Notes

General Summary of the Affirmative

This affirmative argues that the United States should remove restrictions on high skilled immigration in order to insure that U.S. universities are able to attract the best students in the world. The thesis of the AFF is that foreign students choose to attend American universities because of the prospect that they will be able to stay and work in the United States after they graduate. Current visa policies are causing many students to doubt whether that is true.

The reason that high skilled immigrants are good for universities is that they tend to pay full tuition (unlike many domestic students who receive scholarships, grants and in-state discounts) and that they tend to enroll in advanced graduate programs that specialize in innovative research.

There are two main types of research:

- Basic (aka fundamental or pure) research, which is driven general scientific curiosity or interest rather than an expressed intention to create or invent something. It is generally a pre-requisite to other forms of research.
- Applied Research, which is designed to solve specific practical problems.

The AFF argues that universities fulfill a unique role in society by conducting basic research. The argument says that it is necessary for universities to do this research because profit motives prevent private companies from investing in it.

Despite the fact that it doesn't target specific problems, basic research is important, because it often yields new innovations that transform society and contribute to the economy.

General Summary of the Negative

In addition to case defense, there are two case turns that can be added to the 1NC frontline against the advantage.

The **Internal Brain Drain turn** argues that bringing immigrants into the US to study at universities is a bad thing, because it deters domestic students from entering into those fields of study.

The **Chinese Espionage turn** argues that bringing immigrants into the US to study allows China to steal technological secrets and use the innovations developed through research for themselves.

NEG

Innovation Advantage Answers

1NC — Innovation Advantage Answers

The economy is growing at unprecedented rates now.

ARNOLD and SCHNEIDER '18 (Chris and Avie; NPR, "U.S. Economy Surges To A 4.1 Percent Growth Pace In 2nd Quarter," 7/27, https://www.npr.org/2018/07/27/632640711/u-s-could-see-blockbuster-economic-growth-number-today)ww

The U.S. economy had a blockbuster second quarter, with growth surging to a **4.1 percent** pace, the Commerce Department said Friday. **That was nearly double the first quarter rate** of 2.2 percent **and the strongest pace in nearly four years**.

President **Trump has been steadfastly claiming that his policies will catapult the U.S. economy into a much higher rate of growth — 4 percent over the next few years**.

That would be about double the growth rate in recent years. **And it would almost certainly mean a big boost in the standard of living for many Americans, with higher wages and better public services as the government raked in more tax dollars from a booming economy**.

"We've accomplished an economic turnaround of historic proportions," Trump said in remarks at the White House Friday morning. "Once again, we are the economic envy of the entire world."

The president called the 4.1 percent rate "amazing" and said, "As the trade deals come in one by one, we're going to go higher."

Boosted by a 4-percent jump in consumer spending and a 13.3 percent surge in goods exports in the second quarter, **the economy expanded at its fastest pace since the 4.9-percent rate of the third quarter of 2014**.

"Consumers were really on a tear," said Ian Shepherdson, the chief economist of Pantheon Macroeconomics. Consumer spending, which accounts for nearly 70 percent of economic activity, has been growing at about 2.5 percent, he noted. "So to grow at 4 [percent] probably tells you people were spending the tax cuts that they enjoyed back in January, but that's extremely unlikely to happen again.

Peter Navarro, the top trade adviser to the president, told NPR Friday before the GDP report was released: "**What we're seeing in the Trump economy is wages going up for the first time in a long time**. **We're seeing unemployment go down to levels we haven't seen since the 1990s**. **This is a strong economy**. **This president's economic policies are succeeding**, and trade is a big part of that."

Trade Wars will have a larger effect on the economy than immigration.
COLVIN '18 (Geoff; Fortune, "The End is Near for the Economic Boom," 7/19, http://fortune.com/longform/economic-expansion-end-is-near/)ww

BY ITSELF, the Trump administration's immigration policies may not be enough to stop growth in its tracks. But another federal policy is making even more trouble at the border—this time with America's long-standing trading partners. Nascent trade wars with China, Europe, Canada, and Mexico—even if they don't last—have become yet another comorbidity for our aging expansion. U.S. companies that do most of their business abroad grew faster and were more profitable than the rest last year, just as in previous years, FactSet reports. Waging a trade war thus **disproportionately hurt**s **America's strongest engines of economic growth**.

By the numbers, the trade-related skirmishes so far are insignificant in America's $20 trillion-a-year **economy**. **Even the tit-for-tat imposition of tariffs** on $34 billion of trade **by the U.S. and China** in early July **will not, by itself, noticeably reduce GDP**. **Yet the effects could easily mushroom**, in two intertwined ways.

First, **even the biggest wars typically start with minor battles that spark an unstoppable cycle of escalation**. **In the current trade war, that appears to be underway**. Hostilities with China began in March when President Trump imposed tariffs on aluminum and steel imports, only about $2.7 billion of which come from Chinese producers. China responded with new tariffs on an equivalent amount of U.S. exports. The next day, Trump proposed tariffs on $50 billion of Chinese imports; China proposed retaliatory tariffs the day after that. On and on this went until the U.S. has now threatened tariffs on nearly all of America's $500 billion of Chinese imports, and China has vowed to retaliate "at any cost."

As the stakes get higher, the rhetoric gets more bellicose. China is "threatening United States companies, workers, and farmers who have done nothing wrong," Trump said in June. China's Trade Ministry called the speech "blackmail." When the latest tariffs took effect in July, a Chinese Communist Party newspaper warned that "Washington has obviously underestimated the giant force that the world's opposition and China's retaliation can produce."

As public threats become more explicit, backing down from them appears ever less likely. **That's how a piddling spat between the world's two largest economies, jointly the foundation of global economic growth, could become a historic trade war**.

But the second way the current dispute could damage the U.S. economy doesn't even require that hostilities get worse. **It requires only that people become less certain about where all this is headed**. **That effect—an "uncertainty shock,"** as Bank of America Merrill Lynch economist Michelle Meyer called it in a recent note—**is happening already**, and it worries the Fed. "Contacts in some Districts indicated that plans for capital spending had been scaled back or postponed as a result of uncertainty over trade policy," the Federal Open Market Committee reported from its June meeting, adding that "most participants" were concerned such

uncertainty could depress “business sentiment”—confidence, that is—“and investment spending.”

