## 1

#### Interpretation: Reduce means unconditional and permanent – the aff is a suspension.

Reynolds 59 – Judge (In the Matter of Doris A. Montesani, Petitioner, v. Arthur Levitt, as Comptroller of the State of New York, et al., Respondents [NO NUMBER IN ORIGINAL] Supreme Court of New York, Appellate Division, Third Department 9 A.D.2d 51; 189 N.Y.S.2d 695; 1959 N.Y. App. Div. LEXIS 7391 August 13, 1959, lexis)

Section 83's counterpart with regard to nondisability pensioners, section 84, prescribes a reduction only if the pensioner should again take a public job. The disability pensioner is penalized if he takes any type of employment. The reason for the difference, of course, is that in one case the only reason pension benefits are available is because the pensioner is considered incapable of gainful employment, while in the other he has fully completed his "tour" and is considered as having earned his reward with almost no strings attached. It would be manifestly unfair to the ordinary retiree to accord the disability retiree the benefits of the System to which they both belong when the latter is otherwise capable of earning a living and had not fulfilled his service obligation. If it were to be held that withholdings under section 83 were payable whenever the pensioner died or stopped his other employment the whole purpose of the provision would be defeated, i.e., the System might just as well have continued payments during the other employment since it must later pay it anyway.  [\*\*\*13]  The section says "reduced", does not say that monthly payments shall be temporarily suspended; it says that the pension itself shall be reduced. The plain dictionary meaning of the word is to diminish, lower or degrade. The word "reduce" seems adequately to indicate permanency.

#### Violation: “during public health emergencies”

#### Vote neg:

#### 1] Limits and ground– their model allows affs to defend anything from pandemics to Biden’s presidency— there's no universal DA since it’s impossible to know the timeframe when there won’t be IP— that explodes neg prep and leads to random timeframe of the week affs which makes cutting stable neg links impossible — limits key to reciprocal engagement since they create a caselist for neg prep (innovation, collaboration, econ, ptx: all core neg literature thrown away)

#### 2] Precision o/w – anything else justifies the aff arbitrarily jettisoning words in the resolution at their whim which decks negative ground and preparation because the aff is no longer bounded by the resolution.

#### 3] TVA – defend the advantage to a whole rez timeframe. We don’t prevent new FWs, mechanisms, or advantages. PICs don’t solve – our model allows you to specify countries and medicines.

#### Fairness – debate is a competitive activity that requires fairness for objective evaluation. Outweighs because it’s the only intrinsic part of debate – all other rules can be debated over but rely on some conception of fairness to be justified.

#### Drop the debater – a] deter future abuse and b] set better norms for debate.

#### Competing interps – [a] reasonability is arbitrary and encourages judge intervention since there’s no clear norm, [b] it creates a race to the top where we create the best possible norms for debate.

#### No RVIs – a] illogical, you don’t win for proving that you meet the burden of being fair, logic outweighs since it’s a prerequisite for evaluating any other argument, b] RVIs incentivize baiting theory and prepping it out which leads to maximally abusive practices

## 2

#### Permissibility and presumption negate – [a] the resolution indicates the aff has to prove an obligation, and permissibility would deny the existence of an obligation [b] Statements are more often false than true because any part can be false. This means you negate if there is no offense because the resolution is probably false.

#### The aff burden is to prove that the resolutional statement is logical, and the reciprocal neg burden is to prove that the resolutional statement is illogical.

#### Prefer:

#### 1. Text – Oxford Dictionary defines ought as “used to indicate something that is probable.”

[https://en.oxforddictionaries.com/definition/ought //](https://en.oxforddictionaries.com/definition/ought%20//)Massa

#### Ought is “used to express logical consequence” as defined by Merriam-Webster

(<http://www.merriam-webster.com/dictionary/ought>) //Massa

#### 2. Debatability – a) my interp means debates focus on empirics about squo trends rather than irresolvable abstract principles that’ve been argued for years

#### 4. Neg definition choice – The aff should have defined ought in the 1ac as their value, by not doing so they have forfeited their right to read a new definition – kills 1NC strategy since I premised my engagement on a lack of your definition.

#### Negate:

#### [1] Inherency – either a) the aff is non-inherent and you vote neg on presumption or b) it is and it isn’t logically going to happen.

#### [2] In order to say I want to fix x problem, you must say that you want x problem to exist, since it requires the problem exist to solve, which makes any moral attempt inherently immoral.

#### [3] member means “a body part or organ” (Marriam Webster) but a nation cannot have bodily organs so the resolutions incoherent

#### [4] Property means “a building” (Oxford Languages) so reducing intellectual buildings is incoherent

## 3

#### Text: A nation appointed international panel of scientists including National Academies and corresponding organizations should [reduce intellectual property protections] and manage similar conflicts of interest between intellectual property.

#### International panel of science diplomats can rule over IP---that’s key to science diplomacy.

Hajjar and Greenbaum 18 [David; Dean Emeritus and University Distinguished Professor, and Professor of Biochemistry and Pathology at Weill Cornell Medicine, Cornell University. He is a Fellow of the American Academy of Arts and Sciences, Fellow of the American Association for the Advancement of Sciences, a Jefferson Science Fellow of the National Academies at the U.S. Department of State, and a recent Senior Fellow in Science Policy at the Brookings Institute; Steven; Professor and Chair of the Department of Physics and Astronomy at Hunter College of the City University of New York and a Fellow of the American Physical Society. He was a Jefferson Science Fellow of the National Academies at the U.S. Department of State; “Leveraging Diplomacy for Managing Scientific Challenges,” American Diplomacy; September 18; <https://americandiplomacy.web.unc.edu/2018/09/leveraging-diplomacy-for-managing-scientific-challenges-an-opportunity-to-navigate-the-future-of-science/>] Justin

At the global level, science diplomacy is defined as cooperation among countries in order to solve complex problems through scientific research and education (1). For example, science diplomacy plays an important role in resolving global issues related to the ecosystem (such as clean water, food safety, energy conservation, and preservation of the environment). It also addresses problems related to the healthcare industry. For example, scientists have served at the international level to forge the Middle Eastern Cancer Consortium a decade ago to facilitate better healthcare and improve cancer research in the region. Whether one considers science for diplomacy or diplomacy for science, international science collaborations benefit from allowing science diplomats (broadly defined as science envoys, science attaches, embassy fellows) to help establish positive international relationships between the U.S., Europe, Latin America, Africa or Asia, particularly when proprietary disputes arise (2, 3). These various types of science diplomats already exist; some, like embassy fellows and science envoys, have one-year appointments so their role may be limited, while attaches usually have two or three year appointments that may allow them to be more successful in long, protracted negotiations. In any event, we believe that scientists can play more of a role in advancing international scientific cooperation. A key point addressed here is how to balance security concerns against the need for free exchange of information needed for innovation and growth.

Both the National Science Foundation and the National Institutes of Health are already engaged in supporting American science and strengthening collaborations abroad. Such efforts take advantage of international expertise, facilities, and equipment. Here, we provide a rationale for the use of diplomacy to address scientific challenges. This approach allows some scientists working as diplomats to help manage complex and potentially conflicting situations that arise between scientific communities and their governments. Such issues include managing disputes such as licensing agreements for intellectual property (IP) and providing protection of IP.

International collaborations can not only support but also accelerate the advancement of science. However, collaborations may carry risk if IP is misappropriated for other purposes. International collaborations should have a basis in strategy and specific goals (for example, drug discovery) in order to justify the use of government and/or corporate funds.

