## 1

#### Interpretation: The affirmative must defend an unconditional right to strike. This means that the Affirmative must defend that anyone regardless of job or occupation has a fundamental right to strike.

Merriam Webster ND, <https://www.merriam-webster.com/dictionary/unconditional> //sid

not conditional or limited : [ABSOLUTE](https://www.merriam-webster.com/dictionary/absolute), [UNQUALIFIED](https://www.merriam-webster.com/dictionary/unqualified)

“Unconditional” necessitates the absence of narrowing restrictions.

US Legal ‘ND (US Legal; dictionary of legal terms of art; US Legal; “Unconditional Law and Legal Definition”; https://definitions.uslegal.com/u/unconditional/; Accessed: 10-30-2021; AU)

Unconditional means **without conditions**; **without restrictions**; or **absolute**. For instance, unconditional promise is a promise that is unqualified in nature. A party who makes an unconditional promise must perform that promise even though the other party has not performed according to the bargain.

#### Violation – They only grant the Right to Strike to agricultural workers. That by definition is a condition since they condition the right to strike on a particular occupation.

Jensen ’18 (Eric; co-director of the Stanford Rule of Law Program, in collaboration with USAID, The Asia Foundation, and Stanford Law School; April 2018; “Introduction to the Laws of Timor-Leste”; Stanford Law School; <https://law.stanford.edu/wp-content/uploads/2018/04/Timor-Leste-Constitutional-Rights.pdf>; Accessed: 10-30-2021; AU)

If individuals want to defend their rights at work, the Constitution gives them the right form trade unions and to strike. Individuals are free to join and participate in professional associations that are peaceful. This includes trade unions. Individuals in trade unions have a right to organize their unions independent of the government or their employers. Trade unions should be free and independent, and individuals have the right to set the unions’ internal structure freely. Independent trade unions are important to allow individuals to organize with other workers to collectively defend their interests and their rights. It is important that they are independent so that they reflect the individuals’ interests and not the employer’s or the government’s interests. Individuals have the right to strike. If they feel that their employer is not respecting their rights or interests, employees can refuse to work in protest. The Constitution creates a duty that during a strike, the employer still has to maintain equipment and provide for safety. Individuals’ right to strike is **limited by the law**. The Constitution states that the right to strike is **conditional** on the strike being **compliant** with legal regulations that the government creates. This means that the **government can pass laws** that limit **when and how** individuals can exercise their right to strike. The right to strike is important to give individuals the power to defend their labor rights.

#### Vote Neg –

#### 1] Limits – there are endless conditions the aff can place on the right to strike – i.e based on occupation, national holidays, location of strike, etc. That makes the topic untenable since the Aff can just infinitely specify any condition or permutation of conditions which makes predictable preparation and in-depth clash impossible.

#### 2] Neg Ground – specifying scenarios lets affs spike out of core, reduction-based disads like Bizcon and Small Businesses. Links are already non-existent on this topic – letting affs impose restrictions on RTS makes it even narrower.

#### 3] TVA – Defend an unconditional RTS in the US.

Drop the Debater –

[1] sets a precedent that debaters wont be abusive

[2] DTA is the same since you drop the aff

Voters:

[1] Fairness – constitutive to the judge to decide the better debater, only fairness is in your jurisdiction because it skews decision making

[2] Education – the only portable education from debate that we care about

Competing Interps - T is a binaristic question, you’re either topical or ur not

No RVI – yiou shouldn’t win for being topical

## 2

Interp: Debater may not modify their evidence. To clarify, debaters may not strikethrough or delete words or characters, replace words with bracketed synonyms, bracket in words for grammatical reasons, edit their evidence for any other reason.

Violation: The NLRB ev is bracketed

Standards:

1] Academic integrity – modifying authors changes argument perception because it forecloses the possibility of authors to represent their own words, killing validity. That outweighs - Your role as an educator mandates that you enforce academic rules – just as a teacher would fail a paper that plagiarized, you should not vote for someone who used altered evidence. Academic rules are A) key to enforcing a norm of honesty instead of lying – this fosters a respectful and fair academic community B) Debate is an academic activity – academic honesty is a rule in every other academic area, so the same standards apply.

2] Ethical irresponsibility - If it is true that these authors have such problematic discourse, you should not be read these authors. Reading the evidence is still an endorsement that the author’s mindset is a cogent explanation of the world, but the author’s mindset are part of their worldview and permeate the advocacy of the affirmative – turns case.

c/a paradigm issues

## 3

#### CP Text: States should ban the deployment of Lethal Autonomous Weapons.

HRW ’20 [Human Rights Watch, “Stopping Killer Robots”, 08-10-2020, https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and]//pranav

Weapons systems that select and engage targets without meaningful human control are unacceptable and need to be prevented. All countries have a duty to protect humanity from this dangerous development by banning fully autonomous weapons. Retaining meaningful human control over the use of force is an ethical imperative, a legal necessity, and a moral obligation.

## 4

#### Reconciliation passes now – it’s in the senate, but Manchin and Sinema are tentative about the legislation that passed the House.

Snell 11/19 [Kelsey, Congressional correspondent for NPR, “The House passes a $2 trillion spending bill, but braces for changes in the Senate”, 11-19-2021, https://www.npr.org/2021/11/19/1056833510/the-house-passes-a-2-trillion-spending-bill-but-braces-for-changes-in-the-senate]//pranav

The House voted on near-party lines Friday morning to approve a roughly $2 trillion social and climate spending package, ending months of squabbles among Democrats over the details of the far-reaching measure. The vote was 220-213, with one Democrat, Rep. Jared Golden of Maine, joining all Republicans in opposition. The legislation is meant to fulfill many of President Biden's promises during the 2020 campaign, including plans to address climate change and provide a stronger federal safety net for families and low-income workers. "We have the Built Back Better bill that is historic, transformative and larger than anything we have ever done before," House Speaker Nancy Pelosi, D-Calif., said on the House floor. "If you're a parent, a senior, a child, a worker, if you are an American ... this bill's for you and it is better." House Democrats overcame internal divisions over the cost and scope of the spending package, but the fight will continue as the bill heads to the Senate for revisions. The vote was delayed after House Minority Leader Kevin McCarthy, R-Calif., spoke all through the night — for more than eight hours. His speech decried Democrats' spending plans, but also veered to subjects including China and border security. "Never in American history has so much been spent at one time," he said. "Never in American history will so many taxes be raised and so much borrowing be needed to pay for all this reckless spending." Biden praised House passage of the bill, noting it was the second time in two weeks that the chamber moved two "consequential" pieces of his legislative agenda, referencing the new infrastructure law. He described the vote as a "giant step forward in carrying out my economic plan to create jobs, reduce costs, make our country more competitive, and give working people and the middle class a fighting chance." What's in the measure The legislation includes: $550 billion to address climate change through incentives and tax breaks; funding to extend the expanded, monthly child tax credit for one year; housing assistance, including $150 billion in affordable housing expenditures; expansions to Medicaid and further assistance to reduce the cost of health care premiums for plans purchased under the Affordable Care Act; four weeks of paid family and medical leave; funding for universal pre-K for roughly 6 million 3- and 4-year-olds; a provision to allow Medicare Parts B and D to negotiate prices directly with drug manufacturers on certain drugs and cap out-of-pocket spending for seniors at $2,000 per year; a $35 cap on monthly insulin expenses. The spending is mostly offset with taxes on the wealthy and corporations, including: a 5% surtax on taxpayers with personal income above $10 million, and an additional 3% added on income above $25 million; a 15% minimum tax on corporate profits of large corporations that report more than $1 billion in profits; a 1% tax on stock buybacks; a 50% minimum tax on foreign profits of U.S. corporations. House Democrats unite after months of fighting Moderate Democrats ultimately voted for the legislation after concerns that estimates from the nonpartisan Congressional Budget Office would show the measure to be more costly than leaders have projected. Ultimately, the CBO found the bill would cost the federal government $367 billion over the next decade, "not counting any additional revenue that may be generated by additional funding for tax enforcement." Many Democrats, including the White House, argue that when that is taken into account, the measure would pay for itself. Members of the fiscally moderate New Democrat Coalition endorsed the legislation ahead of the final cost estimates. Rep. Brad Schneider, D-Ill., said the official estimates don't take into account extra revenue from increased tax enforcement — or the broader economic benefits of the legislation. "When discussing the importance of the bill, we also have to talk about the costs that would be incurred if we don't pass this bill," Schneider said on a call with reporters. "The cost of inaction is simply too high, and it can only be headed off if we act now." For progressive Democrats, the vote fulfills a promise from Biden and House leaders not to neglect policies that have energized the left wing of their party. Members of the Congressional Progressive Caucus set aside major demands throughout the negotiations, including more spending and plans for aggressive changes to the nation's health care system, in order to reach an agreement that satisfied the full caucus. Senate hurdles could drag on for weeks The House vote is just the latest step in a lengthy process that will almost certainly involve further changes to the bill. Centrist Sens. Kyrsten Sinema, D-Ariz., and Joe Manchin, D-W.Va., have each expressed concerns about the House version of the legislation. Manchin is particularly opposed to a provision that would provide four weeks of paid family and medical leave for most workers. Sinema's objections are less clear but Democrats need both lawmakers on board in order for the legislation to pass. It is unclear how long it would take for senators to work out their disagreements and finalize the legislation. Once that work is done, the Senate would have to start a lengthy process to vote on the bill using the budget reconciliation process that would allow the bill to be passed in the Senate with 50 votes, rather than the 60 votes needed for most legislation. Pelosi told reporters on Thursday that Senate staff have already completed a necessary step to ensure the legislation meets the basic requirements to avoid a Republican filibuster. But the process still has several steps, including a series of unlimited amendment votes known as a vote-a-rama.

