 (Nov. 2020).
[153] Commissioner Rostin Behnam, David Gillers, Bob Litterman, Leonardo Martinez-Diaz, Jesse M. Keenan, Stephen Moch, Managing Climate Risk In the U.S. Financial System, Climate-Related Subcommittee, Market Risk Advisory Committee of the U.S. Commodity Futures Trading Commission (Sept. 2020).
[154] Mercer LLC, Investing in a Time of Climate Change: The Sequel 2019 at 34 (2019).
[155] European Green Party, The Carbon Bubble: The financial risk of fossil fuels and need for divestment at 7 (2020).

- Many fossil fuel assets "are likely to become 'unburnable' or stranded" as a result of the clean energy transition.[156] Stranded assets are expected to add up to USD $1 trillion globally under a two-degrees-Celsius warming scenario.[157]
    - Fossil fuel investments can be unstable, as losses due to stranded assets can "cascade" back to their ultimate owners.[158] If anticipated losses in the United States are summed "along the ownership chain," "an upper bound of $681 billion in potential losses could affect financial companies."[159]
    - Despite the risk of stranding, financial markets and fossil fuel companies have continued to invest in fossil fuel assets: fossil fuel reserves owned by publicly traded companies increased from 700 gigatons of CO_2 in 2011 to 1,060 gigatons in 2022. The Carbon Tracker Project, a nonprofit think tank, warns that this could make the ultimate financial fallout worse.[160]
    - Referencing potential losses from stranded assets, The Carbon Tracker initiative concluded that "potential losses for investors [are] clearly a function of how much of this risk is already priced into market valuation of fossil fuels companies — it is up to individual institutions to assess how the transition will pan out, and their risk exposure as a result."[161]
    - A 2022 study from academic economists found that pensions and other institutional investors are disproportionately on the hook for stranded assets: "We calculate that global stranded assets as present value of future lost profits in the upstream oil and gas sector exceed US$1 trillion under plausible changes in expectations about the effects of climate policy. . . . Most of the market risk falls on private investors, overwhelmingly in OECD countries, including substantial exposure through pension funds and financial markets."[162]

- Investment in the fossil fuel sector is now unacceptably risky thanks to price volatility, the rise of renewable energy sources, government climate regulations, and other factors that leave the industry ill-prepared to manage shareholder value in the years to come. The traditional value thesis that justified investment in the sector — based on the assumptions that demand for oil, gas, and coal will continue to grow and that companies' extensive untapped reserves will ensure future profits — is no longer tenable.[163] There are several structural headwinds facing the industry:
    - Transition and competitive risk: As the economy decarbonizes, global demand for oil, gas, and coal will fall. Meanwhile, competitive pressure from green technologies is crowding out fossil fuels in the electricity and transportation

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[156] J.-F. Mercure, *et al.*, Reframing incentives for climate policy action, Nature Energy 6, 1133-43 (2021).
[157] Sini Matikainen & Eléonore Soubeyran, What are stranded assets?, Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science (July 27, 2022).
[158] *Id.*
[159] *Id.*
[160] Mark Campanale, $1 Trillion of Oil and Gas Assets Risk Being Stranded by Climate Change, BRINK News (Jan. 22, 2023).
[161] Thom Allen & Mike Coffin, Unburnable Carbon: Ten Years On at 35, the Carbon Tracker Initiative (June 2022).
[162] Gregor Semieniuk, *et al.*, Stranded fossil-fuel assets translate to major losses for investors in advanced economies, Nature Climate Change (May 26, 2022).
[163] Tom Sanzillo, Dan Cohn, & Connor Chung, Two Economies Collide: Competition, conflict, and the financial case for fossil fuel divestment, Institute for Energy Economics and Financial Analysis (Oct. 2022).

sectors, which have traditionally been the primary customers for fossil fuel companies.[164]

- Physical risk: Much of the oil industry's physical assets lie in flood-prone areas. As sea levels rise and severe weather grows more frequent, climate chaos could hinder the ability to access these assets.[165]
- Asset risk: Meeting Paris Agreement goals will require keeping vast swaths of proven reserves in the ground. When a company's valuation is rooted in assumptions that this extraction will take place, the collision between market assumptions and reality becomes a source of financial instability. A similar story is true for the pipelines and other infrastructure supporting the fossil fuel economy: changing market conditions may force the early retirement of some infrastructure, creating losses for investors betting on their continued operation.[166]
- Legal risk: The fossil fuel industry faces serious legal challenges, including claims that it misled investors and the public about climate change, that it is tortiously liable for climate damages, and that its business operations violate environmental protection laws and emissions reduction commitments. With many of these cases moving forward, the industry could find itself facing significant legal exposure.
    - A report from the law firm Clyde & Co LLP concludes that "[o]il majors are currently facing threatened or pending litigation on a number of fronts and across a number of jurisdictions. Their liability insurers and reinsurers will undoubtedly be watching these cases with keen interest . . . Companies in a number of sectors may find themselves exposed not just to damages claims for climate change, but also the cost of defending litigation, the reputational harm of being associated with such litigation and the consequential impacts on operations and value."[167]
    - Since the Clyde & Co report, there have been sixty-six global climate suits against corporations worldwide.[168] In Milieudefensie et al.v. Royal Dutch Shell (2022), The Hague District court ruled Shell had a duty to comply with the Paris Climate Agreement, and subsequently ordered the company "to reduce CO2 emissions associated with its products by 45 per cent from 2019 levels by 2030."[169]
- Regulatory risk: The fossil fuel industry faces a patchwork of policy responses from the world's countries that cumulatively pose significant risks to its business model. Regulatory approvals of infrastructure projects are no longer certain, economic taxonomies that define categories of "clean" and "dirty" investments threaten to realign investment capital away from the industry, electric utilities face regulatory obligations to increase the use of renewable energy, and end-use

[164] *Id.* at 35.
[165] *Id.* at 44.
[166] *Id.* at 43-44.
[167] Clyde & Co LLP, Climate change: Liability risks at 37 (Mar. 2019).
[168] Search, Climate Change Litigation Databases (last visited Aug. 30, 2023).
[169] United Nations Environment Programme, Global Climate Litigation Report: 2023 Status Review at 50-51 (2023).

    regulations like bans on single-use plastics threaten to decrease demand for petrochemical products.[170]
  - Geopolitical risk: As discussed above, the industry's profitability has become reliant on a factor largely outside its control: the commodity price of fossil fuels. As nation states deploy oil and gas as a tool of political leverage in global power bloc alignments, market volatility is likely to intensify, putting long-term capital plans and existing contractual arrangements at risk.[171]
- Fossil fuel companies seem to be doing little to mitigate these risks, with "fossil fuel companies [having] refused to meaningfully participate in the necessary energy transition. As a result, they are structurally unprepared for the low-carbon future."[172] In other words, "[t]he energy sector has gone from a reliably consistent, stable, blue-chip contributor to institutional investment funds to a high-risk set of companies and national governments with a speculative investment rationale and a negative long-term financial outlook. The business model no longer works. Based on this history, investors should carefully consider whether their interests and the industry's interests still align."[173] From a financial perspective alone, "investors should move away from fossil fuels because the coal, oil and gas sectors are confronted with competitive pressures that they are ill-prepared to navigate."[174]
- Another way of assessing the future of the fossil fuel industry is through its employees. Nearly half of people currently working in the energy sector want to leave the industry everywhere within the next five years.[175] Furthermore, over half of employees working in the fossil fuel industry said that they are interested in switching to working in renewables. A recent study found that "58% of millennials questioned working in particular sectors due to their negative image, with oil and gas being regarded as the most unappealing globally,"[176] which has led to a reliance on crews returning after retirement.
- In an August 2020 open letter, over 100 leading economists, including Nobel Prize laureate Joseph Stiglitz and former Secretary of Labor Robert Reich, identified the continued existence of the fossil fuel economy as "fundamentally incompatible" with long-term social and economic well-being and cited divestment as an essential tactic for bringing about systemic change: "When our largest banks, most influential investors and most prestigious universities place bets on the success of the fossil fuel industry, they provide it with the economic and social capital necessary to maintain the dangerous status quo. Instead, these institutions should divest from fossil fuel companies and end financing of their continued operations while reinvesting those resources in a just and stable future."

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[170] Tom Sanzillo, Dan Cohn, & Connor Chung, Two Economies Collide: Competition, conflict, and the financial case for fossil fuel divestment at 38-41, Institute for Energy Economics and Financial Analysis (Oct. 2022).
[171] *Id.* at 31-34.
[172] *Id.* at 25.
[173] *Id.* at 52.
[174] *Id.* at 1.
[175] Regina Mayor & Stefano Moritsch, "Top Risks Facing the Oil and Gas Industry in 2022 - and What You Can Do about It," KPMG (2022).
[176] Andreas Exarheas, Are Enough Young People Entering the Oil and Gas Workforce?, Rigzone (2023).

VII. The financial prudence of fossil fuel divestment

Fossil fuel divestment poses no risk to a portfolio's diversity and flexibility, nor does it negatively impact returns. The Trustees have violated their *duty of care* and its *duty of loyalty* by failing to embrace a divestment strategy that would both improve the endowment's performance and cure the fiduciary violations described in this complaint.

- More than 1,500 institutional investors have committed to divest from fossil fuels, including major institutional investors who have recognized divestment as a fiduciarily responsible course of action.[177]
- Two major financial management firms, BlackRock and Meketa, have separately concluded that investment funds have experienced no negative financial impacts from divesting from fossil fuels. Instead, they found evidence that divestment is neutral or marginally improves returns.[178] BlackRock's report to the City of New York takes note of the fact that, while public campaigns for fossil fuel divestment were initiated by small, religious investors and non-profit organizations,[179] the financial logic of divestment has been validated by large financial institutions,[180] including significant universities, insurance companies, foundations, and major asset managers.[181]
- In addition to reducing an investor's exposure to risky holdings, divestment can help influence companies, markets, and civil society more broadly as to adopt more stringent climate policies. As such, it can play a role in both reducing a portfolio's risk exposure, and decarbonizing the real economy.[182]
- A 2018 London School of Economics analysis led by Jeremy Grantham, one of the world's leading asset managers, concluded that removing any one of ten major asset classes such as technology or utilities from a portfolio produced no discernible impact on overall long-term returns. The analysis states that the purported financial peril of fossil fuel divestment was "mythical," and that "[i]nvestors with long-term horizons should avoid oil . . . on investment grounds."[183]
- Divestment from fossil fuels does not threaten the profitability of invested funds and, as such, does not violate a fiduciary's duty to ensure the prudent management of an endowment. In recent years, investment portfolios lacking fossil fuel holdings have matched or outperformed funds containing them.
    - The most comprehensive study to date of the endowment performance at universities that have divested from fossil fuels concludes that divestment does