About a decade ago, a group of academics from the University of Manchester in the United Kingdom assembled the “Manchester Manifesto,” subtitled “Who Owns Science” (6). This document addressed the lack of alignment between commercial interests, intellectual rights, and credit to the researcher. In our (and commonly held) view, the groups representing these disparate values could benefit from diplomatic mediation. More recently, it has become increasing apparent that managing China as a science and technology superpower represents another challenge for the U.S. Resolution of issues such as ownership of IP, rights to reagents, or use of skilled laboratory personnel from international collaborations may require the efforts of science diplomats. There are few international offices or “guardians” to protect junior and senior scientists in corporate or academic sectors from misuse of reagents or piracy.

China’s failure to respect IP rights, and the resulting piracy, has drawn much attention. The media have also focused on the failure of watchdog government agencies to detect and manage these unwanted activities. Industrial espionage compromises U.S. interests. Moreover, Chinese and Russian hackers have cyberattacked U.S. technology companies, financial institutions, media groups, and defense contractors. In 2018, industrial spying was even reported in a major medical school in New York City where scientists were alleged to have illegally shared research findings with Chinese companies.

The U.S. has a long history of hiring research personnel from other countries to staff its laboratories and industrial R&D centers. These scientists and engineers have made critical contributions to our nation’s well-being and security. These young Chinese and South Asian graduates of U.S. programs a generation ago now staff our research enterprise. However, recent trends in U.S. graduate school applications in science, technology, engineering and mathematics (STEM) reflect a downturn in foreign applicants, particularly from China. It is becoming increasingly apparent that the number of American-born students seeking STEM degrees is not sufficient to satisfy future demands of our high-tech workforce. While our own educational reforms must be augmented, we cannot ignore the need to continue to recruit overseas talent.

We believe that foreign scientists can continue to make critical discoveries in the U. S. provided that their talent is nurtured, developed, and harnessed for the common good. At the same time, American companies cannot hire foreign scientists if they take the ideas they generate in U.S. laboratories back to their home countries without proper credit or permission. If the advancement of science is to succeed, greater diplomatic cooperation is needed to solve and manage proprietary issues for the benefit of all (5, 6).

So, how does one strike the proper balance between security and growth? Science is a universal social enterprise; international conferences lead to friendships and productive collaborations between nations. Given that the U.S. and Chinese governments recognize the need for international communication and collaboration then surely there should be a mechanism for adjudicating anticipated conflicts. One approach would be for government, industrial, and academic stakeholders to form an international panel of scientists and engineers to manage any conflicts of interest between the need to protect proprietary information crucial to a company’s competitive edge, and the need for students and young faculty members to publish their findings. Smaller scale efforts along these lines have recently given rise to unique global partnerships, such as fellowship support by major pharmaceutical companies, which aim to address these conflicts to the benefit of both parties. An added feature of such arrangements is that they often provide corporate financing for research (9). Can this corporate-academic partnership model be adapted to multinational joint R&D efforts while protecting IP? This question falls squarely within the purview of international science diplomacy, whereby science diplomats can establish rules of conduct governing joint global technology development with proper IP protection.

Despite the highly publicized and legitimate piracy allegations against China, at least some data indicates that the Chinese legal system is responding positively to worldwide pressure to honor foreign IP. A 2016 study by Love, Helmers, and Eberhardt, for example, found that between 2006 and 2011, foreign companies brought over 10 percent of patent infringement cases in China, and won over 70 percent of those cases (10). Today, “win rates” average around 80 percent, and “injunction rates,” around 98 percent (10). As Chinese scientists and engineers increasingly enter the top tier of the innovation space, their growing awareness of their own need for IP protection could be a powerful motivating force for the protection of all IP. As stated earlier, science diplomats could catalyze this progress even further by direct negotiations with those parties involved in the conflicts. An obvious flaw in this optimistic outlook is that scientists in the U.S. wield more influence with their government than scientists in China wield with theirs. And to the extent that the Chinese government could be encouraging IP theft, this must be addressed first by those international companies/firms who want to do business with the Chinese. Chinese investments, as well as tech incubators and targeted acquisitions, can enable access to U.S. technologies for commercial development. Although this conveys a level of risk to the developers, it may provide valuable opportunities for U.S. companies as well. In many respects, the extensive engagement and collaboration in innovation between the U.S. and China, often characterized by open exchanges of ideas, talent, and technologies, can be mutually beneficial in enriching and accelerating innovation in both countries.

In summary, we believe that science diplomats could help address the increasingly complex issues that arise between accelerating scientific and engineering advances, and the need to protect national security and corporate IP. We also propose that this might be accomplished by asking the National Academies to **recommend** academic, corporate, and government scientific leaders to serve on an international scientific advisory board, and for the corresponding organizations in other countries to do the same. Access to the free flow of information promotes new knowledge and innovation. A return to a more restrictive intellectual environment is not only harmful to progress, but also nearly impossible to manage in the current internet age. A good place to start would be to engage the newly appointed head of the White House Office of Science and Technology Policy (the Science Advisor to the President of the United States), and working groups within established organizations. These organizations include the American Association for the Advancement of Science (AAAS) or the National Academies of Science, Engineering and Medicine, and corresponding international organizations. What incentive is there for a busy and successful scientist to serve in such capacity? It is the same altruism that motivates us to accept assignments as journal editors, manuscript reviewers, or funding agency panelists for the advancement of science toward the greater good.

#### COVID exposed weaknesses in science diplomacy—revitalizing it is key to solving every existential threat.

Gluckman and Turekian 20 [Peter and Vaughan; 6/17/20; Sir Peter Gluckman is the chair of the International Network for Government Science Advice, director of Koi Tū: The Centre for Informed Futures at the University of Auckland, and former science adviser to the New Zealand prime minister. Vaughan Turekian is the executive director of policy and global affairs at the National Academies of Sciences, Engineering, and Medicine and a former science and technology adviser to the US secretary of state; “Rebooting Science Diplomacy in the Context of COVID-19,” Issues, <https://issues.org/rebooting-science-diplomacy-in-the-context-of-covid-19-lessons-from-the-cold-war/>] Justin

