

# Lux et Fides: A Journal for Undergraduate Christian Scholars

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*Lux et Fides*

A Journal for Undergraduate Christian Scholars



**TAYLOR**  
UNIVERSITY



## ***Lux et Fides: A Journal for Undergraduate Christian Scholars***

### **Volume 1: 2023**

*Lux et Fides: A Journal for Undergraduate Christian Scholars* publishes scholarship and research produced by undergraduate students at Taylor University in order to foster a campus-wide community of learners deeply engaged in the integration of Christian faith and academic learning within and across the disciplines.

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## **From the Editors**

On behalf of Taylor University, we are excited to present the inaugural issue of *Lux et Fides: A Journal for Undergraduate Christian Scholars*. As a double-blind, faculty-reviewed, open access publication, *Lux et Fides* is designed to showcase the stellar work that Taylor University students are accomplishing under the direction and mentorship of our dedicated faculty. The content within this issue, which represents several academic disciplines, demonstrates a high level of academic rigor that impressed the editors and represents the breadth and depth of intellectual inquiry as well as the model of faith and learning integration that is a hallmark of our institution.

We want to extend our gratitude to all students who submitted content to the journal, to our indefatigable faculty reviewers, to our editorial board for their willingness to serve, and to Dr. Jewel Maxwell, Provost, for supporting this initiative. The dream and idea for this journal was sketched out on a napkin nearly two years ago, and it has been a learning experience as we developed and implemented the processes for establishing this type of fully digital, faculty-reviewed publication here at Taylor. We could not be more pleased with the results that comprise our first issue. These outstanding students, along with the faculty who directed their research, represent a community of learners who are deeply engaged in living out the idea of Light and Faith.

Dr. Kris Johnson, Managing Editor  
Prof. Ashley Chu, Digital Publishing Editor





## **Protecting Youth from Mexican Drug Cartel Recruitment: The Prospects of Educational Interventions**

By Lisa Hochstetler

The onset of the Mexico's War on Drugs<sup>1</sup> in 2006 unleashed an unanticipated wave of violence as drug trafficking organizations and street gangs reorganized and diversified to ensure their profits and local control. Mexico's drug cartel network is at the center of a global illicit drug trade, as importers of drug supplies from Asia, transporters through Central America and Mexico, and suppliers to the United States and Europe. As organized crime groups carry out homicides, disappearances, and extortion at increasing levels, the social and economic development of Mexican society is severely inhibited. Mexico's most vulnerable population due to the violence of the drug cartels is its youth, who are the most at risk to become victims of homicides, disappearances, and recruitment. Youth from marginalized communities and youth who drop out of school are especially targeted by drug cartel recruiters because they desire a sense of belonging and a quick escape from poverty.

This study focuses on the young individuals of Mexico who constitute the most vulnerable sector of the Mexican population due to drug-related violence. Intricately involved in the vulnerability of youth is the education system, which has been negatively impacted by the cartel conflicts in several aspects. Mexico's education system suffers from school closures, decreases in teacher and student attendance rates, and lower academic achievement due to exposure and persistence of organized crime. Students who drop out of school or who receive a poor-quality education are more susceptible to getting lured into working for the drug cartels for

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<sup>1</sup>From the Spanish phrase "*Guerra contra el narcotráfico en México*," alternatively Mexico's War on Drugs or the Mexican Drug War.

various reasons. In this investigation, I discuss whether reform within the education system can be effective to protect youth from drug cartel recruitment, despite the challenges it currently faces due to the drug cartels. Existing literature primarily focuses on the ramifications of drug-related violence on the quality of education in Mexico, and therefore, this investigation addresses the need to explore the capacity for schools and educational programs to protect its youth from such violence.

To demonstrate the role of education in deterring youth recruitment into drug cartels, this paper considers the recent history of drug trafficking in Mexico and its effect on education, reasons for youth vulnerability, educational interventions that address these vulnerabilities, and the principal challenges for the education system. First, a discussion of the manifestations and drivers of organized crime in Mexico illustrate the traumatic impacts of the War on Drugs beginning in 2006. The discussion demonstrates how harmful government policies, widespread corruption, and poverty have allowed drug trafficking organizations to increase in influence and in violence. As the key drug suppliers and distributors in the international illicit drug trade, Mexican transnational criminal organizations use their power to gain profits through intimidation and violent crimes. Next, an explanation of the impact of drug cartel violence on the education system portrays the challenges for students and teachers to attend school regularly and complete their education. The structural shift of cartel organization and violence due to the War on Drugs intensified these challenges, threatening students' quality of education and increasing the probability of early dropout among youth.

Historically, education policies to prevent youth recruitment have focused on increasing student enrollment and graduation rates to deter youth from recruitment. However, the structural change of violence caused by the War on Drugs demands proactive measures that address the

root causes of youth vulnerability. Therefore, this investigation demonstrates the need for diverse educational interventions that go beyond increasing student enrollment and reach toward building identity and self-regulation skills among young individuals. Such skills are essential to healthy adolescent development, and they equip youth to overcome the psychological and social challenges caused by drug-related violence. Finally, I summarize the principal challenges to educational reform that aims to protect youth from victimization and recruitment into drug trafficking organizations. I address two examples of programs that combat a particularly pervasive issue, which is the drug cartels' use of propaganda to manipulate the perceptions of youth and broader society about drugs and the culture of drug cartels. Despite widespread challenges to the education system and the increasing aggression of drug cartels, educators and policymakers must persevere in the development of research and educational programs for the sake of Mexico's young individuals, who are the future of Mexico.

### **The Mexican Drug War and Its Effect on Education**

#### *Manifestations and Drivers of the Drug War and Organized Crime*

After about 20 years of declining homicide rates in Mexico, President Felipe Calderón (2006-2012) made a decision that would change the nature of drug cartel violence and its impact on Mexican society for generations. Eight days after taking office in 2006, Calderón declared a "War on Drugs" against the violent network of drug trafficking organizations (DTOs) across Mexico.<sup>2</sup> Utilizing United States intel and the Mexican military (who replaced the police forces), Calderón increased drug seizures and employed a decapitation strategy that would capture or kill

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<sup>2</sup>Nina Lakhani, "Mexico's War on Drugs: What Has It Achieved and How Is the US Involved?" *The Guardian*, December 8, 2016, <https://www.theguardian.com/world/2012/dec/19/mexico-government-condemns-calderon-war-drugs>.

twenty-five of the top thirty-seven drug kingpins.<sup>3</sup> Former Mexican Attorney General Jesús Murillo and many others have criticized Calderón's strategy for intensifying conflict within cartels and spurring on the development of smaller, more violent gangs.<sup>4</sup> From the onset of the War on Drugs in 2006 to the final year of Calderón's term in 2012, the annual number of intentional homicides nearly tripled from 10,452 to 27,213.<sup>5</sup> The Mexican drug cartels are responsible for more than 360,000 murders since 2006, targeting rival drug cartel members, politicians, journalists, and students.<sup>6</sup> Today homicide numbers continue at record levels (28 per 100,000 population in 2020, the 9th highest murder rate in the world) even as President Andrés Manuel López Obrador implements a contrasting "hugs not bullets" strategy by creating job opportunities and employing a military-led national guard.<sup>7</sup> A weak judicial system and widespread corruption among police forces, government officials, and military personnel undermine efforts to reduce or punish drug-related crime.<sup>8</sup> Waves of violence debilitate Mexican society as the network of at least nine DTOs and hundreds of street gangs contest for turf and trafficking routes, split into new groups, and form alliances.<sup>9</sup> Experts link the rise of organized crime and drug trafficking across Mexico to both domestic and international forces.

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<sup>3</sup>CFR.org Editors, "Mexico's Long War: Drugs, Crime, and the Cartels," Council on Foreign Relations, February 26, 2021, <https://www.cfr.org/background/mexicos-long-war-drugs-crime-and-cartels>; also see Lakhani, "Mexico's War on Drugs."

<sup>4</sup>Agencies in Mexico City, "Mexico's War on Cartels Made Drug Crisis Worse, Says New Government," *The Guardian*, December 19, 2012; also see Gabriela Calderón et al., "The Beheading of Criminal Organizations and the Dynamics of Violence in Mexico," *Journal of Conflict Resolution* 59, no. 8 (June 2015): 1349.

<sup>5</sup>Laura Y. Calderón et al., *Organized Crime and Violence in Mexico* (San Diego, CA: Justice in Mexico, Department of Political Science & International Relations, 2019), 38.

<sup>6</sup>CFR.org Editors, "Mexico's Long War;" also see United Nations Office on Drug and Crime (UNODC), "Victims of Intentional Homicide (2010-2020)," UNODC, 2020, <https://dataunodc.un.org/dp-intentional-homicide-victims>.

<sup>7</sup>UNODC, "Victims of Intentional Homicide (2010-2020)."

<sup>8</sup>Brenda Jarillo et al., "How the Mexican Drug War Affects Kids and Schools? Evidence on Effects and Mechanisms," *International Journal of Educational Development* 51 (November 2016): 137.

<sup>9</sup>Carrie Kahn, "Dozens of Candidates Killed ahead of Midterms in Mexico," *NPR*, June 2, 2021, <https://www.npr.org/2021/06/02/1002604368/dozens-of-candidates-killed-ahead-of-midterms-in-mexico>; also see Beatriz Magaloni et al., "Living in Fear: the Dynamics of Extortion in Mexico's Drug War." *Comparative Political Studies* 53, no. 7 (2020): 9.

Also known as transnational criminal organizations (TCOs), Mexican drug cartels and related violence are at the center of a public health and safety crisis for the entire globe. Sinaloa Cartel, the oldest and most influential DTO, operates in about fifty countries.<sup>10</sup> Although Mexico produces most of the methamphetamine, heroin, and marijuana present in the country, drug traffickers transport cocaine from producers in Colombia, through Central America, into Mexico, and eventually to the United States and Europe. Asia is the supplier for most of the precursor chemicals needed by Mexican drug cartels to produce synthetic drugs. China, for example, is the main producer for fentanyl precursor chemicals.<sup>11</sup> (Mexican security forces' seizures of the synthetic opioid fentanyl, with five times the potency of heroin, increased by 486% from 2019 to 2020.<sup>12</sup>) In 2017 alone, the United States spent \$153 billion on illegal drugs, most of which are imported through Mexico.<sup>13</sup> Yet Mexico suffers the greatest effects from the global drug trade, which are exacerbated by persisting drug cartel conflicts, corrupt government and police officials, and poverty.<sup>14</sup> Drug-related violence has serious and lasting effects on Mexico's society, costing hundreds of thousands of lives, lowering the quality of life for many others, and stifling educational and economic growth.

### *Impact of Drug Cartel Violence on Education*

It is critical to consider the Drug War's effect on education, because education not only has the potential to improve human capital and individual returns, but also to create benefits for

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<sup>10</sup>CFR.org Editors, "Mexico's Long War."

<sup>11</sup>Associated Press in Mexico City, "Mexico Security Forces' Seizures of Fentanyl Rise by 486% This Year," *The Guardian*, December 31, 2020.

<sup>12</sup>Associated Press in Mexico City, "Mexico Security Forces' Seizures of Fentanyl Rise by 486% This Year."

<sup>13</sup>CFR.org Editors, "Mexico's Long War." The United States has invested billions of dollars to sharpen Mexican security forces, improve its judicial system, and support developmental organizations that address migration at Mexico's southern border.

<sup>14</sup>Minor Mora-Salas and Gustavo Adolfo Urbina Cortes, "Is There a New Youth Policy in Mexico?" *Journal of Applied Youth Studies* 4, no. 3 (July 2021): 263. As of 2021, 52% of the Mexican population live below the poverty line.

the larger society by reducing the number of youth available to crime and by bringing greater individual security.<sup>15</sup> The drug-related violence that has persisted through various presidential policies has deeply impacted the educational system, teachers, and students. The 1993 compulsory secondary education law in Mexico dramatically decreased homicide rates by 55% from 1993 to 2007.<sup>16</sup> Increased attendance in secondary and tertiary schools created the incapacitation effect (less available time for youth to engage in crime), deterrence (higher economic costs of involvement in crime and benefits of education build patience and risk aversion), and social bonds that weakened negative peer influence.<sup>17</sup> However, the positive impacts of increased school attendance for secondary students that began shortly after 1993 vanished after the onset of the Drug War in 2006. The benefits of school attendance were applicable for interpersonal violence driven by individual motives, but not for Mexico's current state of organized crime and armed conflict between cartels (and between cartels and the state).<sup>18</sup> Calderón's military-led operations and decapitation strategies shifted the organizational structure of the drug cartels to fragment into regional groups that commit more sporadic and more violent crime. During the decade of 2006 to 2016, gang violence centered itself in urban areas and became more spatially clustered with socio-economically marginalized communities.<sup>19</sup> These changes in organized crime groups caused larger negative effects of cartel violence in poor, densely-populated urban areas, where families are more likely to be subject to extortion by the DTOs and have weaker family ties.<sup>20</sup> Families' compromised ability to make a living (due to

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<sup>15</sup>Kristian Skrede Gleditsch, Mauricio Rivera, and Bárbara Zárate-Tenorio, "Can Education Reduce Violent Crime? Evidence from Mexico before and after the Drug War Onset," *The Journal of Development Studies* 58, no. 2 (September 22, 2021): 303.

<sup>16</sup>Gleditsch, Rivera, and Zárate-Tenorio, "Can Education Reduce Violent Crime?," 303.

<sup>17</sup>Gleditsch, Rivera, and Zárate-Tenorio, "Can Education Reduce Violent Crime?," 297.

<sup>18</sup>Gleditsch, Rivera, and Zárate-Tenorio, "Can Education Reduce Violent Crime?," 298.

<sup>19</sup>Jarillo et al., "How the Mexican Drug War Affects Kids and Schools?," 135.

<sup>20</sup>Jarillo et al., "How the Mexican Drug War Affects Kids and Schools?," 136.

extortion and lack of safety) affects parents' investment decisions to their child's education.<sup>21</sup>

The benefits that education has to offer for Mexican society are being undermined by the proliferation and adaptations of DTOs and drug-related crime.

### *A Unique Challenge for Education*

The structural shift of the drug cartels and subsequent escalation of violence has threatened access to education and diminished the quality of education. Fear of crime and victimization of cartel violence forced school closures in eight states from 2019 to 2020, including 104 elementary schools, 51 junior high schools, and 4 high schools.<sup>22</sup> One study estimates that one month of drug-related turf war exposure during the school year causes a 14% reduction in the annual growth of student enrollment.<sup>23</sup> Additionally, drug-related violence causes teacher absences, a loss of instructional time, teacher turnover, student absences, tardiness, and tendency to leave school days early.<sup>24</sup> Not only does exposure to drug-related violence decrease access to school, it also diminishes students' quality of education. In a nationwide study of elementary and lower secondary level schools, persistence and exposure of drug-related conflict reduced academic achievement, with stronger negative effects for lower secondary schools.<sup>25</sup> Environmental stressors of exposure to violence threatens teachers' and students' physical and emotional safety, which causes shorter attention spans, inhibits students' engagement in the classroom, and perpetuates fear.<sup>26</sup> Adolescents are vulnerable to victimization both in and out of school. Particularly in middle schools, students themselves may become

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<sup>21</sup>Jarillo et al., "How the Mexican Drug War Affects Kids and Schools?," 136.

<sup>22</sup>John Zake, "MEXICO'S DRUG WAR AFFECTS EDUCATION," The Borgen Project, September 4, 2022, <https://borgenproject.org/mexicos-drug-war-affects-education/#:~:text=Student%20lateness%20compared%2052.9%25%20to,reduce%20school%20enrollment%20by%2014%25>.

<sup>23</sup>Jarillo et al., "How the Mexican Drug War Affects Kids and Schools?," 144.

<sup>24</sup>Jarillo et al., "How the Mexican Drug War Affects Kids and Schools?," 136.

<sup>25</sup>Jarillo et al., "How the Mexican Drug War Affects Kids and Schools?," 136.

<sup>26</sup>Jarillo et al., "How the Mexican Drug War Affects Kids and Schools?," 135.



involved in gang violence by being negatively influenced by their peers, by seeking friendship, or by force and intimidation.<sup>27</sup> It is critical to understand how drug-related violence affects access and quality of education because these are essential to breaking the cycle of youth involvement in organized crime.

## **Vulnerability of Youth in Mexico**

### *Impact of the Drug War on Mexico's Youth*

Drug trafficking organizations and related criminal violence have had a significant impact on Mexico's youth, who make up one-fourth of Mexico's population (ages 15-29).<sup>28</sup> According to one source, in 2018, the average age of organized crime-related homicides was about 33, challenging the assumptions that most of the Drug War's victims are discontented youth.<sup>29</sup> However, the estimates of older men may be overreported, since they are more likely to consist of deaths among the police force and be influenced by biases from media reports.<sup>30</sup> Between 2006 and 2018, the majority of deaths by homicide were suffered by youths with secondary education.<sup>31</sup> Between 2000 and 2019, 21,000 youths were murdered, 7,000 youths disappeared, and 30,000 youths were recruited into drug gangs.<sup>32</sup> Among the contested research on the effects of the Drug War on the youth population, most scholars agree that youth are the most vulnerable sector of Mexico's population to Drug War violence.<sup>33</sup> The pattern of homicides among youth tend to increase rapidly from ages 10-14 to ages 15-19 (the jump in 2011 alone went from 235 to 2,419 homicides) and continue to increase from 20-24 and 25-29, and then

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<sup>27</sup>Jarillo et al., "How the Mexican Drug War Affects Kids and Schools?," 142.

<sup>28</sup>Mora-Salas and Cortes, "Is There a New Youth Policy in Mexico?," 263.

<sup>29</sup>Calderón et al., *Organized Crime and Violence in Mexico*, 17.

<sup>30</sup>Calderón et al., *Organized Crime and Violence in Mexico*, 17.

<sup>31</sup>Maritza Urteaga Castro-Pozo and Hugo César Moreno Hernández, "Jóvenes Mexicanos: Violencias Estructurales y Criminalización," *Revista de Estudios Sociales*, no. 73 (July 2020): 16.

<sup>32</sup>Mark Stevenson, "In Mexico, Children as Young as 10 Recruited by Drug Cartels," *AP NEWS*, October 14, 2021, <https://apnews.com/article/caribbean-mexico-city-mexico-drug-cartels-6f73f0a2277ea91eb5a39a098238ae6b>.

<sup>33</sup>Castro-Pozo and Hernández, "Jóvenes Mexicanos," 56.

decrease slightly in the next age range.<sup>34</sup> While these statistics do not represent the exact relationship between youth and cartel-related violence, they do demonstrate the widespread vulnerability of Mexico's youth.

### *Youth as Victims and Perpetrators of Organized Crime*

Youth have been the protagonists in the bloody War on Drugs that began in 2006, either as victims or perpetrators, taking different roles in criminal businesses, armed forces, and police.<sup>35</sup> Cartels typically assign youth recruits to drug transport and sales on the streets, then train them for extortion and kidnapping, and finally promote them to become *sicarios* (hitmen).<sup>36</sup> In an interview of youth offenders in three northern border states, 67 of the 89 youths were recruited into the drug cartels between 13 and 15 years old, sometime after they had dropped out of school.<sup>37</sup> Cartels prefer to recruit kids under 18 because they are less noticeable and cannot be given adult sentences.<sup>38</sup> Youth who are not part of a cartel and youth who are buying drugs may be caught in the crossfire between organized crime groups or be captured by cartel security forces who may subject them to beatings, disappearance, or death.<sup>39</sup> Many youth join street gangs as a defensive measure, choosing to become the predator instead of remaining the prey. Gang membership may allow youth to protect themselves and their families from threats from rival members.<sup>40</sup> There are various driving factors and avenues through which youth are victimized by organized crime or become involved in the work of drug cartels.

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<sup>34</sup>Mora-Salas and Cortes, "Is There a New Youth Policy in Mexico?," 16.

<sup>35</sup>Castro-Pozo and Hernández, "Jóvenes Mexicanos," 49.

<sup>36</sup>Anel Hortensia Gómez San Luis and Ariagor Manuel Almanza Avendaño, "Impacto Del Narcotráfico En Jóvenes de Tamaulipas, México: Drogas e Inseguridad," *Revista de Psicología* 34, no. 2 (2016): 466.

<sup>37</sup>Stevenson, "In Mexico, Children as Young as 10 Recruited by Drug Cartels."

<sup>38</sup>Stevenson, "In Mexico, Children as Young as 10 Recruited by Drug Cartels." Mexican law allows sentences for 3 to 5 years for youth offenders, meaning many can be released before they turn 21.

<sup>39</sup>San Luis and Avendaño, "Impacto Del Narcotráfico En Jóvenes de Tamaulipas," 467.

<sup>40</sup>UNODC, *Transnational Organized Crime in Central America and the Caribbean*, 77.

A variant of the territorial organized crime groups in Mexico are the *maras*, street gangs consisting almost entirely of youth.<sup>41</sup> There are about 1,500 street gangs in the city of Juarez alone, which is evidence of the trend of decentralization of larger groups and proliferation of regional gangs.<sup>42</sup> Unlike the typical organized crime groups who ultimately aim for profits, the *maras* are mainly concerned with controlling local affairs, protection from intruders, and gaining money for loved ones. For *marenos* (members of street gangs), territorial control is not necessarily about money, but identity, respect, and belonging.<sup>43</sup> Their identity is oriented around who they oppose, making street gangs hyper-sensitive to insults and symbolic attacks. Conflict is a core aspect of street gangs, who defend their identity and demonstrate control over their territory through acts of violence. Historically, the street gangs did not work closely with drug trafficking organizations, who preferred not to partner with the highly unpredictable, untrained, and impulsive youth of the *maras*.<sup>44</sup> However, the violence of street gangs and their interactions with transnational drug trafficking groups is on the rise.<sup>45</sup> The dramatic surge in homicides in Mexico (300%) between 2007 and 2011 had many implications, including increased alliances between organized drug cartels and street gangs.<sup>46</sup> Drug cartels have expanded their use of street gangs in matters such as drug sales and transportation, kidnapping, extortion, and use of *sicarios*.<sup>47</sup> The mutually beneficial relationship has longevity because of the gangs' use of children and teenagers. Many children begin training in violence at the age of 12 and are experts

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<sup>41</sup>UNODC, *Transnational Organized Crime in Central America and the Caribbean*, 27. In countries with limited educational and economic opportunities, the UNODC considers "youth" to possibly extend into the 20s and 30s.

<sup>42</sup>Patrick Corcoran, "Street Gangs to Replace Cartels as Drivers of Mexico's Violence," *InSight Crime*, January 18, 2012, <https://insightcrime.org/news/analysis/street-gangs-to-replace-cartels-as-drivers-of-mexicos-violence/>.

<sup>43</sup>UNODC, *Transnational Organized Crime in Central America and the Caribbean*, 28.

<sup>44</sup>UNODC, *Transnational Organized Crime in Central America and the Caribbean*, 28.

<sup>45</sup>Corcoran, "Street Gangs to Replace Cartels as Drivers of Mexico's Violence."

<sup>46</sup>Rafael de Hoyos, Gutierrez Fierros Carlos, and Vargas M. J. Vicente, "Idle Youth in Mexico: Trapped between the War on Drugs and Economic Crisis," *Policy Research Working Paper No. 7558*, Washington, DC: World Bank Group, (February 2016): 2, <https://openknowledge.worldbank.org/handle/10986/23885>.

<sup>47</sup>UNODC, *Transnational Organized Crime in Central America and the Caribbean*, 29.

in specialized criminal violence by the time they reach 18.<sup>48</sup> This organizational change in crime places Mexican youth at even greater danger, particularly those that drop out of school early or that have fewer years of education.