#### Biden PC is key to getting democratic skeptics on board, but it’s tentative

Cochrane & Weisman 11/05 [Emily Cochrane - correspondent based in Washington. She has covered Congress since late 2018, focusing on the annual debate over government funding and economic legislation, ranging from emergency pandemic relief to infrastructure, Jonathan Weisman - congressional correspondent, veteran Washington journalist and author of the novel “No. 4 Imperial Lane” and the nonfiction book “(((Semitism))): Being Jewish in America in the Age of Trump.” His career in journalism stretches back 30 years, “Live Updates: House Democrats Push Toward Votes on Biden’s Agenda”, 11-05-2021, https://www.nytimes.com/live/2021/11/05/us/biden-spending-infrastructure-bill]//pranav

At the White House, Mr. Biden called on lawmakers to pass the legislation. “I’m asking every House member, member of the House of Representatives, to vote yes on both these bills right now,” the president said. Spooked by Tuesday’s electoral drubbing, Democrats labored to overcome concerns among moderates about the cost and details of a rapidly evolving, $1.85 trillion social safety net and climate plan and push it through over unified Republican opposition. They also hoped to clear a Senate-passed $1 trillion bipartisan infrastructure bill — the largest investment in the nation’s aging public works in a decade — for Mr. Biden’s signature. Top Democratic officials said they were confident they could complete both measures by day’s end, but Speaker Nancy Pelosi of California and her team continued to haggle with holdouts. Several moderates were pushing for more information about the cost of the sprawling plan, including a nonpartisan analysis from the Congressional Budget Office, the official scorekeeper responsible for calculating the fiscal impact of the 2,135-page legislation. “I think everyone’s waiting for the C.B.O. to do their job,” said Representative Jared Golden, Democrat of Maine, speaking to reporters on Friday morning as he left Ms. Pelosi’s office, where White House officials were also meeting on next steps. But Representative Steny H. Hoyer of Maryland, the majority leader, said the cost estimate would not be ready by the end of the day, and a person familiar with the discussions said a score from the budget office was weeks away from completion. “We’re working on it,” Mr. Hoyer said. Ms. Pelosi spent much of the day on Thursday buttonholing lawmakers on the House floor to try to corral support for the social policy bill, which includes monthly payments to families with children, universal prekindergarten, a four-week paid family and medical leave program, health care subsidies and a broad array of climate change initiatives. Mr. Biden and members of his cabinet worked the phones to win over Democratic skeptics. With Republicans united in opposition, Democrats could afford to lose as few as three votes from their side. As Democrats labored to unite their members behind the bill, Republicans sought to wreak procedural havoc on the House floor, forcing a vote to adjourn the chamber that leaders held open for hours to buy time for their negotiations. While the Senate approved the $1 trillion infrastructure bill in August, the measure has stalled as progressives have repeatedly refused to supply their votes for it until there is agreement on the other bill.

#### Business lobbying backlash ensures Sinema flips – empirics prove she doesn’t like similar bills

Duda ’21 [Jeremy, Prior to joining the Arizona Mirror, he worked at the Arizona Capitol Times, where he spent eight years covering the Governor's Office and two years as editor of the Yellow Sheet Report, “Business groups urge Kelly, Sinema to oppose pro-union PRO Act”, 08-30-2021, https://www.azmirror.com/2021/08/30/business-groups-urge-kelly-sinema-to-oppose-pro-union-pro-act/]//pranav

Business groups publicly called on Democratic U.S. Sens. Mark Kelly and Kyrsten Sinema to oppose a sweeping piece of pro-organized labor legislation that would wipe out Arizona’s “right-to-work” law that prohibits mandatory union membership. At a press conference at the office of the Arizona chapter of the Associated General Contractors near the state Capitol on Monday, leaders of several business groups warned that the Protecting the Right to Organize Act — or PRO Act, as it’s more commonly known — would undermine Arizona’s recovery from the economic slump it faced last year due to the COVID-19 pandemic, undermine the “gig economy,” jeopardize secret ballots in union organization votes, give unions access to confidential employee information and strip Arizonans of their right not to join a union. The bill would allow unions to override right-to-work laws and collect union dues from non-members who still benefit from collective bargaining. It would also prohibit company-sponsored meetings to urge employees against unionizing, define most independent contractors as employees, protect employees who are attempting to unionize from being fired and allow unions to engage in secondary strikes in support of other striking workers, among other provisions. “We want to thank and tell Senator Sinema and Senator Kelly that we appreciate them for not signing on as co-sponsors to the PRO Act, because if they were to change their opinions, New York Sen. Chuck Schumer will put this up for a vote,” said Danny Seiden, president and CEO of the Arizona Chamber of Commerce and Industry. Kelly and Sinema are two of only three Senate Democrats, along with Virginia’s Mark Warner, who haven’t co-sponsored the bill or thrown their public support behind it. Kelly last month told the Huffington Post that he opposes the independent contractor provision, but that he supports the “overall goals” of the legislation. Sinema is widely known as a holdout on the Democratic side and hasn’t supported the PRO Act, but spokesman Pablo Sierra-Carmona indicated that she hasn’t made up her mind, and that she won’t do so unless and until it comes up for a vote in the Senate.

#### Labor reform saps PC – empirically prove with Obama, corporate opposition, and Democratic resistance

Leon 21 Luis Feliz Leon, 01-06-2021, “"If we want it, we’re going to have to fight like hell for it" - Labor faces an uphill battle to pass the PRO Act,” Strike Wave, https://www.thestrikewave.com/original-content/labor-faces-uphill-battle-to-pass-pro-act/SJKS

The Employee Free Choice Act (EFCA), which died in the Senate during President Barack Obama’s first term, had similar potential to increase union membership, as it would have enabled workers to get union representation if a majority signed union cards (“card check”) rather than through an election. It died because Obama was unwilling to put political capital behind it to overcome opposition from Republicans and center-right Democrats. “EFCA was very close to becoming law. At the end of the day, in my view, the Obama administration did not put the necessary political capital into securing its passage,” said EPI's McNicholas. “The Obama administration decided to focus on ‘bipartisan’ and ‘reach across the aisle’ type solutions to the 2008 financial crisis, and thus didn't care about EFCA in the face of the anti-EFCA mobilization by strong ‘antis’ like the Chamber of Commerce,” says Susan Kang, a professor of political science at John Jay College who studies political economy, labor, and human rights. “Basically, labor was swept aside by the Obama administration … at the exact moment when he had the strongest mandate and political capital.” Another issue, said Patrick Burke, an organizer with United Auto Workers Local 2322 in Massachusetts, was that EFCA's card-check provisions, when framed as a replacement for elections, “became very easy to demonize and difficult to explain to people not already familiar with labor law.” “The short story is that the EFCA was doomed from a few moderate Dems not being willing to go through with card check once actually in power to enact it. The long story is that the labor movement's disappearance from the ‘adult table’ of Democratic politics has cyclical downward effects. They're less able to convince Dems to go out on the limb for them and to prioritize their legislative requests,” said Brandon Magner, a labor lawyer in Indiana. Despite a history of betrayal and rejection, labor and immigrant rights organizations, [coalesced](https://progressive.org/dispatches/power-behind-win-feliz-leon-201123/) around Biden, a self-professed “[union guy](https://www.cnbc.com/2020/11/16/biden-holds-joint-meeting-with-union-leaders-and-retail-auto-tech-ceos.html),” after the primaries and [helped deliver](https://progressive.org/dispatches/bargaining-rights-with-that-feliz-leon-201229/) him to the White House in the hope that doing so would lead to [executive action](https://indypendent.org/2020/12/immigrants-rights-advocates-descend-on-delaware/) on immigration and labor law reform. “We call on Congress to pass and Biden to sign the Protecting the Right to Organize (PRO) Act early in 2021 to make sure every worker who wants to form or join a union is able to do so freely and fairly,” AFL-CIO President Richard Trumka said in a [statement](https://aflcio.org/press/releases/afl-cio-looks-forward-working-president-elect-joe-biden-0) after the election. But union organizers, researchers, and labor lawyers see dim prospects for winning significant labor reform during the Biden administration. “The PRO Act is obviously dead in the Senate unless Mitch McConnell gets knocked into the minority, but I don't see it being passed without full-throated support for gutting the filibuster from Biden, Harris, Schumer, Durbin, and more,” said Magner, the labor lawyer, adding that “the history of failed labor law reform efforts indicates you need 60 votes to pass anything.” That is particularly true of Democrats in “right-to-work” states like [South Carolina](https://www.postandcourier.com/politics/scs-rep-joe-cunningham-to-vote-against-pro-union-bill-in-break-with-democrats/article_426b38e2-4862-11ea-a0d9-77a96531c47e.html) where U.S. Rep. Joe Cunningham was a reliable opponent in the House. But the greatest liability might be Biden himself. “The few times that Biden met McConnell at the negotiating table during the Obama years, McConnell [left with Biden’s wallet](https://theintercept.com/2019/06/24/joe-biden-tax-cuts-mitch-mconnell/),” dryly [observed](https://theintercept.com/2020/12/28/mcconnell-trump-election/) The Intercept’s Ryan Grim. “Even if the Democrats capture the Georgia Senate seats, their margin will be too small to overcome a Republican filibuster or, if they change the rules, more than one Democrat will break ranks, and no Republicans will support the act,” said Friedman. Even if Biden were to somehow outmaneuver McConnell’s chicanery, there would be fierce opposition to contend with on the corporate side from the likes of Americans for Tax Reform, which has [used](https://www.atr.org/ab5) Georgia runoff elections as an opportunity to fearmonger on the PRO Act, and, when backed against the wall, Biden may revert to his timeworn moderate instincts and not go to bat for labor reform unless forced to. “Prospects for major labor law reform under the Biden administration are directly tied to unions’ and union federations’ willingness to hold the administration’s feet to the fire. They are not going to do it on their own – if we want it, we’re going to have to fight like hell for it,” said Pitkin, the former UNITE HERE organizer. “The biggest question is whether there is enough street heat and organizing to prioritize legislation like this," said Burke, the UAW organizer. “Workers in motion spur labor-law reforms, not the other way around.”

#### They lash out against Reconciliation – it includes similar provisions

FURCHTGOTT-ROTH 10/09 [Diana, former acting assistant secretary for economic policy at the U.S. Department of the Treasury, is adjunct professor of economics at George Washington University, “Democrats can't pass the PRO Act, so it's buried in the reconciliation bill”, 10-09-2021, https://thehill.com/opinion/white-house/575992-dems-cant-pass-the-pro-act-so-its-buried-in-the-reconciliation-bill]//pranav

Union membership has been declining for decades as workers find better uses than union dues for their hard-earned dollars. But union bosses and their supporters are trying to change the law to force hard-working Americans into unions. How? Through the Protecting the Right to Organize Act (PRO Act), a bill that would expand the power of union leaders at the expense of workers. After sailing through the House, the PRO Act now appears stalled in the Senate and Democrats are trying to slip some PRO Act provisions into a massive reconciliation bill. American workers are wise to turn down union membership. Union pension plans are in trouble. In 2020, the Labor Department listed 121 union plans in critical status, defined as less than 65 percent funded, and 61 in endangered status, with less than 80 percent funded. Unions desperately need new workers to join, because they pay contributions for many years without withdrawing money. Most recently, Amazon workers in Alabama resoundingly rejected efforts by the Retail, Wholesale and Department Store International Union to organize their plant, with more than 70 percent of workers voting against the union. The union’s plan was in critical status between 2015 and 2019, and the Labor Department informed the plan’s administrators that it had to be reorganized by reducing benefits and increasing contributions. Union leaders and their allies on Capitol Hill believe the way to increase membership after decades of decline is to pass elements of the PRO Act through reconciliation. Unlike the PRO Act, which needs 60 votes in the Senate to enable it to move to President Biden’s desk for signature, the reconciliation bill, which deals with taxes and spending, needs only a simple majority. So via a massive reconciliation bill, congressional Democrats are trying to move some labor union provisions of the PRO Act by arguing they are actually revenue raisers.