The COVID-19 pandemic is amplifying preexisting tensions between the United States and China across all domains, including science and technology. This is happening even as global science and technology cooperation has become a central feature of public health and the development of vaccines and treatments. Does this new dynamic between the two powers accurately reflect a changed world, and could it presage greater tension to come? The United States’ and China’s different political and economic models and distinct domestic and global interests create rising tensions as their soft power footprints (and increasingly hard power influences) span the globe. This places many other nations in a position not unlike that during the Cold War, when countries found themselves uneasily sitting between two elephants, the United States and the Soviet Union, pulling in different directions. We do not know whether today’s US-China tension will settle into an uncomfortable status quo or lead to a progressive decoupling or a more rapid severance between the two economic giants. It might even develop into a more stable and constructive relationship. This creates an opportunity for science diplomacy to again help bridge the gap between two major powers with conflicting worldviews, as happened in the Cold War. Important lessons from the science diplomacy of that era may help inform how best to respond in the current geopolitical context. Science diplomacy between 1945 and 1991 played an important role in preventing US-Soviet relations from degrading into mutual destructiveness. It led to the establishment of critical institutions and initiatives that advanced scientific understandings that underpinned critical agreements. Through the 1950s, 1960s, and 1970s, scientists working with or without the explicit support of their governments played crucial roles in ensuring some level of civility and progress in the otherwise tense superpower relationship. Some examples are illustrative. Prompted by a recommendation from the International Council of Scientific Unions (ICSU), the major powers agreed on the 1957–58 International Geophysical Year that led to the signing of the Antarctic Treaty in 1959, ensuring that Antarctica was a place for peaceful scientific purposes rather than for exploitative or military gain. In the 1960s Soviet Premier Alexei Kosygin and US President Lyndon Johnson worked to establish the International Institute for Applied Systems Analysis, which focused on collaborative research between the major powers and their partners in areas that are now of increasing importance, such as the nexus of energy, water, and food. In 1985 the United States and the Soviet Union became two of the founding signatories for the Vienna convention for the protection of the ozone layer. Remarkably, collaboration between the superpowers grew even in areas that might be sensitive, such as space; the American Apollo and Soviet Soyuz spacecraft docked in orbit in 1975, and the two nations signed a joint agreement on space cooperation in 1987. Scientists working with or without the explicit support of their governments played crucial roles in ensuring some level of civility and progress in the otherwise tense superpower relationship. A critical lesson learned during this era was that science focused on fundamental questions and global processes could help in maintaining connections and building understanding, even in the face of growing political and security tensions. In this context, institutions including academies of science, international organizations such as ICSU, and United Nations technical organizations provided important conduits for collaboration. The role of science in diplomacy became more widespread following the collapse of the Soviet Union in 1991. Science diplomacy played a constructive role in approaching global issues such as climate change, biodiversity loss, sustainable development, and global health. These are areas where international science flourishes, and the value of this cooperation is plain to see. But they are also areas where science diplomacy translated into policy in the forms of conventions, treaties, and agreements—most notably with the Intergovernmental Panel on Climate Change, which provided space for developing international cooperation around climate science even as the politics of climate policy were more difficult to address. Other agreements—such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, the Convention on Biological Diversity, and numerous lower-profile partnerships—provided ways to engage science well before broader international policy regimes around thorny global issues could be adequately addressed. Such is the backdrop to the growing and serious US-China rivalry. The rising health, economic, and societal impacts of COVID-19, and accusations about responsibility for them, have greatly fuelled mutual suspicion and antagonism. Yet the world is looking for a sense of equilibrium between the great powers. Countries such as Australia and New Zealand find themselves increasingly stretched between their trading dependency with China and their historical, security, and political ties with the United States. Smaller nations that rely heavily on the multilateral rules-based order through the World Trade Organization and for technical help though bodies such as the World Health Organization fear that the US-China tension is undermining core elements of this system. RISING SUPERPOWERS, RISING TENSIONS China has moved rapidly to the leading edge in many domains of science. It has invested heavily in building advanced research infrastructures and a skilled technical workforce. Hundreds of thousands of Chinese students, research fellows, and scholars have studied in the West. China is now the second largest source of scientific papers after the United States, and an increasing number involve international coauthorship—with more than 40% having US-based coauthors. Thus there is the latent base for extended East-West cooperation. But China’s ascendance as a superpower is not without concerns about integrity. There is ongoing wariness about scientific espionage in potentially commercially important areas, including intellectual property management and technology transfer. At the same time, law enforcement agencies in the United States and other Western economies are suspicious of Chinese theft of cutting-edge research and technology. All contribute to a sense within many Western policy circles that some forms of scientific misconduct are endemic in China. The rising health, economic, and societal impacts of COVID-19, and accusations about responsibility for them, have greatly fuelled mutual suspicion and antagonism. COVID-19 has amplified concerns, as accusations flow about the availability and accuracy of Chinese data on the origin and impact of the SARS-CoV-2 virus that causes the disease. But there are also concerns about the veracity of some of the US data. Leading Western scientific journals have retracted suspicious results regarding the treatment of COVID-19; the choice of drugs has been politicized. There are disagreements about the accuracy of COVID-19 death counts promulgated by the White House versus those from the US Centers for Disease Control and Prevention. At the same time, the Trump administration’s withdrawal of funding from WHO has increased international concerns about the politicization of the pandemic and the breakdown of the international technical agencies that were designed to address global challenges. As the United States moves its focus away from the international stage and toward an “America First” policy, China has filled that space with a greater presence in the various bodies of the United Nations and an increasing range of multinational partnerships. Science has become a critical component of Chinese efforts to expand influence over international policies and relationships. One example is the Belt and Road Initiative, which while designed to build greater economic ties across Eurasia and Africa has also established a significant scientific and technological component, including its own international scientific organization. The initiative refers often to the UN Sustainable Development Goals, which reinforces a perception that China’s foreign policy goals are well-aligned with globally agreed upon measures. Within the COVID-19 crisis, science has shown a remarkable willingness to work across national and organizational boundaries. Similar to how diverse stakeholders came together in the West Africa Ebola outbreak of 2014–16, academic organizations, philanthropy, and the private sector have worked across country borders to develop broader science understandings of the COVID-19 challenge and approaches to solving it. WHO has launched the Solidarity trial, which involves investigators in over 35 countries, as well as a technology access pool to share information and data. The US National Academies of Sciences, Engineering, and Medicine is working with a US-based nongovernmental organization to help advise the Africa Centres for Disease Control and Prevention on the use and effectiveness of nonpharmaceutical interventions. But unlike earlier health challenges, COVID-19 is also being used within official government engagements to exacerbate tensions. Competition is underway to not only frame blame for the pandemic but to develop countermeasures domestically. Science can use its tools of informal diplomacy to try to reduce tensions. This will require global scientific organizations and individual scientists to recognize that their contribution to society is more than just building knowledge; it also involves building relationships and reducing tensions. This is truer today than at any time since the end of the Cold War 30 years ago. We need both formal and informal science diplomacy to play their role in navigating the rocky path ahead. Increasing and using science diplomacy will not be easy given the broad suspicions on both sides and the growing awareness of the coupling between scientific and economic competition between the two major powers. The tensions between the United States and China are distinct from those between the United States and the Soviet Union through most of the second half of the twentieth century. Societies, including the scientific community, are much more intertwined today at all levels. At the same time, the breakdown of many post-World War II institutions, and the growing trend toward nationalism and isolationism in the West, leaves a major gap in the infrastructure that would be needed to support technical discussions on global issues. Unlike earlier health challenges, COVID-19 is also being used within official government engagements to exacerbate tensions. But there are some opportunities. Both China and the United States are active in a number of multilateral scientific organizations, such as the International Science Council (ISC), which succeeded ICSU in 2018 and has been looking at ways to adapt to the new realities. Working through ISC to develop principles for science cooperation and conduct could provide an important framework for developing a set of norms and standards that could be applied to science writ large. It would also build an early foundation for broader technical discussions among scientists. After the Chernobyl nuclear accident in 1986, countries with very different political views rapidly agreed on a Convention on Early Notification of a Nuclear Accident—signed even while the Cold War raged. Could the scientific community define the basis of a similar convention to alert the global community to an emerging disease from a novel organism that jumped from an animal into humans? Such an agreement could provide for the time-critical sharing of biosamples and data. The ISC and its members have the expertise and nonpartisan basis to develop the scientific criteria for such a convention. And given that both US and Chinese commentators have made allegations regarding the origins of the COVID-19 virus in the other’s military research, it may be time to address the lack of a scientific support system for the Biological Weapons Convention. This lack of support, 45 years after the convention came into force, is in marked distinction to that related to chemical weapons. Recall the lessons from the Cold War. One is the need to focus on areas and topics of mutual interest and concern, such as space, cutting-edge energy projects, and global health. Another is to focus on building institutional links, either by taking advantage of existing institutions of science or, when opportunities arise, creating new ones. In this endeavor, nongovernmental or quasigovernmental organizations are particularly important. But shared interest between the Americans and Soviets around technically based global challenges such as Antarctica and the loss of the ozone layer also provided an important means to overcome political mistrust to work toward common, science-based solutions. Perhaps the United States and China, joined by allies on both sides, could develop new projects and facilities to explore and understand the physics and biology of the oceans—which, while often involving critical strategic and economic interests, is an arena where scientists can work together outside traditional political venues to develop better understandings. Whatever the area of focus, both sides of the Pacific need to recognize that the status quo is not sustainable. New systems and new approaches will be critical for advancing the science while leaving open important communication avenues for diplomacy.