### *Driving Factors for Youth Recruitment into Cartels and Gangs*

A combination of economic, historical, and sociological factors increase youth involvement in drug cartels and street gangs. Mexico is one of many Latin American countries that is experiencing the *nini* crisis—the growing number of youth ages 15-24 who neither work nor attend school (from the Spanish phrase “*ni estudia ni trabaja*”).<sup>49</sup> An estimated 1 in 4 men in Mexico are *ninis*, increasing their likelihood of involvement in criminal activities.<sup>50</sup> Though the homicide rates in Mexico are not necessarily correlated with the rate of male *ninis* from 1995 to 2013, the share of *ninis* is significantly correlated with homicide rates between 2007 and 2013, the few years following the onset of the War on Drugs.<sup>51</sup> The government’s decapitation strategy increased conflict as groups struggled to fill power vacuums, creating a demand for new influxes of recruits. Cartels continually need to replace the members that died, and many times the most available group are young people.<sup>52</sup> The economic crisis of 2008 decreased job opportunities, especially for young unskilled workers in northern Mexico, increasing the availability of idle young men. Drug cartels recognize the economic need of most youth and offer a monetary reward in exchange for an “easy job, without risks.”<sup>53</sup> In reality, even the supposedly elementary work of selling and transporting drugs that is typically given to new members involves great

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<sup>48</sup>de Hoyos, Carlos, and Vicente, “Idle Youth in Mexico,” 2.

<sup>49</sup>Rafael de Hoyos, Halsey Rogers, and Miguel Székely, *Out of School and Out of Work: Risk and Opportunities for Latin America’s Ninis* (Washington DC: World Bank Group, January 2016), 1, <https://openknowledge.worldbank.org/handle/10986/22349>.

<sup>50</sup>Calderón et al., *Organized Crime and Violence in Mexico*, 31.

<sup>51</sup>de Hoyos, Carlos, and Vicente, “Idle Youth in Mexico,” 27.

<sup>52</sup>Courtney Farrell, *The Mexican Drug War*, Edina, Minnesota: EBSCO eBook Public Library Collection (North America), ABDO Publishing, (2012): 61.

<sup>53</sup>San Luis and Avendaño, “Impacto Del Narcotráfico En Jóvenes de Tamaulipas,” 466.

risks, and risks such as being captured by security forces or getting assassinated by rival members only increase as the work given becomes more complicated over time. However, because of the economic crisis of 2008, *ninis* had fewer alternatives to involvement in the economic activities presented by the drug cartels, sending Mexico and its youth into a spiral of violence.<sup>54</sup>

The recruitment strategies of the drug cartels exploit the vulnerabilities that are frequently present in adolescents. Drug cartels use a progressive and systematic approach to gain a young person's trust, often using kids to recruit their peers.<sup>55</sup> Youth without fathers are particularly vulnerable because they are looking for a sense of belonging.<sup>56</sup> Drug cartels may recruit kids through drug use, an appeal to religious beliefs, or by offering a sense of belonging. In Brett and Specht's insightful monograph on factors that cause voluntary child soldiers throughout the globe, they found that young men may feel the need to protect and provide for their family or they may have the desire to be important members of their community. Brett and Specht describe a negative twist of identity in which armed groups encourage adolescents to strengthen their own identity by attacking what is different in others, making youth more susceptible to propaganda from armed groups.<sup>57</sup> Additionally, armed groups can have the appearance of invincibility that adolescents desire to have.<sup>58</sup> As adolescents undergo the journey into adulthood, elements such as identity, sense of belonging, and security have a powerful influence on their behavior.

Youth that come from contexts of poverty, abusive homes, and passive schools are especially vulnerable to drug cartel recruitment and related violence.<sup>59</sup> Lower-class youths are

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<sup>54</sup>de Hoyos, Carlos, and Vicente, "Idle Youth in Mexico," 27.

<sup>55</sup>Stevenson, "In Mexico, Children as Young as 10 Recruited by Drug Cartels."

<sup>56</sup>Farrell, *The Mexican Drug War*, 61.

<sup>57</sup>Rachel Brett and Irma Specht, *Young Soldiers; Why They Choose to Fight*, 1800 30th Street, Boulder, Colorado 80301: Lynne Rienner Publishers, Inc., (2004): 31.

<sup>58</sup> *Ibid*, 30.

<sup>59</sup>Stevenson, "In Mexico, Children as Young as 10 Recruited by Drug Cartels."

the most affected by murders carried out by the drug cartels<sup>60</sup> and street gangs consist of mostly marginalized, uneducated youth who are unable to read or drive a car.<sup>61</sup> For the most part, youth who become *ninis* do not intentionally choose that status, but grow up in poor, single-parent households or households of poorly educated teenage parents, causing disadvantages from birth.<sup>62</sup> It is true that the most stigmatized youth are from incredibly poor and deprived neighborhoods and that many of them are involved in organized crime. However, experts affirm that it is ignorant and harmful to assume that youth criminal behavior is simply due to their impulsive decisions and preference for *la vida loca* ("the wild life").<sup>63</sup> As youth search for identity and belonging in their communities, the problem of youth stigmatization by broader society only fuels the drivers for youth involvement in gangs. Importantly, the most impoverished youth are typically the victims, not the perpetrators of violence. The relationship between poverty and crime is complicated, involving individuals, the family, the community, and societal factors. The key to understanding the vulnerability of marginalized youth is the persistent, local presence of organized crime groups. The current generation of youth grew up in the Drug War; it is all they have ever known.<sup>64</sup>

### **Education Practices to Protect Youth**

Research has demonstrated the importance of increasing student enrollment in schools in order to protect youth from criminal activities. Mexico has implemented several interventions to keep its youth in school, and particularly to prevent dropouts from lower to upper secondary school (middle to high school). The Progreso/Oportunidades program, for example, is world-

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<sup>60</sup>Mora-Salas and Cortes, "Is There a New Youth Policy in Mexico?" 263.

<sup>61</sup>UNODC, *Transnational Organized Crime in Central America and the Caribbean*, 29.

<sup>62</sup>Eva Arceo-Gómez, "Becarios, Sí; Ninis, No," *Letras Libres*, February 1, 2018.

<sup>63</sup>Mora-Salas and Cortes, "Is There a New Youth Policy in Mexico?" 264.

<sup>64</sup>Castro-Pozo and Hernández, "Jóvenes Mexicanos," 50.

renowned for its success in increasing education rates and completion, especially among women.<sup>65</sup> Other programs have focused on deferred scholarships, merit scholarships, and drug-education to incentivize school completion and deter students from drug use and criminal activities. Although not all have been as successful as Progresá/Oportunidades, these programs represent past and current efforts to increase student enrollment and to reduce the number of *ninís* in Mexico. As explained previously, the organized, violent, and transnational nature of drug-related violence threatens the classroom beyond the decline of attendance rates. I contend that educators and drug policy experts must pay equal attention to what takes place inside the classroom for the students and teachers living in communities heavily impacted by cartel violence. Furthermore, youth themselves must have a voice in the conversation, as they are the most vulnerable group of individuals to Drug War violence.

The historical background of the War on Drugs and related violence in Mexico, along with its systematic victimization of youth, show the need for a creative response. Government policies and programs to increase student enrollment and school completion are necessary, but they cannot by themselves combat the cyclical aspects of the Drug War that persist through generations. Interventions in education must cooperate to maximize the positive impacts of increased student enrollment by developing students' self-regulatory skills and sense of identity. Schools offer a remarkable opportunity to equip young individuals to resist negative social pressures and to manage the psychological challenges caused by drug-related violence. Intricately involved in the physical violence of the Drug War is the psychological violence suffered by youth, which shapes youth perceptions about the Drug War and their place in it. Drug cartel recruiters will continue to take advantage of the vulnerabilities of disadvantaged

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<sup>65</sup>de Hoyos, Rogers, and Székely, *Out of School and Out of Work*, 33.

youth unless youth are given resources for healthy development from a young age. What follows is a presentation of two types of educational interventions that address the psychological challenges of students in the classroom. Cognitive Behavioral Therapy and self-regulation training are proactive educational interventions designed to ensure quality of education and to equip young individuals for long-term well-being.

### *Strengthening Youth Through Self-Regulation*

Among several root causes for school dropouts among youth that policymakers must pay attention to, scholars mention a lack of motivation, compromised quality of education, and a tendency toward instant gratification of consumption and leisure.<sup>66</sup> These factors are important components of the self-regulatory skills that students must develop to be successful inside and outside of the classroom. Self-regulation includes self-regulated learning, emotion regulation, self-motivation, delay of gratification, and self-socialization. Self-regulated learning includes goal-setting skills such as effective goal setting, the use of appropriate strategies to reach the goal, and self-evaluation, all of which promote academic achievement.<sup>67</sup> The specific age period of adolescence is a critical turning point for the development of self-regulation, as adolescents experience growth in cognitive and social development. Young individuals begin to form adult-like self-regulation that prepares them to make well-informed decisions for interactions with their environment, especially in difficult circumstances. Adolescents develop an adaptive identity that enables them to establish future goals and plan steps to achieve them. Young people who face barriers in self-regulation development such as chronic stress, family and housing instability, and fewer resources have a lower probability of completing goals that have long-term

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<sup>66</sup>de Hoyos, Rogers, and Székely, *Out of School and Out of Work*, 31.

<sup>67</sup>Megan McClelland et al., "Self-regulation," *Handbook of life course health development* (2018): 281.



consequences (such as graduating from high-school).<sup>68</sup> Conversely, research shows that interventions to build youths' self-regulation at one level enhance their self-regulation in other contexts.<sup>69</sup> For example, when youth learn self-regulated behaviors, they are likely to improve in social competence and mental well-being and be less prone to negative factors of development such as substance abuse, risky sexual behaviors, depression, and anxiety.<sup>70</sup> Therefore, strengthening self-regulation for youth living in high-risk environments is particularly important, because youth with adaptive self-regulation skills are better equipped to cope with stressful life situations, less likely to be overwhelmed by difficulties, and more resilient.<sup>71</sup>

To encourage the healthy development of self-regulation in the young individuals of Mexico, the following are two examples of effective school-based interventions. Alcanzando Niños en las Fronteras (Reaching Children Along the United States/Mexico Border) is a psychoeducational program designed to protect about 16,000 marginalized youth and their families along the United States/Mexico Border from the violence due to the Drug War.<sup>72</sup> Youth with a low self-esteem and from low socio-economic backgrounds are more susceptible to drug cartel recruitment and vulnerable to adult criminals who force their participation.<sup>73</sup> Therefore, this three-year program is designed to increase children and families' self-esteem and self-awareness through art therapy, somatic education, autogenic breathing, temperature control for stress relief, and music.<sup>74</sup> Alcanzando Niños en las Fronteras aims to enhance children's cognitive and socio-emotional abilities to encourage a trajectory of productive lives instead of

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<sup>68</sup>McClelland et al., "Self-regulation," 281, 283.

<sup>69</sup>McClelland et al., "Self-regulation," 284.

<sup>70</sup>McClelland et al., "Self-regulation," 281.

<sup>71</sup>McClelland et al., "Self-regulation," 282.

<sup>72</sup>Shari Shamsavari St. Martin, "Alcanzando Niños en las Fronteras (Reaching Children Along the U.S./Mexico Border): A Program for Disadvantaged Children," *Biofeedback* 41, no. 2 (Summer 2013): 66.

<sup>73</sup>St. Martin, "Alcanzando Niños en las Fronteras," 66.

<sup>74</sup>St. Martin, "Alcanzando Niños en las Fronteras," 66.

criminal activity. The program was influenced by the success of the Lomas project, which provided music education to children in a high-crime town (due to drug trafficking and gangs) and trained children in self-expression and self-awareness through art therapy, somatic education, and music education.<sup>75</sup> These interventions transformed the community by increasing children's academic and social performance. Alcanzando Niños en las Fronteras represents the power of early intervention in the promotion of healthy adolescent development and presents promising practices for youth in middle schools.

A second educational intervention that can be implemented to enhance self-regulation among youth is the Shaking Hands Workshop proposed by Rodriguez-Pichardo and Medina. School violence was suffered by 23% of Mexican students in 2019, which is known to cause psychological damage, reduce academic achievement, and increase school dropouts.<sup>76</sup> Shaking Hands Workshop was born from an investigation of the relationship between academic achievement and personal protective factors against violence at the high school level, based on a sample of 4,822 Mexican high school students in Nuevo Leon state.<sup>77</sup> For male and female students in both private and public high schools, an increase in personal protective factors was significantly correlated with a decrease in school violence and improved academic achievement (for mathematics and language and communication).<sup>78</sup> The sixteen-week educational program builds personal protective factors through modules on emotional management (to recognize, understand, label, express, and regulate emotions), empathy (to develop positive networks

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<sup>75</sup>St. Martin, "Alcanzando Niños en las Fronteras," 67.

<sup>76</sup>Catalina Rodriguez-Pichardo and Mario Gonzalez Medina, "Relationship between Academic Achievement and Personal Protective Factors against School Violence," *BPA - Applied Psychology Bulletin (Bollettino Di Psicologia Applicata)*, no. 291 (May 2021): 38.

<sup>77</sup>Rodriguez-Pichardo and Medina, "Relationship between Academic Achievement and Personal Protective Factors against School Violence," 37.

<sup>78</sup>Rodriguez-Pichardo and Medina, "Relationship between Academic Achievement and Personal Protective Factors against School Violence," 40.

among peers), self-regulated learning for academic achievement, and decision-making systems (to identify irrational thoughts and adopt alternative thought patterns).<sup>79</sup> Shaking Hands Workshop is facilitated by a collaboration of parents, teachers, students, administrators, and tutors that are trained in positive psychology and that establish positive norms. By strengthening youths' self-regulation skills, Alcanzando Niños en las Fronteras and Shaking Hands Workshop create environments that enhance the quality of teaching and learning.

#### *Equipping Youth Through Cognitive Behavior Therapy*

Congruent to the benefits of strengthening self-regulation among youth, Cognitive Behavioral Therapy (CBT) is a similar type of intervention that is highly effective and flexible in its application. USAID's field study and systematic meta-review of 43 literature reviews, including over 1,400 studies, evaluated interventions that have been used to reduce community violence in the Americas (especially in the Northern Triangle—El Salvador, Guatemala, and Honduras), the Caribbean, and Europe throughout 1990 to 2015.<sup>80</sup> Of the 30 strategies analyzed, the report determined that CBT is the most versatile and reliable intervention, with a 25% to 52% average decrease in recidivism (likelihood to reoffend).<sup>81</sup> CBT is designed to change youth offenders' deficient patterns of thinking of self-justification, misinterpretation of social cues, blame-shifting, immature moral reasoning, and schemas of dominance and entitlement, among others.<sup>82</sup> CBT assumes that deficient thought patterns in youth are not inherent but correctable through cognitive skills training, anger management, social skills components, moral development, and relapse prevention. Although CBT can exist on its own, it is more effective

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<sup>79</sup>Rodriguez-Pichardo and Medina, "Relationship between Academic Achievement and Personal Protective Factors against School Violence," 46.

<sup>80</sup>Thomas Abt and Christopher Winship, *What Works in Reducing Community Violence: A Meta-Review and Field Study for the Northern Triangle*, Bethesda, MD: Democracy International, Inc. for the U.S. Agency for International Development, (February 2016): 66.

<sup>81</sup>Abt and Winship, *What Works in Reducing Community Violence*, 14.

<sup>82</sup>Abt and Winship, *What Works in Reducing Community Violence*, 21.

when combined with other services such as educational programs.<sup>83</sup>

One exemplary intervention of CBT in youth education is the Becoming a Man (BAM) program in Chicago, which targets 7th through 10th graders during the academic year of public schools. Participants receive weekly group counseling and attend an after-school sports program that implements BAM principles of authentic youth engagement, rigorous CBT counseling, and "men's work."<sup>84</sup> During the time of the program, participants were 44% less likely to be arrested for violent crime, 36% less likely to be arrested for any other crime and were more engaged in school. Participants in grades 9 through 10 were 31% less likely to be arrested.<sup>85</sup> BAM works to reduce "automaticity" (the tendency to act impulsively) by helping youth slow down their thinking, recognize their automatic responses, and reflect on contextual appropriateness of their actions (such as in the after-school sports games). BAM confronts the common precursors to violence, especially anger, lack of respect, and conflict. CBT's role in the transformation of automatic responses is essential for youth in high-risk environments, as they may need to apply these cognitive, social, and emotional skills in everyday life.

Although the Becoming a Man program was applied for youth in the city of Chicago, CBT has been utilized successfully in diverse contexts, even in ones more challenging than the Northern Triangle.<sup>86</sup> The Sustainable Transformation of Youth in Liberia (STYL) program is a CBT-based intervention that resulted in a 20-50% reduction in crime and violence among 999 criminally engaged young men. STYL found the most significant transformation and long-term success in its young participants when they paired CBT intervention with \$200 cash payments

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<sup>83</sup>Abt and Winship, *What Works in Reducing Community Violence*, 21.

<sup>84</sup>Abt and Winship, *What Works in Reducing Community Violence*, 23.

<sup>85</sup>Abt and Winship, *What Works in Reducing Community Violence*, 22.

<sup>86</sup>Abt and Winship, *What Works in Reducing Community Violence*, 24.

for participation, because it increased time to practice and reinforced the training.<sup>87</sup> STYL participants were trained in emotion management and goal setting, and even changed their appearance by improving personal hygiene, haircuts, shaves, and fresh clothing. Finally, the program equipped young men to re-integrate into family and societal networks and into basic life activities such as shopping and banking.<sup>88</sup> The intervention of CBT for troubled youth in Liberia transformed their lives in many different aspects.

A study on the development of CBT across Latin America concluded that the adaptability of CBT transcends language, religion, customs, and moral values. The main challenge of CBT interventions is to continually reaffirm its veracity and to promote its utilization.<sup>89</sup> For example, in Uruguay, where alcohol is the main drug consumed by young individuals, CBT was applied to prevent alcohol abuse among youth. The outcomes of this intervention, which focused on identifying the main beliefs of high alcohol consumption among youth and offered workshops to re-orient these dysfunctional beliefs, demonstrated that CBT intervention is favorable in educational centers.<sup>90</sup> Whether the CBT intervention addresses youth in a Western city, a country North Africa, or Latin America, CBT has the potential to transform damaging thought patterns and to equip youth to develop healthy relationships with self and others. Because of the success and versatility of CBT across countries and in various types of programs, I perceive that implementing CBT in public schools in communities heavily impacted by organized crime may be a powerful avenue to redirect many youths' trajectories.

### **Challenges and Prospects in Educational Reform for Youth**

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<sup>87</sup>Abt and Winship, *What Works in Reducing Community Violence*, 24.

<sup>88</sup>Abt and Winship, *What Works in Reducing Community Violence*, 24.

<sup>89</sup>Carmem Beatriz Neufeld, Karen Priscila Del Rio Szupszynski, Janaína Bianca Barletta, Fredy Alexander Romero, Guillermina Rutzstein, María Celeste Airaldi, Paul Ruiz, and Eduardo Keegan, "The Development of Cognitive Behavioral Therapy: Practice, Research, and Future Directions in Latin America," *International Journal of Cognitive Therapy* 14, no. 1 (2021): 243.

<sup>90</sup>Rutzstein, Airaldi, Ruiz, and Keegan, "The Development of Cognitive Behavioral Therapy," 243.

Thus far this study on the impact of the Drug War on Mexico's youth has examined educational interventions that address the vulnerabilities of youth, especially those that are relevant to adolescent development. Although these school-based interventions to deter youth recruitment show promising benefits, it is essential to consider the major challenges that remain for the education system due to organized crime. Among the thirty-five Organization for Economic Cooperation and Development (OECD) countries, Mexico ranks last in education. Students leave school with the lowest literacy rates, math, and science achievement with many falling short of the basic standards.<sup>91</sup> In addition to causing school closures and lower teacher attendance, teacher extortion by the drug cartels has increased fear among teachers and disincentivized the teaching profession. Since the reorganization of DTOs and the intensification of conflict that began in 2006, cartel groups have tripled their use of teacher extortion as a method to instill fear and demonstrate control over the education system.<sup>92</sup> Government efforts for reform are undermined by corruption within the Mexican teachers' union (SNTE),<sup>93</sup> and at the same time the government continues to cut budgets for education and for the means to carry out its reforms.<sup>94</sup> Among these many challenges is the proliferation of drug cartel propaganda, which aims to control youths' perceptions of drugs and cartel activities.

### *Drug Cartel Propaganda to Recruit Youth*

Mexican drug cartels employ various methods to intimidate communities and to shape youths' perceptions about drugs and cartel culture. After the government instituted more

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<sup>91</sup>Nina Lakhani, "'The help never lasts': why has Mexico's education revolution failed?" *The Guardian*, August 15, 2017, <https://www.theguardian.com/inequality/2017/aug/15/the-help-never-lasts-why-has-mexicos-education-revolution-failed>.

<sup>92</sup>Elisabeth Malkin, "As Gangs Move In on Mexico's Schools, Teachers Say 'Enough,'" *New York Times*, September 25, 2011, <https://www.nytimes.com/2011/09/26/world/americas/mexican-teachers-push-back-against-gangs-extortion-attempts.html>.

<sup>93</sup>Lakhani, "'The help never lasts.'"

<sup>94</sup>Carrie Kahn, "A Mexican Teachers' Strike Turns Deadly," *NPR*, July 9, 2016, <https://www.npr.org/sections/parallels/2016/07/09/485274389/a-mexican-teachers-strike-turns-deadly>.

aggressive policies toward drug cartels, cartel groups quickly developed advanced capabilities of intelligence, extortion, and propaganda.<sup>95</sup> In recent years, cartels in Mexico have promoted a media genre known as Cartel Tiktok to portray an idealized lifestyle of power and extravagance. Videos of fancy cars, police chases, piles of cash, fields of poppies, and semiautomatic weapons have generated hundreds of thousands of views.<sup>96</sup> This type of propaganda targets youth from marginalized backgrounds, who may consider work in the cartels their only practical escape from poverty. While propaganda targeting teen Tiktokers is fairly new, online portrayals of cartel power and an illustrious cartel lifestyle have permeated many media platforms since Mexico's militarization against the drug cartels.<sup>97</sup> Research shows how the news media has reinforced cartel propaganda by paying more attention to the fashion statements of the drug trafficker than the heinous crimes they committed.<sup>98</sup> By promoting a style of dress and receiving fame from the media, drug traffickers are able to transform a criminal to a public figure and a negative story to a normalized event.<sup>99</sup> Through the media, cartels have successfully conveyed their message to youth about why they should become like them.<sup>100</sup> Clearly, the ostentatious presentation of narcotic riches and glorified cartel members disguise a devastating reality of soaring homicides and reveal a manipulative attempt to lure in young individuals seeking financial security and belonging.

Though there is little research about the dissemination of drug cartel propaganda within the education system, it is evident that the Mexican drug cartels are attempting to educate society, especially young individuals, through other means. The pattern of youth involvement in

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<sup>95</sup>America Y. Guevara, "Propaganda in Mexico's Drug War," *Journal of Strategic Security* 6, no. 3 (2013): 132.

<sup>96</sup>Oscar Lopez, "Guns, Drugs and Viral Content: Welcome to Cartel TikTok," *New York Times*, November 28, 2020, <https://www.nytimes.com/2020/11/28/world/americas/mexico-drugs-cartel-tiktok.html>.

<sup>97</sup>Lopez, "Guns, Drugs and Viral Content."

<sup>98</sup>Guevara, "Propaganda in Mexico's Drug War," 144.

<sup>99</sup>Guevara, "Propaganda in Mexico's Drug War," 144.

