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Hubristic Claims: Evidence for the Lack of Conclusive Evidence

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¹ This claim was included in the 2019 analyses, rather than Claim 5. All others are identical across the two years

Preface

The Hubris Index comprises nine epistemic claims that are in dispute. While many of our respondents expressed certitude about these claims, an examination of the available evidence reveals a lack of consensus—and hence a lack of legitimate certainty—for each dispute. This appendix provides a summary of the available evidence, establishing a brief but clear case for including each item in the Hubris Index.

As described in the paper, we employed the following standards to establish the legitimate consensus or non-consensus regarding each epistemic claim. We suggest that epistemic certitude is justifiable only when each of the following conditions are met with respect to a given epistemic dispute:

- 1) There is ample public evidence at hand, which has been produced by credentialed sources adhering to scientific norms of dispassionate inquiry.
- 2) The evidence is robust across temporal and spatial dimensions, measures, methods of analysis, and interpretations.
- 3) Accordingly, there is a consensus within the reputable expert community across fields (and sub-fields).

Only when all of these conditions are met is certitude justifiable; if any are not met, then certitude is not justifiable.

For each claim, the following sections describe the public evidence that supports the affirmative side of the statement, and then describe the public evidence that contests or contradicts the statement, supporting the negative side. Our goal is to establish that expressions of certainty concerning a particular side of each of these epistemic disputes are unwarranted upon examination of the available public evidence and the overall lack of scientific consensus.

Claim 1: “If unchecked, the US national debt will cause major economic damage”

The national debt has emerged as a salient political issue at multiple points in American history, from Andrew Jackson calling it “the nation’s curse,” to the focus on “balancing the budget” in the mid to late 1990s, to the conservative Tea Party movement during Barack Obama’s presidency. All of these movements have generally regarded a growing national debt as an existential threat to the American economy and the livelihoods of our children. This fearful sentiment regarding the national debt remains prevalent. 95% of Americans say that they worry about the U.S. federal budget deficit and 50% say that they worry “a great deal” about it (Gallup 2019). Does the academic literature on the topic support justification for this level of concern? Can we be certain that an unchecked national debt would or would not cause “major economic damage”? The experts are divided on the issue, but let us start by reviewing the scholarly literature that does project economic trouble as a result of national debt growth.

The Affirmative

While not at the level of consensus, there is a pattern in the economics literature on the dangers of an uncontrolled national debt. In both advanced countries and emerging markets, high debt/GDP levels are associated with notably lower growth outcomes (Reinhart and Rogoff 2010). As it is much more difficult to increase GDP than the national debt, it is not often that countries are able to grow their way out of debt. Reinhart, Rogoff, and Savastano (2003) identified a “debt intolerance” phenomenon in which countries that reached debt tolerance ceilings experienced quickly rising market interest rates and economic strife. Reinhart and Rogoff conclude that “a causal chain from sovereign debt crisis to banking crisis cannot be dismissed lightly” (2011, 1687).

According to Boone and Johnson’s (2014) fiscal space models, “if debt levels continue to drift upwards, then eventually all nations will reach their debt capacity, and at that point every nation would be on a path to [economic] crisis.” In his work focusing on sovereign debt restructuring and proper incentives, Kroszner (2003) emphasizes that countries should not be encouraged to take on excessive debt. Similarly, others find that the best way to avert debt crises is by avoiding the very conditions that make them possible: large amounts of debt with a short maturity structure (Cole and Kehoe 2000).

Princeton Economics Professor Atif Mian is also quite concerned about the national debt level in the United States at this historic moment (with government spending increases during the Covid-19 pandemic). “We should be very worried. We are talking about a level of debt that would certainly be unprecedented in modern history or in history, period. We are definitely at a tipping point” (Lynch 2020).

The Negative

In recent years there has been an emerging movement toward less concern about the dangers of national debt from both economists and policymakers. Caroline Atkinson, President Obama's deputy national security advisor for international economics and a policy advisor at Google, recently expressed this at a Council on Foreign Relations conference call: "I don't think we need to worry at all right now about inflation deficits or debt. And I'm glad that's a growing view amongst economists" (Council on Foreign Relations 2020).

When asked about whether he thought the U.S. government's current level of debt is a problem, David Wessel, a senior fellow in Economic studies at Brookings, responded: "For now, it isn't. The U.S. government borrows trillions of dollars a year at very low interest rates on global financial markets, and there doesn't appear to be much private sector borrowing that is crowded out by U.S. Treasury borrowing right now. Indeed, the fact that global interest rates remain very low while governments around the world are borrowing heavily to fight the COVID-19 recession suggests that there is still a lot of savings around the world, more than is needed to finance private investment. No one really knows at what level a government's debt begins to hurt an economy; there's a heated debate among economists on that question. If interest rates remain low, as currently anticipated, the government can handle a much heavier debt load than was once thought possible. And the recent increase in borrowing—while enormous—is a temporary increase intended to combat an emergency; it changes the level of the debt, but not its long-run trajectory" (Wessel 2020). If our government makes a habit out of continuing to run high deficits for a decade or more, some experts expect that rising interest rates would provide the government with a warning signal that its budgetary practices need to change (Buchanan 2012).

Other economists point out that a growing national debt may be beneficial for a country. For instance, "in some cases, long term debt helps to stabilize inflation [and interest rates]" (Cochrane 2001). The idea that a growing national debt will lead to higher interest rates is disputed as well: "numerous economists have examined the data in rigorous fashion and find no clear relation between deficits and interest rates" (Eisner 1995). Engen and Hubbard (2004) also review the literature on this question and find the conclusions to be mixed.

Modern Monetary Theory (MMT) is a theoretical perspective that questions the entire concept of the negative effects of national debt (see Chohan 2020, Fiebiger et al. 2012). This approach to macroeconomics argues that nations which can issue their own fiat currency are essentially immune from negative effects of rising debt and should therefore employ debt for positive social ends (see Kelton 2020). While a heterodox theory rejected by many mainstream economists, MMT has had wide influence on the public discussion of the national debt.

Overall, there is a clear lack of consensus in respect to the claim: "if unchecked, the US national debt will cause major economic damage." Economists who follow in the tradition of Reinhart and

Rogoff would say that the dangers are obvious, while other experts argue that, “unfortunately, few economists seem able to explain coherently why a heavy debt burden can be harmful to the economy. This statement may seem surprising, but ask any economist why an economy would suffer from having too much debt, and he or she almost always responds that too much debt is a problem because it might cause a debt crisis or undermine confidence in the economy. Not only that, but how much debt is considered too much seems to be an even harder questions to answer” (Pettis 2019).

References

- Boone, Peter, and Simon Johnson. 2014. "Forty Years of Leverage: What Have We Learned About Sovereign Debt?" *The American Economic Review*, 104(5): 266-71.
- Buchanan, Neil H. 2012. “Why We Should Never Pay Down the National Debt.” *University of Louisville Law Review*, 683. URL: https://scholarship.law.gwu.edu/cgi/viewcontent.cgi?article=1025&context=faculty_publications
- Carmen M. Reinhart, Kenneth S. Rogoff, and Miguel A. Savastano. 2003. “Debt Intolerance.” *Brookings Papers on Economic Activity*, 1: 1-74.
- Chohan, Usman. 2020. “Modern Monetary Theory (MMT): A General Introduction” CASS Working Papers on Economics & National Affairs.
- Cochrane, John H. 2001. "Long-Term Debt and Optimal Policy in the Fiscal Theory of the Price Level." *Econometrica*, 69(1): 69-116.
- Cole, Harold L., and Timothy J. Kehoe. 2000. "Self-Fulfilling Debt Crises." *The Review of Economic Studies*, 67(1): 91-116.
- Council on Foreign Relations 2020. “World Economic Update.” *Conference Call*, March 30th, 2020. URL: <https://www.cfr.org/conference-calls/world-economic-update>
- Eisner, Robert. 1995. “Why the Debt Isn’t All Bad: Balancing Our Deficit Thinking.” *Uncommon Sense*, 9. URL: <https://njfac.org/index.php/us9/>
- Engen, Eric M., and R. Glenn Hubbard. 2004. "Federal Government Debt and Interest Rates." *NBER Macroeconomics Annual*, 19: 83-138.
- Fiebigler, Brett et al. 2012. “Modern Monetary Theory: A Debate” Political Economy Research Institute. URL: http://peri.umass.edu/fileadmin/pdf/working_papers/working_papers_251-300/WP279.pdf

- Kelton, Stephanie. 2020. *The Deficit Myth: Modern Monetary Theory and the Birth of the People's Economy*. New York: Public Affairs.
- Lynch, David J. 2020. "Record Government and Corporate Debt Risks 'Tipping Point' After Pandemic Passes." *The Washington Post*, April 18th, 2020. URL: <https://www.washingtonpost.com/us-policy/2020/04/18/record-government-corporate-debt-risk-tipping-point-after-pandemic-passes/>
- Kroszner, Randall S. 2003. "Sovereign Debt Restructuring." *The American Economic Review*, 93(2): 75-79.
- Pettis, Michael. 2019. "Why U.S. Debt Must Continue to Rise." *Carnegie Endowment*, February 7th, 2019. URL: <https://carnegieendowment.org/chinafinancialmarkets/78304>
- Reinhart, Carmen M., and Kenneth S. Rogoff. 2010. "Growth in a Time of Debt." *The American Economic Review*, 100(2): 573-78.
- Reinhart, Carmen M., and Kenneth S. Rogoff. 2011. "From Financial Crash to Debt Crisis." *The American Economic Review*, 101(5): 1676-1706.
- Reinhart, Carmen M., Kenneth S. Rogoff, and Miguel A. Savastano. 2003. "Debt Intolerance." *Brookings Papers on Economic Activity (1)*, ed. William C. Brainard and George L. Perry, 1-62.
- Wessel, David. 2020. "How Worried Should you be about the Federal Deficit and Debt?" *Brookings: Voter Vitals*, July 8th, 2020. URL: <https://www.brookings.edu/policy2020/votervital/how-worried-should-you-be-about-the-federal-deficit-and-debt/>

Claim 2: “If college were free, there would be much less economic inequality”

While many of the other epistemic claims analyzed in this appendix are plagued by uncertainty due to an abundance of apparent evidence on both sides of the issue, free college leading to less economic inequality is a concept that has much less academic evidence for or against it. Even as it has become a popular policy proposal for certain politicians (Harris 2019), the peer reviewed, published support (and opposition) to the issue remains rather sparse. The statement’s description of “much less” economic inequality makes it more difficult for certainty to be a supported response.

The Affirmative

Experts who advocate for the provision of a fully subsidized college education frequently point to research that connects college access, attendance, and completion to greater economic performance, job acquisition, and socio-economic status later in life. After all, college graduates do see 57% more job opportunities on average than non-graduates and it is estimated that by 2020, two-thirds of all jobs will require post-secondary education (Carnevale et al. 2016).

Michigan’s “promise zones” offer eligible high school students in certain locales tuition free access to Michigan public colleges and universities for pursuit of a bachelor’s degree. Analysis of the effectiveness of this program found “positive but imprecisely estimated results from the Michigan promise zones for college access, choice, and persistence. Students who were eligible for the promise scholarship increased their college enrollment by 4.5 percentage points. In addition, the promise zones had positive estimates for college choice and persistence. Eligible students in the post-period increased their community college enrollment by 2 to 3 percentage points, and persistence to the second year of college by 3.5 percentage points” (Billings 2020, 191). Denning (2017) also used a quasi-experimental method in Texas to find that community college tuition discounts were associated with increased enrollments, but similar graduation rates.

Such programs may also have an effect on students even earlier in life. “If adolescents or teenagers know that college will be free, they may work harder in school and become better prepared for college” (Harris et al. 2020, 120).² Although evidence from Milwaukee’s The Degree Project (TDP), offering free community college and subsidized university funding, suggests that it “increased some college-related behaviors during high school and had a small effect on college attendance two years after high school and on college graduation, but that it had no measurable effect on students’ academic preparation during high school, initial college attendance, or longer term outcomes such as employment” (Harris et al. 2020). These authors could be described as in support of such programs, but one of their central findings is that the design and implementation of these programs matter. For instance, the performance requirements and focus on checkpoints of the TDP program may have

² Fans of the television series *The Office* may recognize this effect from the popular but cringeworthy *Scott’s Tots* episode of Season 6.

caused educators and high school guidance counselors to disproportionately focus on students who were “on-track” and “checking off the boxes” and not those who appeared unlikely to make the cut. This likely has the long run effect of exacerbating inequality as the eligible students are typically those with more resources.

While few studies have been able to tie free college programs to reduced economic inequality in the real world, theoretically it remains a popular policy option because of the known inequality-swelling effects of the current post-secondary educational system in the United States. “Higher education inequalities become translated into lifetime earnings, income, and overall well-being inequalities. Because lower income individuals are much less likely to secure higher education, the nation’s colleges and universities appear to be an integral part of the process whereby family economic status is passed along from generation to generation” (Haveman and Wilson 2007, 38). While free-college programs would hypothetically make it easier for lower income individuals to secure higher education and change these trends, evidence for this proposition is limited.

The Negative

Those who doubt that free college would reduce economic inequality reference research that claims such a program may unintentionally aggravate economic disparities. The following passage from Carnevale and Strohl (2010) illustrates the potential dangers of such inadvertent effects:

We are concerned that strengthening incentives for access and completion alone may have unintended consequences that actually exacerbate stratification. Successive rounds of budget and performance pressures driven by completion and “time to degree” metrics naturally will bias individual institutions toward enrolling more advantaged students as well as narrowing, shortening, and watering down their curriculums. The same incremental pressures can result in a gradual movement toward system-wide policies that overemphasize access and completion in ways that squeeze out equity and quality. Access and completion improvements all by themselves cannot deliver on equally important equal opportunity and upward mobility goals. Access and completion beg the question: access to and completion of what, and by whom? Our current system is becoming more accessible, but it becomes so by tracking minorities and students from working class families into lower-cost and lower-quality two-year programs and tracking high-income white students into high-cost four-year programs with a graduate school option included. In sum, absent explicit goals for equity in funding as well as racial, ethnic, and class diversity, reform can become an engine for inequality” (Carnevale and Strohl 2010, 87).

Increased access to community colleges does not necessarily lead to higher completion rates (Chen 2019). Experts who side against a free college initiative may also cite its relative underuse and lack of success in New York (Dvorkin and Viney 2020). Neither of these points necessarily mean that free college would be doomed on a national scale, but consider the following perspective, which has

become a popular talking point for opponents of free college initiatives. The social utility of degrees are in a large part a function of their relative scarcity (Covaleskie 2014). Once “the floodgates are opened” and a certain level of educational attainment has been achieved by all, the only value that a degree conveys is from its source, and free college initiatives are likely to reduce the value of general degrees in the aggregate, while increasing the value of those at elite institutions and graduate degrees, which are still less accessible to the economically disadvantaged. “A consequence of this major, largely unconsidered, reconceptualization of education is that increased access has been used as an instrument to address economic inequality, but these efforts are unlikely to succeed” (Covaleskie 2014).