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[177] Stand.earth, Global Fossil Fuel Divestment Commitments Database (last accessed Sept. 14, 2023).
[178] Tom Sanzillo, IEEFA: Major investment advisors BlackRock and Meketa provide a fiduciary path through the energy transition, Institute for Energy Economics and Financial Analysis (Mar. 22, 2021).
[179] *Id.*
[180] 200 and counting: Global financial institutions are exiting coal, Institute for Energy Economics and Financial Analysis (May 4, 2023).
[181] Invest Divest 2021: A Decade of Progress Towards a Just Climate Future, DivestInvest.org (Oct. 2021).
[182] For a study of divestment's ability to reduce a company's carbon emissions, see Martin Rohleder, *et al.*, The effects of mutual fund decarbonization on stock prices and carbon emissions, J. Banking & Finance (Jan. 2022). For a study of how the divestment movement has increased support for other climate regulations, such as a carbon tax, see Todd Schifeling & Andrew Hoffmam, Bill McKibben's Influence on U.S. Climate Change Discourse, Org. & Env't (Nov. 2017).
[183] Jeremy Grantham, The mythical peril of divesting from fossil fuels, London School of Economics (June 13, 2018).

not have a negative effect on investment returns.[184] Other research indicates that fossil fuel divestment does not significantly limit portfolio diversification opportunities, allowing investors to satisfy their fiduciary duty to maintain balanced holdings even as they avoid the risks posed by stranded assets and the energy transition.[185]

- ○ A 2019 study of university endowments with "socially responsible investment" [SRI] policies concludes that such policies benefit universities. Surveying SRI endowment returns from 2010 to 2019, the study reports that "donations are 33.3% per year higher among universities that incorporate SRI policies into their endowments" and that "SRI policies predict greater university donations, higher student enrollment, and more extensive risk management practices by the endowment fund."[186]
- ○ In 2020, the financial research agency Morningstar reported that European sustainable investment funds — defined as "funds that use environmental, social, and governance criteria as a key part of their security selection and portfolio-construction process, and/or indicate that they pursue a sustainability-related theme, and/or seek a measurable positive impact alongside financial return" — had outperformed traditional funds over the past ten years, generally posting higher returns and surviving longer than traditional funds.
- ○ Comparing more recent MSCI indexes corroborates Morningstar's reporting. Indexes assigned by MCSI to have high Environmental, Social, and Governance (ESG) scores "were resilient [in 2021], outperforming the parent MSCI ACWI Index for the second year in a row, even though market conditions were very different [across the two years]."[187]
    - ■ MSCI's research team reported a correlation between higher ESG scores and financial performance during the turbulent FY 2020. "All ESG indexes outperformed the "parent" MSCI ACWI index by the end of 2020. In fact, splitting the FY 2020 into slump and rally periods for the financial market, ESG indexes 'outperformed during both.'" Notably, both concentrations of ESG scores and the average ESG scores for the indexes predicted the relationship.[188]
    - ■ Indexes with higher ESG scores experienced lower volatility during FY 2020. While reduced volatility "impaired performance during the rally," it also "provided a 'protective' effect during the slump" that ultimately led ESG indexes to outperform by the end of the year.[189]

[184] Christopher Ryan and Christopher Mariscano, Examining the Impact of Divestment from Fossil Fuels on University Endowments, 17 NYU J. L. and Business, Roger Williams Univ. L. Studies Paper No. 195 (June 23, 2020).
[185] Auke Plantinga and Bert Scholtens, The financial impact of fossil fuel divestment, 21 Climate Policy 1 (2020).
[186] George O. Aragon, Yuxiang Jiang, Juha Joenväärä, and Cristian Ioan Tiu, Socially Responsible Investments: Costs and Benefits for University Endowment Funds at 5 (July 21, 2020).
[187] Yuliya Plyakha Ferenc, Despite Oil & Gas's Rebound, ESG Indexes Outperformed, MCSI (Jan. 28, 2022).
[188] Yuliya Plyakha Ferenc, ESG Indexes Through the Slump and Rally of 2020 at 1, MSCI (Mar. 2021).
[189] *Id.* at 2.

- A 2018 analysis concluded that the New York State Common Retirement Fund would have earned an additional 22.2 billion dollars (137 billion dollars versus 114.8 billion dollars) from 2008 to 2018 had it divested from fossil fuels.[190]

- In a sign of the growing consensus that fund managers have a duty to assess climate risks in their portfolios, the multibillion-dollar Australian Retail Employees Superannuation Trust (REST) recently settled a beneficiary lawsuit that faulted the fund for failing to disclose how it would manage the risks posed by climate change and the plummeting value of fossil fuel stocks. REST acknowledged that "climate change is a material, direct and current financial risk" and committed to manage its investments in a way that would support net-zero greenhouse gas emissions by 2050 and the Paris Agreement goal of 1.5 degrees Celsius warming.[191]
- Elevated commodity prices for oil and gas in 2021 and 2022 do not justify continued portfolio holdings in the fossil fuel industry. Although high commodity prices have driven rising profits and stock valuations for energy companies, the main causes of current high prices are the debottlenecking supply chains from the pandemic,[192] along with Russia's invasion of Ukraine.[193] These are not investable events, as they cannot be relied upon to reoccur in the future. In fact, elevated prices and the weaponization of fossil fuel energy are undermining forecasted future demand for fossil fuels in Asia and Europe.[194]

VIII. Industry fraud and the fiduciary duty to avoid fraudulent investments

Allegations that the fossil fuel industry has attempted to defraud investors are widely known and well documented. The Trustees' persistence in buying industry securities in spite of these warning signs violates the *duty of care*.

- Fossil fuel companies have allegedly long engaged in a fraudulent attempt to hide the financial risks associated with emissions regulations and future fossil fuel extraction. This alleged fraud has been a matter of public record since at least 2015,[195] and a matter of common knowledge for investors since at least 2019.
- In 2019, the Massachusetts Attorney General sued ExxonMobil for three alleged violations of the Massachusetts Consumer Protection Act.
  - The state's Second Amended Complaint alleges that "[f]or many years, Exxon Mobil Corporation . . . the world's largest publicly traded oil and gas company, systematically and intentionally has misled Massachusetts investors and

[190] Toby A.A. Heaps, Divestment would have made NY pension fund $22B richer, Corporate Knights (Oct. 4, 2018).
[191] Michael Slezak, Rest super fund commits to net-zero emission investments after Brisbane man sues, ABC News (Nov. 2, 2020).
[192] David Gaffen, Analysis: Oil's journey from worthless in the pandemic to $100 a barrel, Reuters (Feb. 24, 2022).
[193] Kevin Dobbs, Natural Gas, Oil Prices Soar as Russia Attacks Ukraine, Creating Potential Supply Headwinds, Natural Gas Intel (Feb. 24, 2022). *See also*: Russian supplies to global energy markets, International Energy Agency (Feb. 2022).
[194] Shafiqul Alam, *et al.*, Global LNG Outlook 2023-27, Institute for Energy Economics and Financial Analysis (Feb. 15, 2023).
[195] Neela Banerjee, Lisa Song, & David Hasemyer, Exxon's Own Research Confirmed Fossil Fuels' Role in Global Warming Decades Ago, Inside Climate News (Sept. 16, 2015).

consumers about climate change. In order to increase its short-term profits, stock price, and access to capital, ExxonMobil has been dishonest with investors about the material climate-driven risks to its business and with consumers about how its fossil fuel products cause climate change—all in violation of Massachusetts law."[196]

  - According to the Complaint, ExxonMobil scientists in the 1970s accurately predicted the rate of global warming that would be caused by fossil fuel use. The company was well aware of how its business activity would damage the planet; for example, a company scientist told management in 1981 that climate change will "produce effects which will indeed be catastrophic" and that it would be necessary to sharply reduce fossil fuel use.[197]
  - Despite this knowledge, ExxonMobil — like many of its peers in the industry — persisted in a "highly misleading" campaign to spread doubt about climate science and to prevent measures that would decrease the use of fossil fuels. As late as 2015, ExxonMobil's CEO was publicly disputing the scientific consensus that rising atmospheric carbon dioxide levels produce catastrophic warming.[198]
  - The Attorney General concluded that ExxonMobil's value will fall precipitously in coming years, thanks in large part to an expected transition to renewable energy: "When those reserves cease to have future value, other things being equal, ExxonMobil securities are likely to decline in value as well, perhaps dramatically, much as the market value of coal companies has collapsed in recent years as the deployment of cleaner, more efficient fuel sources has reduced expected future coal demand."[199]
  - According to the Complaint, "[t]he systemic risk climate change poses to the world's financial markets is comparable to, and could well exceed, the impact of the 2008 global financial crisis . . . The risks of climate change and regulatory responses to it pose an existential threat to [the company's] business model and therefore to investments in ExxonMobil securities, including by Massachusetts investors."[200]
  - The Attorney General explicitly stated that investment in companies like ExxonMobil puts investors at risk: "ExxonMobil's omissions and misrepresentations put its Massachusetts investors at increased risk of losses in the future, as greater recognition of the physical and transition risks of climate change to ExxonMobil, other fossil fuel companies, and the global economy increasingly diminishes the market valuation of ExxonMobil securities, potentially under sudden, chaotic, and disorderly circumstances."[201]
- In September 2020, the State of Connecticut sued ExxonMobil for violations of the state's Unfair Trade Practices Act, alleging that the company has for decades "misled and

[196] Second Amended Complaint, Massachusetts v. ExxonMobil, No. 1984-CV-03333-BLS1 (Mass. Sup. Ct. June 5, 2020) at 1.
[197] *Id.* at 5.
[198] *Id.* at 9, 50-51.
[199] *Id.* at 8.
[200] *Id.* at 65, 80-81.
[201] *Id.* at 138.

deceived Connecticut consumers about the negative effects of its business practices on the climate."[202]

  - The lawsuit alleges that, beginning in the 1980s, ExxonMobil defied its own scientists' warnings dating back to the 1950s and "began a systematic campaign of deception to undermine public acceptance of the scientific facts and methods relied upon by climate scientists who knew that anthropogenic (human-caused) climate change was real and dangerous to humanity."[203]
  - The complaint goes on to note that "ExxonMobil's strategy to create uncertainty about climate science successfully kept consumers purchasing ExxonMobil products by deceiving consumers about the serious harm caused by ExxonMobil's industry and business practices."[204]