## 4

#### WTO NEGOTIATIONS ON FISHERY SUBSIDIES ARE REACHING CONSENSUS BUT DIVISION RISKS DERAILING TALKS

Godrey 9-24 Mark Godfrey (Contributing Editor, Irish journalist covering the agriculture and fisheries sectors in Asia, with a focus on China. Proficient in Mandarin, he has frequently traveled across China's fisheries and aquaculture regions and learned the inner workings of China's corporate world during a nearly three-year stint at the Financial Times' “China Confidential” publication. He has also reported widely across Southeast Asia and the former Soviet Union. He has educational certificates in agriculture and food science, as well as Mandarin) 9/24/21, Renewed WTO talks on subsidies zero in on overcapacity, overfishing, https://www.seafoodsource.com/news/environment-sustainability/renewed-wto-talks-on-subsidies-zero-in-on-overcapacity-overfishing

World Trade Organization negotiations on an agreement to end harmful fishery subsidies have been underway again since again since 1 September, and have culminated in efforts to get consensus on text dealing with overcapacity and overfishing. Earlier rounds of talks failed to produce a deal in July, but negotiators reconvened at the beginning of the month for a phase of meetings running to 7 October focused on finalizing article 5.1.1 of the accord, which provides an exemption from subsidy disciplines for sustainably-managed fishing subsidies, and article 5.5, which offers options for exemptions and transition periods for developing and least-developed countries. The current phase of meetings aims to obtain consensus on the big blocks of draft text in the proposal. A secondary round of talks following to 29 October is planned to fix outstanding issues in the text in advance of a ministerial meeting this autumn. A trade official in Geneva, speaking on condition of anonymity to speak candidly about the state of the talks, said some of the suggestions to break the deadlock on text dealing with overfishing include a proposal to focus prohibitions on large-scale industrial fishing subsidies and the imposition of a time limit on the exemption for sustainably-managed subsidies. A suggestion has also been made in the most-recent phase of talks that would link developing country exemptions to their share of global fish catch. Talks have also centered on clarifying the role of regional fishery management organizations in enforcement, the official said. But divisions remain on how to define, frame, and enforce exemptions for sustainable fisheries. Some members also want text to be refined so that only small players are qualified for exemptions given to developing nations. These issues have bedeviled two decades of WTO negotiations on harmful subsidies. Rashid Sumaila, a professor at the University of British Columbia’s Institute for the Oceans and Fisheries, said it’s important negotiators continue to work on the issues holding up an agreement, even after more than two decades of talks on the issue of fishing subsidies. “We should keep pushing to the end,” he told SeafoodSource. “I don’t think we should give up now.”

#### Negotiations on IPR require tradeoffs- empirics prove.

DC = DEVELOPING COUNTRY

NET = NET EXPORTER OF TECH (advanced countries)

TNC = Trade Negotiations Committee

Anell = Lars Anell the Chair of the TRIPS negotiations

Marcellin 16 Marcellin, Sherry (Professor, London School of Economics). The political economy of pharmaceutical patents: US sectional interests and the African Group at the WTO. Routledge, 2016. SJMS

Regarding the provisions in the section on patents, including that on exclusions from patentability, another DC negotiator maintained that the stipulations should reflect ‘a well-balanced system’ (ibid: 3). Ironically however, he proceeded to categorise the texts as ‘reasonably satisfactory’, contending that a positive attitude of his delegation towards them would depend to a large extent on progress in other areas of the negotiation (ibid). This was the second time in the negotiations that a DC delegate made such an obvious attempt to concede in TRIPS while seeking bargains in other negotiating areas, suggesting that the real access-to-medicines implications of patents were not fully appreciated by all such participants (Abbott 2002: 43–4); and that such participants may have understood that the negotiations would not have culminated in their favour. Immediately after the April TNC of 1989 a similarly affiliated participant had also affirmed that if some participants were to be required to make sacrifices in the area of IPRs, there should be a readiness to make such sacrifices for their benefit in agriculture, natural resources or other negotiating groups (MTN.GNG/NG11/13: 5).10 This first declaration could be construed as a signal of a prejudged outcome that disfavoured DCs. Towards the end of this session another DC participant, supported by several others, pointed out that some other delegations had very high ambitions in the area of TRIPS and that the time had come to review the subject matter in the context of the Uruguay Round negotiations as a whole, particularly in relation to what was being offered in the more traditional areas of the GATT (ibid: 12). At these final stages in the negotiations, DCs were actively seeking trade-offs in other areas in return for agreeing to IPRs in the manner in which the NETs had anticipated (Adede 2003: 30 and Matthews 2002: 109). Anell’s informal consultations and his proposed bilateral bargaining strategies worked in tandem to consolidate the weakening position of DCs propagated during the April TNC meeting in 1989. Anell ended this final session by sharing concerns expressed about the need for results in all areas of the UR, explicitly urging delegations to manufacture consensus through concessionary bargaining. The effects would later be seen in Dunkel’s ‘Draft Final Acts Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations’.11

#### That collapses biodiversity.

Osmanski 20 [Stephanie; Freelance Journaler, Writer at GreenMatters; “How Does Overfishing Affect Biodiversity? Let's Do a Deep Dive,” GreenMatters; 12/29/20; <https://www.greenmatters.com/p/how-overfishing-affects-biodiversity>] Justin

Three out of seven people — about 260 million worldwide — rely on seafood as their primary source of protein, which means the environmental and health impacts of fishing are more relevant than ever. In fact, overfishing is becoming a huge problem; Conservation.org reports that one-third of the world’s wild-caught fisheries are depleted as a direct result of overfishing, pollution, and climate change. As fish populations decline, farmed fisheries have started supplying most of our seafood, which is often plagued with additives, growth hormones, genetically modified organisms, and even food dye. However, overfishing results in other issues, too — mainly, environmental issues. Overfishing significantly affects biodiversity, which in turn, changes the ecosystem. Keep reading to find out more on how overfishing contributes to biodiversity. What is overfishing? Overfishing refers to non-sustainable practices of fishing that result in the depletion of fish species. In layman’s terms, overfishing happens when fishermen catch fish faster than the fish can reproduce. Long ago, when fishing relied on more natural methods (instinct, word-of-mouth, and guesswork), fishing practices were more natural and therefore, sustainable. But due to modern technology, fishermen now get significant help from high-tech machinery that can detect and track schools of fish, enable fishermen to explore new areas of water they had not been able to access before, and also embark in deeper waters. According to the United Nations Food and Agricultural Organization (FAO), over 70 percent of the world’s fisheries are “fully exploited,” “over exploited,” or “significantly depleted” as a direct result of overfishing. What is biodiversity? Biodiversity refers to the variety of life on Earth, referring to our planet’s vast number of biological species and organisms. It's heavily impacted when certain species cease to exist, or become threatened at a rate that is faster than that species can reproduce. Ultimately, the number of plants, animals, and microorganism species on Earth determines biodiversity. According to Global Issues, varying genes in each of these species also contributes to more biodiversity. If ecosystems or species become threatened or cease to exist, biodiversity decreases — and ultimately, all walks of life are impacted — because of the degrading food chain and other necessary biological processes. How does overfishing affect biodiversity? Overfishing impacts biodiversity in more ways than one — per Marine Science Today, overfishing alters the food chain. If a certain species is wiped out due to overfishing, the animals that rely on that species as a food source could starve, or might resort to eating other species of fish, thus altering the ecosystem and food chain as a whole. On the other end of the spectrum, the population generally consumed by the extinct species would grow disproportionately, often making way for an influx of pests. Overfishing creates a domino effect that impacts all living organisms, therefore significantly affecting biodiversity. Why is biodiversity important? Biodiversity is necessary, because every organism plays a role in the eco-system. If one species is compromised, biodiversity becomes compromised as a whole: the food chain, ecosystems, and more. The more biodiversity there is on this planet, the more productive ecosystems are, contributing to a greater availability of biological resources. Apart from food, biodiversity impacts medicinal resources, wood products, and ornamental plants. Biodiversity also helps ecosystems recover in cases of disaster. If a weather event threatens natural disasters, healthy, biodiverse ecosystems have a better chance of bouncing back. It also ensures protection of water resources, soil formation, nutrient storage and recycling, and the necessary breakdown of pollution. Why is marine biodiversity is important to humans? Aside from assuring food security, marine biodiversity also provides social and socioeconomic benefits. Socioeconomically, many areas of the world rely on fisheries to survive. If fishermen cannot sell seafood, fisheries cannot purchase fish, and these ways of life are forced out of business. A side effect of that would be that so many populations that rely on fisheries would be out of their main source of protein. Biodiversity also brings many social benefits to human populations: the opportunities to research and educate about fisheries, natural habitats, ecosystems, and various species. It also increases tourism and recreational activities, while having a lasting cultural impact, too — if specific populations rely on a species for food, loss of that population would affect that population’s culture and food supply. Marine biodiversity is incredibly important — let's take a stand against overfishing to ensure it doesn't plague eco-systems and human populations alike. TBH, might be best to go fish-free. instead.