Similar to the natural experiments supporting the affirmative side, some real-world evidence suggests that a free college program would be ineffective. Comparisons of counties with promise initiatives and their bordering neighbors in multiple states found no evidence of the programs achieving better local college attainment levels (Ruiz et al. 2020).

Upon review of the relevant literature, there is not ample public evidence available to justify certainty that free college would or would not reduce economic inequality. A number of well-qualified academic experts engage in reasonable disagreement over the potential effects of a free college initiative.

References

- Billings, Meredith S. 2020. “Echo of a Promise: The Impact of State-Designated Michigan Promise Zones.” *Improving Research-Based Knowledge of College Promise Programs*, eds. Laura W. Perna and Edward J. Smith. American Educational Research Association.
- Carnevale, Anthony P., and Jeff Strohl. 2010 "How Increasing College Access is Increasing Inequality, and What to do About It." *Georgetown University Center on Education and the Workforce*. URL: <https://www.luminafoundation.org/files/resources/increasing-inequality.pdf>
- Carnevale, Anthony P., Tamara Jayasundera, and Artem Gulish. 2016. “America’s Divided Recovery: College Haves and Have-Nots.” *Georgetown University Center on Education and the Workforce Report*. URL: <https://1gyhoq479ufd3yna29x7ubjn-wpengine.netdna-ssl.com/wp-content/uploads/Americas-Divided-Recovery-web.pdf>
- Chen, Grace. 2019. “Does Higher Education at Community Colleges Perpetuate Inequality?” *Community College Review Blog*, September 20th, 2019. URL: <https://www.communitycollegereview.com/blog/does-higher-education-at-community-colleges-perpetuate-inequality>
- Covaleskie, John F. 2014. "What Good Is College? *The Economics of College Attendance.*" *Philosophical Studies in Education*, 45: 93-101.

- Denning, Jeffrey T. 2017. "College on the Cheap: Consequences of Community College Tuition Reductions." *American Economic Journal: Economic Policy*, 9(2): 155-188.
- Dvorkin, Eli and Brody Viney. 2020. "New York's Free Tuition Promise Falling Short." *Center for an Urban Future Report*, March 2020. URL: <https://nycfuture.org/research/new-yorks-free-tuition-promise-falling-short#:~:text=But%20despite%20its%20well%2Dintentioned,of%20this%20highly%20touted%20initiative.>
- Harris, Adam. 2019. "The College-Affordability Crisis Is Uniting the 2020 Democratic Candidates." *The Atlantic*, February 26th, 2019. URL: <https://www.theatlantic.com/education/archive/2019/02/2020-democrats-free-college/583585/>
- Harris, Douglas N., Raquel Farmer-Hinton, John Diamond, Tangela Blakely Reavis, Kelly Krupa Rifelj, Hilary Lustick, and Bradley Carl. 2020. "The Promise of Free College (and its Potential Pitfalls)." *Improving Research-Based Knowledge of College Promise Programs*, eds. Laura W. Perna and Edward J. Smith. American Educational Research Association.
- Haveman, Robert, and Kathryn Wilson. 2007. "Access, Matriculation, and Graduation." *Economic Inequality and Higher Education: Access, Persistence, and Success*. 17-43.
- Ruiz, Roman, Elaine W. Leigh, Ashley Napier and Manuel S. González. 2020. "The Promise of Free College (and its Potential Pitfalls)." *Improving Research-Based Knowledge of College Promise Programs*, eds. Laura W. Perna and Edward J. Smith. American Educational Research Association.

Claim 3: “Gun control reduces mass shootings”

In the American context, gun control is frequently used to refer to a wide variety of policy directives aimed at preventing, limiting, or restricting gun acquisition, ownership, possession, or use. These proposed measures could take the form of stricter or universal background checks prior to the purchasing of firearms, a new “assault weapons ban,” a mandatory gun buyback program, more “gun free zones,” and/or a myriad of other policies. The epistemic claim however, does not specify any of these specific programs, but rather the umbrella term of “gun control” generally. This variance should reduce the level of certitude.

Additionally, the meaning of the phrase “mass shootings” is often frequently disagreed upon both in the academic community and in everyday use.³ While the phrase may conjure up the tragic memory of news coverage of a school shooting, this sort of tragedy would actually be atypical and in the vast minority of “mass shootings” by most conventional definitions (which define them as any shooting of three or more individuals). Some of the databases that track such events employ different criteria for classifying a shooting as a “mass shooting.” For example, some of the indexes only count slain victims while others count survivors who were wounded; some include the shooter’s potential injury and death in their totals while others do not; some only count an event as a mass shooting if it occurs in a public space rather than a private one; and others take the motivations of the shooter into account (with some excluding shootings motivated by gang and drug related activity). These choices in standards have a large impact on the ultimate number of mass shootings that one counts in a given year.⁴ Some of the more restrictive definitions of mass shootings can reduce the annual number so low that it becomes difficult to judge trends from year to year because of the infrequency of such events.

The preceding discussion is crucial to keep in mind as we review the academic literature on this dispute, as many studies employ different definitions for both “gun control” and “mass shootings.” Additionally, it is also important to recognize that “scientific research on the effects of gun policies is sparse and often inconclusive” (RAND 2018). There is research that could be viewed as both supporting or contradicting the notion that gun control reduces mass shootings.

The Affirmative

A fair amount of the research endorsing gun control’s ability to reduce mass shootings focuses on countries outside of the United States., including “success stories” that have outperformed the U.S.

³ “There is no standard definition of what constitutes a mass shooting. Media outlets, academic researchers, and law enforcement agencies frequently use different definitions when discussing mass shootings, leading to different assessments of how frequently mass shootings occur and whether they are more common now than they were a decade or two ago” (RAND 2018).

⁴ For example, for the year 2015, *Mother Jones* counted 7 mass shootings in the United States while the *Mass Shooting Tracker* counted 371 (RAND 2018).

in preventing mass shootings (Palazzolo and Flynn 2015). The United Kingdom and Australia are often praised for their firearm “buyback programs” that reduced the number of guns in privately held hands within their borders (Dewan and Tarabay 2017; Fisher and Keller 2017). There is some evidence to back up this claim although many of these studies struggle to make causal claims because of their reliance on cross sectional data and the overall infrequency of mass shootings in those countries. Chapman et al. (2006) argue that “removing large numbers of rapid-firing firearms from civilians may be an effective way of reducing mass shootings, firearm homicides and firearm suicides.” According to their study, there were 13 mass shootings in Australia in the 18 years before the gun reform policies were passed in 1996 and 0 mass shootings following their implementation. Without focusing precisely on mass shootings, other research has asserted that the Australian gun reforms of 1996 were effective in depressing both gun ownership and firearm homicide in general (Leigh and Neill 2010).

Studies examining other contexts have also suggested that gun ownership levels are the best predictors of gun violence (Rosenbaum 2012) and mass shootings (Lemieux 2014). Research focusing on the United States has often concentrated on the effects of the Federal Assault Weapons Ban, given that its instatement in 1994 and expiration in 2004 provide time periods of data to examine mass shooting events before, during, and after the enforcement of the law. The ban also perhaps gets disproportionate attention because it is among the most notable “gun control” policies passed in the United States in the last few decades and because many high profile politicians within the Democratic party have called for its renewal in recent years.⁵ Lemieux (2014) and Gius (2015) found that mass shooting fatalities and injuries in the United States were lower during the ban period than both directly before and after it.⁶ Another study identified that the federal ban period saw 9 fewer mass shooting related deaths per 10,000 firearm homicides (DiMaggio et al. 2019). Occurrences of mass shootings, rather than fatalities or injuries, were also found to be somewhat stymied by the ban according to Donahue III and Boulouta (2019), although it is important to note that they define mass shootings as not including crimes of robbery, gang related activity, and domestic violence and also made six deaths the minimum number of fatalities needed for an event to qualify.⁷

However, the assault weapons ban (or a newer proposed variant of it) is far from the only policy that could fall under the umbrella term of “gun control.” Research looking backwards at past mass shooting events has even attempted to classify which tragedies may have been prevented by separate gun control policies such as: straw purchase bans, safe storage requirements, mandatory background checks, and red flag laws (Mukherjee 2020). Handgun waiting periods are a good example of a “gun

⁵ The 2020 Biden presidential campaign has made a similar assault weapons ban, with lessons learned from the 1994 legislation, a central part of their gun policy platform.

⁶ Although these findings are disputed as will be noted in discussion of “the negative side.”

⁷ This reference is to a *New York Times* opinion piece that they wrote about their research, but their study has been accepted for publication at *Law and Contemporary Problems*.

control” policy that has garnered increased empirical support for its effectiveness in reducing firearm homicides in recent years. While they were not examining the effects on mass shootings in particular, Luca et al. (2017) found that handgun purchase waiting periods were successful in reducing gun homicides in the United States. They estimate that an additional 910 homicides could be prevented per year if this policy were expanded to all 50 states.⁸

Research attempting to capture a more holistic picture of gun control, rather than focusing on just a single gun control policy, has used variation in gun policy at the state level within the United States, to determine if more “lax” states suffer more mass shootings. While the results are more correlational than causal (due to the cross sectional methods), Reeping et al. (2019) found that state gun law permissiveness was associated with higher rates of mass shootings, and Kwon and Baack (2005) found that states with comprehensive gun control legislation on average have fewer gun related deaths.⁹

The Negative

Other scholars have been less convinced of the effectiveness of the 1994 Assault Weapons Ban. Duke Professors Phillip Cook and Kristin Gross argue that “there is no compelling evidence that it saved lives” (Cook and Gross 2020). The Department of Justice helped fund a study looking into the effectiveness of the policy and drew the following conclusions: “we cannot clearly credit the ban with any of the nation’s recent drop in gun violence” and “should it be renewed, the ban’s effects on gun violence are likely to be small at best and perhaps too small for reliable measurement” (Koper et al. 2004). Koper, the principal investigator of that Department of Justice Study, also said that in an earlier study “he and the other researchers had assumed that the ban had successfully decreased the use of large-capacity magazines. What they later found was that despite the ban, the use of large-capacity magazines in crime had actually stayed steady or risen” (Beckett 2014). In a separate study, Koper found no evidence that the ban reduced multiple victim gun homicide or multiple gunshot wound victimizations (Koper and Roth 2001). The effects of other types of gun bans have also been fairly inconsequential. “Local gun-ban ordinances, for example, have negligible effects on rates of gun crime. The same was true of the passage of the Brady Law” (Kleiman 2009).

When evaluating gun control in general, beyond individual weapons ban laws, there is also scholarly literature that doubts the effectiveness of a broader set of policies. Kleck and Patterson (1993) contend that in the 170 largest U.S. cities, (1) gun prevalence levels generally have no net positive effect on total violence rates, (2) the causation may run the opposite direction, with homicide, gun

⁸ For a solid summary and critique of Luca et al.’s article, see Ludwig (2017).

⁹ Gun related deaths come from a variety of sources however, including suicides, accidents, and homicides. Additionally, mass shootings then make up a very small percentage of the homicide category.

assault, and rape rates increasing gun prevalence, (3) gun control restrictions have no net effect on gun prevalence levels, and (4) most gun control restrictions generally have no net effect on violence.

Another type of gun control policy which we have not discussed previously also frequently gets more attention from those arguing on the negative side of the epistemic claim: gun free zones. Some academics argue that the implementation of gun free zones do the opposite of their intention by creating “soft targets” that attract mass shooters. Often cited by conservatives, economist John Lott’s Crime Prevention Research Center recently estimated that 96.2% of mass public shootings in between 1998 and 2015 occurred in gun free zones. This figure is frequently challenged by gun control supporters and other academics, but an independent fact-checking operation found the figure to be around 86%, which is still a large majority of events.¹⁰ There are a number of reasons why such a hefty margin of attacks might occur in these locations, and many of them may have nothing to do with their legal status as gun free zones, but there is also little proof that gun free zones reduce mass shootings (as the epistemic claim suggests).

The negative side is also supported by the division in the scholarly community over the definition or classification of mass shootings, resulting in ambiguity that has made it difficult to achieve consensus on whether mass shooting trends are even rising or falling, much less if they are rising or falling due to certain types of gun policy (RAND 2018).

Given the the scholarly disagreement and lack of expert consensus, certainty in regard to this epistemic claim seems unwarranted.

References

- Beckett, Lois. 2014. “Fact-Checking Feinstein on the Assault Weapons Ban.” *ProPublica*. September 24th, 2014. URL: <https://www.propublica.org/article/fact-checking-feinstein-on-the-assault-weapons-ban>
- Chapman, Simon, Philip Alpers, Kingsley Agho, and Michael Jones. 2006. "Australia’s 1996 Gun Law Reforms: Faster Falls in Firearm Deaths, Firearm Suicides, and a Decade without Mass Shootings." *Injury Prevention*, 12(6): 365-372.
- Cook, Philip J., and Kristin A. Gross. 2020. *The Gun Debate: What Everyone Needs to Know*. 2nd Edition. Oxford University Press.

¹⁰ See Kelly (2018) but this notion is challenged by Fox and Fridel (2016) who find that mass shooters do not often target gun free zones. They also note that these offenders also do not frequently use “assault weapons.”