- Also in September 2020, Hoboken became the first city in New Jersey to sue fossil fuel companies for climate change damages. Hoboken "seeks to recover the cumulative cost of hundreds of millions of dollars to compensate the city for past, current and future costs associated with climate change adaptation, remediation, and economic losses." Hoboken alleges violations of the New Jersey Consumer Fraud Act and claims for negligence and common law remedies "to prevent and abate hazards to public health, safety, welfare and the environment."[205]
- In January 2021, a former senior accounting analyst for ExxonMobil alleged in a whistleblower complaint to the Securities and Exchange Commission that the company has repeatedly overstated the value of its U.S. oil and gas assets — which will likely prove unprofitable due to the collapse of the fracking boom — fraudulently inflating the company's worth to investors by as much as fifty-six billion dollars.[206]
- In April 2021, neighboring New York City sued Exxon Mobil, Royal Dutch Shell, and the American Petroleum Institute (an industry trade association) for systematically and intentionally deceiving consumers.[207] A former senior accounting analyst for ExxonMobil has alleged in a whistleblower complaint to the Securities and Exchange Commission that the company has repeatedly overstated the value of its U.S. oil and gas assets — which will likely prove unprofitable due to the collapse of the fracking boom — fraudulently inflating the company's worth to investors by as much as fifty-six billion dollars.[208]
- In June 2021, an Exxon lobbyist admitted that ExxonMobil was engaged in a concerted effort to block climate change measures and deceive the public.[209] This revelation led the House Oversight Committee to ask the chief executives of Exxon Mobil, Chevron, BP, and Shell, along with the American Petroleum Institute and the Chamber of Commerce,

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[202] Complaint, Connecticut v. ExxonMobil, No. HHDCV206132568S (Conn.. Super. Ct. Spe. 14, 2020) at 1.
[203] *Id.*
[204] *Id.* at 2.
[205] Hoboken becomes first NJ city to sue Big Oil companies, American Petroleum Institute for climate change damages, Hoboken, NJ Gov (Sept. 2, 2020).
[206] Nick Cuningham, Exclusive: Whistleblower Accuses Exxon of 'Fraudulent' Behavior for Overvaluing Fracking Assets For Years, Desmog Blog (Feb. 2, 2021).
[207] New York City Sues ExxonMobil, Shell, BP, and The American Petroleum Institute for Systematically and Intentionally Deceiving New Yorkers, The Official Website of the City of New York (Apr. 22, 2021).
[208] Nick Cuningham, Exclusive: Whistleblower Accuses Exxon of 'Fraudulent' Behavior for Overvaluing Fracking Assets For Years, Desmog Blog (Feb. 2, 2021).
[209] Hiroko Tabuchi, In Video, Exxon Lobbyist Describes Efforts to Undercut Climate Action, The New York Times (June 30, 2021).

to appear at a hearing and provide emails and documents about whether the industry led an effort to mislead the public and prevent action to fight climate change.[210]

- According to PBS, as of August 2022, "there [were] at least 20 pending lawsuits filed by cities and states across the U.S., alleging major players in the fossil fuel industry misled the public on climate change to devastating effect."[211]
- In November of 2022, sixteen Puerto Rican municipalities filed a complaint against ExxonMobil Corp, Shell plc, Chevron Corp, BP plc and others, alleging that they had "misrepresented the dangers of the carbon-based products which they marketed and sold despite their early awareness of the devastation they would cause Puerto Rico."[212] Specifically, the complaint seeks damages for the 2017 hurricane season (Hurricanes Irma and Maria), which left thousands dead and much of the island's critical infrastructure in peril.[213] Filed in federal court, this case is the first with Racketeer Influenced and Corrupt Organizations Act (RICO) claims.[214]
- Despite these revelations of alleged fraudulent behavior, and in the face of existential threats to their business models, oil companies continue to refuse to provide investors with any assurances that they are preparing for the effects of climate change. ExxonMobil and Chevron, for example, have blocked shareholder proposals that ask the companies to describe how they will adjust their operations to satisfy the warming targets established under the Paris Agreement.[215]

IX. The fossil fuel industry's misinformation campaigns and attacks on academia

Fossil fuel companies have engaged in decades-long efforts to obscure scientific reality and undermine academic research. By funding this activity, the Trustees contravene WashU's core *charitable purposes* as an educational institution and violate their *duty of loyalty.*

- Beginning in the 1980s, in response to mounting evidence of climate risks, fossil fuel companies halted their climate research and "began a campaign to discredit climate science and delay actions perceived as contrary to their business interests."[216] This campaign was multi-pronged, consisting of the development of internal policies to

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[210] Timothy Gardner, U.S. House panel to probe oil companies over climate disinformation, Reuters (Sept. 16, 2021).
[211] Bruce Gill, U.S. Cities and States Are Suing Big Oil Over Climate Change. Here's What the Claims Say and Where They Stand, PBS (Aug. 1, 2022).
[212] Municipalities of Puerto Rico v. Exxon Mobil Corp, et al., No. 3:22-cv-01550, Complaint for Damages, at p. 4 (2022).
[213] Clark Mindock, Puerto Rican towns sue Big Oil under RICO alleging collusion on climate denial, Reuters (Nov. 29, 2022).
[214] Korey Silverman-Roati & Maria Antonia Tigre, Municipalities of Puerto Rico v. Exxon: a unique class action against fossil fuel companies presses for climate accountability in the United States, Climate Law: A Sabine Center Blog, Sabin Center for Climate Change Law (Dec. 2, 2022).
[215] Dana Drugman, Exxon, Chevron, Chase Reject Shareholder Requests to Address Climate Risk, The Climate Docket (Jan. 29, 2020).
[216] Brief of Amici Curiae Robert Brulle, Center for Climate Integrity, Justin Farrell, Benjamin Franta, Stephan Lewandowsky, Naomi Oreskes, and Geoffrey Supran in Support of Appellees and Affirmance at 17, County of San Mateo v. Chevron Corporation, et al., County of Imperial Beach v. Chevron Corporation, et al., County of Marin v. Chevron Corporation, et al., County of Santa Cruz, et al., v. Chevron Corporation, et al., Nos. 18-15499, 18-15502, 18-15503, 18-16376 (9th Cir. 2019).

suppress the companies' own knowledge, public communications to sow doubt about the dangers of fossil fuels, and the funding of organizations and research to undermine climate science.[217]

- In 2019 testimony to the Senate Special Committee on the Climate Crisis, Dr. Justin Farrell described a decades-old movement "to deceive the American people about the reality of climate change." This movement has been largely successful "sowing seeds of widespread popular doubt, transforming climate change into a sharply politicized issue, infusing climate denial into the highest levels of government, and obstructing policy solutions that are so direly needed to decarbonize our economy and mitigate the impacts of warming."
- Research shows that fossil fuel companies launched a "multi-pronged manipulation effort" to manufacture uncertainty around climate science by funding climate denial groups as well as creating "fake grassroots efforts" to promote climate misinformation. "Money facilitated coordination between 200 organizations," said Farrell, to create the "appearance of scientific credibility."[218]
- In his analysis of the funding sources of 164 climate denialist organizations, Farrell found that ExxonMobil and the Koch foundations were "the most reliable and theoretically important across-time indicators of corporate involvement."[219]
- Between 1998 and 2005, ExxonMobil alone spent nearly sixteen million dollars funding groups that promote climate denial, according to a report by the Union of Concerned Scientists.[220]
- Since 1997, Koch Industries, through its various foundations and institutes including the Koch Family Foundation, has donated more than 145 million dollars from 1997 to 2018, financing ninety organizations that attack climate science and policy solutions.[221]
- Over about the last three decades, "five major U.S. oil companies have spent a total of at least $3.6 [billion] on advertisements."[222] These ads, along with other public communications, have promoted narratives the companies know to be false: In the case of ExxonMobil, for example, between 1977 and 2014, only twelve percent of ads acknowledged that anthropogenic climate change is real, compared to eighty percent of internal documents.[223]

- These activities were summarized in an amicus brief by academics and researchers as part of the ongoing tort litigation by California counties against fossil fuel companies,[224] and by the Massachusetts Attorney General's complaint against ExxonMobil in its deceptive advertising litigation.[225]

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[217] *See generally id.*
[218] Senate Dems Special Committee on the Climate Crisis Hearing, Senate Dems (Oct. 29, 2019).
[219] Justin Farrell, Corporate Funding and Ideological Polarization, 113(1) Proceedings of the National Academy of Sciences 92-97 (2016).
[220] Smoke, Mirrors & Hot Air: How ExxonMobil Uses Big Tobacco's Tactics to Manufacture Uncertainty on Climate Science at 5, Union of Concerned Scientists (Jan. 2007).
[221] Koch Industries: Secretly Funding the Climate Denial Machine, Greenpeace (last visited Jan. 31, 2022).
[222] Emily Holden, How the oil industry has spent billions to control the climate change conversation, The Guardian (Jan. 8, 2020).
[223] Geoffrey Supran & Naomi Oreskes, Assessing ExxonMobil's climate change communications (1977–2014), 12(8) Envtl. Res. Letters (Aug. 2017).
[224] *See* Brief of Amici Curiae Robert Brulle, *et al.*, *supra* at note 216.
[225] *See* Second Amended Complaint, Massachusetts v. ExxonMobil, *supra* at note 196, at Part IV.B.

- Academic research has confirmed that the fossil fuel industry's "major tactic was and continues to be manufacturing uncertainty . . . [and] constantly asserting that the evidence is not sufficient to warrant regulatory action. Historically these efforts focused on specific problems such as secondhand smoke, acid rain, and ozone depletion, but in the case of [climate change] they have ballooned into a full-scale assault on the multifaceted field of climate science, the IPCC, scientific organizations endorsing [climate change], and even individual scientists."[226]
- Direct attacks on academics and scholars have become a regular tactic of the fossil fuel industry, particularly at prominent universities.[227]
- Even while engaging in these attacks, the fossil fuel industry has quietly courted academic institutions and individual researchers in an attempt to burnish its image, legitimize its policy positions, and further its own business interests. These efforts have taken the form of funding for research and programs at prominent universities,[228] including WashU.
    - WashU created the Consortium for Clean Coal Utilization in 2008 to focus on reducing carbon dioxide emissions and environmental harms from burning coal.
    - The term "clean coal" implies that there is a way to make coal a sustainable energy source. However, as Dr. Bret Gustafson, an anthropologist who studies fossil fuels and climate politics [229] explained to reporters of the WashU Student Life newspaper, "coal's status as a toxic pollutant in every stage of its extraction, transportation and conversion to energy necessitates the end of its use" and that therefore there is no such thing as "clean coal." He goes on to explain that "clean coal" is "simply [coal companies'] way of using the University to improve the image of coal."[230]
    - Gustafson describes CCCU as "a bit like a farce," arguing that "corrupt coal industries" want to "keep burning fossil fuels to maintain a militaristic economy and satisfy corporate interests."[231]
    - This Student Life article also highlights that "[t]he consortium receives funding from coal companies Ameren, Peabody and Arch Coal in addition to the federal government."[232] Even though the University "retains research decision-making power," it is reasonable to suspect that funding from these companies may encourage university researchers to make decisions or form conclusions with the companies' interests at heart.