<sup>100</sup>Guevara, "Propaganda in Mexico's Drug War," 144.

organized crime throughout the world suggests that education can be used to shape the values and attitudes of students, which means that education itself could be manipulated to socialize or politicize youth toward certain groups.<sup>101</sup> Therefore, it is critical to consider the consequences of drug cartel propaganda on the education system and even the potential use of education as propaganda. The school itself can be a push or pull factor.<sup>102</sup> Through their international research, Brett and Specht determined that it is important to consider the point of view of education from the youth and groups in society, who may consider education to be empowering or dangerous. There are two specific educational programs for youth that employ effective strategies to combat cartel propaganda and to value the youth perspective on substance abuse and drug trafficking organizations.

#### *Youth Education Programs to Combat Propaganda*

As part of the Los Angeles-based Foundation for a Drug Free World, Salomon and Lucy Dabbah of Mexico City lead the Truth About Drugs program in Mexico. Rather than using lectures or fear tactics to dissuade youth from substance abuse, Truth About Drugs simply provides youth with straightforward information about the harmful short-term and long-term effects of the most common drugs.<sup>103</sup> As youth are confronted with audiovisual materials (such as documentaries of young former drug users) and printed booklets that present the hard facts about the most common drugs, they are empowered to make decisions based on the truth about drugs rather than the deceptive propaganda of the drug cartels. In 2011 the program began to work with Mexico City's School Safety Unit, in which eighty School Safety officers were sent to

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<sup>101</sup>Brett and Specht, *Young Soldiers; Why They Choose to Fight*, 15.

<sup>102</sup>Brett and Specht, *Young Soldiers; Why They Choose to Fight*, 15.

<sup>103</sup>"Foundation for a Drug Free World: Find Out the Truth About Drugs," Foundation for a Drug Free World, accessed December 8, 2022, <https://www.drugfreeworld.org/about-us/about-the-foundation.html>. Also see Maite Ballesteros, "Drug Education for Kids Can Stop Mexico's Drug War," *Freedom Magazine* 46, no. 3 (September 22, 2014): <https://www.freedommag.org/issue/201410-created-equal/world/drug-education-kids-stop-mexico-drug-war.html>.



distribute and present Truth About Drugs materials to students in middle schools and high schools.<sup>104</sup> Truth About Drugs partnered with the Mexico Ministry of Health in 2014 to schedule drug prevention activities in schools throughout Mexico.<sup>105</sup> This straight-forward type of drug education, which uses multimedia resources and presents high-impact stories of youth themselves, weakens the appeal of the drug cartels toward youth and thereby decreases the available workforce for the cartels.<sup>106</sup>

A second effective strategy to disempower cartel propaganda and protect youth is Catalyst, a comprehensive drug-education program for high school students and teachers living in communities affected by the War on Drugs.<sup>107</sup> As the most vulnerable group to cartel recruitment, marginalized youth are the most affected by harmful drug policies that claim to protect them. Therefore, Catalyst bridges education and drug policy by gathering together marginalized youth from several countries affected by the War on Drugs (including Mexico, Guatemala, Colombia, Peru, Ecuador, and the United States) and placing them at the center of the conversation. In contrast to both traditional and progressive drug education programs, Catalyst encourages youth to consider the broader social and political aspects of drugs, throughout a year-long curriculum and an in-person three-week summer course in Mexico.<sup>108</sup> The Catalyst program guides youth to explore individual questions of personal identity related to the Drug War and effects of drugs on the body as well as broader questions of how the movement of drugs, people, money, and guns affect a community, country, and even

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<sup>104</sup>Ballesteros, "Drug Education for Kids Can Stop Mexico's Drug War."

<sup>105</sup>Ballesteros, "Drug Education for Kids Can Stop Mexico's Drug War."

<sup>106</sup>Ballesteros, "Drug Education for Kids Can Stop Mexico's Drug War."

<sup>107</sup>"Replanteando Las Américas," *CATALYST*, accessed December 8, 2022, <https://www.catalyst-catalizador.org/catalyst-replanteando-las-amicas>.

<sup>108</sup>Theo Di Castri, "Catalyst: Expanding Harm-Reduction Education and Youth Participation in the Context of the War on Drugs," *Journal on Education in Emergencies* 6, no. 1 (October 1, 2020): 178.

continent.<sup>109</sup> From each year's cohort of young participants, a few alumni are selected to join the following year's cohort, establishing a strong youth voice and community. Whereas Truth About Drugs utilizes truthful information to educate and empower youth, Catalyst is an intentionally immersive program that builds a sense of belonging among youth and a source of accountability for taking meaningful actions against the injustice of the Drug War. Both programs are proactive in preventing youth victimization and recruitment into drug cartels and require the participation of youth, teachers and administrators, family, and community.

### **Conclusion**

The tragedies of the Mexican Drug War, the increasing power and violence of drug trafficking organizations, and their systematic victimization of the youth population is an incredibly complex and urgent issue for Mexico. Though several notable weaknesses in the Mexican education system reveal significant challenges for reform, this study presented several examples of tangible steps that educators, policymakers, and the everyday citizen of Mexico can take to protect young individuals. School-based programs must equip youth with self-regulation skills, cognitive-behavioral training, and the ability to think critically about the global impact of drug trafficking. Youth themselves must be given meaningful opportunities to learn about drugs, DTOs, and the Drug War, and be empowered to respond to these global challenges in their local communities. Due to its high ratio of working-age citizens to seniors, Mexico and the region of Latin America is experiencing an incredible 20-year window of developmental opportunity (from 2015 to 2035).<sup>110</sup> If Mexico fails to provide the growing youth population with adequate human capital and labor market opportunities, there may be "irreversible damage to productivity

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<sup>109</sup>Di Castri, "Catalyst," 184.

<sup>110</sup>de Hoyos, Rogers, and Székely, *Out of School and Out of Work*, 6-7. A low dependency ratio historically encourages economic growth and Mexico can take advantage of this by providing high-quality education and job opportunities.

and long-term growth” for Mexico.<sup>111</sup> Providing educational opportunities is a foundational step for the well-being of Mexico’s youth, especially opportunities that target youth vulnerabilities and marginalized communities. However, the transformation of Mexico’s society cannot be isolated to a single population group nor solved by a single institution such as education. Domestic violence, marital problems, and societal discrimination are examples of other social factors that cause instability for young people, causing them to look for alternative sources of social support.<sup>112</sup> Therefore educators, policymakers, and communities must implement diverse interventions in order to protect one generation of youth at a time.

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<sup>111</sup>de Hoyos, Rogers, and Székely, *Out of School and Out of Work*, 7.

<sup>112</sup>Calderón et al, *Organized Crime and Violence in Mexico*, 45.

## **Abbreviations**

BAM	Becoming a Man program
CBT	Cognitive Behavioral Therapy
DTO	Drug Trafficking Organization
TCO	Transnational Criminal Organization
STYL	Sustainable Transformation of Youth in Liberia

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# Wirtschaftswunder: A Macroeconomic Study of Germany

By Connor M. Dollarhite

## Introduction

The country of Germany is a fascinating story of economic perseverance and vitality. In the 20th century alone Germany experienced a rollercoaster of economic turmoil and growth. Through two world wars and the country being split down the middle, economic prosperity in Germany seemed bleak. Despite the odds, in 2021 Germany was the fourth largest economy in the world (Figure 1). How did it get here? Through the impact of influential economists and the perseverance of their ideals of a balanced fiscal budget, maintaining price stability, and always allowing for the flexibility of price and wages, Germany has been able to bounce back and not only survive but also thrive throughout wartime reconstruction<sup>1</sup>, progressing to modern standards, and through the COVID-19 pandemic.

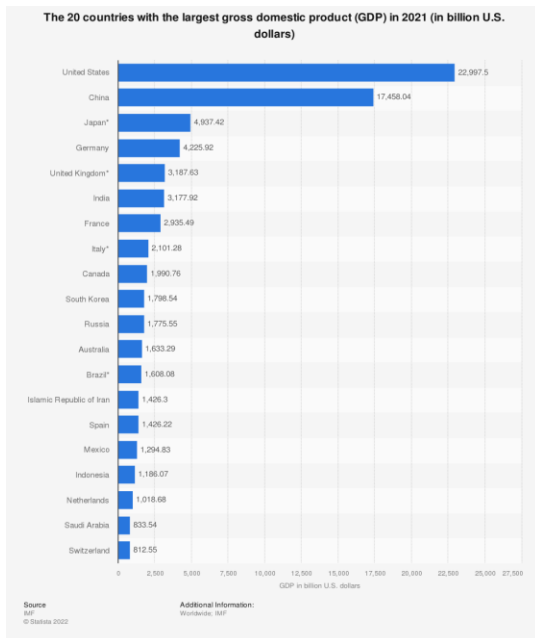


Figure 1. Countries with the Largest Gross Domestic Product (GDP)<sup>1</sup>

<sup>1</sup>Aaron O’Neill, “Countries with the largest gross domestic product (GDP) 2021,” Statista, February 16, 2023, <https://www.statista.com/statistics/268173/countries-with-the-largest-gross-domestic-product-gdp/>.

## **Economic History**

### *Wirtschaftswunder*

After World War I, Germany had suffered tremendous financial and economic impact. Under clause 231, the 'War Guilt Clause', of the Treaty of Versailles, Germany had to accept complete responsibility for the war. This responsibility came with the dismantling of the German national army and navy and a loss of 13% of total land and 12% of total population to the Allies. While these numbers are not staggering, the land that the Allies seized as a result of the admission of guilt was rich with iron and coal. As a result, Germany lost nearly 50% of their iron and coal production. The Allies also demanded severe financial reparations to be paid for their crimes during the war. These payments plunged the already economically suffering country into tumultuous debt. The Treaty of Versailles, combined with the entire world experiencing the Great Depression after World War I, led to Germany experiencing severe hyperinflation, devaluing the currency and making it useless. The political authorities at the time were looking for a scapegoat to blame the economic collapse on and this paved the way for Hitler's rise to power as he placed the blame on the shoulders of the Jewish population and the greed of Western civilization.<sup>2</sup>

Under Hitler's regime, the German economy was manipulated for his own selfish gain. Represented in Figure 2 below, Hitler manipulated the economy to impose price controls on all supplies that contributed to wartime goods. This allowed Hitler to buy war materials at an artificially low price. Doing this created a shortage of supplies for the rest of the country as the factories were locked into their wartime manufacturing to generate as much ammunition and

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<sup>2</sup>"The Aftermath of the First World War," The Wiener Holocaust Library, accessed December 6, 2022, <https://www.theholocaustexplained.org/the-nazi-rise-to-power/the-effects-of-the-first-world-war-on-germany/the-treaty-of-versailles/>.

supplies as possible. Thus, the German population, not the German military, suffered the shortage that resulted from the imposed price ceilings.<sup>3</sup>

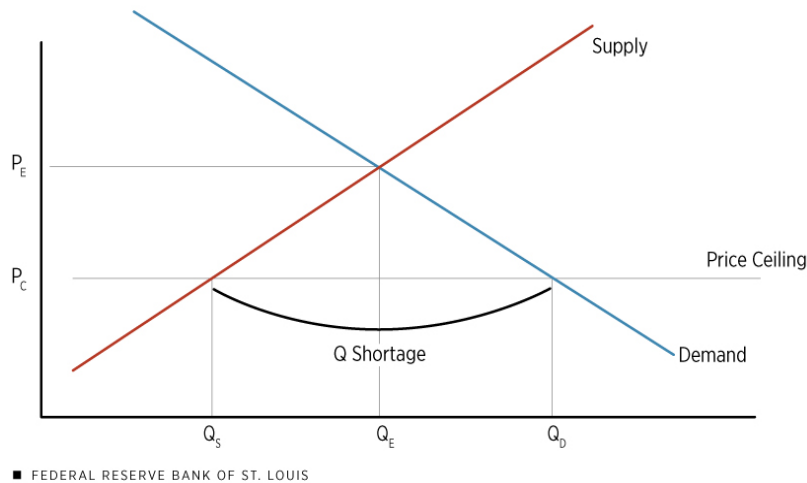


Figure 2.<sup>4</sup>

At the end of World War II Germany experienced a severe lack of infrastructure due to the bombing and destruction they received during the war. The country lacked the physical capital to generate goods at a steady rate. On top of the lack of physical capital, the country lacked labor capital as the population of men and boys was severely low after they had been sent off to war and killed. Real GDP was down by 33% and housing stock was reduced by 20% due to the infrastructure damages.<sup>5</sup> With relatively no supplies, the German economy resorted to food rationing 1,500 calories per person per day. The current German currency, the Reichsmark, became worthless due to the severe inflation the country had experienced.<sup>6</sup> Imposed price controls were still in place making demand high and supply low and there were scarce supplies

<sup>3</sup>Gregory Gethard, "The German Economic Miracle," Investopedia, accessed December 7, 2022, <https://www.investopedia.com/articles/economics/09/german-economic-miracle.asp>.

<sup>4</sup>For more information, see David F. Perkins, "The Science of Supply and Demand," Economic Research, Federal Reserve Bank of St. Louis, March 2021, <https://research.stlouisfed.org/publications/page1-econ/2021/03/01/the-science-of-supply-and-demand>.

<sup>5</sup>Gethard, "The German Economic Miracle."

<sup>6</sup>Gethard, "The German Economic Miracle."

to go around. This led to the emergence of a black market of goods and services. Without any value in the established currency bartering became the primary form of trade, with corporate firms even creating new positions called the "Compensator" to function as a professional bartering liaison between firms to make fair trades.<sup>7</sup> Eventually, the country was split into two halves down the middle of Berlin, the capital, by the Berlin Wall with East Germany under Soviet communist rule and West Germany under Allied capitalist rule.

With such persistent economic turmoil within Germany how did it become the fourth largest economy in the world in just a century after the first World War? Germans call this bounce back the *Wirtschaftswunder* (pronounced virt-shafts-vunder) which translates to the "German Economic Miracle." This can be attributed to many factors but begins with Walter Eucken. During Hitler's regime, Eucken taught at the University of Freiburg which openly taught in opposition to Hitler's political actions.<sup>8</sup> Eucken promoted what he called a "social free market," and his economic philosophies gained much traction during the war when the German citizens were suffering major economic struggles. He and his followers saw that even the wartime production that generated short term stimulus into the German economy was not enough to sustain the country's economy after a few years and advocated for change. This change was the implementation of free market capitalism mixed with government intervention in the form of cartel and monopoly intervention as well as maintaining a welfare safety net for the German population.<sup>9</sup> Eucken also promoted a strong central bank that could monitor the economic climate of the country that was independent of the German government. The entirety of Eucken's economic thought was based on minimal central planning. He held the idea that the central

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<sup>7</sup>David R. Henderson, "German Economic Miracle," in *The Concise Encyclopedia of Economics*, ed. David R. Henderson (Carmel, IN: Liberty Fund, 2007), <https://www.econlib.org/library/Enc/GermanEconomicMiracle.html>.

<sup>8</sup>Gethard, "The German Economic Miracle."

<sup>9</sup>Gethard, "The German Economic Miracle."

government should be as hands-off as possible to let the invisible hand of the free market to run its course. He stated that holding a policy of full employment only leads to the central government getting involved and implementing price controls that would overstep their bounds.<sup>10</sup> He argued that it was the opposite of his opinion, Keynesian demand policies, which brought Germany into financial ruin. To combat this, prices and wages need to return to a flexible state to remove any central planning or price controls. Keynesian economics promotes the theory that economies are not self-stabilizing even with fully flexible prices and will not return to perfect equilibrium if there is no intervention from the central government. Eucken, however, saw the instability of market economies as a result of a destabilizing monetary system and insufficient price flexibility as central planning would interfere.<sup>11</sup> In this way, Eucken is remarkably similar to the economic philosophy of Milton Friedman. Having passed away in 1950, Eucken did not live to see his concepts come to complete fruition after the war had ended, but one of his students, Ludwig Erhard, took up the mantle.

Ludwig Erhard is coined as “the father of the Wirtschaftswunder” and, just like his teacher Walter Eucken, was diametrically opposed to Keynesian economics and the causes of the Great Depression.<sup>12</sup> While Keynes determined that management of demand via central planning must be active and the Great Depression was a result of a lack of intervention, Erhard saw the causes as insufficient wage and price flexibility. Erhard argued the German government post World War II needed to focus on price stability and structural reforms as opposed to focusing on aggregate demand.<sup>13</sup> In this way, you can remove any barriers to a free-market economy and

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<sup>10</sup>Gethard, “The German Economic Miracle.”

<sup>11</sup>P. Bofinger, “German macroeconomics: The long shadow of Walter Eucken,” *Centre for Economic Policy Research*, June 7, 2016, <https://cepr.org/voxeu/columns/german-macroeconomics-long-shadow-walter-eucken>.

<sup>12</sup>Bofinger, “German macroeconomics.”

<sup>13</sup>Gethard, “The German Economic Miracle.”

allow the flexible wages and prices to function as incentive for workers to positively impact the economy through labor, consumption, and investment. After World War II, Erhard collaborated with the Allies to replace the now worthless Reichsmark with a new Allied issued currency called the Deutsche Mark (DM). With the introduction of this new currency, the country of Germany saw a 98% contraction in the money supply.<sup>14</sup> This is due to the vast amounts of Reichsmark that was in circulation due to its extreme devaluing and the new DM is worth significantly more and thus there is less of it in circulation. On top of the introduction of the DM, Erhard introduced large tax cuts to encourage spending and investment.<sup>15</sup> In Figure 3 below you can see the effect of the tax cut on wages and employment moving from point A to point B. After a tax cut, wages and employment both increased, and this is exactly what Erhard knew would happen. When the Allies were in control, they taxed, in the middle tax bracket, the Reichsmark 85% and Erhard lowered it to 18%.<sup>16</sup>

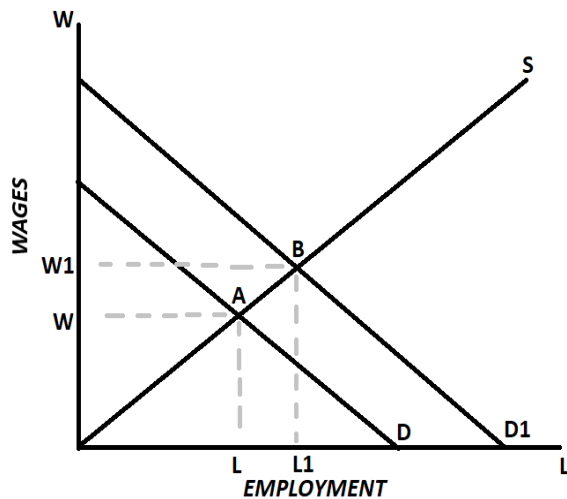


Figure 3. Wages versus Employment.<sup>17</sup>

<sup>14</sup>Gethard, "The German Economic Miracle."

<sup>15</sup>Gethard, "The German Economic Miracle."

<sup>16</sup>Henderson, "German Economic Miracle."

<sup>17</sup>For more information, see Perkis, "The Science of Supply and Demand."

Erhard, contrary to all German and United States advisors, removed the price controls when the new currency was released. This was to allow the free market to dictate its own flexible prices and return to equilibrium supply and demand rather than keeping the harsh ceilings that stifled production of goods to the public.<sup>18</sup> After all this change, Erhard saw the fruits of his labor. Almost immediately shops were booming, bartering ceased, the black market dissolved, and now that the German currency had value, people began looking for work. Yale University economist at the time, Henry Wallich, stated, "The spirit of the country changed overnight. The gray, hungry, dead-looking figures wandering about the streets in their everlasting search for food came to life."<sup>19</sup> The German people now had a sense of belonging and work now that their labor had value and the free market allowed for flexible wages and prices. They no longer used ration cards to purchase food, but rather the DM became the ration card that the German worker found purpose in working for.<sup>20</sup> By the end of 1948, Germany was back to pre-World War II levels and ten years later, the economy had grown by 400% from 1948.

Figure 4 below depicts how the Wirtschaftswunder is not due to the wartime productivity, but rather recovery was due to a turnaround from its economic policy in 1945. The GDP per capita growth in Germany remained below their historical linear trend throughout the years between World War I and World War II and only came close to the trendline during the war productivity boom of the early 1940s. The steep decline in GDP per capita growth at the end of the war is an indicator that the war gain productivity is not sustainable during peacetime. Thus,

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<sup>18</sup>Gethard, "The German Economic Miracle."

<sup>19</sup>Henderson, "German Economic Miracle."

<sup>20</sup>Henderson, "German Economic Miracle."

we can conclude that the period of recovery was in the 1950s and resulted from the turnaround of economic policy in 1945.<sup>21</sup>

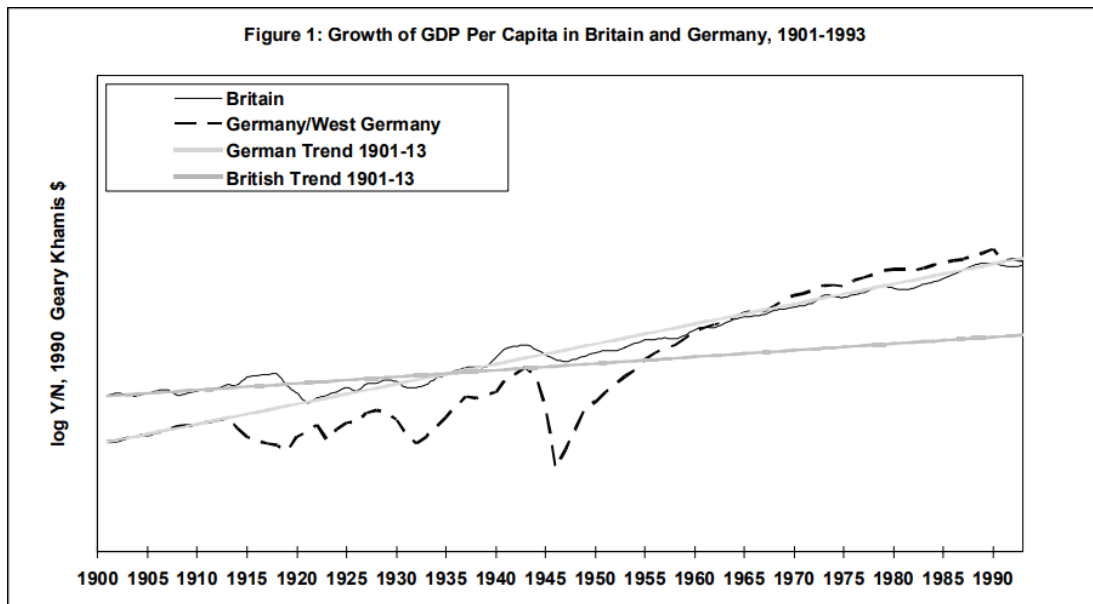


Figure 4. Growth of GDP per capital in Britain and Germany, 1901-1993.<sup>22</sup>

The Marshall Plan also affected Germany during this time. The Marshall Plan was a United States issued program in which they gave aid funds to European countries after the war to rebuild their economies. Many economists have debated the success of the Marshall Plan and if the money given even had a substantial effect. Regarding Germany, the United States gave \$2 billion in aid to help stimulate the German economy, but there is great evidence that the Marshall Plan did not have very much of a part, if any, in the Wirtschaftswunder. Other countries that received substantial aid from the Marshall Plan showed lower growth than Germany, thus indicating another variable to be involved with their tremendous growth. For example, France received 18% of funds granted in the Marshall Plan (while Germany received 11%), implemented Keynesian economic principles that Erhard and Eucken both vehemently opposed,

<sup>21</sup>Barry Eichenbreen and Albrecht Ritschl, "Understanding West German Economic Growth in the 1950s" (working paper, Department of Economic History, London School of Economics, London, 2008).