Don’t expect much more clarity anytime soon. **No one can predict where a large-scale trade war would lead**. The last one occurred in the 1930s, when today’s intricate, light-speed global supply chains would have been nearly unfathomable. Which leaves business decisionmakers only to wonder how all this shakes out.

Uncertainty prompts paralysis—and that’s no good for growth.

Economic decline doesn’t cause war — 2008 recession proves the economy will recover without military conflict.

US leadership unnecessary — the international order is durable and independent of US leadership

IKENBERY ’08 (John; professor of Politics and International Affairs at Princeton University, “The Rise of China and the Future of the West Can the Liberal System Survive?” Foreign Affairs, Jan/Feb)ww

Second is the coalition-based character of its leadership. **Past orders have tended to be dominated by one state. The stakeholders of the current Western order include a coalition of powers arrayed around the United States -- an important distinction**. These leading states, most of them advanced liberal democracies, do not always agree, but they are engaged in a continuous process of give-and-take over economics, politics, and security. Power transitions are typically seen as being played out between two countries, a rising state and a declining hegemon, and the order falls as soon as the power balance shifts. But in the current order, the larger aggregation of democratic capitalist states -- and the resulting accumulation of geopolitical power -- shifts the balance in the order's favor. Third, **the postwar Western order has an unusually dense, encompassing, and broadly endorsed system of rules and institutions.** Whatever its shortcomings, **it is more open and rule-based than any previous order**. State sovereignty and the rule of law are not just norms enshrined in the United Nations Charter. They are part of the deep operating logic of the order. To be sure, these norms are evolving, and the United States itself has historically been ambivalent about binding itself to international law and institutions -- and at no time more so than today. But the overall system is dense with multilateral rules and institutions -- global and regional, economic, political, and security-related. These represent one of the great breakthroughs of the postwar era. **They have laid the basis for unprecedented levels of cooperation and shared authority over the global system. The incentives these features create for China to integrate into the liberal international order are reinforced by the changed nature of the international economic**

environment -- especially the new interdependence driven by technology. The most farsighted Chinese leaders understand that globalization has changed the game and that China accordingly needs strong, prosperous partners around the world. From the United States' perspective, a healthy Chinese economy is vital to the United States and the rest of the world. Technology and the global economic revolution have created a logic of economic relations that is different from the past -- making the political and institutional logic of the current order all the more powerful. ACCOMMODATING THE RISE **The most important benefit of these features today is that they give the Western order a remarkable capacity to accommodate rising powers. New entrants into the system have ways of gaining status and authority and opportunities to play a role in governing the order. The fact that the United States, China, and other great powers have nuclear weapons also limits the ability of a rising power to overturn the existing order. In the age of nuclear deterrence, great-power war is**, thankfully, **no longer a mechanism of historical change**. War-driven change has been abolished as a historical process.

There are other causes of low enrollment — Trump cut funding for education and is de-emphasizing scientific approaches, which makes students want to study elsewhere. Changing visas doesn't solve.

"Brain Circulation" solves — returnees still benefit the US.

HAN et al '15 (Xueying; Center for Nanotechnology in Society – University of California-Santa Barbara, "Will They Stay or Will They Go? International Graduate Students and Their Decisions to Stay or Leave the U.S. upon Graduation," 3/11, http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0118183)ww

While the U.S. clearly pays a price **when the best post-graduates repatriate to their home countries, the loss of talent is not necessarily total. Students who return home often become part of a global innovation network, continuing to work with their colleagues in the U.S.** (and elsewhere), **encouraging their own students to attend school in the U.S., and contributing to global innovation in which the U.S. plays the major role and reaps many benefits**. As Luo and Wang (2002) demonstrate, **the migration of talent can create networks of expatriates and returnees who work together to conduct research or build businesses in both countries**.

Extend: "Economic Decline Doesn't Cause War"

Extend 1NC # ___ — Economic Decline Doesn't Cause War. The economy declined in 2008 without conflict, which disproves the thesis of the advantage.

They say:
[Write out what the 2AC said and your answers to it here. Then read more evidence.]

Economic decline doesn't lead to war.
CLARY '15 (Christopher; Ph.D. in Political Science from MIT, Postdoctoral Fellow, Watson Institute for International Studies, Brown University, "Economic Stress and International Cooperation: Evidence from International Rivalries," 4/22, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2597712)ww

Do economic downturns generate pressure for diversionary conflict? Or might downturns encourage austerity and economizing behavior in foreign policy? This paper provides new evidence that **economic stress is associated with conciliatory policies** between strategic rivals. For states that view each other as military threats, the biggest step possible toward bilateral cooperation is to terminate the rivalry by taking political steps to manage the competition. **Drawing on data from 109 distinct rival dyads** since 1950, **67 of which terminated**, the evidence suggests **rivalries were** approximately **twice as likely to terminate during** economic **downturns than** they were **during periods of economic normalcy**. This is true **controlling for all of the main alternative explanations** for peaceful relations between foes (democratic status, nuclear weapons possession, capability imbalance, common enemies, and international systemic changes), **as well as** many **other** possible **confounding variables**. This research questions existing theories claiming that economic downturns are associated with diversionary war, and instead argues that in certain circumstances **peace may result from economic troubles**. Defining and Measuring Rivalry and Rivalry Termination I define a rivalry as the perception by national elites of two states that the other state possesses conflicting interests and presents a military threat of sufficient severity that future military conflict is likely. Rivalry termination is the transition from a state of rivalry to one where conflicts of interest are not viewed as being so severe as to provoke interstate conflict and/or where a mutual recognition of the imbalance in military capabilities makes conflict-causing bargaining failures unlikely. In other words, rivalries terminate when the elites assess that the risks of military conflict between rivals has been reduced dramatically. This definition draws on a growing quantitative literature most closely associated with the research programs of William Thompson, J. Joseph Hewitt, and James P. Klein, Gary Goertz, and Paul F. Diehl.1 My definition conforms to that of William Thompson. In work with Karen Rasler, they define rivalries as situations in which "[b]oth actors view each other as a significant political-military threat and, therefore, an