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[226] Riley E. Dunlap & Peter J. Jacques, Climate Change Denial Books and Conservative Think Tanks: Exploring the Connection, 57(6) Am. Behav. Scientist 699, 700 (2013) (internal citations omitted).
[227] *See, e.g.*, Union of Concerned Scientists, How the Fossil Fuel Industry Harassed Climate Scientist Michael Mann (Oct. 12, 2017); David Hasemyer & John H. Cushman Jr., Exxon Sowed Doubt About Climate Science for Decades by Stressing Uncertainty, Inside Climate News (Oct. 22, 2015); Geoffrey Supran & Naomi Oreskes, Assessing ExxonMobil's climate change communications, *supra* at note 223; Nicholas Kusnetz, Exxon Turns to Academia to Try to Discredit Harvard Research, Inside Climate News (Oct. 20, 2020); Hiroko Tabuchi, How One Firm Drove Influence Campaigns Nationwide for Big Oil, The New York Times (Nov. 11, 2020).
[228] These funding relationships are not unique to WashU. *See* Benjamin Franta & Geoffrey Supran, The fossil fuel industry's invisible colonization of academia, The Guardian (Mar. 13, 2017).
[229] Department of Anthropology: Bret Gustafson, Washington University in St. Louis (last visited Sept. 25, 2023).
[230] Nina Giraldo, Future or 'farce': A look at WU's Consortium for Clean Coal Utilization, Student Life (Jan. 23, 2022).
[231] *Id.*
[232] *Id.*

- Funding relationships like these, which are widespread at prominent universities,[233] call into question the intellectual independence of academic programming and the balance of perspectives within the academy. According to Robert Brulle, a visiting professor at Brown University, "[T]he financial steering of intellectual inquiry is a big issue. . . . The academy is really dependent on external funding sources, and it drives a certain research agenda. I'm not saying that the people they fund are dishonest or illegitimate. But this has a systematic effect, in that it heightens certain voices and leaves others invisible, or reduces their staying power, within the academy. And so you end up with a biased system."[234]

X. Divestment by peer institutions

Hundreds of large institutional investors have opted in recent years to divest from fossil fuel producers, including many universities situated similarly to WashU. Their reasoning applies to WashU's circumstances as well as their own, and thus the Board has failed to *invest with the care that an ordinarily prudent person in a like position would exercise under similar circumstances.*

- Institutional divestment from the fossil fuel industry is becoming increasingly common. Many institutions have pointed to the moral and financial imperative of abandoning holdings in oil, gas, and coal, and there is broad consensus that fossil fuel divestment is both necessary and effective as a means of mitigating climate disaster.[235]
    - Institutional investment in fossil fuel firms "provid[es] [them] with the capital to continue oil and gas production, to persuade members of Congress to provide industry-specific tax breaks and other favors, and to thwart carbon taxes and new public-transportation projects and other policies — actions that ultimately delay the transition from the greenhouse gas-emitting fuels."[236]
    - In its lawsuit against ExxonMobil, the Massachusetts Attorney General concluded that institutional divestment is effective in reducing the fossil fuel industry's harmful effects on the climate: "Insofar as they damage companies' reputations for their social responsibility and environmental stewardship, and thus their societal 'license to operate,' divestment efforts pose an additional climate-related risk to oil and gas companies. In 2018, an oil major that competes with

[233] Benjamin Franta & Geoffrey Supran, The fossil fuel industry's invisible colonization of academia, The Guardian (Mar. 13, 2017).
[234] Wen Stephenson, Other Universities Are Divesting From Fossil Fuels—but Harvard Is Doubling Down on Them, The Nation (May 4, 2016).
[235] *See, e.g.*, How falling demand for oil is set to transform international relations, World Economic Forum (Aug. 20, 2019) (citing the "global campaign in support of divestment from fossil fuels" as one of the key factors in the ongoing energy transition worldwide); Gunther Thallinger, The zero that every investment portfolio needs, World Economic Forum (Jan. 14, 2021) ("To address climate change effectively, investors must steer their entire portfolios towards climate neutrality. . . . [I]t could become necessary to reduce assets with a non-satisfactory sustainability approach. In the extreme case of non-existence of such approaches, divestment is the ultima ratio.").
[236] Prem Thakkar, Reading the Fine Print of University Fossil Fuel Divestment Pledges, The American Prospect (Mar. 1, 2021).

ExxonMobil acknowledged that divestment campaigns and related efforts pose a material risk to its business and the price of its securities."[237]

  - The Attorney General was referencing an investor disclosure by Shell, in which the company stated that the divestment movement "could have a material adverse effect on the price of our securities and our ability to access equity capital markets . . . other financial institutions also appear to be considering limiting their exposure to certain fossil fuel projects. Accordingly, our ability to use financing for future projects may be adversely impacted."[238]
  - Other fossil fuel companies have likewise acknowledged the effects of investors' decisions to pull their funds: Prior to its bankruptcy declaration, for example, Peabody Energy stated in SEC filings that "[t]here have also been efforts in recent years affecting the investment community, including investment advisors, sovereign wealth funds, public pension funds, universities and other groups, promoting the divestment of fossil fuel equities and also pressuring lenders to limit funding to companies engaged in the extraction of fossil fuel reserves. The impact of such efforts may adversely affect the demand for and price of securities issued by us, and impact our access to the capital and financial markets."[239]
- In addition to "hasten[ing] the [fossil fuel] industry's decline," divestment commitments from large institutions create pressure on governments to take action and make political space for the shift away from fossil fuels."[240]

- Many of WashU's peer institutions have pledged to abandon their fossil fuel assets, citing the financial and ethical obligation to divest. Such institutions have often chosen divestment *in addition* to a suite of other policies, including producing climate- and sustainability-related research, reducing on-campus environmental impact through emissions reductions and other measures, and engaging in shareholder advocacy with companies that have demonstrated their real commitment to the goals of the Paris Agreement and whose core business model is not at odds with those goals. Many of Washington University's peer institutions have also committed to meaningful climate action on a much more rapid timescale.
  - On September 29, 2022, Princeton University's Board of Trustees voted to dissociate from 90 fossil fuel companies, including ExxonMobil, NRG Energy, Total, Suncor, and Syncrude.[241] The companies dissociated from were identified as responsible for some of the most-polluting segments of the fossil fuel industry and were involved in corporate climate disinformation campaigns. The decision ended not only investments but also research funding and other associations between the university and the companies identified. Princeton also created a fund to support funding needs for energy research as a result of the dissociation.

[237] Second Amended Complaint, Massachusetts v. ExxonMobil, *supra* at note 196, at 108-109.
[238] Royal Dutch Shell PLC, Annual Report and Form 20-F 2017 — Strategic Report at 13 (2017).
[239] Peabody Energy Corporation, Form 10-K: Annual Report at 30 (2014).
[240] Emma Howard, A beginner's guide to fossil fuel divestment, The Guardian (Jun. 23, 2015) (quoting Jamie Henn, of 350.org, who explains that institutional divestment commitments "hasten the [fossil fuel] industry's decline and help push governments to take action," while also serving to stigmatise fossil fuel companies in order to "make the space for progress" and reduce those companies' corrupting influence on politics).
[241] Princeton University, Fossil Fuel Dissociation (Sept. 29, 2022).

Princeton University President Christopher Eisgruber said of the decision, "Princeton will have the most significant impact on the climate crisis through the scholarship we generate and the people we educate."[242]

- On October 8, 2021, Dartmouth College announced that the Dartmouth Investment Office would let its remaining public investments in the fossil fuel industry expire.[243] The decision was made based on both moral and financial considerations. Dartmouth's statement cited the worsening effects of climate change, saying that the "damaging effects will continue to exacerbate existing threats to global health, nutrition, and biodiversity while also creating new hazards."[244] Dartmouth President Phil Hanlon said the College has noticed "that investments in energy transitions are now comparable or better than the investment opportunities in fossil fuel companies."[245]
- On October 6, 2021, California State University System, the largest in the US, announced that the system would no longer invest in fossil fuels.[246] The California State University Chancellor said that the move was "consistent with our values" and that "it is an appropriate time to start to transition away from these types of investments, both to further demonstrate our commitment to a sustainable CSU but also to ensure strong future returns on the funds invested by the university."[247]
- On September 23, 2021, Boston University announced that it would fully divest from fossil fuels as part of an overarching climate action strategy.[248]
    - President Robert Brown stated that the decision was motivated by an urgently worded climate report released by the Intergovernmental Panel on Climate Change in 2021, and said that "we face the challenge of changing our way of life at unprecedented speed if we are going to preserve Earth's environment as we know it."[249]
    - Brown added that the move to divest "is putting us on the right side of history," highlighting the existential threat of climate change and the need to take immediate action.[250]
- On September 9, 2021, Harvard University announced that it would divest from fossil fuels.[251]
    - President Lawrence Bacow stated: "Given the need to decarbonize the economy and our responsibility as fiduciaries to make long-term

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[242] *Id.*
[243] Office of Communications, Darmouth Taking Formal Steps to Address Climate Crisis, Dartmouth College (Oct. 8, 2021).
[244] *Id.*
[245] Taylor Haber, College formally announces plan to divest from fossil fuels, The Dartmouth (Oct. 8, 2021).
[246] California State University Will Not Make Future Fossil Fuel Investments in University Investment Portfolios and Funds, The California State University (Oct. 6, 2021).
[247] *Id.*
[248] Robert A. Brown, Board of Trustees Approves Fossil Fuel Divestment Policy, Boston University (Sept. 23, 2021).
[249] *Id.*
[250] *Id.*
[251] Anemona Hartocollis, Harvard Says It Will Not Invest In Fossil Fuels, The New York Times (Sept. 10, 2021).

investment decisions that support our teaching and research mission, we do not believe such investments are prudent."[252]

  - President Bacow also noted that "[c]limate change is the most consequential threat facing humanity… without concerted action, this dire situation is only going to get worse."[253]

- In January 2021, Columbia University announced that it did not hold any direct investments in publicly traded oil and gas companies, and was formalizing this policy of non-investment for the foreseeable future. The university had already divested from thermal coal in 2017.[254] "There is an undeniable obligation binding upon Columbia and other universities to confront the climate crisis across every dimension of our institutions," said Columbia University President Lee C. Bollinger.
- In March 2020, Brown University made public that it had begun selling its investments in fossil fuel extraction companies in October 2017, arguing that the climate crisis called for serious action beyond teaching and research.
  - "The urgency of the situation calls for additional action," Brown's president Christina Paxson wrote in a letter to the Brown community.[255]
  - Paxson explained the move as aligning with "the view that, as the world shifts to sustainable energy sources, investments in fossil fuels carry too much long-term financial risk."[256]
- On May 22, 2020, the Cornell University Board of Trustees announced a moratorium on new private investments focused on fossil fuels and a phase-out of existing investments in that area, effectively divesting the endowment from the fossil fuel industry.[257] Like many investors, when Cornell's Trustees announced their moratorium on fossil fuel investments, they cited the financial imperative behind their actions: "We're doing the right thing from an investment perspective, particularly for an endowment with a perpetual time horizon" said Ken Miranda, the university's chief investment officer, in a Cornell press release.[258]
- On October 1, 2020, the University of Cambridge announced plans to divest all direct and indirect holdings from the fossil fuel industry and to achieve net-zero greenhouse gas emissions by 2038.[259]
  - As of December 2020, the university had already withdrawn investments in "conventional energy-focused public equity measures," and planned to divest from "all meaningful exposure in fossil fuels" by 2030. It now aims to achieve net-zero greenhouse gas emissions across its entire investment portfolio by 2038.[260]