#### Reconciliation is k2 stopping existential climate change – warming is incremental and every change in temperature is vital

Higgins 8/16 [Trevor, Senior Director, Domestic Climate and Energy, “Budget Reconciliation Is the Key to Stopping Climate Change”, 08-16-2021, https://www.americanprogress.org/issues/green/news/2021/08/16/502681/budget-reconciliation-key-stopping-climate-change/]//pranav

The United States is suffering acutely from the chaotic changes in climate that scientists now directly attribute to the burning of fossil fuels and other human activity. The drought, fires, extreme heat, and floods that have already killed hundreds this summer across the continent and around the world are a tragedy—and a warning of worsening instability yet to come. However, this week, the Senate initiated an extraordinary legislative response that would set the world on a different path. Enacting the full scope of President Joe Biden’s Build Back Better agenda would put the American economy to work leading a global transition to clean energy and stabilizing the climate. A look at what’s coming next through the budget reconciliation process reveals a ray of hope that is easy to miss amid the fitful negotiations of recent months: At long last, Congress is on the verge of major legislation that would build a more equitable, just, and inclusive clean energy economy. This is our shot to stop climate change. Building a clean energy future must start now Until the global economy stops polluting the air and instead starts to draw down the emissions of years past, the world will continue to heat up, blundering past perilous tipping points that threaten irreversible and catastrophic consequences. Stemming the extent of warming at 1.5 degrees Celsius rather 2 degrees or worse will reduce the risk of crossing such tipping points or otherwise exceeding the adaptive capacity of human society. Every degree matters. Stabilizing global warming at 1.5 degrees Celsius starts with cutting annual greenhouse gas emissions in the United States to half of peak levels by 2030. This isn’t about temporary offsets or incremental gains in efficiency—it’s about the rapid adoption of scalable solutions that will work throughout the world to eliminate global net emissions by 2050 and sustain net-negative emissions thereafter. Building this better future will tackle climate change, deliver on environmental justice, and create good jobs. It will give us a shot to stop the planet from continuously warming. It will alleviate the concentrated burdens of fossil fuel pollution, which are concentrated in systemically disadvantaged, often majority Black and brown communities. It will empower American workers to compete in the global clean energy economy of the 21st century. There is no time to lose in the work of building a clean energy future.

## Case

### Underview

1] no new 2ar arguments, but u get 2ar weighing – incentivizes sandbagging the 2nr and reading a ton of new args in the 2ar which makes negating impossible

2] yes 2nr paradigm issues on 1ar theory – it’s new in the 1ar we get new 2nr responses to it. Getting more efficient solves skew.

3] rvis are silly u don’t get them – uplayering, generating offense on other pages, and getting more efficient all solve

### Solvency

1] Baca and Greene doesn’t have a warrant for policy follow on – at best they drew a false correlation between a climate summit happening and people going on strike beforehand to call for company change

2] proves RTS isn’t key bc perception of a strike in the squo causes companies to change their policies which should be sufficient to solve

3] Plan flaw – “ought” isn’t evaluative, but rather refers to a moral judgement on whether we must take a moral obligation which means it cannot be implemented. That means you negate a. no solvency because the plan won’t pass – presume neg because they haven’t won a reason to shift away from the s-quo and b. textual education is key to effective policy-making – a 2012 weed bill in Arkansas was rejected because it was phrased incorrectly.

4] Just no internal link to stopping LAW development in the federal sphere – their ev is only about big Tech developing stuff but not about military contractors or people like Lockheed or Boeing who are also developing weapons

### Lobbying

#### 1] the terstein ev skips a bunch of paragraphs – that’s a voting issue for evidence ethics. Incentivizes debaters to skip over parts of articles that contradict their interprtaion of the evidence. Cross apply the academic integrity stuff from the 2nd shell.

#### 2] Here’s what they didn’t include – it proves a litany of alt causes. Tech is being *VASTLY* outlobbied by Big Oil. Independently, Big Tech just *doesn’t care*, so they won’t change their policies.

Teirstein ’21 [Zoya, “Big Tech says it wants to solve climate change. Its lobbying dollars say otherwise.”, 01-28-2021, Grist, https://grist.org/politics/big-tech-says-it-wants-to-solve-climate-change-its-lobbying-dollars-say-otherwise/]//pranav

What’s more, tech companies are being vastly out-lobbied by Big Oil, the InfluenceMap report found. Chevron, Shell, ExxonMobil, ConocoPhillips, and BP directed, on average, 38 percent of their legislative lobbying to climate-related policies between 2019 and 2020. Much of that lobbying activity was, unsurprisingly, against climate policy. And during Donald Trump’s presidency, when the federal government did virtually nothing to address the climate crisis and some states tried to pick up the slack, the five major tech companies engaged on climate policy at the state level in less than half of the 22 states where they are headquartered, own data centers, or have regional offices. “We worked from a list of almost 50 major climate bills that have been proposed in states over the last few years, and we found that Big Tech engaged on only a couple of them,” Kendra Haven, U.S. engagement manager for InfluenceMap, told Grist. Apple, Google, and Facebook, all headquartered in California, did almost no lobbying in the state, which has an aggressive climate agenda. Chevron, by comparison, also based in California, dedicated 51 percent of its disclosed lobbying activities to climate policy there. “These companies have statements that indicate climate is a shared problem that needs to be addressed by society as a whole,” Dylan Tanner, executive director of InfluenceMap, told Grist. “The question to investors and stakeholders in the tech companies is, given this huge power and then your statements on climate, do you want to leave it up to a few oil and gas companies to decide the broad agenda on climate?”

#### 3] Also proves Big Tech is all talk in response to strikes which takes out Baca and Greene. Don’t let them wiggle out of this their solvency ev is about the Amazon statement – Westwood is blue.

**1AC Terstein 21** [Terstein, Zoya, 1-28-2021, "Big Tech says it wants to solve climate change. Its lobbying dollars say otherwise.," <https://grist.org/politics/big-tech-says-it-wants-to-solve-climate-change-its-lobbying-dollars-say-otherwise/>] //DDPT

It’s hard to quantify political power, but it’s safe to say that big tech companies wield [a lot](https://www.newyorker.com/tech/annals-of-technology/what-can-america-learn-from-europe-about-regulating-big-tech) of it. A decade ago, companies like Amazon and Google employed [just a smattering of lobbyists](https://www.washingtonpost.com/technology/2020/01/22/amazon-facebook-google-lobbying-2019/) who worked to influence D.C. policymakers on their behalf. Now, the Big Five tech companies — Apple, Microsoft, Facebook, Google, and Amazon — spend tens of millions of dollars each year lobbying Congress. In 2020, they collectively spent [$61 million domestically lobbying](https://www.cnbc.com/2021/01/22/facebook-spent-more-on-lobbying-than-any-other-big-tech-company-in-2020.html) on issues that included international tax policies, copyright reform, and content policy. Only a tiny fraction of Big Tech’s legislative lobbying might is going toward advocating for climate policy, according to a [new report](https://influencemap.org/report/Big-Tech-and-Climate-Policy-afb476c56f217ea0ab351d79096df04a) from the think tank InfluenceMap. Between 2019 and 2020, just 4 percent of Apple, Alphabet (Google’s parent company), Amazon, Facebook, and Microsoft’s self-reported lobbying activities targeted climate-related policy at the federal level. In Europe, these companies do even less lobbying on climate — InfluenceMap says they have been “largely silent on the EU’s ambitious climate policy agenda.” This halfhearted effort to promote climate-friendly policies stands in sharp contrast to Big Tech’s much-publicized promises to lead the rest of the business sector, and indeed the entire world, toward a greener future. Apple, for instance, revealed a plan last summer to make its supply chain and products carbon neutral by 2030, something CEO Tim Cook said will be good for the planet and its products. “With our commitment to carbon neutrality, we hope to be a ripple in the pond that creates a much larger change,” [Cook said](https://www.apple.com/newsroom/2020/07/apple-commits-to-be-100-percent-carbon-neutral-for-its-supply-chain-and-products-by-2030/). In 2019, Amazon unveiled a climate plan that aims to get the company to meet the decarbonization requirements of the Paris Agreement 10 years early. “If we can do this, anyone can do this,” Amazon founder Jeff Bezos [said](https://www.cnbc.com/2019/09/19/jeff-bezos-speaks-about-amazon-sustainability-in-washington-dc.html) at the time. “Climate change is a crisis we will only be able to address if we all work together on a global scale,” Facebook founder Mark Zuckerberg [said](https://sustainability.fb.com/). Facebook aims to make its global operations [net-zero](https://sustainability.fb.com/), starting with making its value chain net-zero by 2030. “We will support new public policy initiatives to accelerate carbon reduction and removal opportunities,” Microsoft president Brad Smith [wrote](https://blogs.microsoft.com/blog/2020/01/16/microsoft-will-be-carbon-negative-by-2030/) in January last year, outlining seven principles the company will adhere to in its quest to remove more emissions than it produces by 2030 and eliminate all of its emissions since 1975 by mid-century. “We know that no company, no matter how ambitious, can solve a challenge like climate change alone,” Google said in its [sustainability report](https://www.gstatic.com/gumdrop/sustainability/carbon-free-by-2030.pdf) last September. It’s clear that these companies like to talk about climate action being a collective effort. But despite the many detailed climate plans and pledges, Big Tech has done strikingly little government-level work to bring about the global-scale climate action it says it wants to see. The little lobbying the Big Five do has been largely focused on technical rules that are directly tied to these companies’ abilities to stick to their climate commitments, like procuring enough renewable energy. Meanwhile, the world is [nowhere near](https://www.theguardian.com/environment/2020/dec/12/world-is-in-danger-of-missing-paris-climate-target-summit-is-warned) where it needs to be to meet the climate targets outlined in the Paris Agreement. “Relative to their scale, they invest very little in saving the planet,” Nic Bryant, a spokesperson for the climate activist group Extinction Rebellion, told Grist, referring to tech companies. “These companies could and should be leading the way.”

