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Rethinking Arms Control for the Cyber Age

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This paper will perform historical analysis of some of the significant arms control treaties of the twentieth century to describe their fundamental building blocks and the types of weapons they were designed to regulate. It asserts that arms control can and should be updated to fit a twenty-first century mold, but for such an agreement to be successful, it must move away from means-based limitations towards ends-based limitations. The paper focuses on the Hague Conferences of 1899 and 1907, the Treaty on the Non-Proliferation of Nuclear Weapons (the Non-Proliferation Treaty or NPT), and the Strategic Arms Limitation Talks (SALT) I and II. It will examine the core principles of cyber weaponry, before comparing such weapons with the non-Information Systems based armaments of the aforementioned treaties to highlight their fundamental differences as well as the many pitfalls in considering traditional arms control for these modern weapons.

Introduction

Since the Hague Conferences of 1899 and 1907, states have come together to regulate weapons that they see as particularly dangerous or harmful.¹ As the twentieth century marched onward, it was marred by progressively bloodier decades, and more arms control treaties came to pass. As the fear of “the discharge of projectiles and explosives from balloons” morphed into the fear of thermonuclear destruction, agreements such as the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and Strategic Arms Limitation Talks (SALT) I and II were born, hindsight proving them successful.² The dawn of the twenty-first century brought forth new forms of weapon, warfare, and worry.

1 Kenneth W. Thompson, "Arms Control," *Britannica*, last modified August 9, 2016, <https://www.britannica.com/topic/arms-control#ref252828>.

2 “Declaration (XIV) Prohibiting the Discharge of Projectiles and Explosives from Balloons,” *Treaties, States Parties, and Commentaries*, International Committee of the Red Cross, <https://ihl-databases.icrc.org/applic/ihl/ihl.nsf/Article.xsp?action=openDocument&documentId=79A3374B81C3D30EC12563CD00517745>.

This new domain, cyberspace has seen the frequency and sophistication of interstate cyber war increasing at an alarming rate.

An arms control agreement that deals with cyber weapons is impossible, at least insofar as we understand arms control today. Whether we classify arms control in a historical sense as a way “to improve the inherent stability of the situation, decrease the occasions or the approximate causes of war within the system, and decrease the destructiveness and other disutilities of any wars that actually occur” as laid out by Kahn and Weiner, or in the post-Cold War connotation as a kind of “Trojan horse for discussing disarmament,” the nature of cyber weapons is too fundamentally different from physical weaponry to allow an agreement to come to pass in either framework.³ Writing off entirely the possibility of cyber disarmament, how then can the traditional idea of arms control be updated to fit a twenty-first century mold? Beyond that, should it be?

Current Scholarship

Much of the scholarship⁴ on the subject of cyber practices and agreements recognizes the importance of normative change in international cyber relations. U.S. cyber policy has changed, from the Obama administration onwards, from a policy of multi-stakeholder, laissez-faire style of governance towards a multilateral intergovernmental approach.⁵

3 Bernard Brodie, "On the Objectives of Arms Control," *International Security* 1, no. 1, (Summer 1976): 17-36, <https://doi.org/10.2307/2538574>; Paul Bracken, "Thinking (again) about Arms Control," *Orbis* 48, no. 1 (Winter 2004): 149-59, <https://doi.org/10.1016/j.orbis.2003.10.005>.

4 Martha Finnemore and Duncan B. Hollis, "Constructing Norms for Global Cybersecurity," *American Journal of International Law* 110, no. 3 (July 2016): 425-79, <https://doi.org/10.1017/S0002930000016894>; Mariarosaria Taddeo, "Deterrence by Norms to Stop Interstate Cyber Attacks," *Minds and Machines* 27, no. 3 (September 2017): 388, <https://doi.org/10.1007/s11023-017-9446-1>; Jeffrey S. Lantis and Daniel J. Bloomberg, "Changing the Code? Norm Contestation and US Antipreneurism in Cyberspace," *International Relations* 32, no. 2 (June 2018): pp. 149-72.

5 Lantis and Bloomberg, "Changing the Code? Norm Contestation and US Antipreneurism in Cyberspace," pp. 149-72.

The common thread lies in the policy prescription: substantive government action to mitigate the risks associated with cyber warfare and to add legislation to the largely anarchic state of international cyber law. Contemporary recommendations fit principally into two sets of categories. First, they generally suggest domestic-unilateral or intergovernmental-multilateral action in some way. Furthermore, their call to action either proposes non-binding, declarative statements or formal, binding international treaties with strong armed enforcement mechanisms that have both far reaching oversight abilities and punitive provisions. However, despite being well-intentioned, the multilateral agreements with strong oversight as a prominent feature of the enforcement mechanism do not take into account the structural nature of cyber weapons. Any cyber arms control agreement would have to be as structurally enforceable as possible to be enforceable at all. To ensure this, structural enforcement must entail that states party to the treaty act as the primary method of oversight themselves; utilizing their respective network and information system safety monitoring protocols already in place to monitor their own systems against attack and present evidence should a treaty-violating attack occur.

Historical Analysis

In 1899 and 1907, at the behest of Count Mikhail Nikolayevich Muravyov, Czar Nicholas II's Minister of Foreign Affairs, twenty-six states met to discuss setting limitations on armed forces expansion, the deployment of new weapons technology, applying the principles of the 1864 Geneva Convention to naval war, and finally, revising the 1874 Brussels Declaration.⁶ While consensus was not reached on the stated goals, concerns and perceived dangers of new weaponry, developments at the meeting provided the catalyst for cooperation amongst the powerful states of the time. The states were able to reach agreements banning destructive weapons such as noxious gases, expanding bullets, and bombs dropped from balloons.

There are two particularly notable pieces in the agreements. First, states created rules with a narrow goal in mind: to stop the use of three categories of weapons usage. Second, they made no attempt to

govern the broader practices of warfare; instead tailoring the regulatory regime to address weapons they believed would wreak destruction too abhorrent to justify, even in wartime. The implicit understanding was that violence and destruction during wartime would occur, but the states sought to prevent violence and destruction caused by specific weaponry and methods of attack. This was the beginning of a normative shift towards the classification of some weapons as simply too destructive. This agreement, coupled with the uncontrolled bloodletting and rapid technological development of the first half of the twentieth century laid the groundwork for further arms control agreements.

The NPT of 1968 is, for the Cold War period, a unique arms control agreement in that it is both widely ratified as well as inherently unequal. The NPT was signed by sixty-two states, including the U.S., U.K., and U.S.S.R., and as its name suggests, holds that nuclear states, or states possessing nuclear weapons, will not share the secret of atom splitting with other non-nuclear states.⁷ This is significant primarily because it highlights the inadequate enforcement of traditional arms control translation to the twenty-first century. The NPT does not have endemic enforcement problems since it is relatively easy to determine whether or not a state has developed nuclear weapons through seismology and air particle analysis.⁸ An understanding of the global geopolitical landscape also provides insight into the movement of information: if the North Vietnamese People's Army of Vietnam acquired nuclear weapons while fighting the U.S. Army, it would be clear who had not violated the treaty. The United Kingdom and France, both allies of the U.S., would not have committed such a breach of the treaty, thereby pointing to the other two nuclear powers, both enemies of the U.S. The treaty, while indeed self-enforcing, is also structurally enforcing.

Finally, SALT I and II took place, respectively, in 1972 and 1979. Talks between the U.S. and U.S.S.R. produced agreements designed to slow the arms race by halting the development and manufacture of Intercontinental Ballistic Missiles (ICBMs) and Submarine Launched Ballistic Missiles (SLBMs). It also produced the Anti-Ballistic Missile (ABM) Treaty,

7 Lawrence D. Freedman, "Treaty on the Non-Proliferation of Nuclear Weapons," *Encyclopedia Britannica*, Web. Nov. 23, 2018, <https://www.britannica.com/event/Treaty-on-the-Non-proliferation-of-Nuclear-Weapons>.

8 Raymond Jeanloz, Inez Fung, Theodore W. Bowyer and Steven C. Wofsy, "Beyond Arms-Control Monitoring," *Science*, Volume 339, Issue No. 6121 (2013): pp 761-762, <https://www.science.org/doi/abs/10.1126/science.1228731>.

6 Britannica, T. Editors of Encyclopaedia. "Hague Convention." *Encyclopedia Britannica*, Web. Nov. 23, 2018. <https://www.britannica.com/event/Hague-Conventions>.

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which regulated systems that could be used to destroy incoming ICBMs. The SALT I Interim Agreement and ABM Treaty were signed into effect by U.S. President Nixon and U.S.S.R. General Secretary Brezhnev. It limited ABM sites to one location containing no more than 100 ABMs and instituted a five-year moratorium on the manufacturing and production of ICBMs and SLBMs. The interim agreement was signed with the understanding that its measures would provide adequate protection until such time as the SALT II agreement could be negotiated. The SALT II negotiations began in 1972, but seven years passed before they bore any fruit. Once completed, the SALT II agreement proved at least as rich as the interim and ABM agreements of SALT I. Provisions included limiting strategic launchers with the capability to hold Multiple Independently Targetable Reentry Vehicles (MIRVs) or systems that could target each side's existing ICBMs, should they ever be launched. They maintained limits on the number of ICBMs and SLBMs, while adding limits on long-range bomber counts. While SALT II was eventually scrapped by the U.S. for political reasons, it was honored by both sides on a voluntary, non-official basis.⁹

Principles of Cyber Weaponry

Cyber weaponry is a broad and sometimes misleading term because the term weapon implies a single-use purpose, that is, to cause destruction or bodily harm. This is not the case for cyber weapons. The versatility of computer code means that many of the same foundational principles that have revolutionized industry are also used in cyber weapons.

The weaponization of non-weapon technologies is most dramatically demonstrated by the 2010 Stuxnet worm,¹⁰ a virus used to target nuclear centrifuges in the Islamic Republic of Iran. The targeted nuclear facility used an internet-connected Industrial Control System (ICS), specifically a type of Supervisory Control and Data Acquisition (SCADA) system manufactured by

Siemens¹¹ which controlled the speed at which the nuclear centrifuges spun. First implemented in the U.S. in 1959,¹² ICSs are a near-ubiquitous technology that allow for machine operators to remotely control machine activity; they are particularly common in industries and sectors, such as chemicals manufacturing or nuclear enrichment, where proximity to the controlled machine is dangerous for a machine operator. The Stuxnet worm leveraged several previously unknown vulnerabilities, also referred to as "zero-day" vulnerabilities, that caused the SCADA system to accelerate the rate at which the nuclear centrifuges spun. Once Stuxnet was triggered at the Natanz facility, centrifuges began spinning too fast, resulting in irreparable damage to equipment required for uranium enrichment.¹³ Though Stuxnet's efficacy in disrupting Iranian nuclear ambitions is contested, Stuxnet itself is a prime example of how cyber attacks are typically enabled, not by cyber weapons, but by technologies without defense applications.¹⁴

Though most thought on cyber weaponry is speculative, algorithms similar to those that make recommendations for purchases to make or movies to watch may one day be fed defense-applicable inputs and have significant control in life or death military decisions. They could even decide whether or not to initiate real-world violent hostilities.¹⁵

Algorithms that enable cyber weaponry are not inherently dangerous. They have, as demonstrated above, different uses; unlike a nuclear missile or noxious gas, which serve only to cause harm. Attempting to regulate the kind of code or the coding principles used by other countries is akin to attempting to regulate a monkey

9 Staff, State Department Office of the Historian, "Strategic Arms Limitations Talks/Treaty (SALT) I and II," Web, Nov. 23, 2018, <https://history.state.gov/milestones/1969-1976/salt>; The Editors of Encyclopaedia Britannica, "Stuxnet," Encyclopedia Britannica, Web, Nov. 23, 2018. <https://www.britannica.com/technology/Stuxnet>.

10 A type of virus that, once it has infected one device on a network, is capable of "worming its way" through the network and infecting other devices.

11 The Editors of Encyclopaedia Britannica, "Stuxnet," Nov. 23, 2018.

12 Ernie Hayden, *An Abbreviated History of Automation & Industrial Controls System and Cybersecurity*, North Bethesda, MD: SANS Institute, 2015, <https://www.sans.org/white-papers/35697/>.

13 Josh Fruhlinger, "What is Stuxnet, Who Created It and How Does It Work?" CSO, August 22, 2017, <https://www.csoonline.com/article/3218104/what-is-stuxnet-who-created-it-and-how-does-it-work.html>.

14 William J. Broad, John Markoff, and David E. Sanger. "Israeli Test on Worm Called Crucial in Iran Nuclear Day," *New York Times*, January 15, 2011, <https://www.nytimes.com/2011/01/16/world/middleeast/16stuxnet.html>; John R Lindsey, "Stuxnet and the Limits of Cyber Warfare." *Security Studies* 22, no. 3 (August 2013): 365–404, <https://doi.org/10.1080/09636412.2013.816122>.

15 Kenneth Payne, *Strategy, Evolution, and War: From Apes to Artificial Intelligence*, Washington, D.C.: Georgetown University Press, 2018; Wendell Wallach and Colin Allen, "Framing Robot Arms Control," *Ethics and Information Technology Volume* 15, Issue no. 2 (October 2012): pp. 125–35, <https://doi.org/10.1007/s10676-012-9303-0>.

wrench simply because it may be used to bludgeon someone. A cyber weapon is not a gigantic missile. It is lines of code that can be duplicated infinitely, backed up to countless off-site locations, and stored anywhere from a USB drive in a pocket to a computer system.

The early 2021 exploitation of vulnerabilities in Microsoft's email server protocol by the Advanced Persistent Threat (APT) group Hafnium, an organization tied to the People's Republic of China (PRC), demonstrates this well. Microsoft Office 365, a suite of professional software tools which includes Microsoft's email service Outlook, is used by more than one million organizations globally, and by roughly 731,000 organizations in the U.S. alone.¹⁶ It is a clear example of non-malicious, multipurpose software.

The Hafnium attack was conducted in two phases. The first phase of attack began on January 3, 2021, but was significantly escalated on January 6 when the primary security focus of U.S. authorities was on the then-unfolding violent insurrection attempt by supporters of former U.S. President Donald Trump. This distraction allowed Hafnium significant operating space, and during phase one, the group successfully targeted and gained access to the networks of "think tanks, universities, defense contractors, law firms and infectious-disease research centers."¹⁷ Vulnerabilities allowed the attackers to install a type of virus known as a webshell, which, in many cases, allows an attacker full access to a victim device and its resources.¹⁸

Phase two began on February 26th, 2021, when Hafnium realized Microsoft was planning to release a patch¹⁹ fixing the vulnerability. Hafnium, which had discovered a way to automate the exploitation of the vulnerability, began attacking "any vulnerable, unpatched Exchange servers worldwide," compromising the systems of 30,000 U.S. organizations, and "hundreds of thousands" of Microsoft Exchange Servers worldwide—with each victim system

representing approximately one organization that uses Exchange to process email."²⁰

These events highlight the impossibility of a means-based approach to cyber arms control. Traditional arms control agreements have attempted to limit platforms, such as ICBMs, that enable the delivery of nuclear warheads. In this case, the delivery platform was a widely used professional services software, the limitation of which would be ineffective at preventing cyber attacks and is as pointless and detrimental as shutting down the postal system because an attacker impersonating a mailman broke into a government building. Hafnium's attack also demonstrates the ease of use of cyber weapons that makes means-based limitation impossible: because cyber weapons are so easy to trigger, cheap to develop, and can reap rewards as high as full access to hundreds of thousands of public and private organizations networks around the world, states are unlikely to forgo such low investment-high return opportunities simply because they are not supposed to. There must be a punitive, post-attack, "structural" deterrent.

Comparison of Cyber and Traditional Weaponry and Subsequent Treaties

Because of the vastly different nature of cyber weaponry from traditional weaponry, a different approach to arms control is necessary in the cyber operating environment. With nuclear arms control, it is necessary to prevent the usage of the weapon, and states therefore agreed to place limits on weapon delivery vectors and weapon types. This is impossible in the cyber context. States will continue to develop and use cyber weapons and as such it is necessary to limit the ways in which they use them. Rather than limiting weapon type, it is necessary to punish unacceptable usage of a cyber weapon.

Traditional arms control efforts are crippled by enforcement problems when applied to cyber weaponry. Enforcement problems abound particularly in terms of incentives-to-defect and information problems involving detection and development. A third-party enforcement mechanism within a multilateral treaty that is tasked with significant oversight responsibilities

16 Shanhong Liu, "Number of Office 365 Company Users Worldwide as of June 2021, by Leading Country." Statista. Last modified June 8, 2021, <https://www.statista.com/statistics/983321/world-wide-office-365-user-numbers-by-country/>.

17 Frank Bajak and Nathan Ellgren, "FireEye CEO: Reckless Microsoft Hack Unusual for China," AP NEWS, March, 9, 2021, <https://apnews.com/article/fireeye-ceo-microsoft-china-hack-870dfcc0b3dc9a95a641a85081464018>.

18 "Microsoft Exchange Server Attack Timeline: Discoveries and Mitigations," Unit42, March 11, 2021, <https://unit42.paloaltonetworks.com/microsoft-exchange-server-attack-timeline/>.

19 A patch is an update to software that fixes one or more problems with the current version of the software.

20 Brian Krebs, "At Least 30,000 U.S. Organizations Newly Hacked Via Holes in Microsoft's Email Software – Krebs on Security," March 5, 2021. <https://krebsonsecurity.com/2021/03/at-least-30000-u-s-organizations-newly-hacked-via-holes-in-microsofts-email-software/>.

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would run into two main problems. First, such a party would find gaining access to the secretive agencies conducting most of the destructive inter-state cyber war difficult, if not impossible. Second, a staff adequately sized to conduct an investigation or inquiry of sufficient efficacy would be far too costly for states party to the treaty regime to consider. Thus, any sort of multilateral agreement with regards to states' cyber conduct must be designed with structural enforcement in mind. This is why a different approach is necessary. Traditional arms control, out of necessity, addressed the means of destruction to mitigate a worst-end-case scenario. With the NPT it is relatively easy to determine if the treaty has been violated and a non-nuclear state developed or tested a nuclear weapon. This is not the case with cyber weaponry. Although attribution is difficult to determine after a cyber breach, it is far easier to do than making sure cyber weapons are not being developed. The aim of a treaty must be to limit the scope of cyber attack, not to eliminate the worst, or any, cyber weapons or their development and construction.

The crucial difference between cyber weapons and real-world Weapons of Mass Destruction (WMD) is that cyber weapons are used frequently and will continue to be used. Cyber attack will continue for two reasons: it is cheap and it is easy. As Mariarosaria Taddeo writes in her 2017 article, "Deterrence by Norms to Stop Interstate Cyber Attacks," most states are not inclined to invest significant funds in cyber defense because "cyber defence [sic] does not lead to strategic advantages."²¹ Defeat of an enemy used to mean routing their military in battle and significantly diminishing their forces. In cyber war, defeat of an enemy can amount to kicking someone out of your house—or simply your private network. Successful defense "rarely leads to the ultimate defeating [sic] of an adversary." Additionally, computer code is both constantly changing and will always have errors that, if exploited, can render defenses - wholly or in part - moot. Finally, as companies use more and more software tools to conduct business, the number of cyber attack targets increase, this increase in targets can also be referred to as a widening attack surface. This creates an "offense-dominant" operational environment in which exploitable defenses incentivize constant attack, but a wide attack surface where unknown and difficult-to-fix vulnerabilities make effective defense incredibly difficult. This is analogous to a world in which states

consistently launch hundreds of offensive missiles at one another, but only build wooden bunkers for shelter. Because of weak defense, constant cyber attack frequently reaps rich rewards.

The SALT I and II agreements typify the means-based limitations approach of traditional arms control. By addressing and limiting the "means," or the nuclear weapons themselves, they hoped to limit the destructive ends. All agreements fit the arms control mold as defined by Kahn and Weiner, with the intention to stabilize, decrease use, and mitigate destruction in the case of war by addressing weapons that are, by normative standards, overly destructive. They do this, however, by taking a front-end approach. The goal was the prevention of mass destruction by non-conventional weapons, and the logical approach was to head off the disaster. In the event of a nuclear war, there would likely be no belligerents left to punish once the irradiated dust settled. The nature of the problem was such that agreements had to head off disaster and enforce them before disaster struck. Cyber weaponry is so structurally different that a front-end, means-based approach would fail, for a number of reasons. Traditional arms control was predicated on the assumption that states would not want to use their WMD capabilities before severe provocation. Modern arms control must be predicated on the assumption that states will use their cyber capabilities, but that they must reserve or refrain from using their most caustic capabilities.

Cyber weaponry is unique in that it has not just the capacity to cause physical destruction, but to access, exfiltrate, or alter massive amounts of critical information, exacerbate social fault lines, and even to "cripple another country's infrastructure, achieving, with computer code, what [once] could be accomplished only by bombing a country or sending in agents to plant explosives."²² There is no effective way to address the means of destruction in the cyber age, but unlike a nuclear war, perpetrators will still be standing after an attack. These attacks have gone largely unpunished, and the absence of consequence has only increased the incentive to attack. The ends must be punished, or be credibly punishable, to stop and prevent cyber offensives that will only continue in scale, severity, and sophistication. This can be achieved using the ends-based treaty approach.

22 David E. Sanger, "Obama Order Sped Up Wave of Cyberattacks Against Iran," *The New York Times*, June 1, 2012, <https://www.nytimes.com/2012/06/01/world/middleeast/obama-ordered-wave-of-cyberattacks-against-iran.html>.

21 Taddeo, "Deterrence by Norms," 388.

Reccomendations

There are two significant challenges to creating an international legal framework: the status quo policy of strategic ambiguity that has filled the cyber law void and the problem of attack attribution. Since the dawn of the cyber age, most powerful states have refrained from implementing hard line policies on what constitutes attack and legal retaliation. Instead they rely on a policy of strategic ambiguity for interstate cyber attack. The rationale behind this, as stated by the U.S. National Intelligence Officer for Cyber Issues, is to make sure the U.S. does not actually encourage cyber attack by setting a threshold for what it will tolerate:

Currently most countries, including ours, don't want to be incredibly specific about the red lines for two reasons: You don't want to invite people to do anything they want below that red line thinking they'll be able to do it with impunity, and secondly, you don't want to back yourself into a strategic corner where you have to respond if they do something above that red line or else lose credibility in a geopolitical sense.²³

This argument is sound as states will be disinclined to draw a "red line" of tolerance in the sand. It will be hard to convince states of the necessity of change, but the key declarations of the Lucca Declaration, such as recommendations that the G7 states not attack critical infrastructure, cooperate with one another in cyberspace, and promote human rights, are good ways to avoid the over-regulation that would draw such a logistically difficult "red line." Were the declarations to be coded into law, they would essentially be a modern translation of the Hague Conventions codes. Few actual regulations were achieved then and requiring states to refrain from tearing at the social fabric of other states or from melting infrastructure through cyber attack leaves a lot of unregulated territory not covered by a treaty's "red line." Even if a cyber attack falls short of the destruction of infrastructure, it may still warrant retaliation; such legislative action does not indicate what will be tolerated, it indicates what will not be. Thus, the U.S. and other powerful states can have the best of both worlds, aiding the prevention of drastic cyber attacks while also (largely) being able to maintain the strategic ambiguous status quo.

23 Taddeo, "Deterrence by Norms," 388.

The challenge of attack attribution is trickier to solve. Much of the time, evidence of cyber attack may point to a specific perpetrator, but direct evidence may prove either inconclusive,²⁴ as in the case of Stuxnet, or have been obtained through undisclosed, classified means, as in the case of Russian Federation electoral interference.²⁵ Adding further complication, much cyber warfare is carried out through proxies that amount to cyber mercenaries; Saudi Arabia used Israeli developed spyware to attack journalists.²⁶ Guccifer 2.0 is the pseudonym affiliated with the Russian military intelligence unit that interfered in the U.S. election, and the People's Liberation Army (PLA) unit behind Titan Rain also used a proxy pseudonym. Attribution problems would diminish, however, under a formal agreement. Attributing an attack has typically been left to the victim, but with an established cyber treaty, the burden of investigation becomes shared by treaty parties. The kinds of attacks a treaty addresses also helps indicate a perpetrator; it is unlikely that any sub or non-superpower state actor would be capable of successfully destroying critical digital and real world infrastructure or influencing public institutions and sowing widespread dissent.

The attacks a cyber arms control treaty would address (the destruction and attack of critical infrastructure) are relatively easy to identify, but it is more difficult to implicate perpetrators. Because of the differences in cyber weaponry from real world kinetic weaponry, the monitoring of computer networks and information systems maintained by the individual infrastructure owners and the reporting of cyber incidents to relevant national and treaty authorities are necessary forms of structural enforcement of an arms control agreement. As is the case with enforcement and monitoring measures for traditional arms control agreements, this has the added benefit of strengthening states' national cyber and Information and Communications Technology (ICT) security. Jeanloz, Fung, Bowyer, and Wofsy write in their paper "Beyond

24 Neri Zilber, "The Rise of the Cyber-Mercenaries," *Foreign Policy Magazine* Aug. 31, 2018: pp. 60-65, <https://foreignpolicy.com/2018/08/31/the-rise-of-the-cyber-mercenaries-israel-nso/>.

25 Background to "Assessing Russian Activities and Intentions in Recent US Elections": The Analytic Process and Cyber Incident Attribution, prepared by the Office of the Director of National Intelligence (2017), https://www.dni.gov/files/documents/ICA_2017_01.pdf.

26 Elias Groll, "By the numbers: The NSA's super-secret spy program, PRISM" *Foreign Policy*, June 7, 2013, <https://foreignpolicy.com/2013/06/07/by-the-numbers-the-nasas-super-secret-spy-program-prism/>.

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Arms-Control Monitoring,” some methods of treaty monitoring have become useful for environmental monitoring. For example, the International Monitoring System (IMS) designed to measure compliance with the Comprehensive Nuclear Test-Ban Treaty (CTBT) “played a prominent role in tracking the radioactive plume of gas and debris from the 2011 Fukushima accident.”²⁷ In the cyber context, this would take the form of further developing and leveraging tools that make use of, for instance, artificial intelligence and machine learning technologies that learn how to automatically identify, prevent, and notify relevant authorities of cyber attacks.²⁸ Due to the aforementioned enforcement problems that abound with third-party enforcement, it would be the responsibility of the state to invoke the treaty, at which point punitive action would be triggered.

For such a treaty to function, there must be harsh consequences for states. The traditional arms control penalties of reciprocity, mutually assured destruction, and newer economic penalization all have a home here. Although mutually assured destruction, whether attempted or successful, may be more likely, economic penalties may be more effective. The twenty-first century has a rich ecosystem of international financial institutions, such as the International Monetary Fund and World Bank. Building a cyber treaty regime with punitive financial power could well prove an effective incentive to comply. This becomes the case especially when it is considered that this treaty would likely be, based on the precedent of the Lucca Declaration, between the Group of 7 (G7) or G20 powers; all of which are states with immense economic—not to mention military—power. The ease and price of using cyber weaponry are low; unlike in the cold war, the colloquial fruit of attack do not hang high.

Powerful leaders around the world recognize this as well. On April 11, 2017, the G7 released a non-binding, declarative statement “On Responsible States Behavior In Cyberspace” or “Lucca Declaration” laying out twelve guidelines for interstate cyber interaction. Though non-binding, these declarations indicate a vital normative shift in state opinion on cyber relations. Declarations six, eight, and eleven

notably address and discourage attacks on critical infrastructure. Declaration twelve addresses the theft of intellectual property. Declaration seven encourages greater investments in cyber defense. Each declaration addresses acute international fault lines. While these declarations were an important step forward, it is time to formally code these normative principles into law to, as the Lucca Declaration says, “increase stability and security in the use of ICTs [Information and Communication Technologies].”²⁹ The G7 have demonstrated that states share common interests in refraining from certain kinds of cyber attack, but there is currently no provision for enforcement. A treaty that encompasses these declarations should also be taken a step further to include a moratorium on influence or attempted influence of public institutions, such as elections, that tear at the social fabric of a state’s public sector.

Conclusion

While cyber arms control faces many challenges both politically and logistically, it is necessary for the good of society, just as it has been necessary to ban the use of noxious gasses in warfare. Cyber attack has been used to increasingly destructive ends against increasingly ambitious targets over the last twenty years, all in the face of a persisting legal void. Political will and operational feasibility pose significant challenges, as well as the ability to develop effective incentives to comply. That said, the goal of early cyber arms control must not be to go after the development of code which enables cyber attacks but instead after states pursuing scorched-earth like methods of cyber war. Challenges in the realm of efficacy are no reason to eschew treaty. While a cyber arms control treaty today between the ally states of the G7 would be largely symbolic, the importance of change through norm setting must not be discounted; the first arms control treaties created at the Hague were limited in scope, but the precedent they set paved the way for vastly more advanced arms control cooperation and agreement among states. The 1925 Geneva Protocol banning chemical and biological weapons, effective 1928, only had thirteen signatories in the first three years, yet the use of chemical and biological weapons became more and

27 Jeanloz et al., “Beyond Arms-Control Monitoring.” pp 761-762.

28 Forbes Technology Council, “15 Business Applications For Artificial Intelligence And Machine Learning,” Forbes, September 27, 2018, <https://www.forbes.com/sites/forbestechcouncil/2018/09/27/15-business-applications-for-artificial-intelligence-and-machine-learning/?sh=5e2e6d26579f>.

29 G7 Declaration on Responsible States Behavior in Cyberspace, prepared by G7 Research Group (Lucca, Italy, 2017).

more unacceptable throughout the twentieth century as more states signed on.³⁰

As cyber technologies become more sophisticated, it is paramount for the safety of the world that it become normatively unacceptable to destroy infrastructure and engender chaos amongst a public through non-kinetic, cyber means. Though stipulations in an early treaty are likely to be as successful as the provisions that came out of the Hague in 1899 and 1907, it is essential that the world now begin the work of establishing normative acceptable use of cyber weapons and create structural frameworks to punish offenders. A cyber ends-based limitation treaty with effective attributive and punitive mechanisms will protect the world from the ever increasing scope and potential for harm that cyber weapons pose. The consequences of foregoing such a treaty are dire if we do not.

30 Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (Geneva Protocol), prepared by U.S. Department of State (Washington, D.C., 2002).

Beyond Bostock: Why the U.S. Senate Should Pass the 2021 Equality Act

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The Supreme Court's monumental 2020 decision in *Bostock v. Clayton County* extended Title VII employment rights to LGBTQ workers. However, protection from discrimination in healthcare, housing, education, and spaces of public accommodation for LGBTQ individuals have not been guaranteed. The recent version of the Equality Act would extend Civil Right Act protections to the LGBTQ community. Examining the history of LGBTQ anti-discrimination policies, the specific gaps in protection remaining after the *Bostock* decision, and Senate Republican's reluctance to support the bill informs the recommendation for the Senate to pass the Equality Act and finally close the gaps in LGBTQ protections.