#### Biodiversity loss causes extinction.

Torres 19[Phil; Affiliate Scholar at the Institute for Ethics and Emerging Technologies, Founder of the X-Risks Institute, Writer Appearing in Skeptic, Free Inquiry, Bulletin of the Atomic Scientists, Salon, Truthout, Erkenntnis, Metaphilosophy; “Biodiversity Loss: An Existential Risk Comparable To Climate Change,” Bulletin of the Atomic Scientists; 4/11/16; <https://thebulletin.org/2016/04/biodiversity-loss-an-existential-risk-comparable-to-climate-change/>] Justin

Catastrophic consequences for civilization. The consequences of this rapid pruning of the evolutionary tree of life extend beyond the obvious. There could be surprising effects of biodiversity loss that scientists are unable to fully anticipate in advance. For example, prior research has shown that localized ecosystems can undergo abrupt and irreversible shifts when they reach a tipping point. According to a 2012 paper published in Nature, there are reasons for thinking that we may be approaching a tipping point of this sort in the global ecosystem, beyond which the consequences could be catastrophic for civilization.

As the authors write, a planetary-scale transition could precipitate “substantial losses of ecosystem services required to sustain the human population.” An ecosystem service is any ecological process that benefits humanity, such as food production and crop pollination. If the global ecosystem were to cross a tipping point and substantial ecosystem services were lost, the results could be “widespread social unrest, economic instability, and loss of human life.” According to Missouri Botanical Garden ecologist Adam Smith, one of the paper’s co-authors, this could occur in a matter of decades—far more quickly than most of the expected consequences of climate change, yet equally destructive.

Biodiversity loss is a “threat multiplier” that, by pushing societies to the brink of collapse, will exacerbate existing conflicts and introduce entirely new struggles between state and non-state actors. Indeed, it could even fuel the rise of terrorism. (After all, climate change has been linked to the emergence of ISIS in Syria, and multiple high-ranking US officials, such as former US Defense Secretary Chuck Hagel and CIA director John Brennan, have affirmed that climate change and terrorism are connected.)

The reality is that we are entering the sixth mass extinction in the 3.8-billion-year history of life on Earth, and the impact of this event could be felt by civilization “in as little as three human lifetimes,” as the aforementioned 2012 Nature paper notes. Furthermore, the widespread decline of biological populations could plausibly initiate a dramatic transformation of the global ecosystem on an even faster timescale: perhaps a single human lifetime.

The unavoidable conclusion is that biodiversity loss constitutes an existential threat in its own right. As such, it ought to be considered alongside climate change and nuclear weapons as one of the most significant contemporary risks to human prosperity and survival.

## Case

### UV

#### Reasonability on 1AR shells – 1AR theory is super aff-biased because the 2AR gets to line-by-line every 2NR standard with new answers that never get responded to– reasonability checks 2AR sandbagging by preventing super abusive 1NCs while still giving the 2N a chance.

#### DTA on 1AR shells - They can blow up a blippy 20 second shell to 3 min of the 2AR while I have to split my time and can’t preempt 2AR spin which necessitates judge intervention and means 1AR theory is irresolvable so you shouldn’t stake the round on it.

#### 1NC theory o/w a) epistemic skew- any reason I was abusive is because the 1AC was b) ca the quantifiablity warrant on rvis

### Adv

#### NO IL TO AMR- their evidence is specific to COVID 19 vaccine IP getting waived- hold the line

#### MRNA expert shortages.

Garde et al 21 [Damian Garde (National Biotech Reporter), Helen Branswell (Senior Writer, Infectious Disease)Matthew Herper (Senior Writer, Medicine, Editorial Director of Events), 5/6/21, Waiver of patent rights on Covid-19 vaccines, in near term, may be more symbolic than substantive, <https://www.statnews.com/2021/05/06/waiver-of-patent-rights-on-covid-19-vaccines-in-near-term-may-be-more-symbolic-than-substantive/>] Justin

In October, Moderna vowed not to enforce its Covid-19-related patents for the duration of the pandemic, opening the door for manufacturers that might want to copy its vaccine. But to date, it’s unclear whether anyone has, despite the vaccine’s demonstrated efficacy and the worldwide demand for doses.

That underscores the drug industry’s case that patents are just one facet of the complex process of producing vaccines.

“There are currently no generic vaccines primarily because there are hundreds of process steps involved in the manufacturing of vaccines, and thousands of check points for testing to assure the quality and consistency of manufacturing. One may transfer the IP, but the transfer of skills is not that simple,” said Norman Baylor, who formerly headed the Food and Drug Administration’s Office of Vaccines Research and Review, and who is now president of Biologics Consulting.

While there are factories around the world that can reliably produce generic Lipitor, vaccines like the ones from Pfizer and Moderna — using messenger RNA technology — require skilled expertise that even existing manufacturers are having trouble sourcing.

“In such a setting, imagining that someone will have staff who can create a new site or refurbish or reconfigure an existing site to make mRNA [vaccine] is highly, highly unlikely,” Yadav said.

#### Existing companies solve scale-up, but other companies don’t have the capabilities.

Lowe 21 [Derek; BA from Hendrix College and PhD in organic chemistry from Duke before spending time in Germany on a Humboldt Fellowship on his post-doc. He’s worked for several major pharmaceutical companies since 1989 on drug discovery projects against schizophrenia, Alzheimer’s, diabetes, osteoporosis and other diseases; 2/2/21; Myths of Vaccine Manufacturing; <https://www.science.org/content/blog-post/myths-vaccine-manufacturing>] Justin

Ah, but now we get back to Step Four. As Neubert says, "Welcome to the bottleneck!" Turning a mixture of mRNA and a set of lipids into a well-defined mix of solid nanoparticles with consistent mRNA encapsulation, well, that's the hard part. Moderna appears to be doing this step in-house, although details are scarce, and Pfizer/BioNTech seems to be doing this in Kalamazoo, MI and probably in Europe as well. Everyone is almost certainly having to use some sort of specially-built microfluidics device to get this to happen - I would be extremely surprised to find that it would be feasible without such technology. Microfluidics (a hot area of research for some years now) involves liquid flow through very small channels, allowing for precise mixing and timing on a very small scale. Liquids behave quite differently on that scale than they do when you pour them out of drums or pump them into reactors (which is what we're used to in more traditional drug manufacturing). That's the whole idea. My own guess as to what such a Vaccine Machine involves is a large number of very small reaction chambers, running in parallel, that have equally small and very precisely controlled flows of the mRNA and the various lipid components heading into them. You will have to control the flow rates, the concentrations, the temperature, and who knows what else, and you can be sure that the channel sizes and the size and shape of the mixing chambers are critical as well.