#### 4] No warrant for Big Tech lobbying key because it’s about all businesses, but it does say companies are insufficient alone AND that they would backlash against climate legislation. Independently, their strategy empirically fails, but ONLY the disad solves their impacts– Westwood is blue

**1AC Winston 19** [Winston, Andrew, Harvard Business Review, 10-15-2019, "Corporate Action on Climate Change Has to Include Lobbying," <https://hbr.org/2019/10/corporate-action-on-climate-change-has-to-include-lobbying>] //DDPT

The business world has recently started acting on climate change in earnest. Hundreds of the world’s largest companies have agreed to use [100% renewable energy](http://there100.org/companies) and set [targets](https://sciencebasedtargets.org/companies-taking-action/) that commit them to reduce emissions at the pace that science demands. Companies are [buying many gigawatts of renewable energy](https://www.forbes.com/sites/mikescott/2019/09/09/companies-continue-to-drive-demand-for-clean-energy/amp/?__twitter_impression=true), slashing their own energy use, and innovating to create products that help customers reduce their emissions. But it’s not nearly enough. The climate crisis is upon us, and there’s no time to wait for voluntary corporate action to tackle the challenge. We need the collective will that government provides. Many in business will rebel against this idea, but we are long past the point where free markets alone could solve the challenge in time (if such a possibility ever even existed). Business needs to, [in the words of Environmental Defense Fund president Fred Krupp](https://www.wri.org/news/2019/10/release-major-environmental-groups-call-businesses-lead-climate-policy), “unleash the most powerful tool they have to fight climate change: their political influence.” This is the logic and imperative behind [an announcement today](https://medium.com/@timetolead/its-time-to-lead-on-climate-policy-6f849eb114ba) from 11 environmental and sustainability organizations that have significant influence on the world’s largest companies and on policymakers. Using a full-page ad in The New York Times, the group is calling for business to advocate for policies, at all levels of government, that are consistent with what climate science is telling us we need to do — what they’re calling a “science-based climate policy agenda.” The statement also calls for companies to adjust their trade associations’ advocacy to align with climate science. (The signatories are the heads of BSR, C2ES, CDP, Ceres, Conservation International, Environmental Defense Fund, The Climate Group, The Nature Conservancy, the Union of Concerned Scientists, World Resources Institute, and WWF U.S.) In support of this public plea, the Sustainable Food Policy Alliance — which includes food and consumer products giants Nestle, Unilever, Mars, and Danone — is running the same letter in Roll Call with the message “we agree.” The new statement is also building on a [similar call to action last month](https://www.ceres.org/sites/default/files/Final%20Generic%20SIGN-ON%20PACKET%20Investor%20Expectations%20on%20Climate%20Lobbying%20sign-on%20packet%20September%202019.pdf) from 200 investors with more than $6 trillion in assets. It’s about time. Companies have long allowed a chasm to open up between their own statements and actions on climate and what their government relations and lobbying teams are doing in the halls of power. Most of these companies have also conveniently ignored that their own industry and trade associations have generally been fighting climate policy every step of the way. It’s an important discussion to have right now and this initiative could have an impact. I want to offer some thoughts on the context and where the policy discussion could, or should, go. This isn’t the first attempt. In 2006, some of these same NGOs formed the [U.S. Climate Action Partnership](https://en.wikipedia.org/wiki/U.S._Climate_Action_Partnership) with notable business partners such as Alcoa, BP, Caterpillar, Dupont, and GE. While the call to action was vague, it was an important message from some heavy industry players that they wanted pro-climate policies. But when the Waxman-Markey cap-and-trade climate bill failed in the U.S. Senate in 2009, and climate policy entered the wilderness for years, the partnership petered away. Over the last decade, the nonprofit Ceres, a signer on this latest statement, has convened the Business for Innovative Climate and Energy Policy, or [BICEP](https://www.ceres.org/networks/ceres-policy-network), to bring company leaders in to talk to legislators. And more recently, a group of scientists and former high-ranking government officials (mostly Republican), launched the [Climate Leadership Council](https://www.clcouncil.org/), which is pushing for [a package of policies](https://www.clcouncil.org/our-plan/) that includes a carbon fee and “dividend” that returns most of the revenue to citizens. But none of these have really gotten the kind of traction we need. This time could be different. A few shifts in the world may make this push more effective. First, climate change is real and affecting businesses today. We’re not just discussing a model of future weather and costs; we’re seeing very real and massively expensive disruptions to operations, supply chains, and communities. Second, with increasing transparency, it’s much harder to hide the disconnect between what companies are saying they’re doing and what they’re actually advocating for behind the scenes. A [just-released analysis of corporate lobbying](https://www.theguardian.com/environment/2019/oct/10/exclusive-carmakers-opponents-climate-action-us-europe-emissions) shows that major auto companies, while talking up their efforts on electric vehicles, have lobbied aggressively to fight any real climate policy. Third, stakeholders — customers, employees, and communities — are demanding more action and are less tolerant of inconsistencies on this issue. Recently [Microsoft employees staged a walkout](https://www.theverge.com/2019/9/19/20874081/microsoft-employees-climate-change-letter-protest) for climate, and almost 8,700 Amazon employees have [signed an open letter](https://medium.com/@amazonemployeesclimatejustice/public-letter-to-jeff-bezos-and-the-amazon-board-of-directors-82a8405f5e38) calling on their CEO to lead on the issue. (Amazon then announced it would go climate-neutral by 2040 and [buy 100,000 electric vans](https://www.freightwaves.com/news/amazon-announces-purchase-of-100000-ev-delivery-vehicles-from-rivian-the-largest-order-ever)). There’s clearly pressure on business to take a broader role in society, which is why about 200 big-company CEOs signed a [statement from the Business Roundtable](https://hbr.org/2019/08/is-the-business-roundtable-statement-just-empty-rhetoric) pledging that they would focus on stakeholder needs, not just shareholder value.

### AI

#### Their workers deter ev is about workers signing a letter NOT going on strike… - Westwood is blue

**1AC Skolnik 3/16** [Jon Skolnik, 3-16-2021, "Big Tech is fueling an AI "arms race": It could be terrifying — or just a giant scam," Salon, <https://www.salon.com/2021/03/16/big-tech-is-fueling-an-ai-arms-race-it-could-be-terrifying--or-just-a-giant-scam/>] //PT