Overview

In the summer of 2020, the Supreme Court established in *Bostock v. Clayton County* ("*Bostock*") that Title VII of the Civil Rights Act ("CRA"), protecting workers against employment discrimination, also extends to lesbian, gay, bisexual, transgender, and queer ("LGBTQ") individuals based on the inclusion of "sex" in the statute.¹ While LGBTQ workers are now guaranteed protections under Title VII, it is less clear if other CRA rights extend to the LGBTQ community. The following gaps in LGBTQ protections remain after the *Bostock* decision:

- Discrimination in the 25+ states without LGBTQ anti-discrimination laws
- Exclusion from housing, education, public accommodations, and federally funded programs based on individual's "sexual orientation and/or gender identity"

- Denial of essential services by retailers, federally funded organizations, and private businesses under the Religious Freedom Restoration Act ("RFRA")

Drawing from lessons learned from the inability to pass various preceding versions of the bill ever since LGBTQ federal protections were first introduced to Congress in 1974 and building upon the momentum following the Supreme Court's decision in *Bostock*, passing the 2021 Equality Act would accomplish the following goals:

- Establish a uniform federal LGBTQ anti-discrimination law across the U.S.
- Include "sexual orientation" and "gender identity" as a protected class under the CRA
- Broaden LGBTQ protections by including retailers, transportation providers, health care, and legal services in the definition of "public accommodations"
- Prevent the RFRA from being used as a challenge or defense to the 2021 Equality Act

The Senate passing the 2021 Equality Act would finally close the leftover gaps following the *Bostock* decision and establish a uniform LGBTQ anti-discrimination policy across the U.S.

Background of LGBTQ Anti-Discrimination Policies in the United States

Ever since the 1970s, Congress has consistently failed to pass federal legislation that would extend civil rights protections to LGBTQ individuals. However,

¹ *Bostock v. Clayton Cty.*, 140 S. Ct. 1731, 1737 (2020).

the Supreme Court's decision in *Bostock* has laid the foundation for additional LGBTQ protections and has generated political momentum towards ensuring LGBTQ equity in the United States. Without adequate protections from the law, the LGBTQ community would continue to face difficulties securing stable employment, affordable and adequate healthcare, safe housing, and a range of other federally funded benefit programs and services. Passing the 2021 Equality Act can finally put an end to a 50 year-long congressional struggle to secure LGBTQ civil rights protections.

1. History of LGBTQ Anti-Discrimination Legislation

While the trajectory of LGBTQ rights has continued to grow, the patchwork approach to protections has failed to protect vulnerable members of the community. The 1974 Equality Act was the first legislation introduced to Congress proposing a ban on LGBTQ discrimination in "employment, housing, and public accommodations." The bill grew out of increased activity from the Stonewall Riots, where LGBTQ patrons at the Stonewall Inn bar in New York City fought back against the continued harassment and raids by the police. Unfortunately, due to its broad scope and historical context, the bill never made it out of the House committee.²

In 1994, the Employment Non-Discrimination Act (ENDA) was introduced to secure civil rights protections for the LGBTQ community by focusing on one single issue—employment discrimination. ENDA would have made it "illegal under federal law to discriminate in any aspect of employment based on someone's actual or perceived sexual orientation and general identity."³ However, like its predecessor, ENDA was met with a similar fate as versions of the bill would continue to die in congressional committees throughout the 90s.⁴ The 1996 version received a floor vote in the Senate, but unfortunately failed by a one-vote margin.⁵ The 2007 version of the bill added gender identity protections, but again failed to pass along party lines.⁶ Every version of

2 Jerome Hunt, "A History of the Employment Non-Discrimination Act," Center for American Progress (blog), July 19, 2011, <https://www.americanprogress.org/article/a-history-of-the-employment-non-discrimination-act/>.

3 Ibid.

4 Ibid.

5 Ibid.

6 Ibid.

ENDA introduced in Congress has failed to garner the necessary support to extend workplace protections for LGBTQ workers and suggests a consistent partisan divide over the issue.⁷

2. Supreme Court decision in *Bostock v. Clayton County*

The Supreme Court's decision in *Bostock*, extended workplace protections to the LGBTQ community. Prior to *Bostock*, 8-17 percent of lesbian, gay, and bisexual workers reported being denied employment or unfairly fired because of their sexual orientation.⁸ This number drastically increases to 13-47 percent for transgender workers.⁹ On June 15, 2020, the Supreme Court issued its landmark decision in *Bostock v. Clayton County* and extended Title VII workplace protections to individuals who are discriminated against based on their sexual orientation or gender identity.¹⁰ The Supreme Court ruled on three consolidated cases related to the workplace discrimination of a transgender woman Aimee Stephens and two gay men, Donald Zarda and Gerald Bostock.¹¹

On a 6-3 decision, the Supreme Court held that "an employer who fires an individual merely for being gay or transgender violates Title VII."¹² The court primarily relied on the inclusion of "sex" in the 1964 CRA and determined that it is impossible to discriminate against a person for being homosexual or transgender without basing the discrimination on sex.¹³ The court reasoned that, "...just as sex is necessarily a but-for cause when an employer discriminates against homosexual or transgender employee, an employer

7 Ibid.

8 Sharita Gruberg, "Beyond Bostock: The Future of LGBTQ Civil Rights," Center for American Progress (blog), August 26, 2020, <https://www.americanprogress.org/article/beyond-bostock-future-lgbtq-civil-rights/>.

9 Ibid.

10 *Bostock v. Clayton Cty.*, 140 S. Ct. 1731, 1737 (2020); Xavier D. Lightfoot and Devon D. Williams, "For Employers: Understanding the Supreme Court's Title VII Ruling," *The National Law Review*, August 12, 2020, <https://www.natlawreview.com/article/employers-understanding-supreme-court-s-title-vii-ruling>.

11 *Bostock v. Clayton Cty.*, 140 S. Ct. 1731, 1737 (2020); Michael Schulman, "The Three People at the Center of the Landmark Supreme Court Decision," *The New Yorker*, June 16, 2020, <https://www.newyorker.com/culture/cultural-comment/the-three-people-at-the-center-of-the-landmark-supreme-court-decision>.

12 Gruberg, "Beyond Bostock: The Future of LGBTQ Civil Rights," 2020.

13 *Bostock v. Clayton Cty.*, 140 S. Ct. 1731 (2020).

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who discriminates on these grounds inescapably intends to rely on sex in its decision-making.”¹⁴ Following the court’s monumental decision, it is now unlawful for employers to discriminate against LGBTQ employees.¹⁵

3. The 2021 Equality Act

Acknowledging the limitations of the judicial decision on further legislation, the 2021 version of the Equality Act was first introduced in the U.S. House of Representatives on February 18, 2021.¹⁶ The Act would insert the language “sex (including sexual orientation and gender identity)” into all relevant provisions of the CRA, where there is a reference to “race, color, religion, sex, or national origin.”¹⁷ The legislation would also expand the scope of “public accommodations” by extending LGBTQ protections to include “any establishment that provides a good, service, or program,” transportation services, and public establishments providing entertainment or recreation.¹⁸ On February 25, 2021, the Democrat controlled House passed the 2021 Equality Act with a final vote of 224-206. Now, the bill is before the Senate.¹⁹

The Impact of LGBTQ Discrimination

While the Supreme Court’s decision in *Bostock* extended Civil Rights Act protections to include discrimination based on sexual orientation and gender identity, the scope of the ruling is limited to workplace protections. The CRA’s other sections include protections from discrimination in federally funded programs providing healthcare, schools, social services, and commercial businesses, but are not yet explicitly guaranteed to LGBTQ individuals.²⁰ The LGBTQ community’s quality of life will continue to be jeopardized absent codified legal protections extended to other basic needs and services.

14 Ibid, 1735.

15 Ibid, 738.

16 Equality Act, H.R. 5, 117th Congress, (2021).

17 Ibid.

18 Ibid.

19 Ibid; Danielle Kurtzleben, “House Passes The Equality Act: Here’s What It Would Do,” NPR, February 24, 2021, sec. Politics, <https://www.npr.org/2021/02/24/969591569/house-to-vote-on-equality-act-heres-what-the-law-would-do>.

20 Civil Rights Act, 42 U.S.C. §§ 2000a-d et seq.

There remains a gap to be filled for anti-LGBTQ discrimination policies in the realms of healthcare, housing, education, and in places of public accommodation.²¹ LGBTQ individuals are often denied proper medical treatment or have negative experiences with health care professionals. In 2010, more than half of LGBTQ respondents reported discrimination from a health care professional, and 25 percent of transgender respondents were outright denied medical care.²² As a result, 15 percent of LGBTQ Americans indicated that they postponed or avoided medical treatment, including 3 in 10 transgender individuals.²³

LGBTQ individuals also struggled with secure affordable housing. A 2013 U.S. Department of Housing and Urban Development Study revealed that heterosexual couples were favored over same-sex couples for housing rentals 16 percent of the time.²⁴ In addition, a 2015 U.S. Transgender Survey found that almost 25 percent of transgender people reported experiencing housing discrimination based on their gender identity.²⁵

Title IV of the CRA specifically protects against discrimination in schools.²⁶ A 2015 Gay, Lesbian & Straight Education National School Climate Survey indicated that LGBTQ students experience a “hostile school climate” impacting their educational outcomes and psychological well-being due to harassment, bullying and discrimination from both students and educators.²⁷ Without adequate federal legal protections, LGBTQ students are especially at risk of learning in hostile educational institutions.

Finally, LGBTQ people still experience harassment and violence in public accommodations. A 2015 United States Transgender Survey reported that “among transgender people who visited a place

21 Gruberg, “Beyond Bostock: The Future of LGBTQ Civil Rights,” 2020.

22 Ibid.

23 Sharita Gruberg, John Halpin, and Lindsay Mahowald, “The State of the LGBTQ Community in 2020” (Center for American Progress, October 6, 2020), <https://www.americanprogress.org/article/state-lgbtq-community-2020/>.

24 “Fair and Equal Housing Act,” Human Rights Campaign, accessed May 6, 2021, <https://www.hrc.org/resources/fair-and-equal-housing-act>.

25 Ibid.

26 Civil Rights Act, 42 U.S.C. §§ 2000e et seq.

27 GLSEN, “The 2015 National School Climate Survey,” Research Report, accessed May 6, 2021, <https://www.glsen.org/research/2015-national-school-climate-survey>.

of public accommodation where staff knew or believed they were transgender, nearly one in three experienced discrimination or harassment—including being denied equal services or even being physically attacked.”²⁸ These negative experiences impact when and where members of the transgender community feel comfortable going out in publicly accommodated spaces. Of the transgender respondents, 10.9 percent reported avoiding public transportation, compared to 4.1 percent of LGB (from LGBT) respondents.²⁹ While 4.4 percent of LGB respondents reported avoiding “getting services they or their family needed,” this number increases to 11.9 percent for transgender respondents.³⁰ Without adequate protections from the law, the LGBT community is especially at risk of avoiding necessary medical treatment, losing access to housing, facing discrimination while trying to obtain an education, and being shut out from public life.

Figure 1 highlights the devastating impact discrimination has on LGBTQ individuals making day-to-day decisions, but only reflects LGBTQ individuals willing to report and might not reveal how LGBTQ individuals are affected disproportionately based on their intersectional identities relating to race, socioeconomic status, or religion. The LGBTQ community now has adequate workplace legal protections, but under the law, can still be discriminated against when seeking out basic services to improve their quality of life related to healthcare, housing, education, and places of public accommodation.

The Leftover Gaps Post-Bostock

The *Bostock* decision failed to resolve three remaining issues: (1) the lack of uniformity concerning anti-discrimination state laws, (2) the LGBTQ community’s status as a “protected class” in places of “public accommodations” under the CRA, and (3) the tension with the RFRA. The impact of discrimination on LGBTQ communities is ultimately amplified considering the lack of uniformity between

28 Sejal Singh and Laura E. Durso, “Widespread Discrimination Continues to Shape LGBT People’s Lives in Both Subtle and Significant Ways,” Center for American Progress (blog), May 2, 2017, <https://www.americanprogress.org/article/widespread-discrimination-continues-shape-lgbt-peoples-lives-subtle-significant-ways/>

29 Ibid.

30 Ibid.

	All LGBT people	LGBT people who have not experienced discrimination in the past year	LGBT people who have experienced discrimination in the past year
Used vague language when talking about relationships	42.0%	32.4%	70.4%
Hid a personal relationship	36.5%	27.5%	62.9%
Hid affiliation to a certain organization	14.7%	9.2%	31.1%
Removed item from a resume	9.5%	5.1%	22.6%
Avoided speaking about topics related to LGBT issues in social situations	31.2%	23.7%	53.5%
Avoided social situations	23.9%	15.1%	49.8%
Avoid public places such as stores or restaurants	12.0%	4.8%	33.5%
Avoided public transportation	5.0%	3.3%	9.9%
Avoided doctors’ offices	6.7%	2.7%	18.4%
Avoided getting services they or their family needed	6.1%	2.4%	17.0%
Made specific decisions about where to work	13.2%	8.3%	27.7%
Made specific decisions about where to go to school	8.3%	3.5%	22.6%
Made specific decisions about where to live	19.1%	9.2%	48.6%
Made specific decisions about where to shop	18.2%	8.4%	46.9%
Changed the way they dressed	14.7%	7.3%	36.8%
Changed the way they talked	15.3%	7.3%	39.0%
Changed the way they walked	10.6%	4.9%	27.4%
Moved away from a rural area	11.7%	5.9%	28.8%
Moved away from an urban area	6.1%	3.0%	15.0%
Moved away from family	16.8%	9.7%	37.7%
Cut important people out of their lives	16.4%	9.7%	36.3%
Maintained a limited social media presence	17.2%	10.5%	37.3%

Figure 1. Reported percentage of LGBT people who made intentional decisions to avoid discrimination.

states, especially in the 27 states without anti-LGBTQ discrimination laws.³¹ In addition, the Supreme Court’s ruling relied on the inclusion of “sex” in the statute to extend protections for LGBTQ workers, instead of recognizing sexual orientation and gender identity as a protected class.³² Finally, it is unclear the power that the Religious Freedom Restoration Act might have in challenging the enforcement of LGBTQ workplace protections.³³ Therefore, the

31 Kurtzleben, “House Passes the Equality Act: Here’s What It Would Do,” 2021.

32 Ibid.

33 Ibid.

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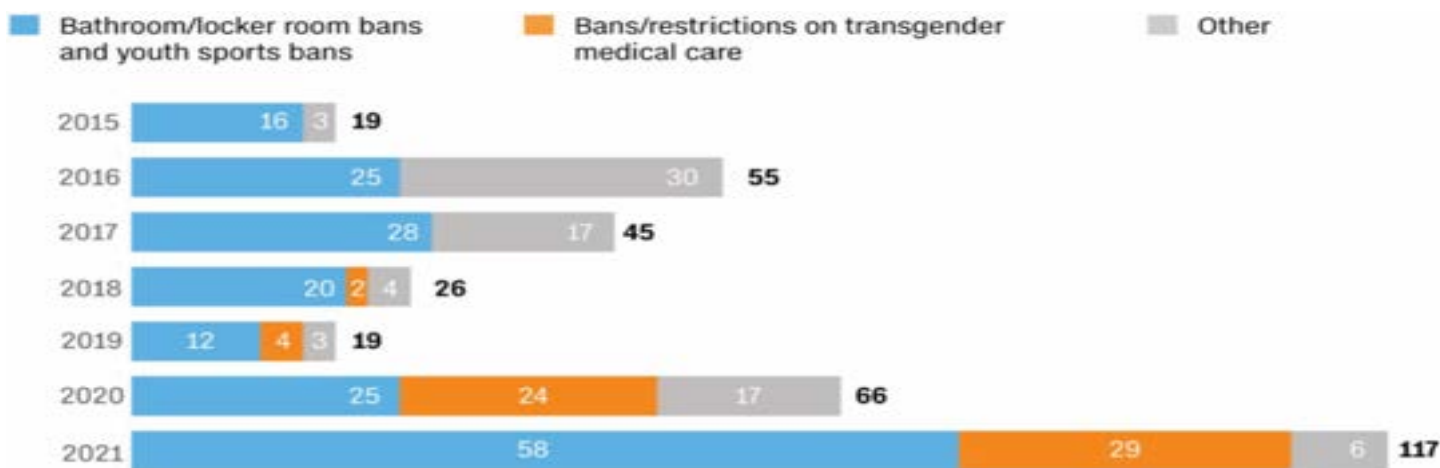


Figure 2. Anti-transgender bills introduced in state legislature by year 2015-2021.

Senate should pass the Equality Act to close the remaining gaps in state anti-LGBTQ discrimination laws, the application of “protected class” and “public accommodations” under the CRA, and to resolve a conflict between religious freedom and LGBTQ equity policy.

1. States without Anti-LGBTQ Discrimination Laws

First, the LGBTQ community can still be discriminated against for non-workplace issues in the 27 states without anti-LGBTQ discrimination laws. Even after the Supreme Court’s decision in *Bostock*, 27 states still lack protections for LGBTQ people.³⁴ Leaving LGBTQ protections up to individual states has led to inconsistent experiences for LGBTQ people simply based on where they happen to live. For example, in 2020 alone, 185 anti-LGBTQ bills were introduced by 35 different states.³⁵ Four were passed into law, including bills preventing transgender girls from participating in girl sports, barring transgender people from updating their gender marker, and discrimination in child welfare services.³⁶ In an attempt to secure the Republican base following Trump’s loss in the 2020 election, Republican-controlled state legislatures are taking hard stances against LGBTQ protections, especially transgender individuals. As shown in Figure 2, 117

anti-transgender bills, including locker and bathroom bans and restrictions on medical care, have already been introduced in 2021—a substantial increase compared to previous years.³⁷

Beyond introducing anti-LGBTQ bills in state legislatures, states are managing to pass laws that would limit protections and essential resources, especially for transgender individuals. As depicted in Figure 3, 19 states have introduced bills that would prevent minors from receiving gender-affirming treatment.³⁸ Arkansas’ Save Adolescents from Experimentation Act specifically prevents doctors from providing essential gender-affirming health care like “hormones, puberty blockers, and transition related surgeries.”³⁹ As of April 6th, Arkansas became the only state that “prohibit[ed] health care professionals from administering gender-affirming care.”⁴⁰

The current patchwork system leaves the LGBTQ community vulnerable to discrimination. In 2016, North Carolina garnered national attention for its “bathroom bill,” requiring people in government facilities to use the bathroom that corresponds to

37 Priya Krishnakumar, “This Record-Breaking Year for Anti-Transgender Legislation Would Affect Minors the Most,” CNN, April 15, 2021, <https://www.cnn.com/2021/04/15/politics/anti-transgender-legislation-2021/index.html>.

38 Ibid.

39 Meredith Deliso, “Arkansas State Legislature Overrides Governor’s Veto on Transgender Health Care Bill,” ABC News, April 6, 2021, <https://abcnews.go.com/US/arkansas-state-legislature-overrides-governors-veto-transgender-health/story?id=76904369>.

40 Krishnakumar, “This Record-Breaking Year for Anti-Transgender Legislation Would Affect Minors the Most,” 2021.

34 Aryn Fields, “The Human Rights Campaign Releases Annual State Equality Index Ratings,” Human Rights Campaign, January 25, 2021, <https://www.hrc.org/press-releases/the-human-rights-campaign-releases-annual-state-equality-index-ratings>.

35 Ibid.

36 Ibid.

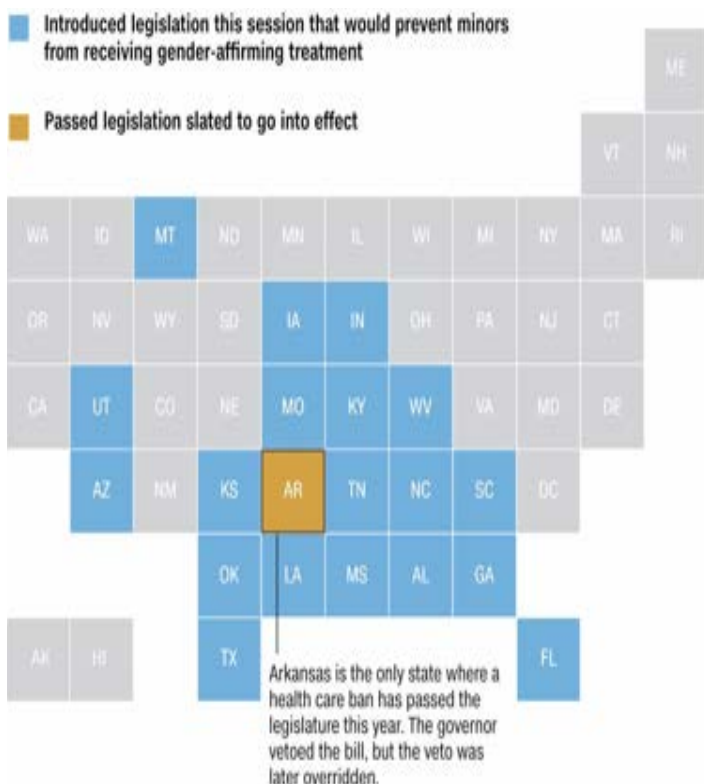


Figure 3. States that have introduced and/or passed legislation preventing minors from receiving gender-affirming treatment in 2021.

the gender on their birth certificate.⁴¹ A 2019 study from UCLA revealed that “trans-inclusive public-accommodation laws did not result in an increase in sexual assaults in restrooms or locker rooms and a *Pediatrics* journal study found that “these trans-inclusive policies are actually linked to lower rates of sexual assault victimization among transgender youth.”⁴² Following the negative public backlash and threats of business boycotts, the bill was repealed the following year.⁴³

Passing a federal anti-discrimination policy would resolve inconsistent treatment of LGBTQ individuals based solely on which state they happen to reside in, and “would set the floor for the other 29 states that have no LGBTQ protections.”⁴⁴ Opponents

41 Ibid.

42 Jack Turban, “Politicians Don’t Get to Use ‘Science’ to Oppose the Equality Act,” *Scientific American*, April 13, 2021, <https://www.scientificamerican.com/article/politicians-dont-get-to-use-science-to-oppose-the-equality-act/>.

43 Krishnakumar, “This Record-Breaking Year for Anti-Transgender Legislation Would Affect Minors the Most,” 2021.

44 Michelle Boorstein and Samantha Schmidt, “Equality Act Is Creating a Historic Face-off between Religious Exemptions and LGBTQ Rights,” *The Washington Post*, March 16, 2021, sec. Religion, <https://www.washingtonpost.com/religion/2021/03/16/equality-act-fairness-for-all-religious-liberty-lgbtq-lgbt-biden/>.

argue that LGBTQ rights impacting school policies or healthcare should be left to the individual states to decide, and not the federal government. However, the historical record of the federal government respecting state’s rights on LGBTQ equality issues has been abysmal. For example, Congress passed the now overturned Defense of Marriage Act, which allowed states to refuse to recognize same-sex marriages granted under state laws. With the flood of anti-LGBTQ legislation introduced across state legislatures, especially targeted at the transgender community, the Williams Institute estimates that 1 in 4 trans adolescents could be impacted by state legislatures’ active bills.⁴⁵ To put an end to this recent political attack on the transgender community, the U.S. Senate should establish a uniform federal LGBTQ anti-discrimination policy applicable across all 50 states.

2. Limited Scope of “Protected Class” and “Public Accommodations” for LGBTQ Community

The LGBTQ community’s status as a “protected class” under the CRA remains unclear. The Supreme Court’s reasoning in *Bostock* was primarily based on the language of “sex” in the Civil Rights Act statute. The court’s logic is that if a man loses his job due to his same-sex partner, he would have been discriminated against because of his sex because a woman in the same situation would not have been discriminated against for that reason.⁴⁶ While this is currently the legal precedent, Justice Alito’s dissenting opinion notes that

“it is quite possible for an employer to discriminate on these grounds without taking the sex of an individual applicant or employee into account. An employer can have a policy that says: ‘We do not hire gays, lesbians, or transgender individuals.’ And an employer can implement this policy without paying any attention to or even knowing the biological sex of gay, lesbian, and transgender applicants.”⁴⁷

45 Ibid.

46 Kurtzleben, “House Passes the Equality Act: Here’s What It Would Do,” 2021.

47 *Bostock v. Clayton Cty.*, 140 S. Ct. 1731, 1758 (2020).

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While the majority opinion established that sex is ultimately a but-for causation of discrimination for LGBT workers, the landmark decision does not explicitly recognize sexual orientation and gender identity as their own protected class, and has instead been “looped in under the umbrella of ‘sex.’”⁴⁸ Without this alignment in the Civil Rights Act, LGBTQ individuals are still at risk of discrimination in housing, federally funded programs, and in any area of “public accommodations.”⁴⁹

LGBTQ individuals are discriminated against in places of “public accommodation” due to the limited scope of the CRA’s language. The CRA defines public accommodations as “any inn, hotel, motel. . . any restaurant . . . any such facility located on the premises of any retail establishment. . . any motion picture house, theater concert hall, sports arena, stadium or other place of exhibition or entertainment” so the LGBTQ community can still be discriminated against in public bathrooms, flower shops, and bakers.⁵⁰ For instance, in 2013 a couple sued a florist for not selling flowers for the couple’s gay wedding.⁵¹ Even in the majority’s opinion in *Bostock*, the court explicitly stated that their decision “do[es] not purport to address bathrooms, locker rooms, or anything else of the kind.”⁵² With the remaining gaps in LGBTQ protections, in February of 2021, Iowa’s legislature introduced a measure requiring transgender people in Iowa elementary and secondary public schools to use bathrooms that correspond to the sex listed on their birth certificate.⁵³ Even if LGBTQ individuals are recognized as a protected class under the CRA, the LGBTQ community would still be at risk of being discriminated against in public places of accommodation. Therefore, the scope of “public accommodations” should include:

48 Kurtzleben, “House Passes the Equality Act: Here’s What It Would Do,” 2021.

49 Ibid.

50 Civil Rights Act, 42 U.S.C. §§ 2000a(b) et seq.

51 “Ingersoll & Freed v. Arlene’s Flowers, Inc.,” American Civil Liberties Union, accessed April 13, 2021, <https://www.aclu.org/cases/ingersoll-freed-v-arlenes-flowers-inc>.

52 *Bostock v. Clayton Cty.*, 140 S. Ct. 1731, 1753 (2020).

53 Stephen Gruber-Miller, “Iowa Senate ‘bathroom Bill’ Would Ban Transgender People from Using School Restrooms Matching Gender Identity,” *Des Moines Register*, February 10, 2021, <https://www.desmoinesregister.com/story/news/politics/2021/02/10/iowa-senate-bathroom-bill-targeting-transgender-people-advances-legislature/4460035001/>.

- Inserting “stadium or other place of or establishment that provides exhibition, entertainment, recreation, exercise, amusement, public gathering, or public display”
- Inserting “any establishment that provides a good, service, or program, including a store, shopping center, online retailer or service provider, salon, bank, gas station, food bank, service or care center, shelter, travel agency, or funeral parlor, or establishment that provides health care, accounting, or legal services”
- Inserting “any train service, bus service car service, tax service, airline service, station, deport or other place of or establishment that provides transportation service”⁵⁴

Even if legal precedent would extend other protections based on *Bostock*’s interpretation of “sex” in the CRA, explicitly codifying language that prevents discrimination based on an individual’s sexual orientation or gender identity would be a symbolic and historic victory for the LGBTQ community. The U.S. Centers for Disease Control and Prevention reports that LGBTQ Americans are more likely to suffer from mental health issues, with 1 in 5 attempting suicide.⁵⁵ Adding sexual orientation and gender identity as a protected class and broadening the scope of public accommodations would be a monumental win for the LGBTQ community in ensuring individuals receive the services they need. For example, LGBTQ individuals can feel confident seeking out medical treatment and health care. A 2020 study by the American Academy found that “access to pubertal suppression treatment was associated with lower odds of long-term and consistent suicidal thoughts among transgender adults.”⁵⁶ Under the context of the global COVID-19 pandemic, 38 percent of LGBTQ households have been “unable to get medical care or delayed going

54 Equality Act, H.R. 5, 117th Congress, §3(a)(3)-(5), (2021).

55 Matthew Laviertes, “Biden Scrambles Plan B on LGBT+ Rights as Equality Act Meets Resistance,” *Reuters*, April 13, 2021, <https://www.reuters.com/article/us-usa-biden-lgbt-analysis-trfn-idUSKBN2C02AZ>.

56 Krishnakumar, “This Record-Breaking Year for Anti-Transgender Legislation Would Affect Minors the Most,” 2021.

to a doctor for a serious problem.”⁵⁷ Codifying CRA protections would allow for better access to essential services like government funded health care.

Moreover, the symbolic nature of recognizing LGBTQ protections in the CRA has resonating positive ripple effects too. A Harvard Medical School study revealed that when states implemented transgender anti-discrimination laws, the suicide rate of transgender people dropped by 39 percent.⁵⁸ The same study revealed suicide rates dropped by 14 percent after the passage of marriage equality, suggesting LGBTQ protections “have a broad societal impact that improves our social climates and subsequently mental health.”⁵⁹ Therefore, absent passage of the Equality Act, LGBTQ individuals would risk being discriminated against in place of public accommodation and could be denied essential services.

3. The Power of the Religious Freedom Restoration Act

a. The Impact of Masterpiece Cakeshop on Religious Freedoms

In 1993, Congress passed the Religious Freedom Restoration Act (“RFRA”) which restricted the circumstances for government interference in the practice of religion.⁶⁰ With such a high bar for challenges to First Amendment protections, LGBTQ civil rights have been at odds with religious freedoms. For example, in *Masterpiece Cakeshop Ltd. v. Colorado Civil Rights Commission*, the Supreme Court ruled in favor a Colorado baker who refused to sell a wedding cake meant for a gay couple because of his religious beliefs.⁶¹ The court’s decision in *Masterpiece Cakeshop*, “has offered dangerous encouragement to those who would deny civil rights to L.G.B.T. people” by leaving the door open for LGBTQ discrimination based

on the First Amendment’s freedom of religion.⁶² Absent clear legislation from Congress, the courts will continually have to choose between religious freedoms guaranteed under the First Amendment and the protections afforded to LGBTQ employees post-*Bostock*.

b. Religious Freedom Concerns with the Proposed Equality Act

Those who oppose the bill are primarily concerned that the RFRA exemption in the Equality Act would trample upon religious freedoms. The legislation provides that “[t]he Religious Freedom Restoration Act of 1993 shall not provide a claim concerning, or a defense to a claim, under, a covered title, or provide a basis for challenging the application or enforcement of a covered title.”⁶³ Opponents argue that religious freedom is a recognized fundamental right and passing the Equality Act in its current form would be unconstitutional because it allows the government to restrict the fundamental right to practice religion.⁶⁴ Many religious groups have also voiced their opposition to the bill.⁶⁵ Some of these groups fear that they would be punished for adhering to their religious beliefs about marriage and sexuality.⁶⁶

Title IV of the CRA can bar certain institutions from receiving federal funds, including faith-affiliated schools that require “students abide by strict moral codes related to sexual conduct, or [] have gender-segregated housing that does not accommodate transgender people.”⁶⁷ The impact would not be limited to only faith-based schools because other federally funded organizations like “[c]hurches, synagogues, temples, faith-based schools, soup kitchens, women-shelters” could also be subject to government coercion.⁶⁸ Critics like Kansas Senator

62 Ibid.

63 Equality Act, H.R. 5, 117th Congress, §1107, (2021).

64 Jipping and Perry, “Equality Act Would Cancel Religious Freedom,” 2021.

65 Tom Gjelten, “Some Faith Leaders Call Equality Act Devastating; For Others, It’s God’s Will,” NPR, March 10, 2021, sec. Religion, <https://www.npr.org/2021/03/10/974672313/some-faith-leaders-call-equality-act-devastating-for-others-its-gods-will>.

66 Ibid.

67 Civil Rights Act, 42 U.S.C. §§ 2000a-d et seq.

68 Trish Turner, “Equality Act That Would Bar LGBTQ, Gender Identity Discrimination Faces Uphill Battle in Senate,” ABC News, March 17, 2021, <https://abcnews.go.com/Politics/equality-act-bar-lgbtq-gender-identity-discrimination-faces/story?id=76515120>.