- Dewan, Angela and Jamie Tarabay. 2017. "What the UK and Australia Did Differently After Mass Shootings." *CNN World*. December 6th, 2017. URL: <https://www.cnn.com/2017/10/04/world/gun-control-uk-australia/index.html>
- DiMaggio, Charles PhD, MPH; Avraham, Jacob MD; Berry, Cherisse MD; Bukur, Marko MD; Feldman, Justin ScD; Klein, Michael MD; Shah, Noor MD; Tandon, Manish MD; Frangos, Spiros MD, MPH. 2019. "Changes in US Mass Shooting Deaths Associated with the 1994–2004 Federal Assault Weapons Ban: Analysis of Open-Source Data." *Journal of Trauma and Acute Care Surgery*, 86(1): 11-19.
- Donahue III, John J. and Theodora Boulouta. 2019. "That Assault Weapon Ban? It Really Did Work." *The New York Times: Opinion*. September 4th, 2019. URL: <https://www.nytimes.com/2019/09/04/opinion/assault-weapon-ban.html?smid=nytcore-ios-share>
- Fox, James Alan, and Emma E. Fridel. 2016. "The Tenuous Connections Involving Mass Shootings, Mental Illness, and Gun Laws." *Violence and Gender*, 3(1): 14-19.
- Gius, Mark. 2015. "The Impact of State and Federal Assault Weapons Bans on Public Mass Shootings." *Applied Economics Letters*, 22(4): 281–284.
- Fisher, Max and Josh Keller. 2017. "What Explains U.S. Mass Shootings? International Comparisons Suggest an Answer." *The New York Times: The Interpreter*. November 7th, 2017. URL: <https://static1.squarespace.com/static/5ab5336270e802ff969f9c0f/t/5d680b878fc07e0001713cc0/1567099784409/Webpage+-+FAQ%27s+-+Link+The+Interpreter+-+What+Causes+Americas+Mass+Shootings....pdf>
- Kelly, Meg. 2018. "Do 98 Percent of Mass Public Shootings Happen in Gun Free Zones?" *The Washington Post*. May 10th, 2018. URL: <https://www.journalgazette.net/news/fact-check/20180510/do-98-percent-of-mass-public-shootings-happen-in-gun-free-zones>
- Kleck, Gary, and E. Britt Patterson. 1993. "The Impact of Gun Control and Gun Ownership Levels on Violence Rates." *Journal of Quantitative Criminology*, 9(3): 249-287.
- Kleiman, Mark AR. 2009. *When Brute Force Fails: How to Have Less Crime and Less Punishment*. Princeton University Press.
- Koper, Christopher S., Daniel J. Woods, and Jeffrey A. Roth. 2004. "An Updated Assessment of the Federal Assault Weapons Ban: Impacts on Gun Markets and Gun Violence, 1994-2003." Washington, DC: National Institute of Justice, US Department of Justice.
- Koper, Christopher S. and Jeffrey A. Roth. 2001. "The Impact of the 1994 Federal Assault Weapon Ban on Gun Violence Outcomes: An Assessment of Multiple Outcome Measures and Some Lessons for Policy Evaluation." *Journal of Quantitative Criminology*, 17(1): 33-74.
- Kwon, Ik-Whan G., and Daniel W. Baack. 2005. "The Effectiveness of Legislation Controlling Gun Usage: A Holistic Measure of Gun Control Legislation." *American Journal of Economics and Sociology*, 64(2): 533-547.

- Leigh, Andrew, and Christine Neill. 2010. "Do Gun Buybacks Save Lives? Evidence from Panel Data." *American Law and Economics Review*, 12(2): 509-557.
- Lemieux, Frederic. 2014. "Effect of Gun Culture and Firearm Laws on Gun Violence and Mass Shootings in the United States: A Multi-Level Quantitative Analysis." *International Journal of Criminal Justice Sciences*, 9(1).
- Ludwig, Jens. 2017. "Reducing Gun Violence in America." *Proceedings of the National Academy of Sciences*, 114(46): 12097-12099.
- Luca, Michael, Deepak Malhotra, and Christopher Poliquin. 2017. "Handgun Waiting Periods Reduce Gun Deaths." *Proceedings of the National Academy of Sciences*, 114(46): 12162-12165.
- Mukherjee, Rahul. 2020. "How Many Mass shootings Might Have Been Prevented by Stronger Gun Laws?" *Los Angeles Times*. February 26th, 2020. URL: <https://www.latimes.com/projects/if-gun-laws-were-enacted/>
- Palazzolo, Joe and Alexis Flynn. 2015. "U.S. Leads World in Mass Shootings." *The Wall Street Journal*. October 3rd, 2015. URL: <https://www.wsj.com/articles/u-s-leads-world-in-mass-shootings-1443905359>
- RAND Corporation. 2018. "Mass Shootings: Definitions and Trends." *Gun Policy in America Report*. URL: <https://www.rand.org/research/gun-policy/analysis/essays/mass-shootings.html>
- Reeping, Paul M., Magdalena Cerdá, Bindu Kalesan, Douglas J. Wiebe, Sandro Galea, and Charles C. Branas. 2019. "State Gun Laws, Gun Ownership, and Mass Shootings in the US: Cross Sectional Time Series." *BMJ*, 364.
- Rosenbaum, Janet E. 2012. "Gun Utopias? Firearm Access and Ownership in Israel and Switzerland." *Journal of Public Health Policy*, 33(1): 46-58.

Claim 4: “The quality of health care is better in many ways in the US than in Canada”

Support for implementing a Canadian-styled “single-payer healthcare system” has increased among both Democrats and Republicans in recent times (Jones 2020). The rationale for such a policy often invokes the supposed superiority of the healthcare system used north of the border (Ember 2019), with opponents emphasizing its alleged drawbacks (Pipes 2020). The language used in this claim refers to “the quality” of health care provided, which focuses the potential arguments on attributes of care provision, rather than a focus on equality or cost concerns. However, contentions regarding higher quality of care for the poor citizens or efficiency arguments asserting superior provision of care for less money could still be interpreted as being related to this claim, so they will be included in the following analysis.

The Affirmative

“Better in many ways” implies that more than one or two advantages of the American over the Canadian system should be apparent and found in ample public evidence. In exploration of these possibilities, a few patterns emerge in the research. The majority of the literature that could be understood as supporting this claim generally seems to concentrate on the following issues: comparative wait times and wait lists, cancer care and survival rates, and the general availability of high-tech equipment and the best-trained medical staff and specialists.

One of the primary issues on which conservative politicians and other proponents of American healthcare frequently criticize the Canadian system is the presence of extended wait times for both urgent care and particular medical procedures (Rogers 2016). Upon examination, these criticisms may have merit. The 2015 Commonwealth Fund Report found that 29% of Canadians wait two or more months for an appointment with a specialist and 18% of Canadians wait four months or more for elective surgeries. Out of the eleven comparable countries included in this report, the Canadian results were in last or second-to-last place when it comes to speed of care provision. The same report shows that these problems do not occur nearly as often in the United States, as only 6% of Americans wait two or more months for a specialist appointment and only 7% waited four months or more for elective surgeries (Mossialos et al. 2016). Another study found that “Waiting lists for certain surgical and diagnostic procedures are common in Canada. Nationwide, the average wait for treatment is 13.3 weeks. The average waiting time in more than 80% of the procedures is one third longer than Canadian physicians consider clinically reasonable. If care required diagnostic imaging, waiting times are even longer. Treatment delays are causing problems for certain vulnerable segments of the Canadian population, particularly the elderly who cannot get reasonable access to the medical care they demand, including hip replacement, cataract surgery and cardiovascular surgery” (Ridic et al. 2012). This same study also claims that wait times are not only shorter in the United States, but that “many Canadians travel south to the United States for more advanced treatment” in part because of these delays. Wharton Professor of Healthcare Management Mark Pauly has also reinforced this view by claiming that Canadian’s have longer waiting lists “for things

like joint replacement, so if your hips are killing you in Canada, you may wait months for that [surgery] to happen. In the U.S., the orthopedic surgeons are calling you every day, wondering when you are going to come in for your joint replacement procedure. But the safety valve for Canada is that they can always come across the border, and have a procedure done here” (Knowledge@Wharton 2017). These conclusions have also been supported by healthcare wait time studies conducted by the (right leaning) Fraser Institute (Barua and Moir 2019).

Canadian healthcare may also be inferior to American healthcare when it comes to screenings and treatments that are more expensive, such as those used for detecting and treating cancer. O’Neill and O’Neill (2007) found that “a significantly higher percentage of U.S. women and men are screened for major forms of cancer” and that both mortality and incidence ratios for various cancers are higher in Canada than in the U.S. The wait lists problems that we discussed earlier are sometimes even more likely to occur for cancer patients seeking treatment (Gratzer 1999). Pauly also supports the claim that cancer patients generally have better outcomes in the U.S. than in Canada (Knowledge@Wharton 2017).

Availability of specialists and high-tech equipment to patients also seems generally more constrained in Canada than the United States. “Visits to a specialist by elderly persons in Canada are more limited than in the United States” (Kaplan et al. 2010).¹¹ Returning to the Commonwealth Fund report cited earlier, Canada has 2.48 physicians per 1,000 residents while the United States has 2.56. But perhaps more stark than this difference is the disparity in access to physical medical goods. Where Canada has 1.71 acute care hospital beds per 1,000 residents, the United States has 2.48. Canada has 8.8 MRI machines per million residents while the U.S. has an impressive 35.5 (2nd among all nations included in the report). With these statistics in mind, it is no wonder that the United States is able to perform over double the number of MRI examinations per capita than Canada (Mossialos et al. 2016). The story is similar for more than just hospital beds and MRI machines. “Canadians are sacrificing access to modern medical technology for first dollar coverage for primary care. Resource allocation is practiced, not through the price mechanism, but by setting limits on the investment in medical technology” (Ridic et al. 2012). This is not just a recent discrepancy, but rather one that goes back decades (Ruble 1989; Rublee 1994).

The Negative

Canadian healthcare is often used as a model for a future system in the United States because it does have a number of clear advantages. The healthcare provided in Canada is generally regarded as more popular, affordable, effective, and equitable.

¹¹ Although while specialist visits in the U.S. are better predicted by income, visits to specialists in Canada are better predicted by actual poor health which alludes to the more egalitarian and efficient aspects of the Canadian system (Kaplan et al. 2010).

First of all, public opinion seems to clearly favor the Canadian model. According to a 2013 survey referenced by the Commonwealth Fund report, 42% of Canadians responded that their healthcare system “works well and only minor changes are needed.” Only a quarter of Americans felt the same way about their own. When asked if they felt that the healthcare system needed to be “completely rebuilt,” only 8% of Canadians agreed while a whopping 27% of Americans favored the fundamental overhaul (Mossialos et al. 2016). It is no secret that many Americans are largely dissatisfied with the state of their healthcare system (Schoen et al. 2007). One of the ways to gauge quality of care is public satisfaction with it; but why do Americans respond with such low levels of enthusiasm for their own healthcare system?

The most obvious, and most widely cited reason, is the general cost of care. To get the same quality of care seen in Canada, Americans have to pay significantly more out of their own pockets (Schoen et al. 2007). Where only 13% of Canadians reported experiencing a healthcare access barrier because of cost in the past year, nearly three times that number of Americans did (37%) (Mossialos et al. 2016). Access to care is not guaranteed in the U.S. as it is in Canada (Maioni 2008), and for many experts this fact precludes many people without insurance (and many experts) from trumpeting the supposed boons of an American healthcare system that cannot be accessed by many. Not only is Canadian healthcare more affordable on a personal level, but macro-analysis has also shown that total expenditures are relatively stable and that there is no reason to believe that the Canadian model is less sustainable than the U.S. healthcare system (Sepehri and Chernomas 2004).

Perhaps these costs could even be justified if health outcomes were significantly better in the U.S. than in Canada, but research has continually shown that the U.S. actually scores markedly worse outcomes across a variety of measures. But “the paradox of high health care expenditure and low ranking on health care indicators has persisted for decades” in the United States (Spithoven 2009). For instance, U.S. registers the most avoidable deaths per capita and the second worst child vaccination rates of the countries included in the Commonwealth Fund report (Mossialos et al. 2016). Theoretically, user fees (like the ones seen in the U.S.) are supposed to reduce inefficiency by making it more costly, and thereby unlikely, for individuals to use the healthcare system for more minor or trivial injuries that do not need to be cared for by professionals. However, the evidence shows that user fees in the United States have not been capable of achieving better use of health services than Canada (CFHI 2014). The claim mentioned earlier, that some Canadians travel to the United States for health care provision, is also disputed in the academic community and research on the matter has argued that “results from these sources do not support the widespread perception that Canadian residents seek care extensively in the United States” (Katz et al. 2002).

The aforementioned cost barriers to care in the U.S. lead to noticeable inequities in care provision that prevent lower socioeconomic classes from receiving the same quality of care as wealthier citizens with better health insurance (Dickman et al. 2017). It is often more difficult for Americans with pre-existing conditions to acquire health insurance and access quality care as well. Canadians also experience less urban/rural health disparities than Americans (Blankenau 2010).

The epistemic claim that “the quality of health care is better in many ways in the US than in Canada” clearly has experts on each side of the issue. In general, health care provision seems to be conducted in a more equitable fashion in Canada. However, those who would accept the claim of US advantage have reasonably identified several issue areas where the quality of healthcare in the United States may have the edge, although not without some dispute. With the notable lack of consensus in the literature and amongst the expert community, certitude on this claim is unwarranted.

References

- Barua, Bacchus and Mackenzie Moir. 2019. “Waiting Your Turn: Wait Times for Health Care in Canada, 2019 Report.” *Fraser Institute*. December 10th, 2019. URL: <https://www.fraserinstitute.org/studies/waiting-your-turn-wait-times-for-health-care-in-canada-2019>
- Blankenau, Joe. 2010. “Comparing Rural Health and Health Care in Canada and the United States: The Influence of Federalism.” *Publius*, 40(2): 332-349.
- CFHI (Canadian Foundation for Health Improvement). 2014. “Myth: User Fees Ensure Better Use of Health Services.” *Journal of Health Services Research & Policy*, 19(2): 121-123.
- Dickman, Samuel L., David U. Himmelstein, and Steffie Woolhandler. 2017. “Inequality and the Health-Care System in the USA.” *The Lancet: America: Equity and Equality in Health*, 389(10077): 1431-1441.
- Ember, Sydney. 2020. “Bernie Sanders Went to Canada, and a Dream for ‘Medicare for All’ Flourished.” *The New York Times*. September 9th, 2019. URL: <https://www.nytimes.com/2019/09/09/us/politics/bernie-sanders-health-care.html>
- Gratzer, David. 1999. *Code Blue: Reviving Canada's Health Care System*. ECW Press.
- Jones, Bradley. 2020. “Increasing Share of Americans Favor a Single Government Program to Provide Health Care Coverage.” *Pew Research Center: Fact-tank*. September 29th, 2020. URL: <https://www.pewresearch.org/fact-tank/2020/09/29/increasing-share-of-americans-favor-a-single-government-program-to-provide-health-care-coverage/>
- Kaplan, Mark S., Nathalie Hugué, David Feeny, Bentson H. McFarland and Stacey S. Williams. 2010. “Visits to Family Physicians or Specialists by Elderly Persons in Canada and the United States: An Exploratory Comparative Study.” *International Journal of Health Services*, 40(1): 139-149.
- Knowledge@Wharton. 2017. “Is Canada the Right Model for a Better U.S. Health Care System?” Knowledge@Wharton. May 19, 2017. URL: <https://knowledge.wharton.upenn.edu/article/lessons-can-u-s-learn-canadian-health-care-system/>