enemy."2 In other work, Thompson writing with Michael Colaresi, explains further: The presumption is that decisionmakers explicitly identify who they think are their foreign enemies. They orient their military preparations and foreign policies toward meeting their threats. They assure their constituents that they will not let their adversaries take advantage. Usually, these activities are done in public. Hence, we should be able to follow the explicit cues in decisionmaker utterances and writings, as well as in the descriptive political histories written about the foreign policies of specific countries.3 Drawing from available records and histories, Thompson and David Dreyer have generated a universe of strategic rivalries from 1494 to 2010 that serves as the basis for this project's empirical analysis.4 This project measures rivalry termination as occurring on the last year that Thompson and Dreyer record the existence of a rivalry.5 Why Might Economic Crisis Cause Rivalry Termination? **Economic crises lead to conciliatory behavior through five primary channels. (1) Economic crises lead to austerity pressures, which** in turn **incent leaders to** search for ways to **cut defense expenditures. (2) Economic crises also encourage strategic reassessment, so** that leaders can argue to their peers and their publics that **defense spending can be arrested** without endangering the state. **This can lead to threat deflation**, where elites attempt to downplay the seriousness of the threat posed by a former rival. (3) If a state faces multiple threats, **economic crises provoke** elites to consider **threat prioritization**, a process that is postponed during periods of economic normalcy. **(4) Economic crises increase the political and economic benefit from international economic cooperation. Leaders seek foreign aid, enhanced trade, and increased investment from abroad** during periods of economic trouble. This search is made easier if tensions are reduced with historic rivals. **(5) Finally, during crises, elites are more prone to select leaders who are perceived as capable of resolving economic difficulties, permitting the emergence of leaders who hold heterodox foreign policy views.** Collectively, **these** mechanisms **make it much more likely that a leader will prefer conciliatory policies** compared to during periods of economic normalcy. This section reviews this causal logic in greater detail, while also providing historical examples that these mechanisms recur in practice.

Extend: "US Leadership Unnecessary"

Extend 1NC # ___ — US Leadership Unnecessary. Even if leadership was once valuable, other countries and institutions will prevent conflict even if the US declines. That's Ikenbery.

They say:
[Write out what the 2AC said and your answers to it here. Then read more evidence.]

There is no statistical support that US leadership prevents conflict.
FETTWEIS '17 (Christopher J.; Associate Professor of Political Science at Tulane University, "Unipolarity, Hegemony, and the New Peace," Security Studies, v. 26, n. 3)ww

To review, assuming for a moment that **US leaders** are subject to the same forces that affect every human being, they **overestimate the amount of control they have over other actors, and are not as important to decisions made elsewhere as they believe themselves to be**. And they probably perceive their own benevolence to be much greater than do others. **These common phenomena** all influence US beliefs in the same direction, and may well **increase the apparent explanatory power of hegemony beyond what the facts would otherwise support**. **The** United **S**tates **is** probably **not** as **central to the New Peace** as either liberals or neoconservatives believe.

In the end, **what can be said about the relationship between US power and international stability?** Probably **not much** that will satisfy partisans, and the pacifying virtue of US hegemony will remain largely an article of faith in some circles in the policy world. Like most beliefs, it will remain immune to alteration by logic and evidence. Beliefs rarely change, so debates rarely end.

For those not yet fully converted, however, perhaps it will be significant that **corroborating evidence for the relationship is extremely hard to identify**. **If indeed hegemonic stability exists, it does so without leaving much of a trace**. **Neither Washington's spending, nor its interventions, nor its overall grand strategy seem to matter much to the levels of armed conflict around the world** (apart from those wars that Uncle Sam starts). **The empirical record does not contain strong reasons to believe that unipolarity and the New Peace are related**, and insights from political psychology suggest that hegemonic stability is a belief particularly susceptible to misperception. **US leaders** probably exaggerate the degree to which their power matters, and **could retrench without much risk to themselves or the world around them**. Researchers will need to look elsewhere to explain why the world has entered into the most peaceful period in its history.

The good news from this is that the New Peace will probably persist for quite some time, no matter how dominant the United **S**tates **is, or what policies** President **Trump follows**, **or how**

much resentment its actions cause in the periphery. **The people of the twenty-first century are likely to be much safer and more secure than any of their predecessors**, even if many of them do not always believe it.

There is no reason to fear the decline of U.S. hegemony.

FETTWEIS '17 (Christopher J.; Associate Professor of Political Science at Tulane University, "Unipolarity, Hegemony, and the New Peace," Security Studies, v. 26, n. 3)ww

The New **Peace does not appear to be the result of unipolarity or US hegemony**. While that conclusion might not sit well with many US analysts, the news is not all bad, for **if** the current generation of declinists is right and **unipolarity's days are numbered, the odds are good that the world will not descend into** the **atavistic chaos** that haunts the neoconservative imagination. **The** United States **can adjust its grand strategy without fear in the Trump years, perhaps even letting the "unipolar moment" expire, because** the New **Peace may well be unrelated to its dominance**.6

Extend: "Other Causes of Low Enrollment"

Extend 1NC # ___ — Other Causes of Low Enrollment. The US is perceived as rejecting science at the highest levels — that will deter international students independent of immigration policies. The aff can't solve.

They say:
[Write out what the 2AC said and your answers to it here. Then read more evidence.]

Structural factors other than immigration are causing declines in international enrollment.
KHANNA '18 (Guarav; assistant professor of economics at University of California San Diego's School of Global Policy and Strategy, "Fewer international students could become a problem for US universities," The Hill, 7/28, http://thehill.com/opinion/education/399311-fewer-international-students-could-become-a-problem-for-us-universities)ww

In the past few years, there has been a slight drop in new international enrollment. What contributes to this slowdown? **Some commentators blame the recent socio-political climate in the United States, and possible difficulties with obtaining work visas after graduating**. This may well be an important factor: as we found in earlier research, the prospect of joining the U.S. job market makes U.S. universities attractive to many. In the same light, impending future difficulties to get an H-1B visa may discourage many from applying.

Yet, the slowdown in enrollment from abroad started even before the 2012 U.S. **election**. Saudi Arabia played a major role in this slowdown because its government cut funding (in response to falling oil prices) for the lucrative King Abdullah Scholarship. But **growth from China**, while still strong, **has slowed** as well. **Recent growth in China-based, high-quality universities at more affordable rates, a slowdown of income growth and currency appreciation, and a plateauing of school-leaving populations implies that this demand from abroad was never meant to last forever**.