57 Susan Miller, “‘I Lost Everything’: LGBTQ People Are Bearing a Bigger Brunt of the Pandemic, Report Shows,” USA Today, December 16, 2020, <https://www.usatoday.com/story/news/health/2020/12/16/covid-lgbtq-people-feeling-disproportionate-impacts-pandemic/3889397001/>.

58 Turban, “Politicians Don’t Get to Use ‘Science’ to Oppose the Equality Act,” 2021.

59 Ibid.

60 Thomas Jipping and Sarah Parshall Perry, “Equality Act Would Cancel Religious Freedom,” The Heritage Foundation, March 16, 2021, <https://www.heritage.org/religious-liberty/commentary/equality-act-would-cancel-religious-freedom>.

61 Ibid.

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Jerry Moran suggest that passing the current Equality Act would limit the legal paths available for religious discrimination.⁶⁹ Oklahoma Senator James Lankford claimed that the Equality Act would “strip houses of worship of the legal defenses Congress gave them” in the RFRA.⁷⁰ Therefore, the current version of the 2021 Equality Act with the RFRA exemption will face strong opposition from critics concerned with the impact on religious freedoms.

c. *The Fairness for All Act Alternative*

i. *Proponents of the Fairness for All Act*

In response to concerns with the 2021 Equality Act, House Republican Chris Stewart from Utah introduced the Fairness for All Act, which would carve out exceptions for religious organizations, small businesses, and abortion providers.⁷¹ Advocates of the alternative bill suggest that religious hospitals, universities, and gender segregated houses of worship will not risk losing federal funding.⁷² In addition, the Fairness for All Act bill would strike a balance between LGBTQ equity and religious freedoms because LGBTQ individuals could choose to use another provider like going to a different doctor or attending another university.⁷³ Religious entities like the Council for Christian Colleges and Universities and The Church of Jesus Christ of Latter-day Saints have also backed the Fairness for All Act.⁷⁴

69 Senator Jerry Moran, “Sen. Moran Opposes the Equality Act, Infringement on Constitutional Right to Religious Liberty,” U.S. Senator for Kansas Jerry Moran, March 18, 2021, <https://www.moran.senate.gov/public/index.cfm/2021/3/sen-moran-opposes-the-equality-act-infringement-on-constitutional-right-to-religious-liberty>.

70 Todd Ruger, “Senate Hearing Showcases Deep Partisan Divide over LGBTQ Legislation,” Roll Call, March 17, 2021, <https://www.rollcall.com/2021/03/17/equality-act-2021-hearing-senate-judiciary-committee/>.

71 “H.R. 5331 (116th): Fairness for All Act,” GovTrack, accessed May 6, 2021, <https://www.govtrack.us/congress/bills/116/hr5331/text>.

72 Boorstein and Schmidt, “Equality Act is Creating a Historic Face-off between Religious Exemptions and LGBTQ Rights,” 2021.

73 Sarah Parshall Perry, “Fairness for All Act’s Message to Religious Americans: ‘Submit or Else,’” The Heritage Foundation, April 28, 2021, <https://www.heritage.org/religious-liberty/commentary/fairness-all-acts-message-religious-americans-submit-or-else>.

74 David Crary, “LGBTQ Rights Bill Ignites Debate over Religious Liberty,” Associated Press, March 8, 2021, sec. Joe Biden, <https://apnews.com/article/joe-biden-business-religion-race-and-ethnicity-bills-7835e3ff55e04c8634ab92541bdc12b3>.

ii. *Opposition to the Fairness for All Act*

Others argue the Fairness for All Act would still leave gaps in LGBTQ protections. Advocates of the bill like Freedom for All Americans, a group attempting to build bipartisan support for the Equality Act, indicate that the current version of the bill already “preserves some of the existing religious exemptions that apply to other aspects of the Civil Rights Act of 1964, including the right of religious groups to discriminate in hiring for positions involved with teaching and preaching the faith.”⁷⁵ The majority opinion in *Bostock* also addressed concerns with violating an employer’s religious beliefs when extending workplace protections to the LGBTQ community by citing how “Congress included an express statutory exception for religious organizations.”⁷⁶ There is no heightened standard for religious freedoms at odds with an individual’s race, color, sex, and/or national origin under the CRA, so the LGBTQ community should not be treated differently. Creating exceptions for religious organizations would be redundant and only serves to justify LGBTQ discrimination under the guise of religious freedom. According to the Religious Exemptions project, there are approximately 200 Christian colleges with discriminatory student code of conduct policies requiring students to wear clothing based on their gender assigned at birth, who received nearly \$4.2 billion in federal funding.⁷⁷ For example, Jesse Hammons, a transgender man, is currently suing the University of Maryland Medical System after a Catholic subsidiary cancelled his gender-affirming hysterectomy.⁷⁸ Thirty-three students recently filed a lawsuit against the Department of Education for providing government funding to faith-based schools who have discriminatory policies against LGBTQ students.⁷⁹ The discriminatory policies include disciplining a student who posted about LGBTQ issues on social media, failing to respond

75 Boorstein and Schmidt, “Equality Act is Creating a Historic Face-off between Religious Exemptions and LGBTQ Rights,” 2021.

76 *Bostock v. Clayton Cty.*, 140 S. Ct. 1731, 1754 (2020).

77 *Ibid.*

78 *Ibid.*

79 Michelle Boorstein, “Dozens of LGBTQ Students at Christian Colleges Sue the U.S. Education Dept., Hoping to Pressure Equality Act Negotiations,” The Washington Post, March 30, 2021, https://www.washingtonpost.com/religion/christian-colleges-law-suit-lgbtq-equality-act/2021/03/29/39343620-90af-11eb-9668-89be11273c09_story.html.

to harassment notes with Bible verses condemning the student's sexuality, rescinding admission after finding out the admitted male student was engaged to a man, and being expelled for being transgender.⁸⁰ Under the Fairness for All Act, the university's denial of Hammons' gender-affirming healthcare and other discrimination policies against LGBTQ students would be upheld.

Under the Fairness for All Act, LGBTQ youth may continue to be denied access to religious organization-based homeless shelters and federally funded foster care agencies. The Human Rights Campaign has criticized the Fairness for All Act for its shortcomings and how it would "create two tiers of civil rights protections and sanctions discrimination against LGBTQ people in homeless shelters and foster care agencies."⁸¹ A Williams Institute study found that LGBT youth represented 40 percent of the clients served by these agencies⁸² and are "disproportionately likely to leave the foster care system without a permanent family."⁸³ The at-risk LGBTQ community, especially transgender individuals, continue to struggle finding accepting shelters and experience a heightened risk of violence, abuse, and exploitation.⁸⁴ Without adequate protections from discrimination based on certain religious beliefs, at-risk LGBTQ youth will be denied a fighting chance to grow up and participate as contributing members of society.

iii. Religious Organizations' Support for the Equality Act

Despite the concerns over religious freedoms, faith leaders across various denominations have also expressed their support for the Equality Act. During the Senate Judiciary Committee meeting, the Faith for Equality coalition representing more than 120 organizations, presented Senator Chris Coons with 17,000 signatures from religious leaders and people

of faith supporting the legislation.⁸⁵ When weighing the two interests that are seemingly at odds with one another, a representative from the Fair and Progressive Policy Initiative commented that the Equality Act would "also expand religious freedom protections by updating federal civil rights law to more fully protect people of faith, people of color, immigrants, and others from discrimination."⁸⁶ The Equality Act would not repeal RFRA but would instead prevent LGBTQ discrimination under the guise of religious freedoms. Therefore, Senate Republicans should recognize the aligned value of updating the federal civil rights law that protects both religious freedom and the LGBTQ community from discrimination.

Implications

Bringing the bill to a successful floor vote in the Senate will not be an easy feat looking at the voting records of previous versions of the Equality Act. Senate Majority Leader Chuck Schumer noted that he will bring the legislation to a floor vote "at exactly the right time."⁸⁷ Currently with a 50-50 party divide in the Senate, even with Democratic Vice President Kamala Harris available to cast a tie-breaking vote, the bill will need the support of 10 Republicans to avoid a filibuster under the Senate cloture rule.⁸⁸ Senator Lindsey Graham of South Carolina has already indicated that he would capitalize on the filibuster and "talk until [he] fell over" to avoid passing the Equality Act.⁸⁹

85 Sam Hananel, "Faith Leaders Herald Growing Support for Equality Act in Meeting With Sen. Coons," Center for American Progress, March 17, 2021, <https://www.americanprogress.org/press/release-faith-leaders-herald-growing-support-equality-act-meeting-sen-coons/>.

86 Ibid.

87 Olivia Beavers and Melanie Zanona, "Historic LGBTQ Rights Bill Passes — after Exposing GOP Divisions," POLITICO, February 25, 2021, <https://www.politico.com/news/2021/02/25/lgbtq-equality-act-passes-471628>; Arlette Saenz and Jasmine Wright, "Harris Flexes Power as Senate Tiebreaker," CNN, February 6, 2021, <https://www.cnn.com/2021/02/06/politics/kamala-harris-senate-tie-breaking-vote/index.html>.

88 Grace Segers, "House Passes Equality Act, Bolstering Legal Protections for LGBTQ Americans," ABC News, February 26, 2021, <https://www.cbsnews.com/news/house-passes-equality-act-lgbtq-american-rights/>.

89 Turban, "Politicians Don't Get to Use 'Science' to Oppose the Equality Act," 2021.

80 Hunter v. U.S. Department of Energy, No. 6:21-cv-474 (D. Or. Mar. 29, 2021).

81 Crary, "LGBTQ Rights Bill Ignites Debate Over Religious Liberty," 2021.

82 "LGBT Homelessness," National Coalition for the Homeless, accessed May 6, 2021, <http://localhost:8888/nch2020/issues/lgbt/>.

83 "Child Welfare," Youth.gov, accessed May 6, 2021, <https://youth.gov/youth-topics/lgbtq-youth/child-welfare>.

84 Ibid.

Beyond Bostock: Why the U.S. Senate Should Pass the 2021 Equality Act

The biggest obstacle preventing bipartisan support seems to be the RFRA exception included in the bill. Many Republicans report opposing the bill due to its “perceived infringement on religious freedom, not out of discriminatory sentiment towards LGBTQ people.”⁹⁰ Senator Susan Collins, a moderate Republican Senator from Maine, who was the only Republican Senator co-sponsor of the 2019 version of the bill, has since indicated that her support would be dependent on religious exemption amendments made to the legislation.⁹¹ A spokesperson for another moderate Republican Senator Mitt Romney, has also reported that he would not support the bill absent strong religious liberty protections.⁹² Republican Senator Rand Paul has also had a controversial record criticizing President Biden’s pick for Assistant Secretary of Health, Dr. Rachel Levine, who would be the first ever openly transgender official confirmed by the Senate.⁹³ Moderate Republicans like Alaska’s Senator Lisa Murkowski and Ohio Senator Rob Portman, who supported ENDA in 2013, have not yet provided a definitive answer on whether they would object to the current version of the legislation based on religious grounds.⁹⁴

With a seemingly insurmountable barrier to garnering necessary support from Republican Senators, Representative Stewart’s Fairness for All Act might seem like a reasonable bipartisan compromise. However, the limited reach of the Fairness for All Act would still exempt religious-based organizations from providing LGBTQ youth services at homeless shelters or accommodations to LGBTQ students at faith-based schools. In addition, the negative public perception and potential political backlash of voting against LGBTQ protections, and settling for a watered-down version of the bill will likely influence the voting dynamic in the Senate. Currently, more than 6 in 10 Americans say that “business owners should not be allowed to refuse

services to LGBTQ people on the basis of religion.”⁹⁵ A Public Religion Research Institute Poll found that 83 percent of Americans favor anti-discrimination laws protecting LGBTQ people against “discrimination in jobs, public accommodation and housing, including 68 percent of Republicans.”⁹⁶ A March Hart Research Associates poll revealed that 70 percent of participants supported the Equality Act.⁹⁷ In addition, prominent tech businesses like Amazon, Facebook, Twitter, and 400 other companies, worth a total of \$8.6 trillion, joined the Business Coalition for the Equality Act calling on “U.S. lawmakers to pass a key LGBT+ rights bill that would extend equal healthcare, housing and goods and services to all Americans.”⁹⁸ Following Republican Marjorie Taylor Greene’s insensitive harassment of Representative Marie Newman’s transgender daughter, GOP leaders are afraid of “turn[ing] off the young, moderate and independent voters who will be crucial in the 2022 midterms and beyond.”⁹⁹ Considering all of this public support behind the Equality Act, Senate Republicans and potential breakaway Democrats should consider the political and economic consequences of voting against the bill, especially after the Republican party lost the 2020 presidential election.

Recommendations

The U.S. Senate should pass the 2021 Equality Act to establish a uniform federal policy protecting against LGBTQ discrimination and closing the gaps left over from the Supreme Court’s decision in *Bostock v. Clayton County*. Specifically, Congress should include “sexual orientation and gender identity” in the relevant sections of the Civil Rights Act and broaden the definition of “public accommodations” under the statute.

90 Beavers and Zanona, “Historic LGBTQ Rights Bill Passes – after Exposing GOP Divisions,” 2021.

91 Boorstein and Schmidt, “Equality Act is Creating a Historic Face-off between Religious Exemptions and LGBTQ Rights,” 2021; Crary, “LGBTQ Rights Bill Ignites Debate Over Religious Liberty,” 2021.

92 Kurtzleben, “House Passes the Equality Act: Here’s What It Would Do,” 2021.

93 Beavers and Zanona, “Historic LGBTQ Rights Bill Passes – after Exposing GOP Divisions,” 2021.

94 Kurtzleben, “House Passes the Equality Act: Here’s What It Would Do,” 2021.

95 Boorstein and Schmidt, “Equality Act is Creating a Historic Face-off between Religious Exemptions and LGBTQ Rights,” 2021.

96 Lavietes, “Biden Scrambles Plan B on LGBT+ Rights as Equality Act Meets Resistance,” 2021.

97 Matthew Lavietes and Hugo Greenhalgh, “Hundreds of U.S. Businesses Call for LGBT+ Anti-Discrimination Law,” Reuters, April 27, 2021, sec. Cyclical Consumer Goods, <https://www.reuters.com/article/usa-lgbt-business-idUSL8N2MK6HQ>.

98 Ibid.

99 Beavers and Zanona, “Historic LGBTQ Rights Bill Passes – after Exposing GOP Divisions,” 2021.

This would not be the first time language was added to broaden CRA protections. In 1967, age was included as a protected class under the Age Discrimination in Employment Act.¹⁰⁰ By passing the 2021 Equality Act, all 50 states would subsequently comply with a standardized federal anti-discrimination policy, afford protections by recognizing LGBTQ individuals as a protected class under the Civil Rights Act, and overcome the current difficulty in religious freedoms being used to defend LGBTQ discrimination.

With the razor-thin majority in Congress and the potential for party representation to flip in the next election, the time to strike is now. This timing is especially necessary considering the legalization of same-sex marriage in 2015, last year's *Bostock* decision, and the current Democratic President in the White House.¹⁰¹ Under the new Democrat-led administration, federal administrative and regulatory agencies like the Consumer Financial Protection Bureau and the Department of Housing and Urban Development have ensured "equal treatment for LGBT+ Americans in banking or when buying or renting a home."¹⁰² President Biden has also issued executive orders protecting LGBTQ students from discrimination in schools¹⁰³ and abolished the transgender military ban.¹⁰⁴ However, these executive actions and federal agency changes are only a short-term fix, as they can easily be reversed in the next administration. Relying on President Biden's support for the bill based on his January 2021

Executive Order¹⁰⁵ and looking to his Joint Statement to Congress,¹⁰⁶ there is hope that the Equality Act makes it to his desk. All eyes are on the U.S. Senate to finally accomplish this political triumph and fulfill a task that has troubled Congress since the early 1970s: extending federal CRA protections to the LGBTQ community.

Conclusion

Following the Supreme Court's decision in *Bostock*, the LGBTQ community is still at risk of being discriminated against when seeking out healthcare, education, and engaging in public places of accommodation. To close these remaining gaps in LGBTQ protections, the U.S. Senate should pass the Equality Act of 2021 which would establish a uniform federal anti-discrimination policy, codify LGBTQ protections to other relevant sections of the CRA, and set a high bar for challenges under the RFRA. However, recognizing the uphill battle to secure the necessary 60 votes to avoid a filibuster, Senators might have to compromise on passing the Fairness for All Act while the courts litigate the RFRA exception. Ultimately, only through Congressional action can LGBTQ civil rights be guaranteed past a change of administration and would serve as a monumental symbolic victory for LGBTQ Americans.

100 "The Age Discrimination in Employment Act of 1967," U.S. Equal Employment Opportunity Commission, accessed May 6, 2021, <https://www.eeoc.gov/statutes/age-discrimination-employment-act-1967>.

101 Boorstein and Schmidt, "Equality Act is Creating a Historic Face-off between Religious Exemptions and LGBTQ Rights," 2021.

102 Laviertes, "Biden Scrambles Plan B on LGBT+ Rights as Equality Act Meets Resistance," 2021.

103 The White House, "Executive Order on Guaranteeing an Educational Environment Free from Discrimination on the Basis of Sex, Including Sexual Orientation or Gender Identity," March 8, 2021, <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/03/08/executive-order-on-guaranteeing-an-educational-environment-free-from-discrimination-on-the-basis-of-sex-including-sexual-orientation-or-gender-identity/>.

104 The White House, "Executive Order on Enabling All Qualified Americans to Serve Their Country in Uniform," January 25, 2021, <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/25/executive-order-on-enabling-all-qualified-americans-to-serve-their-country-in-uniform/>.

105 The White House, "Executive Order on Preventing and Combating Discrimination on the Basis of Gender Identity or Sexual Orientation," January 21, 2021, <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-preventing-and-combating-discrimination-on-basis-of-gender-identity-or-sexual-orientation/>.

106 The White House, "Remarks as Prepared for Delivery by President Biden — Address to a Joint Session of Congress," April 29, 2021, <https://www.whitehouse.gov/briefing-room/speeches-remarks/2021/04/28/remarks-as-prepared-for-delivery-by-president-biden-address-to-a-joint-session-of-congress/>.

How One of America's Most Livable Cities Fails Black Women

How One of America's Most Livable Cities Fails Black Women: A Look into the Disparate Impacts of Urban Policies in Pittsburgh, Pennsylvania

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Every year Pittsburgh newspapers tout the city's ranking among the most "livable cities" in the United States (ranking second in 2018) and in the world (ranking 32nd in 2018).¹ According to the Global Livability Index, an annual report from the *Economist*, which quantifies cities' living standards by assessing stability, healthcare, culture and environment, and infrastructure, Pittsburgh is an attractive choice for both newcomers and current residents.² Despite Pittsburgh's high ranking, a recent analysis conducted by the city's Gender Equity Commission (GEC) shows that Pittsburgh's livability is not the same amongst all groups of people. In fact, across several standards in the GEC study, Pittsburgh is one of the worst cities in the country for Black women.³ For example, Pittsburgh's Black maternal mortality rate is higher than 97 percent of comparable cities and Black women in Pittsburgh are 5 times more likely to live in poverty than white men in the city.⁴ This paper aims to uncover the policies—both historical and current—that have harmed Black women while allowing others to thrive in the city's "livability" and resources.

Vocabulary

Given the complex topic of gender and race throughout this paper, it is necessary to discuss key vocabulary that will be used. Throughout the paper, the words Black (always capitalized) and African American will be used interchangeably. The Gender Equity Commission's report did not differentiate

1 Sharon Ebersson, "Pittsburgh is the No. 2 most livable city in America," Pittsburgh Post-Gazette, August 20, 2018, <https://www.post-gazette.com/local/neighborhood/2018/08/20/Pittsburgh-No-2-most-livable-city-America-32-global-livability-index-Economist/stories/201808200090>.

2 Ibid.

3 Junia Howell, Sara Goodkind, Leah Jacobs, Dominique Branson and Elizabeth Miller, "Pittsburgh's Inequality Across Gender and Race," Gender Analysis White Papers, City of Pittsburgh's Gender Equity Commission, September 17, 2019, https://apps.pittsburghpa.gov/redtail/images/10645_Pittsburgh's_Inequality_Across_Gender_and_Race_JULY_2020.pdf.

4 Ibid.

between African Americans and other members of the Black diaspora (for example, immigrants from the Caribbean or Africa). However, there is likely a difference in the data if one were to account for ethnicity/nationality within the Black community. When referring to the report, the term Black will be used, but when discussing policies that have impacted the Black community, both Black and African American will be used. While the term Black is often used in this paper, the paper overall aims to emphasize the specific struggles of African Americans—descendants of enslaved peoples in America—as they have a unique history and connection to the United States that impacts their well-being in this country.

Race and Gendered Disparities in Pittsburgh

The GEC report compares Pittsburgh to other comparable cities⁵ by gender and race. For white residents, Pittsburgh ranks in the middle 50 percent of cities in terms of overall livability. Black residents in Pittsburgh, however, are far below the median when compared to other cities in the US, particularly in indicators of health, poverty, and education.⁶ Pittsburgh is a majority white city, with about 65 percent of the population identifying as white. But nearly a quarter (22 percent) identify as Black—making the community overrepresented in the city compared with their proportion of the US population (approximately 13 percent).⁷ Further, given that nearly a quarter of the population is Black, it might suggest that there have been targeted policies—such as discriminatory zoning laws, which will be discussed in greater detail later—to disenfranchise or neglect the Black community as a way to limit the resources of nearly one fourth of Pittsburgh's population.

5 Short list of comparable cities: Indianapolis, Indiana; Cincinnati, Ohio; Cleveland, Ohio; Louisville, Kentucky

6 Howell et al, "Pittsburgh's Inequality Across Gender and Race," 2019.

7 Ibid.

Health Disparities

Health and well-being are key indicators of a city's livability.⁸ One's health can significantly impact all other areas of their life, including educational attainment and wealth accumulation.⁹ Black Pittsburghers' health and well-being are in jeopardy from birth, especially Black women. Pittsburgh's Black female residents are more likely to score poorly across most indicators of health than any other subgroup, according to the GEC study. In general, women live longer than men;¹⁰ however, both white men and women have a longer life expectancy than Black women in Pittsburgh (ages 70.1, 78.2 and 69.9 respectively).¹¹ Perhaps the most poignant results were related to maternal and fetal mortality amongst Black women. Although Black women in Pittsburgh receive prenatal care sooner than Black women in 92 percent of similar cities in America, their maternal mortality rate is higher than in 97 percent of those cities. This suggests that it is not necessarily a lack of care that could explain this disparity but other factors beyond the mother's control.¹² The Black fetal mortality rate is also higher in Pittsburgh than in 94 percent of similar cities: thirteen of every 1,000 Black babies born in the city die before they turn one, compared to only two out of every 1,000 white babies.¹³ Finally, compared with the city's white mothers, Black mothers are three times more likely to give birth to extremely low-weight babies, even when controlling for income. This suggests that the disparity in fetal health outcomes is driven not only by a lack of access to resources: even Black women with higher incomes are more likely to give birth to underweight babies than their white peers. When controlling for sex, Black female infant mortality is higher than 70 percent of similar cities, which indicates that even Black female babies have a harder time surviving in Pittsburgh.¹⁴

8 Ibid.

9 Ibid.

10 WHO | Female life expectancy. (n.d.). WHO. Retrieved April 27, 2021, from <https://www.who.int/data/gho/data/themes/topics/topic-details/GHO/life-expectancy-for-women>.

11 Ibid.

12 Ibid.

13 Ibid.

14 Ibid.

Wealth Disparities

Pittsburgh has a relatively educated population compared to other similar cities, mainly due to its universities, medical centers, and growing technology hub.¹⁵ However, high average educational attainment does not translate into equality in the workplace, particularly for Black women, who earn 54 cents for every dollar white men make.¹⁶ Black women in Pittsburgh achieve similar levels of education as those in other cities, but are much more likely to be under or unemployed.¹⁷ Pittsburgh has higher rates of poverty than the average city, in part due to the decline of the region's coal and steel industries over the past half-century. Black women suffer the most, with 40 percent of Black women living in poverty compared to 27 percent of Black men and only 8 percent of white men. These high rates place Pittsburgh in the bottom 15 percent of cities regarding poverty amongst Black women.¹⁸ These high poverty rates amongst adult Black women also translate to higher rates of poverty amongst Black youth, as Black women are more likely to be in single-income households.¹⁹ Among those who are employed, Black women don't do much better relative to other groups: they earn only 63 cents for every dollar made by white men, for example, and among Black full-time workers, women on average \$3,600 less than men. This suggests that the pay gap has less to do with hours worked and more to do with equitable pay.²⁰ Finally, it is important to acknowledge that Black women in 90 percent of cities nationally have a higher median income than in Pittsburgh, meaning that if a Black woman were to leave Pittsburgh tomorrow, she would likely find a better-paying job. This is despite Black women being more likely to be actively looking for work than other women,²¹ suggesting that it is not because of Black women in Pittsburgh's lack of pursuit for jobs that keeps them more impoverished than their counterparts in other cities.

15 "Wallethub: Pittsburgh is Among the Top 50 Most Educated Cities in America," CBSN Pittsburgh, July 21, 2020, <https://pittsburgh.cbslocal.com/2020/07/21/wallethub-most-educated-cities-pittsburgh/>.

16 Ibid.

17 Ibid.

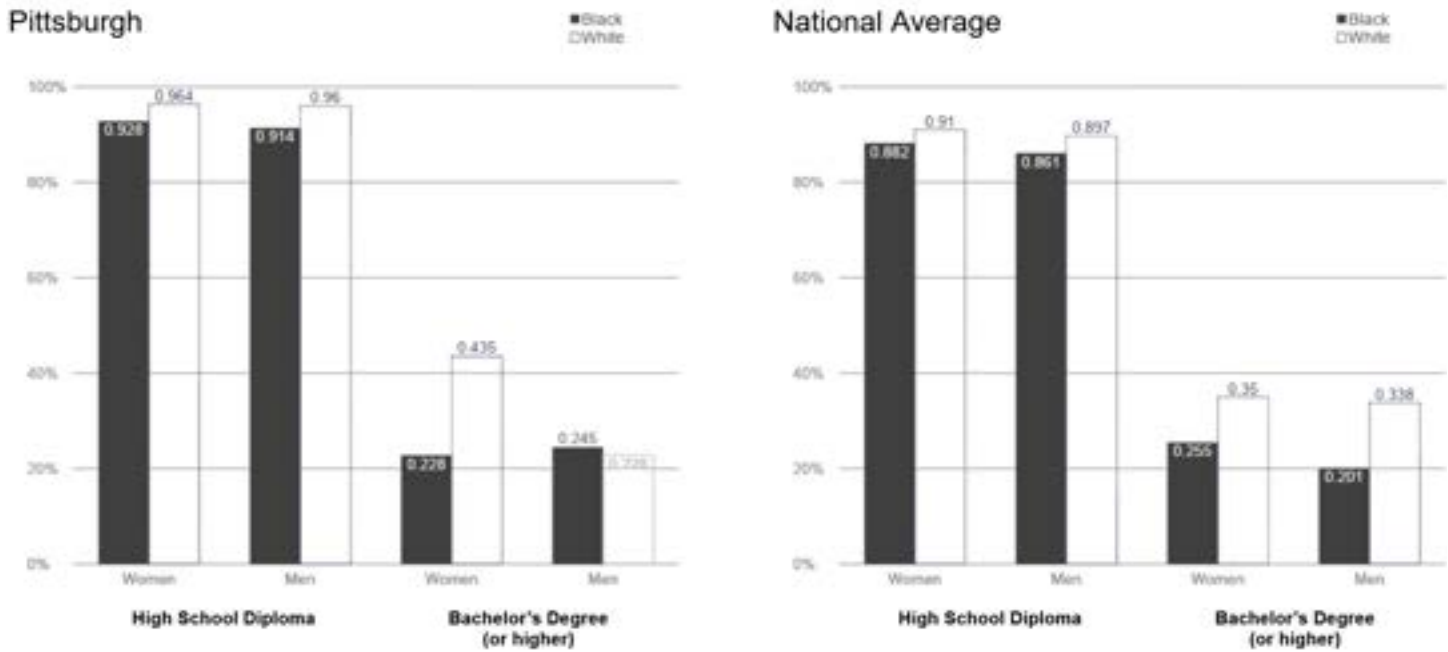
18 Ibid.

19 Julie Anderson, "Breadwinner Mothers by Race/Ethnicity and State," Institute for Women's Policy Research, September 16, 2016, <http://www.jstor.org/stable/resrep27253>.

20 Ibid.

21 Ibid.

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Source: "2019 Selected Population Profile," US Census Bureau, 2019, <https://www.census.gov/iaa/www/data/data-tables-and-tools/data-profiles/>

Figure 1. Educational attainment in adults, Pittsburgh vs national average (2018)

Education

Access to education is another indicator of a city's livability and, like health and wealth, is experienced differently amongst Pittsburgh's diverse populations. Education disparities that disproportionately impact Black children begin to emerge early, in primary and secondary school. Though Black girls in Pittsburgh are actually more likely to pass middle school algebra than white boys, once taking Advanced Placement (AP) tests in secondary school, those same Black girls score on average in the bottom two percent when compared to Black girls in comparable cities.²² This suggests that Black girls have the ability to perform at the same level as (or exceed) their peers. This also shows that Black girls' academic performance is similar to that of their white peers until high school; and that something during their secondary schooling might be the reason for their lower success rates in AP exams. Further, while the majority of Black students who finish high school attend college, nearly 60 percent of those who start university studies drop out and do not earn a degree.²³ Again, this indicates that Black students are willing and ready to attend college at rates similar to their peers but there are likely other barriers once in

college, such as prejudice from peers and teachers²⁴ and lack of adequate academic preparation,²⁵ that prevent the success of many Black students (See Fig. 1 for a comparison of educational attainment in Black vs white students in Pittsburgh compared to national averages).

Finally, we can't ignore the "discipline disparity": the large difference in the proportion of Black students (particularly girls) subjected to school disciplinary actions compared to their white peers. It is important to highlight that this discipline disparity is not an independent problem but is undoubtedly connected to the educational and performance disparities mentioned above. Twenty percent of Black girls enrolled in the city's public schools are suspended at least once during the school year,²⁶ and Black children overall are 3 to 5 times more likely than their white peers to experience encounters with the police through school referrals

24 Seth Gershenson, "The Alarming Effect of Racial Mismatch on Teacher Expectations," Brookings, August 15, 2015, <https://www.brookings.edu/blog/brown-center-chalkboard/2015/08/18/the-alarming-effect-of-racial-mismatch-on-teacher-expectations/>.

25 Liz Sablich, "Helping to level the AP playing field: Why eighth grade math matters more than you think," Brookings, April 4, 2016, <https://www.brookings.edu/blog/brown-center-chalkboard/2016/04/04/helping-to-level-the-ap-playing-field-why-eighth-grade-math-matters-more-than-you-think/>.

26 Ibid.

22 Ibid.

23 Ibid.

or arrests.²⁷ Previous research has found that these higher rates are not necessarily because Black girls are more likely to have severe offenses in school, but many of these disciplinary actions are due to general disruptions, defiance, or dress-code violations.²⁸ Not only are Black girls punished more than their white peers in Pittsburgh, but they also experience harsher punishments.²⁹ This is particularly important given research that suggests that suspensions for Black girls in middle school are the "single largest predictor in later arrests [and incarcerations] among adolescent females."³⁰

Root Causes: Past and Current Policies

The data provided above creates an alarming picture of the realities most Black women face in Pittsburgh. On average, any Black woman living in the city could pack up their belongings and move to another comparable city tomorrow and have better life outcomes. This harsh reality would be unsettling when discussing any city, but it is particularly cruel when discussing a city that so prides itself on "livability." But why is this the case? The next section will discuss several likely and important causes: national policies that reinforced racism throughout various social institutions, Pittsburgh's unique location and history, and local politics that molded the city's landscape to be harmful to Black women.