<sup>22</sup>Echengreen and Ritschl, "Understanding West German Economic Growth in the 1950s."



and saw less economic growth than Germany that can still be seen today.<sup>23</sup> Represented in Figure 5 below is the historical disparity of real GDP between Germany and France. On top of this, directly after the war, the Allies were charging the German government \$2 billion a year for occupation costs in West Germany. In this way, the \$2 billion given to the German government was only returning some of the money they had taken that plunged Germany into deeper economic ruin.<sup>24</sup>

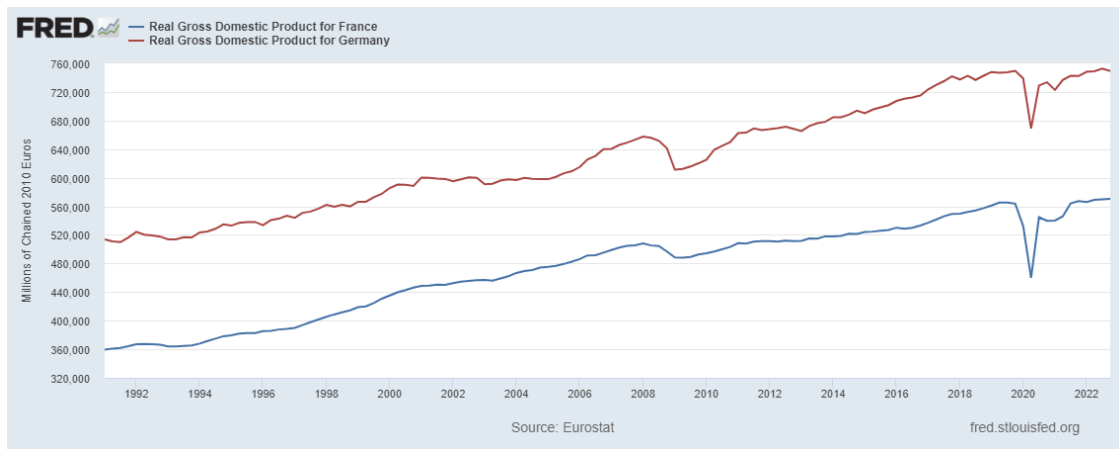


Figure 5. Real GDP France versus Germany.<sup>25</sup>

After all of this, the Berlin Wall still loomed menacingly down the center of the country. West Germany was thriving with this new economic plan and currency developed by the partnership of the Allied forces and Ludwig Erhard, but East Germany, under Soviet rule, was still struggling. This disparity of economic prosperity between the two sides of the country is another example to strengthen the effectiveness of free market trade and Erhard and Eucken’s economic principles as Soviet influences in East Germany pushed out free market trade and flexible wages for a more socialist, monitored economic paradigm. However, in 1989 East

<sup>23</sup>Catherine Shakhdam, *Post-War Recovery and Growth: How France Found Economic Velocity After WW2* (Baghdad, Iraq: Al-Bayan Center for Planning and Studies, 2018), <https://www.bayancenter.org/en/wp-content/uploads/2018/06/978675463.pdf>

<sup>24</sup>Henderson, “German Economic Miracle.”

<sup>25</sup>For more information, see “FRED Graph,” Federal Reserve of St. Louis, accessed April 23, 2023, <https://fred.stlouisfed.org/series/GDPC1>.

Germany allowed free travel to West Germany without legal repercussions, as there had been in the past, and this immediately collapsed the East German economy.<sup>26</sup> All of the laborers and those who were willing to work immediately flocked to the more prosperous West Germany where their labor would mean something. They could finally obtain goods and services of value for their hard work. It was through Erhard and Eucken's principles that economic prosperity and hope for families accompanied the name of "West Germany." Without the proper supply of labor, the wages increased (see Figure 6) to attract more workers, but there was not enough labor capital in the region to sustain their economy. The Berlin Wall fell on November 9th, 1989, and the two halves of Germany were reunited under one free market government and economy. Even over 30 years later, the geographical regions of West and East Germany see output disparity. East Germany still only has 75% of the GDP per capita compared to West Germany.<sup>27</sup>

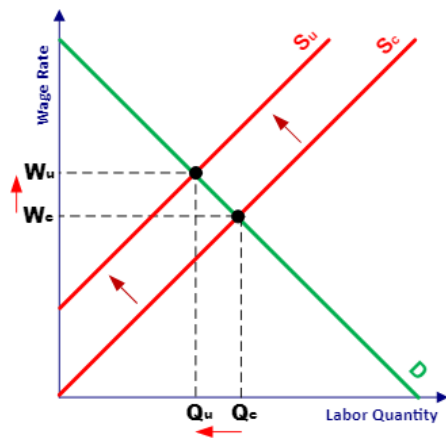


Figure 6. Wage rate versus labor quantity.<sup>28</sup>

<sup>26</sup>Gethard, "The German Economic Miracle."

<sup>27</sup>Gethard, "The German Economic Miracle."

<sup>28</sup>For more information, see Perkis, "The Science of Supply and Demand."

Historical Germany can offer us amazing insight as to what has worked in economic theory. Historical Germany is a prime example of how damaging inflation mixed with price controls and high tax rates can be. Historical Germany is also a notable example of the benefit of ending inflation, removing controls, and cutting high marginal tax rates. These historic examples continue to bleed into the economic prosperity and policy of Germany today.

### *COVID-19 Pandemic: Continued Resilience*

Throughout the COVID-19 pandemic Germany proved to be an economically resilient country through the continued usage of Erhard and Eucken’s core principles of maintaining a balanced fiscal budget, keeping prices stable, and leaving room for the flexibility of price and wages. It was through the usage of these principles that Germany has achieved economic success and stability post-COVID-19. It was greatly beneficial that before the pandemic Germany was situated in an economically prosperous climate. In 2019 Germany was at a 7.1% surplus in their nominal GDP combined with record-low unemployment. This was largely in part due to the high private consumption of German citizens.<sup>29</sup> Germany also continues to embody the spirit of both Walter Eucken and Ludwig Erhard via keeping a government budget surplus via the implementation of the “debt-brake.” The “debt-brake” is a fiscal policy in place within the German constitution requiring the federal government to maintain as little debt as possible.

Eucken and Erhard championed the idea of minimal debt and profitable government investments.

With this tremendous start, Germany’s GDP was not as severely affected by the pandemic compared to its European counterparts. In Figure 7 below you can see that Germany’s GDP, relative to the United States dollar, was much smaller.<sup>30</sup> The GDP in Germany fell by just

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<sup>29</sup>“Economic Policy Reforms 2021: Going for Growth,” *Organisation for Economic Co-operation and Development*, April 2021, <https://www.oecd.org/economy/growth/Germany-country-note-going-for-growth-2021.pdf>.

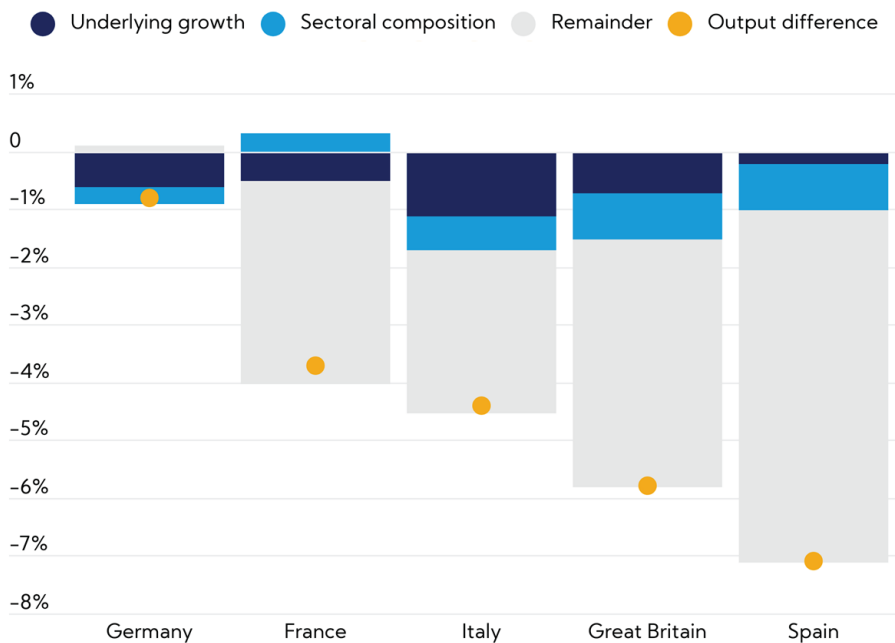
<sup>30</sup>Carlos Caceres, Mai Chi Dao, and Aiko Mineshima, “Beyond the Pandemic: Five Charts on Germany’s Economic Recovery Plan,” IMF Country Focus, International Monetary Fund, July 15, 2021,

under 5% after the lockdown procedures enacted by the German government, and the lowest it ever got was a GDP contraction of 11.3 percent in Q2 of 2020.<sup>31</sup> The German industries that were most affected by the pandemic included tourism, travel, and hospitality (restaurants, hotels, etc.).

### Smaller output loss

Germany outperformed many of its European peers in 2020.

(GDP growth relative to the US)



Source: IMF staff calculations.



Figure 2. Smaller Output Loss: Germany Outperformed Many of its European Peers in 2020.<sup>32</sup>

Within Germany's GDP, the country's net exports fell tremendously. Germany is an export-reliant country with most of the income it receives deriving from exporting goods. Due to the pandemic, Germany's exports decreased significantly, reducing their trade surplus from 20.8

[https://www.imf.org/en/News/Articles/2021/07/13/na071521-beyond-the-pandemic-five-charts-on-germanys-economic-recovery-](https://www.imf.org/en/News/Articles/2021/07/13/na071521-beyond-the-pandemic-five-charts-on-germanys-economic-recovery-plan#:~:text=Germany's%20economy%20contracted%20by%20just,rebound%20from%20the%20first%20wave.)

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<sup>31</sup>"Germany Economic Overview," Market Intelligence, International Trade Administration, June 16, 2021,

[https://www.trade.gov/market-intelligence/germany-economic-overview.](https://www.trade.gov/market-intelligence/germany-economic-overview)

<sup>32</sup>Caceres, Dao, and Mineshima, "Beyond the Pandemic."

billion USD to 4.1 billion USD.<sup>33</sup> Figure 8 below depicts Germany's export heavy economy as well as the significant dip in 2020 and 2021. The import and export trend lines become significantly closer during the pandemic years indicating a severe fall in their normal trade surplus.

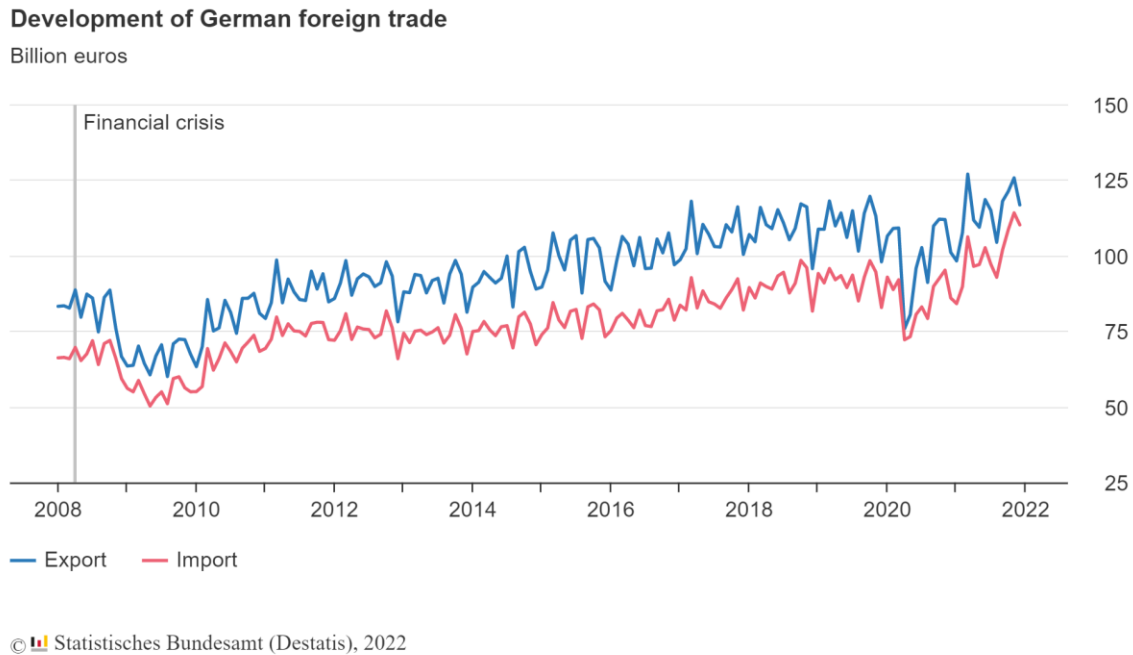


Figure 3. Development of German Foreign Trade.<sup>34</sup>

Germany initiated the Kurzarbeit program which was intended for workers to keep their jobs through the pandemic by allowing an agreement to be made between the employer and employee of a reduction of hours worked and reduction of wages.<sup>35</sup> In return, the worker would not be laid off and would keep his job throughout the pandemic and afterwards. The government would then repay any lost income at a "replacement rate" of 60%. This means that a worker would receive 60% of their pay for the hours they miss due to the agreement, but the worker

<sup>33</sup>"Economic impacts: Statistics related to Covid-19," Statistisches Bundesamt (Destatis), Accessed April 23, 2023, <https://www.destatis.de/EN/Themes/Cross-Section/Corona/Economy/context-economy.html#396818>.

<sup>34</sup>"Economic impacts," Statistisches Bundesamt (Destatis).

<sup>35</sup>Caceres, Dao, and Mineshima, "Beyond the Pandemic."

would still receive full pay for the hours worked.<sup>36</sup> This employment program denies direct fiscal action such as stimulus checks and still gives the free-market economy the reins. This once again echoes the economic work of both Walter Eucken and Ludwig Erhard by trying to deny as much central planning as possible while maintaining price stability and flexibility in a free market economy. If the Kurzarbeit program was not in place, unemployment would have averaged three points higher in every state of Germany.<sup>37</sup> Below in Figure 9, the model shows the average hours paid per worker in Germany since 2008. You can see the significant dip during the COVID-19 crisis window, but it still manages to maintain an average hour paid of around 20 hours a week. This dip is not as severe as other European countries due to the Kurzarbeit initiative.<sup>38</sup>

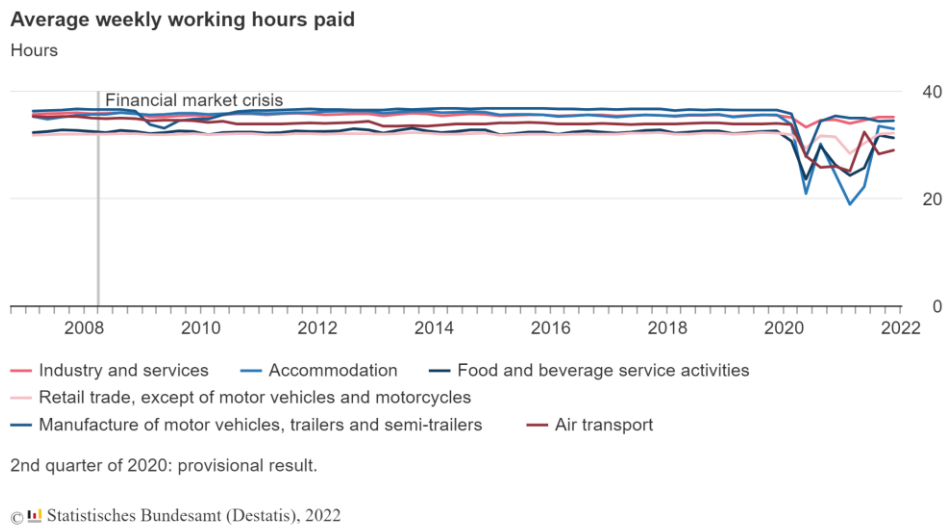


Figure 4. Average Weekly Working Hours Paid.<sup>39</sup>

<sup>36</sup>“Kurzarbeit: Germany’s Short-Time Work Benefit,” IMF Country Focus, International Monetary Fund, June 15, 2020, <https://www.imf.org/en/News/Articles/2020/06/11/na061120-kurzarbeit-germanys-short-time-work-benefit>.

<sup>37</sup>“Kurzarbeit,” International Monetary Fund.

<sup>38</sup>Caceres, Dao, and Mineshima, “Beyond the Pandemic.”

<sup>39</sup>“Economic impacts,” Statistisches Bundesamt (Destatis).

Recovery from the COVID-19 pandemic is slow, but certain. The price-adjusted GDP was 2.6% higher in 2021 than in 2020, but it has yet to reach its pre-pandemic levels.<sup>40</sup> The majority of the country’s economic losses since the start of the pandemic have been due to a slump in private consumer spending and it will take time for consumer confidence to return to normal along with their private consumption.<sup>41</sup> In the meantime, the German parliament temporarily suspended the constitutional debt-brake during the pandemic with a pledge to return to the debt-brake in 2023.<sup>42</sup> This means that in the next couple of years the federal and state governments will set fiscal restrictions as they will need to save money within their government spending in order to pay off the debt. The federal government will be allowed to spend a little over budget, but all state governments within Germany will be forbidden to do so until the debt is paid.<sup>43</sup> This means the government must initiate some sort of austerity policy to repay the COVID-19 debt.

## **The Current Economy**

### *Inflation*

The rise in inflation first began during the COVID-19 crisis. As the government scrambled to put money in the economy, the drastic increase in money supply bolstered the aggregate demand in the short run, but after the pandemic resulted in the Euro losing its value due to inflation. Represented in figure 10 below, an increase in the money supply leads to an increase in aggregate demand, but with real output not changing, we will only see inflation as a result.

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<sup>40</sup>Björn Bremer, “A New Fiscal Policy Regime? Germany’s Fiscal Policy in the Wake of the Pandemic,” American-German Institute, May 31, 2022, <https://www.aicgs.org/2022/05/a-new-fiscal-policy-regime-germanys-fiscal-policy-in-the-wake-of-the-pandemic/>.

<sup>41</sup>Julia Dahm, “Pandemic tears ‘striking hole’ in German economy,” Euractiv, January 24, 2022, [https://www.euractiv.com/section/politics/short\\_news/pandemic-tears-striking-hole-in-german-economy/](https://www.euractiv.com/section/politics/short_news/pandemic-tears-striking-hole-in-german-economy/).

<sup>42</sup>Bremer, “A New Fiscal Policy Regime?”

<sup>43</sup>Bremer, “A New Fiscal Policy Regime?”

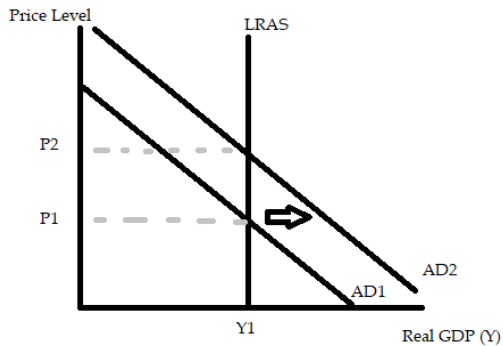


Figure 10. Price Level versus Real GDP.<sup>44</sup>

Right now, inflation and interest rates are both rising. The consumer price index inflation rate saw a 10.4% increase from September 2022 to October 2022 alone.<sup>45</sup> This number is an all-time high since German reunification in 1989. There is a current economic debate within the country as to whether government spending should increase in response. Some say that more government spending on infrastructure is not only less important but only funnels more money into the economy thus promoting inflation. Others say that the German government should spend more to supply the citizens the money they need to get through the inflation and the government spending would function as a cushion against the price increases.<sup>46</sup>

Dr. Georg Thiel, president of the Federal Statistical Office of Germany, states, “Enormous price rises for energy products still are the main reason for the high inflation.” Looking at the energy sector, prices of energy products in Germany have risen by 43% despite the relief measures enacted by the German government.<sup>47</sup> These relief measures included a “9-

<sup>44</sup>For more information, see Perkis, “The Science of Supply and Demand.”

<sup>45</sup>“Inflation rate at +10.4% in October 2022,” Press, Statistisches Bundesamt (Destatis), November 11, 2022, [https://www.destatis.de/EN/Press/2022/11/PE22\\_472\\_611.html#:~:text=Press%20release%20No.,472%20of%2011%20November%202022&text=WIESBADEN%20%E2%88%92The%20inflation%20rate%20in,10.0%25%20increase%20in%20September%202022.](https://www.destatis.de/EN/Press/2022/11/PE22_472_611.html#:~:text=Press%20release%20No.,472%20of%2011%20November%202022&text=WIESBADEN%20%E2%88%92The%20inflation%20rate%20in,10.0%25%20increase%20in%20September%202022.)

<sup>46</sup>Bremer, “A New Fiscal Policy Regime?”

<sup>47</sup>“Inflation rate at +10.4% in October 2022,” Statistisches Bundesamt (Destatis).



Euro-Ticket” which allowed passengers to travel for nine euros per month on local and regional transport in all of Germany and the German government incurs the other costs needed as well as a reduction in the gas and heating tax from 19% to 7%. The “9-Euro-Ticket” program ended in August of 2022. The increase in price of energy related products can be attributed to the large increases of international purchase prices (see Figure 11 below), increase in the country’s CO<sub>2</sub> tax to incentivize the reduction of carbon emissions, the conflict with Ukraine that resulted in German sanctions on Russia limiting their oil and energy imports, and the current Organization of the Petroleum Exporting Countries (OPEC) standards limiting the amount of oil being produced internationally.<sup>48</sup> We have also seen the prices rise in the food industry with supply and delivery bottlenecks being the main cause for this. You can see the individual and cumulative effect of inflation in these industries in Figure 12 below.

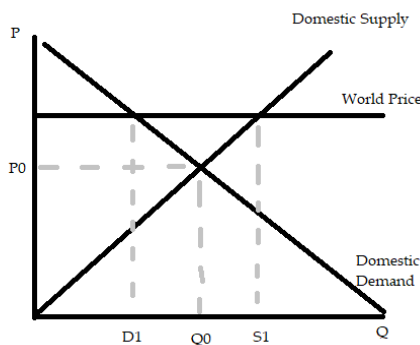
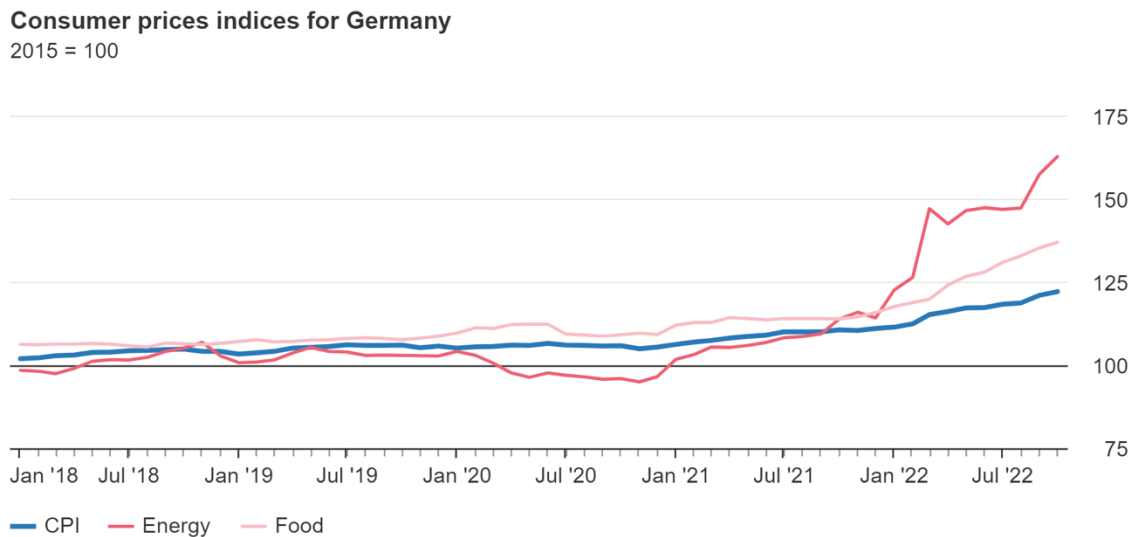


Figure 11. International Price Effects on Price and Quantity.<sup>49</sup>

<sup>48</sup>“Inflation rate at +10.4% in October 2022,” Statistisches Bundesamt (Destatis).