- Katz, Steven J., Karen Cardiff, Marina Pascali, Morris L. Barer, and Robert G. Evans. 2002. "Phantoms In The Snow: Canadians' Use Of Health Care Services In The United States." *Health Affairs*, 21(3).
- Maioni, Antonia. 2008. "Health Care Reform in the 2008 U.S. Presidential Election." *International Journal*, 64(1): 135-144.
- Mossialos, Elias, Ana Djordjevic, Robin Osborn, and Dana Sarnak (eds.), *International Profiles of Health Care Systems*, The Commonwealth Fund. January 2016. URL: https://www.commonwealthfund.org/sites/default/files/documents/media_files_publications_fund_report_2016_jan_1857_mossialos_intl_profiles_2015_v7.pdf
- O'Neill, June E. and Dave M. O'Neill. 2007. "Health Status, Health Care and Inequality: Canada vs. the U.S." *NBER: Working Paper*, 13429. URL: <https://www.nber.org/papers/w13429>
- Pipes, Sally. 2020. "Sanders, Warren want 'Medicare-for-all' like Canada – But Canadian Health Care is Awful." *Fox News*. December 8th, 2020. URL: <https://www.foxnews.com/opinion/sally-pipes-sanders-warren-want-medicare-for-all-like-canada-but-canadian-health-care-is-awful>
- Ridic, Goran, Suzanne Gleason, and Ognjen Ridic. 2012. "Comparisons of Health Care Systems in the United States, Germany and Canada." *Materia Sociomedica*, 24(2): 112-120.
- Rogers, Kaleigh. 2016. "Fact-Checking Trump: Are Canadians Swarming the Border to Get Better Healthcare?" *Vice*. October 10th, 2016. URL: <https://www.vice.com/en/article/yp3qy5/fact-checking-trump-are-canadians-swarming-the-border-to-get-better-healthcare>
- Rublee, Dale A. 1989. "Medical Technology In Canada, Germany, And The United States." *Health Affairs*, 8(3).
- Rublee, Dale A. 1994. "Medical Technology In Canada, Germany, And The United States: An Update." *Health Affairs*, 13(4).
- Schoen, Cathy, Robin Osborn, Michelle M. Doty, Meghan Bishop, Jordon Peugh, and Nandita Murukutla. 2007. "Toward Higher-Performance Health Systems: Adults' Health Care Experiences in Seven Countries, 2007." *Health Affairs*, 26(6): 717-734.
- Sepethri, Ardeshir and Robert Chernomas. 2004. "Is the Canadian Health Care System Fiscally Sustainable?" *International Journal of Health Services*, 34(2): 229-243.
- Spithoven, Antonius Henricus Gerardus Maria. 2009. "Why U.S. Health Care Expenditure and Ranking on Health Care Indicators Are so Different from Canada's." *International Journal of Health Care Finance and Economics*, 9(1): 1-24.

Epistemic Claim 5: “Unauthorized immigration hurts the American economy”

In recent years, the economic impacts of unauthorized immigration have been hotly debated as immigration policy has continued to be a wedge issue in partisan politics and the culture wars.¹² Initial gut reactions of certainty to this epistemic claim are often initially defended by referring to negative short run employment impacts or depressed wage growth for native citizens or, for the opposing side, long term evidence of human capital gains and economic growth, but the larger picture of this story is one of complexity and nuance. The nebulous nature of “hurts the economy” is complicated by what one might perceive to be a negative impact (“hurts”) and what one perceives to be a part of “the American economy.” For instance, sacrificing higher wage growth and spending more federal dollars in the short run for future increases in human capital and education in the long run could be viewed as both hurting or helping the economy. Additionally, whether or not these effects are even factual is actually largely still up for debate as the evidence presented thus far has 1) been mixed and, perhaps more importantly, 2) mostly only been studied in relation to *legal immigration*. This is crucial to note as authorized and unauthorized immigrant populations are systematically different in numerous important ways (including but not limited to age, education, skill, language, and wealth differences) and the findings are therefore not simply generalizable across both groups. As our epistemic claim is about the effects of *unauthorized immigrants*, the volume of research that can reasonably claim to support only one side of this statement is thus seriously constrained. We will still note important research about the effects of legal immigration here too, as even though it is disputed from both sides as well, because it may offer clues to whether or not we can know if one side has more ground to stand on in this debate. It will be clearly noted below whether the evidence being presented has been studied regarding authorized or unauthorized immigration.

The number of unauthorized immigrants currently living in the United States is debated, although it is generally estimated to be somewhere in between 10.5 million (Kamarck and Stenglein 2019; Krogstad et al. 2019) and 14.3 million people (O’Brien et al. 2019), or roughly somewhere in between 3-5% of the U.S. resident population.¹³ This population is difficult to study for the same reasons we do not know their exact size: the numbers are constantly in flux, language barriers and

¹² We opt to primarily use the terminology “unauthorized immigrants” in this review but may sometimes adopt the nomenclature used by the studies that are being referenced. Partisans on either side may be more apt to use terms such as “undocumented immigrants” or “illegal immigrants” but our choice to define foreign-born non-citizens who are not legal residents of this country as “unauthorized immigrants” should not be interpreted as an attempt to “take a side” in this denotation debate.

¹³ The official Department of Homeland Security estimate of the 2015 population was 12 million unauthorized residents which is squarely in between these estimates (Baker 2018). The official estimate for total immigrant percentage of the U.S. population (including authorized immigrants) is 13.7% according to the U.S. Census Bureau in 2018.

fears regarding legal status often keep them from responding to studies conducted by the government or researchers, and incomes or work status often go unreported as well.

The Affirmative

A number of studies have found that the average wages of native citizens are lower in areas where immigrants tend to reside. These studies investigate *authorized* immigrants alone, though unauthorized immigrants could theoretically have an even stronger effect because business owners employing unauthorized immigrants have more leverage and often pay them even lower wages (Grossman 1982; Borjas 1990 [for white and black native male citizens]; LaLonde and Topel 1991 [for young black and Hispanic native citizens]).¹⁴ Regardless of the results, it should be noted that in all of these studies the relationship between immigrant population and wages is somewhat weak.

When it comes to employment, mixed results have been found and they portray a relationship that is less robust than the weak wage-immigration connection. Whether or not the following findings display positive or negative employment ramifications for certain demographic groups, their results all point to small effect sizes (Muller and Espenshade 1985; Borjas 1990; Altonji and Card 1991; Winegarden and Khor 1991; Simon et al. 1993; Borjas 1994).

The use of social services by unauthorized immigrants could be portrayed as employing resources that could have been used elsewhere to stimulate or grow the American economy, especially if this population's relative use of such services outweighs their respective tax contributions. Blau (1984) concluded that immigrant households displayed about the same likelihood of utilizing public assistance as native households. But follow up studies like Borjas and Trejo (1991) have found that immigrant households are more likely to be on welfare. This trend might even be accelerating as immigrant families may "assimilate into welfare" (Borjas 1994). This article also notes that both the reciprocity rates and dollar costs of immigrant welfare participation have been rising over time. "Put differently, the total amount of cash benefits received by immigrant households was 56% higher than would have been the case if immigrants used the welfare system to the same extent as natives" (Borjas 1994). Controversially, Huddle (1993) finds that in the aggregate, immigration raises the tax burden on native citizens by about \$40 billion annually.¹⁵ Camarota (2004) focuses on unauthorized immigrants specifically and purports to find that in totality, they created a net fiscal deficit of over \$10 billion in 2002 or about \$2,700 per household of unauthorized immigrants. This finding, trumpeted by the partisan Center for Immigration Studies, claims that the low education levels of unauthorized immigrants result in their earning of low incomes and, subsequently, low tax contributions that do not make up for the other costs that their presence accrues.

¹⁴ Importantly, other studies that we note below present findings that conflict with these (Bean et al. 1988; Altonji and Card 1991).

¹⁵ The contentiousness of this conclusion can be read about in Bornemeier 1994

Writing for *Politico Magazine* for the 2016 election, Borjas succinctly summed up the main takeaways from his decades of research on the issue of immigration and the economy: “Trump might cite my work, but he overlooks my findings that the influx of immigrants can potentially be a net good for the nation, increasing the total wealth of the population. Clinton ignores the hard truth that not everyone benefits when immigrants arrive. For many Americans, the influx of immigrants hurts their prospects significantly” (Borjas 2016).

The Negative

Card (2005) describes the evidence of immigrants having harmed the opportunities of less educated natives as “scant.” He is far from alone in asserting this claim. Chassamboulli and Peri (2015) find that the presence of unauthorized immigrants strengthen low skilled labor markets and even increase income per native citizen. Even more recently, Cadena and Kovak (2016) found that cities with higher Mexican-born populations (not necessarily unauthorized immigrants though) experienced fewer local demand shocks and employment shocks during economic downturns because of the “mobility” of this present workforce.

A report by the National Academies of Sciences, Engineering, and Medicine (NASEM) identifies the effects of immigration on the employment and wages of native born workers to be very small, and also noted that the children and grandchildren of immigrants often ended up being among the strongest fiscal and economic contributors in the U.S. economy suggesting long term positive impacts (NASEM 2017).

According to the US Department of Labor (2020), a higher percentage of foreign-born U.S. residents work (63.4%) than native born residents, who are less likely to be a part of the labor force (at 59.8%). Not only are immigrants more likely to work, but they also make up an important percentage of workers in some critical industries (including over a third of the workers in the farming, fishing, and forestry sector; Center on Budget and Policy Priorities 2019).

Contrary to some of the claims cited earlier, Passel and Clark (1994) find that immigrants pay \$27 billion more in taxes than they take out of the system. While this result refers to the effect of immigrants, and not specifically unauthorized immigrants, it showcases a finding that portrays immigration as a boon for the U.S. economy. Other researchers have found that unauthorized immigrants contribute far more to social security than they can/will use in benefits (Goss et al. 2013). With an aging population of native born Americans, this social security surplus effect is a helpful revenue source going forward. Similar effects have been found for the Medicare Trust Fund: “From 2000 to 2011, unauthorized immigrants contributed \$2.2 to \$3.8 billion more than they withdrew annually (a total surplus of \$35.1 billion). Had unauthorized immigrants neither contributed to nor withdrawn from the Trust Fund during those 11 years, it would become insolvent in 2029—1 year earlier than currently predicted” (Zallman et al. 2016).

When it comes to healthcare costs, Goldman et al. 2006 estimated in the mid-2000s that “total spending by the undocumented is \$6.4 billion, of which only 17 percent (\$1.1 billion) is paid for by public sources. The foreign-born (especially the undocumented) use disproportionately fewer medical services and contribute less to health care costs in relation to their population share, likely because of their better relative health and lack of health insurance” (Goldman et al. 2006). Other studies have also pointed to fears about deportation risks as a reason that unauthorized immigrants are less likely to seek out healthcare (Berk and Schur 2001; Chavez 2012). So perhaps America is benefitting from an influx of human capital made up of people who are not only working hard and consuming, but who also may be healthier and considerably less likely to utilize the expensive domestic healthcare system.

The overall evidence is inconclusive as to whether unauthorized immigration harms the American economy. Especially when it comes to scholarship looking at unauthorized immigrants in particular, the research is scarce and mixed. When expressing the current state of opinion on potential connections between migration and diminished wages for native citizens, Princeton Professor Stephen Macedo described the issue as “highly disputed” in the scholarly community (Macedo 2021). In regard to the issue of total contribution versus total drain on government revenue/spending, “it is a matter of considerable controversy, at least in the United States, whether aliens pay taxes greater than the additional expenditures that they cause” (Ethier 1986).

References

- Altonji, Joseph G. and David Card. 1991. "The Effects of Immigration on the Labor Market Outcomes of Less-Skilled Natives," in John M. Abowd and Richard B. Freeman, eds. 201-34.
- Bean, Frank D., Lindsay B. Lowell, and Taylor J Lowell. 1988. "Undocumented Mexican Immigrants and the Earnings of Other Workers in the United States," *Demography*, 25(1): 35-52.
- Berk, Marc L. and Claudia L. Schur. 2001. “The Effect of Fear on Access to Care Among Undocumented Latino Immigrants.” *Journal of Immigration Health*, 3(3): 151-156.
- Blau, Francine D. 1984. “The Use of Transfer Payments by Immigrants,” *Industrial and Labor Relations Review*, 37(2):222-39
- Borjas, George J. 1990. *Friends or Strangers: The Impact of Immigrants on the U.S. Economy*. New York: Basic Books.
- Borjas, George J. 1994. "The Economics of Immigration." *Journal of Economic Literature*, 32(4): 1667-717.
- Borjas, George J. 2016. “Yes, Immigration Hurts American Workers: The Candidates Tell Drastically Different Stories about Immigration. They’re both Skipping Half the Truth”

- Politico Magazine*, September/October. URL:
<https://www.politico.com/magazine/story/2016/09/trump-clinton-immigration-economy-unemployment-jobs-214216/>
- Borjas, George J. and Stephen J. Trejo. 1991. "Immigrant Participation in the Welfare System," *Industrial and Labor Relations Review*, 44(2), 195-211.
- Bornemeier, James. 1994. "Immigrant Cost Study Draws Fire: Economy: Updated Figures by Rice Professor Claim \$44-billion Expense to Taxpayers in 1993. Critics Call the Original and Revised Reports Flawed." *Los Angeles Times*, June 28th. URL:
<https://www.latimes.com/archives/la-xpm-1994-06-28-mn-9591-story.html>
- Cadena, Brian C., and Brian K. Kovak. 2016. "Immigrants Equilibrate Local Labor Markets: Evidence from the Great Recession." *American Economic Journal: Applied Economics*, 8(1): 257-90.
- Camarota, Steven A. "The High Cost of Cheap Labor: Illegal Immigration and the Federal Budget." URL: <https://cis.org/Report/High-Cost-Cheap-Labor>
- Card, David. 2005. "Is the New Immigration Really so Bad?" *The Economic Journal*, 115(507): F300-323.
- Center on Budget and Policy Priorities. 2019. "Immigrants Contribute Greatly to U.S. Economy, Despite Administration's "Public Charge" Rule Rationale." URL:
https://www.cbpp.org/research/poverty-and-inequality/immigrants-contribute-greatly-to-us-economy-despite-administrations#_ftn2
- Chassambouli, Andri and Giovanni Peri, 2015. "The Labor Market Effects of Reducing the Number of Illegal Immigrants," *Review of Economic Dynamics*, 18(4): 792-821.
- Chavez Leo R. 2012. "Undocumented immigrants and their use of medical services in Orange County, California." *Social Science and Medicine*, 74(6):887-893.
- Drake, Bruce. 2013. "Unauthorized Immigrants: How Pew Research Counts Them and What We Know About Them." *Pew Research Center*, April 17th, 2013.
- Ethier, Wilfred J. 1986. "Illegal Immigration: The Host-Country Problem." *The American Economic Review*, 76(1): 56-71.
- Goldman, Dana P., James P. Smith, and Neeraj Sood. 2006. "Immigrants and the Cost of Medical Care." *Health Affairs*, 25(6).
- Goss, Stephen, Alice Wade, J. Patrick Skirvin, Michael Morris, K. Mark Bye, and Danielle Huston. 2013. "Effects of Unauthorized Immigration on the Actuarial Status of the Social Security Trust Funds." *Actuarial Note: Social Security Administration*. URL:
https://www.ssa.gov/oact/NOTES/pdf_notes/note151.pdf
- Grossman, Jean Baldwin. 1982. "The Substitutability of Natives and Immigrants in Production" *The Review of Economics and Statistics*, 64(4): 596-603.