These recent developments, then, raise questions on how public universities will adjust to such flagging demand from abroad. While state budgets have somewhat stabilized, the secular decline in appropriations may continue, as it has since the 1970s. Unless states step to up to adequately fund public universities, these institutions will have to turn to other innovative methods of raising revenue, or resort to the uncomfortable choices of raising tuition and cutting expenditures.

Declines in funding for scientific research are an alternative cause.

CAMPBELL '18 (Matthew; Bloomberg, "If Trump Gets His Way, America Won't Be No. 1 in Science Much Longer," 1/24, https://www.bloomberg.com/news/articles/2018-01-25/in-science-u-s-won-t-be-first-for-long-if-trump-gets-his-way)

It's hard to exaggerate the scale of America's historic edge in science. Four of the top five institutions in the QS ranking of world universities, one of the most prominent indexes of global higher education providers, are American, led by MIT and Stanford. Of the five most valuable technology companies in the world, four are based on the U.S. west coast. Apart from China, which has nurtured the growth of tech giants like AliBaba Group Holding Ltd. and Tencent Holdings Ltd. by largely closing off its markets to outside firms, no country has been able to create tech companies that can compete with the scale and pace of innovation afforded by the U.S. ecosystem.

"**Why is the U.S. the world leader today?**" asks Jeremy Farrar, director of the Wellcome Trust, which funds global scientific research. "**Because it has had**, independent of political persuasion, **sustained investment in the basic science and translational science base for 100 years**."

That dominance may be more fragile than it appears. **A huge proportion of so-called basic research**, which has no immediate industrial applications but can lead to transformative discoveries down the road, **depends on billions of dollars in annual federal-government funding**.

The **Trump** administration**'s initial 2018 budget proposal envisioned a cut** of almost $5.8 billion **in support for the** National Institutes of Health [**NIH**], representing 18 percent of the grant-making agency's budget. **Trump also proposed slashing** another $841 million from **the budget of the** National Science Foundation [**NSF**]. **Lawmakers have so far rejected deep cuts to science programs** in their draft budget legislation.

Global Competition

Yet even before the Trump-era, science funding was failing to keep pace with economic growth. Excluding defense, **U.S. federal funding for research and development declined from 0.6 percent of GDP in the 1970s to less than 0.4 percent today**, according to the American Association for the Advancement of Science.

They Say: "Basic Research Key"

Reliance on university research doesn't guarantee economic growth — the benefits only occur around centers of production, which aren't necessarily in the U.S.

ADLER '18 (David; economics researcher and writer whose work has appeared in City Journal, the Financial Times, and other publications, "The American Way of Innovation and Its Deficiencies," American Affairs, Summer, v. 2, n. 2, https://americanaffairsjournal.org/2018/05/the-american-way-of-innovation-and-its-deficiencies/)ww

The United States has a second source of innovation, and that is government-funded **basic research, mostly conducted at universities** and often funded through darpa (Defense Advanced Research Projects Agency). Here, the United States has been more successful. Basic research **has been the cornerstone of America's ability to achieve scientific advances** that expand the frontier of knowledge, build America's defense capacities, launch new industries, and lead to the creation of entirely new fields.

But there are drawbacks to relying upon this system as the sole source of innovation: **it largely excludes the late-stage, applied research needed for the mass deployment of new technology**. **Although universities may commercialize some of their research through licenses, they can play only a limited role, or more likely no role at all, when it comes to production**.

Universities and defense agencies **are not a perfect substitute for the vanished corporate system, which combined both advanced and applied research**. **Universities may create new ideas and technologies, but someone else has to apply those ideas and manufacture the products—and that increasingly takes place abroad**. **And this portends dire consequences for American jobs and the future dynamism of the U.S. economy**.

Economic geographers Jennifer Clark and the late Susan Christopherson found that **commercial spin-offs of technological innovations stemming from universities were unlikely to lead to large scale local job creation, at least without a skilled local labor force or venture capital system**. **Only a handful of U.S. regions**, such as the San Francisco Bay Area, **have the capabilities to absorb university innovations and build sizable industries around them**.

Christopherson and Clark write that the "**research on the commercialization of patents produced in universities shows that while universities in the periphery may be producing innovations, production is likely to migrate to the coastal centers**." They conclude, "**If we examine the potential economic contributions of the university in regional economic development . . . we see that universities can play only a limited role**."14

Entrepreneurs who commercialize university (and government-funded) **research to create new products can profit handsomely**. **But the bulk of the jobs**, both blue collar and middle

class, **go to where the product is manufactured, which might be in China**. **All that is left in the United States, aside from the financial and entrepreneurial overclass, is a servant class** of private chefs and personal trainers; **the middle-class jobs are located elsewhere**.

The resulting inequality that stems from this winner-take-all approach to innovation is not politically sustainable. **And since consumer spending accounts for the vast majority of U.S. economic activity, this lack of middle-class job growth is not economically sustainable either**.

Internal Brain Drain Turn

1NC — Internal Brain Drain Turn

[Optional addition to 1NC — Innovation Advantage Answers.]

Turn – the plan creates an internal brain drain that discourages equally capable domestic students from entering research fields. The result is a net decrease in innovation.

MATLOFF '13 (Dr. Norman; Professor of Computer Science – University of California-Davis, His commentary and analyses of high-skilled immigration issues have appeared in various academic journals and media outlets, and he has written extensively on the subject. "Are foreign students the 'best and brightest'? Data and implications for immigration policy," 2/28, https://www.epi.org/publication/bp356-foreign-students-best-brightest-immigration-policy/)ww

The famous David Halberstam phrase, "the best and the brightest," has been used in many contexts, but perhaps none more than to describe the foreign-national engineers and programmers we are told the United States desperately needs in order to compete in the global economy. The debate involves the H-1B visa (which allows U.S. employers to temporarily hire foreign workers possessing at least a bachelor's degree), employer-sponsored green cards (which grant permanent residency status), and other related facets of U.S. immigration policy. Recently the discussion has centered on proposals to grant automatic green cards to international students who earn advanced STEM (science, technology, engineering, and math) degrees at U.S. universities.