<sup>49</sup>For more information, see Perkis, “The Science of Supply and Demand.”



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Figure 5. Consumer Prices Indices for Germany.<sup>50</sup>

### ***Unemployment***

Germany is currently experiencing an all-time high in employment numbers and a low in unemployment rate. With the unemployment rate hovering around 3%, it is the lowest it has ever been in German history. The record was previously held in 2019 just before the pandemic hit.<sup>51</sup> We can reasonably conclude from this that their unemployment statistics were not heavily crippled by the COVID-19 pandemic and Germany has remained well-employed. This is partially due to the Kurzarbeit laws we discussed in the section above. It was this policy that kept the German workforce employed. The amount of income they were making was severely lowered during the pandemic, but nonetheless, they remained employed. This protected against massive amounts of companies laying off their employees to make ends meet as they no longer

<sup>50</sup>“Inflation rate at +10.4% in October 2022,” Statistisches Bundesamt (Destatis).

<sup>51</sup>“September 2022: employment in Germany at a record high,” Press, Statistisches Bundesamt (Destatis), November 2, 2022, [https://www.destatis.de/EN/Press/2022/11/PE22\\_464\\_132.html](https://www.destatis.de/EN/Press/2022/11/PE22_464_132.html).

needed to pay them as much but could keep them employed to have them after the pandemic was over and business could return to normalcy. Thus, unemployment was unaffected greatly by the pandemic and continues to lower. This makes sense regarding the seemingly inverse relationship that the unemployment rate and inflation rate have. With the unemployment rate already low after the pandemic, the increase in the inflation rate has only pushed the unemployment rate lower. You can view this inverse relationship in the German economy in Figure 13 below.

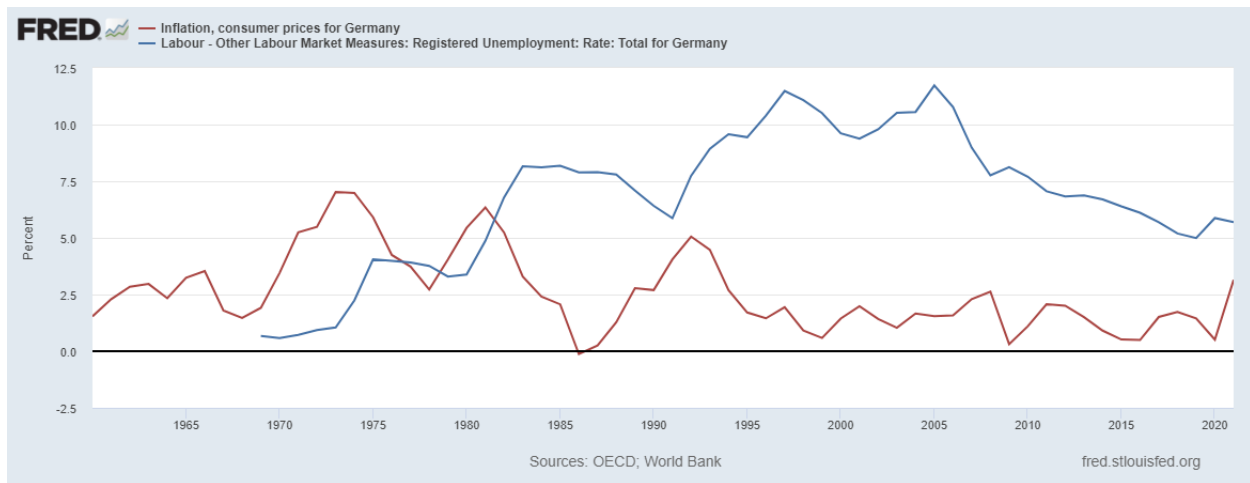


Figure 6. Inflation, Consumer Prices and Labour.<sup>52</sup>

### ***Domestic Factors***

Domestic policy is integral to the economic stability and growth of Germany. In 2016 German Prime Minister Angela Merkel stated that the principles of the ‘Freiburger Schule’ (the school which Walter Eucken taught at) had lost nothing in relevance and importance.<sup>53</sup> The pillars of Eucken’s free-market economic thought still hold true in German economics to this day. These three pillars of domestic macroeconomic policy are a balanced fiscal budget, maintaining price stability, and always allowing for the flexibility of price and wages. You can

<sup>52</sup>For more information, see “FRED Graph,” Federal Reserve of St. Louis, accessed April 23, 2023, <https://fred.stlouisfed.org/series/CLVMNACSCAB1GQDE#>.

<sup>53</sup>Lars P. Feld, “Is German (macro-) economic policy different?” in *German macro: how it’s different and why that matters*, eds. George Bratsiotis and David Cobham (European Policy Centre, 2017), 42-54.

see all three of these pillars in their domestic affairs. The idea of a balanced fiscal budget is clearly prioritized in their "debt-brake" system that has been introduced into the country's constitution that we discussed earlier. By analyzing government spending and investing in profitable investments, the German government always strives to maintain zero government debt. Below in Figure 14 you can see Germany's attempt to always maintain fiscal balances of 0.0 or above.

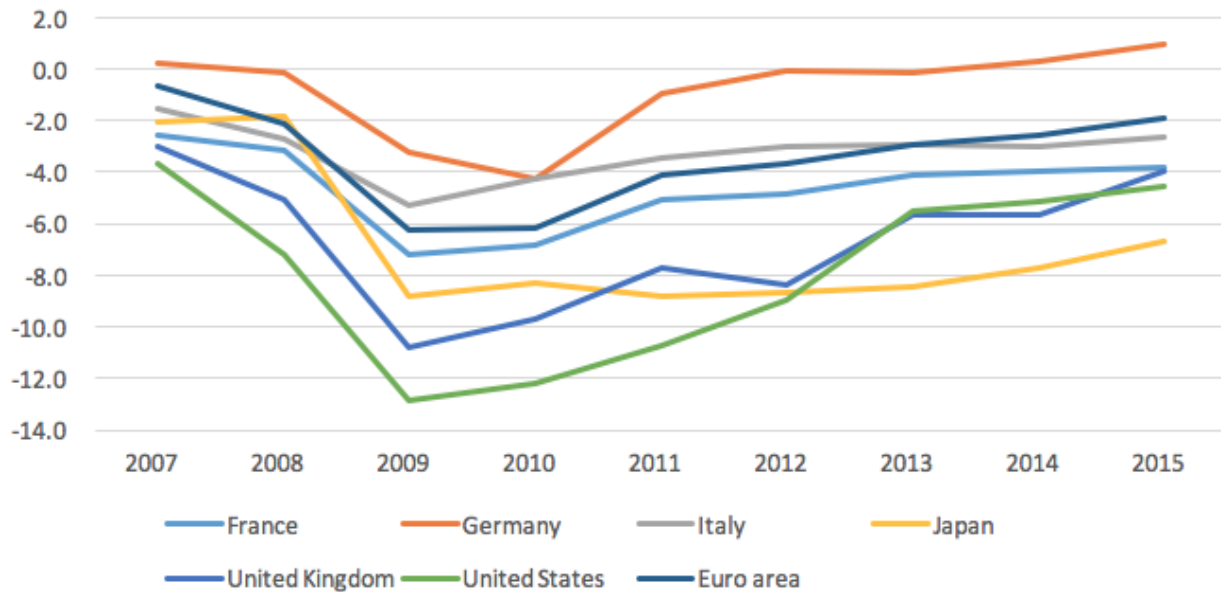


Figure 7. Fiscal Balances as a Percent of GDP.<sup>54</sup>

Price stability is seen via the European Central Bank's commitment to an inflation target of "below, but close to 2%."<sup>55</sup> This sentiment echoes Eucken's theory that inflation destroys "all free types of economic order" and still shapes the German attitude towards monetary policy. Germany continues to promote price and wage flexibility through unemployment fixes such as the Kurzarbeit and even through various wage moderations done through 2000-2007.<sup>56</sup> You can observe these two pillars in Figure 15 below which depicts Unit Labor Cost. It shows that

<sup>54</sup>Bofinger, "German macroeconomics."

<sup>55</sup>Feld, "Is German (macro-) economic policy different?"

<sup>56</sup>Feld, "Is German (macro-) economic policy different?"

Germany, with flexible wages and prices, has maintained their Unit Labor Cost, how much a business pays its workers to produce one unit of output, lower than almost any other country.

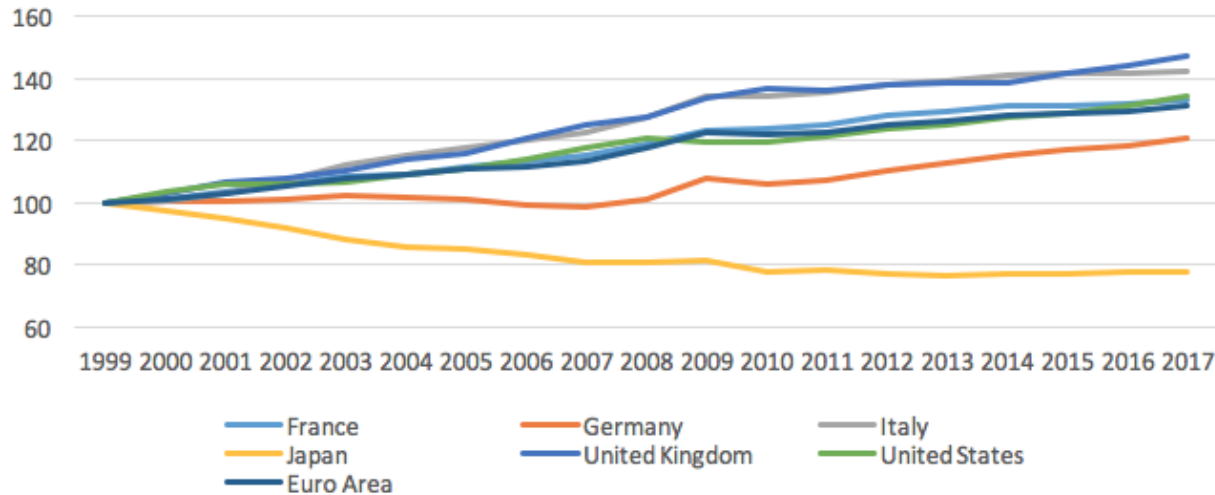


Figure 8. Unit Labor Costs.<sup>57</sup>

### ***International Factors***

Germany has maintained its economic success in part from the success and involvement of other countries. With Germany being an export heavy country, they rely on other countries to purchase their goods.<sup>58</sup> In this way, Germany has a passive macroeconomic policy approach as it strongly benefits from macroeconomic policies pursued in other major countries.

Simultaneously, exports do not take up all of Germany's nominal GDP as you can see in figure 16 below.

<sup>57</sup>Bofinger, "German macroeconomics."

<sup>58</sup>Feld, "Is German (macro-) economic policy different?"

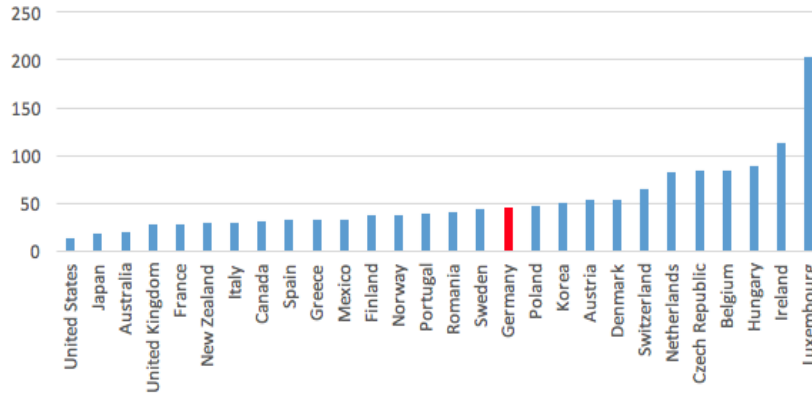


Figure 9. Openness: Exports as a Percentage of GDP.<sup>59</sup>

As we discussed earlier, Germany has been heavily affected due to the world price. Being an export heavy economy, they rely on the world price to dictate a great deal of their income. This also means that they are greatly susceptible to any volatile markets and fluctuations (such as OPEC standards and Ukrainian sanctions) that push prices upwards.

### ***Overall Macroeconomic Performance***

Overall, Germany has become an economic powerhouse in the span of one century. Being the fourth largest economy in the world, it has the free-market and anti-central planning paradigm of Walter Eucken that has propelled it to its current standings. According to the European Commission, the current economic forecasts for Germany state that there will be a growth in GDP by 1.6% in the final months of 2022 but decline by 0.6% in 2023 before recovering by 1.4% in 2024.<sup>60</sup>

According to the United Nations Human Development Index, Germany is a top performer with an average of 14.2 years of schooling and an at-birth life expectancy of 81.3

<sup>59</sup>Bofinger, “German macroeconomics.”

<sup>60</sup>“Economic forecast for Germany: The latest macroeconomic forecast for Germany,” Economy and Finance, European Commission, last update February 13, 2023, [https://economy-finance.ec.europa.eu/economic-surveillance-eu-economies/germany/economic-forecast-germany\\_en](https://economy-finance.ec.europa.eu/economic-surveillance-eu-economies/germany/economic-forecast-germany_en).

which is among the highest in the world. Germany is acquiring human capital both in population and education to bolster the economic growth to come and generate a movement along the aggregate production function curve (see Figure 17).<sup>61</sup>

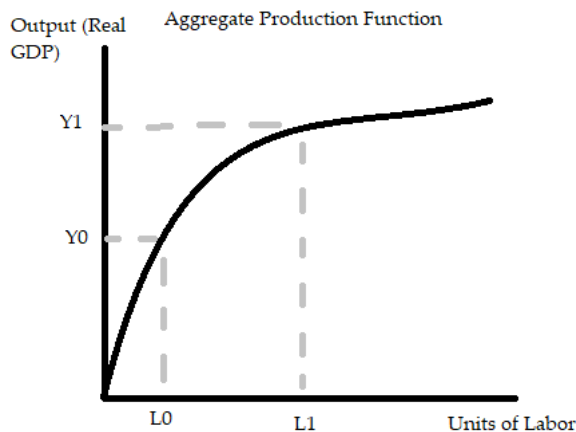


Figure 17. Aggregate Production Function.<sup>62</sup>

In terms of income inequality, Germany’s inequality is lower than most advanced countries in the world. The poorest 20% of households in Germany make up 8.4% of the country’s total income. This means that even the poorest in the country of Germany still have the financial means to survive unlike most other advanced countries.<sup>63</sup>

### ***Current Economic Challenges***

The current economic challenges for Germany come in the form of response to their policies during the COVID-19 pandemic and the Russian war on Ukraine. During COVID-19 the German government acquired a copious amount of debt through their Kurzarbeit and “9-Euro-Ticket” policies as the government picked up the check for the remaining money owed in each of

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<sup>61</sup>“Germany: Macroeconomic Country Outlook,” GlobalData, Accessed April 23, 2023, <https://www.globaldata.com/data-insights/macroeconomic/germany-macro-economic-country-outlook/#:~:text=GlobalData%20forecasts%20real%20GDP%20to,in%20the%20GCRI%20Q4%202021>.

<sup>62</sup>For more information, see Perkis, “The Science of Supply and Demand.”

<sup>63</sup>“Economic Policy Reforms 2021: Going for Growth.”

these situations. With the debt-brake being reinstated in 2023, the government will be running a tight monetary ship with little to no unneeded investment. There will be a squeeze in monetary policy and the state governments will each see a decrease in government spending policy to ensure they do not exceed their proper amount of spending (see Figure 18).

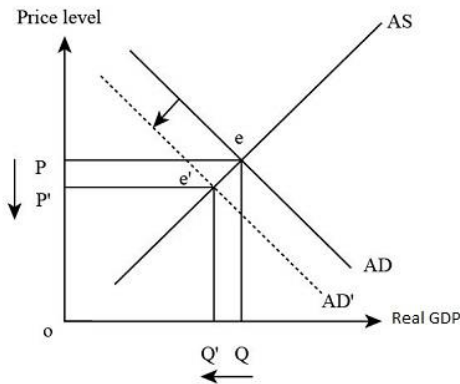


Figure 18. Price Level vs. Real GDP.<sup>64</sup>

Next, Germany will need to decide how to move forward with the sanctions imposed on Russia during the Ukrainian war. Germany has lost 1.5% of all imported oil due to the sanctions.<sup>65</sup> Germany is a member of the European Union as well as the United Nations and must operate within their conduct as well, so there is no telling when or how the sanctions will be released. Until then, we will see energy prices continue to remain high and inflation continue to compound.

In January of 2021 Germany introduced the Renewable Energy Act which is a policy vehicle to achieve Germany's goal of being at zero net carbon emissions via the phasing out of fossil fuels for renewable energy. The government will need to continue to promote this policy and its implications which will come with an increase in spending in the energy sector alone.

<sup>64</sup>For more information, see Perkis, "The Science of Supply and Demand."

<sup>65</sup>"Germany: Macroeconomic Country Outlook."



There is no straightforward way to forecast how this will interact with the return of the debt-brake or the sanctions on Russian oil, but it will be a variable and a struggle for the German economy.<sup>66</sup>

## **Conclusion**

### ***Summary***

Germany’s economic history is a fascinating and exploratory model of what types of economic policy hurt or help the economy. We can look to the historical examples of our past to determine whether or not proposed economic policy will work, and we can clearly see Germany supporting this ideal through the continued usage of Eucken and Erhard’s economic theories that generated the *Wirtschaftswunder*. It is a miracle that not only did Germany survive its dark economic collapse but bounced back and became a nation that thrives. It is through the three pillars of their macroeconomic profile, balanced fiscal budget, maintaining price stability, and always allowing for the flexibility of price and wages, inspired by Eucken and Erhard, that they have maintained their growth initially spurred by these men and will see future growth in the years to come.

### ***Proposed Research***

Now, Germany looks to the future of their economic climate with challenges at their doorstep. Perhaps more research is needed to look into the full ramifications of the Russian sanctions imposed by Germany and their confounding variables. Further insight into the German policy surrounding net zero carbon emissions and how this fiscally impacts both the German government, the German citizens, as well as the other countries around Germany would be a beneficial area of study. To be thorough, there should be a cost-benefit analysis done to weigh

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<sup>66</sup>“Germany: Macroeconomic Country Outlook.”

the prices and outcomes of these policies and how it will affect Germany's output in the short-run as well as the long-run.

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## **The Success of Project Mercury through the Persona of the Mercury Seven**

By Cameron Reagan

A crowd of thousands gathered on the beaches of Cape Canaveral, Florida on July 29, 1960, to witness the launch of the Mercury-Atlas 1 rocket. Unfortunately for the spectators, the rain early that morning had brought with it a heavy cloud cover which would not warrant a good view of the rocket after it ascended into the sky, but eager to see the latest developments of the National Aeronautics and Space Administration (NASA) and the Mercury program, they still waited. At 8:13 a.m., they heard the roar of the boosters and the Atlas rocket slowly rose into the sky, disappearing into the clouds in a matter of seconds. Still listening to the sound of the boosters, the crowds gazed into the sky, hoping for a glimpse of the rocket. Then, one minute after the launch, the rocket exploded, still unseen by the crowds but heard very clearly.<sup>1</sup> Left wondering what happened and what went wrong to cause such a massive explosion, they gradually dispersed, listening to reports on the radio and questioning how the American space program would ever put a man into space before the Soviet Union.

In the early days of Project Mercury (1958-1963), technological failings were commonplace, as NASA's engineers attempted to build a rocket that could lift a one-ton manned capsule into space. Despite the multitude of failures and explosions, the American public remained very optimistic and enthusiastic about the Mercury program, leaving many scholars to question why they would have such faith in a program that had yet to prove itself capable of its objectives. Given the Cold War context of the program, the high stakes of the space race were readily understood by the public, but that does not explain the lack of criticism NASA received

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<sup>1</sup>National Aeronautics and Space Administration, *Post Launch Report for Mercury-Atlas No. 1 (MA-1)* (Washington, DC: Project Mercury Space Task Group, August 2, 1960), [https://tothemoon.ser.asu.edu/files/mercury/mercury\\_atlas\\_1a\\_postlaunch\\_report.pdf](https://tothemoon.ser.asu.edu/files/mercury/mercury_atlas_1a_postlaunch_report.pdf).

given the number of setbacks and failed launches. As all launches were broadcast on national television for the entire country to witness, NASA was unable to cover up any malfunctions that occurred. Despite all of this, the press coverage of the Mercury program remained overwhelmingly positive, depicting NASA as capable and in control of the future of the space race. Working independently of one another, NASA and the press corps portrayed the astronauts with a mythical persona, deemphasizing the technological failings that plagued the Mercury program and presenting a competent and successful space agency. This is evidenced by NASA’s public portrayal of the astronauts, the press’s focus on the men rather than the program, and the comparisons between the astronauts and their Soviet counterparts made by the press.

### **Historiography**

While there is no shortage of literature written about NASA during the Cold War, the overwhelming majority of the historical conversation revolves around the following three topics: the political nature of the space race as an offshoot of the Cold War; the development of flight and technology through the space program; and the impact of the space race on American culture and life.<sup>2</sup>

NASA itself has contributed to the historical conversation through works of “official history” by commissioning pieces written within the organization. The first of these, *This New Ocean: A History of Project Mercury*, was written in 1966, only three years removed from the end of the Mercury program, and goes into great detail about the scientific, technological, and personnel-related aspects of the program.<sup>3</sup> Because it was written so close to the events themselves, it did not have a broad historical perspective, so it did not offer much of an

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<sup>2</sup>Karsten Werth, “A Surrogate for War—The U.S. Space Program in the 1960s,” *American Studies* 49, no. 4 (2004): 565.

<sup>3</sup>Loyd S. Swenson, Jr., James M. Grimwood, and Charles C. Alexander, *This New Ocean: A History of Project Mercury* (Washington, D.C.: U.S. Government Printing Office, 1966), V.

argument. After the end of the Cold War, Roger D. Launius published several articles and books on NASA and Project Mercury specifically through his role as curator of the division of space history at NASA.<sup>4</sup> His work often examined the cultural impact of the program as well as the Cold War dynamic of the space race. Because these works were commissioned by NASA, they offered more insight into the inner workings of NASA that other sources have not had access to previously as they commented on the interaction between the political and cultural components.

Since the end of the Cold War—and several decades removed from the Mercury program—several authors have examined the interplay between the Cold War and the space race and its effect on the American people. Looking at the space race with a greater historical perspective, Howard E. McCurdy’s *Space and the American Imagination* (1997) presented the argument that the space race was a continuation of America’s sense of exploration and adventure that followed from the tradition of manifest destiny and the American West. McCurdy examined the popularity of the space race through the lens of a collective “imagination” and how it was used to shape public policy regarding the space program.<sup>5</sup> Other works that have examined the cultural impact of the space race have brought up the Cold War context as a means of getting investment from the American people, which played into the popularity of the program.<sup>6</sup>

As the space race is inseparable from the Cold War, the third common avenue for historical works on NASA looks at the political nature of the Mercury program as a reaction to early Soviet successes in space. Karsten Werth depicted the space race as the only viable alternative to outright military aggression in the age of nuclear weapons and mutually assured

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<sup>4</sup>Roger D. Launius, “Heroes in a Vacuum: The Apollo Astronaut as Cultural Icon,” *The Florida Historical Quarterly* 87, no. 2 (Fall 2008): 174.