Early in the 2020 presidential campaign, Democratic candidates Pete Buttigieg and Andrew Yang [tried to build political momentum](https://venturebeat.com/2019/11/21/buttigieg-and-yang-say-ai-is-essential-to-u-s-national-security/) around the claim that the United States is losing ground in a new arms race with China — not over nuclear missiles or conventional arms but artificial intelligence, or AI. Around the same time, former President Trump [launched](https://thebulletin.org/2019/02/trump-orders-some-sort-of-vague-action-in-the-ai-arms-race/) the American AI Initiative, which sought to marshal AI technologies against "adversarial nations for the security of our economy and our nation," as Trump's top technology adviser [put it](https://www.wired.com/story/a-national-strategy-for-ai/). Buttigieg, Yang and Trump may have agreed about little else, but they appeared to go along with the nonpartisan think tanks and public policy organizations –– many of them funded by weapons contractors –– that have worked to promote the supposedly alarming possibility that China and Russia may be "beating" the U.S. in defense applications for AI. Hawkish or "centrist" research organizations like the [Center for New American Security](https://www.cnas.org/publications/reports/understanding-chinas-ai-strategy) (CNAS), the [Brookings Institution](https://www.brookings.edu/blog/order-from-chaos/2018/11/06/artificial-intelligence-and-the-security-dilemma/) and the [Heritage Foundation](https://www.heritage.org/technology/commentary/america-must-counter-chinas-military-civil-union), despite their policy and ideological differences in many areas, have argued that America must ratchet up spending on AI research and development, lest it lose its place as No. 1. Just last week, the National Security Commission on Artificial Intelligence (NSCAI) published a sweeping 756-page [report](https://www.nscai.gov/wp-content/uploads/2021/03/Full-Report-Digital-1.pdf), culminating two years of work following the 2019 National Defense Authorization Act, asking Congress to authorize a $40 billion federal investment in AI research and development, which the NSCAI calls "a modest down payment." The commission also urged President Biden to reject the push for a global ban on AI-enabled autonomous weapons — a ban proposed by thousands of scientists and thought leaders in an [open letter](https://www.vice.com/en/article/nzep5k/thousands-of-scientists-say-we-need-a-global-ban-on-autonomous-weapons) written in 2015. Concerned about the threat of increasing AI sophistication in Russia and China, the commission warned lawmakers that America "will not be able to defend against AI-enabled threats without ubiquitous AI capabilities and new warfighting paradigms." It offered a laundry list of recommendations to put these paradigms into action, including a "Steering Committee on Emerging Technology" within the Defense Department, an accredited university designed to produce and recruit tech talent for the defense sector, and a ramped-up investment in semiconductor manufacturing designed to keep the U.S. "two generations" ahead of China. One question, however, was not directly answered in the NSCAI's gigantic report or in all the think-tank policy papers that preceded it: Is this science fiction-flavored arms race against largely imaginary Chinese and Russian techno-weapons of the future really necessary? Is it remotely a good idea, or likely to improve the lives of any human beings on the planet? (Excepting, that is, those who stand to profit from it.) Jim Naureckas, the editor of Fairness and Accuracy in Reporting (FAIR) and a frequent critic of military spending, told Salon in an interview that framing of AI development as an "arms race" is irresponsible, but in the larger sweep of history is also nothing new. "The whole military industry is driven by fear as a motivator," he said. "There's a logic to an arms race that's different from the logic of arms control." After its release, the NSCAI report was greeted with a deluge of largely uncritical media coverage, most of it echoing concerns about the U.S. losing the "AI arms race" — a term not mentioned in the report itself, but certainly evoked by its framing. "Unless America acts now," a Washington Post [headline](https://www.washingtonpost.com/opinions/unless-america-acts-now-china-could-trounce-it-in-artificial-intelligence/2021/03/09/81f99508-805b-11eb-9ca6-54e187ee4939_story.html) read, "China could trounce it in artificial intelligence." "Which country is emerging as the global leader in AI?" [echoed](https://techhq.com/2021/03/which-country-is-emerging-as-the-global-leader-in-ai/) TechHQ. "America wakes up to the China threat," [chimed](https://www.wsj.com/articles/america-wakes-up-to-the-china-threat-11615311587) the Wall Street Journal. As Naureckas pointed out, the notion that that the U.S. will soon fall behind its global competitors in military technology is a tried-and-true scare tactic, employed at various times in slightly different registers by both Democrats and Republicans. In reality, U.S. military spending remains mind-bogglingly high. For the 2020 fiscal year, the Trump administration [approved](https://www.cnbc.com/2019/12/21/trump-signs-738-billion-defense-bill.html) a military budget of $738 billion, a $21 billion increase from the previous year and it passed with overwhelming bipartisan support, facing only 48 "no" votes in the House and eight in the Senate. In 2019, the militarized budget accounted for [64.5 percent](https://www.nationalpriorities.org/analysis/2020/militarized-budget-2020/) of all federal discretionary spending. The U.S. has 800 military bases on foreign soil, far more than any other country in the world. According to [Military.com](https://www.military.com/daily-news/2020/02/24/5-most-powerful-armies-world.html#:~:text=In%20what%20shouldn't%20be,and%20742%20special%20mission%20aircraft.), America is the world leader in every significant category of military hardware, and has roughly 1.4 million active-duty military personnel. In 2020, the Stockholm International Peace Research Institute (SIPRI) [found](https://www.pgpf.org/blog/2020/05/the-united-states-spends-more-on-defense-than-the-next-10-countries-combined) that the U.S. allocated more to its military budget than the next 10 nations combined. American military spending is about 2.7 times greater than that of China — which has a much larger population — and more than 10 times higher than Russia's, or that of any other single country. Meanwhile, bureaucratic and operational waste within the defense budget abound. In 2016, for example, it was discovered that the Pentagon had [buried an internal study](https://www.washingtonpost.com/investigations/pentagon-buries-evidence-of-125-billion-in-bureaucratic-waste/2016/12/05/e0668c76-9af6-11e6-a0ed-ab0774c1eaa5_story.html) finding that it had spent some $125 billion in wasteful business operations. More recently, it was [discovered](https://www.vice.com/en/article/939kxa/some-things-we-could-have-done-with-the-billions-wasted-on-a-broken-f-35) that the Pentagon's F-35 fighter jet program — which costed taxpayers somewhere in the neighborhood of $1.5 trillion — has been riddled with software glitches and operational failures since 2006, rendering an untold number of fighter jets (each one costing $100 million) not flight-ready. In spite of all its administrative bloat and operational dysfunction, the military remains exceptionally well-funded. Why, then, would the NSCAI insist it needs billions more for a hypothetical arms race against badly underfunded opponents? The report's authors may tell a better story than the report itself. Jack Poulson, a former Google employee who [resigned](https://theintercept.com/2018/09/13/google-china-search-engine-employee-resigns/) over the company's plan to launch a censored version of its search engine in China, told Salon that profit motives is deeply entrenched in the NSCAI report. "It should not come as a surprise that a commission packed with tech billionaires would call for increased intellectual property protections, oppose regulation (including on Lethal Autonomous Weapons), propose toothless ethics principles, and call for more federal funding of their industry," Poulson said in a statement. Indeed, many commission members are past and present tech executives of companies on the fore of AI — companies that have much to gain from future contracting deals with the Pentagon. The commission's chair, for example, is Eric Schmidt, the former CEO of Google, who remains — as Poulson pointed out — a major shareholder in Alphabet, Google's parent company. Google's head of AI, Andrew Moore, is also a member of the NSCAI. Google already has an extensive history of working with the Pentagon. According to The Intercept, in a federally-funded $70 million program called Project Maven, Google [developed](https://theintercept.com/2018/03/06/google-is-quietly-providing-ai-technology-for-drone-strike-targeting-project/) "algorithmic warfare initiative to apply artificial intelligence solutions to drone targeting." The company [expecting](https://www.theverge.com/2018/6/1/17418406/google-maven-drone-imagery-ai-contract-expire) that revenue would steadily rise from $15 million to $250 million a year for such defense projects. In April of 2018, however, 3,000 Google employees signed an open letter decrying the company's involvement in defense technology, a move that eventually led to Google's ultimate decision to back out of the deal. Schmidt strongly objected to Google's decision, calling it an "[aberration](https://nypost.com/2021/03/02/ai-panel-urges-us-to-boost-tech-skills-amid-chinas-rise/)" within the tech industry, which he felt was otherwise inclined to collaborate with the Defense Department. Former Undersecretary of the Navy Robert Work, the vice chairman of NSCAI, called Google's decision "hypocritical," [using language](https://www.voanews.com/silicon-valley-technology/former-us-defense-official-says-google-has-stepped-moral-hazard) that suggested a new cold war is already underway: "Anything that's going on in the AI center in China is going to the Chinese government and then will ultimately end up in the hands of the Chinese military." Other members of the commission include Oracle CEO Safra Catz, Microsoft chief scientific officer Eric Horvitz, and Andrew Jassy, the future CEO of Amazon Web Services, all of whom received cloud awards as part of the CIA's Commercial Cloud Enterprise (C2E), as Poulson noted. Oracle, Amazon and Microsoft, in fact, are currently involved in an acrimonious legal battle over a $10 billion cloud-computing contract called the Joint Enterprise Defense Initiative (JEDI). The deal was initially considered to be "gift-wrapped" for Amazon until Oracle butted in, [alleging improprieties](https://www.extremetech.com/computing/320577-pentagon-may-dump-10-billion-jedi-program-over-microsoft-amazon-fight). In an odd turn of events, the Pentagon awarded the contract to Microsoft, prompting Amazon to sue the federal government for anti-Amazon bias, based on ex-President Trump's overheated rhetoric. When it comes to securing Big Tech's enormous future contracts with the Pentagon, it appears that Jassy, Catz and Horvitz have set aside their mutual grievances for the time being Other board members of NSCAI include Gilman Louie and Christopher Darby, who are the founder and vice president (respectively) of a CIA-funded nonprofit called In-Q-Tel, which invests money in private companies who are developing technologies that might be useful to the intelligence community. According to a Wall Street Journal [investigation](https://www.wsj.com/articles/the-cias-venture-capital-firm-like-its-sponsor-operates-in-the-shadows-1472587352) from 2015, half of In-Q-Tel's trustees were financially connected to private companies in which In-Q-Tel had invested. Another board member, William Mark, a vice president of SRI International, has served on the Defense Advanced Research Projects Agency (DARPA), a government-run program that [partners with a variety of private companies and research institutions](http://www.darpa.mil/about-us/about-darpa) to "make pivotal investments in breakthrough technologies for national security." DARPA has awarded SRI numerous contracts for the development of speech recognition, translation and, most recently, [deep-fake recognition systems](https://techcrunch.com/2018/04/30/deepfakes-fake-videos-darpa-sri-international-media-forensics/). In other words, nearly everyone involved in preparing or supporting the NSCAI report would seem likely to benefit from the perception that the U.S. is falling behind other nations in vital defense technology. The Defense Department, Poulson told Salon, "prefers to run the race as if it is losing — which happens to increase military budgets, justify post-government consulting careers and help tech CEOs oppose regulation." It's only natural that government authorities would seek out industry experts to consult on AI projects — it's a fast-developing field that almost no one outside the tech world understands. Poulson wonders, however, "whether the U.S. will give human rights organizations — such as Human Rights Watch and the Campaign to Stop Killer Robots — as much of a seat at the table as it does tech billionaires." The very fact that the NSCAI is stacked with panel members with an obvious incentive to weaponize new technologies raises the question whether there needs to be an AI "arms race" at all. That term, of course, harkens back to Cold War hysteria surrounding the threat of nuclear annihilation, which led U.S. lawmakers to grow unduly concerned with the "missile gap," a widely held misconception that the Soviet Union was outpacing the U.S. with superior ballistic missile capabilities. (As intelligence sources knew even at the time, the Soviet nuclear arsenal was in bad shape and much smaller than advertised.) Arms control strategies, in fact, may be a more effective strategy in the AI realm, just as it was with nuclear missiles, especially given that America already collaborates heavily with China in AI research. As Graham Webster [wrote recently](https://www.technologyreview.com/2018/12/19/138211/the-us-and-china-arent-in-a-cold-war-so-stop-calling-it-that/) in MIT Tech Review: Unlike the US and USSR, in which science and technology developed on largely independent tracks, the US and China are part of a globally intertwined ecosystem. Even if the US and China cut off trade with each other, both countries would still have to worry about security risks from components, since risks along the supply chain exist everywhere. [For example](https://www.newamerica.org/cybersecurity-initiative/reports/essay-reframing-the-us-china-ai-arms-race/problem-1-arms-race-framing-is-winner-takes-all), Alibaba, a tech giant on the forefront of AI, has multiple offices in the U.S., and Google AI chief Jeff Dean is an adviser at China's Tsinghua University, which opened an Institute for Artificial Intelligence in June 2018. Stanford University's Artificial Intelligence lab has a partnership with one of China's biggest retailers. In other words, an arms race in which the two nations are locked in silos of information, research and development is not just ethically dubious but logistically impossible. Will China and Russia explore uses of AI in weapons of the future? Almost certainly — both countries have already [signaled](https://www.theverge.com/2017/9/4/16251226/russia-ai-putin-rule-the-world) movement in that direction. But if American politicians and scientists want to maximize the potential of AI, framing its development in terms of an international "arms race" seems like a strategic and philosophical mistake on a huge scale. AI has the potential to revolutionize [health care](https://www.healthcareitnews.com/news/emea/uk-hospital-first-use-ai-cancer-treatment-tool#:~:text=The%20technology%20computes%20hospital%20data,on%20the%20quality%20of%20care.), [education](https://www.nytimes.com/2021/02/23/technology/ai-innovation-privacy-seniors-education.html), [climate science](https://www.forbes.com/sites/bernardmarr/2021/01/04/how-artificial-intelligence-can-power-climate-change-strategy/?sh=69174b6a3482) and many other fields — and those things all play a fundamental role in national security. But these new technologies will not make America more secure if they are understood as weapons of international combat.

They can’t solve Horowitz – other countries are developing LAWs and no international follow-on ev means it doesn’t apply. AND the US can just buy the weapons from companies in other countries.

#### AI R&D is on the rise – military innovation is the driving cause

New ’18 [Joshua, was a senior policy analyst at the Center for Data Innovation, “Fighting Military AI Research Undermines Social and Economic Progress”, 10-19-2018, https://datainnovation.org/2018/10/fighting-military-ai-research-undermines-social-and-economic-progress/]PM

Unfortunately, these concerns overshadow the vast amount of valuable AI research taking place in U.S. defense agencies. The Defense Advanced Research Projects Agency (DARPA) alone is investing heavily in AI R&D efforts that could generate crucial breakthroughs that would benefit broad swathes of AI applications beyond military ones. For example, in 2017, DARPA allocated $75 million for its Explainable AI (XAI) program to spur breakthroughs in machine learning techniques that could explain themselves or be more interpretable by humans without sacrificing performance (there can be as-of-yet inescapable tradeoffs between accuracy and interpretability for advanced machine learning systems). Explainable AI would be enormously beneficial for applications ranging from judicial decision-making to medical diagnostic software, and would alleviate pervasive concerns about the potential for AI to be biased and unfairly discriminate. Just recently, DARPA also announced its Machine Common Sense program, which aims to improve AI’s ability to understand the world and communicate naturally, as AI currently can only understand and evaluate very narrow types of problems that do not require outside knowledge. AI with common sense would be an enormous boon to practically every conceivable application of AI, enabling it to intuit, for example, that solid objects cannot pass through one another, which AI expert Oren Etzioni describes as the “holy grail of AI for 35 years or more.” The list of broadly useful AI R&D initiatives at DARPA is long, including using AI to discover new molecules that could lead to new medical treatments, using AI and smartphones to conduct ongoing, passive health monitoring, and using AI to uncover and account for bias in datasets.

#### The plan destroys all AI R&D in the name of potential military application

New ’18 [Joshua, was a senior policy analyst at the Center for Data Innovation, “Fighting Military AI Research Undermines Social and Economic Progress”, 10-19-2018, https://datainnovation.org/2018/10/fighting-military-ai-research-undermines-social-and-economic-progress/]PM

These and other projects are part of DARPA’s “AI Next” campaign, a $2 billion initiative to “advance the state-of-the-art” in AI. These R&D efforts will benefit the military’s use of AI, to be sure, but will also benefit applications that generate social and economic value in countless ways. Resisting such efforts due to their potential military application is fundamentally a disagreement about the ethics of defense activities and warfare. Debating how nations should govern and use autonomous weapons has its place in policymaking, but sabotaging important AI research that can serve the public good as a means of avoiding confronting these issues head on is counterproductive and will harm innovation. There are compelling reasons to pursue the development of AI explicitly for defense purposes, as countries such as China and Russia develop autonomous systems of their own. However, as policymakers responsible for funding the federal government’s R&D activities evaluate agency budgets, they should be careful to recognize that this technology is not just about killer robots: AI research in defense can create immeasurable benefits that can be broadly enjoyed by the public and shying away from these efforts will leave Americans worse off.