These will be special-purpose bespoke machines, and if you ask other drug companies if they have one sitting around, the answer will be "Of course not". This is not anything close to a traditional drug manufacturing process. And this is the single biggest reason why you cannot simply call up those "dozens" of other companies and ask them to shift their existing production over to making the mRNA vaccines. There are not dozens of companies who make DNA templates on the needed scale. There are definitely not dozens of companies who can make enough RNA. But most importantly, I believe that you can count on one hand the number of facilities who can make the critical lipid nanoparticles. That doesn't mean that you can't build more of the machines, but I would assume that Pfizer, BioNTech, Moderna (and CureVac as well) have largely taken up the production capacity for that sort of expansion as well.

And let's not forget: the rest of the drug industry is already mobilizing. Sanofi, one of the big vaccine players already (and one with their own interest in mRNA) has already announced that they're going to help out Pfizer and BioNTech. But look at the timelines: here's one of the largest, most well-prepared companies that could join in on a vaccine production effort, and they won't have an impact until August. It's not clear what stages Sanofi will be involved in, but bottling and packaging are definitely involved (and there are no details about whether LNP production is). And Novartis has announced a contract to use one of its Swiss location for fill-and-finish as well, with production by mid-year. Bayer is pitching in with CureVac's candidate.

#### LICs statistically cannot mass produce vaccines.

Newey et al 21 [Sarah Newey*;* Anne Gulland*;* Jennifer Rigby, (GLOBAL HEALTH SECURITY CORRESPONDENTS at the telegraph) *and* Samaan Lateef (Reporting IN INDIA) 6/1/21, Vaccinating the world: the obstacles hindering global rollout – and how to overcome them, Telegraph, <https://www.telegraph.co.uk/global-health/science-and-disease/vaccinating-the-world/>] Justin

Supply is one thing but actually getting shots into arms is a huge undertaking for any country. According to a review of low and middle income countries’ readiness to implement vaccine campaigns conducted by the World Bank, 95 per cent have developed national plans and 82 per cent have worked out which groups should be vaccinated first. However, crucial gaps remain. Only 59 per cent have plans to train vaccinators and less than half (48 per cent) have implemented communications strategies to encourage people to take up vaccines. While low and middle income countries are used to delivering childhood vaccines, so have cold chain systems in place, a mass vaccine campaign for adults is a very different beast, says Mamta Murthi, vice president for human development at the World Bank. “This is a very different population – adults may be at work, at home, they may be unwilling to travel or not be able to come to vaccine centres,” she says.

#### Patents can’t solve the vaccine problem- they don’t have enough info and manufacturers shield key replication information

Santos Rutschman 21 Santos Rutschman, Ana (Professor of Law, St. Louis University) and Julia Barnes-Weise (Executive Director of the Global Healthcare Innovation Alliances Accelerator a non-profit organization spun out of a program in Public Policy at Duke University, and a Senior Consultant to the Coalition for Epidemic Preparedness Innovations. She is a lawyer, global health policy consultant, entrepreneur and Certified Licensing Professional). "The COVID-19 Vaccine Patent Waiver: The Wrong Tool for the Right Goal." Bill of Health (2021) (2021)./SJKS

In order to understand the practical limitations of a waiver of intellectual property rights when a vaccine is involved, it may be useful to think of patents as informational mechanisms akin to the information and tools needed to turn a recipe into an edible product. One or more patents will provide a recipe for a process or a component needed to produce a vaccine. But, just as with a culinary recipe, the informational power of a patent does not cover any tips or instructions that have not been memorialized in writing, nor does it provide any access to the raw materials needed to put a vaccine together. Waivers, therefore, temporarily remove exclusionary rights, but do not address two fundamental sources of the current vaccine scarcity problem. First, we are still left with a significant informational problem: as many [commentators](https://science.sciencemag.org/content/369/6506/912) have remarked, knowledge disclosed through patents alone is often insufficient for a third party to actually be able to replicate a vaccine. From a scientific perspective, vaccines are biological products, and, as such, their relative complexity makes them highly dependent on specific manufacturing processes and practices, many of which are not disclosed in a patent — think of it as the unwritten tips or instructions for a particular recipe. Some of this information may be kept secret by a company for competitive reasons; in these cases, lifting patent rights will not result in increased informational disclosure, unless the patent holders themselves are willing to collaborate. A waiver thus solves the exclusivity problem, but not the information problem that undergirds competition in vaccine manufacturing. To revisit the analogy introduced above, a waiver allows third parties to freely use the recipe. It does not, however, provide all the information that may be needed to manufacture the desired good, nor does it provide manufacturers with the tacit knowledge that only the original manufacturer possesses and is not disclosed elsewhere.

#### The aff can’t solve – but creates low-quality vaccines and discourages investment in critical areas.

CPIP 21 [Center for Intellectual Property x Innovation Policy; “A View from Both Sides: COVID-19, the TRIPS Waiver, IP Rights, and How to Increase the Supply of Vaccines,” Antonin Scalia Law School / George Mason University; 6/22/21; <https://cip2.gmu.edu/2021/06/22/a-view-from-both-sides-covid-19-the-trips-waiver-ip-rights-and-how-to-increase-the-supply-of-vaccines/>] Justin

A waiver on patent rights, even with the corresponding trade secrets, can only give permission to manufacture. But Eva Bishwal of Fidus Law Chambers writes that the real problems in India “are state inaction, dearth of raw materials and low production capacity.”

According to Patrick Kilbride of the U.S. Chamber of Commerce’s Global Innovation Policy Center, and as cited in Pharmaceutical Technology, “[p]roposals to waive intellectual property rights are misguided and a distraction from the real work of reinforcing supply chains and assisting countries to procure, distribute and administer vaccines to billions of the world’s citizens.”

Low-quality vaccines could do more harm than good

Former USPTO Director Andrei Iancu voiced concern recently at a World IP Day event, asking, “if we waive IP rights, and exclude the original manufacturers, how are we going to control the quality of the vaccines that go into people’s arms? How are we going to control for the fake vaccines? Just last week we saw fake Pfizer vaccines.” And as Philip Thompson points out for IPWatchdog, when investigators are forced to “determine if adverse events or sub-par effectiveness originate from ‘real’ vaccines or fake doses, we should expect global production starts and stops to become much more frequent.”

It will discourage investment in the most critical areas

Pharmaceutical developers invest unfathomable amounts of money into bringing drugs to market. The path to success is long, expensive, and highly uncertain. But what is certain is that successful drugs can yield a profit that covers the loss from failures. Now critics are deeply worried that this waiver will skew future cost-benefit analyses against important classes of medicine. All other things being equal, a developer has a better chance at a positive return by investing in drugs that pose no risk of seizure during a global emergency. As Amanda Glassman of the Center for Global Development writes, the waiver sends the wrong message to innovators and investors: “don’t bother attacking the most important global problems; instead, throw your investment dollars at the next treatment for erectile disfunction, which will surely earn you a steady return with far less agita.” The scramble amongst pharmaceutical giants to develop a vaccine was an all-out race, with good reason, and that’s exactly how it should be. If those companies believe that forfeiture is waiting at the finish line next time around, we might see fewer contestants.