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[252] Harvard Office of the President, Harvard University (last visited Jan. 27, 2022).
[253] *Id.*
[254] University Announcement on Fossil Fuel Investments, Columbia News (last visited Jan. 27, 2022).
[255] Christina Paxson, Letter from President Paxson: Brown's actions on climate change, Brown University (Mar. 4, 2020).
[256] *Id.*
[257] Kathryn Stamm, Cornell to Effectively Divest from Fossil Fuels, Trustees Vote, Cornell Daily Sun (May 22, 2020).
[258] James Dean, Cornell announces moratorium on fossil fuel investments, Cornell Chronicle (May 22, 2020).
[259] Matthew Taylor, Cambridge University to divest from fossil fuels by 2030, The Guardian (Oct. 1, 2020).
[260] *Id.*

        - Cambridge's announcement was justified on moral grounds. "The University is responding comprehensively to a pressing environmental and moral need for action with an historic announcement that demonstrates our determination to seek solutions to the climate crisis," said Stephen Toope, the university's vice-chancellor.[261]
        - In addition to leveraging the university's endowment, Cambridge also made clear its continued commitment to research and teaching, emphasizing that all research funding and donations will now be scrutinized against the university's goal of reducing greenhouse gas emissions "before any funding is accepted."[262]
    - In April 2020, the University of Oxford announced plans to divest its endowment from fossil fuel companies.[263]
        - Oxford's divestment decision was made in accordance with its Oxford Martin Principles for Climate-Conscious Investment, a set of guidelines that led the university to determine that fossil fuel investments "hinder" worldwide efforts to (1) bring CO2 emissions to zero and (2) limit global warming to 1.5 degrees Celsius.[264]
        - While some universities have insisted on "shareholder engagement" *instead of* divestment, Oxford chose to pursue both strategies, divesting from fossil fuel companies while also pledging to work with companies around the world, "helping them assess whether investments are compatible with transition to a more stable climate and the goals of the Paris Agreement on climate change." Oxford also plans to engage with fund managers "to request evidence of net-zero carbon business plans across their portfolios."[265]
        - Oxford's divestment pledge was seen as consistent with the university's academic and teaching mission, and administrators did not see divestment as precluding climate- and sustainability-related research or efforts to promote sustainable campus operations. In fall 2020, months after announcing its divestment pledge, Oxford released drafts of a sustainability plan to achieve net-zero carbon and biodiversity net gain by 2035.[266]
    - In February 2020, Georgetown University announced the divestment of its endowment from all public and private fossil fuel assets.[267]
        - In its announcement, Georgetown stressed the financial risk of continued investment, with Michael Barry, Georgetown's chief investment officer, noting that "climate change, in addition to threatening our planet, is

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[261] Cambridge to divest from fossil fuels with 'net zero' plan, University of Cambridge (Oct. 1, 2020).
[262] *Id.*
[263] University of Oxford cuts ties to fossil fuels industry, BBC News (Apr. 28, 2020).
[264] Oxford Martin Principles for Climate-Conscious Investment, Oxford Martin Net Zero Carbon Investment Initiative (Feb. 2018) (adapted from R.J. Millar, C. Hepburn, J. Beddington, J., & M.R. Allen, Principles to guide investment towards a stable climate, 8 Nature Climate Change 2-4 (2018)).
[265] Oxford announces historic commitment to fossil fuel divestment, University of Oxford (Apr. 27, 2020).
[266] Aiming for zero carbon and biodiversity net gain by 2035, University of Oxford (Nov. 20, 2020).
[267] Fossil Fuels Divestment Continues Georgetown's Commitment to Sustainability, Georgetown University (Feb. 6, 2020).

increasing the risk of investing in oil and gas companies, as we expect a more volatile range of financial outcomes."[268]
        - Georgetown President John J. DeGioia also identified moral concerns as important to the decision, noting that "caring for our environment is one of the most urgent moral and practical concerns of our time."[269]
    - In September 2019, the University of California system announced divestment of its over eighty-three billion dollar endowment and pension fund from fossil fuels.[270]
        - In an op-ed in the Los Angeles Times, fund managers cited their fiduciary duty to the long-term financial wellbeing of the institution, writing that "[t]he reason we sold some $150 million in fossil fuel assets from our endowment was the reason we sell other assets: They posed a long-term risk to generating strong returns for UC's diversified portfolios."[271]
        - The fund managers also pledged to take the opportunity to reinvest in climate change solutions, writing that "[w]e have been looking years, decades and centuries ahead as we place our bets that clean energy will fuel the world's future. That means we believe there is money to be made."[272]
- Aside from peer universities, many other large-scale charitable funds with analogous fiduciary duties have divested.
    - Pension funds that have divested from fossil fuels include the California Public Employees' Retirement System (coal), the California State Teachers' Retirement System (coal), the country of Ireland, the New York City Employees Retirement System, the New York State Common Retirement Fund, the Teachers Retirement System of the City of New York, and the City of Providence, Rhode Island (partial).[273] In September 2021 the Caisse de dépôt et placement du Québec — Canada's second-biggest pension fund at 310 billion dollars — announced it was divesting from oil production investments by the end of 2022.[274]
    - In the fall of 2021, two of America's largest and most prestigious foundations announced their divestment from fossil fuels. The MacArthur Foundation announced that it was divesting from fossil fuels, citing a number of reasons including fiduciary duty.[275] Shortly after, the Ford Foundation announced it was divesting its thirteen billion dollar endowment from fossil fuels.[276] The foundation president apologized for not having divested sooner.[277]
    - Other major funds that have divested include the five-billion-dollar Rockefeller Foundation,[278] Norway's 1.1 trillion dollar sovereign wealth fund (oil and gas

[268] *Id.*
[269] *Id.*
[270] Jagdeep Singh Baccher & Richard Sherman, Opinion: UC investments are going fossil free. But not exactly for the reasons you may think, The Los Angeles Times (Sept. 17, 2019).
[271] *Id.*
[272] *Id.*
[273] 1000+ Divestment Commitments, GoFossilFree.org (updated Dec. 9, 2020).
[274] CDPQ announces its new climate strategy, Caisse de dépôt et placement du Québec (Sept. 28, 2021).
[275] Our Approach toAchieving Impact with Investment Assets, MacArthur Foundation (Sept. 22, 2021).
[276] Darren Walker, Aligning our investments and our value, Ford Foundation (Oct. 18, 2021).
[277] InvestDivest 2021 Event Video, DivestInvest (last visited Jan. 27, 2022).
[278] *Id.*

exploration and production)[279] and the ninety-billion Storebrand hedge fund (ExxonMobil, Chevron, and other environmental bad actors).[280]

XI. WashU's ties to the fossil fuel industry

While several members of the Board of Trustees and WUIMC have indirectly helped to support the fossil fuel industry in the past, by working at financial firms with fossil fuel clients, it is more concerning that the current Chair of Board maintains an active leadership position in a company that finances fossil fuel projects. This apparent conflict of interest jeopardizes the Board's *duty of loyalty* by creating a risk of impartial decision-making with regard to fossil fuel securities, which, as detailed above, conflict with WashU's mission as a public charity.

- Andrew Burkey, the Chair of the Board, is the CEO of Atlas Holdings, a company that works with members of the fossil fuel industry.
  - The Atlas Holdings website claims that Greenidge Generation Holdings Inc. are carbon neutral.[281] However, this company, a former coal plant, now burns natural gas and stores two million tons of coal ash off-site."[282]
  - Atlas Holdings has not shied away from financing fossil fuel projects even as other investors have begun to shun them. Atlas states on its website: "[W]e believe that we can be most impactful not by avoiding or divesting of businesses with poor ESG related profiles, but by seeking out opportunities in which we can actively improve ESG performance."[283]
  - Atlast Holdings also currently works with Granite Shore Power, a company that owns the last coal plant in New Hampshire.[284] They were recently sued by the Sierra Club on the grounds that they violated their National Pollutant Discharge Elimination System permit by dispelling pollution into a nearby river.[285]

XII. The Trustees' refusal to consider divestment from fossil fuels

The Trustees have consistently refused to engage with students and faculty who have sought to align the university's investment practices with its charitable mission, thereby failing to act in *good faith* or with *due care*.

- In 2008, WashU created the Consortium for Clean Coal Utilization.[286]

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[279] Terje Solsvik, Norway sovereign wealth fund to divest oil explorers, keep refiners, Reuters (Oct. 1, 2019).
[280] Jillian Ambrose, Major investment firm dumps Exxon, Chevron and Rio Tinto stock, The Guardian (Aug. 24, 2020).
[281] Greenridge, Atlas Holdings LLC (last visited Oct. 2, 2023).
[282] Sruthi Gopalakrishnan, In the Finger Lakes, a cryptocurrency mining plant billed as 'green' has a dirty coal ash problem, (Aug. 25, 2022).
[283] Environmental, Social, & Governance, Atlas Holdings LLC (last visited Oct. 2, 2023).
[284] ACR II Granite Shore Power Holdings LLC, Atlas Holdings LLC (last visited Oct. 2, 2023)
[285] Sierra Club, Inc. v. Granite Shore Power LLC, 578 F. Supp. 3d 218 (D.N.H. 2021).
[286] A Quick Recount of Students against Peabody, A People's History of Washington University (last visited Oct. 3, 2023).