#### AI is the ONLY way to preserve biodiversity – traditional methods fail

Joshi 10/08 [Naveen, Founder and CEO of Allerin, a software solutions provider that delivers innovative and agile solutions that enable to automate, inspire and impress, “CONSERVING BIODIVERSITY WITH AI”, 10-08-2020, https://www.bbntimes.com/technology/conserving-biodiversity-with-ai]PM

The use of AI for biodiversity conservation can help prevent the extinction of plants and animals and thus maintain a stable ecosystem. The extinction of plants and animals such as Rhynia, Pluchea Glutinosa, Dodo, Great Auk, Tasmanian Tiger, and Western Black Rhinoceros in recent years is a matter of great concern since it adversely affects our ecosystem. Every species of plants and animals is important. Why? The existence of both plants and animals has always been vital to humans. Extinction of organisms disrupts the food chain and hence affects the ecosystem. Therefore, humans are very much dependent on plants and animals for survival. Hence precautionary measures should be taken to maintain the stability of the ecosystem. The traditional biodiversity conservation methods have not shown much impact lately. Thus, the use of technology such as ML or AI for biodiversity conservation can help prevent further extinction of plants and animals. The use of AI can help prevent the extinction of endangered plants and animals. Let's see how AI can be used for biodiversity conservation: With the recent development of AI-powered devices for the conservation of animals, we can now prevent wildlife extinction. After the extinction of western African rhinoceros, African elephants are next on the verge of going extinct due to the involvement of extensive poaching. According to a report by HuffPost, African elephants may be extinct by the year 2020. Due to this reason, an American multinational corporation and technology company has taken a step forward to stop poachers attack African elephants. The company has come with an AI-based technology security system that promotes anti-poaching. The AI-based technology system uses a camera that detects poachers planning to attack an animal and subsequently generates an alert to the park rangers in real time. According to the Wild Heart Wildlife Foundation, one elephant is killed every 15 minutes due to illegal hunting. Hence, this AI-based system can prevent illegal hunting of animals to a great extent. The AI-based system uses a vision processor with neural network algorithms to detects an object and classify images inside the camera. According to the company that has invested in this technology the AI-based system has helped cut down poaching at Serengeti National Park in Africa. The AI-based system has detected members from over 20 different poaching gangs within the first 15 months of its installation. Similarly, a number of such AI-based devices are manufactured by technology companies that can greatly help in animal conservation. Plants are very beneficial for human lives and greatly help in fulfilling our necessities. They help fulfill our basic necessities as they can provide us with food, shelter, and medicine. The more the number of trees present in an environment, the greater is the amount of oxygen produced. Hence, plants greatly help in maintaining the stability of the ecosystem. Based on a report by Mongabay, according to scientists, one in every five plant species are on the verge of being extinct. This clearly implies how important it is to conserve plants. The California Academy of Sciences and National Geographic Society have jointly developed an AI-based networking platform that can help in the conservation of plants globally. The AI-based platform allows its users to click and share photos of various species of plants in real time. It also allows the other community members to identify the photos of the specific plant and confirm the plant's presence, whether if such a plant already exists. In this way, the AI-based networking platform can help discover new species of plants worldwide. This technology has proved to be a sigh of relief for scientists. It used to take hundreds of years by scientists for the collection of data about various types of plants and their existence. Now, with the help of this AI-based platform, scientists can collect data much effectively and on a large scale, and thus they can suggest measures to prevent the extinction of plants.

#### Biodiversity loss causes extinction – IPBES report proves

Niranjan ’19 [Ajit, environment and globalization reporter in Berlin, “Why biodiversity loss hurts humans as much as climate change”, 06-05-2019, https://www.dw.com/en/why-biodiversity-loss-hurts-humans-as-much-as-climate-change/a-48579014]PM

Biodiversity loss is as big a threat to humans as climate change, said UN biodiversity chief Robert Watson last week at a conference in Paris to release a landmark report on global biodiversity and ecosystems. "The continuing loss of biodiversity will undermine our ability for poverty reduction, food and water security, human health and the overall goal of leaving nobody behind." The report, the first of its kind since 2005 and published today by the Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES), warns of grave consequences to humanity from mass die-offs and degradation of nature. Drawing together the work of more than 400 experts, it paints a bleak picture of a world in which essentials such as food and drinking water are endangered through species and ecosystem decline. The unprecedented and accelerating deterioration of nature in the past 50 years has been driven by changes in land and sea use, exploitation of living beings, climate change, pollution and invasive species, the report found. These five drivers are, in turn, underpinned by societal behaviors ranging from consumption to governance. In a blow to human progress, damage to ecosystems undermines 35 of 44 UN sustainable development targets for poverty, hunger, health, water, cities climate, oceans and land, the authors found. Diplomats from 130 nations gathered in Paris last week to agree on the final wording of the report's summary for policymakers. "The loss of species, ecosystems and genetic diversity is already a global and generational threat to human well-being," said Watson. "Protecting the invaluable contributions of nature to people will be the defining challenge of decades to come." Biodiversity, a contraction of biological diversity, means the abundance and variety of life on the planet. The definition encompasses more than just the creatures we can see. It ranges from tiny genes, bacteria, plants and animals, right up to ecosystems such as the Amazon rainforest and Great Barrier Reef. That makes it hard to count — and even harder to value. While there are about 1.5 million identified species in the world, scientists estimate the true figure may be closer to ten million or even as many as two billion. Many organisms are so small they can only be identified as distinct species through DNA sequencing. "If you think about biodiversity, you think about tigers and polar bears," said Rebecca Shaw, chief scientist at the World Wildlife Fund. "Those species are very important — but also important are the species you never see and talk about." Without bees pollinating crops and trees turning carbon dioxide into oxygen, even basic human tasks such as eating and breathing become harder. But quieter losses hurt people too, such as the decline of medicinal plants and mangroves that protect coastlines. The ways in which organisms interact mean the decline of any single species can trigger unexpected losses in the wider ecosystem. For instance, a fall in earthworms, fungi or soil microbes limits the amount of recycled nutrients in the soil and the number of holes for rainwater to flow through, stunting crop growth and hindering humanity's ability to feed itself. "We don't consider that nature, but it is nature," said Shaw. "Not paying attention to all those complex interactions in the soil — and thinking we can just put on fertilizer or pesticide and have it stay the same productive soil into the next generation — is foolish." The report found that about a quarter of the plant and animal species assessed face extinction, many within decades, unless urgent action is taken. Counted by biomass, humans comprise just 0.01 % of global biodiversity. But the report details the outsized ways in which our species has endangered others by razing forests, polluting rivers, overfishing oceans, killing off insects, and otherwise hurting nature in a headlong push to extract its resources. "Nature makes human development possible but our relentless demand for the earth’s resources is accelerating extinction rates and devastating the world’s ecosystems," said Joyce Msuya, acting head of UN Environment.

#### No extinction.

Wigner et al. 14, Eugene P. Wigner was a Professor of Mathematical Physics at Princeton University and was a Nobel Laureate. Cresson Kearny was a civil defense researcher at the Hudson Institute, a US Army Major and Legion of Merit recipient, had a degree in Civil Engineering from Princeton University, and had two degrees in Geology from Oxford University. Arnold Jagt is a systems engineer and content digitizer. (“Ch. 1: The Dangers from Nuclear Weapons: Myths and Facts”, http://www.oism.org/nwss/s73p912.htm, Updated on 11/29/2014, Originally published in 2004) Kerwin