- Huddle, Donald. 1993. *The Costs of Immigration*. Rice University.
- Kamarck, Elaine and Christine Stenglein. 2019. "How Many Undocumented Immigrants are in the United States and who are they?" *Brookings Policy 2020: Voter Vitals*, November 12th, 2019. URL: <https://www.brookings.edu/policy2020/votervital/how-many-undocumented-immigrants-are-in-the-united-states-and-who-are-they/>
- Krogstad, Jens Manuel, Jeffrey S. Passel, and D’Vera Cohn. 2019. "5 Facts about Illegal Immigration in the U.S." *Pew Research Center: Fact Tank*, June 12th, 2019. URL: <https://www.pewresearch.org/fact-tank/2019/06/12/5-facts-about-illegal-immigration-in-the-u-s/>
- Lalonde, Robert J. and Robert H. Topel. 1991. "Labor Market Adjustments to Increased Immigration," in John M. Abowd and Richard B. Freeman, eds. 167-199.
- Macedo, Stephen. "After the Backlash: Immigration, Populism, and Liberal Nationalism." *American University Political Theory Institute Virtual Event*. URL: <https://www.youtube.com/watch?v=ubL68W3Wy1E&list=PLjmO8qJpTjnUiwnZLVQV2-m7aZ4CpM8uN&index=4>
- Muller, Thomas and Thomas J. Espenshade. 1985. *The Fourth Wave*. Washington, DC: Urban Institute Press.
- NASEM 2017. "The Economic and Fiscal Consequences of Immigration."
- O’Brien, Matt, Spencer Raley and Casey Ryan. 2019. "How Many Illegal Aliens Live in the United States?" *Federation for American Immigration Reform Fact Sheet*, September 2019. URL: https://www.fairus.org/sites/default/files/2019-09/IssueBrief_How-Many-Illegal-Aliens-in-the-US_2019_1.pdf
- Ousey, Graham C. and Charis E. Kubrin 2009. "Exploring the Connection between Immigration and Violent Crime Rates in U.S. Cities, 1980–2000." *Social Problems*, 56(3): 447-473.
- Passel, Jeffrey S. and Rebecca L. Clark. 1994. "How Much Do Immigrants Really Cost? A Reappraisal of Huddle's "The Costs of Immigrants." *Urban Institute*.
- Reid, Lesley Williams, Harald E. Weiss, Robert M. Adelman, and Charles Jaret. 2005 "The Immigration–Crime Relationship: Evidence Across US Metropolitan Areas." *Social Science Research*, 34(4): 757-780.
- Simon, Julian L., Stephen Moore, and Richard Sullivan. 1993. "The Effect of Immigration on Aggregate Native Unemployment: An Across-City Estimation," *Journal of Labor Research*, 14(3): 299-316.
- U.S. Department of Labor, Bureau of Labor Statistics. 2020. "Employment Status of the Foreign-born and Native-Born Populations by Selected Characteristics, 2017-2018 Annual Averages," Table 1, URL: <https://www.bls.gov/news.release/forbrn.t01.htm>.

Wadsworth, Tim. 2010. Is Immigration Responsible for the Crime Drop? An Assessment of the Influence of Immigration on Changes in Violent Crime between 1990 and 2000." *Social Science Quarterly*, 91(2): 531-553.

Winegarden, C.R. and Lay Boon Khor. 1991. "Undocumented Immigration and Unemployment of U. S. Youth and Minority Workers: Econometric Evidence," *Review of Economic Statistics*, 73(1): 105-112.

Zallman, Leah. 2016. "Unauthorized Immigrants Prolong the Life of Medicare's Trust Fund." *Journal of General Internal Medicine*, 31: 122-27.

Claim 6: “Human life begins at conception”

Perhaps the most controversial epistemic claim on this list because of its connection to abortion politics, when life begins is a debate that has endured throughout history and is likely not going away anytime soon. The definitions in this sentence are of the utmost importance. “Conception” is relatively easier to define than “life,” as conception is generally regarded as the moment when a sperm cell gamete meets the inner portion of an egg and fertilizes it in order to create a diploid organism called a zygote.¹⁶ “Life” on the other hand, can take on a number of meanings and may be defined differently depending on the academic tradition that is being discussed. In the philosophy literature, the first moment of life might be where a being earns moral value; in theology literature, the beginning of life may be when a new soul enters a body; and from a biological perspective, life may be the moment in which a zygote comes into being with DNA that is fundamentally different than those of the father and mother. What all of these literatures do have in common on the subject though is that there is heated disagreement amongst the experts in each of them. Due to the inherent subjectivity and unscientific nature of philosophy and theology, this analysis will focus primarily on the biological and legal interpretations of when life begins.¹⁷ However, it should be noted that this debate is far from settled in philosophy and theology as well (Gilbert et al. 2005), with vigorous dissent in between different philosophical schools of thought, religions, and distinct denominations within religions (Neaves 2017).

The Affirmative

Those who believe that life begins at conception claim that this view is held by the vast majority of biologists (Jacobs 2018). If any point in the development process has garnered the most support in the biological community as the point at which life begins, it is conception. This idea is illustrated by the following list of passages:

“Although life is a continuous process, fertilization is a critical landmark because, under ordinary circumstances, a new, genetically distinct human organism is thereby formed.... The combination of 23 chromosomes present in each pronucleus results in 46 chromosomes in the zygote. Thus the diploid number is restored and the embryonic genome is formed. The embryo now exists as a genetic unity” (O’rahilly and Müller 1996, 8).

¹⁶ However, there is some debate as to whether conception is referring to this particular moment or the entire time that it takes sperm within the woman’s body to reach the inner portion of the egg (a process which can actually take 12-24 hours) (Shannon and Wolter 1990).

¹⁷ Although the two are certainly intertwined, we, in this review, are not attempting to make moral claims or survey literature that decides at what point in development that a human earns certain rights. Our goal is simply to convey the scientific disagreement over when the beginning point of life occurs.

“Zygote: This cell, formed by the union of an ovum and a sperm represents the beginning of a human being. The common expression 'fertilized ovum' refers to the zygote” (Moore and Persaud 1993, 1).

“The chromosomes of the oocyte and sperm are... respectively enclosed within female and male pronuclei. These pronuclei fuse with each other to produce the single, diploid, 2N nucleus of the fertilized zygote. This moment of zygote formation may be taken as the beginning or zero time point of embryonic development” (Larsen 1997, 17).

“Almost all higher animals start their lives from a single cell, the fertilized ovum (zygote)... The time of fertilization represents the starting point in the life history, or ontogeny, of the individual” (Carlson 1996, 3).

“The development of a human begins with fertilization, a process by which the spermatozoon from the male and the oocyte from the female unite to give rise to a new organism, the zygote” (Sadler 1995, 3).

“Embryo: At the moment the sperm cell of the human male meets the ovum of the female and the union results in a fertilized ovum (zygote), a new life has begun.... The term embryo covers the several stages of early development from conception to the ninth or tenth week of life” (Considine 1976, 943).

“The development of a human being begins with fertilization, a process by which two highly specialized cells, the spermatozoon from the male and the oocyte from the female, unite to give rise to a new organism, the zygote” (Langman 1975, 3).

“Human development begins after the union of male and female gametes or germ cells during a process known as fertilization (conception). Fertilization is a sequence of events that begins with the contact of a sperm (spermatozoon) with a secondary oocyte (ovum) and ends with the fusion of their pronuclei (the haploid nuclei of the sperm and ovum) and the mingling of their chromosomes to form a new cell. This fertilized ovum, known as a zygote, is a large diploid cell that is the beginning, or primordium, of a human being” (Moore 1988, 2).

These sources all seem to be pretty clear that fertilization during conception is the moment where a separate, new life begins. However, there is a growing number of experts who dissent from this view and attempt to provide evidence that conception is not the onset of life.

The Negative

Some scientists argue that if the *end* of life is, in part, described as when humans cease using oxygen, then the starting point should be defined as when humans begin to consume oxygen. This point actually occurs about a week after fertilization, when a blastocyst successfully implants in the mother's womb and begins taking oxygen from her blood (Merritt and Merritt 2010). Similarly, there are other arguments that life may begin rather early in pregnancy, but still in the aftermath of conception. For instance, here is one such popular argument: "Organisms during their early stages exhibit self-directed development, or in other words development 'from within'; but the zygote's development until the four to eight cell stage is externally directed by the mother's RNA (inherited from the ovum), and so the zygote during this phase is not an organism" (Stretton 2008).

Even if these arguments are rejected, "the twinning argument" still poses a barrier for those who believe that all human life begins at conception. Non-conjoined monozygotic twins can actually form up until about Day 14 of embryonic development (the more rare twinning that occurs after Day 14 is likely to result in conjoined twins) (Hall 2003). Scholars have interpreted this argument to mean that not all life, therefore, may begin at conception if new individual lifeforms, albeit with the same genetic material, can come into being later in the process. Some of these scientists thus believe that gastrulation, or the point at which embryos have implanted into the uterus and can now no longer split into more than one human being, is the point at which life begins (Renfree 1982; Grobstein 1988; Surve 2009).

Other experts in the biomedical community define life based on types of brain activity. "Brain birth" at any point from 25 days to 36 weeks gestation (Jones 1998). The first appearance of detectable brain waves is generally regarded to be in between 22-24 weeks of gestation and this is another commonly argued point of life origin. This neurological view of life is often attributed to Morowitz and Trefil (1992).

Others point to a variety of other landmarks in development such as the detection of a heartbeat, fetal viability outside the womb, or even the point of birth. However, others see little value in attempting to identify a beginning point of life, and claim that life is better represented as a continuum (Paulson 2017). This perspective that no single developmental moment marks the starting point of life is sometimes referred to as the "metabolic view" (as opposed to the "genetic view" that life begins at fertilization).

In sum, there is reasonably plausible evidence on both sides of this debate. The scientific community is divided over it and will likely remain so for years to come. Swarthmore Professor Scott F. Gilbert wrote, "As an embryologist and the author of embryological textbooks, I can say with absolute assurance: There is no consensus among embryologists as to when an individual human life begins" (Gilbert 2016). This clear lack of consensus on the issue signals that responding with certitude in regards to the veracity of this claim is indeed unwarranted.

References

- Carlson, Bruce M. 1996. *Patten's Foundations of Embryology*. 6th edition. New York: McGraw-Hill.
- Considine, Douglas M. 1976. *Van Nostrand's Scientific Encyclopedia*. 5th Edition. New York: New York.
- Gilbert, Scott F., Scott Gilbert, Anna L. Tyler, and Emily Zackin. 2005. *Bioethics and the New Embryology: Springboards for Debate*. Macmillan.
- Grobstein, Clifford. 1988. *Science and the Unborn: Choosing Human Futures*. Basic Books, NY.
- Hall, Judith G. 2003. "Twinning." *The Lancet*, 362(9385): 735-743.
- Jacobs, Steven Andrew. 2018. "Biologists' Consensus on 'When Life Begins.'" *SSRN Working Paper*, Available at SSRN: <https://ssrn.com/abstract=3211703>
- Jones, D. Gareth. 1998. "The Problematic Symmetry Between Brain Birth and Brain Death." *Journal of Medical Ethics*, 24(4): 237-242.
- Langman, Jan. 1975. *Medical Embryology*. 3rd edition. Baltimore: Williams and Wilkins.
- Larsen, William J. 1997. *Human Embryology*. 2nd edition. New York: Churchill Livingstone.
- Merritt, John L., and I. I. J Lawrence Merritt. 2010. *When Does Human Life Begin?-Scientific, Scriptural, and Historical Evidence Supports Implantation*. Crystal Clear Books.
- Moore, Keith L. 1988. *Essentials of Human Embryology*. Toronto: B.C. Decker Inc.
- Moore, Keith L., and T. V. N. Persaud. 1993. *Before We Are Born: Essentials of Embryology and Birth Defects*. 4th edition. Philadelphia: W.B. Saunders Company.
- Morowitz, Harold. J. and James S. Trefil. 1992. *The Facts of Life: Science and the Abortion Controversy*. Oxford University Press.
- Neaves, William. 2017. "The Status of the Human Embryo in Various Religions." *Development*, 144(14): 2541-2543.
- O'rahilly, Ronan, and Fabiola Müller. 1996. *Human Embryology & Teratology*. 2nd ed. New York: Wiley-Liss.
- Paulson, Richard J. 2017. "The Unscientific Nature of the Concept that "Human Life Begins at Fertilization, and Why it Matters." *Fertility and Sterility*, 107(3): 566-567.
- Renfree, M. B. 1982. "Implantation and Placentation." In Austin, C. R. and Short, R. V. (eds.) *Reproduction in Mammals 2. Embryonic and Fetal Development*. 2nd Edition. Cambridge University Press.
- Sadler, Thomas W. 1995. *Langman's Medical Embryology*. 7th edition. Baltimore: Williams & Wilkins.

- Shannon, Thomas A. and Allan B. Wolter. 1990. "Reflections on the Moral Status of the Pre-Embryo." *Theological Studies*, 51.
- Stretton, Dean. 2008. "Critical Notice: "Defending Life: A Moral and Legal Case against Abortion Choice" by Francis J Beckwith." *Journal of Medical Ethics*, 34(11): 793-797.
- Surve, Sajid. 2009. "Medical Controversy- When Does Life Begin?" *Brain Blogger*, May 10th, 2009.
URL: <https://brainblogger.com/2009/05/10/medical-controversy-when-does-life-begin/>

Claim 7: “Significant increases in the minimum wage reduce poverty”

A long history of economic research has attempted to answer the question of whether or when minimum wage increases are beneficial. The key words to pay attention to in this claim are “significant” and “poverty.” This would seem to exclude smaller increases in the minimum wage or those meant to merely keep pace with inflation. The focus on reducing “poverty” also is crucial to keep in mind as it is the dependent variable of this claim, instead of others that are also commonly tied to minimum wage policy (e.g., diminishing income inequality or changes in productivity of labor). Poverty is a state of destitution that is experienced by roughly 10% of the United States (Semega et al. 2020). It is this class of the population and not better off members of society above the poverty line who are the focus of this claim.