- In 2012, Fossil Free WashU (a campaign that is part of WashU's Green Action student organization) met twice with then-Chancellor Mark Wrighton about fossil fuel divestment. In the first meeting, Wrighton expressed concerns about student support and in the second he claimed that other schools with similarly sized endowments had not divested.[287]
- On February 6th, 2012, over fifty students alongside Green Action launched Renew WashU, a campaign urging WashU to power its campus with 100% renewable energy and commit to a 100% renewable endowment.[288] At the time, Steven Leer, chairman and CEO of Arch Coal, Inc., served on the Board of Trustees, as did Greg Boyce, the former CEO of Peabody Energy Company.[289] Peabody and Arch Coal are the two largest coal mining companies in the United States.
- In 2013, a survey of WashU students revealed that out of 1,000 students, only six percent opposed divestment, and that same year, a petition for divestment received 700 signatures.[290]
- On September 18th, 2013, then-Chancellor Mark Wrighton said during his annual State of the University Address, "The main point is, I would say, [is] let's not disinvest from that which we need, which is, for some decades to come, fossil fuels."[291]
- In 2014, WashU's student government passed a resolution 14-2 to support and outline divestment from the top 200 fossil fuel companies.[292]
- In January 2014, Students Against Peabody was formed, a coalition devoted specifically to the removal of Trustee Greg Boyce, CEO of Peabody Energy Corporation, a company known for "its human rights violations, occupation of indigenous communities, exploitation of labor, contribution to climate change and destruction of the environment."[293]
- In February 2014, Fossil Free WashU submitted a letter to then-Chancellor Mark Wrighton telling the University to divest its endowment from fossil fuels.[294]
- On April 9th, 2014, thirty to forty students from Students Against Peabody began an occupation of the steps outside Brookings Hall, holding signs, engaging in chants and speeches, and sleeping in tents.[295]
- On April 12, 2014, 5 students met with Chancellor Wrighton to demand the removal of Greg Boyce from the Board, and that the Chancellor attends community-led tours of two Peabody extraction zones–Black Mesa and Rocky Branch. Chancellor Wrighton refused to take a stand stating "I could, but I won't", and students walked out.
- On May 2nd, 2014, the occupation of Brookings Hall ended, and 100 students rallied from Mudd Field to the Board of Trustees meeting to deliver a letter of resignation to

[287] Meeting Notes from Green Action Meeting, on file with Green Action WashU (Jan. 22, 2016).
[288] An Open Letter to Chancellor Wrighton, Green Action WashU (last visited Oct. 3, 2023).
[289] Swetha Nakshatri, Former Peabody Executive Resigns from Board, Activists React, Student Life (Mar. 6, 2017).
[290] Sam Weien, Students of Fossil Free WashU Aim for Divestment with Letter to Chancellor, Student Life (Feb. 23, 2015).
[291] Manvitha Marni, Chancellor Describes Plans for Involvement in Local Education, Green Energy, Student Life (Sep. 19, 2013).
[292] Ishaan Shah, College Endowments: A Colonial Empire (Sept. 20, 2019).
[293] A Quick Recount of Students against Peabody, A People's History of Washington University (last visited Oct. 3, 2023)
[294] Megan Magray, New clean coal facility in Urbauer set to finish construction, Student Life (Mar. 30, 2015).
[295] *See supra* at note 286.

Greg Boyce. The police respond with riot gear and arrest seven students, charging them with trespassing on their own campus and disturbing the peace.[296]

- On May 8th, 2014 Marshall Johnson, a resident of Black Mesa, traveled to meet protestors and Rocky Branch community members, and together they "attempt[ed] to enter Peabody shareholders meeting and [were] shuttled into a secondary overflow room to limit them from publicly voicing grievances." The same day, police arrested eleven more protesters outside the Ritz-Carlton Hotel.[297]
- On February 13th, 2015, as part of Global Divestment Day, Fossil Free WashU sent a letter to then-Chancellor Mark Wrighton demanding divestment. The letter cited research which showed portfolios that are and are not invested in fossil fuels do not perform differently.[298]
- In April 2015, students visited Rocky Branch, IL, one of the Peabody coal extraction points, and created "a political satire campaign around Chancellor Wrighton's refusal to visit even Rocky Branch," right before the vote to reelect Greg Boyce to the Board of Trustees.[299]
- In Spring 2015, students flyering outside the Knight Center on campus were met with police in riot gear, who set up barrier fences and called in backup.[300]
- The same spring, Greg Boyce was reelected to the Board of Trustees, and in response, students created the disorientation guide (an information pamphlet paralleling those given to first years during fall orientation).[301]
- In January of 2017, Fossil Free WashU launched a student petition calling for university divestment from fossil fuels. The petition emphasized that fossil fuels threaten the climate and marginalized communities. It garnered more than 300 signatures within a week and as of 2023 has nearly 2,500 signatures.[302]
- In March 2017, Greg Boyce resigned from the Board of Trustees.[303]
- On April 17th, 2017, members of Fossil Free WashU published an op-ed in campus newspaper Student Life detailing a private meeting with then-Chancellor Mark Wrighton in which he told Fossil Free WashU the university would not be divesting.[304]
- On April 18, 2017, a petition was sent to university faculty asking the university to take steps toward divestment from fossil fuels. More than eighty professors and faculty signed this petition.[305]
- On April 22, 2017, after pressure for an official public stance by Fossil Free WashU, then-Chancellor Mark Wrighton announced that the university would not be divesting its endowment from fossil fuels.[306]

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[296] *See supra* at note 286.
[297] *See supra* at note 286.
[298] Sam Weien, Students of Fossil Free WashU aim for divestment with letter to chancellor, Student Life (Feb. 23, 2015).
[299] *See supra* at note 286.
[300] *See supra* at note 286.
[301] *See supra* at note 286.
[302] Chalaun Lomax, Student petition calls for University divestment from fossil fuels, Student Life (Jan. 30, 2017.
[303] Swetha Nakshatri, Former Peabody executive resigns from board, activists react, Student Life (Mar. 6, 2017).
[304] Alexandra Lindstrom et al., Op-ed submission: "We don't have a democracy": A response to Chancellor Wrighton, Student Life (Apr. 17, 2017).
[305] Bret Gustafson, Support on WUSTL Fossil Fuel Divestment Effort (Apr. 18, 2017).
[306] Chalaun Lomax, Wash. U. addresses Fossil Free, will not divest, Student Life (Apr. 24, 2017).

- In the spring of 2017, Green Action created a petition arguing that the term "clean coal" is harmful and misleading, and that the name of the Consortium for Clean Coal Utilization should be changed.[307]
- On August 24, 2017, a group of WashU alumni published a letter in campus newspaper Student Life in support of divestment.[308]
- In November and December 2017, a search committee—headed by Craig Schnuck and made up of nineteen members, including members of the board of trustees and administrators, conducted hearings for input on a new chancellor. Members of Fossil Free WashU asked that the search community "prioritize a chancellor that will take leadership against climate change."[309]
- On March 22, 2018, Fossil Free WashU and Washington University for Undergraduate Socio-Economic Diversity met with then-Chancellor Mark Wrighton to discuss the creation of a transparency committee for the university's endowment. Both groups called for transparency in the percentage and amount of money invested in individual industries and how the endowment functions — demands that have, to date, never met by the University.[310]
- On March 30th, 2018, Fossil Free WashU and other students gathered outside the DUC to give speeches. The group then marched to Brookings Hall with the intent of giving then-Chancellor Mark Wrighton until Earth Day to reconsider divestment after he turned down the idea of divestment a year prior.[311]
- On April 14th, 2018, Fossil Free WashU collaborated with graduate student group Fight for 15 to protest for summer funding for graduate student researchers and divestment. One of the protests disrupted the class of 1993's reunion; students planned to chant for eight minutes to represent the $8 billion the University had invested in fossil fuel companies (according to organizers of the protest), but security was called and students were forced to leave.[312]
- On April 25th, 2018, a guest column was published in the St. Louis Post Dispatch by a visiting lecturer in the Environmental Studies department titled, "Washington U. should stop investing in fossil fuel companies." It criticizes then-Chancellor Wrighton's support of "clean coal" and stresses the need and benefit of divesting from fossil fuels.[313]
- On September 28th, 2018, an op-ed was published in campus newspaper Student Life rebukes then-Chancellor Wrighton's claim that WashU is a leading institution in finding a solution to climate change, asserting that this label will not be accurate until the university divests from fossil fuels.[314]

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[307] Emily Getzoff, Some members of Green Action call for WU Clean Coal Consortium name change, Student Life (Sept. 14, 2017).
[308] Harry Alper, *et al.*, Alumni support for fossil fuel divestment, Student Life (Aug. 24, 2017).
[309] Jessica Bigley, Students express concerns during chancellor search hearing sessions, Student Life (Dec. 7, 2017).
[310] Olivia Szymanski, Wrighton to consider creation of transparency committee, Student Life (Mar. 26, 2018); Eddie Ives, Op-Ed: Divestment, not denial, will fix Wash. U.'s climate change complacency problem, Student Life (Mar. 7, 2019)
[311] Olivia Szymanski, Fossil Free WashU rallies for divestment, Student Life (Apr. 2, 2018).
[312] Emma Baker, Graduate Workers Union, Fossil Free protest Saturday, Student Life (Apr. 16, 2018).
[313] Eric Zency, Washington U. should stop investing in fossil fuel companies, St. Louis Post Dispatch (Apr. 25, 2018).
[314] Hannah Schanzer, *et al.*, Op-ed: Washington University is not a climate leader, yet, Student Life (Sep. 28, 2018).

- On October 11th, 2018, during a live on-campus taping of MSNBC's "Live with Katy Tur", members of Fossil Free WashU held banners in the audience, which were clearly visible to the camera and led a chant of "Divest!"[315]
- On February 19, 2019, board member Harry Seigle responded to a letter from Fossil Free WashU. In this response, Seigle denies the effect of climate change on increased forest fires and claims that coal and oil have never been cleaner. Seigle also attempts to minimize the effect of CO_2 on climate change.[316]
- On March 1st, 2019, over 100 students and faculty marched around Mudd Field while chanting and carrying signs calling for fossil fuel divestment, many attending in response to Harry Seigle's letter.[317]
- On April 5th, 2019, Fossil Free WashU disrupted the Olin Alumni Dinner in Bauer Hall to protest the University's lack of action in regards to fossil fuels.[318]
- On April 17th, 2019, Fossil Free WashU again joined student group Fight for $15 to advocate for divestment and a higher minimum wage for university employees.[319]
- On September 22, 2019, a Staff Editorial was published in the campus newspaper Student Life pointing out that "Wash. U. is wealthier than the city of St. Louis itself" and demanding divestment from fossil fuels.[320]
- On September 27th, 2019, students and professors marched from the Danforth University Center to the office of Chancellor Andrew D. Martin, demanding divestment and saying that it is a moral and financial imperative.[321]
- On November 2nd, 2019, Fossil Free WashU disrupted Chancellor Martin's discussion with parents during a Parent & Family Weekend event at Hillman Hall, carrying signs and chanting, "The time to divest is now."[322]
- On February 13th, 2020, also known as National Day of Divestment, students protested in the Danforth University Center, with posters telling WashU to "go Fossil Free" and calling for the dismantling of the "fossil fuel mafia."[323]
- On March 30, 2020, Chancellor Andrew Martin made clear that WashU had no plan to divest from fossil fuels in the future, stating that "the university maintains a strong presumption against using its financial resources to express any particular social or policy agenda through exclusionary practices."[324]

[315] Jaden Satenstein, Students bring attention to campus issues on 'Live with Katy Tur', Student Life (Oct. 18, 2018).
[316] Fossil Free WashU, Letter from Harry Seigle, Apr. 5, 2019, *Facebook* (last visited Oct. 3, 2023).
[317] Green Action WashU, March 1st Rally Recap, Mar. 5, 2019, *Instagram* (last visited Oct. 3, 2023).
[318] Jayla Butler, Fossil Free WashU disrupts alumni event, demands divestment, Student Life (Apr. 7, 2019).
[319] Elena Quinones, Fossil Free WashU, Fight for $15 come together to rally on Brookings, Student Life (Apr. 18, 2019).
[320] Staff Editorial, Enough excuses, it's time for action: Divest from fossil fuels, Student Life (Sept. 22, 2019).
[321] Longyu (Elia) Zhang, Students rally for fossil fuel divestment, Student Life (Sept. 29, 2019).
[322] Ted Moskal, Fossil Free WashU interrupts Martin's Parent & Family Weekend event with chants, Student Life (Nov. 3, 2019).
[323] Jayla Butler, Fossil Free WashU calls for the University to 'break up' with fossil fuels this Valentine's Day, Student Life (Feb. 16, 2020).
[324] Andrew D. Martin, Endowment 101: socially responsible investing, Office of the Chancellor Blog (Mar. 30, 2020).