Urban Renewal, Negro Removal

Pittsburgh's first encounter with Black residents was during slavery. In 1779 the Pennsylvania legislature "abolished" slavery,³¹ but remnants of chattel slavery (in which one person legally owned another and their offspring) were present in the region for years to follow. Following the gradual

27 Ibid.

28 Erica L. Green, Mark Walker and Eliza Shapiro, "A Battle for the Souls of Black Girls," *The New York Times*, October 1, 2020, <https://www.nytimes.com/2020/10/01/us/politics/black-girls-school-discipline.html>.

29 Ibid.

30 Johanna Wald and Daniel J. Losen, "Defining and redirecting a school-to-prison pipeline," *New Directions for Youth Development*, 2003(99), 9–15, <https://doi.org/10.1002/yd.51>.

31 University of Pittsburgh, "Free at Last? Slavery in Pittsburgh in the 18th and 19th Centuries," 2009, http://exhibit.library.pitt.edu/freetatlast/middle_passage.html.

abolishment of slavery in America, the city of Pittsburgh turned into a sanctuary city and a stop along the Underground Railroad for Blacks fleeing slavery in the South.³² Compared to other cities in the country, the relationship between whites and Blacks in the city was strong. The late nineteenth and early twentieth century saw a significant influx of African Americans to the region due to Pittsburgh's coal and steel industry and the Great Migration, where southern Black families fled to the Northern states in search of better opportunities.³³ As more people came to the city, each ethnic group found a neighborhood to call home. This clustering of ethnic groups into distinct parts of the city became more pronounced over time, helped along by racist housing policies enacted by Pittsburgh officials, who by the early twentieth century were increasingly concerned by the influx of African-Americans and other migrants.

The task of designing Pittsburgh into separate, distinct neighborhoods often defined by race or ethnicity began at the beginning of the twentieth century,³⁴ and by 1960 the city was one of the most segregated big cities in America.³⁵ In 1923, a city-wide zoning ordinance determined what type of housing could be built in the city and where. The ordinance limited the quantity of single family homes in certain (mainly high income and/or white) neighborhoods so that only residents above a certain income could buy homes in that neighborhood while also prohibiting the construction of more affordable multi-family homes. A recent study conducted by the University of Pittsburgh found that zoning decisions from that decade have had a considerable influence on the organization of Pittsburgh and cities like it.³⁶ Another local policy that continues to impact Pittsburgh's Black residents is the Residential Security Map, drawn by local realtors in the 1940s, that defined which neighborhoods were

32 Bob Bauder, "Pittsburgh Was a Sanctuary City 150 Years Ago. Now Racism Is a Public Health Crisis," *Pittsburgh Tribune-Review*, January 20, 2020, <https://triblive.com/local/pittsburgh-allegeny/pittsburgh-was-a-sanctuary-city-150-years-ago-now-racism-is-public-health-crisis/>.

33 T. Rashad Byrdson and Hide Yamatani, "Historical Overview of Black Suffering in Pittsburgh, Pennsylvania, USA: Depth of Contemporary Social Work Challenges," *International Journal of Social Work*, 4(2), 2017, <http://doi.org/10.5296/ijsw.v4i2>.

34 Devin Rutan, "How Housing Policy over the Last Century Has Made Pittsburgh What It Is Today," *PublicSource*, May 17, 2017, <http://www.publicsource.org/how-housing-policy-over-the-last-century-has-made-pittsburgh-what-it-is-today/>.

35 Ibid.

36 Ibid.

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worth investing in.³⁷ This is an instance of what scholars call “redlining.” Black neighborhoods like the Hill District and Hazelwood were assigned the “definitely declining” or “hazardous” values, and lenders were strongly advised not to invest in these neighborhoods. Many of the neighborhoods that were deemed unworthy of investment 80 years ago are now home to more Black people and individuals living in poverty who continue to experience a lack of development in their communities.³⁸

In the 1950s and 60s several national initiatives to revitalize many of America's declining cities, known as Urban Renewal, characterized an era of mass urban displacement. Most notably in Pittsburgh was the demolition of the predominantly Black neighborhood (and cultural hub) called the Lower Hill District, which was torn down to build a new Civic Arena in the 1950s.³⁹ Over 1,000 homes were demolished, and over 8,000 residents were displaced to other parts of the city like East Liberty and Homewood. Many of those who were displaced were forced to move to public housing units, unable to find new homes elsewhere. Of the Black residents who had previously been homeowners, many moved into rented apartments, losing out on the chance to accumulate wealth through property ownership as many of their white counterparts did.⁴⁰ Pittsburgh's land use and planning agency (the Urban Redevelopment Authority) repeated this process in 1999 by demolishing over a quarter of public housing in the city—disproportionately affecting Black residents who were more likely to live in those developments.⁴¹ Some Black Pittsburghers were once again forced to leave their homes in 2015, this time in East Liberty, a neighborhood that had absorbed many of those displaced by the demolition of the Lower Hill District. In this case, the residents of Penn Plaza, an affordable housing development, were given 90-day eviction notices; developers had gotten approval from the city to build a luxury grocery store on the site.

The policies of the past one hundred years show the local government's willingness to remove Black residents from land when deemed convenient,

demonstrating the instability of “living while Black” in Pittsburgh. This repeated demolition of home, community, and culture has likely put additional strain on Pittsburgh's Black residents, compounding other systemic and institutional forms of racism. It is particularly important to note that while Black men and women may have differing experiences, Black women might be uniquely impacted by the trauma of displacement due to a greater need for social cohesion and traditionally being more likely to oversee household duties.⁴²

Environmental Policies

Like the national policies that implemented Urban Renewal projects across the country, environmental policies (or lack thereof) in Pittsburgh are not wholly unique to the city. However, the consequences of these policies have had a unique effect on Pittsburgh and its residents, given the city's dependence on heavy industry to drive its economy in the nineteenth and early twentieth centuries. Pittsburgh has a long history of pollution and poor air quality, dating back to the 18th century when coal was discovered in the region.⁴³ A lack of accountability for the companies creating this pollution has plagued much of Pittsburgh's history;⁴⁴ the area became known as the “City of Smoke” during its industrial peak, and as late as the 1940s streetlights in Pittsburgh were lit during the daytime due to poor air quality.⁴⁵

While the city's air quality and overall pollution have impacted all residents, it has disproportionately affected Black and poor communities.⁴⁶ These disparities are not an unintended consequence of the city's industrial era but were, and continue to be, by design from specific policies. As more stringent environmental policy and regulation, such as

37 “Mapping inequality.” (n.d.). Retrieved April 27, 2021, <https://dsl.richmond.edu/panorama/redlining/>

38 Rutan, “How Housing Policy over the Last Century Has Made Pittsburgh What It Is Today,” 2017.

39 Ibid.

40 Ibid.

41 Ibid.

42 Georgia State University, “Females Find Social Interactions to Be More Rewarding than Males, Study Reveals,” *ScienceDaily*, January 30, 2019, <https://www.sciencedaily.com/releases/2019/01/190130175604.htm>.

43 “Pittsburgh's Dark History,” *Popular Pittsburgh* (blog), February 11, 2015, <https://popularpittsburgh.com/darkhistory/>.

44 Brentin Mock and David Montgomery, “Environmentalists by Necessity,” *Bloomberg CityLab*, August 1, 2018, <https://www.bloomberg.com/news/articles/2018-08-01/the-cumulative-toxic-assault-on-braddock-pennsylvania>.

45 “Pittsburgh's Dark History,” *Popular Pittsburgh* (blog), February 11, 2015, <https://popularpittsburgh.com/darkhistory/>.

46 Kristina Marusic, “Systemic Racism Is Not Limited to One System,” *Environmental Health News*, June 12, 2020, <https://www.ehn.org/environmental-injustice-pittsburgh-air-pollution-2646169635/systemic-racism-is-not-limited-to-one-system>.

implementing smoke ordinances,⁴⁷ entered Pittsburgh's political field in the 1960s, the benefits of these efforts did not seem to be distributed equitably amongst all residents. While many of the largest polluting industries in the city began to close during the second half of the twentieth century, and smoke pollution even decreased 90 percent by 1954, there were still several neighborhoods (mostly predominately Black and/or working class) that still felt the consequences of the city's long history of pollution.⁴⁸ Even into the late 1970s, predominantly Black neighborhoods like the Hill District and Homewood had higher levels of lead in water and soil.⁴⁹ A recent study found that the region's most polluted areas are often in poor and minority neighborhoods, which can result in a higher rate of air pollution-related deaths.⁵⁰ As discussed above, 40 percent of Black women live in poverty in Pittsburgh, meaning that they are more likely to live in these polluted areas, such as the Pittsburgh suburb of Braddock. In Braddock, between 2008 and 2012, the infant mortality rate for Black infants was 13.73 deaths for every 1,000 live births, slightly more than the average for Black women in all of Pittsburgh.⁵¹ The Edgar Thomson Steel Works mill is still working in the neighborhood and contributes greatly to increasing pollution levels,⁵² which is a leading cause of infant mortality, low birth weight, and premature births.⁵³ Residents of areas like Braddock are more likely to have health problems like respiratory disorders,

which contributes to the race and gender education disparities in the city.⁵⁴ For example, asthma rates are so high among Black children in Braddock that it has triggered a chronic absenteeism crisis in the district's K-12 schools.

Perhaps out of all the policies explored in this paper, it is hardest to connect Pittsburgh's environmental policies to the plight of Black women in the city, partially because there is little history of significant environmental policies in Pittsburgh. Being a coal and steel town meant that residents' exposure to pollution went unchecked for much of Pittsburgh's history. This had a serious impact on the health of all residents, but the lack of regulation coupled with redlining and other forms of structural racism has disproportionately affected Black Pittsburghers, making the city's environmental issues one of many compounding stressors that have hurt Black women.

Mass Incarceration and Over-Policing

The rise of mass incarceration has been noted in several studies as a significant factor in the demise of the nuclear Black family, stunted wealth accumulation in the United States, and even educational attainment. National policies and political actions like the "War on Drugs" and the 1994 crime bill drastically increased America's prison population and disproportionately affected African-Americans.⁵⁵ Today, despite only making up 13 percent of the total population, Black people are 33 percent of the prison population.⁵⁶

This disparity is even larger in Pittsburgh. Black people make up about 13 percent of Allegheny County's total population but account for 63 percent of its incarcerated people,⁵⁷ even as violent crime in the city of Pittsburgh (where most Black residents live) has steadily decreased since the 1990s. Further, Black women ages 19 to 29 are eight times more likely to be arrested than their white counterparts, and Black children between the ages of 11 and 18 account for 83 percent of all warrantless searches (and 100 percent

47 "Pittsburgh's Dark History," Popular Pittsburgh (blog), February 11, 2015, <https://popularpittsburgh.com/darkhistory/>.

48 Ibid.

49 Bhavini Patel and Waverly Duck. "Environmental Risk: A Case Study of the Hill District and Homewood-Brushton" (undergraduate paper, University of Pittsburgh, 2016).

50 Kathleen Shedlock and LuAnn Brink, "2019 Environmental Justice Index" (Allegheny County Health Department, Bureau of Assessment, Statistics & Epidemiology, August 2019).

51 Brentin Mock and David Montgomery, "Environmentalists by Necessity," Bloomberg CityLab, August 1, 2018, <https://www.bloomberg.com/news/articles/2018-08-01/the-cumulative-toxic-assault-on-braddock-pennsylvania>.

52 Julia Zenkevich, "After sighting black smoke and flames, environmental groups ask authorities to address air pollution in Braddock," 90.5 WESA, August 20, 2021, <https://www.wesa.fm/environment-energy/2021-08-20/after-sighting-black-smoke-and-flames-environmental-groups-ask-authorities-to-address-air-pollution-in-braddock>.

53 World Health Organization, "The Cost of a Polluted Environment: 1.7 Million Child Deaths a Year, Says WHO," World Health Organization News (blog), March 6, 2017, <https://www.who.int/news/item/06-03-2017-the-cost-of-a-polluted-environment-1-7-million-child-deaths-a-year-says-who>.

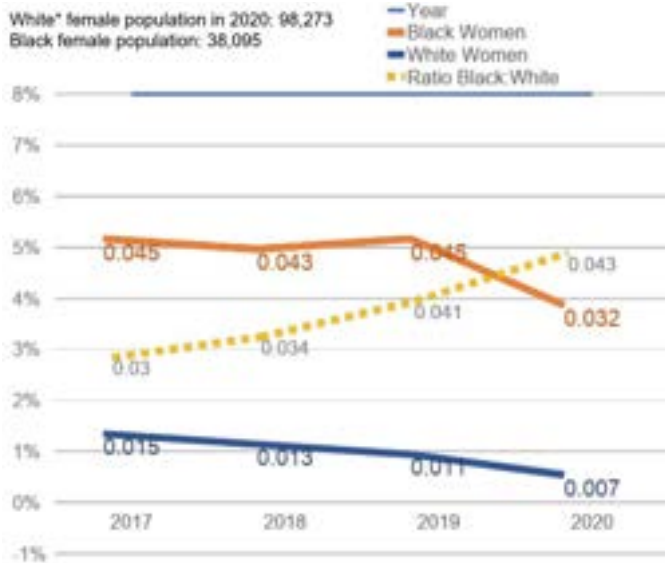
54 Ibid.

55 James Cullen, "The History of Mass Incarceration," Brennan Center for Justice, July 20, 2018, <https://www.brennancenter.org/our-work/analysis-opinion/history-mass-incarceration>.

56 Ibid.

57 Charlie Deitch, "Despite A Pandemic, Black Incarcerated People At Allegheny County Jail Still Face Inequity In Bookings And Releases," Pittsburgh Current, May 1, 2020, <https://www.pittsburghcurrent.com/despite-a-pandemic-black-incarcerated-people-at-allegheny-county-jail-still-face-inequity-in-bookings-and-releases/>.

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* White is non-Hispanic White
Source: "Pittsburgh Police Arrest Data," Western Pennsylvania Regional Data Center, 2021, <https://data.wprdc.org/dataset/arrest-data>

Figure 2. Arrests of Black vs. white women of all ages (as a proportion of their total population in Pittsburgh), 2017-2020

for children under the age of 10).⁵⁸ These figures suggest that the Black community in the region is drastically over-policed. (See Fig. 2 for a comparison of arrest rates for Black and white women of all ages in Pittsburgh from 2017-2020).

Indeed, while the outgoing Mayor Bill Peduto has increased the police budget by 60 percent over the past six years, this has not resulted in better policing of vulnerable communities.⁵⁹ A recent report found that half of the murders in Pittsburgh went unsolved from 2010-2015, and 97 percent of the unsolved murders included Black victims. Thus, while the police interact with Black residents at a significantly higher rate than other groups, their presence in Black neighborhoods does not help solve or reduce crime.

Structural racism and sexism can overexpose Black women to distinct stressors, like an increased likelihood of contact with the criminal justice system, that can impact several aspects of their lives.⁶⁰ A significant amount of research has discussed the impact mass incarceration has had on the Black community, particularly on Black women and their

health.⁶¹ The disproportionate incarceration of Black women is further proof that the systems in place both at a local and national level do little to protect them.⁶² It is, in that case, no surprise that with the high rates of Black incarcerated people in Pittsburgh, there are also higher rates of infant mortality amongst the city's Black women. The removal of a loved one or breadwinner from a family often causes emotional distress and loss of income, bringing further instability into the lives of women and children who will be sole providers for their families. These effects cannot be understated. Even though many Black women never come in contact with police, the stressors of being Black in America, especially as a Black woman/mother, lead to higher levels of stress and traumatic experiences that accumulate over a lifetime and have both physical and psychological effects on the body.⁶³

Policy Solutions

The goal for local politicians and residents should be to make Pittsburgh a livable city for everyone. According to the Gender Equity Commission report, Pittsburgh is failing Black women in most areas highlighted. To propose a single policy solution would be to fail Black women once more, as the issue is far too complex for any single fix. Instead of proposing single policy solutions, this paper argues for a more comprehensive reform program, connecting policy ideas across a range of areas. What would change if we restructured society (or, for the purpose of this paper, Pittsburgh) using a "bottom-up" approach, which ensured that those most vulnerable received adequate care? The GEC report reveals that Black women are the most vulnerable population in the city regarding health, wealth, and education outcomes. Restructuring the Pittsburgh community from the "bottom-up" necessitates two things for Black women: protection and opportunity.

61 Bruce Western and Christopher Wildeman, "The Black Family and Mass Incarceration," *The ANNALS of the American Academy of Political and Social Science*, 621(1), 221-242; Dorothy E. Roberts, "The Social and Moral Cost of Mass Incarceration in African American Communities," *Faculty Scholarship at Penn Law*, 56, 1271. https://scholarship.law.upenn.edu/faculty_scholarship/583.

62 Connor Maxwell and Danyelle Solomon, "Mass Incarceration, Stress, and Black Infant Mortality," *Center for American Progress*, June 5, 2018, <https://www.americanprogress.org/issues/race/reports/2018/06/05/451647/mass-incarceration-stress-black-infant-mortality/>.

63 Ibid.

58 Ibid.

59 Dolly Prabhu, "ALC Releases Report on Apartheid Policing in Pittsburgh," *Abolitionist Law Center*, December 16, 2020, <https://abolitionistlawcenter.org/2020/12/16/apartheid-policing-in-pgh/>.

60 Ibid.

Protection

Protection for Black women in Pittsburgh should be the basis of several policy solutions moving forward. Black women are more likely to die during childbirth, experience infant mortality, and die by homicide than their peers. Black girls also have a higher mortality rate than white girls in Pittsburgh.⁶⁴ Black women and girls are also overrepresented in interactions with the police and in county jails. One solution to protect Black girls and women is to “defund” the Pittsburgh police, reallocating funds to local organizations that focus on community development for low-income and minority neighborhoods. Mayor Peduto has increased the police budget from 72 million dollars to 115 million dollars over the past six years, and it now accounts for one-fifth of the city’s operating budget.⁶⁵ Instead of increasing funding to departments that target and harm Black women, redirecting money to public health access and public education would better protect Black women and girls in the community.

Finally, and most importantly, if Pittsburgh wants to ensure all its residents can access the same opportunities, there must be a complete overhaul of the public school system. If we were to ensure Black girls had the same opportunities to succeed as their peers, the lives of all Pittsburghers would improve. As mentioned earlier, there are significant education disparities between Black girls and their peers that indicate it is not a lack of ability that stops young Black girls from succeeding but many other factors. System interventions need to be at every level of the primary and secondary school experience ranging from addressing the over-disciplining, hyper-sexualizing, and stereotyping of young Black girls, to ensuring equitable treatment in classrooms.

Opportunities

Forty percent of Black women in Pittsburgh live in poverty, and 85 percent of Black women in other cities are better off financially than Black women in Pittsburgh. Despite being similarly educated to Black women in other cities, those in Pittsburgh are more likely to be under- or unemployed. Lack of opportunities for jobs and job advancement is a factor in making the city so unlivable for Black women.

Instituting local policies that ensure unbiased job hiring practices would give qualified Black women more opportunities to rise out of poverty. For example, encouraging local companies to use “blind hiring” where they do not know the applicant’s race would remove prejudice and implicit biases from the hiring process.⁶⁶

Another solution is to pay Black women equitably. Financial stability is one of the most significant ways to increase protection and stability.⁶⁷ In Pittsburgh, Black women are paid 54 cents to every white man’s dollar. If we were to ensure that everyone is paid equitably for the same work, we would improve the standard of living for not just Black women but everyone else as well. Restructuring society to ensure the most vulnerable populations are protected does not just improve the outcomes of the most marginalized but improves the quality of life for everyone as our new systems work for everyone, not against some.

Conclusion

One of America’s (and the world’s) most livable cities is failing its Black female residents. But the higher mortality rates, dropout rates, and poverty rates of the Pittsburgh’s Black women compared to their white peers are not the result of one local policy gone wrong; it is the combination of multiple stressors and systemic barriers that has kept Black women from enjoying the same rights and opportunities as others in Pittsburgh. The city’s industrial history, along with its policy choices around so-called “urban renewal,” environmental injustice, and over-policing are just a few of the variables in the equation that has created the low levels of livability for Black women. If a Black woman were to leave the city tomorrow it is likely that many aspects of her life would almost certainly improve; she would be more likely to have a higher income, not live in poverty, graduate college, interact with the police less, and give birth to a healthy baby. This reality should be an embarrassment and tragedy for any city but especially for one that

66 Daniel Bortz, “Can Blind Hiring Improve Workplace Diversity?” SHRM, March 20, 2018, <https://www.shrm.org/hr-today/news/hr-magazine/0418/pages/can-blind-hiring-improve-workplace-diversity.aspx>.

67 Emily Brow Weida et al, “Financial health as a measurable social determinant of health,” PLOS ONE, 15(5), e0233359. <https://doi.org/10.1371/journal.pone.0233359>.

64 Howell et al, “Pittsburgh’s Inequality Across Gender and Race,” 2019.

65 Prabhu, “ALC Releases Report on Apartheid Policing in Pittsburgh,” 2020.

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prides itself on its livability. The city of Pittsburgh (its institutions) is a threat to Black women, and it should be of the utmost priority for the government to address this problem given the knowledge of the previous GEC report and the new findings from this paper. Fixing this problem does not require a single policy or a mayoral appointed task force. Instead, it requires understanding the necessities Black women in Pittsburgh are missing. By reforming local policies to better protect Black women and afford them better opportunities to succeed through education, health, and wealth, Black women become more included in the city's success, and the well-being of all Pittsburgh residents will increase.

"Until Black women are free, none of us will be free."
-Barbara Smith of the Combahee River Collective

Modern-Day School Segregation: History, Case Studies, and Recommendations

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As the United States continues to reckon with its race relations—past and present—modern-day school segregation practices must be examined under the microscope to better understand its contribution to the problem. This paper will explore modern-day school segregation practices in urban, suburban, and rural schools across the United States and explore possible policy outcomes to mitigate this trend.

Several practices continue to drive modern-day school segregation: school choice, admissions testing, deliberately divided school districts, school privatization, and housing practices. The flaws that beset these forces perpetuate a system that continues to disproportionately affect children of color. While there are ways these policies can change, a deeper understanding of how this process evolved in these United States will guide policy recommendations, and lead to more systematic change.

This paper begins with the history of school desegregation through Supreme Court cases in the 1960s, most notably *Brown v. Board of Education of Topeka (1)*. It then transitions to the history of white flight, along with a modern-day case study of white flight in the state of Illinois. School choice and admissions testing will also be explored, using Chicago Public Schools as an example. Finally, this paper uses private schools in Chicago as a case study, appraising their role in the modern-day school segregation dynamic and ends with relevant policy recommendations.

Background

On May 17, 1954, the Supreme Court ruled in what has become one of the most famous cases to date: *Brown v. Board of Education of Topeka (1)*. The ruling, given after the case was argued twice before the court, stated that “separate but equal” school facilities were unconstitutional under the Fourteenth Amendment.¹

1 Warren, Earl, and Supreme Court Of The United States. U.S. Reports: *Brown v. Board of Education*, 347 U.S. 483. 1953. Periodical. <https://www.loc.gov/item/usrep347483/>.

While this opened the door for the integration of schools based on race across the United States, the decision did not explicitly state how schools should move forward with integration plans.² This outcome was left to *Brown v. Board of Education of Topeka (2)*, in which the court ruled that all decisions, complaints, and court cases regarding school integration would be handled by the lower courts. Still, the Supreme Court did not name a timeline for school integration, simply stating that desegregation efforts needed to be taken “with all deliberate speed.”³

On the same day that the Supreme Court ruled against school segregation in *Brown v. Board of Education of Topeka (1)*, they decided on another landmark case involving school segregation. In *Bolling v. Sharpe*, the court ruled that racial segregation in the District of Columbia’s public schools went against the Fifth Amendment, specifically the Due Process Clause.⁴ However, across the South, five state legislatures—Alabama, Georgia, Mississippi, South Carolina, and Virginia—nullified the Supreme Court’s decisions in these two cases, prolonging school desegregation’s end.⁵

While an aversion to going against the grain may be expected at the time, perhaps what is most shocking about this information is how willing states were to actively go against the rulings of the Supreme Court, nullifying the court’s decision in their states and taking advantage of the vagueness of “with all deliberate speed.” As seen by the five state legislatures deliberately going against the ruling, school desegregation would be a more arduous process than anticipated.

The deliberate dragging of feet by state school districts can be most clearly seen in another Supreme

2 “*Brown v. Board of Education*,” HISTORY, accessed February 17, 2021, <https://www.history.com/topics/black-history/brown-v-board-of-education-of-topeka>.

3 Ibid.

4 “*Brown v. Board of Education Timeline*,” National Archives, accessed February 17, 2021, <https://www.archives.gov/education/lessons/brown-v-board/timeline.html>.

5 Ibid.

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Court case from 1969, *Alexander v. Holmes County Board of Education*. School districts in Mississippi were deliberately prolonging desegregation initiatives, leading the Supreme Court to rule that “continued operation of racially segregated schools under the standard of ‘all deliberate speed’ is no longer constitutionally permissible.”⁶ This ruling immediately forced districts to operate on a “unitary basis,” quickly ending attempted continuous school segregation in the South.⁷

Perhaps more famously known than the *Alexander* Supreme Court case are the stories of the Little Rock Nine and Ruby Bridges in terms of school desegregation. The Little Rock Nine, a group of nine Black students attending Central High School, were blocked from entering the school building by the Arkansas National Guard at the order of Arkansas Governor Orval Faubus.⁸ The blockage, which happened on the first day of school in the 1957-58 school year, garnered national attention and action from President Dwight D. Eisenhower. Under the order of President Eisenhower, federal troops escorted the nine students inside the school, allowing them to attend their classes.⁹ Perhaps what is most striking about the Little Rock Nine is not the fight it took for them to enter the building, but rather the preparations from the Arkansas NAACP with the students. They were vetted to ensure mental stability in handling expected taunts and violence from white classmates and attended counseling sessions in advance of entering the Central High School building.¹⁰

Similarly, Ruby Bridges was put through screening processes before she was able to attend school in Louisiana. However, Bridges was forced to take an entrance exam to prove her capabilities to the school district, which she passed alongside five other Black students.¹¹ Bridges, who was born in the same year as the *Brown v. Board of Education of Topeka* (1) decision, was six years old when she was admitted to

her school in November of 1960.¹² Her attendance—marked by daily escorts by federal marshals—integrated her elementary school in Louisiana.¹³ The desegregation actions taken across the United States, primarily in the South, created a reaction within the white community. This reaction, known as “white flight,” began to counteract these efforts as schools once again became homogenized. According to the Oxford English Dictionary, white flight is known as “the phenomenon of white people moving out of urban areas, particularly those with significant minority populations, and into suburban areas.”¹⁴

White Flight

In 1981, the Department of Education filed a report on white flight after the rulings of *Brown v. Board of Education of Topeka*, *Bolling v. Sharpe*, and *Alexander v. Holmes County Board of Education*. Entitled, “White Flight from School Desegregation: Magnitude, Sources and Policy Options,” author Christine Roepoi writes that “there is no question that white enrollment is declining in many desegregating school systems.”¹⁵ She then goes on to attribute this decline to suburbanization, migration across the United States to the South and West, and birth rate differences among racial groups.¹⁶ However, she also finds “that school desegregation significantly accelerates white flight in most school districts in the year of implementation if it involves mandatory white reassignments.”¹⁷ White reassignment was when white students were reassigned to attend formerly all Black schools. Roepoi considers reassignment an important factor in white flight, noting how “racial tolerance appears to have progressed to the point today where [B]lack reassignments into white schools do not significantly increase white flight ... except in school districts above 35 [percent] [B]lack.”¹⁸

6 Alexander et al. v Holmes County Board of Education et al., 396, 1, U.S. 19 (1969). <https://www.loc.gov/item/usrep396019/>.

7 Ibid.

8 History.com Editors, “Little Rock Nine,” HISTORY, accessed February 17, 2021, <https://www.history.com/topics/black-history/central-high-school-integration>.

9 Ibid.

10 Ibid.

11 Debra Michals, “Ruby Bridges,” National Women’s History Museum, last modified 2015, <https://www.womenshistory.org/education-resources/biographies/ruby-bridges>.

12 Ibid.

13 Ibid.

14 Oxford English Dictionary. (Oxford: Oxford University Press, 2020).

15 Christine L Roepoi, “White Flight from School Desegregation: Magnitude, Sources, and Policy Options,” Education Policy Development Center for Desegregation, (December 1981): 54.

16 Ibid.

17 Ibid.

18 Ibid.

Black-White School Dissimilarity Index for Illinois Metro Areas

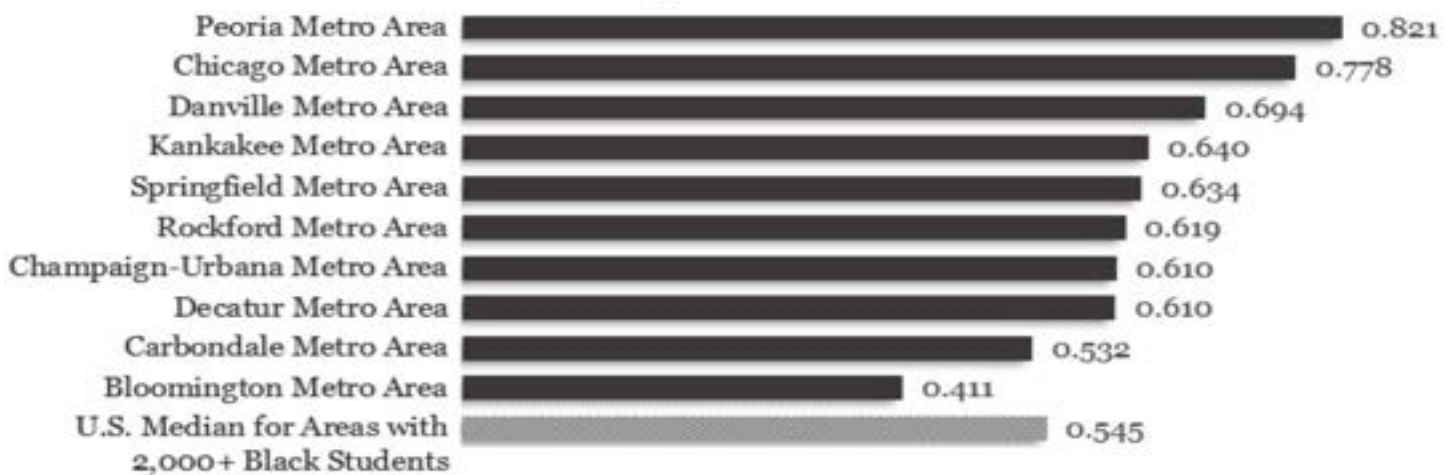


Figure 1. The Black-white school dissimilarity index in metropolitan areas of Illinois compared to the national median.