This latter group will be the major focus of **this report**, which **analyzes data on former foreign students who are now working in the United States**. Some are still on temporary work visas, while others have been granted U.S. permanent resident or naturalized citizen status.

The proponents of an expansive policy for foreign tech workers contend that H-1B workers, especially **those hired from American campuses, are often** "**the best and the brightest**" **and thus are key to the industry's ability to compete on the world stage**. Consider, for instance (emphasis added):

"…[restrictive U.S. immigration policy is] driving away the world's best and brightest"—Microsoft Chairman Bill Gates (Barlas 2008).

"We should not [send our] bright and talented international students…to work for our competitors abroad upon graduation"—National Association of Foreign Student Advisers (NAFSA 2007).

"…We should be stapling a green card to the diploma of any foreign student who earns an advanced degree at any U.S. university….The world's best brains are on sale. Let's buy more!"—New York Times columnist Tom Friedman (Friedman 2009).

"I personally don't think you can have too many geniuses in America"—Rep. Zoe Lofgren, 1999, speaking in support of automatic green cards (McCullagh 1999).

Though the United States should indeed welcome the immigration of "the world's best brains," are the foreign students typically of that caliber? The tech industry has put forth little to support such assertions. It has pointed to some famous immigrant success stories in the field but, in most cases, the people cited, such as Google cofounder Sergey Brin, never held foreign-student (F-1) or work (H-1B) visas (Brin immigrated with his parents to the United States at age 6). And more importantly, neither the industry nor any other participant in this national debate has offered any empirical analysis documenting that the visa holders are of exceptionally high talent.

This report aims to remedy this lack of data. With an eye toward the green card proposals, it will focus mainly on those who first entered the United States as foreign students in computer science or electrical engineering (CS/EE)—the two fields that make up the bulk of the H-1Bs.1 It will also look at foreign tech workers in general.

The study finds that the tech industry's "genius" claims for these groups are not supported by the available data. Compared to Americans of the same education and age, the former foreign students turn out to be weaker than, or at most comparable to, the Americans in terms of salary, patent applications, Ph.D. dissertation awards, and quality of the doctoral program in which they studied.

For some readers of this report, perhaps the most surprising result here will concern work in research and development (R&D). The industry has emphasized that it needs foreign workers in order to keep its innovative edge over other countries, yet the data show that the former foreign students are significantly less likely to work in R&D than the Americans.

In other words, H-1B and related programs are not raising U.S. levels of talent and innovation in the tech fields, and are in some ways reducing them.

These results are for the industry as a whole. There is a perception, however, among some in Congress and by some academics that Indian and Indian-American outsourcing firms operating in the United States abuse the H-1B visa, while mainstream American firms use the visa to hire outstanding talent (Cha 2010).2 Yet the analysis here effectively excludes the outsourcing firms, so the report's findings of a lack of a best/brightest trend apply to the mainstream firms.

Thus, the first (and main) part of this report will demonstrate that Rep. Lofgren's "can't have enough geniuses" remark was unwarranted hyperbole. But what about a slightly modified version of Lofgren's statement: Isn't it good to have as many engineers as possible, even if they aren't geniuses? The answer is no, because the H-1B and green card programs have been causing an internal brain drain of tech talent in the United States. As will be shown here,

these programs squeeze out U.S. citizens and permanent residents from the field and make the field unattractive to this country's most talented young domestic students. The second part of this report will cover this urgent issue.

Given that the foreign students are not producing a net gain in talent level, the internal brain drain suggests that the foreign-tech-worker programs should be reduced in scope, not expanded. Proposals for reform are presented in the third and final part of this report.

They Say: "No Tradeoff"

Immigrants crowd out and create a disincentive for native enrollment in STEM fields.
ORRENIUS and ZAVODNY '13 (Pia M.; Federal Reserve Bank of Dallas AND Madeline; Agnes Scott College, "Does Immigration Affect whether U.S. Natives Major in a STEM Field?" January, http://conference.iza.org/conference_files/AMM_2013/zavodny_m2692.pdf)ww

Turning to the choice of major, **there are several reasons why immigration might reduce the likelihood that college graduates majored in a STEM field**. **First, immigrants may compete with natives in the same age cohort for educational resources**. **When natives attend school with more immigrants, natives' academic preparedness in math and science may decline, either absolutely or relative to immigrants, resulting in natives being less willing or able to major in STEM fields**. For example, attending K-12 school with more immigrants who need intensive English education may reduce the quantity or quality of math and science preparation that natives receive, reducing the likelihood they ultimately major in those fields in college. Levine and Zimmerman (1995) show that high school preparation in math and, to a lesser extent, in science affects the likelihood of majoring in a technical field in college. Alternatively, attending K-12 school or college with more immigrants may increase the competition for high grades in math and science classes. Barnett, Sonnert, and Sadler (2012) report that **immigrants earn higher grades, on average, than U.S. natives in college calculus classes, which are crucial gateway courses for STEM majors**. **Natives who move down in the grade distribution may be less likely to major in STEM fields**.

Even if the distributions of immigrants and natives by ability or achievement are the same, immigration may reduce natives' academic preparedness if educational resources are relatively fixed. At the K-12 level, dividing fixed resources across more students may reduce the average student's preparedness and ultimately reduce the likelihood of majoring in a STEM discipline. **At the college level, immigrants may crowd natives out of STEM majors if the number of slots available is inelastic in the short run**.6

For example, natives may have more difficulty getting into necessary introductory math and science classes their first year of college as the number of foreign-born college students increases. **Natives may become more likely to major in other disciplines as a result**. Bettinger (2010) reports that **students who take more STEM classes their first semester of college are more likely to persist in STEM majors**, although the direction of causality is unclear.

Second, immigration may reduce the relative returns to STEM occupations, reducing the incentive for natives to major in those disciplines. Expected returns affect students' choice of college major (e.g., Arcidiacono, Hotz, and Kang 2012). **Inflows of highly skilled immigrant workers trained in STEM fields may reduce earnings or employment opportunities in STEM occupations**. **Students also may perceive higher immigrant shares in their own age cohort as increasing the competition for STEM jobs in the future, reducing their willingness to major in STEM disciplines**. The literature on the effect of immigration on natives' earnings and

employment is hotly divided, with some studies finding evidence of substantial negative effects among college graduates (e.g., Borjas 2003) and other studies finding little evidence of adverse effects (e.g., Ottaviano and Peri 2011).