<sup>5</sup>Howard E. McCurdy, *Space and the American Imagination* (Washington, DC: Smithsonian Institution Press, 1997), 4.

<sup>6</sup>Roger D. Launius, *Reaching for the Moon: A Short History of the Space Race* (New Haven, CT: Yale University Press, 2019): 70, <https://www.jstor.org/stable/j.ctvhrcxxz>.

destruction. As the United States and Soviet Union knew that they could not use their newly created nuclear weapons, they used space as the battlefield in which to fight the symbolic fight of technological superiority, or what he called the “surrogate for war.”<sup>7</sup> Other authors have looked at the economic aspect of the space race as a motivation for American politicians to get involved and bolster their support. Gerard DeGroot argued in *Dark Side of the Moon* (2006) that the American government played off of the public hysteria created by the Cold War to strengthen the economy and put money in their own pockets.<sup>8</sup> Without facing outright armed combat, the United States government was able to garner the economic benefits of war without any military action, as the American people were in a wartime mindset and were willing to have their tax money go toward the space race.<sup>9</sup>

While some of the above-mentioned sources discussed to some degree the popularity of the astronauts with regard to the imagination of the public and their level of investment in the program, there has been far less discussion as to why the astronauts held such popularity in the first place. Many other works discuss the popularity of the astronauts as a given without looking at why they were able to achieve and sustain such fame and celebrity status in the face of failure. One aspect which has been largely overlooked by the body of scholarship is the degree to which the fame of the Mercury astronauts was manufactured by NASA to bolster support for a largely unproven space program. Instead of merely assuming that the astronauts were popular by default, it is critical that the popularity of the astronauts be examined through the political, cultural, and economic factors within the context of the Cold War. These factors are best viewed through the body of news reports, ranging from national publications to local newspapers, as they

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<sup>7</sup>Werth, “A Surrogate for War,” 563.

<sup>8</sup>Gerard J. DeGroot, *Dark Side of the Moon: The Magnificent Madness of the American Lunar Quest* (New York, NY: New York University Press, 2006), 63.

<sup>9</sup>DeGroot, *Dark Side of the Moon*, 104.



demonstrate the portrayal and public perception of the astronauts at the time. Rather than viewing the popularity of the astronauts as a mere element of a larger concept, such as political or cultural factors, viewing the popularity of the astronauts as an independent factor provides new insights into the nature of the space race by demonstrating the impact of the narrative that emerged from the press concerning Cold War politics and the space race.

### **Historical Context**

Flight has always fascinated mankind; perhaps it is because flight has been all but unattainable for the vast majority of human history. However, since Wilbur and Orville Wright took the first flight in a "heavier than air machine,"<sup>10</sup> people have looked higher at what man might be able to attain. In 1915, hoping to see what potential they might tap into through flight, Congress established an organization to guide and facilitate future research into flight, thus creating the National Advisory Committee for Aeronautics (NACA). For decades aeronautical technology developed to create crafts that could fly farther, higher, and faster, as NACA worked on projects such as Charles Lindbergh's flight from New York to Paris in 1927.<sup>11</sup> Following World War II, NACA continued the effort to build a faster plane and devoted its attention to jet propulsion, which was viewed as the next step in military aviation, in hopes of exceeding the sonic barrier. This was finally accomplished in 1947 when Captain Charles E. Yeager broke the sound barrier in the X-1 plane, propelled by a rocket engine fueled with liquid oxygen.<sup>12</sup>

The development of the atomic bomb in World War II increased the consequences of NACA's research due to the military application of aeronautical technology, and NACA found

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<sup>10</sup>Swenson, Grimwood, and Alexander, *This New Ocean*, 6.

<sup>11</sup>Swenson, Grimwood, and Alexander, *This New Ocean*, 6.

<sup>12</sup>Swenson, Grimwood, and Alexander, *This New Ocean*, 9-11.

that its staff and budget had both increased by more than ten times since 1939.<sup>13</sup> As the United States realized that its biggest rival following the war would undoubtedly be the Soviet Union, it quickly began the effort to develop military technology more advanced than that of the Soviets, thus developing intercontinental ballistic missiles (ICBMs) which could launch a nuclear warhead from America to anywhere in the world, making the bombing planes used in World War II obsolete.<sup>14</sup> American fears increased exponentially upon the Soviets’ development of a hydrogen bomb, as one *Newsweek* article described a grim picture: “In an atomic attack, the front would be everywhere. Every home, every factory, every school might be the target. Nobody would be secure in the H-bomb age.”<sup>15</sup> Reports such as this brought the possibility of death by a nuclear attack into every home in America, permeating the bleak picture throughout American thought and life. This belief became so entrenched in the minds of Americans that one report showed that the majority of Americans in the 1950s believed that they would be more likely to die in a Soviet nuclear attack than from natural causes.<sup>16</sup> This is important to understand the mindset of Americans entering into the space age, as nuclear warfare was so entrenched in the minds of Americans that it carried over into the motives of space exploration, thus creating the “space race” with the Soviet space program.

With outer space thus far untouched, there was no precedent for the use of, or operation within, outer space, and speculation ran wild as to how the untapped potential might be used as a new military front. Some suggested that satellites be armed with ray guns as well as missile defense systems or spy technology, while others feared that a giant mirror set in orbit may be

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<sup>13</sup>Swenson, Grimwood, and Alexander, *This New Ocean*, 9-11.

<sup>14</sup>Werth, “Surrogate for War,” 563.

<sup>15</sup>“H-Bomb Odds: 1 Million to 1—and That’s What May Save Us,” *Newsweek*, April 5, 1954, 28, quoted in Margot A. Henriksen, *Dr. Strangelove’s America: Society and Culture in the Atomic Age* (Berkeley, CA: University of California Press, 1997), 99.

<sup>16</sup>Werth, “Surrogate for War,” 567.

used as a burning glass. Whatever would become of the new frontier, Americans agreed that it was vital that they reach outer space first to set an advantageous precedent, whether military or peaceful.<sup>17</sup> To allow the Soviets to reach space first would very likely give them a nuclear advantage as it was believed that they would be able to launch nuclear warheads from a satellite. Therefore, when the Soviets successfully launched *Sputnik I* into orbit, and Americans everywhere could hear the “beep-beep-beeping” of its radio signal, the ever-present fear of falling behind in nuclear technology seemingly became a reality.

It was in this context that Project Mercury was created in 1958, with the objectives of achieving orbital flight and the recovery of a manned capsule.<sup>18</sup> Soon after, NASA selected seven military test pilots to be the astronauts for the Mercury program: Donald K. Slayton, Alan B. Shepard Jr., Walter M. Schirra Jr., Virgil I. Grissom, John H. Glenn Jr., Leroy G. Cooper, and Malcolm S. Carpenter.<sup>19</sup> Of the seven men, they were all relatively similar, being married, middle class, Protestant Christians; however, two of them stood out from the others with regards to their personalities. John Glenn and “Gus” Grissom were in stark contrast to each other as Glenn was eloquent and personable whereas Grissom was reserved and spoke very succinctly. Throughout the press conferences that would follow, and the news articles written by these two astronauts, the differences in their personalities were on full display, giving an interesting perspective on the program. Whereas Glenn would offer an articulate and descriptive response to any question given him, Grissom would answer very bluntly, never mincing words or saying more than necessary. Looking at the words of these two astronauts specifically, one would

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<sup>17</sup>Werth, “Surrogate for War,” 566.

<sup>18</sup>Swenson, Grimwood, and Alexander, *This New Ocean*, 111.

<sup>19</sup>National Aeronautics and Space Administration, *Mercury Astronaut Team* (Washington, DC, April 9, 1959) 3, <https://history.nasa.gov/40thmerc7/presscon.pdf>.

answer a question knowing what his audience wanted to hear, and the other would answer it in the most straightforward way he could.<sup>20</sup>

Additionally, the achievements of the astronauts through their respective flights reflected the highest point of the program as well as one of the greatest losses. The sinking of Grissom’s capsule in July 1961 marred the otherwise successful flight, making it difficult for the program to be able to boast in the success. However, Glenn’s successful orbital flight and subsequent landing in February 1962, followed by his parade through Washington, DC, and address to Congress, was in many ways the high point of the program. The dichotomy of these two astronauts offers an interesting insight into the program as a whole and is valuable to understanding the nature of public perception of the astronauts. A closer examination of these astronauts demonstrates the interplay between the news coverage and public perception of the Mercury Program.

### **The Everyman**

On April 9, 1959, Dr. T. Keith Glennan, Administrator of NASA, stood in front of the press in Washington, DC, and introduced the seven astronauts selected to be part of the Mercury program.<sup>21</sup> Unanticipated by all of NASA, the astronauts realized immediate fame and popularity, even receiving a standing ovation from the press in the room. Picking up on their popularity, NASA reinforced their celebrity status by portraying the astronauts as the ideal “everyman”, as if any cross-sectional selection of American men would yield an equivalent group. This image held up among the public as the Mercury Seven were viewed as remarkable, and yet, unremarkable at the same time. At a glance, they were middle-class family men who had

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<sup>20</sup>NASA, *Mercury Astronaut Team*, 9-10.

<sup>21</sup>NASA, *Mercury Astronaut Team*, 3.

served their country during times of war and had similar interests and worries as any other American; however, what distinguished these seven from the rest of America was their willingness and desire to strap themselves to a highly explosive rocket and blast into the most uninhabitable place known to man. The American public was fascinated by what made these seemingly ordinary men volunteer to have such an outrageous job.

The press conference introducing the Mercury Seven was very unremarkable with the astronauts, NASA administrators, and press corps crammed in a plain, tight room asking and answering questions in a monotonous tone. Led by NASA’s director of public affairs, Walter T. Bonney, the pacing of the press conference was slow and clunky. Making the whole situation more clumsy, the astronauts did not even have their own microphone, so to answer a question, they would have to lean over and share one with the man beside them.<sup>22</sup> Additionally, none of the astronauts had any training for handling the press, so the majority of the astronauts—except for John Glenn—kept their answers very succinct and to the point, in proper military fashion. Almost humorously, the two astronauts with the two most opposite personalities sat beside one another as John Glenn and Gus Grissom shared a microphone.<sup>23</sup> Glenn, who was known for being eloquent and comfortable in front of television cameras and reporters, would give long, romantic answers to a reporter’s question and then pass it on to Grissom, whose reserved midwestern roots led him to answer most questions in a single, straightforward sentence and move on.<sup>24</sup> One author commented on the eloquence, or lack thereof, of the astronauts, saying, “They were rocket jocks—intelligent, able men, but not particularly deep thinkers.”<sup>25</sup> Years of

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<sup>22</sup>NASA, *Mercury Astronaut Team*, 3.

<sup>23</sup>George Leopold, *Calculated Risk: The Supersonic Life and Times of Gus Grissom* (West Lafayette, IN: Purdue University Press, 2016), 73.

<sup>24</sup>NASA, *Mercury Astronaut Team*, 21.

<sup>25</sup>DeGroot, *Dark Side of the Moon*, 106.

flying dangerous missions as military test pilots had prepared them for the danger of the Project Mercury missions, but the ordinariness of the men shone through as they attempted to answer the reporters' questions with some semblance of eloquence and professionalism.

To the surprise of the NASA officials and astronauts, the reporters seemed to be far more interested in the personal lives of the astronauts, asking questions about their wives, children, sense of patriotism, and religious convictions, and gladly glossed over the rough edges of the astronauts as they stumbled through the interview. At the heart of the questions, the reporters wanted to know, "What made these men the way they were?"<sup>26</sup> The press did not seem interested in the details of the Mercury program, instead, they probed the astronauts in hopes of finding out what made the seemingly ordinary men so extraordinary. NASA historian Roger D. Launius summed up the reporters' fascination with the astronauts, saying, "The reporters wanted confirmation that these seven men embodied the deepest virtues of the United States."<sup>27</sup> To the American public, the entire space program was pointless if those at the head were not going to be proper representatives of the nation, and they were not disappointed by the humble and intelligent personas of the astronauts.

The popularity continued beyond the first press conference as NASA made a contract with *Time-Life* for the exclusive rights to publish an ongoing series covering the missions and personal lives of the Mercury Seven. This was a controversial move among much of the press as only *Life* had access to the astronauts and their families, and an essential aspect of the contract was that *Life* could not publish anything without the approval of NASA and the astronauts.<sup>28</sup> Since its creation in 1936, *Life Magazine* was intended for the middle class, presenting a visual

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<sup>26</sup>Launius, "Heroes in a Vacuum," 186.

<sup>27</sup>Launius, "Heroes in a Vacuum," 186.

<sup>28</sup>Leopold, *Calculated Risk*, 78.

storytelling experience through stunning photo essays that were highly accessible to the average American.<sup>29</sup> Thus NASA’s contract with *Time-Life* was significant as NASA could effectively present a positive image of the astronauts to the whole nation through one of the highest circulating weekly news publications in the nation.

*Life*’s first article on the Mercury Seven served as an introduction to the program and gave brief descriptions of all the men, accompanied by an image of the seven astronauts in a classroom, dressed in civilian clothes and listening to a lecture.<sup>30</sup> No part of this image screamed of greatness or bravery, yet the astronauts were hailed as such. In an official history of the Mercury program published by NASA in 1966, the authors described the appearance of the astronauts as, “Slightly short of average in stature, they were above average in seriousness of purpose. Otherwise, these seven seemed almost random samples of average American manhood.”<sup>31</sup> The press did not need to create a fantasized image of the astronauts because the American public was so eager to learn everything about the men that they would accept even the most mundane image of the astronauts in a classroom.

The introductory article in *Life Magazine* reinforced the idea of the astronauts as extraordinary-ordinary men by bringing up the flaws and concerns that the astronauts had, not to belittle or demean them, but to show that they were, in many respects, average men. However, in doing so, it raised the point that their greatness came from their ordinary lives, as the only difference between them and the rest of the population was their occupation. The article gave a laundry list of the mundanity of the astronauts, saying, “Two of the four cigaret [sic] smokers in

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<sup>29</sup>Sheila Webb, “The Consumer-Citizen: “Life’ Magazine’s Construction of a Middle-Class Lifestyle Through Consumption Scenarios,” *Studies in Popular Culture*, 34, no. 2 (Spring 2012): 23, 25, <https://www.jstor.org/stable/23416397>.

<sup>30</sup>“The Astronauts—Ready to Make History,” *Life Magazine*, September 14, 1959, 26-27, <https://books.google.com/books?id=BUoEAAAAMBAJ&lpg=PA26&pg=PA26#v=onepage&q&f=true>.

<sup>31</sup>Swenson, *This New Ocean*, 160.

the group are trying—so far unsuccessfully—to stop. Two others are worried about their weight. They are concerned about the condition of the grass in their yards and proper schooling for their children.”<sup>32</sup> What made the astronauts so extraordinary in the public eye was not their achievements or elegant lifestyle—for they hadn’t yet flown any missions for NASA and their lifestyles were anything but elegant—rather, it was their willingness to excel in service and bravery when the opportunity arose. In many ways, the astronauts represented the American ideal of a humble man who would answer the call to serve the nation when the need arose.<sup>33</sup>

Furthermore, the *Life* articles written by the astronauts played into the image of the Mercury Seven through the language used to describe the program and their specific duties within. In each essay, the men were very careful to credit the engineers and administrators involved in the process of each flight, bolstering the democratic spirit of the nation. Likewise, they described the complex procedures and engineering feats in layman’s terms, again reinforcing the idea that they were ordinary people, just like every other American.<sup>34</sup> This created a complex paradox where the astronauts were depicted as supermen—exceptional men performing brave and daring exploits for the glory of God and country—yet simultaneously, they were represented just like every other ordinary American with families and ordinary lives.

The contract with *Life* also bolstered this as the “everyman” persona of the astronauts was reinforced by their appearances in the very magazine that ordinary Americans read. Rather than appearing in high-brow publications only accessible to a distinct group of elites, the astronauts lived in the middle-class homes of everyday Americans through *Life*’s photo essays. It followed that the reader couldn’t help but feel that the astronauts were cut from the same cloth as

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<sup>32</sup>“The Astronauts,” *Life*, 27.

<sup>33</sup>Launius, “Heroes in a Vacuum,” 191.

<sup>34</sup>M. Scott Carpenter, Gordon Cooper, John Glenn, Virgil I. Grissom, Wally Schirra, Alan B. Shepard, and Donald K. Slayton, *We Seven* (New York, NY: Simon and Schuster, 1962).



themselves, as though any cross-sectional observation of the American populace would find men and women as intelligent, patriotic, and God-fearing as these men and their families. In his biography of Gus Grissom, George Leopold described how one aspect of the selection process for the Mercury program would be a persons' ability to be "good heroes;" the humble intelligence of the Mercury Seven, portrayed through the issues of *Life Magazine*, prepared them perfectly to live out this role.<sup>35</sup>

While the seemingly mundane aspects of the astronauts' lives played into their popularity, the American public was also fascinated with the courage of the men, both as military test pilots as well as in their future endeavors in space. This is evidenced in a letter received by John Glenn from a nun in Buffalo, New York, who said, "This atomic generation can use your vocabulary. We hope and pray they absorb as reality the manly traits you display. You represent the 'American Image' we wish them to portray in their adult lives. A man's real achievement is the conquest of self. On that score we agree that Colonel Glenn is truly 'Go'."<sup>36</sup> Glenn received over 300,000 letters throughout the Mercury program containing people's thoughts on him or the program.<sup>37</sup> Comprising a significant percentage of the letters to Glenn were children who were fascinated by Glenn's endeavors in space and wrote with questions about space or Glenn's opinions on any number of topics. Many of the letters ranged from requests like, "Can you come to my house for dinner next Friday?" to questions such as, "If you had to go to the bathroom while you are in flight, what would you do?"<sup>38</sup> These rather mundane letters spoke to the accessibility of the astronauts to the American public, as they were held up as the ideal figures to

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<sup>35</sup>Leopold, *Calculated Risk*, 64.

<sup>36</sup>John Glenn, *Letters to John Glenn* (Houston, TX: World Book Encyclopedia Science Service, 1964), 3.

<sup>37</sup>Glenn, *Letters to John Glenn*, xii.

<sup>38</sup>Glenn, *Letters to John Glenn*, 26, 29.

be emulated due to their bravery, but they were also ordinary enough for people to feel that they could write a personal letter to them.

Similarly, one of the talking points for the astronauts in their articles in *Life* was always their military experience, either in combat or as a test pilot, and how it had prepared them for the Project Mercury missions.<sup>39</sup> The popularity of the astronauts was twofold, both in the ordinariness of their lives and in the distinct belief that the capsules would explode with the astronauts in them, thus the daring nature of the astronauts held high popularity.<sup>40</sup> Following this, *Time Magazine* wrote an article detailing Glenn’s military service in both World War II and the Korean War. The article described how Glenn had flown several missions with famous Red Sox left fielder Ted Williams, who said of Glenn, “The man is crazy.”<sup>41</sup> This played into the daring and bold persona of the astronauts that NASA wanted to portray—the very type needed to go into space—yet to the public, Glenn was still personable and likable, so he did not seem too different from the rest of the American public.

When the Project Mercury astronauts were first introduced to the public, the Mercury program—and NASA itself—was in its infancy and did not have any successes on which to hang its hat. The press, seeing the twofold predicament of the Soviet victories in space and American technological blunders, was not reassured by the optimistic front put up by NASA. This skepticism came out in the introductory press conference as well as in various articles written about the astronauts. The first of the *Life* articles (September 1959) written on the Mercury Seven introduced the mission in a very matter-of-fact way, saying that if the astronaut was successful in his mission, he would be lauded as an American hero, but if he died, the next man

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<sup>39</sup>“You Just Don’t Have Time to Get Frightened,” *Life Magazine*, September 14, 1959, 39, <https://books.google.com/books?id=BUoEAAAAMBAJ&lpg=PA26&pg=PA26#v=onepage&q&f=true>.

<sup>40</sup>Leopold, *Calculated Risk*, 78.

<sup>41</sup>“Space: The Man,” *Time Magazine*, March 2, 1962.

up would take his place.<sup>42</sup> Articles such as this demonstrated the belief that the Mercury program was virtually unproven and may be unsuccessful at the potential cost of the astronauts’ lives.

The unproven nature of Project Mercury was made clear in a question during the initial press conference when one reporter asked the astronauts about what they were “hanging onto.” When asked to clarify further, he said, “My feeling was that you men are obviously risking your lives. We all of us hang onto something as we go through life and feel that if we are risking our lives, it is worth it. And also, those who have a religious bent feel that if things don’t go right that religion takes care of that. I would like to know if any of you have a religious, a strong religious feeling.”<sup>43</sup> In essence, the reporter asked the astronauts how they had made peace with themselves to volunteer for this mission with such a small chance of success. This question was echoed in an article from *The Indianapolis Star* in 1959, asking, “What prompts a man to volunteer for such an ordeal?”<sup>44</sup> These questions didn’t merely probe at the bravery of the astronauts, instead, they were attempts to understand the existential motivations of the astronauts as they had put their lives in the unproven hands of a government space agency.

One factor that played into the immediate popularity of the Mercury Seven was the existence of the American “imagination” of space, which was created largely by the emergence of popular space science fiction stories such as Buck Rogers or Flash Gordon.<sup>45</sup> Whether or not they believed in the plausibility of space exploration, the American public already had a developed image of what they believed it would look like, so the first demonstrations that space exploration would become a reality—such as the unveiling of the Mercury Seven—stirred great

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<sup>42</sup>“The Astronauts,” *Life*, 26.

<sup>43</sup>NASA, *Mercury Astronaut Team*, 16.

<sup>44</sup>“Hoosier on Space Trip List,” *The Indianapolis Star*, April 10, 1959.

<sup>45</sup>McCurdy, *Space and the American Imagination*, 30.

emotion and excitement in the public's eye. The astronauts themselves admitted to having shared in this imagination, relating it to an age-old desire and curiosity to look up and be able to touch the stars.<sup>46</sup> The astronauts' fascination with space served to endear them further to the American public, as the descriptions of their desires to go to space were so simplistic, yet full of childlike curiosity, that the public was drawn to them.

Going beyond science fiction, the collective imagination of space also drew from the nation's history regarding manifest destiny, as if space as the "new frontier" was the next outlet to be explored and conquered, like the American West in the century before.<sup>47</sup> This kind of entitlement drew widespread investment by the public before there was a realistic understanding of the space program, which played a role in the actual formation of policies regarding the Mercury program. In order to draw full cooperation from the American public for an expensive, and thus far unproven, space program, NASA purposefully connected the astronauts to the cultural tradition and imagination of exploration that already existed among the American public.<sup>48</sup> While the instant popularity of the astronauts was not anticipated by NASA, the administrators quickly picked up on it and used it to their benefit by shaping the public image of the astronauts to depict the embodiment of American ideals and virtues. The "hard-living, hard-drinking" image of military test pilots was breezed over, leaving only the clean-cut, patriotic image portrayed by the seven men as they revealed their ordinary qualities and concerns about the length of the grass in their lawns.

The apparent innocence of the astronauts, coupled with their boldness in the face of danger, hailed back to pioneer aviators such as Charles Lindbergh, to whom they were

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<sup>46</sup>"The Astronauts," *Life*, 28.

<sup>47</sup>McCurdy, *Space and the American Imagination*, 4.