"White Flight from School Desegregation" describes five reasons why white flight from desegregating schools and school districts occurred during the 1970s: (1) the Black population of the school district is higher than 30-35 percent, (2) the district is surrounded by suburban schools which had yet to desegregate, (3) busing of white students to a formerly all Black school, (4) media coverage of desegregation, and (5) district leadership's indecisiveness about desegregation.¹⁹

The report, "Court Orders, White Flight, and School District Segregation, 1970-2010" spent time examining white flight over the 40-year span. This study focused on a number of districts, but its most interesting analysis came from looking at metropolitan districts across the United States. People traditionally think of white flight as equating to white families leaving the cities for the suburbs, and they found that this assumption holds some weight. Nationally, metropolitan segregation experienced a decline from 1970-1980, dropping from 82.7 percent to 66.5 percent.²⁰ From 1990 on, that statistic has held steady and there has been no change.²¹

The practice of white flight has led to many parts of modern-day school segregation. As this paper will examine, this practice has happened in both urban schools and rural schools, leading to

inequitable distribution of funding and a lack of diverse student bodies.

Modern-Day Illinois, School Segregation, and White Flight

In 2019, *Governing* conducted a six-month study on Black-white segregation in Illinois's public school system. In one investigation, authors focused on the persisting practice of white flight in the suburbs of Peoria.

The state of Illinois has eight of the most segregated school districts in the nation.²² These eight school districts, encompassing the Peoria, Chicago, Danville, Kankakee, Springfield, Rockford, Champaign-Urbana, and Decatur metro areas, are in the top 33 percent nationally of Black-white school segregation.²³ As seen in Figure 1, the dissimilarity index, which compares the evenness of a group's distribution, for Black and white schools is high across these eight areas.²⁴ The United States median for Black-white school dissimilarity is 54.5 percent. These eight districts' media Black-white dissimilarity is 63.7 percent, well above the national median.

19 Ibid.

20 John R. Logan, Weiwei Zhang, and Deirdre Oakley, "Court Orders, White Flight, and School District Segregation, 1970-2010," *Social Forces* 95, no. 3 (2017): 1049-75.

21 Ibid.

22 Daniel C. Vock and Mike Maciag, J. Brian Charles, "Still Separate After All These Years: How Schools Fuel White Flight," *Governing*, January 16, 2019, <https://www.governing.com/archive/gov-segregation-schools.html>.

23 Ibid.

24 Ibid.

Modern-Day School Segregation

City School District	Change in Whites	Change in Blacks	White Change for Other Metro Districts	Black Change for Other Metro Districts
Champaign CUSD 4	-33%	16%	-16%	5%
Decatur SD 61	-38%	-11%	-7%	4%
Bloomington SD 87	-35%	-10%	-9%	20%
Peoria SD 150	-52%	-17%	-8%	53%
Springfield SD 186	-33%	3%	-4%	111%
Rockford SD 205	-37%	-2%	-19%	26%
Kankakee SD 111	-27%	-33%	-17%	-10%
Danville CCSD 118	-39%	4%	-17%	-39%

Figure 2. A comparison of declining enrollment rates by race in Illinois metropolitan school districts compared to surrounding metro areas.

This segregation is occurring because of white flight to other school districts within city limits. As the *Governing* study authors found, white parents are aware of what they are doing and why when moving within city limits to enroll in a different school district.

The city of Peoria has its own school district, a chronically troubled system with a declining enrollment that serves mostly black students. About 70 percent are low-income. White families have been avoiding the troubles of the inner-city school district by moving to the northern part of town, where they can send their kids to Dunlap instead. As a result, Dunlap’s school system is booming. The number of students enrolled has nearly doubled since the 2002-2003 school year. Nearly two-thirds of Dunlap’s students are white; only 7 percent are [B]lack.²⁵

The exodus of white families was so obvious that Dunlap High School highlighted it on its website. The website, up until October 2018, boasted on its profile page that “the high school graduation rate is 90 percent, and the low-income rate is 10 percent.”²⁶ In the suburbs, the phrase “low-income rate” likens to non-white, especially given the demographics of Peoria and the Dunlap School District. This language choice from the Dunlap School District on its high

school’s webpage makes white flight motivated by school enrollment blatant.

White enrollment has been on the decline since the early 2000s in metropolitan school districts across Illinois as seen in the Figure 2, which compares the decline to other metropolitan areas. Peoria’s school district saw a 52 percent decline in white students, compared to eight percent in other comparable metro districts.²⁷

In 1966 the Peoria Unified School District was pushed to create and execute a more complete desegregation plan. Just three years later, the Dunlap School District opened in the north area of Peoria with three schools in 1969.²⁸ This knee-jerk reaction was part of a national trend towards white flight and more suburban school districts. Parents intentionally moved to the northern part of Peoria to attend the school district. As the journalists writing for *Governing* found: “White families have been avoiding the troubles of the inner-city school district by moving to the northern part of town, where they can send their kids to Dunlap instead. As a result, Dunlap’s school system is booming.”²⁹

When considering urban school districts and the modern-day school segregation seen within them, it is important to also consider the growth of the magnet school and the application process. In Peoria, an elementary school in a predominantly Black neighborhood, was transformed into Roosevelt

25 Ibid.
26 Ibid.

27 Ibid.
28 Ibid.
29 Ibid.

Chicago Public Schools, Admissions Testing, and Segregation

Magnet School in the 1980s.³⁰ The school's racial make-up was evenly split between Black and white students until the early 2000s when enrollment began to sharply turn back toward a majority Black student body. Now, the school only attracts students from within the neighborhood and not the rest of Peoria.³¹

While some magnets have a similar trajectory to Roosevelt Magnet School, becoming a neighborhood-based magnet school rather than an overarching district one, there are also magnets that have majority white populations. The two ends of the spectrum, majority Black and majority white, are driving modern-day school segregation.

In exploring Illinois's school district, *Governing* also focused on a gifted and talented middle school in Peoria. Washington Gifted Middle School has a test-based admissions process and is majority white.³² Additionally, the students at Washington Gifted Middle School overwhelmingly do not qualify for free and reduced lunches, while most students in the Peoria Unified School District do.³³

Competitive application processes tend to favor white students, creating schools that are not representative of a district's student population. Magnet schools and application processes create even more of a modern-day segregation problem.

These selective high schools have a history and reputation of being incredibly difficult to get into. The *Chicago Sun Times* cited it as a "competitive and often stressful process."³⁴ According to the *Sun Times*, "admissions considerations for eighth graders applying to a selective high school include, among other factors, academic grades; their score on the Northwest Evaluation Association, or NWEA, test in the spring of seventh grade; and an entrance exam. A student has to score at least in the 24th percentile on the NWEA to be eligible to even apply to a selective high school."³⁵

In September 2009, a federal judge lifted a court order that had racially integrated Chicago's test-in schools. This judicial decision began a sharp change in Chicago Public Schools' (CPS) elite admissions high schools.³⁶ National Public Radio (NPR) explored the impacts of the decision; CPS saw an increase from three racially isolated selective enrollment schools to six.³⁷ Racially isolated here means schools that have an enrollment that is majority one race. These six schools are a part of CPS' eleven test-in and magnet schools.³⁸

The ripple effect of the judge's decision can be seen in the fact that the majority of CPS's selective high schools are now racially isolated. However, these majority one-race schools are not the only effect of the judicial ruling. Schools are now seeing an increase in white enrollment across the board.³⁹

When looking at the present landscape of CPS and its selective high schools it is important to understand how desegregation efforts and white flight have ravaged the city of Chicago and its schools since the 1960s. According to Kimberly Quick, "Between 1970 and 1980, the white population of Chicago Public Schools fell by 60 percent, as many white families of means fled into the suburbs or enrolled their children in private schools to avoid integration. During the following decade, the white population would fall another 50 percent."⁴⁰

Because CPS was not adequately complying with desegregation efforts, in 1979 the federal government determined that the district was working against desegregation and supporting segregation and prepared to file a lawsuit against CPS.⁴¹ To avoid legal ramifications, CPS entered into an agreement with the Department of Justice (DOJ) to work

36 Adriana Cardona-Maguigad, "After Desegregation Ends At Chicago's Top Schools, More Racial Isolation," NPR.org, September 26, 2019, <https://www.npr.org/local/309/2019/09/26/764447510/after-desegregation-ends-at-chicago-s-top-schools-more-racial-isolation>.

37 Ibid.

38 Ibid.

39 Ibid.

40 Kimberly Quick, "Chicago Public Schools: Ensuring Diversity in Selective Enrollment and Magnet Schools," The Century Foundation, October 14, 2016, <https://tcf.org/content/report/chicago-public-schools/>.

41 Ibid.

30 Ibid.

31 Ibid.

32 Ibid.

33 Ibid.

34 Nader Issa, "CPS Releases New Rules for Competitive Selective Enrollment Application Process," Chicago Sun-Times, September 1, 2020, <https://chicago.suntimes.com/education/2020/9/1/21417706/cps-selective-enrollment-public-high-schools-office-access-enrollment-goops>.

35 Ibid.

Modern-Day School Segregation



Figure 3. A comparison of enrollment percentages at three Chicago Public Schools selective high schools.

towards four objectives: “(1) desegregate schools, (2) provide compensatory programming for any schools remaining segregated, (3) maximize the student populations that will experience integration, and (4) do not arbitrarily impose the burdens of desegregation on any racial or ethnic group. Admissions to Chicago’s magnet and selective enrollment schools likewise became governed by this agreement.”⁴²

Twenty-two years later in 2001 the United States government found that CPS “had not yet reached full compliance in several areas, including magnet schools and selective enrollment schools.”⁴³ This led to a modified agreement between CPS and the DOJ that had more specific enrollment statistics for these schools. The plan, which was created with the goal of racial integration in mind, stated that CPS needed to make more of an effort to have integrated schools and provided enrollment statistics to guide them. Schools would be classified as integrated by meeting the following standard: at least 15 percent of students but no more than 35 percent of students could be white.⁴⁴ This made race a determinant in

competitive high school admissions and created a more integrated student enrollment landscape in selective and magnet schools across CPS.⁴⁵

As mentioned at the beginning of this section, a federal judge swooped in and eliminated the desegregation agreement which led to increased majority racially isolated selective admissions high schools throughout CPS. However, what is not obvious in the current enrollment numbers, is that CPS tried to counteract the racially isolating effects of the ruling by implementing socioeconomic status as a race-neutral admissions criteria.⁴⁶ Some, like Quick, believed that this criteria would help CPS in “maintaining a reasonable level of diversity in Chicago’s most competitive schools.”⁴⁷ This criteria is based on many different factors: “(1) median family income, (2) adult educational attainment, (3) the percentage of single-family households, (4) home-ownership percentage, (5) percentage of population that speaks a language other than English, and (6) a school performance variable.”⁴⁸

42 Ibid.
43 Ibid.
44 Ibid.

45 Ibid.
46 Ibid.
47 Ibid.
48 Ibid.



Figure 4. A comparison of enrollment percentages at three newly opened Chicago Public Schools selective high schools.

While it seems these variables could help to create a more diverse student body across selective high schools in CPS, the actual enrollment percentages show a completely different picture.⁴⁹ Figure 3 shows three schools that were integrated during the 2008-09 school year and their enrollment percentages in the 2018-19 school year.⁵⁰

When looking at the figure, there are noticeable trends. White enrollment increased at two of the three schools in the figure and Black enrollment saw a decline at the same two schools.

Since 2008-09, CPS has opened three new selective high schools. Figure 4 shows their enrollment percentages. These figures showcase that all three of the new schools are majority one race and see little diversification in enrollment.⁵¹

While CPS attempted to mitigate the racially isolating effects from the federal judge’s ruling, the above figures showcase that socioeconomic status as an admissions factor is not enough to combat the modern-day school segregation seen throughout CPS.

49 Cardona-Maguigad, “After Desegregation Ends At Chicago’s Top Schools, More Racial Isolation.”

50 Ibid.

51 Ibid.

CPS and Differences Across Admissions-Based High School Achievement

As seen in the previous section, enrollment demographics differ across the admissions based high schools throughout CPS. To explore the impacts of modern-day school segregation on academic achievement, the same 11 schools were pulled from the CPS open school data.⁵² The school data explores academic achievement across a variety of categories: college readiness, freshmen on-track rate, college enrollment rate, and 4-year graduation rate.

First, the schools were explored on students’ college readiness. Figure 5 represents the percent of students meeting college readiness benchmarks in their respective school.

It is important to remember the enrollment demographics mentioned in the previous section. Of the three highest minority admissions-based high schools, two are in the bottom of college readiness statistics: George Westinghouse College Prep (53

52 Chicago Public Schools, District Data: Metrics, (2020), published by Chicago Public Schools, <https://www.cps.edu/about/district-data/metrics/>.

Modern-Day School Segregation

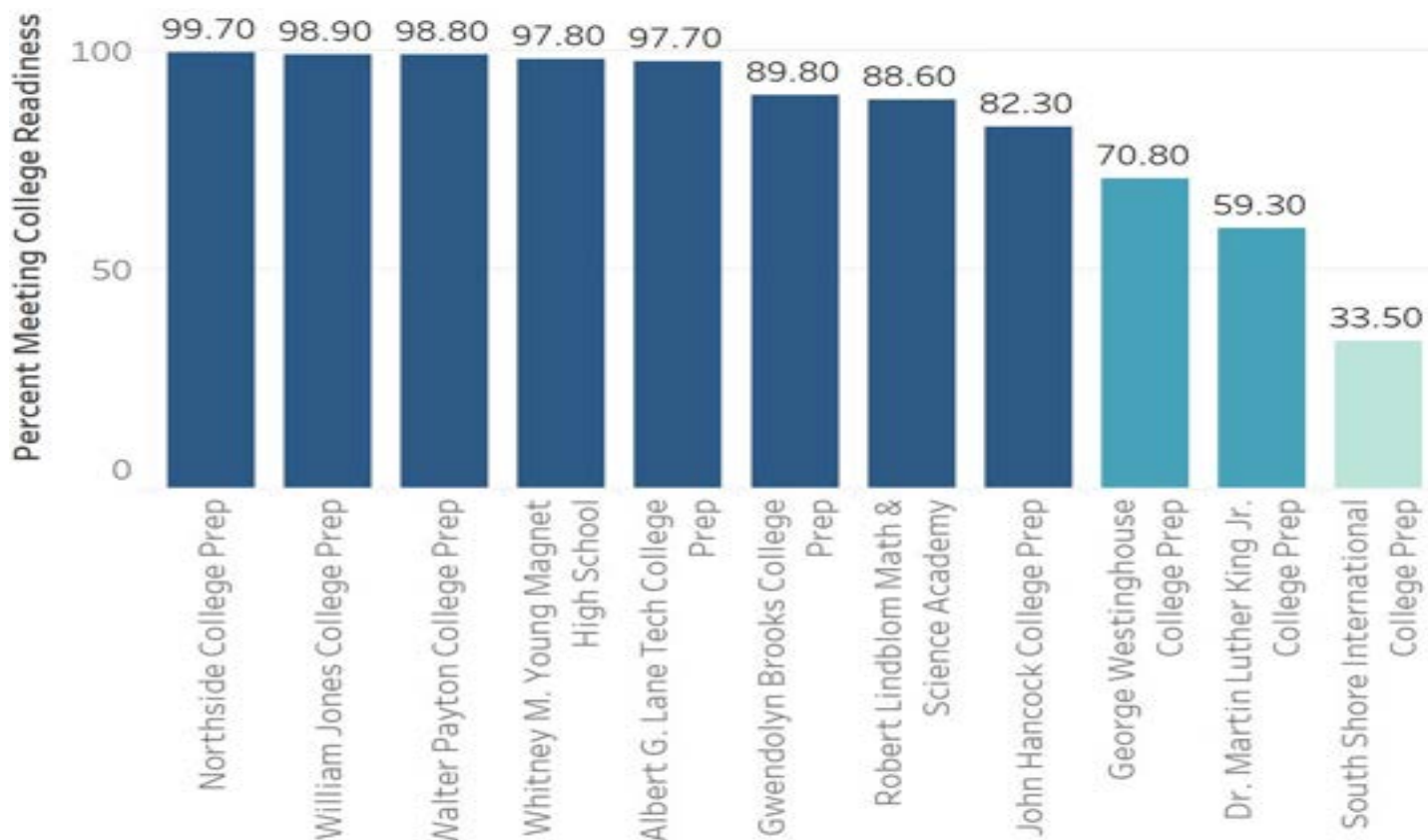


Figure 5. The percentage of students who meet college readiness at the high school. Source: Chicago Public Schools, College Readiness.schools.

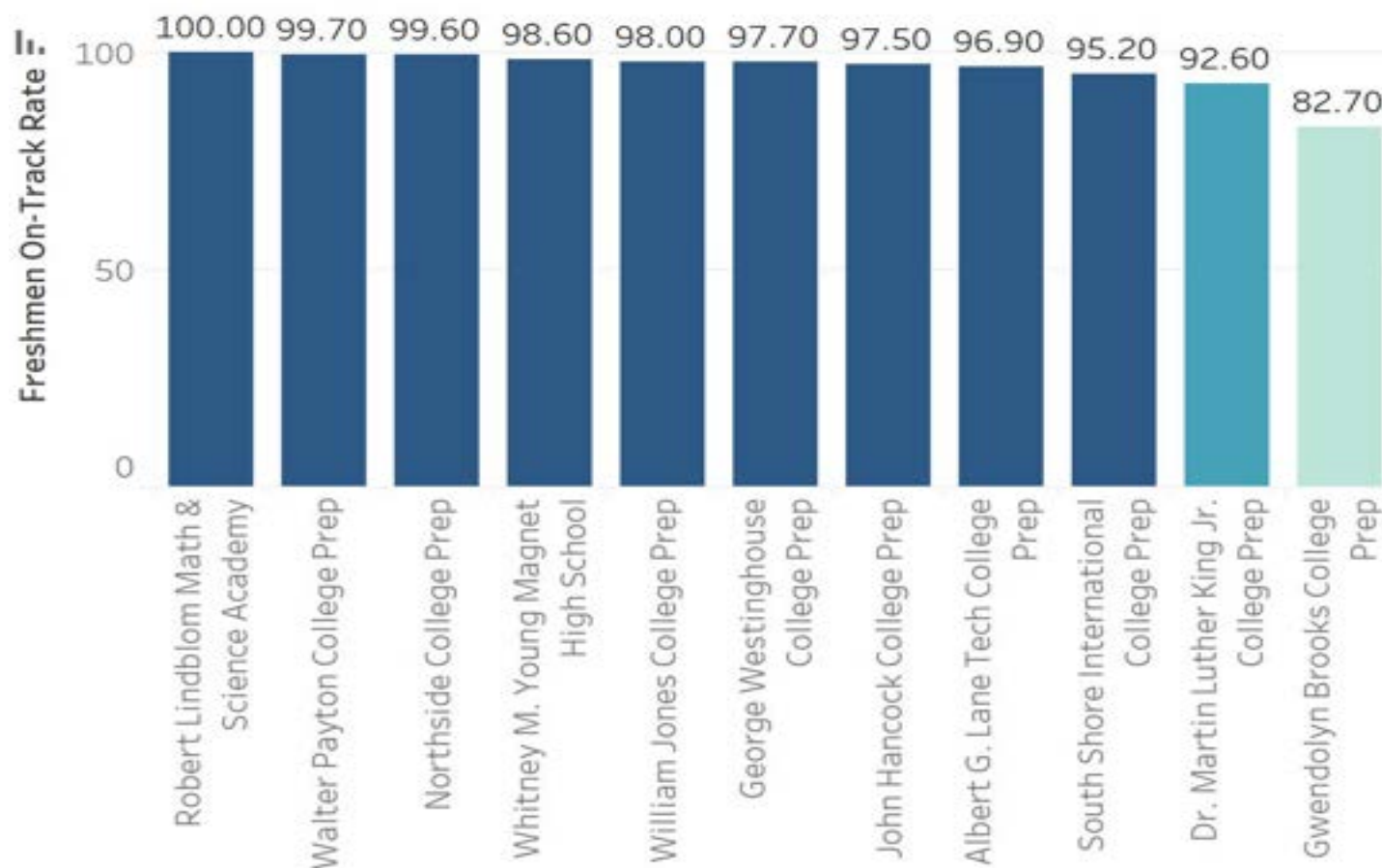


Figure 6. This graphic examines showcases the freshmen on-track rates across the 11 admissions-based high schools across CPS. Source: Chicago Public Schools, Freshmen On-Track Rate, 2020.

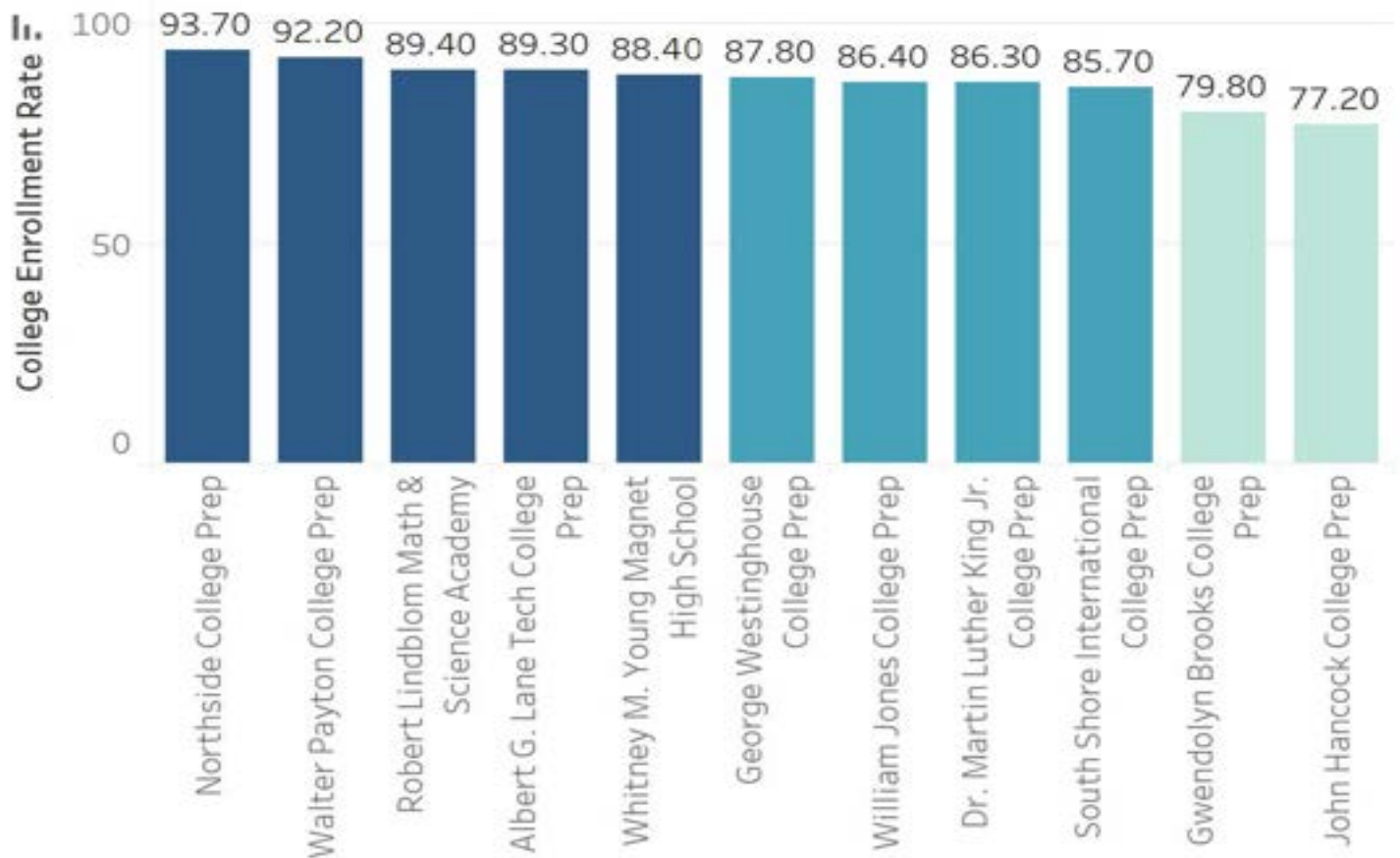


Figure 7. This graphic shows college enrollment rates across the CPS admissions-based high schools. Source: Chicago Public Schools, College Enrollment and Persistence, 2020.

percent Black) and South Shore International College Prep. The South Shore International College Prep is strikingly low in its college readiness rates in comparison to the other schools, and it is 97 percent Black. The findings show the differences in achievement and academic levels across the CPS admissions based high schools. When examining modern-day school segregation, this large disparity in college readiness is essential to account for, especially in comparison to South Side’s more racially balanced counterparts.

Next, the freshmen on-track rate was examined. Because these schools are admissions-based in their enrollment process, there was not a large disparity in incoming classes’ freshmen on-track rates.

The freshmen on-track rates fall above the CPS average for freshmen on-track rates (87.19) except for Gwendolyn Brooks College Prep. Brooks is 79 percent Black and 18 percent Hispanic and has maintained racial isolation since the 2008-09 school year.⁵³

Third, the college enrollment rates across the 11 schools were looked at. The majority of these 11 schools tout themselves as college preparatory

schools, so this measure is important when comparing the admissions-based high schools of CPS.

When looking at college enrollment rates in Figure 7, the bottom four schools are majority-minority schools: Hancock, Brooks, South Shore, and King. Once again, the academic disparities across schools become evident through the data.

Finally, high school graduation rates were examined. Four-year graduation rates are important to look at because they encompass dropout data in addition to students completing schooling in four years.

Overall, the data show that racial segregation not only impacts demographic enrollment across CPS admissions-based high schools and influences academic achievement. Towards the bottom of each academic criteria were majority-minority schools.

Modern-day school segregation and academic inequity persist at the public school level. Next, we will look at academic inequity and the impact of private schools on modern-day school segregation.

53 Cardona-Maguigad, “After Desegregation Ends At Chicago’s Top Schools, More Racial Isolation.”

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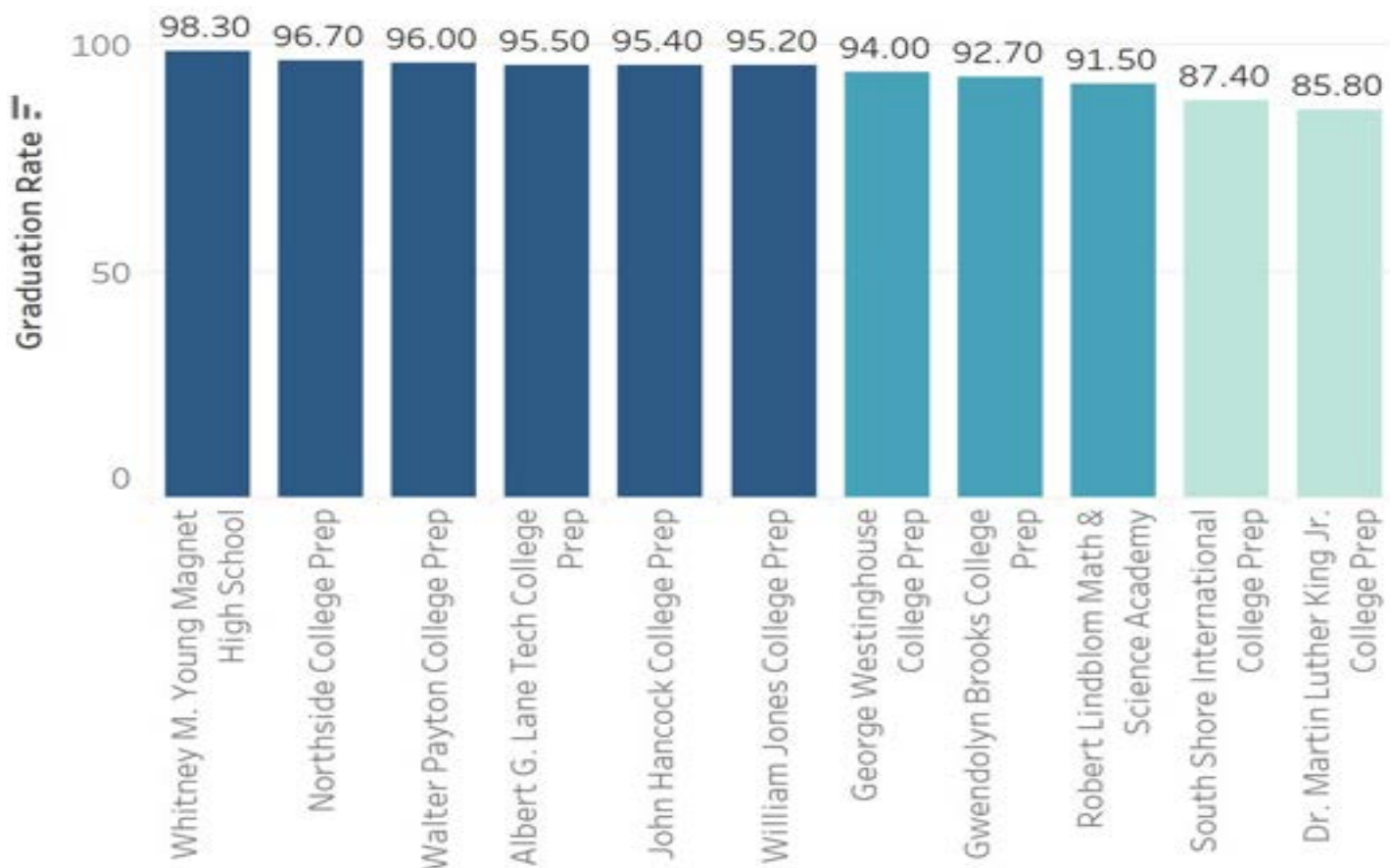


Figure 8. This graphic looks at the 4-year graduation rates of the 11 CPS admissions-based high schools. Source: Chicago Public Schools, 4-Year Graduation Rate, 2020.

When looking at modern-day school segregation, it is important to note the impact private schools have on this lingering issue across the United States. According to the Urban Institute, “in neighborhoods with lower Black and Hispanic representation, private schools are 30 percent more likely than traditional public schools to contribute to segregation.”⁵⁴

Figure 9 from the Urban Institute demonstrates the disproportion of race of students attending private schools.⁵⁵ What is interesting to note is that the numbers also tie back into the discussion on white flight. As there is a high concentration of white students in an area, the private schools are more likely to be segregated. Also interesting to note is the impact of being an urban school on segregation in neighborhoods with a high share of Black and Hispanic students. This is another

54 Tomas Monarrez, Brian Kisida, and Matthew Chingos, *When Is a School Segregated? Making Sense of Segregation 65 Years after Brown v. Board of Education* (Urban Institute, 2019), <https://www.urban.org/research/publication/when-school-segregated-making-sense-segregation-65-years-after-brown-v-board-education>.

55 Ibid.

contribution to segregated schools, but not at the same level as private schools in predominantly white neighborhoods.

The Civil Rights Project at Harvard University looked at private school racial enrollments and their impacts on segregation. Quite simply, they found that

Black-white segregation is greater among private schools than among public schools. Although 78 percent of the private school students in the nation were white in 1997-98, the average [B]lack private school student was enrolled in a school that was only 34 percent white. For comparison, note that among public schools, 64 percent of students were white and the average [B]lack public-school student attended a school that was 33 percent white.⁵⁶

Additionally, this project focused on the

56 Sean F. Reardon and John T. Yun, “Private School Racial Enrollments and Segregation” in *Public School Choice vs. Private School Vouchers*, ed. Richard Kahlenberg (New York: Century Foundation Press, 2003).