Immigration creates a negative perception that drives away native students.
ORRENIUS and ZAVODNY '13 (Pia M.; Federal Reserve Bank of Dallas AND Madeline; Agnes Scott College, "Does Immigration Affect whether U.S. Natives Major in a STEM Field?" January, http://conference.iza.org/conference_files/AMM_2013/zavodny_m2692.pdf)ww

The high concentration of immigrants in STEM fields may affect natives' willingness to major in STEM fields even if labor market outcomes, educational opportunities, and natives' academic preparedness do not change as a result of immigration. **Natives may perceive STEM fields as primarily filled by immigrants and therefore be less inclined to major in them**. **Natives may have difficulty finding role models "like them" in STEM fields as the proportion foreign born increases in those fields**.7 Almost 29 percent of college graduates living in the U.S. who majored in a STEM field are foreign born, versus 13 percent of non-STEM majors.8

Foreign Students crowd out domestic students in high demand majors.
BOUND et al '16 (John; Professor of Economics – University of Michigan, Research Professor – Population Studies Center, Faculty Associate – Survey Research Center, "A Passage to America: University Funding and International Students," March, https://www.psc.isr.umich.edu/pubs/pdf/rr16-859.pdf)ww

The dramatic increase in the number foreign undergraduates on U.S. campuses over the past decade raises questions about the impact of this influx. Beyond impacts on the number of instate students, and the concentration of foreign students in certain majors such as business, engineering, and economics, it is possible that some universities may experience domestic student crowd-out or reductions in per-student instructional resources in these majors. Also, some evidence suggests that the rapid expansion in the number of foreign students has generated institution-level administrative challenges, while others have questioned how well foreign students are integrated in U.S. universities, even as their student bodies are more internationally diverse (Jordan, 2015; Redden, 2014; Gareis, 2012). Finally, the substantial increase in the number of foreign undergraduate students in the U.S. may impact the both domestic and home country economies. While beyond the scope of this paper, these issues are worthy of future investigation.

Foreign students crowd out domestic STEM majors.

ORRENIUS and ZAVODNY '13 (Pia M.; Federal Reserve Bank of Dallas AND Madeline; Agnes Scott College, "Does Immigration Affect whether U.S. Natives Major in a STEM Field?" January, http://conference.iza.org/conference_files/AMM_2013/zavodny_m2692.pdf)ww

This study examined whether higher immigration reduces the probability that natives who graduated from college did so with a STEM major. The results suggest that non-Hispanic whites are less likely to major in a STEM field the higher the immigrant share in their age cohort and in the labor force, although the estimated effects are small. This negative result is driven by data from the year 2000, the culmination of a period of strong economic growth, changes in immigration policy, and an Internet boom that led to a surge in inflows of highly skilled immigrants. Higher immigrant shares also appear to discourage Asian women from STEM majors, but they are positively related to the probability that Hispanics major in a STEM field. **The immigrant share of college students appears to have the most adverse effect on whether natives major in STEM, suggesting that foreign students crowd out some natives from STEM majors**.

They Say: "International Students Better"

Foreign students aren't superior to their domestic counterparts.

MATLOFF '13 (Dr. Norman; Professor of Computer Science – University of California-Davis, His commentary and analyses of high-skilled immigration issues have appeared in various academic journals and media outlets, and he has written extensively on the subject. "Are foreign students the 'best and brightest'? Data and implications for immigration policy," 2/28, https://www.epi.org/publication/bp356-foreign-students-best-brightest-immigration-policy/)ww

Gavin (2005) summarized the connection made by Richard Freeman of Harvard:

In his paper, Freeman argues that fewer American-born workers pursue science and engineering not only because they have more career choices than foreign workers, but also because some choices offer better wages. Average annual salaries for lawyers, for example, amounted to more than $20,000 above those for doctoral-level engineers and $50,000 more than those for life scientists with doctorates, according to Census data that Freeman cites in the paper….

U.S. companies, he added in an interview, have been quite willing to encourage **a foreign supply of technical workers**. This has allowed them to pay lower wages, but it **has** also **created conditions that make science and engineering less attractive to Americans**.

"You can't say, 'I want more visas' and 'I expect more Americans to enter the field,'" Freeman said. "The thing that always strikes me about these business guys is they never say, 'We should be paying higher salaries.'"20

This internal brain drain might have been justified if the foreign workers were of higher caliber than the Americans, but, as shown earlier, **this is not the case**. The consistent theme in the results here has been that the **immigrant engineers and programmers who first come to the United States on student visas**—the group the industry lobbyists claim are most talented—**are quite similar to the Americans in talent, or are of lesser talent than the Americans, contrary to the "genius" image projected by the industry**.

They Say: "International Students Key to Innovation"

Immigrants are less innovative than domestic students.

MATLOFF '13 (Norman; Professor of Computer Science – University of California-Davis, "Immigration and the tech industry: As a labour shortage remedy, for innovation, or for cost savings?" Migration Letters, v. 10, n. 2, May, http://heather.cs.ucdavis.edu/MigLtrs.pdf)ww

Much (though by no means all) **of the innovation in the tech industry comes from those working in research and development** (**R&D**) **positions**. I thus investigated the proportions of US versus immigrant workers who hold such jobs. Here I used a logistic regression model for the probability of working in R&D. with the following results: [TABLE OMITTED]

The **former foreign students** in CS **are significantly less likely to be working in R&D than** the **Americans**. In the EE case, again, the former foreign students are less likely than comparable Americans to be working in research and development. **So we find that under this measure the former foreign students are on average less innovative than the Americans**.

Espionage Turn

1NC — Espionage Turn

[Optional addition to 1NC — Innovation Advantage Answers.]

Turn – China uses students as spies to obtain information on technological innovation. GERTZ '18 (Bill; Washington Times, "China Using Students as Spies," 4/25, https://www.washingtontimes.com/news/2018/apr/25/china-uses-students-as-spies/)ww

A senior U.S. counterintelligence official recently **said** publicly what many officials and experts have been warning privately for years: **China is using its large student population in the United States to spy**.