<sup>48</sup>McCurdy, *Space and the American Imagination*, 2.

compared.<sup>49</sup> As their mission followed the great American tradition of exploration and discovery, their bravery and honor from years of service in the military were lauded with a kind of reverence by the American public. In a letter to John Glenn, one woman wrote, "This letter is to thank you, John, for offering up your life so willingly for your country.... You wrote on our hearts in indelible ink that will not fade in a life time [sic]."<sup>50</sup> The letter invokes very religious language by referring to the acts of bravery and heroism performed by Glenn as well as the impact he left on those who watched his flight. Similar to the comparisons to American pioneers and explorers, the astronauts' experiences as test pilots, pushing the limits of speed and excitement, brought to mind the heroes of automobile racing, perhaps the most popular sporting event at the time.<sup>51</sup> Tangentially, less than two weeks after Gordon Cooper's Mercury-Atlas 9 flight in May 1963, he attended the Indianapolis 500 and even asked to drive one of the race cars around the track; a few years later, he would spend his free weekends working on the pit crew of one of the racers.<sup>52</sup> To these men, speed and danger was a part of their lifestyle, and the American public loved it. The combination of the astronauts' exploration, military service, and bravery, along with their humble curiosity, endeared them to the public long before the Mercury program showed any evidence of being successful.

### **Surrogate for War**

When the Mercury program was created in 1958, NASA was in a desperate situation as it struggled to play catch-up with the Soviet space program; however, by using the public's fascination with the astronauts and the subsequent fame of the Mercury Seven, NASA directed

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<sup>49</sup>Launius, "Heroes in a Vacuum," 175.

<sup>50</sup>Glenn, *Letters to John Glenn*, 13-14.

<sup>51</sup>Glenn, *Letters to John Glenn*, 13-14.

<sup>52</sup>Will Higgins, "When 2 Mercury Astronauts Tried to Keep Their Indy 500 Entry Under Wraps," *The Indy Star*, May 24, 2017, <https://www.indystar.com/story/life/2017/05/16/when-2-mercury-astronauts-tried-keep-their-indy-500-entry-under-wraps/100878104/>.

the public eye to the competence of the astronauts and away from the technological failings of the space program. The nature of the space race was such that the United States took the mindset of “if you’re not first, you’re last.” The stakes of the race were high, with the leader holding the upper hand in nuclear superiority.

Lagging the Soviet Union in the space race was a significant concern for the United States space program and the country. It wasn’t just a matter of saving face, rather it was perceived as a battle for the survival of democracy. The space race affected all aspects of American life including the economy as the American stock market experienced the largest one-day loss in two years after the successful launch of the Soviet satellite *Sputnik I*—simultaneously, shares in rocketry companies surged.<sup>53</sup> The significance of the space race was not merely an aspect of American imagination or technological competition but was viewed by the populace as a fight for survival. Offering a more skeptical opinion, Gerard DeGroot argued that the perception of the space race was manufactured by the governmental and economic leaders of the country to create public hysteria that would help put money in their pockets.<sup>54</sup> While it is true that the American public was much more willing to part with their money when they viewed it as necessary for the survival of the nation, the political leaders were equally as concerned about the outcome of the space race as the citizens, including President Dwight Eisenhower, who saw military advancement and national prestige as inevitable in space exploration.<sup>55</sup>

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<sup>53</sup>Degroot, *Dark Side of the Moon*, 63.

<sup>54</sup>Degroot, *Dark Side of the Moon*, 63.

<sup>55</sup>United States. Department of State Historical Office, and Library of Congress, “News-Conference Remarks by President Eisenhower, October 9, 1957,” Legislative Reference Service. 1963. *Documents on International Aspects of the Exploration and Use of Outer Space, 1954-1962*. 88th Cong., 1st Sess. Senate: Document, No. 18. Washington: U.S. Govt. Print. Off. 59.

As they appeared to be behind the Soviets, NASA attempted to save face by pushing the narrative that they were working more methodically, and thus slower, to ensure the safety and success of the astronauts. Gordon Cooper wrote about this mindset in one of his articles in *Life Magazine*, describing NASA’s approach as logical and scientific, as opposed to the Soviets, who rushed ahead with no concern for the safety or longevity of the program.<sup>56</sup> To a degree, this was true, as the approaches of the Soviet and American space programs were very different. The Soviets advanced at a faster pace because they built off previous successes, however, this also put a ceiling on their ability to succeed in the long run because they were working with old technology that had been adapted multiple times. The American approach was slower and required more resources, but it was also more diversified, making it easier to adjust and advance as time went on.<sup>57</sup> Cooper’s argument was meant to counter any doubts about the Mercury program by reassuring Americans that any perceived delays or setbacks were merely the result of NASA’s careful scientific process rather than any inadequacy of the program itself.

While NASA attempted to calm the fears of Americans about their position in the space race, United States officials were worried that too many unanswered Soviet victories in space might cause neutral countries in the Cold War to side with the Soviets.<sup>58</sup> President Eisenhower remarked on this issue early in the space race, describing it as a “great psychological advantage”<sup>59</sup> for the Soviets to have launched the first satellite into orbit. As he had been skeptical of the significance of space exploration as a means of national defense, Eisenhower

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<sup>56</sup>Gordon Cooper, “First Rocket We Will Ride,” *Life Magazine*, October 2, 1960, 82, <https://books.google.com/books?id=ykQEAAAAMBAAJ&lpg=PP1&pg=PA78#v=onepage&q&f=false>.

<sup>57</sup>Launius, *Reaching for the Moon*, 122.

<sup>58</sup>Werth, “Surrogate for War,” 571.

<sup>59</sup>Quoted in Werth, “Surrogate for War,” 571.

was less concerned about the space race than other United States officials.<sup>60</sup> When Soviet cosmonaut Yuri Gagarin successfully orbited the Earth on April 12, 1961, the fear of falling behind the Soviets became a definite reality which was left unanswered until John Glenn orbited the earth in the *Friendship 7* ten months later.<sup>61</sup> As a result of the high stakes of the space race, it had a very high entertainment value and was marketed to the public as light propaganda.<sup>62</sup> Universal newsreels, short news clippings shown in theaters before each feature film, showed the Soviet space successes alongside American failures, accompanied by a narration that spoke of the uphill battle with which NASA was faced, creating a fear that the United States was outmatched by their rivals.<sup>63</sup> With this in mind, the public furor was extremely high, not because of any desire to further scientific research through astronautics but rather because the popular newsreels and press coverage of the space race punctured the nationalistic pride of Americans.<sup>64</sup>

The press found that they did not have to seek out or invent scandal within the space program to hold public investment; instead, the national competition with the Soviets made it such that the public would cling to any positive aspect of the American program. As the greatest achievement of the Mercury program through the first three years of its existence was the selection of the seven astronauts, the American public clung to the triumph of the personality and character of the Mercury Seven. The contemporary historical account of the Mercury program

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<sup>60</sup>Dwight D. Eisenhower, *Public Papers of the Presidents of the United States: Dwight D. Eisenhower* (Washington, D.C.: U.S. Government Printing Office, 1958). Cited in United States, *Documents on International Aspects of the Exploration and Use of Outer Space, 1954-1962*, 42.

<sup>61</sup>Launius, *Reaching for the Moon*, 78.

<sup>62</sup>Werth, "Surrogate for War," 573.

<sup>63</sup>Universal Pictures Company, "Newsreels: 1961 Year in Review - Headlines," January 1, 1962, [https://www.buyoutfootage.com/pages/titles/pd\\_nr\\_007.php#.Y1dgKOzMJQJ](https://www.buyoutfootage.com/pages/titles/pd_nr_007.php#.Y1dgKOzMJQJ).

<sup>64</sup>Swenson, Grimwood, and Alexander, *This New Ocean*, 109.



described this unproven celebrity status, saying, "They were lionized by laymen and adored by youth as heroes before their courage was truly tested."<sup>65</sup>

Although Eisenhower was initially reluctant to label participation in space exploration as a space race, T. Keith Glennan, administrator of NASA, suggested in a letter to the president that the United States lean into the idea of a "space race" rather than avoiding the topic altogether. In doing so, Glennan said, the two countries could establish the confines of the "race", thus removing any military aspects from it and minimizing the threat of nuclear war.<sup>66</sup> Eisenhower, as a military man who experienced firsthand the effects of the Japanese attack on Pearl Harbor, viewed space very pragmatically as a means of defending the United States from possible military threats, not as the next exploratory adventure for mankind.<sup>67</sup> With this in mind, Eisenhower began a long string of communication with Soviet Premier Nikita Khrushchev in which both leaders described their mutual desire to keep space a non-militarized zone.<sup>68</sup> But by eliminating the military component of space exploration, Eisenhower inherently emphasized the significance of the space race as a "surrogate for war", thus creating a social and technological battle of appearance with the Soviets.

Following the newly defined scope of space exploration, technological breakthroughs in the respective countries' space programs were given exponentially more significance as the public correlated them to the competence and superiority of their political system and leaders; conversely, technological failures also seemed to represent an inherent weakness in a nation's political system.<sup>69</sup> This placed extreme pressure on NASA to perform and, subsequently, made

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<sup>65</sup>Swenson, Grimwood, and Alexander, *This New Ocean*, 165.

<sup>66</sup>T. Keith Glennan, *The Birth of NASA: The Diary of T. Keith Glennan* (Washington, DC: NASA History Office, 1993), 27, <https://history.nasa.gov/SP-4105.pdf>.

<sup>67</sup>McCurdy, *Space and the American Imagination*, 59.

<sup>68</sup>*Documents on International Aspects of the Exploration and Use of Outer Space, 1954-1962*, 57.

<sup>69</sup>Werth, "Surrogate for War," 568.

the setbacks of the early days of the program look very bleak. The first three years of the Mercury program were plagued with delays and malfunctions which cost an exorbitant amount of money and left nothing to show for it. The news coverage which had been overwhelmingly positive couldn't help but question the future of the program, as was evidenced by an article from *Time Magazine*, published in December 1960 titled "Lead Footed Mercury." This followed NASA's most recent failure on November 21, 1960, of the Mercury Redstone 1 (MR-1), in which the rocket launched a mere five inches off the ground only to settle back on the pad. Due to an electrical malfunction, the escape rocket launched without taking the capsule with it, and with painfully comedic timing, the parachute blew from the top as if it were the cork on a champagne bottle. The article described the MR-1 as the latest in a string of failures that had "just about evaporated the last faint wisp of hope that the U.S. might put a man into space before Russia does."<sup>70</sup> It went on to discuss NASA's multitude of postponements as the intended date for a manned orbital flight had been delayed over two years and had cost \$350 million (\$3.5 billion by 2022 value)<sup>71</sup> with nothing to show for it.<sup>72</sup> While articles like this were the exception among the overwhelmingly positive press coverage, it demonstrated the fact that a look at the technological accomplishments of the space program would not yield a positive result, and a positive view would have to come from a different source.

Looking at the economic side of the space program, the labor effort required to build the rockets and capsules caused a sudden demand for employment in factories across twenty-five states, which meant that the American populace would be immediately invested in the space

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<sup>70</sup>"Lead-Footed Mercury," *Time Magazine*, December 5, 1960, <https://content.time.com/time/subscriber/article/0,33009,895065,00.html>.

<sup>71</sup>"Value of 1960 US Dollar Today," Inflation Calculator, InflationTool, <https://www.inflationtool.com/us-dollar/1960-to-present-value?amount=350000000&year2=2022&frequency=yearly>.

<sup>72</sup>"Lead-Footed Mercury," *Time*.

program as it created hundreds of thousands of jobs. In his economic analysis of NASA’s space programs, Gerard DeGroot noted, “At factories spread over twenty-five states, they welcomed the big contracts that would give them steady employment for the next few years. That’s exactly the way NASA wanted it. Eventually, hundreds of thousands of workers scattered all over the United States would learn to love the space program for the simple reason that it put food on the table.”<sup>73</sup> While DeGroot’s analysis was critical of NASA, it appeared that he was the product of the very thing he criticized, as the book’s dedication was made out to his father, “a great craftsman who kept us fed by building rockets.”<sup>74</sup> If the rockets were not initially successful, NASA made sure that its image was protected twofold by the nation’s need for heroes in the astronauts and the need for economic stability.

From the beginning of the Mercury program, there was an understanding that the technology had a long way to develop before there would be any manned flights. To begin with, NASA’s engineers were tasked with modifying the Air Force’s Atlas rockets so that they would be able to reliably lift the weight of the space capsule. Reliability was the initial issue, as the Atlas rockets were originally designed for ICBMs, so a missile that exploded in the air had significantly fewer consequences than a rocket carrying an American astronaut. Whereas the success rate for a missile did not have to be 100%, there was never any question that the manned rocket must be successful.<sup>75</sup> While there were many indications of the engineers’ uncertainty about the rockets, including the emphasis put on designing the escape rockets, the *Life* articles helped bolster support and faith in the program by allowing the public to hear from those most closely affected by the success or failure of the rockets. Anna Glenn, the wife of John Glenn,

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<sup>73</sup>DeGroot, *Dark Side of the Moon*, 103.

<sup>74</sup>DeGroot, *Dark Side of the Moon*, 103.

<sup>75</sup>Swenson, Grimwood, and Alexander, *This New Ocean*, 183.

wrote an article in 1959 that described the perception of NASA from the perspective of the astronauts' families, and she expressed complete faith in NASA despite the few "bugs" and minor mistakes that had happened.<sup>76</sup> In reading this article, the thought immediately comes to mind that if the very wives of the astronauts were confident in the safety of their husbands, there should be no reason for concern. Contrasted to the introductory press conference in which many of the questions alluded to the fact that the astronauts could very likely die on the missions, the articles from the astronauts' wives instilled confidence in the space program.

By 1961, NASA was finally ready to begin manned flights, though it had lagged the Soviet launches by several months. While it appeared to have survived the worst days of malfunctions with the unmanned flights, the high stakes of having an astronaut in the rocket added additional pressure to the needed success of the mission. NASA's previous efforts to build an aura of competence by personalizing the astronauts now came into play as the entire nation watched the launches with anticipation. As one historian described, "By promoting the astronaut corps, agency advocates and media leaders were able to reduce complex technical issues to personal values such as bravery and patriotism. The first group of astronauts was remade into the embodiment of American values in such a way that few wanted them to fail."<sup>77</sup> When the rockets went up, the entire idealism of America was riding with the men in the capsule.

During the manned flights, NASA was careful to depict the astronauts as having complete control over the spacecraft, no matter what may arise, as the narrative of their competence was an important reflection on the space program itself. Technological failings were typically kept from the public when possible to promote a stronger belief in NASA as an

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<sup>76</sup>Anna Glenn, "Seven Brave Women Behind the Astronauts," *Life Magazine*, September 21, 1959, 142, <https://books.google.com/books?id=u0gEAAAAMBAJ&lpg=PP1&dq=life%20september%2021%201959&pg=PA142#v=onepage&q=life%20september%2021%201959&f=false>.

<sup>77</sup>McCurdy, *Space and the American Imagination*, 88.

organization, but when the hatch on Gus Grissom’s *Liberty Bell* capsule prematurely blew after it had landed in the Atlantic Ocean and all of America watched on national television as Grissom nearly drowned, NASA was left to scrap together its public image while choosing either to blame or defend Grissom for the mishap. In the ensuing story from *Life Magazine*, Grissom gave a detailed account of the procedures leading up to MR-4 and the events of the flight, including the incident which caused the hatch to detonate and the capsule to sink into the ocean. The account heavily emphasizes the routines and processes that Grissom naturally followed from training as a test pilot and astronaut and how he was very cognizant of his actions and movements leading up to the mishap.<sup>78</sup> This was meant to counter any question of Grissom’s composure, as the article brings up the fact that Grissom asked the recovery helicopter to hold off for several minutes so he could perform a final check of the instruments in case they were affected by the recovery process.<sup>79</sup> Had NASA not defended Grissom against claims of incompetence, the American public would be left questioning both the astronauts and the program itself, leaving NASA with no silver lining; however, by defending Grissom, NASA showed the American people that they could still trust the astronauts to be successful in their missions.

Due to *Life’s* deal with NASA, it was not unexpected that their coverage of the incident defended Grissom; however, the rest of the press, those that were not directly connected to NASA, still depicted the events in a very sympathetic manner by painting NASA as the victim of bad luck. *Time Magazine* described the *Liberty Bell* capsule as “a functioning—if not always perfect—vehicle” that was sunk by the unforgiving Atlantic Ocean.<sup>80</sup> This was the same

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<sup>78</sup>Carpenter et al., *We Seven*, 224-228.

<sup>79</sup> Virgil S. Grissom, “It Was a Good Flight and a Great Float,” *Life Magazine*, July 28, 1961, <https://books.google.com/books?id=nlQEAAAAMBAJ&lpq=PA4&dq=life%20july%2028%201961&pg=PA27#v=onepage&q=life%20july%2028%201961&f=false>.

<sup>80</sup>“Saga of the Liberty Bell,” *Time Magazine*, July 28, 1961, <https://content.time.com/time/subscriber/article/0,33009,938191-1,00.html>.

magazine that had harshly criticized NASA for wasting money just eight months prior. One newsreel from *Universal Studios* epitomized this, saying, “Unlike the Russians, who have never given any advance billing to their attempts and no information on their failures, the United States has invited representatives of all nations to witness our success or failure.”<sup>81</sup> This set up the description of the blown hatch and subsequent sinking of the capsule in a sympathetic light, even describing the incident as a “heartbreaking tragedy”, while also challenging the Soviets to greater transparency.<sup>82</sup> One newspaper report from Grissom’s home state of Indiana, printed the evening after the flight, wasn’t overly positive toward the success of the mission but still celebrated Grissom, describing how the governor of Indiana signed a proclamation declaring the day of his flight “Gus Grissom Day,” showing the immense popularity of the astronauts and the pride held by their hometowns.<sup>83</sup> While Grissom’s flight did yield valuable data and information for NASA, the loss of the capsule was viewed by the organization as an avoidable mishap that turned a victory in space into a failure.

Contrasted to Grissom, whose success was largely diminished due to the sinking of the capsule, John Glenn’s orbital flight represented the high point for the Mercury program, despite having some minor malfunctions of its own. In his retelling of the *Friendship 7* flight in *Life Magazine*, Glenn described the procedures that he went through as well as how his training had prepared him for anything that may have arisen.<sup>84</sup> As a testament to the competence of the astronauts, one newspaper lauded the fact that Glenn took manual control of the spacecraft after

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<sup>81</sup>Universal Pictures Company, “Universal Newsreels, Release 60,” July 24, 1961, [http://ezproxy.taylor.edu/login?url=https://search.alexanderstreet.com/view/work/bibliographic\\_entity%7Cvideo\\_work%7C1787214?account\\_id=25244&usage\\_group\\_id=90659](http://ezproxy.taylor.edu/login?url=https://search.alexanderstreet.com/view/work/bibliographic_entity%7Cvideo_work%7C1787214?account_id=25244&usage_group_id=90659).

<sup>82</sup>Universal Pictures Company, “Universal Newsreels, Release 60.”

<sup>83</sup>“Grissom Has Narrow Escape; Craft Sinks,” *The Palladium-Item*, July 21, 1961, 1.

<sup>84</sup>John Glenn, “If You’re Shook Up, You Shouldn’t Be There,” *Life Magazine*, March 9, 1962, 29, <https://books.google.com/books?id=RIUEAAAAMBAJ&lpg=PP1&pg=PA25#v=onepage&q&f=false>.

there was an issue with the automatic system, using language about how Glenn was “firmly in command.” This same article minimized any issues with the capsule itself, the most significant being NASA’s concern that the heat shield may have malfunctioned, leaving Glenn vulnerable to being burned alive when reentering the atmosphere.<sup>85</sup> Even when the life of the astronaut was believed to have been in danger due to a failure of the capsule, the press coverage—including those unaffiliated with NASA—remained focused on the capabilities of the astronauts rather than the mistakes of the space program.

A *Time Magazine* article from March 2, 1962, described how valuable Glenn’s successful flight had been for the American morale, as it had marked a victory for an open society and justified the billions of dollars spent in doing so.<sup>86</sup> Less than a year and a half prior, the same magazine that published an article describing the failures of Mercury and its exorbitant spending was now hailing the program as a triumph. It continued to speak about how the flight was a victory over the Soviets as all of NASA’s findings would be shared with the world rather than kept in secret, as the Soviets had done. Describing John Glenn, the article spoke about his capability as he took control of the capsule, thus proving that man was capable of great feats in space. What the article did not detail was the reason why Glenn took control, which was due to a failure of the automatic guidance system, demonstrating the fact that the press’s primary interest was in the astronauts rather than the program. As a description of the malfunctioning guidance system would have lessened the success of Glenn’s flight—and perhaps hinted at some incompetence in the American space program—the *Time* article chose to focus on Glenn’s abilities rather than the technological error.

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<sup>85</sup>Howard Benedict, “Glenn Carves Nation’s Name in Outer Space,” *The Sumter Daily Item*, February 20, 1962, 1, <https://news.google.com/newspapers?id=zosiAAAAIIBAJ&sjid=vKkFAAAAIBAJ&pg=1374%2C3382420>.

<sup>86</sup>“The New Ocean,” *Time Magazine*, March 2, 1962, <https://content.time.com/time/subscriber/article/0,33009,939866-1,00.html>.

As they had found out early on that the space program held such high national interest, the press did not need to find controversy within the program to maintain public attention. At times, they even watered down the consequences of the space program to reflect a greater sense of competence in NASA, as is evidenced by Glenn's *Friendship 7* flight, when the instruments in the capsule indicated that the heat shield had come loose. The consequences of a malfunctioning heat shield would be dire, yet the national broadcast of Glenn's flight did not mention the very real danger that Glenn might burn up in reentry until after he had safely landed.<sup>87</sup> The very fact that the press downplayed the dangers of the flight demonstrated how high public interest was, as the news media skimmed over the perils to highlight the men of Project Mercury. Looking at any other source of media attention, from politics to sports to celebrities, controversy and danger were overplayed to retain the interest of the public, but the Mercury program already held the public's attention so highly that this was unnecessary.

Throughout the entire Mercury program, the public's view of its success lay in the perception of the astronauts. From the lowest points, including the string of failed launches or Grissom's sunk capsule, to the highest, namely, Glenn's *Friendship 7* flight, the portrayal of NASA flowed out from the astronauts rather than the actual successes of the program. The mindset of NASA at the time lay mainly in the idea that "rockets might explode, but the astronauts shined."<sup>88</sup> When the public fixed their gaze on the astronauts, malfunctions were easily forgotten and a sense of the competence of the United States space program quickly grew.<sup>89</sup> Out of this sense of competence, NASA worked to catch up to the Soviets in the space race while still maintaining the trust and funds of the American public.

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<sup>87</sup>McCurdy, *Space and the American Imagination*, 87.

<sup>88</sup>Launius, "Heroes in a Vacuum," 177.

<sup>89</sup>McCurdy, *Space and the American Imagination*, 87.



## **Projection Against Soviets**

Within the mindset of the space race as a surrogate for war, it followed that the United States space program wanted to win both the technological race as well as the ideological battle with the Soviets. To accomplish this, the press corps projected the image of the Project Mercury astronauts against that of the Soviets by depicting the Mercury Seven as representatives of the American ideal. As a result, the press focused its attention on three primary aspects of American values that would contrast most with their Soviet counterparts, namely their faith, family, and freedom.

As John Glenn was in many ways the "poster boy" for the Mercury program, the press discussed how his faith played a role in his desire to go to space, thus linking the idea of space travel with a religious backing that contrasted the United States with their communist competitors. From the very beginning, during the introductory press conference, Glenn spoke of how his faith compelled him to a standard of work and a desire to further explore space by saying, "If I use the talents and capabilities I happen to have been given to the best of my ability, I think there is a power greater than I am that will certainly see that I am taken care of if I do my part of the bargain."<sup>90</sup> Additionally, a *Life* article written by Anna Glenn in 1959 described the importance of her and her husband's faith in their lives and how that was a central component to being able to understand them and their motivations.<sup>91</sup> This revealed how John and Anna Glenn perceived space exploration as a religious endeavor, which appealed greatly to the religious aspect of American culture and contrasted them to the "godless communists" with which they were competing.