Probability of Being a Segregating School Compared with Traditional Public Schools, by Neighborhood and School Type

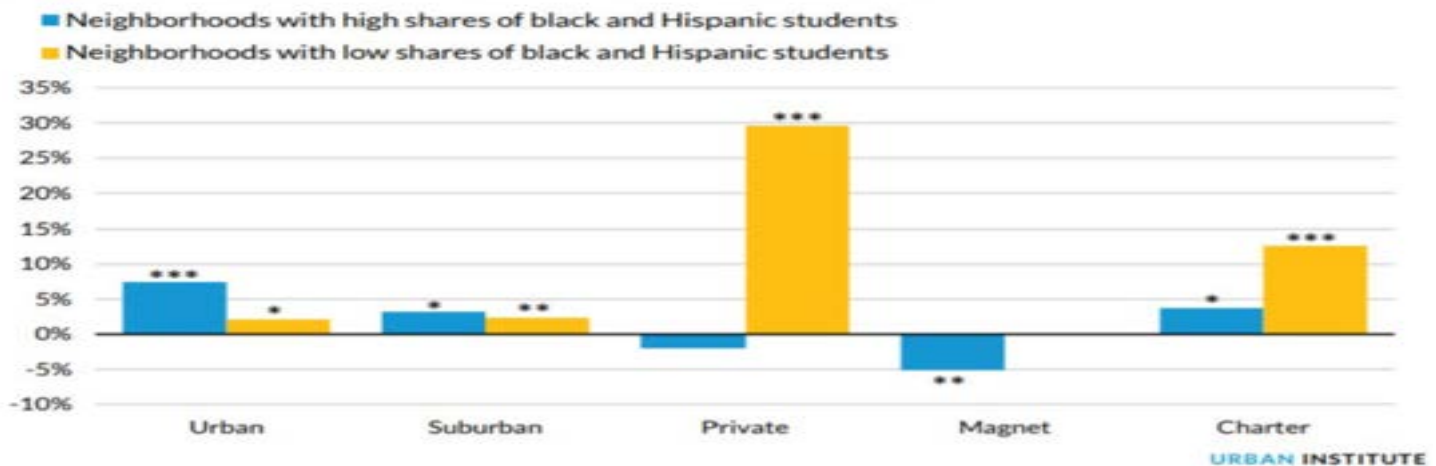


Figure 8. This graphic from the Urban Institute shows the probability of being a segregated school based on school type and neighborhood.

SCHOOL DISTRICT	Total Public and Private Enrollment			Private School Enrollment Rate					White Population of School Enrollment		
	Pct. White	Pct. Black	Pct. Latino	Total	White	Black	Latino	W/B Ratio	Public	Private	Diff
Chicago	22	48	26	23	54	11	17	4.7	13	51	38

Table 1. Private and public school enrollment in Chicago.

South and West due to the regions' smaller white student population. It found that:

private schools are much more segregated than their public-school counterparts. In the South, [B]lack students attend private schools that are, on average, 39 percent white and public schools that are 36 percent white ... Similarly, in the West, where 65 percent of private and 52 percent of public-school students are white, [B]lack students attend private schools that average 35 percent white and public schools that average 32 percent white, again indicating higher levels of private than public segregation.⁵⁷

Private Schools in Chicago:

57 Ibid.

Segregation and Admissions Testing Gatekeeping

Private schools create a modern-day school segregation reckoning across the country. Because this paper has focused on Illinois and Chicago so far, it seems pertinent to also examine the private school landscape in Chicago and its impacts on the modern-day school segregation in the area.

According to the Civil Rights Project at Harvard report on private schools, Chicago has a high differential of white enrollment in public versus private schools. Table 1 is a recreation of a table from the report, only pulling the Chicago data.⁵⁸

As the table shows, private schools have 54 percent white enrollment in the city of Chicago and for every Black student, there are 4.7 white students

58 Ibid.

Modern-Day School Segregation

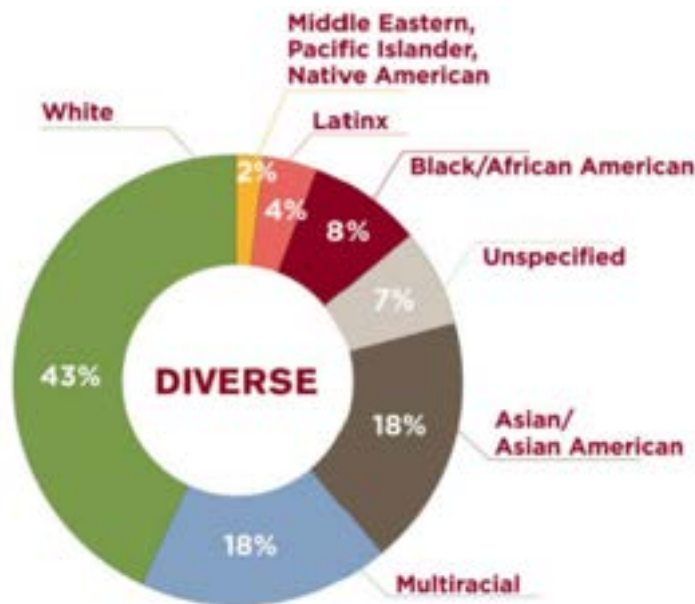


Figure 10. A portion of the infographic from the University of Chicago Laboratory Schools “Facts at a Glance” page as of April 21, 2021.

across private schools. The data from 1989-90 shows staggering rates of difference in school composition and the data is maintained when looking at individual private schools across Chicago.

The University of Chicago Laboratory Schools are known for being one of the top private school groupings in the city of Chicago. The application process varies by grade level, but typically consists of a student assessment and recommendation. The school requires progressively more information on applications with each grade level.⁵⁹ As described earlier in this paper, intense application-based admissions are harmful to students of color.

While the school claims to be diverse on its website, an infographic of its population shows it has a 5.4 white-Black student ratio based on enrollment percentages.⁶⁰ This demographic reality makes segregation more prominent at this specific school than what we saw at all private schools in Chicago in 1989-90 through the Harvard study (4.7 white-Black student ratio).

Another prominent private school in Chicago, The Latin School of Chicago, predominantly places demographic data on its website, but fails to give a

breakdown of the students of color.⁶¹ When looking at USA School Info, the demographic breakdown becomes more clear: 62.5 percent of students are white, while 7.5 percent of students are Black. That makes the white-Black student ratio 8.3 based on percentages.⁶²

Compared to the data from 1989-90 in the Harvard study, these two examples and their recent demographic data show that private schools in Chicago are not progressing. Their role in modern-day school segregation is prominent and potentially growing.

Recommendations

The recommendations section will focus on two different recommendations: one at the federal level and another at the local government level.

Federal Level: Desegregation Initiatives Reinstated in Application Processes

When this paper began exploring Chicago Public Schools it led off with a decision from a federal judge to keep race out of the admissions process. This ruling led to an increase in racially isolated admissions based high schools throughout CPS. As this ruling came from a federal judge, the best way to go about reversing the decision would be a law at the federal level.

The first recommendation is to set a law that reinstates race as a consideration admissions personnel use in their admissions decisions. By including race in the admissions decisions, schools can create a more diverse school environment. Race-neutral policies have not been working and are not increasing diversity in schools. The inclusion of race in academic decisions will allow for all students, not just one specific race, to enroll in schools.

This recommendation relies on the idea that sometimes quotas can be beneficial. By allowing race back into the admissions process at the federal level, schools can and should create quotas of racial breakdowns to ensure schools are more evenly

59 “Apply - University of Chicago Laboratory Schools,” accessed April 21, 2021, <https://www.ucls.uchicago.edu/admissions/apply>.

60 “Facts at a Glance - University of Chicago Laboratory Schools,” accessed April 21, 2021, <https://www.ucls.uchicago.edu/admissions/facts-at-a-glance>.

61 “Welcome to the Best Private, Independent School in Chicago - Latin School of Chicago,” accessed April 21, 2021, <https://www.latinschool.org/admissions/admissions-welcome>.

62 “The Latin School Of Chicago Chicago, IL Enrollment & Demographics,” USA School Info, accessed April 21, 2021, <http://www.usaschoolinfo.com/school/the-latin-school-of-chicago-chicago-illinois.106699/enrollment>.

spread across races, rather than skewed towards either students of color or white students.

Affirmative action at the K-12 admissions level would allow for schools to create a more diverse student body by creating the quota system. Although quotas would need to be established at the school or district level, there should be a recommendation within the law for equal distribution of races at the school. This might not be plausible due to school location and the applicant base for some schools, which would then lead to it to be a recommendation rather than a strict part of the law.

As this would be a federal law, this will only impact public schools across the United States. Private schools would not be impacted by this legislation due to the way they operate. Additionally, charter schools may not be able to be impacted by this law, depending on how they are registered with the Department of Education. If they are still a public school, but under a charter moniker, they would also have affirmative action in their admissions process. Some charter schools are run completely independently, so those would not be impacted by the law as well. These are definite hindrances to the overall effectiveness of the law, but the overall impact would still be overwhelmingly strong.

While this law will not affect all schools, it still has the power to help end modern-day school segregation, especially in public school systems in urban areas. By reversing the court decision with a federal law, we would likely see admissions-based schools in Chicago and beyond move beyond a racial skew.

Local Recommendation: Combine Two School Districts in Peoria, Illinois

When this paper discussed white flight, it focused on white families moving to the northern part of Peoria, Illinois, to have their children attend the Dunlap School District. This created a .821 dissimilarity index between Black and white students in Peoria, making it the most segregated metropolitan area in terms of schools.⁶³ To mitigate this largely skewed student population, the Dunlap School District and Peoria School District should be combined to create one school district.

While this elimination of the Dunlap School

District will help to create a more diverse school district, work will then need to be done to ensure the schools are also diverse. If relying on traditional zoning, white families are still heavily populated in the northern part of Peoria. Potentially dividing families in a more east-west setting than a north-south setting could allow for more diversity in schools, but zoning around populations will need to be considered.

Just combining the two school districts will not eliminate the movement of white families to the northern part of the city, so school zones will need to be thought of deliberately. If not, the combination into one school district would not provide the results wanted.

Conclusion

This paper explored modern-day school segregation from a historical standpoint then transitioned into real world cases throughout Illinois. By examining these modern-day case studies and seeing the setup behind them, this paper shed light on current trends toward racial isolation in schools that should be reversed. The two recommendations could be great first steps from the federal and local governments to begin addressing this still lingering problem.

⁶³ Daniel Vock, "Still Separate After All These Years: How Schools Fuel White Flight."

Skirting the 14th: Rethinking the Pursuit of Racial Diversity in College Admissions

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Affirmative action programs in education have been at the center of some of the most prominent and influential cases in the Supreme Court's history. Cases like *Brown v. Board of Education* and *Grutter v. Bollinger* are considered bedrock precedent for increasing and maintaining racial diversity in schools. However, in recent years the court has issued more narrowly tailored rulings that make it difficult for educational institutions to deploy race-based programs without impinging on the Equal Protection Clause of the 14th Amendment, especially in college admissions. Thus, to improve diversity in higher education, it is necessary to look for other sources of inequity that occur prior to the applicant selection process.

This memo will first provide foundational context for understanding how the Supreme Court has interpreted the Equal Protection Clause in education cases throughout its history. Then, the memo will examine the racial aspects of the for-profit college system and standardized testing industry, ultimately recommending that policymakers support efforts to 1) revoke federal funding eligibility for for-profit colleges, and 2) advocate for test-optional admissions policies at state institutions to increase opportunity for low-income and minority students in higher education.

Background and Analysis

Plessy v. Ferguson

The landmark Supreme Court case *Plessy v. Ferguson* (1896) was fundamental in establishing the “separate but equal” doctrine in public spaces and is necessary to understand future rulings regarding school segregation. The petitioner in the case argued that requiring separate railroad cars for Blacks and whites stamped Blacks as inferior, as implied by the inferior quality of the Black railroad car. In a 7-1 decision, the court opined that the Equal Protection Clause applied only to political and civil rights, such as voting, but not to social rights, such as the right to exist in shared

public spaces.¹ The court also noted that because it saw no distinguishable differences in the quality of the separate railroad cars, their separation was not prohibited by the Constitution, thus establishing the “separate but equal” doctrine.

Brown v. Board of Education

Nearly 50 years later, the Equal Protection Clause was yet again at the forefront of a Supreme Court case in *Brown v. Board of Education of Topeka*. In *Brown*, the court struck down the “separate but equal” doctrine established by *Plessy* on 14th Amendment grounds. They decided that schools for Black children in Topeka, Kansas, were not equal to white schools in quality. Chief Justice Earl Warren wrote for the majority that in separating children by race into unequal schools, the plaintiffs in *Brown* were being “deprived of the equal protection of the laws guaranteed by the 14th Amendment.”² The implementation of the verdict delivered in *Brown* would prove to be a challenge—the court had not specified how or when schools should integrate. The following year, the court directed lower courts and local school boards to move forward on desegregating schools with “all deliberate speed.”³ As a result of this vague directive, many jurisdictions actively defied the order and continued to segregate schools, while others were left to establish integration plans on their own. However, as seen in cases like *Grutter v. Bollinger* and *Parents Involved v. Seattle*, some jurisdictions’ attempts at integration and racial diversity prompted questions about the government’s use of race-based policies in the name of the Equal Protection Clause.

Grutter v. Bollinger

In *Grutter v. Bollinger* (2003), a white applicant to the University of Michigan Law School claimed the school discriminated against her race by

1 History.com Editors, “Plessy v. Ferguson,” HISTORY, accessed March 29, 2021, <https://www.history.com/topics/black-history/plessy-v-ferguson>.

2 Ibid.

3 Ibid.

denying her admission, and therefore violated the 14th Amendment. The school admitted to using race as a factor in its admissions decisions, but argued that it served “a compelling interest in achieving diversity among its student body.”⁴ In a 5-4 decision, Justice Sandra Day O’Connor wrote for the majority that the Equal Protection Clause did not prohibit the school’s “narrowly tailored” use of race in the admissions process if there is a compelling interest in the educational benefits that a diverse student body provides.⁵ Further, because the school conducted an individualized review of each applicant and did not use race to automatically admit or reject a student, the policy effectively used race alongside a variety of other factors when trying to increase its diversity.⁶ In this case, a race-conscious policy was permitted under the Equal Protection Clause if it was used in the context of a holistic approach to evaluating applicants, and proved to provide an educational benefit. This interpretation has served as precedent for future cases addressing the use of race in education, from K-12 schools to colleges and universities.

Parents Involved in Community Schools v. Seattle School District

In *Parents Involved in Community Schools v. Seattle School District No. 1* (2007), the plaintiffs argued that a program used in the Seattle School District violated the Equal Protection Clause because it used a racial tie-breaker system to maintain racial diversity levels in high schools.⁷ In a 5-4 decision, the court struck down the program for violating the 14th Amendment. Although the court had ruled previously in *Grutter* that racial diversity can be a “compelling government interest” in university admissions decisions, the factual differences in *Parents Involved* excluded it from consideration under the *Grutter* precedent. Seattle School District’s program used strict racial classifications rather than considering each student individually, and did not demonstrate that the resulting diversity would provide an educational benefit.⁸ Chief Justice Roberts argued that allowing

race to determine school assignment, regardless of intention, was determined to be unconstitutional by *Brown*.⁹ Thus, the court’s opinion under Roberts in *Parents Involved* demonstrated a view of the Equal Protection Clause that prohibits any form of broad race-conscious program, regardless of its intention to remedy past discrimination in the same vein.

Students for Fair Admission and Fisher Cases

Two recent cases challenging the use of race in higher education admissions have further complicated the *Grutter* ruling. In *Fisher v. University of Texas at Austin* (2013), a case factually very similar to *Grutter*, the court upheld the school’s admissions approach, with a caveat. It specified that once a university decides to pursue diversity, it must then prove in court “that the means chosen by the University to attain diversity are narrowly tailored to that goal.”¹⁰ In the majority opinion, Justice Anthony Kennedy specified that schools must also consider “race-neutral alternatives” to achieve diversity to avoid “preferment by race.”¹¹

In *Students for Fair Admissions v. Harvard*, a group of Asian American students claimed that Harvard University had denied them admission on account of their race, an argument certainly distinct in the class of affirmative action cases because of the plaintiffs’ racial identification. In 2019, the U.S. District Court in Massachusetts found that while Harvard’s “personal ratings” for Asian American applicants were consistently lower than for white applicants, the plaintiffs did not present evidence that these low ratings were the result of racial animus or hostility by Harvard Admissions.¹² The U.S. Court of Appeals for the First Circuit upheld the lower court’s decision in November 2020, and the plaintiffs have indicated their intention to appeal to the Supreme Court.¹³ Given the court’s history with such cases,

9 Laurence Tribe and Joshua Matz, *Uncertain Justice: The Roberts Court and The Constitution* (New York: Henry Holt and Company, 2014), 21.

10 *Ibid*, 28.

11 *Ibid*, 29.

12 Evan Gerstmann, “Why The Asian American Students Lost Their Case Against Harvard (But Should Have Won),” *Forbes*, accessed April 1, 2021, <https://www.forbes.com/sites/evangerstmann/2019/10/01/why-the-asian-american-students-lost-their-case-against-harvard-but-should-have-won/>.

13 Jaelyn Diaz, “Appeals Court Rules Harvard Doesn’t Discriminate Against Asian American Applicants,” *NPR*, November 12, 2020, <https://www.npr.org/2020/11/12/934122462/appeals-court-rules-harvard-doesnt-discriminate-against-asian-american-applicant>.

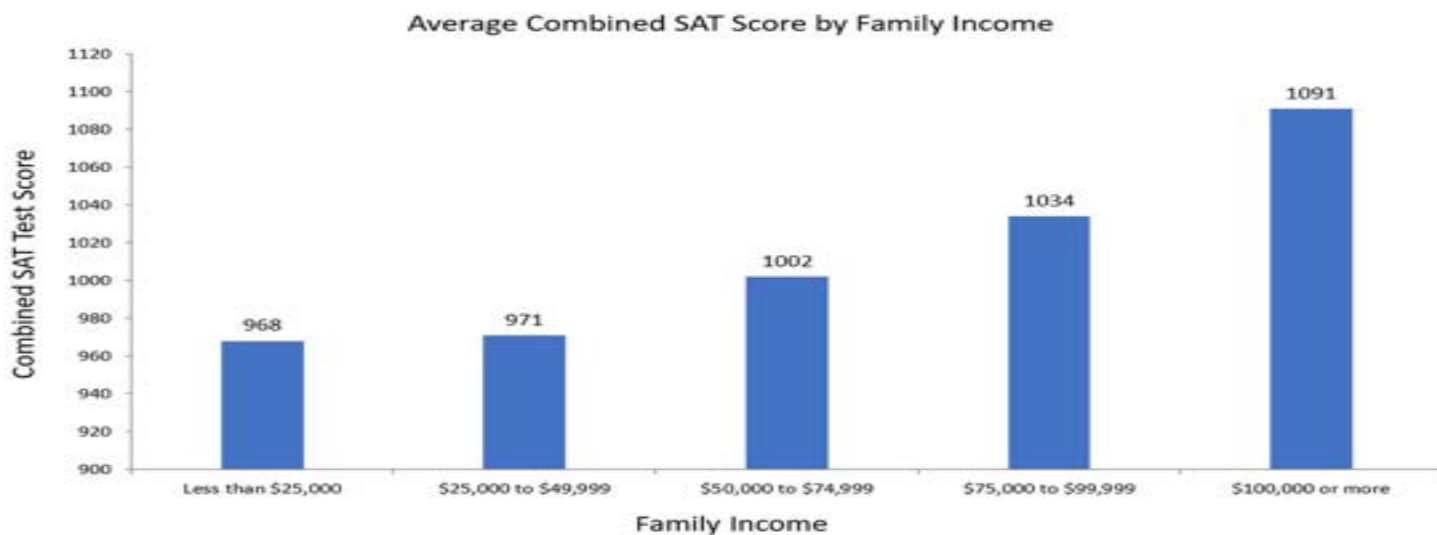
4 “*Grutter v. Bollinger*,” Oyez, accessed March 28, 2021, <https://www.oyez.org/cases/2002/02-241>.

5 *Ibid*.

6 *Ibid*.

7 “*Parents Involved in Community Schools v. Seattle School District No. 1*,” Oyez, accessed March 28, 2021, <https://www.oyez.org/cases/2006/05-908>.

8 *Ibid*.



SOURCE: Mark Kantrowitz, “Admissions Tests Discriminate Against College Admission of Minority and Low-Income Students at Selective Colleges,” Student Aid Policy Analysis Papers (Cerebly, Inc., May 21, 2021), <http://studentaidpolicy.com/sat-and-selectivity/how-admissions-test-scores-discriminate-against-minority-and-low-income-students-at-selective-colleges.pdf>.

Figure 1. Average combined SAT test scores increases as family income increases above \$50,000.

spectators expect the case to be upheld—however, a new conservative majority on the court could complicate the ruling.¹⁴

Other Obstacles to Achieving Diversity in Higher Education

Although the courts upheld the policies in *Fisher* and *Students for Fair Admissions*, the current climate around race-based policies in university admissions has made it difficult for schools to implement any sort of race-conscious admissions criteria without risking legal action. To achieve racial diversity in university admissions outside of affirmative action programs, it is worth investigating the root causes of disparate racial outcomes in university admissions and adopting solutions to these issues.

One facet of the higher education system that disproportionately disadvantages students of color is for-profit colleges. Generally, for-profit colleges have a history of manipulative practices in overpromising and underdelivering on their services to keep a steady inflow of federal grants and aid.¹⁵ For-profit institutions are more expensive than other schools—on average charging \$10,000 more in tuition than a public community college—and tend to target lower-

income students that have access to the maximum amount of federal financial aid.¹⁶ People of color make up a larger share of this targeted group than white students, with Blacks and Latinos representing nearly half of all students that attend for-profit colleges.¹⁷ Because these schools are more expensive and target students based on access to federal dollars rather than academic record or ability to pay, for-profit schools have higher dropout rates and account for half of all student loan defaults.¹⁸ Black and Latino students are disproportionately affected by these outcomes.¹⁹ The Trump administration significantly scaled back regulations on for-profit colleges, leaving room for those institutions to return to predatory practices.²⁰ The Biden administration has taken action on this issue by cancelling \$2.6 billion in student debt for students that were defrauded by for-profit institutions, and initiating federal investigations into select schools, which could carry financial penalties.²¹

16 Ibid.

17 Ibid.

18 Ibid.

19 Ibid.

20 Stephanie Riegg Cellini, “The Alarming Rise in For-Profit College Enrollment,” Brookings (blog), November 2, 2020, <https://www.brookings.edu/blog/brown-center-chalkboard/2020/11/02/the-alarming-rise-in-for-profit-college-enrollment/>.

21 Ayelet Sheffey, “Biden’s Administration Is Cracking down on for-Profit Schools That Made ‘false Promises’ about Students’ Futures and Drove Them into Debt,” Business Insider, October 6, 2021, <https://www.businessinsider.com/biden-ftc-for-profit-schools-defrauded-misled-student-debt-penalties-2021-10>.

14 Ibid.

15 Ariel Gelrud Shiro and Richard V. Reeves, “The For-Profit College System Is Broken and the Biden Administration Needs to Fix It,” Brookings (blog), January 12, 2021, <https://www.brookings.edu/blog/how-we-rise/2021/01/12/the-for-profit-college-system-is-broken-and-the-biden-administration-needs-to-fix-it/>.

Another aspect of this system specific to the admissions process is the standardized testing requirement many schools impose on applicants. Research demonstrates that standardized tests contain embedded biases based on race, gender, and income.²² Numerous studies show that high SAT and ACT scores are highly correlated with family income (see Figure 1). This gives affluent students, who skew white, a distinct advantage over lower-income students, who skew non-white and do not have access to resources like private schools, admissions counselors, or test prep classes.²³ In recent years, many schools have made these tests optional in their admissions process. According to a study from the National Association for College Admission Counseling (NACAC), standardized tests do little to predict college performance—students admitted with high test scores performed no better during their freshman and sophomore years of college than students who did not submit scores.²⁴

Recommendations

1. Support the Students Not Profits Act (S. 2640).

Policymakers should offer public support to the Students Not Profits Act, introduced by Senator Sherrod Brown in 2019. The bill would end Title IV eligibility for for-profit colleges, which includes federal aid such as Pell Grants, Perkins Loans, and TEACH Grants.²⁵ Because these schools currently receive a large portion of federal monies each year, retracting eligibility for such funds would signal the federal government’s disapproval of their predatory practices and free up federal funding for other uses. The additional funding should be funneled into

the Pell Grant program, which currently serves approximately 7 million low-income, primarily Black and Latino students each year.²⁶ While currently the program only covers about a quarter of recipients’ costs for a four-year bachelor’s degree, doubling the Pell Grant appropriation would cover more than half of recipients’ costs and close the college affordability gap for low-income students.²⁷ Increasing financial access to a greater number of institutions will give low-income students of color more choice in their secondary education, and add a more diverse pool of applicants to schools that were previously financially unattainable for such students.

2. Encourage state university systems to adopt a test-optional admissions approach.

Policymakers should also encourage state university systems to adopt a test-optional admissions policy. Because standardized test scores are highly correlated with family income, requiring scores as part of the application process disadvantages lower-income students and, by association, students of color. With testing centers highly constrained during the COVID-19 pandemic, many schools have already switched to a test-optional policy, and state universities should follow suit to remain competitive. Making standardized testing optional would boost diversity at universities without engaging in affirmative action policies that may be legally scrutinized. Research shows that colleges that offer a test-optional approach enroll and graduate a higher proportion of low-income and first-generation students.²⁸ The California system, which boasts several elite institutions, eliminated the use of standardized test scores from its admissions process in 2020 and is a good model for other state systems.²⁹

22 Audrey Murrell, “The ‘Privilege Bias’ And Diversity Challenges In College Admissions,” *Forbes*, accessed March 27, 2021, <https://www.forbes.com/sites/audreymurrell/2019/05/07/the-privilege-bias-and-diversity-challenges-in-college-admissions/>.

23 Abigail Johnson Hess, “Rich Students Get Better SAT Scores—Here’s Why,” *CNBC*, October 3, 2019, <https://www.cnbc.com/2019/10/03/rich-students-get-better-sat-scores-heres-why.html>.

24 Steven T. Syverson, Valerie W. Franks, and William C. Hiss, “Defining Access: How Test-Optional Works” (National Association for College Admissions Counseling, 2018), <https://www.nacacnet.org/globalassets/documents/publications/research/defining-access-report-2018.pdf>.

25 Sherrod Brown, “Students Not Profits Act of 2019,” S.2640 (2019), <https://www.congress.gov/bill/116th-congress/senate-bill/2640/text>.

26 “Strengthen Pell,” National College Attainment Network, accessed March 27, 2021, <https://www.ncan.org/page/Pell?&hh-searchterms=%22pell+and+grants%22>.

27 *Ibid.*

28 Claudio Sanchez, “Study: Colleges That Ditch The SAT And ACT Can Enhance Diversity,” *NPR.org*, April 16, 2018, <https://www.npr.org/sections/ed/2018/04/26/604875394/study-colleges-that-ditch-the-sat-and-act-can-enhance-diversity>.

29 Scott Jaschik, “University of California Votes to Phase out SAT and ACT,” *Inside Higher Ed*, May 26, 2020, <https://www.insidehighered.com/admissions/article/2020/05/26/university-california-votes-phase-out-sat-and-act>.

Conclusion

In the 67 years since *Brown*, educational institutions have clearly struggled to racially integrate schools at the K-12 level, or respond to racial disparities in educational outcomes at the college level, without impinging on the Equal Protection Clause. In recent years, the Supreme Court has placed even narrower restrictions on the *Grutter* ruling, making it more difficult to use race-conscious programs in college admissions. By addressing the issue of diversity in higher education before the applicant selection stage, universities can increase the diversity of their student population without risking claims of racial discrimination and 14th Amendment violations. As this memo recommends, working on solutions to the systemic racial discrimination embedded in the for-profit and standardized testing businesses can open access to a larger variety of schools for students of color. In turn, schools can increase diversity without the use of race-conscious admissions policies.

Manchester Bidwell Training Center: Long-Term Socioeconomic Impact Research

Abdoulaye Ba, Ling Guo, Anna Kolesnikova, Johnny Nassar, & Xueyun (Helen) Zhang

Capstone Project in Partnership with Bidwell Training Center, Carnegie Mellon University - Heinz College of Information Systems and Public Policy

This study investigated the impact of Bidwell Training Center's (BTC) workforce training on the socioeconomic outcomes of its graduates. Datasets on the graduates' demographics, quarterly earnings, unemployment benefits, and social benefit usage were merged and analyzed using R. Our analysis of the graduates' wage trajectory based on their Medicaid and Allegheny County Department of Human Services (DHS) Child Care Services usage showed that users of two types of social benefits tended to have lower wage trajectories. The graduates were compared to those who did not complete the BTC training and participants in the DHS Self-Sufficiency Program (SSP).

Our analysis showed that BTC graduates had higher wage trajectories than non-graduates and SSP participants, on average. We conclude that BTC's workforce training improves the socioeconomic outcomes of its graduates, relative to BTC non-graduates and SSP participants. We would like additional data from other, more similar programs in order to compare BTC's impact. The survey instrument developed for BTC will provide information on the graduates one, three, and five years after graduation. It will show how many graduates have left the labor market and how many do not have earnings information captured by the Pennsylvania Department of Labor and Industry (DLI). The results of the survey may lead to a change in the impact that BTC training has on the socioeconomic outcomes of its graduates. BTC will use the findings and survey instrument for grant proposals and reporting. The report findings will help inform training going forward.

Our analysis of the impact of COVID-19 showed that Culinary Arts graduates' earnings were most negatively impacted, while Medical graduates appeared to receive a slight boost in earnings.

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Special thanks to and deep gratitude to the Manchester Bidwell Training Center (BTC) staff, especially Dr. Kimberly Rassau, for their support and cooperation. The organization allowed us to conduct research how we saw most fit. Thank you to Dr. Lee Branstetter, who provided us with excellent and thorough guidance to improve our work. Thank you, Andrew Breazeale, for his coding brilliance. Thank you, Seth Chizeck, for providing data and insightful perspective about the numerous programs at Allegheny County DHS. Thank you, Avery Quillen and Tiange Yang, for explaining the data analysis approach from the 2020 Systems team. Thank you, Dillon Moore, Richard Stafford, and Rita Resick, for your invaluable insights about regional and local workforce development policies and trends. And much gratitude to the Heinz faculty and staff for making Systems Synthesis possible.

Executive Summary

Project Client

The Bidwell Training Center (BTC), run under the Manchester-Bidwell Corporation, is a Pittsburgh-based vocational training center that offers no-cost programs to qualifying students. The center is nationally-recognized and provides students with the means to create a better career for themselves.

Workforce development programs provide essential, job-specific technical training. The participants in these programs are often non-traditional students from vulnerable populations. During recessions, communities turn to vocational training centers like BTC to help guide unemployed individuals back into the labor force.

Project Team

Carnegie Mellon University's 2021 Master of Science in Public Policy and Management

candidates from the Heinz College of Information Systems and Public Policy collaborated with BTC to conduct an in-depth analysis on the long-run socioeconomic impact of the vocational training center over the course of fifteen weeks. The team of graduate students used recommendations and datasets from the 2020 Systems team¹ to build upon their research. The Allegheny Department of Human Services (DHS) helped merge 1,361 records of BTC learners with county and state-level data on quarterly wage earnings and social service utilization over the sixteen financial quarters for those graduates still living in Allegheny County.

Research Questions

The following research questions guided a the project:

1. What is the impact of BTC on graduates' earnings and probability of unemployment relative to the DHS Self-Sufficiency Program?
2. What is the impact of BTC on graduates' earnings and probability of unemployment relative to BTC participants who did not complete their training programs?
3. What is the impact of social benefits on the wage trajectories of BTC graduates who use social benefits relative to those who do not?
4. How many of the zero earnings are missing data due to informal work or relocation to out-of-state versus people not in the workforce?
5. What is the impact of BTC on graduates' use of social benefits?
6. What is the impact of COVID-19 on graduates' earnings and probability of unemployment?