- On October 29th, 2021, just one month after Harvard announced its divestment decision, Fossil Free WashU marched outside Brookings Hall and in the Danforth University Center calling for WashU to do the same.[325]
- On December 13th, 2021, members of Fossil Free WashU and other students marched down Forsyth Boulevard to Chancellor Andrew D. Martin's residence, calling for the university to divest from fossil fuels.[326]
- On January 23, 2022, Student Life published an article highlighting how "clean coal" does not exist. This article includes Dr. Bret Gustafson's explanation of how coal is toxic at all stages in the process of collection and burning.[327]
- On October 27th, 2022, approximately thirty to forty student protestors marched from the Danforth University Center to outside Chancellor Martin's office to call for divestment from fossil fuels.[328]
- On March 1st, 2023, Green Action WashU – a divestment and environmental justice group that has succeeded Fossil Free WashU – and about forty students gathered outside of the Danforth University Center and called for the University to divest from fossil fuels.[329] Speakers emphasized the effects of the fossil fuel industry on minority communities and called for divestment from the military-industrial complex.

Conclusion

The Attorney General and the Secretary of State are responsible for ensuring that charitable assets are allocated appropriately and for investigating charitable managers' violations of fiduciary duties. We ask that you investigate the violations described above and that you take action to ensure that the investment activity of the Board no longer harms the WashU community, the State of Missouri, or the public.

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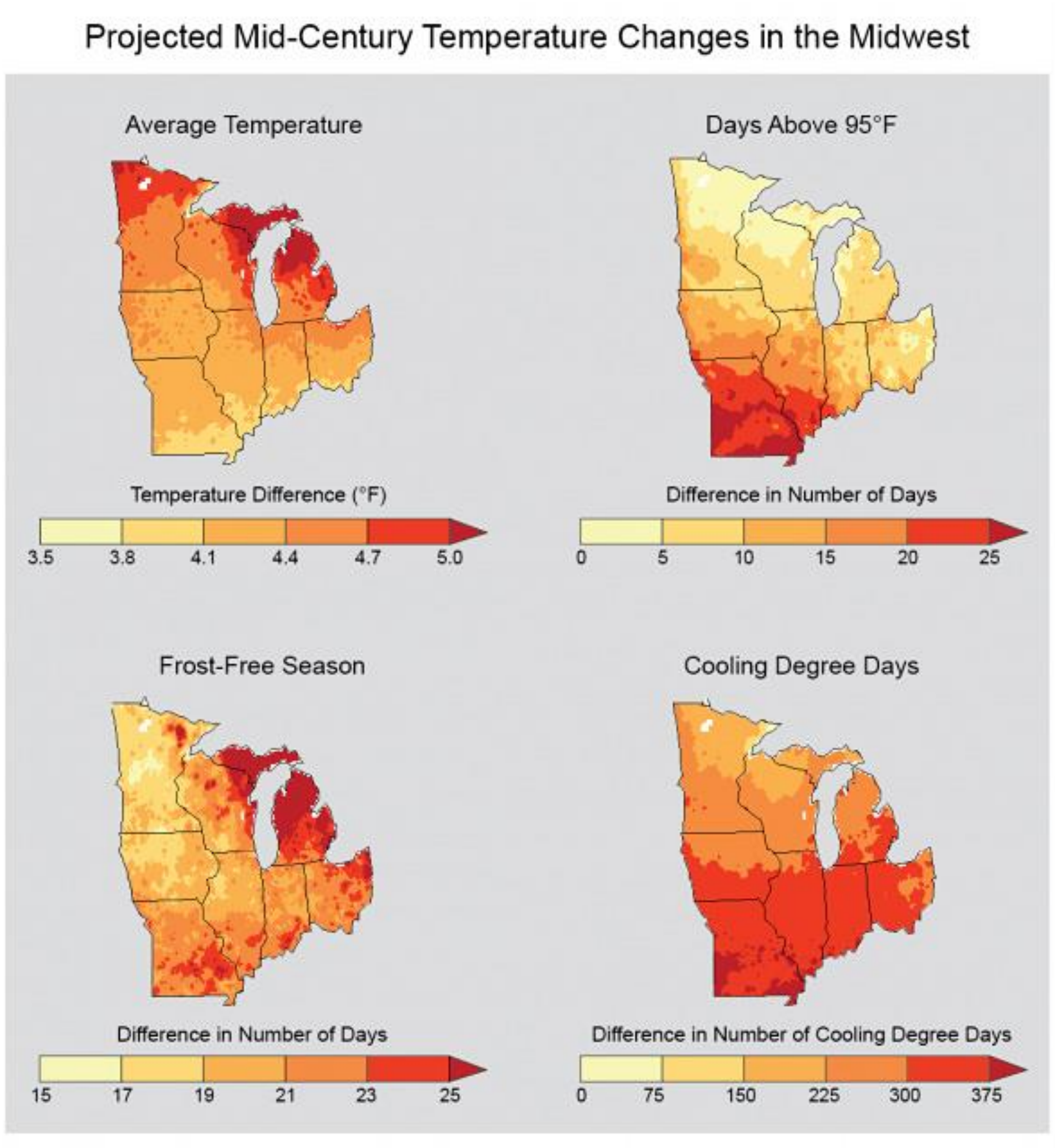
[325] Kasey Noss, 'The time to divest is now': Students rally outside of DUC and Brookings to call for Washington University to divest from fossil fuels, Student Life (Nov. 3, 2021).
[326] Green Action WashU, December 13th Rally Recap, Dec. 14, 2019, *Instagram* (last visited Oct. 3, 2023).
[327] *See supra* at note 286.
[328] Nina Giraldo, Fossil Free WashU rally encourages student action: 'Divest, divest, put fossil fuels to the rest!', Student Life (Nov. 3, 2022).
[329] Zach Trabitz, *et al.*, Green Action rally demands University divestment from fossil fuels, Student Life (Mar. 1, 2023).

Appendix A



Projected Mid-Century Temperature Changes in the Midwest, United States Environmental Protection Agency. Source: United States Global Change Research Program (2014).

Appendix B

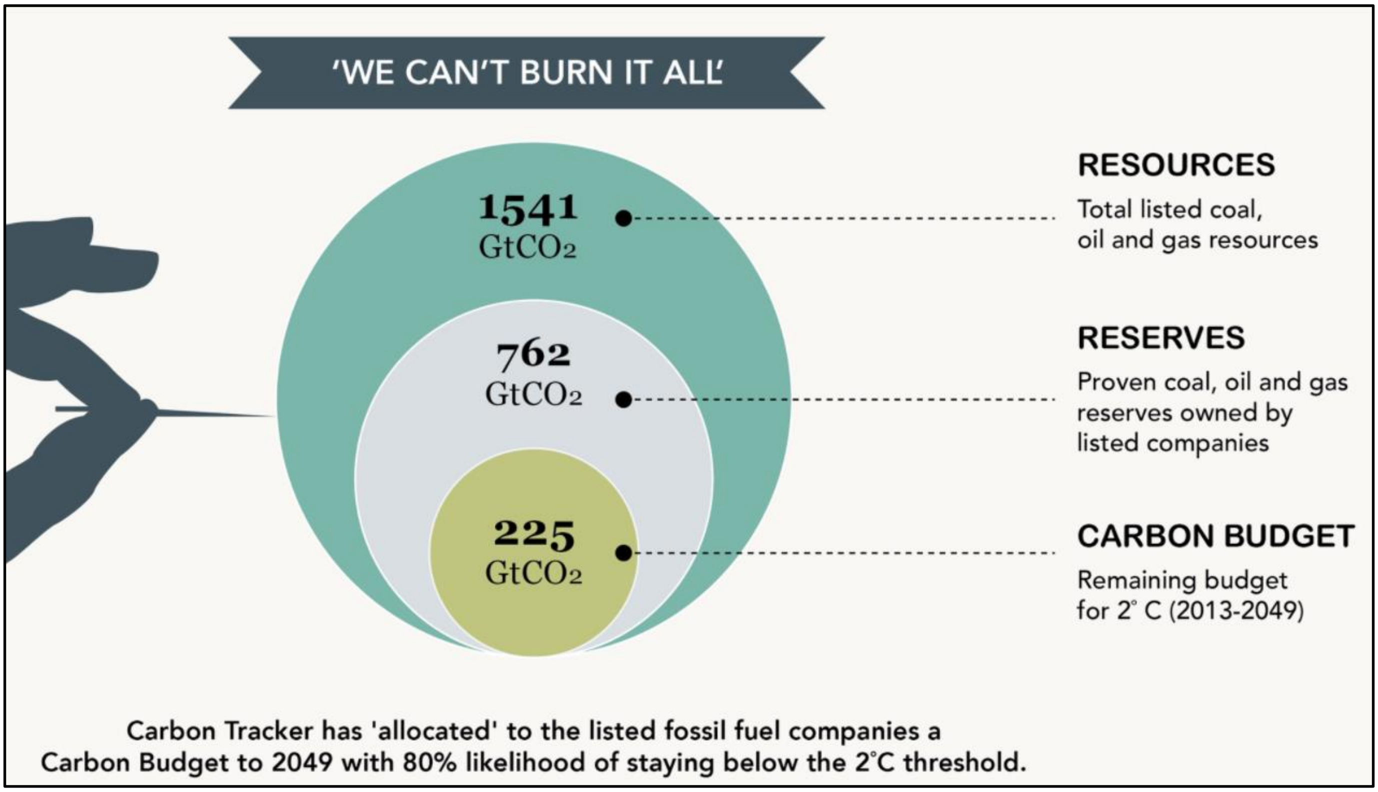
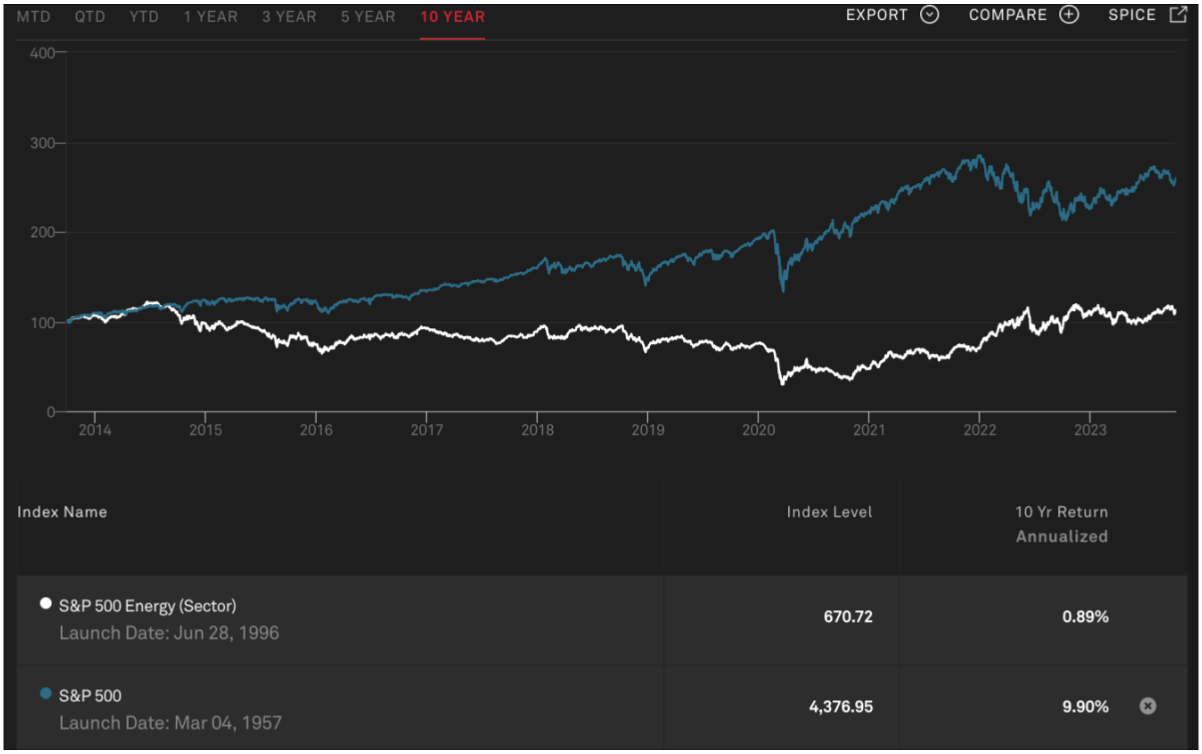