The sheer amount of literature surrounding this topic is both impressive and a function of how long this policy prescription has been debated in American politics. Even today, economic experts have not reached broad agreement on minimum wage increases and their ability to help people out of impoverishment. The two opposing camps both have scholarly evidence to back them up, but there is far from a consensus amongst the expert community.

The Affirmative

As the last few decades have been plagued by declining mobility rates out of low wage work in the United States (Schultz 2019), some economic experts and politicians have proposed significant increases in the minimum wage level as a strategy to meaningfully reduce poverty. There is some support for this in the literature. Flinn (2006) finds that minimum wage increases can improve the welfare of labor market participants. In a study analyzing increases in the federal minimum wage between 1947 and 1997, Wolfson and Belman (2004) observe that the minimum wage increases were able to raise average wages across a number of industries (especially the lowest wage ones) while having a typically non-significant effect on employment. Any consensus that may have existed in the economic community on minimum wage escalations increasing unemployment has been substantially damaged following a landmark study by Card and Krueger (1994). “Ever since the path-breaking work of Card and Krueger (1994), many economists have become increasingly open to the possibility that the prediction of the classical model regarding minimum wages and job loss is wrong” (Bernstein and Shierolz 2014). In their quasi-experimental study taking advantage of the new enactment of an increased minimum wage for fast food restaurants in New Jersey, Card and Krueger’s results actually connect the higher minimum wage with an increase in employment and find no evidence that it negatively influenced the number of McDonald’s restaurants that opened in the state. Following in this tradition, Bernstein and Shierolz argue: “Increasing the minimum wage to \$10.10 would channel billions of dollars to people living below the poverty threshold—\$5 billion according to the CBO (2014)—and it would raise many over the line. CBO finds that increasing the minimum wage to \$10.10 would lift 900,000 out of official poverty. In 2012 the nonelderly poverty

rate was 15.9 percent; 900,000 fewer people in poverty would drop that to 15.6” (Bernstein and Shierolz 2014, 1041).¹⁸

Scholars have also called for increases to the minimum wage levels to help reduce poverty outside of the U.S. context as well. Belser and Rani (2011) estimate that the expansion of the minimum wage to all wage earners could improve the earnings of 73-76 million workers and that it would substantially reduce poverty even if there were some effects on employment levels. Lessons from Mexico could also be taken as a warning about why minimum wage policy is important, as Bosch and Manacorda (2010) find that decline in the real value of the minimum wage in Mexico (due to policymakers not keeping up with inflation) was the culprit behind increased poverty and growth in inequality at the bottom end.

Studies that purport to find that minimum wage increases reduce poverty are sometimes criticized for their restrictive assumptions and model specifications that all but ensure the conclusion of a reduction in poverty. However, Addison and Blackburn (1999) specifically designed their study with a flexible, reduced-form approach that guards against many of these traditional critiques, and still find poverty reducing effects of minimum wage laws among teenagers and older junior high dropouts. This inspired further work on the potential of a “youth minimum wage” to reduce poverty and increase employment for young people, but much of that work has reached mixed conclusions. “All in all, the results from the difference-in-differences studies do not all point in the same direction. Some studies find clear negative effects of a relative increase in the youth minimum wage on the employment of youngsters, sometimes accompanied by positive employment spillover effects for older age groups. However, there are also studies that do not find a significant relationship between youth minimum wage and employment rates of youngsters. On the basis of the available evidence, it is difficult to draw strong conclusions as to whether there should be a separate youth minimum wage” (Boeri and Van Ours 2013).

The relative size of the minimum wage increase could also affect the potential benefits. There is evidence that small increases in the minimum wage can hurt wage growth for low wage workers but that a significant increase in the minimum wage, like the epistemic claim states, increases wages for those who previously earned less (Lopresti and Mumford 2016). Additionally, some studies show that such minimum wage increases can actually increase job stability and lower separation rates (Brochu and Green 2013; Gittings and Schmutte 2016).

¹⁸ Although they do note that “the minimum wage is not primarily an antipoverty tool and the poverty threshold is an arbitrary and inadequate line-in-the-sand” (Bernstein and Shierolz 2014, 1041).

The Negative

Academic division on this claim is clear, as a large amount of evidence indicates that significant minimum wage increases do not help reduce poverty and instead lower levels of employment. In the economics literature, minimum wage policy has a tradition of being labeled as ineffective in meeting its own aims, as it has been generally thought to increase unemployment. Some of this work is even relatively recent (Sabia et al. 2012). Brochu and Green (2013) did find that higher minimum wages resulted in lower job separation rates, but at the same time they identified that it resulted in lower hiring rates as well. The Card and Krueger (1994) study is often criticized for its short time horizon (only including a few months after the law was implemented). Critics point out that job growth over the long run will still be endangered by the policies studied, which is not considered in this research. Significant minimum wage increases could also have other long term consequences that are detrimental for poverty reduction. In Maryland from 1993-2004, higher minimum wages led to higher high school dropout rates for Hispanic students (Crofton 2009). This is a dangerous negative impact in light of the well established connection between high school completion and future earnings. Significant minimum wage policies are also found to be ineffective anti-poverty measures because they raise consumer prices in ways that are more regressive than even typical state sales taxes (MaCurdy 2015).

“One of the more surprising findings in the minimum wage literature is that, even under the most favorable assumption that the minimum wage had no disemployment effect, its effect on poverty or the income distribution is not very large” (Brown 1988). But how could raising the wages of those earning the smallest wages not meaningfully reduce poverty? The answer is a condition that has been known for a long time in the economics literature: the correlation between being a low wage worker and being a member of an impoverished family is quite weaker than is often thought (Stigler 1946). This is also the case in Canada where it was found that even without any negative employment effects, planned increases in Ontario’s minimum wage would lead to virtually no reduction in poverty in part because 75% of poor households do not have a member who is a low wage earner and because 80% of low wage earners are not a part of poor households (Mascella et al. 2009). Even when the focus is placed specifically on poor households, some experts think that an increased minimum wage would actually increase the proportions of families with income below or near the poverty line (Neumark et al. 2005). This conclusion is diametrically opposed to the epistemic claim and is part of a pattern in the literature of economic studies finding that increases in the minimum wage are actually not helping the targeted populations that they are intended to assist. Single mothers make up one of the most impoverished demographics in the country, but they are not aided by minimum wage increases because most single mothers already make above the minimum wage and the others saw no net rise in income because of negative employment and hours effects (Sabia 2008). While some of the research supporting the epistemic claim focused on the teenage population, less is known about how impoverished adult workers are impacted. “Uncertainty about the effects on adults is a serious gap in the literature, since half of all minimum wage workers (and, of course, a larger fraction of all workers) are adults. Less can be said with confidence about the

effect of the minimum wage on employment in low-wage industries and areas” (Brown et al. 1982). The presence of doubt on this topic in the literature seems evident.

The tension between concerns regarding wage levels and employment levels as a result of minimum wage policy are well summarized by the following passage from Boeri and Van Ours (2013, 57): “economic theory also does not provide firm guidance on the impact of the minimum wage on poverty. A working poor person employed at the minimum wage may experience an increase in income if that person’s job is not destroyed, reducing the poverty rate (the percentage of individuals having incomes below the poverty line), but if the minimum wage hike destroys jobs, some individuals will experience a drop in their incomes, increasing the incidence of poverty (the difference between the average incomes of those above and below the poverty line), if not the poverty rate itself. In dual labor markets an increase in the minimum wage could quite paradoxically end up increasing earnings inequality [and failing to reduce poverty overall].”

References

- Addison, John T. and McKinley L. Blackburn. 1999. “Minimum Wages and Poverty.” *ILR Review*, 52(3): 393-409.
- Belser, Patrick and Uma Rani. 2011. “Extending the Coverage of Minimum Wages in India: Simulations from Household Data.” *Economic and Political Weekly*, 46(22): 47-55.
- Bernstein, Jared and Heidi Shierholz. 2014. “The Minimum Wage: A Crucial Labor Standard that is Well Targeted to Low and Moderate Income Households.” *Journal of Policy Analysis and Management*, 33(4): 1036-1043.
- Boeri, Tito and Jan Van Ours. 2013. *The Economics of Imperfect Labor Markets*. Princeton University Press.
- Bosch, Mariano and Marco Manacorda. 2010. “Minimum Wages and Earnings Inequality in Urban Mexico.” *American Economic Journal: Applied Economics*, 2(4): 128-149.
- Brochu, Pierre and David A. Green. 2013. “The Impact of Minimum Wages on Labour Market Transitions.” *The Economic Journal*, 123(573): 1203-1235.
- Brown, Charles, Curtis Gilroy, Andrew Kohen. 1982. “The Effect of the Minimum Wage on Employment and Unemployment.” *Journal of Economic Literature*, 20: 487-528.
- Brown, Charles. 1988. “Minimum Wage Laws: Are They Overrated?” *The Journal of Economic Perspectives*, 2(3): 133-145.
- Card, David and Alan B. Krueger. 1994. “Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania.” *The American Economic Review*, 84(4): 772-793.

- Crofton, Stephanie O., William L. Anderson, and Emily C. Rawe. 2009. "Do Higher Real Minimum Wages Lead to More High School Dropouts? Evidence from Maryland across Races, 1993-2004." *The American Journal of Economics and Sociology*, 68(2): 445-464.
- Flinn, Christopher J. 2006. "Minimum Wage Effects on Labor Market Outcomes Under Search Matching, and Endogenous Contact Rates." *Econometrica*, 74(4): 1013-1062.
- Gittings, Kaj and Ian M. Schmutte. 2016. "Getting Handcuffs on an Octopus." *ILR Review*, 69(5): 1133-1170.
- Lopresti, John W. and Kevin J. Mumford. 2016. "Who Benefits from a Minimum Wage Increase?" *ILR Review*, 69(5): 1171-1190.
- MaCurdy, Thomas. 2015. "How Effective is the Minimum Wage at Supporting the Poor?" *Journal of Political Economy*, 123(2): 497-545.
- Mascella, Allison, Shahzia Teja, and Brennan S. Thompson. 2009. "Minimum Wage Increases as an Anti-Poverty Policy in Ontario." *Canadian Public Policy*, 35(3): 373-379.
- Neumark, David, Mark Schweitzer, and William Wascher. 2005. "The Effects of Minimum Wages on the Distribution of Family Incomes: A Nonparametric Analysis." *The Journal of Human Resources*, 40(4): 867-894.
- Sabia, Joseph J. 2008. "Minimum Wages and the Economic Well-Being of Single Mothers." *Journal of Policy Analysis and Management*, 27(4): 848-866.
- Sabia, Joseph J., Richard V. Burkhauser, and Benjamin Hansen. 2012. "Are the Effects of Minimum Wage Increases Always Small? New Evidence from a Case Study of New York State." *ILR Review*, 65(2): 350-376.
- Schultz, Michael A. 2019. "The Wage Mobility of Low-Wage Workers in a Changing Economy, 1968 to 2014." *RSF: The Russell Sage Foundation Journal of the Social Sciences: Changing Job Quality: Causes, Consequences, and Challenges*, 5(4): 159-189.
- Semega, Jessica, Melissa Kollar, Emily A. Shrider, and John Creamer. 2020. "Income and Poverty in the United States: 2019: *United States Census Bureau*. Report #P60-270. September 15th, 2020. URL: <https://www.census.gov/library/publications/2020/demo/p60-270.html>
- Stigler, George J. "The Economics of Minimum Wage Legislation." *The American Economic Review*, 36(3): 358-65.
- Wolfson, Paul and Dale Belman. 2004. "The Minimum Wage: Consequences for Prices and Quantities in Low-Wage Labor Markets." *Journal of Business & Economic Statistics*, 22(3): 296-311.

Claim 8: “Charter schools harm regular public schools”

Charter schools are a relatively new policy invention in the United States. Minnesota passed the first charter school law in the country in 1991. As the commissioning of new charter schools increased nationwide afterwards, heated disagreement followed over their true effectiveness and impact on traditional public schools (Foster 2014). Before diving into the arguments concerning funding and student allocation, market competition, and policy diffusion, it is crucial to carefully examine the claim and the definition of “charter schools” specifically.

Charter schools are publicly funded schools that are operated by independent groups.¹⁹ These schools do not have to follow the same state and local regulations and laws as traditional public schools, which allows them more flexibility in setting rules, curriculum, hours, hiring and firing standards, etc. In theory, these schools can: provide a valuable alternative to poorly performing public schools in certain regions, provide market competition for area public schools and incentivize their necessary improvement, and test out new educational methods that could improve instruction and scholastic achievement. However, whether or not these schools are actually effective at achieving these aims is a matter of great debate. This claim states that “charter schools harm regular public schools.” Even if charter schools aren’t as attractive as some make them out to be, through what mechanisms could they be harming traditional public schools? Those who support this claim assert that charter schools hurt public schools by cutting into their funding, stealing their best students, and disproportionately leaving behind students who are the most difficult and expensive to educate. Now, let us investigate whether the research on this subject supports these allegations.

The Affirmative

Opponents of charter schools often claim that they steal funding dollars that would have gone to traditional public schools and then often generate worse educational and social outcomes with those resources. Some of the academic literature does back this line of thinking. “Revenues diverted from school districts to charter schools exceed the costs that charter school enrollments allow districts to shed, thereby causing districts to bear part of the burden of the excess costs charter schools generate” (Bifulco and Reback 2014, 101). Ladd and Singleton (2020) estimate that the large negative fiscal impact that charter schools can have on traditional public schools can actually be upwards of \$500 per student. In total, estimates in California from the 2016-2017 school year assess that the unchecked expansion of charter schools has led to millions of dollars in budget shortfalls for some urban school districts. These budgetary shortages can force traditional public schools to make harmful cuts to student resources like counseling, libraries, and special education (Lafer 2018).

Crowding out financial resources is certainly harmful, but are those reductions in funding visible in the form of worse performance in the traditional public schools? Overall, the evidence is mixed but

¹⁹ Nathan (2005) discusses features of the charter school approach.

there are certainly studies that show this to be the case. Imberman (2011) finds that charter schools induce modest but statistically significant drops in math and language test scores for students in traditional public schools, particularly for elementary school students (Imberman 2011, 850). An earlier study conducted in Ohio noticed a similar effect on math and reading test passage rates (Carr and Ritter 2007).

Lower test scores are not the only concern at play. Since charter schools pull their students from populations that were going to traditional public schools, there is also potential for them to selectively draw certain “samples” and leave others behind (sometimes intentionally and sometimes unintentionally). Charter schools in Arizona, for example, were found to not be providing equal access for children with disabilities (McKinney 1996). These students, who are often more expensive to educate, were disproportionately left to the public school districts in the state. English language learning students are also less likely to attend charter schools (Anderson 2016). Additionally, others have found that charter schools have amplified racial re-segregating effects in the traditional public school system (Orfield et al. 2013; Anderson 2016).