1 Banks et al, "Long Term Impacts of BTC." 2020. Carnegie Mellon University.

1. Introduction

1.1 Research Scope

In February 2021, Governor Tom Wolf proposed the Workforce and Economic Development Plan to "support talent development for high-demand occupations and focus on high-quality well-paying jobs."² The Bidwell Training Center (BTC) has partnered with industry leaders to provide vocational training and employment opportunities to Allegheny County residents since 1968. The partnerships are maintained over decades, and the training curriculum is regularly refreshed to keep up with employer needs. Heckman and Carneiro (2003) suggest that investment in human capital has a median return of 10 percent.³ However, most workforce training programs do not have the data to calculate the graduates' return on investment. There is research showing the growing gap between the supply and demand for skills⁴ is driving increased inequality and leading to wage declines or wage stagnation for the less skilled.

The project uses earnings and employment benefits data from DHS and the Pennsylvania Department of Labor and Industry (DLI) to estimate the long-term impact on annual earnings of BTC training on graduates of various programs at the Center. It compares the earnings of the graduates to the DHS Self-Sufficiency Program (SSP) and those who attended BTC but did not complete the program. This project uses statistical methodology (R programming, multivariate regressions, and propensity score matching) and social science survey design to understand the impact of workforce training.

1.2 Research Approach

Changes from 2020 to 2021 Research Approach

Last year's team analyzed earnings by using the difference between self-reported earnings prior

2 Office of the Pennsylvania Governor, "Governor Wolf Unveils Workforce and Economic Development Plan to Get PA Back to Work," February 22, 2021, <https://www.governor.pa.gov/newsroom/governor-wolf-unveils-workforce-and-economic-development-plan-to-get-pennsylvania-back-to-work/>.

3 James Heckman and Pedro Carneiro, "Human Capital Policy," Working Paper (National Bureau of Economic Research, February 2003),. <http://www.nber.org/papers/w9495>.

4 David H. Autor, "Why Are There Still So Many Jobs? The History and Future of Workplace Automation," *Journal of Economic Perspectives* 29, no. 3 (Summer 2015): 3–30.

to BTC enrollment and DLI-recorded earnings of BTC students after their graduation.

This year, we analyzed the BTC student outcomes using the DLI data. By comparing self-reported earnings to the ones presented by DLI, we discovered that trainees tend to overestimate their pre-BTC earnings, up to \$2,900 per quarter with omitted zero-values and up to \$4,700 to include zero-earnings recorded by DLI into consideration. The quarterly difference between self-reported and actual earnings ranges from \$3,000 to \$5,000, which appears to be quite a substantial error. Due to this error, we decided to focus on data from DLI. However, zero-earnings recorded by DLI are not necessarily equal to factual earnings. There may be a number of reasons why a person can earn income but it would not be captured by DLI. For example, they might be an independent contractor. But we do not have data to adjust our analysis. The survey instrument responses will help us fill in potential missing earnings in the DLI data.

Another major difference lies within the understanding of the "gap year" term. The last year's team treated it as the number of years between 2019 and the year of graduation of each individual, regardless of the year of the recorded wage. The key point here is that last year's team subtracted the graduation year of every student from the same year 2019 (which is the year the BTC project was created by the last CMU team). However, in our analysis, this person would have 3 different gap years: gap year 1 (1 is for the difference between 2017 and 2016), gap year 2 (2018 minus 2016), and gap year 3 (2019 minus 2016). So, our definition of "gap year" was the difference between the graduation year and the year of the reported wage. We interpret the gap years as the years of work experience of the learners after graduation from BTC. We also added two analyses to compare BTC graduates to two comparison groups.

Bidwell Training Center, DHS, & DLI Data Merge

The 2020 Systems Synthesis team digitized 1,364 unique learners spanning across the graduation years of 2008 through 2019 as the initial dataset. The 2021 team used the identical BTC dataset. The learners were linked with the DHS database if they are alive, currently living in Allegheny County, and used one or more services tracked by DHS. The individuals could be a part of the DHS database through various activities such as paying a parking ticket, using social

services, or going through the court system. The DHS dataset was then linked to a DLI dataset to match the BTC learners' earnings and unemployment benefits. The linking used the learners' nine-digit Social Security Numbers (SSNs) and learners' earning data was lost if we did not have their full SSN.

DHS's Self-Sufficiency Program

The DHS Self-Sufficiency Program (SSP) is a service open to clients who live in Allegheny County but outside of Pittsburgh and have a household income of less than 125 percent of the federal poverty line. DHS provided datasets on 405 SSP clients who entered the program through September 2020, before significant programmatic changes took place in November 2020. The datasets included programmatic and demographic information, social benefits use, quarterly earnings, and unemployment benefits. Then, we merged the full SSP dataset with the full BTC dataset. We used a statistical R package, Matchit, to use Propensity Score Matching and Optimal Full Matching for our control group analysis. The matching ensured BTC graduates are similar to the SSP control group by matching the two programs' participants by age, gender, race, and years of work experience.

BTC Survey Instrument

The 2020 Systems team recommended BTC explore what is driving approximately 36 percent of total graduates to appear to withdraw from the labor force. However, the limitations in the data prevented us from determining whether we have missing data on the graduates or if the graduates are truly withdrawing from the labor force. Also, we were not able to determine why we have missing data. The BTC Post-Graduation survey that would be administered 1, 2, and 5 years after graduation will help future research determine how many graduates are withdrawing from the workforce, moving to another state, or other reasons as to why there are no earnings data. The survey will also inform future research about the reasons why graduates are withdrawing. Additionally, the survey will provide BTC with information on the long-term impact of their training and support systems. The survey and execution strategy was developed in consultation with the BTC Executive Director, program trainers and administrative staff, and project advisors, as well as CMU faculty.

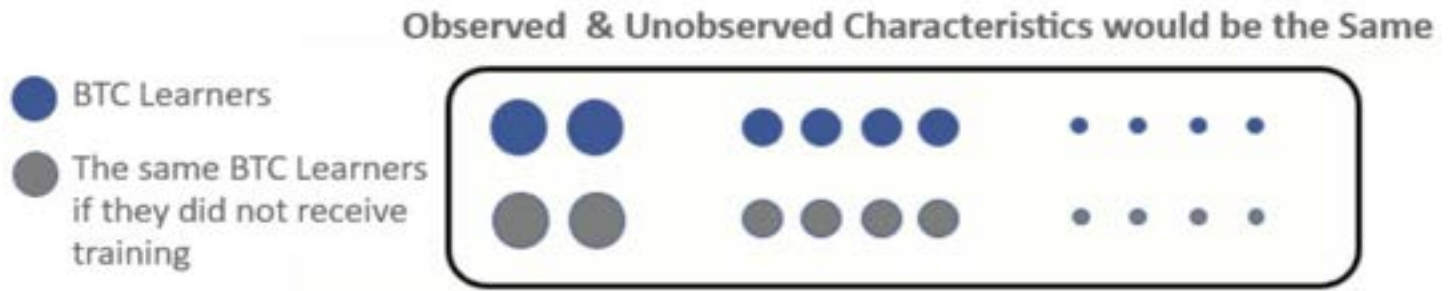


Figure 1. Ideal control group

2. Comparison Groups

2.1 Comparison Group 1: DHS SSP Participants

The previous research on BTC's impact has been focused mainly on pre-post analysis: the level of earnings, Unemployment Insurance (UI) benefits, or the use of social assistance programs by BTC trainees before their graduation from BTC and after. This empirical research compared BTC alumni to themselves from the past when they did not yet graduate. While this analysis helps assess the effectiveness of BTC programs, it would be incomplete and possibly biased without including a control (or comparison) group—people who are close enough by their baseline characteristics to participants from the treatment group—BTC students.

We want to observe what the average income earned would have been if the BTC group had not received the training intervention but all else remained the same. In other words, we wanted to see how the treatment group's outcome would be compared to the control group by holding the following variables constant: age, gender, race, number of years after graduation, income level, and the most important one—shared experience, receiving professional training with commensurate duration.

In this study, DHS SSP participants acted as the control group. SSP is open to clients who live in Allegheny County but outside Pittsburgh and have a household income of less than 125 percent of the Federal Poverty Line. Clients of this program receive at least one of the following services:

- *Case Management*: a case manager assesses students' needs, identifies their strengths and goals, coordinates their receipt of support and services, and tracks their progress over time.

- *Modern Office Systems Training*: teaches participants how to use Microsoft Office and complete common business tasks.
- *Mon Valley Initiative's Workforce and Business Development program*: provides classroom instruction, one-on-one counseling, job clubs, mock interviewing, and career exploration workshops that expose students to job opportunities in the Mon Valley region.

Figure 2 describes the average characteristics of the students from the treatment (BTC) and control (SSP) groups.

As seen in Figure 2, BTC students differ in important respects from SSP students. In particular, BTC students are on average seven years younger, and have quarterly wages roughly \$1,000 lower before enrollment.

In addition, we noted in the given datasets that covered the third quarter of 2018 to the third quarter of 2020 inclusively that the distribution of the number of observations for each year after graduation (which can be interpreted as work experience) is different. Given these differences, we opted to perform further cohort selection processing on our participant groups to improve experimental control.

2.1.1 DHS SSP & Propensity Score Matching

We applied the Propensity Score Matching technique (PSM) to improve the quality of comparison between the SSP and BTC cohorts. The PSM technique estimates the treatment effect by controlling for variables that are correlated with receiving the treatment. In other words, it ensures that treated (BTC) and untreated (SSP) subjects are similar by their baseline characteristics; this strengthens our assumption that they are equally likely to receive the treatment.

Before matching

Parameter	Average Value / Proportion	
	BTC	SSP
Age, years	34	41
Gender - Female	62%	59%
Race - Black	51%	51%
Previous wage per quarter, \$	\$5,054	\$6,071

Figure 2. BTC and SSP Characteristics before Propensity Score Matching

There are several methods of PSM. For this analysis, we employed the Optimal Full Matching method. It assigns every treated and control unit in the sample to one subclass. Each subclass contains one treated unit and one or more control units or one control unit, and one or more treated units. It is optimal in the sense that the chosen number of subclasses and the assignment of units to subclasses minimize the mean of the absolute within-subclass distances in the matched sample. Weights are computed based on subclass membership, and these weights then function like propensity score weights and can be used to estimate a weighted treatment effect, ideally free of confounding by the measured covariates.

Since the Full Matching Method uses all available units, the number of subclasses could be large and depend on the given parameters' variation and combinations. This method is especially suitable for cases when the number of observations in a control group is substantially smaller than that of in a treatment group, as in our case. For a better understanding of this concept, compare this method with what usual clustering would do: it would divide the whole population into several subgroups with shared characteristics: for example, one cluster can contain only 35-year-old white females with the previous wage of about \$25,000 per year; another cluster would consist of 40-year-old Black males with prior annual earnings around \$30,000, and so on. So, according to parameters defined in our dataset,

subjects would be highly comparable within each subclass (Figure 3), and non-comparable subjects would be excluded from analysis.

After balancing the datasets through the Optimal Full Matching, an average portrait of the students from the treatment (BTC) and control (SSP) groups emerges.

Figure 4 shows that, overall, the differences between the two groups now are smaller than they were before matching. Moreover, the propensity scores are now identical. In the original dataset, the treatment group participants were more likely to be treated based on demographic characteristics than subjects from the control group. (Propensity score values were 0.82 and 0.76, respectively.) In the balanced dataset, this discrepancy has been eliminated (0.82 versus 0.82), meaning that the estimated treatment (or causal) effect is significantly less biased.

2.1.2 Summary of Results & Graphs for SSP

According to regression model results built on the balanced dataset, BTC graduates earn \$12,000 to \$14,800 more on average per year than SSP graduates, depending on which model is used and controlling for factors such as age, gender, race, and previous income. Of course, this outcome cannot be interpreted as a definitive value of the dollar amount effect of BTC training. There could be a variety of other factors not included in this analysis. However, concerning the existing explanatory variables described here, the impact of BTC training is quite substantial in practical terms. It is statistically significant at the 99 percent level, suggesting that the chance of getting the same results without the BTC intervention is below one percent. We attribute this measured increase in earnings to the BTC treatment, while keeping in mind that the actual dollar amount increase might not be captured accurately by this model. Next, we attempt to control for the self-selection effect of enrolling in BTC programming, which was not controlled for by the PSM technique described above.

2.2 Comparison Group 2: BTC Non-graduates

2.2.1 Intro & Regression Explanation

Manchester Bidwell Training Center collected data on those who were terminated or withdrew from the program. We matched the data that we have with that provided by DHS to compare their performance relative to the performance of BTC graduates. We will use this comparison as part of our study to create

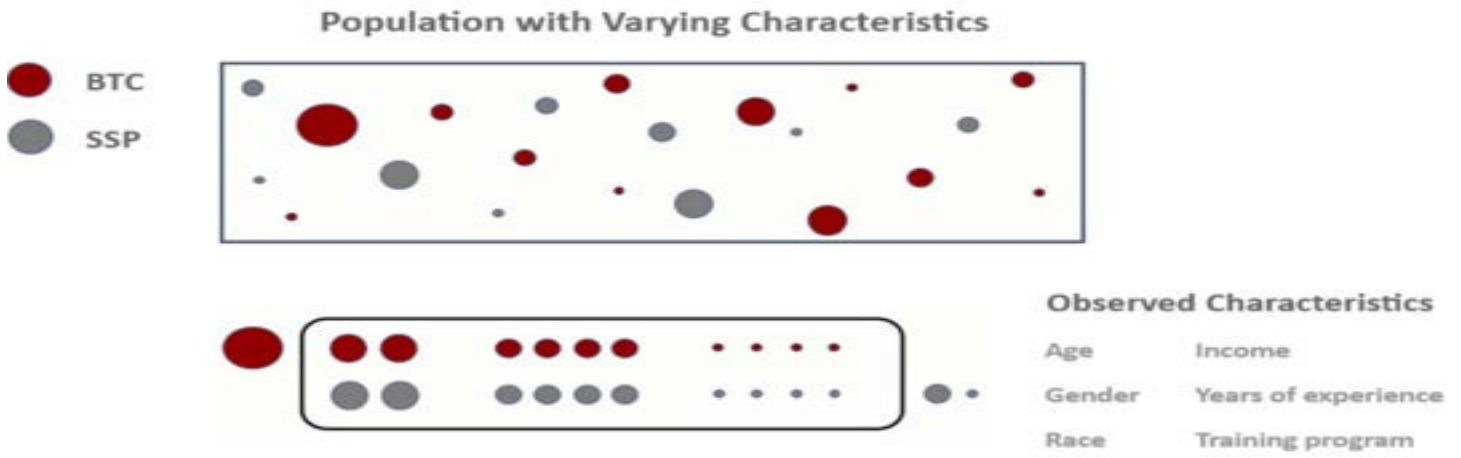


Figure 3. Visual representation of the Propensity Score Matching process.

a control group to measure the added value of the BTC degree. The individuals who make up this control group are BTC learners who did not graduate from their programs. They either withdrew from the program or were terminated from the program. We refer to this group as "Withdrew or Non-graduates." This is not an ideal control group because the learners who did not complete the program likely faced situations or had characteristics that those who graduated did not experience or have. For example, they could have faced health or family responsibilities, life circumstances, or different levels of motivation. However, we want to note that those who complete the program also face transportation challenges, childcare, family responsibilities, and expectations. BTC is different from other workforce training programs in that the staff attempts to alleviate as many

of the concerns as possible. While we cannot measure these unobserved factors that impact earnings, we control here for years of experience, gender, race, education level, and enrollment in a BTC program.

To compare and measure this added value, we performed a regression analysis, with the reference subject being a white male that completed the program. The regressions predict the wage trajectory of those that withdrew or were terminated compared to those that graduated. We follow that wage trajectory for eight years and measure differences between the two trajectories. To test for significance, we will use an F-test against the hypothesis that at least one of the variables in the regression is not equal to zero. This analysis is different from the SSP methodology, and their respective results should not be combined.

Parameter	Before matching		After matching	
	Average Value / Proportion		Average Value / Proportion	
	BTC	SSP	BTC	SSP
Age, years	34	41	34	34
Gender - Female	62%	59%	62%	60%
Race - Black	51%	51%	51%	53%
Previous wage per quarter, \$	\$5,054	\$6,071	\$5,054	\$5,543

Figure 4. BTC and SSP Characteristics after Matching

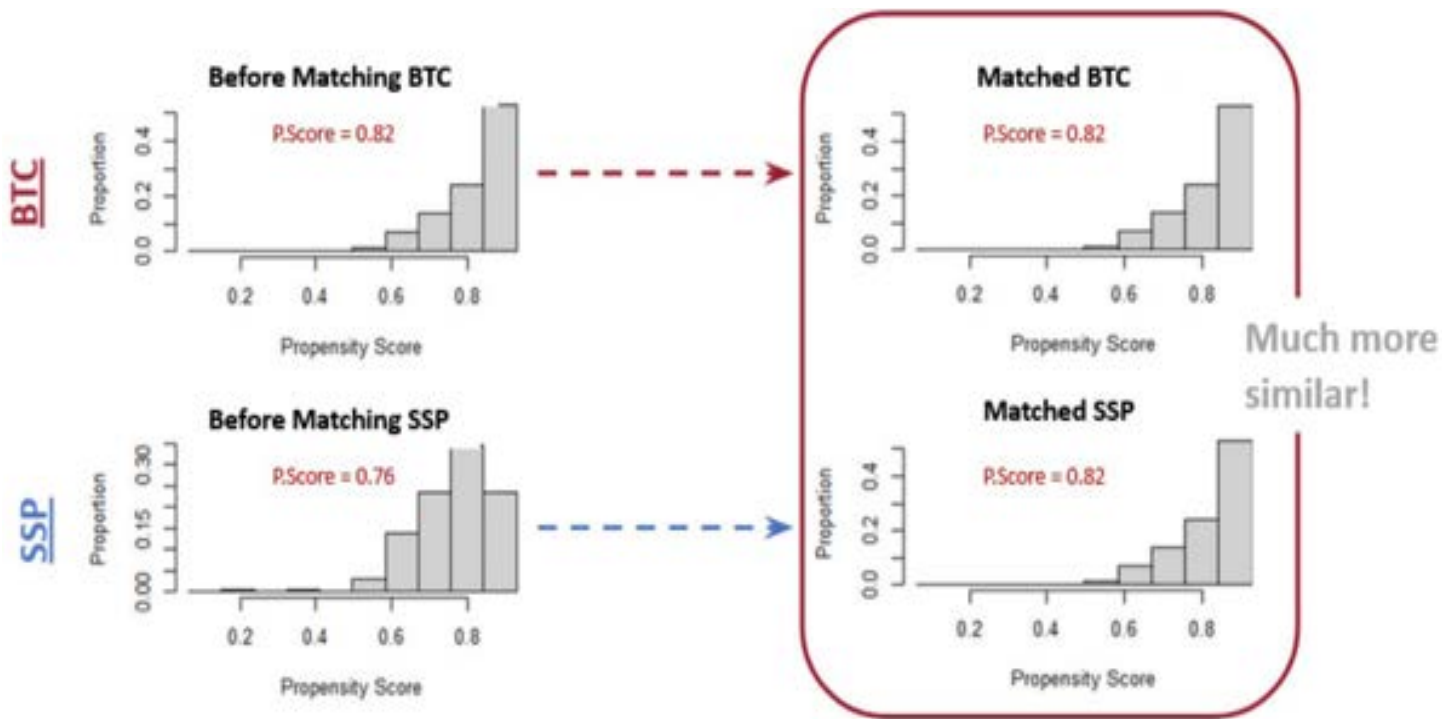


Figure 5. Graphical representation of the propensity score matching results, before and after.

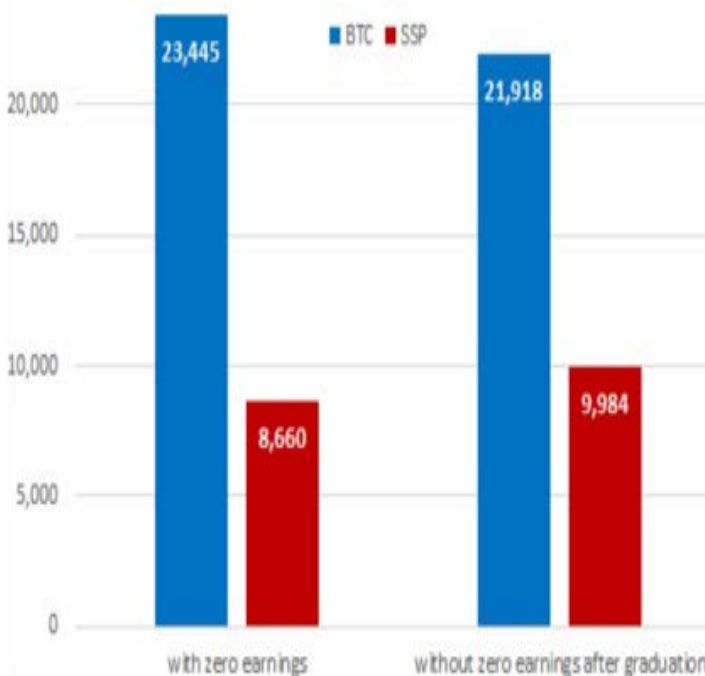


Figure 6. BTC vs SSP earnings with and without including the zero earnings

Why a Regression Model?

Regressions help us explain the variability of outcomes we are interested in. Of course, it would be impossible in the real world to build an ideal regression model that would reduce 100 percent of uncertainty over the interested outcome or dependent variable Y. But we still can come up with a reliable regression with one or more independent variables X

that would explain the variability of the result to some significant extent. The red line in Figure 8 reflects this idea.

In our particular case, the primary outcome of our dependent variable is the graduates' annual wages or earnings. Variables such as age, gender, race, academic scores, level of education, training program, and the number of years since graduation might affect wages.

We use these factors in our regression models and check whether they are statistically significant with at least 95 percent confidence. In other words, by building regression models, we can control for workers' baseline characteristics to better approximate a pure program effect, not the combined effect of different factors.

2.2.2 Summary of Results & Graphs for BTC Non-graduates

The wage trajectory for those who graduated is different to a statistically significant degree after controlling for Race, Gender, Program, and Education. The wage trajectory presented here is for a white, male, horticulture graduate or participant with a GED. The model shows that on average, graduates earn more than non-graduates. The difference between the two groups at years four, five, and eight are different to a statistically significant degree at the 10 percent level. The wage difference between graduates and

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non-graduates in Year four, five, and eight is \$3,000, \$2,000, and \$3,000. In those significant years, BTC graduates earned more than 10 percent more than those who did not graduate.

During this analysis, one thing that stood out is that the earnings of non-graduates also saw an increase. It may be due to how the market was performing during those years where earnings rose regardless of education. This trend demonstrates that there may be another variable we lack in our data that we need to control. We need a better control group to get a closer estimate of the added value of a BTC degree. We recommend using Community College learners and other state-funded workforce training programs as future control groups.

3. Hazard Models on Medicaid & SNAP

Besides earnings, we can analyze the effectiveness of BTC education with a hazard mode. The following sections will explore BTC’s impact on public assistance programs. The hazard model shows

how many graduates stop using social benefits each year after graduation. We created two hazard models, one for Medicaid and one for the Supplemental Nutrition Assistance Program (SNAP).

Hazard Model: Medicaid

We see a sharp decline in Medicaid use in the first year of graduation: 50 percent of the students who had been receiving Medicaid at the time of graduation moved out of the program within one year after graduation. Then, the reduction continues at a slower pace as students gain more work experience. By the ninths year, 75 percent of BTC grads who had been receiving Medicaid no longer received it. We interpret this as a reduced need for government-sponsored healthcare insurance. Graduates likely enrolled in employer-sponsored health insurance and started earning more income. There were 338 Medicaid users at the time of graduation, and the number of beneficiaries reduced to 111 at year nine.

Hazard Model: SNAP

We see a sharp decline in SNAP use in the first year after graduation: Around 66 percent of the



Regression used:

```
withdrew_w_zeros.4 <- lm(earnings ~ gender +race +education +program +year_gap
+year_gap:withdrew, data=all_with_zeros)
```

Figure 8. Wage Trajectory for those who graduated compared to those that withdrew with Zero Earnings and the regression used.

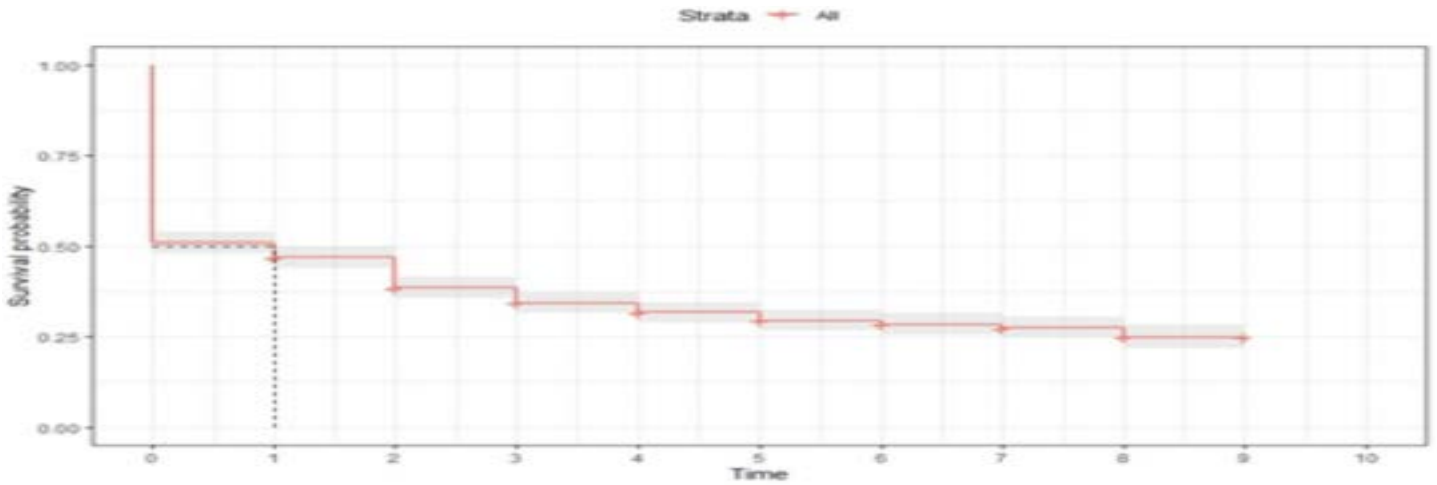


Figure 9. Medicaid hazard model.

students who had been receiving SNAP at the time of graduation moved out of the program within one year after graduation. The reduction continues at a slower pace, likely as students gain more work experience. Of those who had initially received SNAP benefits at the time of graduation, only 25 percent continued to receive SNAP benefits nine years later.

like Medicaid or SNAP. In this case, BTC graduates may be reluctant to accept a raise or promotion in fear of losing their benefits.

However, we need more data to identify each individual's specific benefits cliff. We chose to analyze the wage trajectories instead of benefit cliffs. Because our data cannot reflect the benefit cliffs that individuals face at different income levels, we operationalize the concept of the benefit cliff by searching for a statistically significant difference in long-term earnings between graduates who, at the time of graduation, used benefits, and those who did not. We hypothesize that individuals who face benefit cliffs would decline opportunities of higher income and would therefore have a demonstrably lower earnings trajectory than those who did not originally receive public benefits. Our team chose to analyze two programs: 1. Medicaid, the most widely used social benefit according to the DHS dataset, and 2. Childcare, which interested the team's advisors

4. Earnings Trajectory by Social Benefits Use

4.1 Introduction

After observing the earnings outcomes for BTC graduates in all programs, it was necessary to analyze the benefits cliff, which refers to the abrupt decrease or loss of social benefits after seeing an increase in income. When income increases, families sometimes lose some or all of the economic support they receive from various public assistance programs,

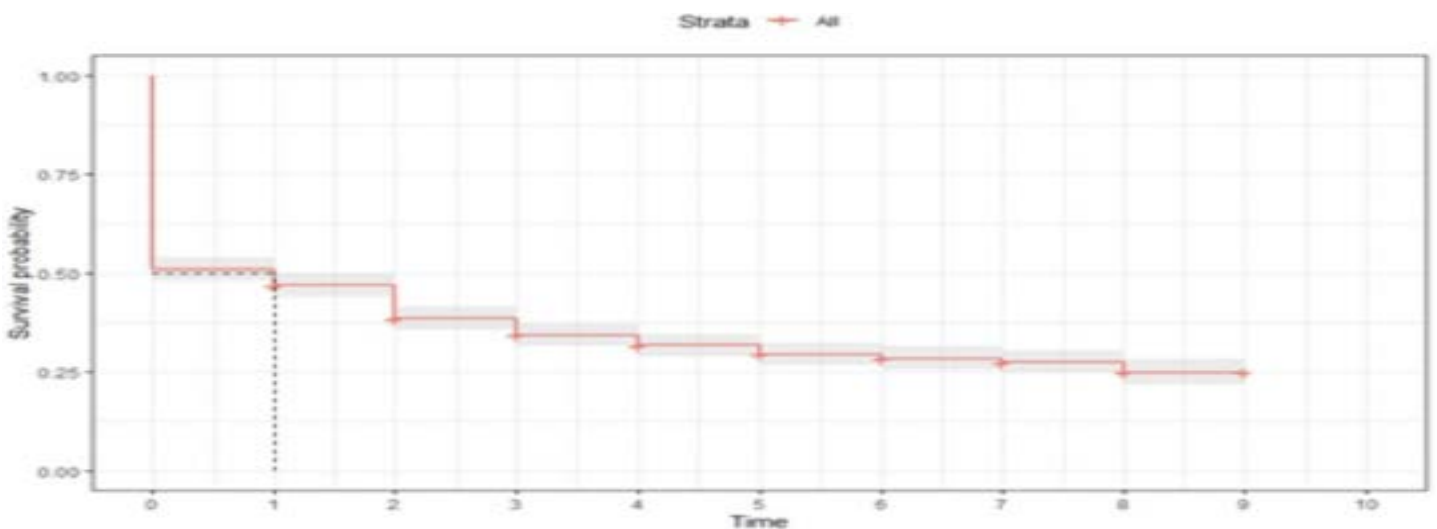


Figure 10. SNAP hazard model.

Regression used:

```
regEarnings <- lm(earn ~ gender + race + educational_status + year_gap*
                 medicaidAtGraduation/SNAP/Childcare
```

Figure 11. Regression used in section 4.1.