#### The aff ignores insufficient infrastructure, materials, and “know how” needed to expand vaccine supply- even if IPR were waived there’s no scale up

Santos Rutschman 21 Santos Rutschman, Ana (Professor of Law, St. Louis University) and Julia Barnes-Weise (Executive Director of the Global Healthcare Innovation Alliances Accelerator a non-profit organization spun out of a program in Public Policy at Duke University, and a Senior Consultant to the Coalition for Epidemic Preparedness Innovations. She is a lawyer, global health policy consultant, entrepreneur and Certified Licensing Professional). "The COVID-19 Vaccine Patent Waiver: The Wrong Tool for the Right Goal." Bill of Health (2021) (2021)./SJKS

Second, even if all types of legal restrictions on the use of vaccine technology were lifted — or had never existed in the first place — there is simply not enough infrastructure (manufacturing facilities and equipment) nor raw materials (the components needed to manufacture and deliver vaccines) to produce and distribute COVID-19 vaccines as predicted under current waiver proposals. We have long faced a global vaccine manufacturing problem that will not be fully resolved during the current pandemic. In the case of vaccines that need to be kept at ultra-cold temperatures, these problems intensify. One of us (Barnes-Weise) has been involved in the contractual negotiations for the development, manufacturing and transfer of technology related to COVID-19 vaccines. In addition to the informational gaps described above, COVID-19 vaccine manufacturers are most concerned about how well the recipients of the technology transfer will understand and be able to implement such knowledge in making vaccines of the necessary quality. Shortages do not merely affect materials necessary to manufacture vaccines and facilities adequate to manufacture the vaccines; they also affect the availability of personnel qualified to instruct the licensee and recipient of this information. Sending an employee of this caliber out of the original manufacturing site to a partner site risks reducing the capacity of the first site. And remote instruction, necessitated by the pandemic, has its own shortcomings. In relation to the patents on the vaccines themselves, most of the concerns that the vaccine manufacturers express are around the protection of their vaccine platforms for the purposes of making future or non-COVID-19 vaccines. Moderna shared information about its [patents](https://www.modernatx.com/patents) in summer 2020. The manufacturers, as evidenced by the number of licenses to manufacture granted to date, are eager to [find](https://www.reuters.com/article/us-health-coronavirus-lonza-moderna/lonza-gets-licence-to-make-ingredients-for-moderna-vaccine-idUSKBN2B72BB) [partners](https://www.bloomberg.com/news/articles/2021-01-27/sanofi-to-make-millions-of-biontech-pfizer-s-covid-vaccine-doses) with the [capabilities](https://www.fosunpharma.com/en/news/news-details-3801.html) to expand production. It is not to their benefit to produce an inadequate supply of a highly sought-after vaccine. However, even willingness to transfer patented vaccine technology has faced numerous practical hurdles to date: 1) infrastructural limitations; 2) scarcity of raw materials; 3) concerns about licensees having the ability to actually manufacture effective vaccines in light of the infrastructural and product scarcity, even in situations in which there might be no informational gaps. A patent waiver would not address any of the practical concerns currently at the root of tech transfer negotiations involving COVID-19 vaccine technology. Compounding these problems is the fact that, should a waiver be issued, there is no legal mechanism that can compel the transfer of certain types of know-how or trade secrets should a company be unwilling to license its intellectual property — which, again, at this point in the pandemic, is not a problem we have observed. Finally, it is important to keep in mind that a waiver would be temporary: supporters of current waiver proposals should consider what will happen once demand for vaccines begins diminishing and fewer manufacturers remain on the market. Moreover, they should consider the legal and practical uncertainty that a waiver would introduce, as it is unclear how technology transfer between companies would cease (or continue) once the waiver expires.

#### The aff institutes no plan for administering vaccines- lack of infrastructure and hesitancy mean shots don’t end up in arms- but it creates vaccine hesitancy that turns case.

Adler 21 [David; Writer on Industrial Policy, author of The New Economics of Liquidity and Financial Frictions and co-editor of the anthology The Productivity Puzzle: Restoring Economic Dynamism, both published by the CFA Institute Research Foundation. He is also an adviser on industrial strategy at the Common Good Foundation in the United Kingdom; 7/20/21; To Vaccinate the World, Supply Is Only Half the Issue, Foreign Policy, <https://foreignpolicy.com/2021/07/20/wto-trips-waiver-vaccine-equity-distribution-covid-pandemic/>] Justin

Administering shots in the arm was another story. This was primarily left up to the states. Initially, Operation Warp Speed planned to have the U.S. Defense Department administer shots in the arms, but state and local authorities complained of the [militarization of vaccine administration](https://www.astho.org/Federal-Government-Relations/Correspondence/ASTHO-Joins-Comments-Operation-Warp-Speed-Leaders/) and took over this function. For whatever the reason—lack of resources, lack of planning, [poor communication](https://www.astho.org/Press-Room/Nations-Health-Officials-Call-for-Greater-Collaboration-and-Communication-with-Federal-Government/09-02-20/) from the federal government—the states had trouble administering the vaccines on time. As of Jan. 15, more than 31 million doses had been “distributed” but only around 12 million doses had been “administered.” Over time, and with bolstered support from the incoming Biden administration, rollout rapidly improved. Nonetheless, vaccine hesitancy remains a major point of resistance to more widespread immunization in the United States.

These rollout problems found in the United States are amplified many times when it comes to global rollout. The Biden administration discovered this first hand when it attempted to donate 80 million doses from domestic U.S. supply to the rest of the world in June but fell well short of this target. White House press secretary Jen Psaki said, “what we found to be the biggest challenge is not actually the supply—we have plenty of doses to share with the world—but this is a herculean logistical challenge. And we’ve seen that as we’ve begun to implement.” She pointed to the distributional challenges associated with storing vaccines at the proper temperature as well as the need for needles and syringes.

As Psaki’s comments show, there is more to vaccinating the world than just increasing supply. Even if there are vaccine shortages at this moment, limited vaccine supply may not be a binding constraint by year end. Serum Institute of India, the world’s largest vaccine manufacturer, has announced it will begin [exporting later this year](https://www.reuters.com/world/india/indias-serum-institute-start-export-covid-19-vaccine-by-year-end-2021-05-18/), implying India should have adequate vaccine supply by then. Pfizer/BioNTech has [pledged to deliver](https://www.voanews.com/covid-19-pandemic/pfizer-biontech-pledge-2-billion-vaccine-doses-poor-nations) 2 billion doses to low- and middle-income countries. AstraZeneca is continuing to scale up production.

Nonetheless, the Biden administration’s signature international COVID-19 policy, the [TRIPS waiver](https://crsreports.congress.gov/product/pdf/IN/IN11662), is a supply side move—but one unlikely to lead to any actual increase in supply. This waves intellectual property protections for COVID-19 vaccines to further foreign production. The [U.K.](https://www.gov.uk/government/news/wto-trips-council-june-2021-uk-statements) and [German](https://www.dw.com/en/germany-rejects-us-push-to-waive-covid-vaccine-patents/a-57453453) governments have viewed it skeptically and can block it. Also, as has been widely noted, manufacturing involves trade secrets and supply chain issues that go well beyond intellectual property (IP) rights. Less widely noted is the fact that the Johnson & Johnson, AstraZeneca, and Novavax vaccines have already been [licensed to Indian manufacturers](https://www.statnews.com/2021/05/05/india-vaccine-heist-shoddy-regulatory-oversight-imperil-global-vaccine-access/), so it is not clear to what degree IP rights are really hindering additional foreign production.

Therefore, the TRIPS waiver can be seen as essentially a political or even theatrical gesture, well removed from the messy world of vaccine distribution and administration. It appealed to a domestic audience hostile to Big Pharma and an international audience of countries like India and South Africa whose industrial policies have long called for limitations on IP rights.