Bill Evanina, director of the National Counterintelligence and Security Center, a DNI agency, said recently that **China poses a broad-ranging foreign intelligence threat that includes the use of academics, students, cyberespionage and human agents to steal secrets from the government and private sectors**.

"I look at the China threat from a counterintelligence perspective as a whole-of-government threat by China against us," Mr. Evanina told a conference last week at The Aspen Institute.

"**We allow 350,000 or so Chinese students here every year**," he said. "That's a lot. We have a very liberal visa policy for them. **Ninety-nine point nine percent of those students are here legitimately and doing great research and helping the global economy**. **But it is a tool that is used by the Chinese government to facilitate nefarious activity here in the U.S.**"

Mr. Evanina said the Trump administration is more engaged in counterintelligence than the Obama administration, based on the fact that many current leaders had more experience in the private sector. A particular concern driving greater counterespionage against China is Beijing's spending of $80 billion annually on investment in the United States, he said.

"I believe our administration now, due to the makeup, is more interested in that number and how that impacts across the U.S. country than the previous administration," Mr. Evanina said. "If the Chinese government is buying up key aspects of our critical infrastructure and our technology base, is that a long-term national security threat for our country? I believe it is."

Michelle Van Cleave, a former counterintelligence official, testified to a House subcommittee earlier this month that **China poses the most significant threat to steal advanced American technology from universities and other research centers**.

"**It's not just that there are a lot of Chinese nationals working in American companies or laboratories, or studying or teaching at American universities, picking up whatever happens to come their way**," Ms. Van Cleave said. "No. As the Defense Department has reported, **China has a government-directed, multifaceted secret program whose primary task is technology acquisition**."

Michael Wessel, chairman of the U.S.-China Economic and Security Review Commission, also told Congress that China in 2006 launched two programs seeking to recruit up to 4,000 foreign specialists, mainly among ethnic Chinese, in such programs as “Project 111” and “Thousand Talents Program.”

Mr. Wessel said about 20 percent of the staff at the Berkeley Artificial Intelligence Research (BAIR) Lab at the University of California Berkeley, which conducts research in advanced machine learning, are Chinese nationals.

At the University of Maryland’s Bing Research Group, 30 of the 38 postdoctoral researchers and graduate students are from China, Mr. Wessel testified.

They Say: "Current Safeguards Solve"

Loopholes make current safeguards ineffective.

SWANSON and BRADSHER '18 (Ana and Keith; New York Times, "White House Considers Restricting Chinese Researchers Over Espionage Fears," 4/30, https://www.nytimes.com/2018/04/30/us/politics/trump-china-researchers-espionage.html)ww

Fueling the push are instances like the one involving Ruopeng **Liu, a Chinese citizen and a promising student at Duke** who was helping to develop a cloak that shields objects from a broad spectrum of wave frequencies. The professor leading the Pentagon-funded lab, David R. Smith, became suspicious of Mr. Liu, who **seemed intent on collaborating with old colleagues in China**, and even invited them to tour the lab and photograph Duke's equipment.

It became clear to Mr. Smith that Mr. **Liu was trying to share the cutting-edge technology he was studying in the United States with colleagues in China**. The institute he founded on his return to China eventually received millions of dollars of investment, registered thousands of patents and even played host to President Xi Jinping of China.

Mr. Liu did not respond to interview requests, but in past interviews, **he has maintained that he did nothing wrong, beyond taking advantage of an open and collaborative university atmosphere**. **Like many projects in the United States, most** of Mr. Smith's work at Duke **was early-stage research that was not classified or categorized as a deemed export**.

Daniel Golden, who tells Mr. Liu's story in his book, "Spy Schools," said Mr. **Liu exploited a gray area that allows a large amount of sensitive, taxpayer-funded technology to flow to foreign governments**. "**Globalization has transformed American universities into a front line for espionage**," Mr. Golden said.

They Say: "Restricting Talent Worse"

Universities are at risk for foreign espionage.

SWANSON and BRADSHER '18 (Ana and Keith; New York Times, "White House Considers Restricting Chinese Researchers Over Espionage Fears," 4/30, https://www.nytimes.com/2018/04/30/us/politics/trump-china-researchers-espionage.html)ww

In America, research institutes look particularly vulnerable to espionage. **According to Defense Department statistics, nearly a quarter of all foreign efforts to obtain sensitive or classified information in 2014 were routed through academic institutions**. At a congressional hearing in April, Michelle Van Cleave, a former national counterintelligence executive, said the freedom and openness of the United States made the country a "spy's paradise." Chinese and Russian agents both come to the United States with "detailed shopping lists," she added.

China targets every member of the diaspora for recruitment.

NEWMAN '11 (Alex; Freelance Journalist, The Diplomat, "China's Growing Spy Threat," 9/19, https://thediplomat.com/2011/09/chinas-growing-spy-threat/?allpages=yes)ww

Beijing fiercely denies it. Much of the world ignores it. **But according to analysts and officials, the** communist-controlled **P**eople's **R**epublic of **C**hina **operates the single largest intelligence-gathering apparatus in the world—and its growing appetite for secrets has apparently become insatiable**.

From economic and military espionage to keeping tabs on exiled dissidents, **China's global spying operations are rapidly expanding**. And, therefore, so is the threat. Some analysts even argue the regime—which is also gobbling up such key natural resources as farmland, energy, and minerals—has an eye on dominating the world.

Estimates on the number of spies and agents employed by the communist state vary widely. According to public statements by French author and investigative journalist Roger Faligot, who has written several books about the regime's security services, there are around two million Chinese working directly or indirectly for China's intelligence apparatus.

Other analysts say it would be impossible to count the exact number. 'I doubt they know themselves,' says Richard Fisher, a senior fellow on Asian military affairs at the Washington-based International Assessment and Strategy Center. Regardless, the number is undoubtedly extraordinary. 'China can rightly claim to have the world's largest, most amorphous, but also most active intelligence sector,' he says.

That's partly because it operates very differently from most. 'When you consider that **China's intelligence community views any foreign-deployed Chinese citizen**, any Chinese delegation, all Chinese criminal networks, and all overseas Chinese with any tangible affinity or connection

to the Motherland **as a target for recruitment**, then you have to find a different way to measure,' Fisher explains. '**This has to start with the consideration that any Chinese**, especially those from China, **from student to CEO, are potential active intelligence assets**.'