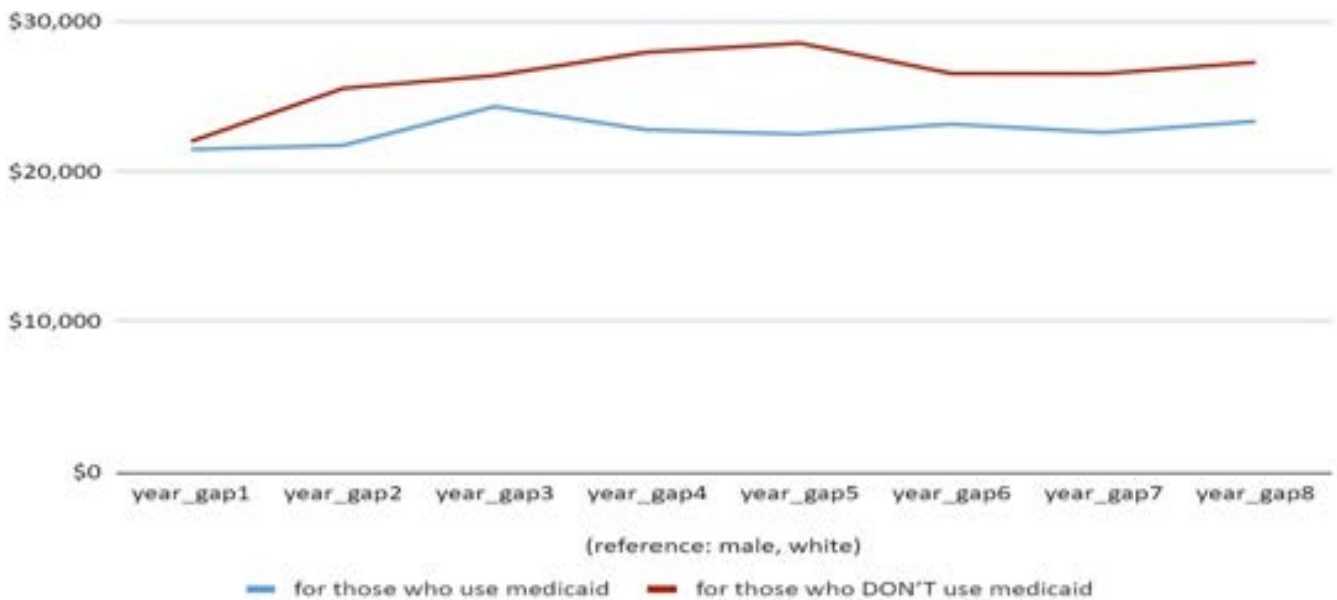
the most. Using the available wage data, we ran a regression analysis to show how earnings trends differ for those graduates who used Medicaid or DHS Child Care programs from those who did not at the time of graduation.

Our analysis shows that annual earnings differ for graduates over the years of experience after BTC. We first identified BTC graduates who had Medicaid or used childcare services and those who did not. We included all zero-earnings in the analysis. For these two subsets, we ran separate regressions where earnings were the outcome, while we controlled for gender, race, and pre-BTC educational level. F-tests verified the final regression model at the 90 percent confidence level. The reference group is the graduate who is a white male with a GED.

4.2 Medicaid Usage and Wage Trajectories

We observe that graduates who were Medicaid recipients (shown in blue) tend to have lower wages than their counterparts who did not receive Medicaid (shown in red). Figure 6 shows what the trend looks like when we exclude those with zero quarterly earnings. The most significant annual gap in earnings occurs around year gap five, meaning about five years post-BTC experience, those who did not use Medicaid see higher earnings of \$6,072 more than those who used Medicaid at the time of graduation. It is worth mentioning that our F-test showed that there was a difference in earnings, but the individual results were statistically insignificant.

One possible reason for the lower wage trajectory of BTC graduates who receive Medicaid at the time of graduation is that they were less likely to accept a raise or a promotion in fear of having their benefits drastically reduced.



Regression used:

```
regEarnings <- lm(earn ~ gender + race + educational_status + year_gap* medicaidAtGraduation
```

Figure 12. Wage trajectories when excluding those with zero annual earnings.

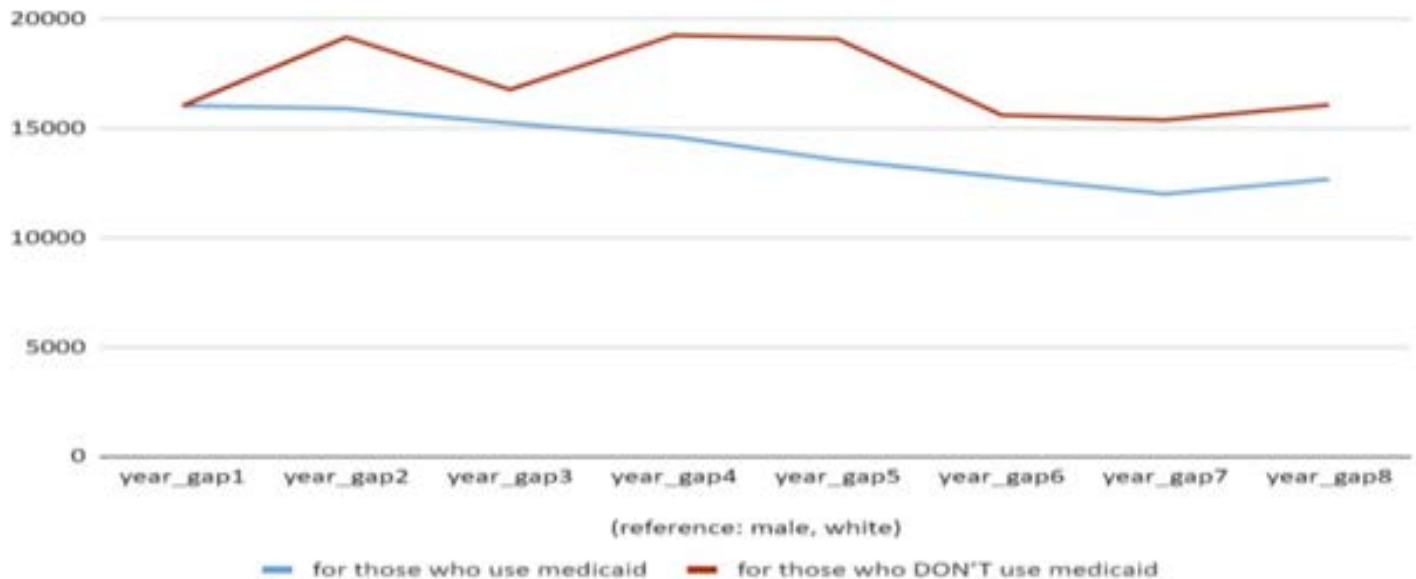


Figure 13. Wage trajectories when including those with zero annual earnings..

When we include those BTC graduates with zero quarterly earnings, the overall wages for both categories of students decreased. In this case, we observed a similar trend to Figure 12 that excluded missing or zero earnings.

It is worth noting that BTC graduates who have Medicaid will invariably have a higher probability of having wages reported than those who do not.

4.3 SNAP Usage and Wage Trajectories

The SNAP at graduation variable indicates any BTC graduate who used this social benefit to supplement their monthly food budget. Like the Medicaid wage trajectory, our team first conducted a regression on annual earnings while controlling for gender, race, and education. We also excluded zero earnings. The highest wage difference occurs at year gap five, or five years after graduating from BTC, by an annual amount of \$5,397 (see Figure 14).

5. Survey Instrument

5.1 Introduction

The previous research on BTC impact found that more than 36 percent of total graduates in the sample appear to withdraw from the labor force for a significant amount of time in the years following graduation. Without more data, we could not determine if the graduates left the workforce, were working in informal sectors, or had moved to another state, in which case their earnings would not show up in DLI records. Therefore, our team designed a survey to help

investigate the main reasons behind the zero earnings. Additionally, the survey was designed to explore the use of unemployment benefits and identify the assistance that can help graduates find employment.

Our team generated several survey drafts to incorporate feedback from project advisors and BTC staff. We revised the answer options to make the survey more comprehensive and motivate more responses. Based on an initial draft, we added a question about COVID impact and changed the brackets for earnings questions to make the respondents feel more comfortable answering this personal and sensitive question. Following the feedback from Seth Chizek from DHS and Professor Rick Stafford from CMU, our team added questions about unemployment benefits to identify the programs commonly used by unemployed BTC graduates and potential reasons why they did not choose to apply for these benefits. Lastly, we invited Kim Rassau and several BTC staff members who are more familiar with the students to a 30-minute survey test session over a Zoom call. We incorporated their recommendations on adding the benefits used by BTC graduates and asking if graduates had a promotion since graduation. The final version includes Dr. Kimberly Rassau’s approval and professional survey design suggestions from Professor Lee Branstetter, Andrew Breazeale, Professor Julie Downs, and Dr. Justin Hess.

5.2 Graduation Survey Questions

To ensure a high response rate, we opted to have 16 questions designed in total. We grouped the questions into three different sections: basic enrollment information (four questions), details on work status

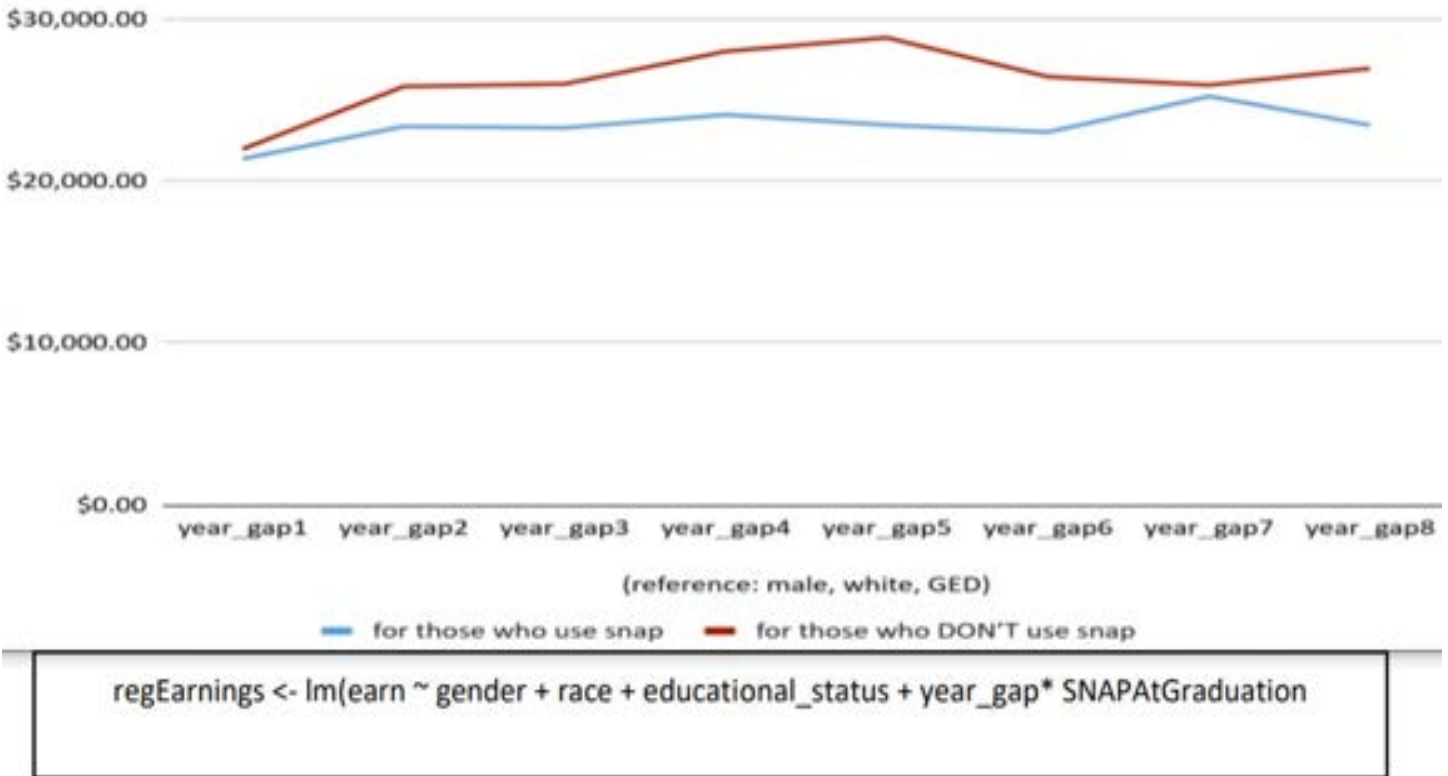


Figure 14. Wage trajectories for SNAP vs. non-SNAP users and regression used.

(nine), and needs on benefits and unemployment supports (three). The only fill-in-the-blank question asks for the BTC graduation year. We provided more flexibility to respondents by allowing them to either check all options or add their own option for most of the questions. All questions are mandatory to answer.

Section 1: Basic Enrollment Information (Question 1 to 4)

The first section is designed to classify respondents by graduation year, gender, graduation program, and their current work status.

To preserve anonymity, we limited the number

of questions in this section to include the listed first three characteristics closely related to BTC training. The fourth question asks for the graduates’ current work status. We offered seven options to allow for detailed answers.

Section 2: Work Status (Question 5 to 13)

Our main focus for this survey centered around work status. The questions include location of employer, COVID impact, last time they worked, number of job(s) worked, field of work, weekly work hours, annual income, promotion, and willingness to work for the next two years.

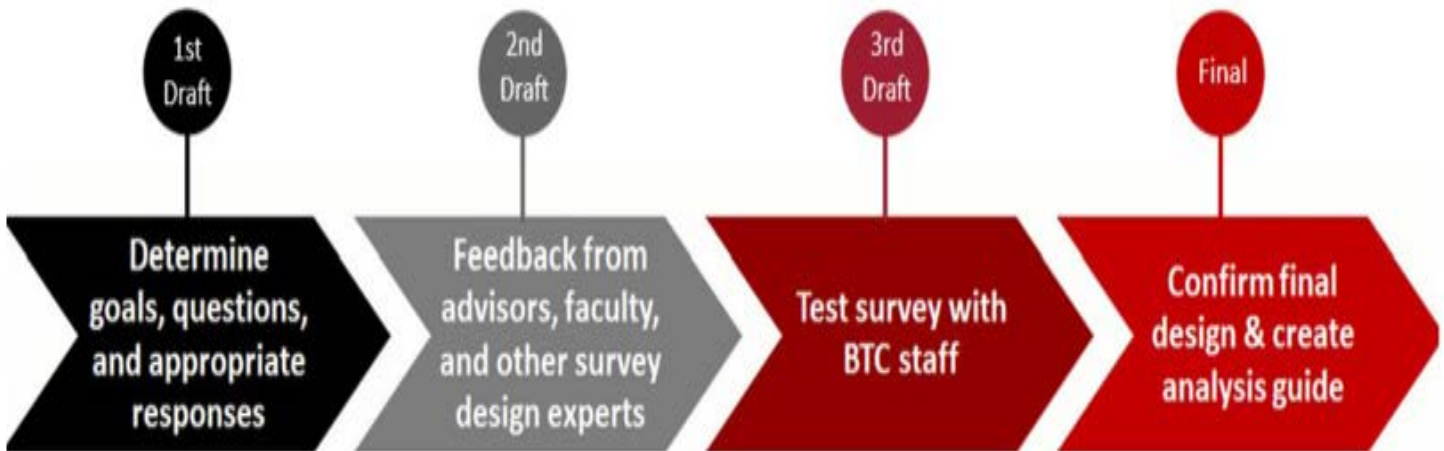


Figure 15. Survey design process.

In addition to the existing COVID analysis in this report, we designed question six to estimate the proportion affected by COVID-19 so we can have a more accurate and comprehensive understanding of how this pandemic affected BTC graduates. Another key question in this section is annual income. The choices for this question aim to reflect the respondents' real wage earnings. According to the current dataset, more than 95 percent of individuals have an annual income lower than \$80,000, and most income values concentrate between \$0 to \$10,000. Therefore, we set the highest option for the income question as "\$80,000 and above" and provide \$0 as an option. The brackets below \$10,000 are set as "\$1 - \$4,999" and "\$5,000 - \$9,999." The income range then doubles for income brackets greater than \$10,000.

Section 3: Needs on benefits and unemployment supports (Question 14 to 16)

The third section is designed mainly for unemployed graduates. The questions aim to identify their use of benefits programs, reason(s) for unemployment, and support needs.

We provide five categories for the options in the benefits question: housing, Medicaid, childcare, disability, and elderly care. Several commonly used programs by Allegheny County residents and BTC graduates are listed independently as options, including SNAP, Supplemental Security Income (SSI), Temporary Assistance for Needy Families (TANF), Social Security Disability Insurance (SSDI), and the Office of Vocational Rehabilitation (OVR). With the last two questions, the options attempt to list all potential reasons for being unemployed and the possible support that would help BTC alumni enter the labor market if they desire. The options are designed from the perspectives of age, physical and mental condition, family needs, transportation, and income level.

5.3 Distribution Strategy

The survey will be sent to BTC graduates one, three, and five years after their graduation to investigate the long-term effect of BTC training. This frequency was determined by BTC program staff.

We chose to use Google Forms as the medium because it is a free, collaborative, and secure online survey design tool. The application meets our

requirements of offering various question types and separate survey sections. Using its customized theme function, we used BTC's color theme and logo, strengthening the survey's visual attractiveness and engagement. Through a mock survey session with BTC staff, Google Forms generated different types of charts for each question based on the format of options. This also allowed for the administrator to check the answers at the individual level which this is crucial for further analysis because the answer for many questions can only be interpreted in a meaningful way when combined with the answers to other questions. Once the survey is polished and finalized, BTC will implement it by sending emails to the graduates with the survey link.

5.4 Analysis Strategy

The survey results will help us answer a fundamental question: Should we consider the zero-earnings wage observations or not when estimating the wages earned by graduates? For the current analysis, we are not sure which result, with zero-earnings or without zero-earnings, is more accurate because we do not know the actual situation of those who did not report their earnings and unemployment status. They could be looking for jobs and still in the labor force or are working in informal sectors that are not taxed or report earnings. Or they might not be looking for jobs—this includes workers who voluntarily withdrew from the market to take care of children or elderly relatives. We observed a noticeable difference in earnings between these two assumptions. Based on that our analysis will focus on distinguishing between the two circumstances.

One advantage of Google Forms is that it can display three responses: Summary, Section, and Individual. These sections analyze the results at the choice, question, or individual level with different charts and percentages. The responses can also be exported as a spreadsheet and thus will be more convenient for individual-level analysis. However, there are some questions that need to be combined with one or more other questions to answer BTC's questions of interest. The question combinations and detailed analysis strategy are in the BTC Survey Analysis Strategy 2021 Excel file and shared with Dr. Kim Rassau (See the appendix for a preview of the file).

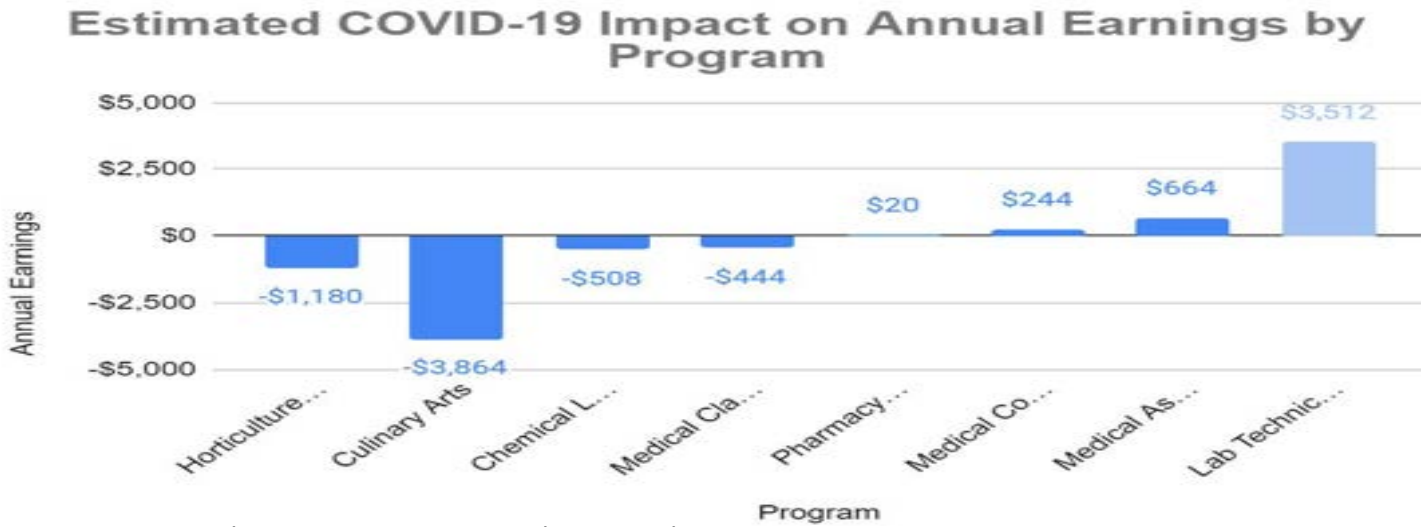


Figure 16. Estimated COVID impact on annual earnings by program.

6. COVID-19 Impact on BTC Graduates

COVID-19 caused a severe economic contraction worldwide. As part of the labor force BTC graduates were affected by this economic slowdown. We used male, white, Horticulture graduates as our baseline to compare the other training programs graduates. We used two ways to compare the graduates —by program and by years of work experience.

The Horticulture, Culinary Arts, and Medical Claims Processor graduates all saw a modest decline in average earnings due to the pandemic. Amongst these three programs, Culinary Arts graduates saw the highest decrease in their earnings by roughly \$3,864 (Figure 15).

Compared to our baseline, Culinary Arts graduates were the most likely to be unemployed

during COVID-19 whereas Medical Coder graduates were the least likely to be unemployed during COVID-19. The reference group is male, white graduates with zero years of work experience.

By analyzing earnings by years of work experience, we found that almost all cohorts of graduates who reported earnings were negatively affected by COVID-19. Those with four to six years of work experience post-BTC have the largest declines in earnings.

While COVID-19 reduced the earnings of most graduates from BTC, the increase in social safety nets likely supported vulnerable workers. In addition to federal programs, Allegheny County residents also contributed significantly to mutual aid groups that provided food, resources, and money to workers who lost their jobs or saw their earnings reduced.

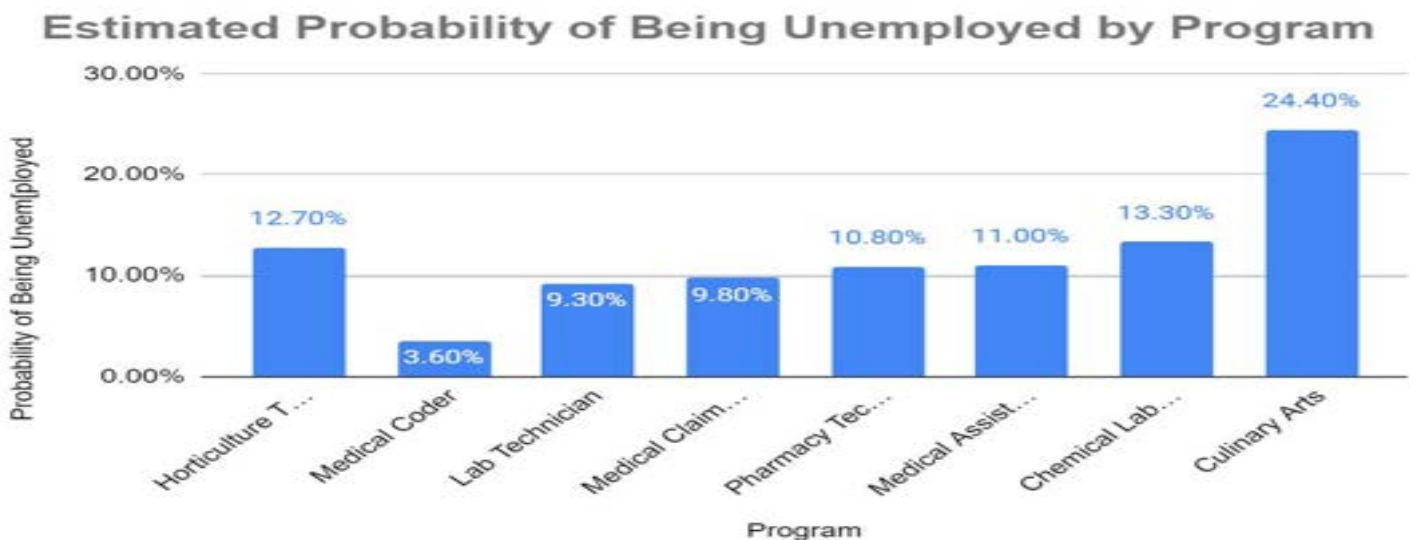


Figure 17. Estimated probability of being unemployed by program.

Estimated COVID-19 Impact on Annual Earnings by Year Gap



Figure 18. Estimated COVID impact on annual earnings by year gap.

7. Limitations of Research

Our impact evaluation design is post-only with a non-randomized comparison group. Our comparison groups, SSP participants and BTC non-graduates, are not ideal because the participants and learners have very different characteristics that were not captured in our data. The Propensity Score Matching method compared similar observed characteristics, such as gender, race, and age. However, the unobserved characteristics may drive the lower earnings compared with BTC graduates, such as familial support and health. The research can be greatly improved with a comparison group that graduated from a similar workforce training program. Such programs may be training programs in Allegheny County that are authorized by the Workforce Innovation and Opportunity Act (WIOA) and the Community College of Allegheny County.

- Compared with those who did not graduate from BTC’s programs, the graduates earn more on average.
- The quarterly wage trajectory of BTC graduates who use Medicaid appears to be lower than those who do not use Medicaid.
- Approximately 50 percent of BTC graduates stop using Medicaid after one year of work experience, and 75 percent of graduates stop using Medicaid after nine years of work experience.
- COVID-19 reduced the earnings of all graduates, except those with just one or two years of work experience.
- The Culinary Arts graduates saw the most reduction in estimated annual earnings, with an average loss of \$3,864.

8. Key Findings & Future Research Recommendations

- BTC improves the socioeconomic status of its graduates, on average, according to our sample.
- Compared with the DHS’s Self-Sufficiency Program, BTC graduates earn \$12,000-\$13,000 more on average when controlling for age, gender, race, and years of work experience.

Policy Recommendations

- Eliminate or at least diminish the benefits cliff. Many low-income workers face de- facto marginal income tax rates of greater than 100 percent.

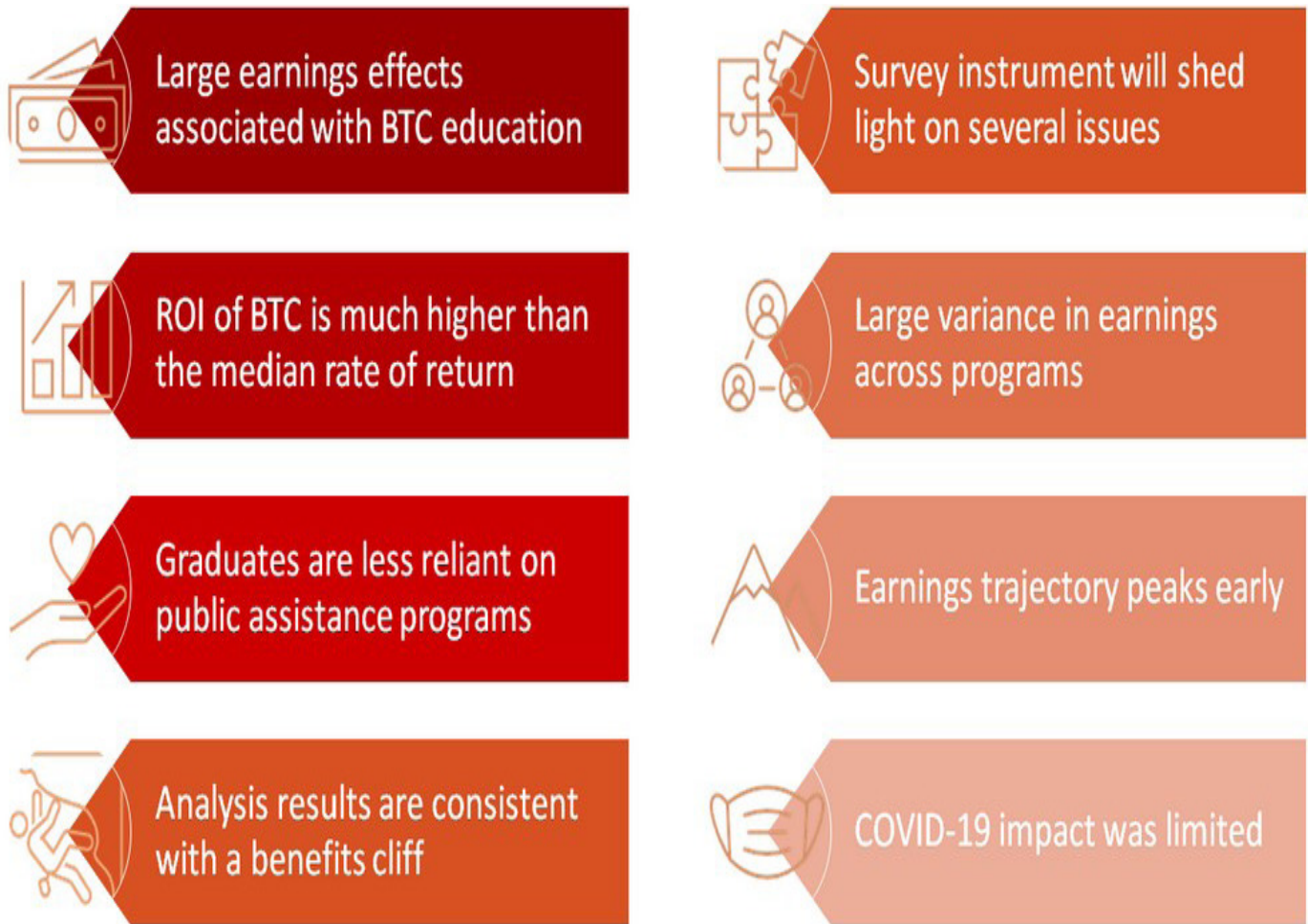


Figure 19. Key findings.

- Make data on government-subsidized training programs available to Allegheny County DHS researchers. This will help future researchers benchmark BTC’s impact against similar training programs and reward or scale up programs that deliver the best returns.
- CMU teams and DHS could perform this evaluation for every training program in the Pittsburgh area, then allocate funding based on results. BTC’s overall returns look favorable and could benefit from this kind of data-driven resource reallocation.

Future Research Recommendations

We have a few recommendations for BTC based on our analysis.

- Track graduates' experience over time by implementing the survey and using our survey analysis guide to evaluate responses.
- Explore reasons why earnings profiles appear to peak early. Mid-career counseling could help renewed wage growth, and the survey may provide some insights on this.



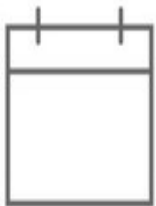
End or lessen the benefits cliff to support wage trajectory growth among low-income workers

Make data on government-subsidized training programs available to ACDHS researchers



Explore changes in the portfolio of programs to address limited wage gains in the popular programs

Continue to partner with CMU students



Implement survey to track graduates' experience over time

Explore reasons why graduates' earnings to appear to peak early



- Explore changes in the offered programs to address limited wage gains in the popular programs. BTC is already exploring new tech-related programs. It might be helpful to survey if potential participants interested in culinary arts and horticulture would be interested in these programs.
 - It may also be helpful for potential participants to receive counseling regarding the different programs' wage trajectories.
- It would be beneficial for BTC and CMU students to continue the research by using control groups that more closely resemble the treatment group.
- Use data from other similar programs to compare BTC graduates to, such as community college graduates or other workforce training programs.
- Use the survey analysis guide (provided to BTC in Excel separately).
- Re-run regression models with insights from survey results about zero or missing earnings.
- Work with DHS to get data on which graduates had children at the time of graduation and were using DHS child care services, to analyze the impact of having children on wage trajectories.
- DHS will be releasing a Benefits Use Simulation to help community members determine how earnings may impact their benefits qualifications.
- Connect graduates to social benefit programs and community resources that can provide additional support during economic downturns, such as DHS and the Pittsburgh Restaurant Workers Mutual Aid Group.

Figure 20. Recommendations.

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Note: The appendices that accompany this paper can be found online at www.voices.heinz.cmu.edu.