The Negative

Alternatively, there is also a great deal of scholarship which maintains that not only do charter schools not harm traditional public schools, but that they actually help and improve them in a multitude of ways. One of the avenues focused on the most, and often cited as a reason for adding charter schools, are the supposed “competition effects” that they bring. One of the ways in which charter schools help public schools is by putting pressure on them to improve. Some of the scholarship notes that school leaders can recognize this kind of competition and then engage in subsequent strategies including attempts to increase student performance (Jabbar 2015). These attempts to increase performance in the face of competition may be working. “Charter schools significantly increase traditional public schools’ student performance in both English language arts and math” (Cordes 2018, 484). This same article found that, at the very least, charter schools have no significant negative effects on student performance in nearby traditional public schools. An increase in math and reading scores in nearby traditional public schools as a result of charter school competition and/or improved peer-effects (through public schools taking disruptive or below-average learners) was also found by Sass (2006). In a review of the literature on the competition effects of charter schools, a RAND Research Report (Zimmer et al. 2009, 77) stated “generally, these studies found small, positive competitive effects or no other effects on students in nearby traditional public schools.”

A broad review of the literature indicates that “there’s an empirical disagreement about whether charter schools will have positive or negative indirect effects on students in district public schools”

(Gill 2020).²⁰ The scholarship and the experts are clearly divided on this epistemic claim. Answering that charter schools certainly harm public schools ignores their plausible achievement improvement effects, and responding with certainty that charter schools do not harm public schools disregards the financial and social realities of charter school introduction. There is no consensus in favor of or against this claim statement.

References

- Anderson, Morgan. 2016. "Charter School Reform: Doublethink and the Assault on the Vulnerable." *Journal of Thought*, 50(3-4): 33-48.
- Bifulco, Robert and Randall Reback 2014. "Fiscal Impacts of Charter Schools: Lessons from New York." *Education Finance and Policy*, 9(1): 86-107.
- Carr, Matthew and Gary Ritter. 2007. "Measuring the Competitive Effect of Charter Schools on Student Achievement in Ohio's Traditional Public Schools." *Working Paper*, URL: <https://www.semanticscholar.org/paper/Measuring-the-Competitive-Effect-of-Charter-Schools-Carr-Ritter/7c4c8018ab9584df5a56c0e055731624fb485674>
- Cordes, Sarah A. 2018. "In Pursuit of the Common Good: The Spillover Effects of Charter Schools on Public School Students in New York City." *Education Finance and Policy*, 13(4): 484-512.
- Foster, Anne. 2014. "Time for Détente Between Charter and Traditional Public Schools." *The Phi Delta Kappan*, 95(5): 18-22.
- Gill, Brian P. 2020. "The Effect of Charter Schools on Students in Traditional Public Schools: A Review of the Evidence." *Education Next*, URL: <https://www.educationnext.org/the-effect-of-charter-schools-on-students-in-traditional-public-schools-a-review-of-the-evidence/#:~:text=Six%20studies%20found%20some%20evidence,and%20one%20found%20negative%20effects.&text=In%20nine%20other%20cases%2C%20encompassing,district%20schools%2C%20positive%20or%20negative>.
- Imberman, Scott A. 2011. "The Effect of Charter Schools on Achievement and Behavior of Public School Students." *Journal of Public Economics*, 95(7-8): 850-863.
- Jabbar, Huriya. 2015. "'Every Kid Is Money': Market-Like Competition and School Leader Strategies in New Orleans." *Educational Evaluation and Policy Analysis*, 37(4): 638-659.
- Ladd, Helen F. and John D. Singleton. 2020. "The Fiscal Externalities of Charter Schools: Evidence from North Carolina." *Education Finance and Policy*, 15(1): 191-208.

²⁰ This article classifies a number of studies about charter schools' impacts on traditional public schools; however, it should be taken with a grain of salt as this article is not peer reviewed and does not come from a neutral source.

- Lafer, Gordon. 2018. "Breaking Point: The Cost of Charter Schools for Public School Districts." *In the Public Interest Report*, May 2018. URL: https://www.inthepublicinterest.org/wp-content/uploads/ITPI_Breaking_Point_May2018FINAL.pdf
- McKinney, Joseph R. 1996. "Charter Schools: A New Barrier for Children with Disabilities." *Educational Leadership*, 54(2): 22-25.
- Nathan, Joe. 2005. "Charters "Yes!" Vouchers "No!" *Educational Horizons*, Winter 2005, 83(2): 110-124.
- Orfield, Myron W., Baris Gumus-Dawes, and Thomas Luce. 2013. "Failed Promises: Assessing Charter Schools in the Twin Cities." In *Educational Delusions?: Why Choice Can Deepen Inequality and How to Make Schools Fair*, 145-158. University of California Press.
- Sass, Tim R. "Charter Schools and Student Achievement in Florida." *Education Finance and Policy*, 1(1): 91-122.
- Zimmer, Ron, Brian Gill, Kevin Booker, Stephane Lavertu, Tim R. Sass, John Witte. 2009. "Charter Schools in Eight States: Effects on Achievement, Attainment, Integration, & Competition." *RAND Research Report*. URL: <https://www.rand.org/pubs/monographs/MG869.html>

Claim 9: “When it comes to success, grit is more important than luck”

Rooted in the very idea of the American Dream is the claim that anyone, regardless of where they grew up or the economic class into which they were born, can attain success as a product of their own hard work. It isn't necessarily that proponents of this creed completely disregard luck or the potential influence of chance. However, there is a tradition of belief that the impact of luck pales in comparison to the value of perseverance and pure effort. The notion that hard workers “make their own luck” can even be traced throughout American history in the quotes of “the successful.” Thomas Jefferson once professed, “I am a great believer in luck, and I find the harder I work, the more I have of it.” Similarly, Thomas Edison later claimed that “Opportunity is missed by most people because it is dressed in overalls and looks like work.”

When evaluating the potential support for or opposition to this claim from the research, it is first important to recognize the tremendous ambiguity of this statement (which should reduce absolute certainty in responding to it as a claim). After all, general “success” can be referring to accomplishment in almost any endeavor, which implies that a variety of dependent variable measures could be used to show the relative importance of grit or luck. The positional value of grit and luck may be wholly different for achieving success in the athletic, economic, or academic arenas. Additionally, their comparative importance may also be different within those industries as well. For instance, grit may be a far greater predictor of success for soccer, investment banking, and academic publishing than it is for basketball, accounting, and lecturing. While there may be some agreement, there is also no consensus in the literature on the definitions of “grit” and “luck” in this context. Is grit only perseverance/effort or does it include some other hardy personality trait(s) as well? Does luck only include specific events and instances of random opportunity, or does it also include personality traits that could be due to the fortunes of birth, regardless of where they lie in the nature vs. nurture argument? These types of questions surround the claim and only add to its overall vagueness.

Today the arguments about grit and luck as predictors of success are largely colored by the partisan lenses through which many Americans see and interpret the world around them. Republicans are generally more attracted to ideas of personal responsibility and “self-made” success stories that pay little attention to the often present role of luck, while Democrats are more likely to focus on structural explanations for poverty and lack of success that may ignore causal elements of personal choice and work ethic. Both sides have some compelling arguments for their perspective, but the academic research and the experts on these matters are unquestionably divided.

The Affirmative

University of Pennsylvania Professor Angela Duckworth is perhaps the foremost expert on the concept of “grit” and its effects in America. Her conception of grit, which she defines as a combination of passion and perseverance for a singularly important goal, is found to be a more

important predictor of success in her research than other explanations like IQ and talent.²¹ This understanding of grit also cannot be solely innate. It is not simply a virtue that has been bestowed on certain individuals (through luck of birth). Duckworth shows evidence that grit can grow over time (Duckworth 2016). In other projects, Duckworth has shown that while cognitive ability (a trait that one might be considered lucky to possess) is related to academic “grades,” eventual achievement outcomes like four-year graduation at a university or training completion in the military are better predicted by grit (Duckworth et al. 2019). These findings built on her earlier work which argued that grit “demonstrated incremental predictive validity of success measures over and beyond IQ and conscientiousness” (Duckworth et al. 2007).

If grit is more important than luck when it comes to success shouldn't this be evident in socioeconomic status movement? Can those who “act gritty” pull themselves up and become successful in this country or does it take luck to do so? This is a point of contention, but many experts avow that the available evidence backs up “financial success as a function of grit.” Brookings Institute and other, more free-market oriented, think tanks point to research which shows that a certain “success sequence” is the key to upward economic mobility. This research shows that graduating from high school, getting a job, and waiting until after marriage to have children is remarkably related with positive economic outcomes. Nearly 75% of American adults who have followed these rules have joined the middle class (Haskins 2013). While waiting to have children in wedlock may be more representative of conservative social values or delayed gratification, the other two parts of this sequence seem intricately related with grit. This seems to provide evidence that socioeconomic outcomes are not merely a product of luck. Such a view is bolstered by estimates that only 2.2% of full time workers are poor and only 13% of part time workers are poor (Tanner 2018). Other research has also found that work ethic, taught at a young age, plays a part in socioeconomic outcomes. “Patterns of habitual behavior, particularly the extent of conscientiousness or good work habits, developed from birth through adolescence, in conjunction with the cognitive skills developed alongside these behaviors, determine school success and schooling and occupational attainment. These skills and habits then combine with skills and habits developed on the job to determine employment and earnings success” (Farkas 2003).

The complicated relationship between work and financial outcomes is endogenous but also meaningful, which may be part of the reason why those who are lucky enough to win the lottery are surprisingly likely to end up filing for bankruptcy (Hankins et al. 2011).

The Negative

Because the statement claims that “grit is more important than luck,” the negative side has the advantage of not having to prove that luck is a better predictor of success than grit; it only has to show evidence that they may be at least equals. Indications that society isn't as much of a

²¹ For the differences between “grit” and “self-control” see Duckworth and Gross (2014).

meritocracy as the “grit supporters” would have everyone believe are widespread. A study of 450,00 Swedish males found that height is predictive of earnings even after factors such as family background and muscular strength have been controlled for (Lundborg et al. 2014). This is notable because height is largely a gift of birth and something that is “lucked into.”²² Research has tied a variety of things that are often overlooked and are generally outside of our control with increased levels of success in society. The importance of names, for example, should not be ignored. Females who happen to have masculine sounding first names, on average, have more successful legal careers (Coffey 2009). In the field of economics, “faculty with earlier surname initials are significantly more likely to receive tenure at top ten economics departments, are significantly more likely to become fellows of the Econometric Society, and, to a lesser extent, are more likely to receive the Clark Medal and the Nobel Prize” (Einav and Yariv 2006, 175). Use of middle initials also increased perceptions of writing performance and author status (Van Tilburg et al. 2014). Individuals with easier to pronounce surnames are also generally judged more positively (Laham et al. 2012).

Inherited heights and surnames are certainly a function of “birth luck.” However, it turns out that individuals may not only be getting lucky regarding genetics and lineage, but also the time of the year when they were born. Completely arbitrary cohort cutoff dates for youth sport, club, and school entry lead to “the relative age effect.” This commonly researched bias suggests that it is an element of random chance (someone’s birthday) that can have a significant impact on their odds of becoming everything from a professional soccer player (Musch and Hay 1999) to a CEO (Du et al. 2012) to a member of Congress (Muller and Page 2016).

Luck in the birth lottery is not the only type of chance that is conducive to socioeconomic success. While the rich often underestimate the importance of luck in success (Frank 2016), randomness (Pluchino et al. 2018) and chance opportunities (Frank 2016) are often crucial ingredients to reaching the highest peaks of success.

In closing, attributing success solely to grit or luck is likely a false dichotomy, as most of the research indicates that they both play a role in eventual outcomes. A plethora of evidence exists for the connection between grit and success, as well as luck and success, and like in a game of poker, they both seem to be at work. The relative value of resolve when compared to good fortune is disputed and, at this point, likely unknowable. With the experts and the academic research divided, certitude on this claim is unjustifiable.

²² Charismatic ESPN college basketball announcer Dick Vitale often exclaims that “You can’t teach height!”

References

- Coffey, Bentley, and Patrick A. McLaughlin. 2009. "From Lawyer to Judge: Advancement, Sex, and Name-Calling." *Sex and Name-Calling*.
- Du, Qianqian, Huasheng Gao, and Maurice D. Levi. 2012. "The Relative-Age Effect and Career Success: Evidence from Corporate CEOs." *Economics Letters*, 117(3): 660-662.
- Duckworth, Angela L. 2016. *Grit: The Power of Passion and Perseverance*. New York, NY: Scribner.
- Duckworth, Angela L., Christopher Peterson, Michael D. Matthews, and Dennis R. Kelly. 2007. "Grit: Perseverance and Passion for Long-Term Goals." *Journal of Personality and Social Psychology*, 92(6): 1087.
- Duckworth, Angela L. and James J. Gross. 2014. "Self-control and Grit: Related but Separable Determinants of Success." *Current Directions in Psychological Science*, 23(5): 319-325.
- Duckworth, Angela L., Abigail Quirk, Robert Gallop, Rick H. Hoyle, Dennis R. Kelly, and Michael D. Matthews. 2019. "Cognitive and noncognitive predictors of success." *Proceedings of the National Academy of Sciences*, 116(47): 23499-23504.
- Einav, Liran, and Leeat Yariv. 2006. "What's in a Surname? The Effects of Surname Initials on Academic Success." *Journal of Economic Perspectives*, 20(1): 175-187.
- Farkas, George. 2003. "Cognitive Skills and Noncognitive Traits and Behaviors in Stratification Processes." *Annual Review of Sociology*, 29(1): 541-562.
- Frank, Robert H. 2016. *Success and Luck: Good Fortune and the Myth of Meritocracy*. Princeton University Press.
- Hankins, Scott, Mark Hoekstra, and Paige Marta Skiba. 2011. "The Ticket to Easy Street? The Financial Consequences of Winning the Lottery." *Review of Economics and Statistics*, 93(3): 961-969.
- Haskins, Ron. 2013. "Three Simple Rules Poor Teens Should Follow to Join the Middle Class." *Brookings Op-Ed*, March 13th, 2013. URL: <https://www.brookings.edu/opinions/three-simple-rules-poor-teens-should-follow-to-join-the-middle-class/>
- Laham, Simon M., Peter Koval, and Adam L. Alter. 2012. "The Name-Pronunciation Effect: Why People like Mr. Smith more than Mr. Colquhoun." *Journal of Experimental Social Psychology*, 48(3): 752-756.
- Muller, Daniel, and Lionel Page. 2016. "Born Leaders: Political Selection and the Relative Age Effect in the U.S. Congress." *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, 179(3): 809-829.
- Musch, Jochen, and Roy Hay. 1999. "The Relative Age Effect in Soccer: Cross-Cultural Evidence for a Systematic Discrimination Against Children Born Late in the Competition Year." *Sociology of Sport Journal*, 16(1): 54-64.