Illustration of carbon bubble, as reprinted in Katharine Earley, Carbon Tracker measures oil and coal risk for investors, The Guardian (Apr. 30, 2015). Source: Carbon Tracker Initiative.

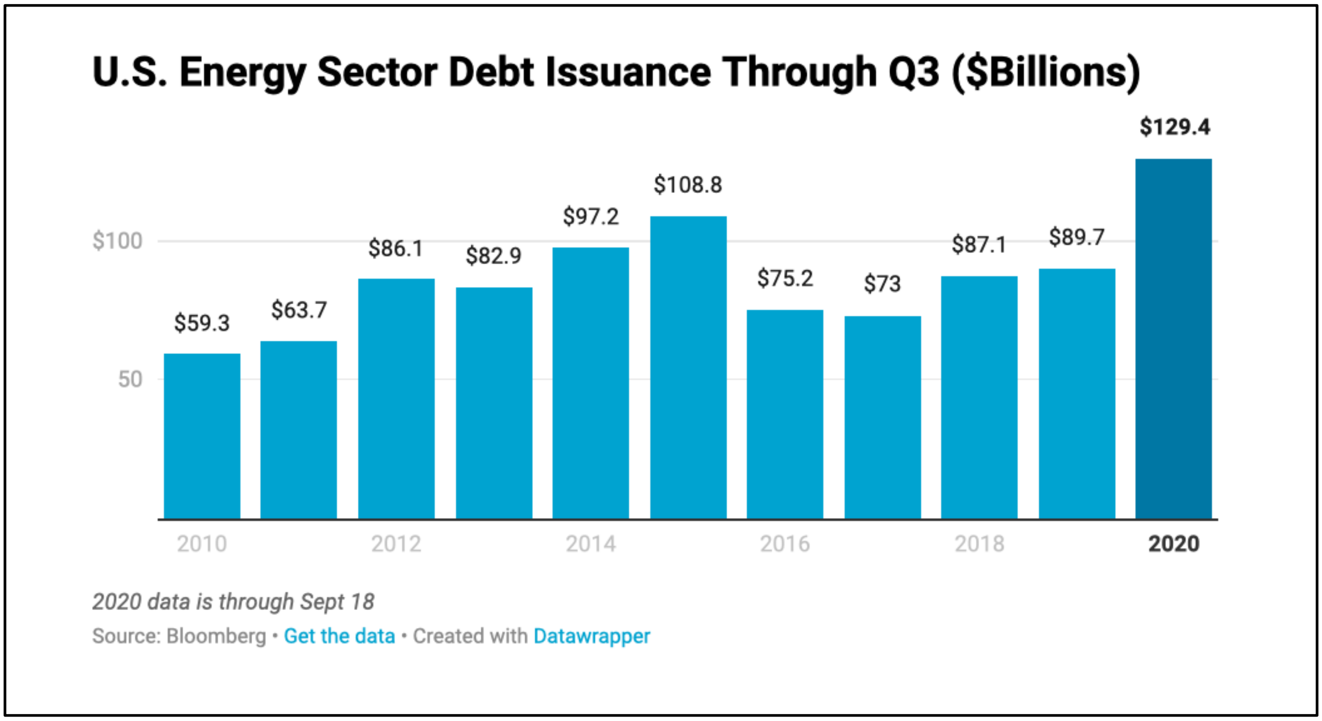
Appendix C



Comparison of ten-year performance of S&P 500 Energy Index[330] (white) with S&P 500 Index (blue).[331] Created using a comparison tool at S&P 500 Dow Jones Indices (data as of Oct. 12, 2023).

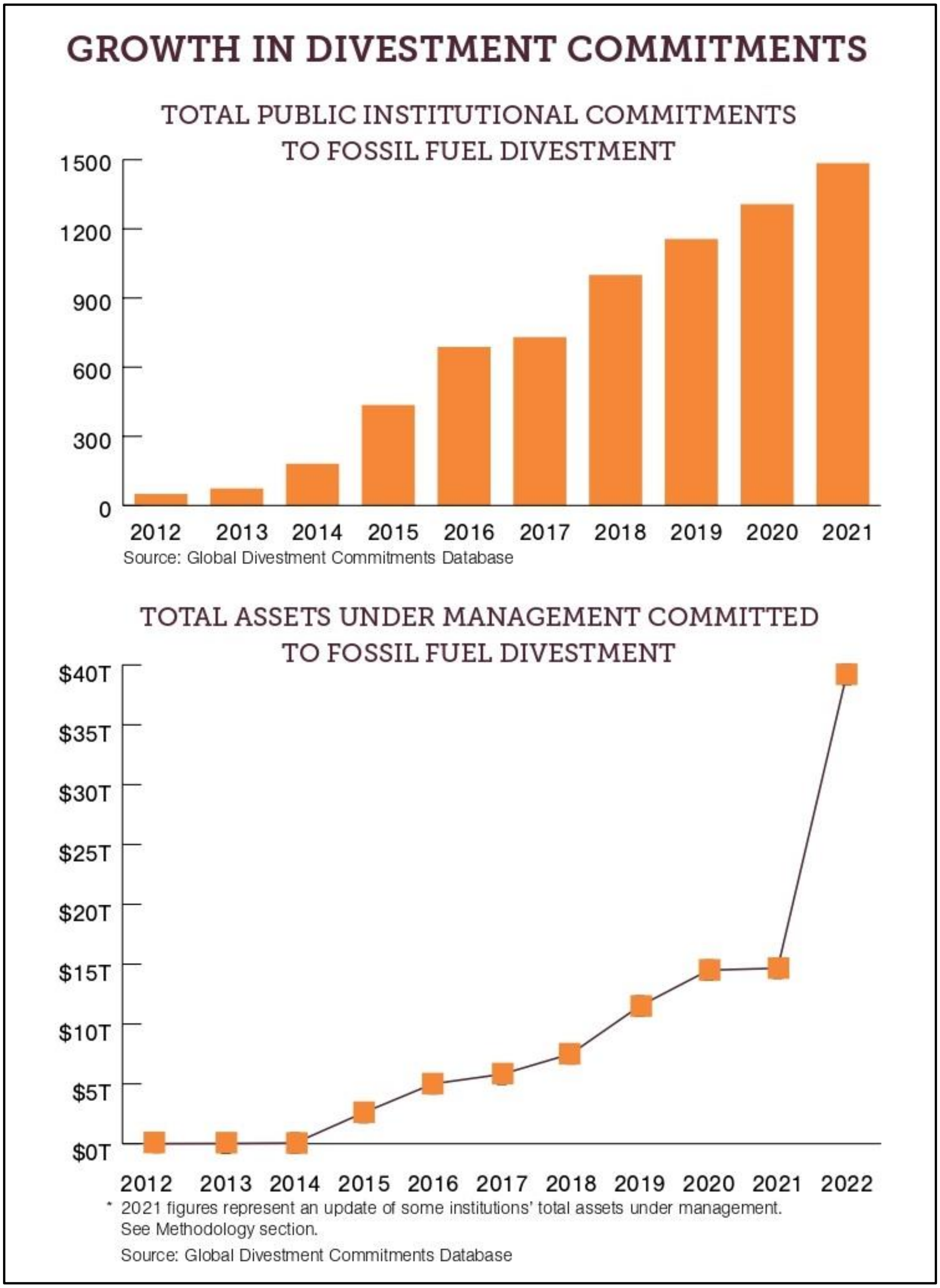
[330] The S&P 500 Energy Index includes only fossil fuel companies and does not encompass renewable energy.
[331] The energy sector's recovery in late 2020 came in part thanks to a large bailout of corporate debt markets by the federal government. *See* Lukas Ross, Alan Zibel, Dan Wagner & Chris Kuveke, Big Oil's $100 Billion Bender, Public Citizen (Sept. 30, 2020).

Appendix D



U.S. Energy Sector Debt Issuance Through Q3 ($Billions), as reprinted in Lukas Ross, Alan Zibel, Dan Wagner & Chris Kuveke, Big Oil's $100 Billion Bender, Public Citizen (Sept. 30, 2020). Source: Bloomberg.

Appendix E



Growth in Divestment Commitments. Source: [A Decade of Progress Towards a Just Climate Future](), Institute for Energy Economics and Financial Analysis, Stand.earth, C40, & Wallace Global Fund (2021).