The Biden administration’s policies keep evolving, and newer proposals are likely to show more immediate results. The United States has pledged to buy 500 million U.S. produced doses of the Pfizer/BioNTech vaccine over the next year and donate them to low-income countries. Many financing initiatives have been announced. But U.S. plans of how to tackle the critical last mile and get the vaccines into people’s arms have not been as clearly fleshed out, with the United States mostly taking a hands-off approach.

Administering vaccines requires a global rollout plan. After all, as the truism goes, a global pandemic demands a global response. However, this phrase is open to interpretation, with vaccine nationalism typically cloaked in globalist rhetoric. Many in the United States are deeply uncomfortable with a U.S.-led pandemic effort and hear the statement to mean that globalist institutions should take the lead. In other countries, the phrase can mean something very different. For instance, when European Commission President Ursula von der Leyen floated the idea of a “vaccine export transparency mechanism” to block vaccine exports from the EU to the U.K., she said it was for the “global common good.” These various meanings are somehow aligned in discouraging any U.S. unilateralism and pose challenges to a more active U.S. involvement in a global rollout.

The primary global initiative to ensure all countries have access to COVID-19 vaccines is COVAX, co-convened by the Coalition for Epidemic Preparedness Innovations, the vaccine alliance Gavi, and the World Health Organization. Gavi oversees procurement but does not have an on-the-ground presence for administering vaccines. This is left up to the health ministries of developing countries and other partners. The coalition’s key partner responsible for delivering vaccines is UNICEF. UNICEF is a children’s agency whose mission is helping every child thrive all over the world. However, it is the elderly who are most at risk for COVID-19. Ultimately, COVAX has rollout capabilities but limited bandwidth and resources when it comes to vaccine administration.

The United States has these resources, including deep expertise in both vaccine distribution and administration. Operation Warp Speed showed the Defense Department can manage the complex ultra-cold logistics required for mRNA vaccine distribution. The Centers for Disease Control and Prevention (CDC) and the U.S. Agency for International Development (USAID) have knowledge of vaccine administration—although addressing a global pandemic would be a “stretch goal.” The United States could use its personnel and expertise to help solve the global rollout problem, either on its own or in a partnership with multilateral institutions, such as COVAX.

This is not to imply the United States, with its declining life expectancy, necessarily has a better health system than other afflicted countries—only that it has rollout knowledge it learned the hard way. The key lesson is the last mile is the hardest part to roll out. Rather than having vaccine supplies arrive and only then start training, it is better to have mass vaccination sites up and running and already fully staffed. The United States could offer technical guidance and materials necessary for rollouts, including refrigeration, ancillary kits, and having enough needles on hand. USAID could offer advice on how a country could improve its vaccine readiness plan.

Addressing vaccine hesitancy is also critical to a successful rollout. The reasons behind vaccine hesitancy are complex and vary by country and population. Hence, responses need to be country specific but will typically require a massive communications effort. Where is the global effort? Where is the global planning for this effort?

Tackling these global, last-mile challenges faces huge domestic roadblocks in the United States. It would require making global rollout a top U.S. foreign-policy priority, necessitating the planning, financing, and personnel of something akin to the Marshall Plan. It would be expensive. It involves industrial planning, which still has negative overtones in the United States. Which agency in the U.S. government should coordinate such a plan? The State Department? The Defense Department? The National Institute of Health? The CDC? The White House COVID-19 Response Team? Perhaps the most divisive question is if the United States should lead such an effort or follow the WHO’s directives.

But none of this is relevant because there is no domestic political pressure for pursuing such an approach, unlike the TRIPS waiver. This is because nonprofit activism is still primarily focused on supply and eliminating vaccine hoarding by rich countries. True global vaccine equity requires a broader definition and effort beyond just manufacturing more supply, namely creating a global rollout plan and deploying the health resources necessary to get shots into people’s arms.

The end result is the United States is hesitant to find more concrete ways to get involved with a global rollout beyond just pledging more vaccine supplies or money. It is hesitant to directly intervene to help the worst afflicted poor countries distribute and administer vaccines. And vaccine hesitancy, in whichever form it takes, can be deadly.

#### The aff doesn’t scale up fast enough to solve covid and distracts us from the root cause – prefer statistics.

Taylor 21 [Andrea; Andrea leads a portfolio of global innovation programs focused on evaluation, scaling, and adaptation of healthcare innovations to address critical access and quality challenges. Her work with the Duke Global Health Innovation Center and Innovations in Healthcare drive evidence-based recommendations for scaling transformative models of care, adapting models into new contexts, and facilitating system change. She is the research lead for the Launch and Scale project’s COVID-19 workstream, analyzing global data on vaccines, partnerships, and therapeutics to combat the pandemic. She led design and research for the USAID-funded Social Entrepreneurship Accelerator at Duke (SEAD) and the development of several publications for the recent evaluation of the Saving Lives at Birth program, with USAID and GCC. Before joining Duke University in 2012, Andrea was on faculty at the University of North Carolina at Chapel Hill School of Social Work, where she conducted research on health and economic policy innovation. Prior to this, she worked for the US Department of Health and Human Services, where she co-designed programs to build capacity for mental health policy and care delivery in countries coming out of violent conflict. She holds a master’s degree in Social Service Administration (social work) from the University of Chicago; “CAN THE TRIPS WAIVER SAVE THE WORLD? WEEKLY COVID VACCINE RESEARCH UPDATE,” Duke; 5/7/21; <https://dukeghic.org/2021/05/07/can-the-trips-waiver-save-the-world/>] Justin

We are not optimizing the capacity we already have

Calls for the TRIPS waiver are based on the assumption that IP is holding up global production. Our review of the evidence, however, does not support this.

Our data on vaccine manufacturing show that most Covid-19 vaccines using traditional platforms, such as viral vector and inactivated virus, did use tech transfer deals to set up global manufacturing networks. AstraZeneca has agreements in place to manufacture Covid-19 vaccine in 16 countries, Novavax and Sputnik V in 11 countries, Sinovac in 6 countries. But many of these manufacturing partners (particularly those in middle-income countries) are delayed in starting or operating at only partial capacity because knowledge transfer is difficult and raw materials are in short supply.

For mRNA vaccines, like Moderna and Pfizer-BioNTech, the picture is even more complicated. Very few manufacturers (and none in LMICs) are equipped to manufacture mRNA vaccine, with or without access to intellectual property.

Setting up manufacturing takes longer than we think

Starting from scratch to set up new manufacturing through access to IP is not an immediate fix. And right now, we need to be focused on an immediate fix. Retrofitting or building new plants takes a long time. Running test batches, quality checks, audits and regulatory approval of manufacturing sites also takes a long time. Starting that process now is not likely to produce more doses this year, when they are most needed.

The capacity gap is more than IP

Patents and written trade secrets alone do not provide the information, expertise, or equipment needed to produce vaccines. It would be significantly more difficult to force the sharing of specialized expertise required to apply the information. Without investment in knowledge exchange and skill development, as well as physical equipment, the intellectual property in written form cannot cover the capacity gap. To succeed, any waiver of IP must be embedded within a larger transfer of know-how and infrastructure development, which is unlikely without bringing pharmaceutical companies along as willing partners.

The world is on fire

When the pharma industry says the waiver will “undermine our global response to the pandemic,” most of us can agree that yes, that is precisely the point. Our analysis of vaccine data indicate that response has not been particularly successful and a pivot is certainly indicated.

But it is the next six months that are most critical. Right now, the immediate need is to increase the production of equipment and raw materials needed to fuel existing technology transfer deals so that manufacturers who have already spent months learning the recipes and gaining the expertise can get to work.

There is a real risk that this discussion about patents and IP is distracting us from focusing on the crisis at hand. We are essentially arguing over who is allowed to make fire engines while we watch the world burn. Right now, we need to make sure we can get water flowing through every hose we have.