An all-out nuclear war between Russia and the United States would be the worst catastrophe in history, a tragedy so huge it is difficult to comprehend. Even so, it would be far from the end of human life on earth. The dangers from nuclear weapons have been distorted and exaggerated, for varied reasons. These exaggerations have become demoralizing myths, believed by millions of Americans. While working with hundreds of Americans building expedient shelters and life-support equipment, I have found that many people at first see no sense in talking about details of survival skills. Those who hold exaggerated beliefs about the dangers from nuclear weapons must first be convinced that nuclear war would not inevitably be the end of them and everything worthwhile. Only after they have begun to question the truth of these myths do they become interested, under normal peacetime conditions, in acquiring nuclear war survival skills. Therefore, before giving detailed instructions for making and using survival equipment, we will examine the most harmful of the myths about nuclear war dangers, along with some of the grim facts. ° Myth: Fallout radiation from a nuclear war would poison the air and all parts of the environment. It would kill everyone. (This is the demoralizing message of On the Beach and many similar pseudoscientific books and articles.) ° Facts: When a nuclear weapon explodes near enough to the ground for its fireball to touch the ground, it forms a crater. (See Fig. 1.1.) Fig. 1.1. A surface burst. In a surface or near-surface burst, the fireball touches the ground and blasts a crater. ORNL-DWG 786264 Book Page: 12 Many thousands of tons of earth from the crater of a large explosion are pulverized into trillions of particles. These particles are contaminated by radioactive atoms produced by the nuclear explosion. Thousands of tons of the particles are carried up into a mushroom-shaped cloud, miles above the earth. These radioactive particles then fall out of the mushroom cloud, or out of the dispersing cloud of particles blown by the winds thus becoming fallout. Each contaminated particle continuously gives off invisible radiation, much like a tiny X-ray machine while in the mushroom cloud, while descending, and after having fallen to earth. The descending radioactive particles are carried by the winds like the sand and dust particles of a miles-thick sandstorm cloud except that they usually are blown at lower speeds and in many areas the particles are so far apart that no cloud is seen. The largest, heaviest fallout particles reach the ground first, in locations close to the explosion. Many smaller particles are carried by the winds for tens to thousands of miles before falling to earth. At any one place where fallout from a single explosion is being deposited on the ground in concentrations high enough to require the use of shelters, deposition will be completed within a few hours. The smallest fallout particles those tiny enough to be inhaled into a person's lungs are invisible to the naked eye. These tiny particles would fall so slowly from the four-mile or greater heights to which they would be injected by currently deployed Soviet warheads that most would remain airborne for weeks to years before reaching the ground. By that time their extremely wide dispersal and radioactive decay would make them much less dangerous. Only where such tiny particles are promptly brought to earth by rain- outs or snow-outs in scattered "hot spots," and later dried and blown about by the winds, would these invisible particles constitute a long-term and relatively minor post-attack danger. The air in properly designed fallout shelters, even those without air filters, is free of radioactive particles and safe to breathe except in a few' rare environments as will be explained later. Fortunately for all living things, the danger from fallout radiation lessens with time. The radioactive decay, as this lessening is called, is rapid at first, then gets slower and slower. The dose rate (the amount of radiation received per hour) decreases accordingly. Figure 1.2 illustrates the rapidity of the decay of radiation from fallout during the first two days after the nuclear explosion that produced it. R stands for roentgen, a measurement unit often used to measure exposure to gamma rays and X rays. Fallout meters called dosimeters measure the dose received by recording the number of R. Fallout meters called survey meters, or dose-rate meters, measure the dose rate by recording the number of R being received per hour at the time of measurement. Notice that it takes about seven times as long for the dose rate to decay from 1000 roentgens per hour (1000 R/hr) to 10 R/hr (48 hours) as to decay from 1000 R/hr to 100 R/hr (7 hours). (Only in high-fallout areas would the dose rate 1 hour after the explosion be as high as 1000 roentgens per hour.) Book Page: 13 If the dose rate 1 hour after an explosion is 1000 R/hr, it would take about 2 weeks for the dose rate to be reduced to 1 R/hr solely as a result of radioactive decay. Weathering effects will reduce the dose rate further,' for example, rain can wash fallout particles from plants and houses to lower positions on or closer to the ground. Surrounding objects would reduce the radiation dose from these low-lying particles. Figure 1.2 also illustrates the fact that at a typical location where a given amount of fallout from an explosion is deposited later than 1 hour after the explosion, the highest dose rate and the total dose received at that location are less than at a location where the same amount of fallout is deposited 1 hour after the explosion. The longer fallout particles have been airborne before reaching the ground, the less dangerous is their radiation. Within two weeks after an attack the occupants of most shelters could safely stop using them, or could work outside the shelters for an increasing number of hours each day. Exceptions would be in areas of extremely heavy fallout such as might occur downwind from important targets attacked with many weapons, especially missile sites and very large cities. To know when to come out safely, occupants either would need a reliable fallout meter to measure the changing radiation dangers, or must receive information based on measurements made nearby with a reliable instrument. The radiation dose that will kill a person varies considerably with different people. A dose of 450 R resulting from exposure of the whole body to fallout radiation is often said to be the dose that will kill about half the persons receiving it, although most studies indicate that it would take somewhat less.1 (Note: A number written after a statement refers the reader to a source listed in the Selected References that follow Appendix D.) Almost all persons confined to expedient shelters after a nuclear attack would be under stress and without clean surroundings or antibiotics to fight infections. Many also would lack adequate water and food. Under these unprecedented conditions, perhaps half the persons who received a whole-body dose of 350 R within a few days would die.2 Fortunately, the human body can repair most radiation damage if the daily radiation doses are not too large. As will be explained in Appendix B, a person who is healthy and has not been exposed in the past two weeks to a total radiation dose of more than 100 R can receive a dose of 6 R each day for at least two months without being incapacitated. Only a very small fraction of Hiroshima and Nagasaki citizens who survived radiation doses some of which were nearly fatal have suffered serious delayed effects. The reader should realize that to do essential work after a massive nuclear attack, many survivors must be willing to receive much larger radiation doses than are normally permissible. Otherwise, too many workers would stay inside shelter too much of the time, and work that would be vital to national recovery could not be done. For example, if the great majority of truckers were so fearful of receiving even non-incapacitating radiation doses that they would refuse to transport food, additional millions would die from starvation alone. ° Myth: Fallout radiation penetrates everything; there is no escaping its deadly effects. ° Facts: Some gamma radiation from fallout will penetrate the shielding materials of even an excellent shelter and reach its occupants. However, the radiation dose that the occupants of an excellent shelter would receive while inside this shelter can be reduced to a dose smaller than the average American receives during his lifetime from X rays and other radiation exposures normal in America today. The design features of such a shelter include the use of a sufficient thickness of earth or other heavy shielding material. Gamma rays are like X rays, but more penetrating. Figure 1.3 shows how rapidly gamma rays are reduced in number (but not in their ability to penetrate) by layers of packed earth. Each of the layers shown is one halving-thickness of packed earth- about 3.6 inches (9 centimeters).3 A halving- thickness is the thickness of a material which reduces by half the dose of radiation that passes through it. The actual paths of gamma rays passing through shielding materials are much more complicated, due to scattering, etc., than are the straight-line paths shown in Fig. 1.3. But when averaged out, the effectiveness of a halving-thickness of any material is approximately as shown. The denser a substance, the better it serves for shielding material. Thus, a halving-thickness of concrete is only about 2.4 inches (6.1 cm). Book Page: 14 Fig. 1.3. Illustration of shielding against fallout radiation. Note the increasingly large improvements in the attenuation (reduction) factors that are attained as each additional halving-thickness of packed earth is added. ORNL-DWG 78-18834 If additional halving-thicknesses of packed earth shielding are successively added to the five thicknesses shown in Fig. 1.3, the protection factor (PF) is successively increased from 32 to 64, to 128, to 256, to 512, to 1024, and so on. ° Myth: A heavy nuclear attack would set practically everything on fire, causing "firestorms" in cities that would exhaust the oxygen in the air. All shelter occupants would be killed by the intense heat. ° Facts: On aclear day, thermal pulses (heat radiation that travels at the speed of light) from an air burst can set fire to easily ignitable materials (such as window curtains, upholstery, dry newspaper, and dry grass) over about as large an area as is damaged by the blast. It can cause second-degree skin burns to exposed people who are as far as ten miles from a one-megaton (1 MT) explosion. (See Fig. 1.4.) (A 1-MT nuclear explosion is one that produces the same amount of energy as does one million tons of TNT.) If the weather is very clear and dry, the area of fire danger could be considerably larger. On a cloudy or smoggy day, however, particles in the air would absorb and scatter much of the heat radiation, and the area endangered by heat radiation from the fireball would be less than the area of severe blast damage. Book Page: 15 Fig. 1.4. An air burst. Thefireball does not touch the ground. No crater. An air burst produces only extremely small radioactive particles-so small that they are airborne for days to years unless brought to earth by rain or snow. Wet deposition of fallout from both surface and air bursts can result in '"hot spots" at, close to, or far from ground zero. However, such '"hot spots" from air bursts are much less dangerous than the fallout produced by the surface or near-surface bursting of the same weapons. The main dangers from an air burst are the blast effects, the thermal pulses of intense light and heat radiation, and the very penetrating initial nuclear radiation from the fireball. ORNL.DWG 78.6267 "Firestorms" could occur only when the concentration of combustible structures is very high, as in the very dense centers of a few old American cities. At rural and suburban building densities, most people in earth- covered fallout shelters would not have their lives endangered by fires. ° Myth: In theworst-hit parts of Hiroshima and Nagasaki where all buildings were demolished, everyone was killed by blast, radiation, or fire. ° Facts: InNagasaki, some people survived uninjured who were far inside tunnel shelters built for conventional air raids and located as close as one-third mile from ground zero (the point directly below the explosion). This was true even though these long, large shelters lacked blast doors and were deep inside the zone within which all buildings were destroyed. (People far inside long, large, open shelters are better protected than are those inside small, open shelters.) Fig. 1.5. Undamaged earth-covered family shelter in Nagasaki. Many earth-covered family shelters were essentially undamaged in areas where blast and fire destroyed all buildings. Figure 1.5 shows a typical earth covered, backyard family shelter with a crude wooden frame. This shelter was essentially undamaged, although less than 100 yards from ground zero at Nagasaki.4 The calculated maximum overpressure (pressure above the normal air pressure) was about 65 pounds per square inch (65 psi). Persons inside so small a shelter without a blast doorwould have been killed by blast pressure at this distance from the explosion. However, in a recent blast test,5 an earth-covered, expedient Small-Pole Shelter equipped with blast doors was undamaged at 53 psi. The pressure rise inside was slight not even enough to have damaged occupants' eardrums. If poles are available, field tests have indicated that many families can build such shelters in a few days. The great life-saving potential of blast-protective shelters has been proven in war and confirmed by blast tests and calculations. For example, the area in which the air bursting of a 1-megaton weapon would wreck a 50-psi shelter with blast doors in about 2.7 square miles. Within this roughly circular area, practically all them occupants of wrecked shelters would be killed by blast, carbon monoxide from fires, or radiation. The same blast effects would kill most people who were using basements affording 5 psi protection, over an area of about 58 square miles.6 ° Myth: Because some modern H-bombs are over 1000 times as powerful as the A-bomb that destroyed most of Hiroshima, these H-bombs are 1000 times as deadly and destructive. ° Facts: A nuclear weapon 1000 times as powerful as the one that blasted Hiroshima, if exploded under comparable conditions, produces equally serious blast damage to wood-frame houses over an area up to about 130 times as large, not 1000 times as large. Book Page: 16 For example, air bursting a 20-kiloton weapon at the optimum height to destroy most buildings will destroy or severely damage houses out to about 1.42 miles from ground zero.6 The circular area of at least severe blast damage will be about 6.33 square miles. (The explosion of a 20 kiloton weapon releases the same amount of energy as 20 thousand tons of TNT.) One thousand 20-kiloton weapons thus air burst, well separated to avoid overlap of their blast areas, would destroy or severely damage houses over areas totaling approximately 6,330 square miles. In contrast, similar air bursting of one 20- megaton weapon (equivalent in explosive power to 20 million tons of TNT) would destroy or severely damage the great majority of houses out to a distance of 16 miles from ground zero.6 The area of destruction would be about 800 square miles - not 6,330 square miles. Today few if any of Russia's huge intercontinental ballistic missiles (ICBMs) are armed with a 20-megaton warhead. Now a huge Russian ICBM, the SS-18, typically carries 10 warheads, each having a yield of 500 kilotons, each programmed to hit a separate target. See Jane's Weapon Systems, 1987-88. ° Myth: A Russian nuclear attack on the United States would completely destroy all American cities. ° Facts: As long as Soviet leaders are rational they will continue to give first priority to knocking out our weapons and other military assets that can damage Russia and kill Russians. To explode enough nuclear weapons of any size to completely destroy American cities would be an irrational waste of warheads. The Soviets can make much better use of most of the warheads that would be required to completely destroy American cities; the majority of those warheads probably already are targeted to knock out our retaliatory missiles by being surface burst or near-surface burst on their hardened silos, located far from most cities and densely populated areas. Unfortunately, many militarily significant targets - including naval vessels in port and port facilities, bombers and fighters on the ground, air base and airport facilities that can be used by bombers, Army installations, and key defense factories - are in or close to American cities. In the event of an all-out Soviet attack, most of these '"soft" targets would be destroyed by air bursts. Air bursting (see Fig. 1.4) a given weapon subjects about twice as large an area to blast effects severe enough to destroy "soft" targets as does surface bursting (see Fig. 1.1) the same weapon. Fortunately for Americans living outside blast and fire areas, air bursts produce only very tiny particles. Most of these extremely small radioactive particles remain airborne for so long that their radioactive decay and wide dispersal before reaching the ground make them much less life- endangering than the promptly deposited larger fallout particles from surface and near-surface bursts. However, if you are a survival minded American you should prepare to survive heavy fallout wherever you are. Unpredictable winds may bring fallout from unexpected directions. Or your area may be in a "hot spot" of life-endangering fallout caused by a rain-out or snow-out of both small and tiny particles from distant explosions. Or the enemy may use surface or near-surface bursts in your part of the country to crater long runways or otherwise disrupt U.S. retaliatory actions by producing heavy local fallout. Today few if any of Russia's largest intercontinental ballistic missiles (ICBMs) are armed with a 20-megaton warhead. A huge Russian ICBM, the SS-18, typically carries 10 warheads each having a yield of 500 kilotons, each programmed to hit a separate target. See "Jane's Weapon Systems. 1987-1988." However, in March 1990 CIA Director William Webster told the U.S. Senate Armed Services Committee that ".... The USSR's strategic modernization program continues unabated," and that the SS-18 Mod 5 can carry 14 to 20 nuclear warheads. The warheads are generally assumed to be smaller than those of the older SS-18s. ° Myth: So much food and water will be poisoned by fallout that people will starve and die even in fallout areas where there is enough food and water. ° Facts: If the falloutparticles do not become mixed with the parts of food that are eaten, no harm is done. Food and water in dust-tight containers are not contaminated by fallout radiation. Peeling fruits and vegetables removes essentially all fallout, as does removing the uppermost several inches of stored grain onto which fallout particles have fallen. Water from many sources -- such as deep wells and covered reservoirs, tanks, and containers -- would not be contaminated. Even water containing dissolved radioactive elements and compounds can be made safe for drinking by simply filtering it through earth, as described later in this book. ° Myth: Most of the unborn children and grandchildren of people who have been exposed to radiation from nuclear explosions will be genetically damaged will be malformed, delayed victims of nuclear war. ° Facts: The authoritative study by the National Academy of Sciences, A Thirty Year Study of the Survivors qf Hiroshima and Nagasaki, was published in 1977. It concludes that the incidence of abnormalities is no higher among children later conceived by parents who were exposed to radiation during the attacks on Hiroshima and Nagasaki than is the incidence of abnormalities among Japanese children born to un-exposed parents. This is not to say that there would be no genetic damage, nor that some fetuses subjected to large radiation doses would not be damaged. But the overwhelming evidence does show that the exaggerated fears of radiation damage to future generations are not supported by scientific findings. ° Myth: Overkill would result if all the U.S. and U.S.S.R, nuclear weapons were used meaning not only that the two superpowers have more than enough weapons to kill all of each other's people, but also that they have enough weapons to exterminate the human race. Book Page: 17 ° Facts: Statements that the U.S. and the Soviet Union have the power to kill the world's population several times over are based on misleading calculations. One such calculation is to multiply the deaths produced per kiloton exploded over Hiroshima or Nagasaki by an estimate of the number of kilotons in either side's arsenal. (A kiloton explosion is one that produces the same amount of energy as does 1000 tons of TNT.) The unstated assumption is that somehow the world's population could be gathered into circular crowds, each a few miles in diameter with a population density equal to downtown Hiroshima or Nagasaki, and then a small (Hiroshima-sized) weapon would be exploded over the center of each crowd. Other misleading calculations are based on exaggerations of the dangers from long-lasting radiation and other harmful effects of a nuclear war. ° Myth: Blindness and a disastrous increase of cancers would be the fate of survivors of a nuclear war, because the nuclear explosions would destroy so much of the protective ozone in the stratosphere that far too much ultraviolet light would reach the earth's surface. Even birds and insects would be blinded. People could not work outdoors in daytime for years without dark glasses, and would have to wear protective clothing to prevent incapacitating sunburn. Plants would be badly injured and food production greatly reduced. ° Facts: Large nuclear explosions do inject huge amounts of nitrogen oxides (gasses that destroy ozone) into the stratosphere. However, the percent of the stratospheric ozone destroyed by a given amount of nitrogen oxides has been greatly overestimated in almost all theoretical calculations and models. For example, the Soviet and U.S. atmospheric nuclear test explosions of large weapons in 1952-1962 were calculated by Foley and Ruderman to result in a reduction of more than 10 percent in total ozone. (See M. H. Foley and M. A. Ruderman, 'Stratospheric NO from Past Nuclear Explosions", Journal of Geophysics, Res. 78, 4441-4450.) Yet observations that they cited showed no reductions in ozone.