Pluchino, Alessandro, Alessio Emanuele Biondo, and Andrea Rapisarda. 2018 "Talent versus Luck: The Role of Randomness in Success and Failure." *Advances in Complex systems*, 21(03n04): 1850014.

Tanner, Michael D. 2018. "The Success Sequence- and What it Leaves Out." *Cato Unbound*, May 9th, 2018. URL: <https://www.cato-unbound.org/2018/05/09/michael-d-tanner/success-sequence-what-it-leaves-out>

Van Tilburg, Wijnand AP, and Eric R. Igou. 2014. "The Impact of Middle Names: Middle Name Initials Enhance Evaluations of Intellectual Performance." *European Journal of Social Psychology*, 44(4): 400-411.

Claim 10: “Unauthorized immigrants commit more crimes than natural born citizens”

In recent years, the level of criminal activity engaged in by unauthorized immigrants²³ has been hotly debated by the public, journalists, politicians, and academics. With immigration and its effects being widely regarded as one of the most talked-about issues of the 2016 presidential election, it is no wonder why. Former President Donald Trump attempted to keep the issue at the forefront of public consciousness by referencing violent crimes committed by immigrants (Tatum 2018) and inviting family members of the victims of such crimes to his State of the Union Address (Amaro 2020). However, his opponents argue that these are isolated cases that are not indicative of true patterns of criminality in the United States. They argue that research is overwhelmingly in their favor that unauthorized immigrants actually commit less crimes than native born U.S. citizens. Are they right?

The answer depends on what research and what crimes you are considering. There is a lack of high quality state level data on the subject (besides in Texas), but many of the state level analyses have found no positive relationship between illegal immigration and crime. However, when looking at federal crimes (excluding immigration violations), immigrants seem to commit a disproportionate amount of these offenses relative to their share of the population. Additionally, how we define crime is important. No database in the United States has a completely accurate total of the true number of crimes committed because many go unreported every year. Crimes committed by unauthorized immigrants may be more likely to go unreported, and are therefore systematically undercounted, because the victims and witnesses of such crimes are often unauthorized immigrant themselves who are afraid to contact the authorities due to fears about their own legal status. Answers to this question may also produce different results depending on the methodology. Reported crimes, indictments, convictions, and incarcerated population may all be used as dependent variables, but they each have measurement weaknesses (for example, looking a criminal charges may include falsely accused individuals, while examining only convictions may underrepresent unauthorized immigrants who pled guilty to immigration crimes in exchange for charges on other crimes not being pursued by the prosecution). Unauthorized immigrants may be more likely to commit crime and then move across international borders to avoid capture than other criminals and this could also lead to an underreporting of their criminal activity. With these caveats in mind, let us first explore the available evidence that unauthorized immigrants do commit more crimes than natural born citizens.

²³ We opt to primarily use the terminology “unauthorized immigrants” in this review but may sometimes adopt the nomenclature used by the studies that are being referenced. Partisans on either side may be more apt to use terms such as “undocumented immigrants” or “illegal immigrants” but our choice to define foreign-born non-citizens who are not legal residents of this country as “unauthorized immigrants” should not be interpreted as an attempt to “take a side” in this denotation debate.

The Affirmative

The number of unauthorized immigrants currently living in the United States is debated, although it is generally estimated to be somewhere in between 10.5 million (Kamarck and Stenglein 2019; Krogstad et al. 2019) and 14.3 million (O'Brien et al. 2019), or roughly somewhere in between 3-5% of the U.S. resident population.²⁴

Setting aside immigration crimes in regard to entering the country and just focusing on crimes committed later within the US, unauthorized immigrants appear to be responsible for a larger percentage of federal offenses than their population size if they committed an equal or lesser amount of crime than natural born citizens (Camarota 2018). The U.S. Sentencing Commission found that non-citizens (not just unauthorized immigrants, but all non-citizens) made up a far higher proportion of the Federal inmate population than expected. At the federal level in 2016, 22.6% of murder offenders, 28.9% of drug trafficking offenders, 71.9% of drug possession offenders, 33.8% of money laundering offenders, and 35% of national defense offenders were non-citizens (all figures that are higher than this group's relative U.S. population share) (U.S. Sentencing Commission 2016). It is important to note that federal crimes, while often more serious than other crimes, are not representative of all crimes. In fact, the vast majority of crimes (over 90%), are dealt with at the state and local levels (Farley 2018; Kaeble and Cowhig 2018).

Instead of looking at particular cases, other studies have attempted to identify increases or decreases in levels of crime for different areas compared to their unauthorized immigrant or immigrant population size. Green (2016) finds a significant association between unauthorized immigration population size and drug-related crime. (This relationship does not hold regarding all immigrants, when combining authorized and unauthorized.) Another study, which focuses on immigrants in general and not just the unauthorized, detected a relationship between immigration population size and property crime rates. "A 10% increase in the share of immigrants is estimated to lead to an increase in the property crime rate of circa 1.2%, while the rate of violent crimes remains essentially unaffected" (Spenkuch 2014).

A controversial, unpublished research paper John Lott (2018) inspired some recent debate between his Crime Prevention Research Center and scholars at The Cato Institute. Lott found that unauthorized immigrants were 142% more likely to be convicted of crimes than other Arizonans. He also claimed that they on average served 10.5% longer sentences (implying involvement in more serious crimes) and are 45% more likely to be gang members. One of the most common criticisms of Lott's study is that his independent variable may not have confidently sorted out unauthorized immigrants from legal immigrants, as the deportable population that he examined may have included

²⁴ The official Department of Homeland Security estimate of the 2015 population was 12 million unauthorized residents which is squarely in between these estimates (Baker 2018). The official estimate for total immigrant percentage of the U.S. population (including authorized immigrants) is 13.7% according to the U.S. Census Bureau in 2018.

legal immigrants who violated the terms of their stays (Nowrasteh 2018). However, even if this concern is legitimate, it still does not disprove that a disproportionate amount of crimes are coming from immigrant communities in general.

The Negative

There is a large body of reputable literature to support the claim that immigration, in general, is related to lower crime rates (Reid 2005; Graif 2009; Ousey and Kubrin 2009; Wadsworth 2010) or unrelated to crime rates (Stansfield et al. 2013; Chalfin 2014). However, it is important to note that these sources fail to distinguish between authorized and unauthorized immigrants. Recently, researchers have started to notice that this gap exists in the literature and have attempted to address it. “Despite substantial public, political, and scholarly attention to the issue of immigration and crime, we know little about the criminological consequences of undocumented immigration. As a result, fundamental questions about whether undocumented immigration increases violent crime remain unanswered” (Light and Miller 2018). They go on to find that unauthorized immigration does not increase violence (and this does not seem to be due to underreporting of selective migration effects either) (Light and Miller 2018). Another study purports to show that deportable aliens are no more likely to reoffend than non-deportable aliens (Hickman and Suttrop 2008), although this analysis failed to compare the recidivism rates that they found to those of natural born citizens.

Why might this be the case? There is some evidence that immigrants are less anti-social than native born Americans (Vaughn et al. 2014) (and this finding holds for immigrants from a variety of national origins). However, this study also suffers from its inability to distinguish authorized immigrants from unauthorized immigrants.

As with the affirmative side, there is significantly more unpublished research available. A large list of studies from the Cato Institute over the last few years claim to show evidence that unauthorized immigrants commit fewer crimes (including but not limited to Nowrasteh 2015; Landgrave and Nowrasteh 2017; Nowrasteh 2019).

Overall, due to limited data availability, the truth about whether unauthorized immigrants commit more crimes than natural born citizens remains arguably unknown. If the claim were just “immigrants,” the negative camp would probably have the edge, but when it comes to “unauthorized immigrants” there is enough disagreement both in the literature and amongst the experts (ProCon 2019) for certainty on this topic to be considered hubristic.

References

- Amaro, Yesenia. 2020. "He was Trump's Guest for State of Union because his Brother was Killed by Undocumented Man." *The Fresno Bee*, February 5th, 2020. URL: <https://www.fresnobee.com/news/local/article239958603.html>
- Baker, Bryan. 2018. "Estimates of the Illegal Alien Population Residing in the United States: January 2015." *Department of Homeland Security Report*, December 2018. URL: https://www.dhs.gov/sites/default/files/publications/18_1214_PLCY_pops-est-report.pdf
- Camarota, Steven A. 2018. "Non-Citizens Committed a Disproportionate Share of Federal Crimes, 2011-16." *Center for Immigration Studies*, January 10th, 2018. URL: <https://cis.org/Camarota/NonCitizens-Committed-Disproportionate-Share-Federal-Crimes-201116>
- Chalfin, Aaron. 2014. "What is the Contribution of Mexican Immigration to U.S. Crime Rates? Evidence from Rainfall Shocks in Mexico." *American Law and Economics Review*, 16(1): 220-268.
- Farley, Robert. 2018. "Is Illegal Immigration Linked to More or Less Crime?" *FactCheck.org*, June 27th, 2018. URL: <https://www.factcheck.org/2018/06/is-illegal-immigration-linked-to-more-or-less-crime/>
- Graif, Corina and Robert J. Sampson. 2009. "Spatial Heterogeneity in the Effects of Immigration and Diversity on Neighborhood Homicide Rates." *Homicide Studies*, 13(3), 242-260.
- Green, David. 2016. "The Trump Hypothesis: Testing Immigrant Populations as a Determinant of Violent and Drug-Related Crime in the United States." *Social Science Quarterly*, 97(3): 506-524.
- Hickmann, Laura J. and Marika J. Suttrop. 2008. "Are Deportable Aliens a Unique Threat to Public Safety?: Comparing the Recidivism of Deportable and Nondeportable Aliens." *Criminology & Public Policy*, 7(1): 59-82.
- Kaeble, Danielle and Mary Cowhig. 2018. "Correctional Populations in the United States, 2016." *U.S. Department of Justice Bulletin*, April 2018. URL: <https://www.bjs.gov/content/pub/pdf/cpus16.pdf>
- Kamarck, Elaine and Christine Stenglein. 2019. "How Many Undocumented Immigrants are in the United States and who are they?" *Brookings Policy 2020: Voter Vitals*, November 12th, 2019. URL: <https://www.brookings.edu/policy2020/votervital/how-many-undocumented-immigrants-are-in-the-united-states-and-who-are-they/>
- Krogstad, Jens Manuel, Jeffrey S. Passel, and D'Vera Cohn. 2019. "5 Facts about Illegal Immigration in the U.S." *Pew Research Center: Fact Tank*, June 12th, 2019. URL: <https://www.pewresearch.org/fact-tank/2019/06/12/5-facts-about-illegal-immigration-in-the-u-s/>
- Landgrave, Michelangelo and Alex Nowrasteh. 2017. "The DREAMer Incarceration Rate." *Cato: Immigration and Research Policy Brief*, 3. August 30th, 2017. URL:

<https://www.cato.org/publications/immigration-research-policy-brief/dreamer-incarceration-rate>

- Light, Michael T. and Ty Miller. 2018. "Does Undocumented Immigration Increase Violent Crime?" *Criminology*, 56(2): 370-401.
- Lott, John. 2018. "Undocumented Immigrants, U.S. Citizens, and Convicted Criminals in Arizona." Available at SSRN: <https://ssrn.com/abstract=3099992>
- Nowrasteh, Alex. 2015. "Immigration and Crime – What the Research Says." *Cato At Liberty*, July 14th, 2015. URL: <https://www.cato.org/blog/immigration-crime-what-research-says>
- Nowrasteh, Alex. 2018. "The Fatal Flaw in John R. Lott Jr.'s Study on Illegal Immigrant Crime in Arizona." *Cato At Liberty*, February 5th, 2018. URL: <https://www.cato.org/blog/fatal-flaw-john-r-lott-jrs-study-illegal-immigrant-crime-arizona>
- Nowrasteh, Alex. 2019. "Illegal Immigrants and Crime – Assessing the Evidence." *Cato At Liberty*, March 4th, 2019. URL: <https://www.cato.org/blog/illegal-immigrants-crime-assessing-evidence>
- O'Brien, Matt, Spencer Raley and Casey Ryan. 2019. "How Many Illegal Aliens Live in the United States?" *Federation for American Immigration Reform Fact Sheet*, September 2019. URL: https://www.fairus.org/sites/default/files/2019-09/IssueBrief_How-Many-Illegal-Aliens-in-the-US_2019_1.pdf
- Ousey, Graham C. and Charis E. Kubrin 2009. "Exploring the Connection between Immigration and Violent Crime Rates in U.S. Cities, 1980–2000." *Social Problems*, 56(3): 447-473.
- ProCon, 2019. "Does Illegal Immigration Relate to Higher Crime Incidence?" *ProCon.org*, May 22nd, 2019. URL: <https://immigration.procon.org/questions/does-illegal-immigration-relate-to-higher-crime-incidence/>
- Reid, Lesley Williams, Harald E. Weiss, Robert M. Adelman, and Charles Jaret. 2005 "The Immigration–Crime Relationship: Evidence Across US Metropolitan Areas." *Social Science Research*, 34(4): 757-780.
- Spenkuch, Jörg L. 2014. "Understanding the Impact of Immigration on Crime." *American Law and Economics Review*, 16(1): 177-219.
- Stansfield, Richard, Scott Akins, Rubén G. Rumbaut and Roger B. Hammer. 2013. "Assessing the Effects of Recent Immigration on Serious Property Crime in Austin, Texas." *Sociological Perspectives*, 56(4): 647-672.
- Tatum, Sophie. 2018. "Trump Blames Democratic Immigration Policies for Death of Mollie Tibbetts." *CNN*, August 24th, 2018. URL: <https://www.cnn.com/2018/08/24/politics/donald-trump-mollie-tibbetts/index.html>

U.S. Sentencing Commission. 2016. *U.S. Sentencing Commission, 2016 Datafile*, USSCFY16. URL: <https://www.ussc.gov/sites/default/files/pdf/research-and-publications/annual-reports-and-sourcebooks/2016/Table09.pdf>

Vaughn, Michael G., Christopher P. Salas-Wright, Matt DeLisi, and Brandy R. Maynard. 2014. "The Immigrant Paradox: Immigrants are Less Antisocial than Native-Born Americans." *Social Psychiatry and Psychiatric Epidemiology*, 49(7): 1129-1137.

Wadsworth, Tim. 2010. Is Immigration Responsible for the Crime Drop? An Assessment of the Influence of Immigration on Changes in Violent Crime between 1990 and 2000." *Social Science Quarterly*, 91(2): 531-553.