They Say: "This is Racist"

The Chinese espionage threat is real – empirics, experts and defectors confirm. If anything, it's underestimated.

NEWMAN '11 (Alex; Freelance Journalist, The Diplomat, "China's Growing Spy Threat," 9/19, https://thediplomat.com/2011/09/chinas-growing-spy-threat/?allpages=yes)ww

Though the evolving threats are more advanced and dangerous today than ever before, **Chinese espionage is nothing new**. In fact, **it began centuries ago**—**well before the communist regime rose to power**.

'**China has a history of organized intelligence-gathering operations that goes back to the 15th century**—**perhaps even earlier**,' **says** Joseph **Fitsanakis**, a senior editor with Intel News **who teaches classes on espionage, intelligence, and covert action at King College's Department of History and Political Science**. The Chinese, however, took it to a new level.

Up until two to three decades ago, the regime's spying was largely domestic in nature, Fitsanakis explains—primarily targeting perceived enemies and dissidents within China. But in the post-1980s era, with economic reforms and growing affluence pacifying much of the internal unrest, Chinese intelligence collection efforts began to focus more on the outside world.

Today, **according to experts and former counterintelligence officials, Chinese spying represents one of the largest threats to US security**. And the sheer size of the regime's espionage apparatus 'is proving a good match for the more advanced automated systems used by its less populous regional rivals, including Taiwan, South Korea, and Japan,' adds Fitsanakis.

Public awareness of the hidden menace is indeed on the rise. But **available evidence indicates that the danger is still underestimated**—and growing quickly.

'**The Chinese are the biggest problem we have with respect to the level of effort that they're devoting against us versus the level of attention we are giving to them**,' **former US counterintelligence chief** Michelle **Van Cleave told CBS** during an interview. **Officials with** the US Immigration and Customs Enforcement (**ICE**), meanwhile, **labelled China's 'aggressive and wide-ranging espionage' the 'leading threat to US technology.'**

According to former Chinese intelligence officials who defected to the West, the United States is indeed China's main target for espionage. But as China steps up its spying around the world, it's becoming clear that no nation, company, military, or exiled dissident is immune.

Extend: "Impact Turns Innovation"

Chinese espionage threatens U.S. innovation and technical leadership.
WU '18 (Annie; Epoch Times, "White House Limits on Chinese Visas Highlights Academic Espionage Problem," 6/7, https://www.theepochtimes.com/white-house-limits-on-chinese-visas-highlights-academic-espionage-problem_2553263.html)ww

In recent years, U.S. federal authorities have prosecuted several Chinese nationals working in American academia who stole proprietary technology on behalf of entities in China.

Beginning June 11, the U.S. State Department will begin implementing these limits, including restricting Chinese citizens studying in certain fields—such as robotics, aviation, and high-tech manufacturing—to one-year visas.

Those are fields the Chinese regime has said are high-priority goals for its manufacturing sector, outlined in its economic 10-year plan, Made in China 2025. This industrial policy was also the target of the recent Office of the U.S. Trade Representative's (USTR) investigation into China's intellectual property theft practices, commissioned by President Donald Trump. It found that **China strategically directs private and state-owned firms to acquire foreign tech companies in order to obtain their technological innovations**; **eventually, China wants to dominate global tech supply chains and displace foreign competitors**.

To this end, some Chinese nationals working at U.S. universities have stolen technology beneficial to the Chinese regime.

Chinese Espionage allows for the theft of economic and military secrets.
NEWMAN '11 (Alex; Freelance Journalist, The Diplomat, "China's Growing Spy Threat," 9/19, https://thediplomat.com/2011/09/chinas-growing-spy-threat/?allpages=yes)ww

The theft of trade secrets, technology, and corporate information is another one of China's specialties. '**When it comes to economic espionage, China is universally recognized as at the top,**' says Juneau-Katsuya, who now serves as the CEO of security consulting firm The Northgate Group. 'What we know is that, by far, they are at the top when it comes to stealing information.'

Oftentimes the line between military and economic espionage is blurry. The case of engineer Dongfan 'Greg' Chung, sentenced last year, is just one example among many. Chung was caught passing sensitive US aerospace and rocket secrets to China that he stole while working for defence contractors Boeing and Rockwell International.

In other cases, the foreign technology stolen by Chinese spies is used to further oppress the population. A revealing lawsuit filed by US software maker Cybersitter, seeking more than $2

billion in damages, accused China and other conspirators of stealing its proprietary filtering code. The software was then apparently used to help censor the web in China.

'They have a multitude of goals all at once: To catch up on the difference in technology, to gain influence around the world, to know more about where the competition is, and definitely to not have to pay for research and development,' says Juneau-Katsuya. The R&D element is key.

Often, the motivation for stealing trade secrets is purely economic. In addition to saving unfathomable amounts of time and capital, **using stolen information crucial to a company's survival can actually lead to shutting down China's foreign competition.**

So, partly because the return on investment from spying is so much greater than from R&D, experts say the budgets of Chinese intelligence agencies have soared in recent years. That trend is expected to continue indefinitely.

But while it may be cost effective for China, **the price tag paid by others is massive**. Precise figures are, of course, impossible to calculate. But in 1995, when Juneau-Katsuya was at CSIS, he tried to get an estimate: It was somewhere in the neighbourhood of $10 billion to $12 billion per year. Since then the problem has only grown.

In Germany, the cost is high, too, Berthold Stoppelkamp of the German Association for Security in Industry and Commerce (ASW) told the press in 2009. He estimated the damages from economic espionage—primarily Russian and Chinese—at around €20 billion every year. But it could be closer to €50 billion, he noted.

An estimate on the cost of economic espionage to the US economy was offered by FBI Director Robert Mueller in 2003: **over $250 billion per year.** And counterintelligence officials with the Bureau and other experts agree that China is by far the most serious threat.

'**This espionage saps US companies of their industrial lead in the new technologies and materials**,' notes Wortzel. '**And** often **the Chinese incorporate what they have learned into new weapon systems that can be used against the US, its allies, and friends.'**