Nor did ultraviolet increase. Other theoreticians calculated sizable reductions in total ozone, but interpreted the observational data to indicate either no reduction, or much smaller reductions than their calculated ones. A realistic simplified estimate of the increased ultraviolet light dangers to American survivors of a large nuclear war equates these hazards to moving from San Francisco to sea level at the equator, where the sea level incidence of skin cancers (seldom fatal) is highest- about 10 times higher than the incidence at San Francisco. Many additional thousands of American survivors might get skin cancer, but little or no increase in skin cancers might result if in the post-attack world deliberate sun tanning and going around hatless went out of fashion. Furthermore, almost all of today's warheads are smaller than those exploded in the large- weapons tests mentioned above; most would inject much smaller amounts of ozone-destroying gasses, or no gasses, into the stratosphere, where ozone deficiencies may persist for years. And nuclear weapons smaller than 500 kilotons result in increases (due to smog reactions) in upper tropospheric ozone. In a nuclear war, these increases would partially compensate for the upper-level tropospheric decreases-as explained by Julius S. Chang and Donald J. Wuebbles of Lawrence Livermore National Laboratory. ° Myth: Unsurvivable "nuclear winter" surely will follow a nuclear war. The world will be frozen if only 100 megatons (less than one percent of all nuclear weapons) are used to ignite cities. World-enveloping smoke from fires and the dust from surface bursts will prevent almost all sunlight and solar heat from reaching the earth's surface. Universal darkness for weeks! Sub-zero temperatures, even in summertime! Frozen crops, even in the jungles of South America! Worldwide famine! Whole species of animals and plants exterminated! The survival of mankind in doubt! ° Facts: Unsurvivable "nuclear winter" is a discredited theory that, since its conception in 1982, has been used to frighten additional millions into believing that trying to survive a nuclear war is a waste of effort and resources, and that only by ridding the world of almost all nuclear weapons do we have a chance of surviving. Non-propagandizing scientists recently havecalculated that the climatic and other environmental effects of even an all-out nuclear war would be much less severe than the catastrophic effects repeatedly publicized by popular astronomer Carl Sagan and his fellow activist scientists, and by all the involved Soviet scientists. Conclusions reached from these recent, realistic calculations are summarized in an article, "Nuclear Winter Reappraised", featured in the 1986 summer issue of Foreign Affairs, the prestigious quarterly of the Council on Foreign Relations. The authors, Starley L. Thompson and Stephen H. Schneider, are atmospheric scientists with the National Center for Atmospheric Research. They showed " that on scientific grounds the global apocalyptic conclusions of the initial nuclear winter hypothesis can now be relegated to a vanishing low level of probability." Book Page: 18 Their models indicate that in July (when the greatest temperature reductions would result) the average temperature in the United States would be reduced for a few days from about 70 degrees Fahrenheit to approximately 50 degrees. (In contrast, under the same conditions Carl Sagan, his associates, and the Russian scientists predicted a resulting average temperature of about 10 degrees below zero Fahrenheit, lasting for many weeks!) Persons who want to learn more about possible post-attack climatic effects also should read the Fall 1986 issue of Foreign Affairs. This issue contains a long letter from Thompson and Schneider which further demolishes the theory of catastrophic "nuclear winter." Continuing studies indicate there will be even smaller reductions in temperature than those calculated by Thompson and Schneider. Soviet propagandists promptly exploited belief in unsurvivable "nuclear winter" to increase fear of nuclear weapons and war, and to demoralize their enemies. Because raging city firestorms are needed to inject huge amounts of smoke into the stratosphere and thus, according to one discredited theory, prevent almost all solar heat from reaching the ground, the Soviets changed their descriptions of how a modern city will burn if blasted by a nuclear explosion. Figure 1.6 pictures how Russian scientists and civil defense officials realistically described - before the invention of "nuclear winter" - the burning of a city hit by a nuclear weapon. Buildings in the blasted area for miles around ground zero will be reduced to scattered rubble - mostly of concrete, steel, and other nonflammable materials - that will not burn in blazing fires. Thus in the Oak Ridge National Laboratory translation (ORNL-TR-2793) of Civil Defense. Second Edition (500,000 copies), Moscow, 1970, by Egorov, Shlyakhov, and Alabin, we read: "Fires do not occur in zones of complete destruction . . . that are characterized by an overpressure exceeding 0.5 kg/cm2 [- 7 psi]., because rubble is scattered and covers the burning structures. As a result the rubble only smolders, and fires as such do not occur." Fig. 1.6. Drawing with Caption in a Russian Civil Defense Training Film Strip. The blazing fires ignited by a surface burst are shown in standing buildings outside the miles-wide "zone of complete destruction," where the blast-hurled "rubble only smolders." Translation: [Radioactive] contamination occurs in the area of the explosion and also along the trajectory of the cloud which forms a radioactive track. Book Page: 19 Firestorms destroyed the centers of Hamburg, Dresden, and Tokyo. The old-fashioned buildings of those cities contained large amounts of flammable materials, were ignited by many thousands of small incendiaries, and burned quickly as standing structures well supplied with air. No firestorm has ever injected smoke into the stratosphere, or caused appreciable cooling below its smoke cloud. The theory that smoke from burning cities and forests and dust from nuclear explosions would cause worldwide freezing temperatures was conceived in 1982 by the German atmospheric chemist and environmentalist Paul Crutzen, and continues to be promoted by a worldwide propaganda campaign. This well funded campaign began in 1983 with televised scientific-political meetings in Cambridge and Washington featuring American and Russian scientists. A barrage of newspaper and magazine articles followed, including a scaremongering article by Carl Sagan in the October 30, 1983 issue of Parade, the Sunday tabloid read by millions. The most influential article was featured in the December 23,1983 issue of Science (the weekly magazine of the American Association for the Advancement of Science): "Nuclear winter, global consequences of multiple nuclear explosions," by five scientists, R. P. Turco, O. B. Toon, T. P. Ackerman, J. B. Pollack, and C. Sagan. Significantly, these activists listed their names to spell TTAPS, pronounced "taps," the bugle call proclaiming "lights out" or the end of a military funeral. Until 1985, non-propagandizing scientists did not begin to effectively refute the numerous errors, unrealistic assumptions, and computer modeling weakness' of the TTAPS and related "nuclear winter" hypotheses. A principal reason is that government organizations, private corporations, and most scientists generally avoid getting involved in political controversies, or making statements likely to enable antinuclear activists to accuse them of minimizing nuclear war dangers, thus undermining hopes for peace. Stephen Schneider has been called a fascist by some disarmament supporters for having written "Nuclear Winter Reappraised," according to the Rocky Mountain News of July 6, 1986. Three days later, this paper, that until recently featured accounts of unsurvivable "nuclear winter," criticized Carl Sagan and defended Thompson and Schneider in its lead editorial, "In Study of Nuclear Winter, Let Scientists Be Scientists." In a free country, truth will out - although sometimes too late to effectively counter fast-hittingpropaganda. Effective refutation of "nuclear winter" also was delayed by the prestige of politicians and of politically motivated scientists and scientific organizations endorsing the TTAPS forecast of worldwide doom. Furthermore, the weakness' in the TTAPS hypothesis could not be effectively explored until adequate Government funding was made available to cover costs of lengthy, expensive studies, including improved computer modeling of interrelated, poorly understood meteorological phenomena. Serious climatic effects from a Soviet-U.S. nuclear war cannot be completely ruled out. However, possible deaths from uncertain climatic effects are a small danger compared to the incalculable millions in many countries likely to die from starvation caused by disastrous shortages of essentials of modern agriculture sure to result from a Soviet-American nuclear war, and by the cessation of most international food shipments.