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<sup>90</sup>NASA, *Mercury Astronaut Team*, 17.

<sup>91</sup>Anna Glenn, "Seven Brave Women Behind the Astronauts," 142.

Further on in her article, Anna Glenn described a conversation she had with her pastor about John Glenn’s mission in which he reassured her, “there is no religious reason why mankind, and John in particular, should not explore space.”<sup>92</sup> While the article was a genuine explanation of how she and her husband had wrestled with the idea of space exploration concerning their faith, her conclusion echoed similar language to a 19th-century manifest destiny which described divine support for exploration and expansion. Reflecting on the introductory press conference, Gordon Cooper described how the press—independent of NASA—ate up the religious answers of the astronauts.<sup>93</sup> Seeing the stakes of the space race for the Cold War, the reporters willingly did their part to set the United States program apart from that of the Soviets, so they emphasized the religiosity of the astronauts.

Anna Glenn’s sentiment of there being a religious nature to space exploration was shared by many of the American public, as the astronauts received an abundance of mail in which Americans would detail their pride, concerns, or experiences in intimate detail with the recipient. John Glenn compiled a selection of the mail he received following his flight of the *Friendship 7* into a book, and he dedicated an entire section to the religiously motivated mail, ranging from prayers and faith-healing advice to scorning sentiments toward the danger of space exploration on faith. One of the positive letters, addressed “From a Woman in Freehold, New Jersey,” told Glenn, “I believe that God will allow us to go on exploring space—and giving us men such as you and your fellow astronauts to help us.”<sup>94</sup> In another letter, “From a Man in Baltimore, Maryland,” the author described his concerns about how a Russian radio broadcast described

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<sup>92</sup>Anna Glenn, “Seven Brave Women Behind the Astronauts,” 142.

<sup>93</sup>Gordon Cooper, *Leap of Faith: An Astronaut’s Journey into the Unknown* (New York, NY: HarperTorch, 2000), 21, <https://avalonlibrary.net/ebooks/Gordon%20Cooper%20-%20Leap%20of%20Faith%20-%20An%20Astronaut%27s%20Journey%20into%20the%20Unknown.pdf>.

<sup>94</sup>Glenn, *Letters to John Glenn*, 7.

how their exploration had yielded no evidence of God, thus relegating Christ to mythology. In response, he asked that Glenn write to him after his orbital flight and describe how he would respond to the Russian claim.<sup>95</sup> For many Americans, space exploration was more than just a surrogate for war, it was deeply correlated to a religious component that they felt needed to remain intact. The two letters described above demonstrate two different aspects of how space flight was tied to religion, one showing the proof of God through the flight and the other searching for God in space.

While many Americans sought to find answers to their religious questions through the flights of the Mercury astronauts, others followed the narratives and events of the space program tirelessly. Each time NASA launched a rocket, whether manned or unmanned, crowds of people would flock to Cape Canaveral in the days leading up to the launch to witness the spectacle. For many of them, the journey to the Cape and the reverence with which they held the space program was a sort of “American pilgrimage”, innately tied to the imagination of space.<sup>96</sup> To be able to witness the launch of the rockets was to view the ascension of American saints into the heavens. One historian noted the phenomenon from the motive of the press, saying, “They wanted to demonstrate to their readers that the Mercury Seven strode the Earth as latter-day saviors whose purity and noble deeds would purge this land of the evils of communism by besting the Soviet Union on the world stage.”<sup>97</sup> The American people held the entire space program with such reverence that witnessing the success of a launch was to witness the very defeat of evil. Religious language such as this permeated the whole program and its ensuing press coverage to

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<sup>95</sup> Glenn, *Letters to John Glenn*, 8.

<sup>96</sup> McCurdy, *Space and the American Imagination*, 86.

<sup>97</sup> Launius, *Reaching for the Moon*, 67.

the point that the religious nature of American culture versus their Soviet counterparts was made a central part of the space race.

Following the idea that the astronauts were the embodiment of American values, the next realm where they were contrasted to the Soviets was their role as family men. This is tied to the presentation of the astronauts as extraordinary, ordinary men as discussed previously, in which they were depicted as average, middle-class Americans tasked with an extraordinary job. The *Life* issue from September 21, 1959, contained a series of articles written by the astronauts' wives and gave a unique perspective on the astronauts that further endeared them to the public. Betty Grissom's article described the career of her husband through the military and his role as a test pilot, and she discussed some of the challenges they had faced in their journey leading to his selection as one of the Mercury Seven. Both Gus and Betty Grissom came from humble beginnings in rural Indiana and struggled to make ends meet when Gus studied at Purdue University.<sup>98</sup> This description of their lives showed the modesty of the astronauts while also demonstrating the reality of the American Dream as a humble Midwesterner could work to become one of the most popular and highly esteemed men in the country.

Similarly, Trudy Cooper, the wife of astronaut Gordon Cooper, wrote an article in which she recounted the time she and her husband visited his grandmother to celebrate the news of his selection to the Mercury program. His grandmother, who was a pioneer in Oklahoma in 1895, was so excited by the news, Cooper explained, "You would think the Indian wars were on again."<sup>99</sup> Cooper's description of this encounter echoed the sentiment of the Grissom's while also evoking the language of manifest destiny by making comparisons between the bravery of

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<sup>98</sup>Betty Grissom, "I Guess I Will Worry," *Life Magazine*, September 21, 1959, 152.

<sup>99</sup>Trudy Cooper, "I Want to Watch It Go," *Life Magazine*, September 21, 1959, 157.

the pioneers of the 19th century and the astronauts. Following the idea of the astronauts as the epitome of American ideals, the comparisons to the American pioneers built up an identity and legacy of Americans being explorers and pioneers.

The personalization of the astronauts through the *Life* articles went a long way to endear them to the public, especially when compared to the Soviets. By giving the American public an intimate look into the lives of the astronauts through the articles written by their wives and the pictures of their children, NASA and the American government was given a face. This was very important as the American space program wanted to differentiate itself as much as possible from the nameless, faceless Soviet program which had shrouded itself in secrecy. The Universal Newsreels depicted the differences between the American and Soviet programs exactly how NASA had hoped, as they described every minor triumph on the American side while only alluding to the Soviet program and never referring to the Soviet cosmonauts by name.<sup>100</sup> By refusing to even name the Soviet program, the cosmonauts were further depersonalized in the minds of the Americans, especially when compared to the tight-knit, devout Christian families of the American astronauts.<sup>101</sup> The *Life* articles written by the astronauts’ wives served to make the astronauts more relatable and approachable to the American public—as is exemplified by the quantity of mail received by the astronauts—while also depicting them as the embodiment of the American ideal. As one author described it, they were “a living re-creation of a Norman Rockwell painting.”<sup>102</sup>

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<sup>100</sup>Universal Pictures Company, “Newsreels: 1961 Year in Review—Headlines.”

<sup>101</sup>Anna Glenn, “Seven Brave Women Behind the Astronauts,” 143.

<sup>102</sup>DeGroot, *Dark Side of the Moon*, 107.

While the astronauts were thought of as “latter-day saviors,”<sup>103</sup> in reality, they followed the pattern of the usual crowd of test pilots, “a hard-living, hard-drinking lot,”<sup>104</sup> some of whom were unfaithful to their wives and reckless in behavior.<sup>105</sup> Although it was commonplace for their line of work, this lifestyle did not fit the mold that the American public craved, so the press highlighted the specific aspects of the astronauts’ lives, such as their faith or family, while smoothing over the rough edges to make them more desirable to the public. Their marketability to the American public played a role in the selection of the Mercury Seven to the program, thus their personal lives were largely sanitized and they were forced to attend a “charm school,” which taught them how to present themselves and talk to the press.<sup>106</sup> Concerning their bravery and courage, the astronauts certainly lived up to their public image, but they often fell short in their personal lives, despite being portrayed as the ideals in all areas of life. Despite the reality of their lifestyles, the depiction of them as family men compared to the Soviets served as a weapon in the ideological war.

Finally, the third aspect to which the astronauts were compared to the Soviets was freedom. Beginning with the introductory press conference and through the entirety of the program, the rhetoric of the astronauts leaned heavily on their love of country. This was most embodied in John Glenn’s address before Congress in 1962 following the successful flight of *Friendship 7*, in which he said, “I still get a hard-to-define feeling inside, when the flag goes by and I know most of you do, too.”<sup>107</sup> Comments such as this served to reassure the American public of the greatness of the astronauts, as there was, surely, no one better than the best America

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<sup>103</sup>DeGroot, *Dark Side of the Moon*, 107.

<sup>104</sup>DeGroot, *Dark Side of the Moon*, 107.

<sup>105</sup>Launius, “Heroes in a Vacuum,” 175.

<sup>106</sup>DeGroot, *Dark Side of the Moon*, 106.

<sup>107</sup>John Glenn, “John Glenn Handwritten Speech to Congress After Friendship 7 Flight,” (speech, Washington, DC, February 26, 1962), Ohio Memory Collection, <https://ohiomemory.org/digital/collection/p267401coll36/id/11633>.

had to offer. The personalization of the astronauts served another purpose as well. In the decade before the space program took off, Americans had associated science with doomsday scenarios of atomic warfare, but the space program proved to be a refreshing reminder that "science under control" meant progress, not doom.<sup>108</sup> In the astronauts, the American public found safety and competence as things to believe in, whereas the Soviet competitors were viewed as an antiquated and nonrepresentative group.

As representatives for their country, the astronauts spoke of a sense of duty that compelled them to participate in the space program. In the issue of *Life* from September 14, 1959, John Glenn described that he felt it was his patriotic duty to volunteer for the program and he was proud to be able to be a part of it all.<sup>109</sup> Three years later, Glenn described in another issue of *Life* how he was honored to be able to represent Americans, demonstrating a self-awareness of how he was perceived by the American people.<sup>110</sup> The honor went both ways, as thousands of Americans would turn out to celebrate the astronauts as they were paraded through Washington, DC, and their hometowns. Following Grissom's flight, the 3,500 people of his hometown of Mitchell, Indiana, joined by an estimated 8,000 "out of towners," took to the streets to celebrate, parading his family members in convertibles led by the high school band.<sup>111</sup> Not only did the astronauts feel that they represented the nation, but the Americans were proud to be represented by such men. One NASA historian described the relationship between the astronauts and the American people by saying, "Certainly, [the astronauts] carried on their shoulders all the hopes and dreams and best wishes of a nation as they engaged in single combat the ominous

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<sup>108</sup>McCurdy, *Space and the American Imagination*, 95.

<sup>109</sup>John Glenn, "Space is at the Frontier of My Profession," *Life Magazine*, September 14, 1959, 38, <https://books.google.com/books?id=BUoEAAAAMBAJ&lpg=PA26&pg=PA26#v=onepage&q&f=true>.

<sup>110</sup>Glenn, "If You're Shook Up, You Shouldn't Be There," 25.

<sup>111</sup>"Mitchell Hails Hometown Space Hero; Family and Father 'Relieved It's Over'," *The Terre Haute Star*, July 22, 1961, 1.

specter of communism."<sup>112</sup> The public viewed the astronauts as an extension of themselves, therefore, they followed the events of the program tirelessly as an understanding of their patriotism.

Perhaps the climax of the Mercury program, John Glenn's address to Congress was simple yet elegant, capturing his audience of congressmen for the entire seventeen minutes. One reporter who witnessed the speech described it by saying, "He held senators and representatives of the United States, the most important government in the world, as spellbound as Boy Scouts hearing how the scoutmaster killed a nine-foot snake."<sup>113</sup> The same reporter described Glenn as an "uncomplicated symbol," the perfect embodiment of what Americans wanted in their heroes, as they showed intelligence and stature without coming across as pretentious or arrogant.<sup>114</sup> This speech was significant as it tied NASA's success in space very close to the American government. In describing the availability of the data gathered from the *Friendship 7* flight, Glenn said, "The launches are conducted openly and with the news media of the world in attendance. Data is released as it is available and evaluated. This is certainly in sharp contrast with similar programs conducted elsewhere in the world and raises the peaceful intent of our program above suspicion."<sup>115</sup> Without naming the Soviets directly, Glenn alluded to the secrecy within the communists' program while putting the American program on a pedestal to be held in awe by all.

From the beginning of the Mercury program in 1958, the press frequently made comparisons between the American and Soviet programs, as was natural given the nature of the

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<sup>112</sup>Launius, *Reaching for the Moon*, 63.

<sup>113</sup>Dora Jane Hamblin, "Applause, Tears and Laughter and the Emotions of a Long-ago Fourth of July," *Life Magazine*, March 9, 1962, 34.

<sup>114</sup>Hamblin, "Applause, Tears and Laughter," 35.

<sup>115</sup>Glenn, "John Glenn Handwritten Speech to Congress," 3.



space race as a form of proxy war. Through the use of the *Life* exposés, the astronauts became the personification of the program as well as the nation as a whole, thus linking victories in space to the system of democracy. The accessibility to the astronauts and their lives provided by *Life Magazine* allowed Americans to feel as if they knew the astronauts personally, holding their love of God, family, and country closely while contrasting them to the nameless, faceless communist program.

### **Conclusion**

In many ways, the Mercury program was unlike anything the United States had seen before, as it turned the eyes of the world upward and ventured into space, but perhaps the most unique aspect of the program was the unwavering, unquestioning support it received from the general populace. For five years NASA held the American people spellbound as they followed every step of the program with the faithful investment of a small-town sports fan, tracking every injury, roster change, victory, or loss with eager expectation. Yet despite the myriad of setbacks in the first half of the program, when NASA was in many ways a technological liability, the program was seldom questioned by the American people. What kept the people invested through it all was not the success of the program but the portrayal of the seven astronauts through the press and NASA's publicity efforts.

By playing off the imagination of Americans toward space, combined with the fears of the Cold War, NASA shaped the perception of the astronauts to be the saviors of the nation and champions of space. Out of this, the astronauts became the face of NASA and diverted the attention of the public away from the technological mishaps that were occurring so that they would focus on the positive aspects of the program, namely, the astronauts themselves. Subsequently, the press quickly picked up on people's investment in the program and found that

negative reporting was unnecessary to hold the interest of their audience, so they continued to build up the fame of the astronauts. Rather than viewing the popularity of the astronauts as a given, as if their popularity was sustained naturally and without any other influence, it is beneficial to look at the way the press coverage of the Mercury program as a whole affected the perception of both the astronauts and NASA. In doing so, one can look at the mythical status of the astronauts as a constructed persona, manufactured to garner greater support from the American public during a time of great consequences for the United States in the Cold War context.

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## **Developing Better Instructors Using the *Principles to Actions***

### **Professional Learning Toolkit**

By Abigail Pyle and Patrick Eggleton

#### **Learning to Use Effective Mathematics Teaching Practices**

Many years ago, there was an article titled *Unlearning to Teach Mathematics*<sup>1</sup> that emphasized how the experiences and beliefs future teachers bring into their preparation courses highly impacts the commitments they make toward their future teaching. Though there have been many advances in knowing what constitutes an effectively taught mathematics class, many preparing teachers have limited to no experience with those techniques and envision their future classroom continuing the *status quo*—typically a teacher-centered focus of instruction. Are the efforts of mathematics education courses helping these future teachers unlearn how to teach mathematics?

In the training of teachers for the classroom, there has been an ongoing question of how to help future teachers move from the “teacher-centered” focus of instruction to a more “student-centered” focus of instruction. The National Council of Teachers of Mathematics published a series of resources called the *Principles to Actions Professional Learning Toolkit*<sup>2</sup> that provides classroom videos that allow the opportunity to view “student-centered” lessons that promote recommended teaching practices for mathematics. In Spring 2020, a collaboration of mathematics teacher educators committed to sharing at least five of these videos in their mathematics courses for future elementary teachers. Their goal was to answer the question: Does exposure to video examples of student-centered mathematics instruction in elementary

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<sup>1</sup>D. L. Ball, “Unlearning to teach mathematics,” *For the learning of mathematics* 8, no. 1 (1988): 40-48.

<sup>2</sup>Principles to Actions Professional Learning Toolkit,” National Council of Teachers of Mathematics, accessed April 23, 2023, <https://www.nctm.org/PtAToolkit/>.

classrooms contribute to students’ commitment to this type of instruction? The future teachers completed a pre/post survey to measure their commitment toward using student-centered type instruction in their future mathematics classes. This article shares the results of these efforts, communicating what commitments future elementary teachers made toward effective mathematics teaching practices and what factors brought about those commitments.

### **Connections to Prior Research**

Hart et al.<sup>3</sup> provide a review of research related to experiences of prospective elementary teachers in mathematics content courses that are influential to developing productive dispositions for teaching mathematics. Their review generally shows that experiencing alternative approaches to instruction (e.g., problem-based learning, working in groups, exploring various approaches, and considering children’s thinking) helps to shift, in varying degrees, elementary prospective teachers’ beliefs away from teacher-centered instruction toward a more student-centered instruction. They suggest that more inquiry is needed on “specific experiences prompting EPT [elementary prospective teacher] change.”<sup>4</sup> Even when beliefs about effective pedagogy are shifted, prospective elementary teachers often revert to teacher centered instruction when they enter schools where this is the predominant mathematics pedagogy. “Letting go of traditional perspectives on mathematics and its teaching and learning engrained over many years as students in mathematics classrooms is an arduous process and fraught with resistance.”<sup>5</sup> Swars et al.<sup>6</sup> noted that new teachers are often hesitant to implement reform beliefs within a culture of a traditional school setting. They did note some maintenance of more student-centered pedagogies

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<sup>3</sup> L. C. Hart et al., “A review of research on affect of elementary prospective teachers in university of mathematics content courses 1990-2016,” *School Science and Mathematics* 119, no. 1 (2019): 3-13.

<sup>4</sup>Hart et al., “A review of research,” 11.

<sup>5</sup>Hart et al., “A review of research,” 11.

<sup>6</sup>S. Swars et al., “A longitudinal study of elementary pre-service teachers’ mathematics beliefs and content knowledge,” *School Science and Mathematics* 107, no. 8 (2007): 325-335.

when the prospective elementary teachers worked with cooperating teachers who used those methods in their field placements. The focus of this project provided a specific type of experience to encourage reformed beliefs in effective mathematics pedagogy (using the *Principles to Actions Professional Learning Toolkit* videos and resources) which also exposed students vicariously to classrooms where the methods were being effectively used. The hope is that these experiences could bring about commitments to effective pedagogy that will overcome the resistance experienced when entering the workforce in traditional school settings.

One of the challenges in documenting changed commitments in students’ views of effective mathematics pedagogy is an objective tool to measure that change. A study by Pourdavood and Liu<sup>7</sup> on pre-service mathematics teachers’ beliefs noted the importance of collecting both quantitative and qualitative data for research related to developing instructional strategies in teachers. They emphasize that “qualitative data could provide valuable information on different factors that influence the change process that occurs in PSTs [pre-service teachers]”<sup>8</sup> providing details that numbers simply cannot show. “Mixed methods research benefits from the strengths of both quantitative and qualitative research and therefore provide a better perspective for understanding, analyzing, and interpreting the complexity of teacher change and mathematics education reform in general.”<sup>9</sup> In keeping with these recommendations, this study utilized both quantitative data from Likert-type questions in a pre/post survey and open-ended questions which were analyzed using a coding scheme. One of the open-ended questions asked the prospective elementary mathematics teachers to describe the teaching strategies he/she would

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<sup>7</sup>R. G. Pourdavood and X. Liu, “Pre-service elementary teachers’ experiences, expectations, beliefs, and attitudes toward mathematics teaching and learning,” *International Journal of Learning, Teaching and Educational Research* 16, no. 1 (2017): 1-27.

<sup>8</sup>Pourdavood and Liu, “Pre-service elementary teachers’ experiences,” 10.

<sup>9</sup>Pourdavood and Liu, “Pre-service elementary teachers’ experiences,” 25.



use in teaching equivalent fractions. The coding of this description benefited from a type of continuum suggested by Bull<sup>10</sup> that provided a range of teaching strategies with teacher-centered methods at one end and learner-led classrooms at the other extreme.

## **Method**

Students taking a mathematics course for elementary education in Spring 2020 took nearly identical pre- and post-course surveys with questions adapted from Swan<sup>11</sup> and the Wisconsin Center for Education Research,<sup>12</sup> providing a snapshot of their plans for teaching mathematics. The survey consisted of 3 parts: (1) an open ended question where the student described the instructional strategies he/she would use in teaching a lesson on equivalent fractions, (2) a series of questions describing various instructional techniques allowing students to answer on a scale of anticipated use in their mathematics classroom (almost never, sometimes, half of the time, most of the time, almost always), and (3) an additional list of instructional activities where students indicated the amount of time used in that activity over the course of a school year (none; little—less than 10% of instruction time for the school year; some—10-25% of the instruction time for the school year; moderate—26-50% of the instruction time for the school year; and considerable—more 50% of the instruction time for the school year). An additional open-ended question was added to the post-survey: “Please describe how any views you have about teaching math in the elementary classroom have changed over the last semester

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<sup>10</sup>Bernard Bull, “A 9-Stage Continuum of Teacher-Centered to Learner-Led Classrooms & Communities,” *Etale – Exploring Futures & Innovations in Education* with Dr. Bernard Bull, November 17, 2019, accessed December 18, 2020, [etale.org/main/](http://etale.org/main/).

<sup>11</sup>M. Swan, “Designing and using research instruments to describe the beliefs and practices of mathematics teachers,” *Research in Education* 75, no. 1 (2006): 58-70.

<sup>12</sup>“Survey of Instructional Practices, Teacher Survey, Grades K-12, Mathematics,” Wisconsin Center for Education Research, 2021, accessed February 8, 2021, <http://programs.ccsso.org/content/pdfs/K12mthSurvey31407.pdf>

and what has brought about that change.”<sup>13</sup> Although the surveys were elicited from students at two different universities, only students from one of the universities complied, with twenty-three completing the pre-survey and twenty-seven completing the post-survey. The pre- and post-surveys could be linked by a code created by the student. Only fifteen of the surveys were paired using this code.<sup>14</sup>

The instructors who participated in the study agreed to supplement the curriculum of their mathematics for elementary teachers classes in Spring 2020 with at least five of the classroom videos available through the *Principles to Actions Professional Learning Toolkit*. The classes connected to those who completed the survey consisted primarily of topics from geometry and measurement. Prior to requirements to leave campus due to the pandemic, students worked in groups with a variety of upper elementary grade activities modeled as they reviewed the mathematics concepts. When the *Principles to Actions* recordings were used, students first worked through the activity associated with the *Principles to Actions* video. They then watched the video in class and answered reflection questions afterward. After leaving campus due to the pandemic, the course was provided asynchronously. Students still completed upper elementary activities associated with the concepts (e.g. Geogebra constructions, Math Playground activities, activities provided in their course pack). The *Principles to Actions* videos were watched individually and students still submitted written reflections on the classroom episodes.

## **Results: Quantitative Data**

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<sup>13</sup>Copies of the survey instruments are available from the author. A link to a copy of the post-survey is available here: <https://docs.google.com/forms/d/e/1FAIpQLScVRsXISTSiUdPKF3F4-3UkZFdDzHdo86hKwf3D8-yp3pgTUw/viewform>.

<sup>14</sup>It was noted that the students who completed the survey were typically in their third year of study while those from the university that did not complete the survey were in their first year.

The surveys completed by the students allowed for a view of their perception of their future mathematics classroom. Students rated instructional techniques and activities by the anticipated regularity in their classrooms. The scales were quantified in order to compare pre- and post-results. After considering the initial outcomes the researchers realized that it would be beneficial to compare the changes observed from the student surveys to see if the students moved closer to the goals for effective mathematics teaching. Consequently, members of the Association of Mathematics Teacher Educators in Indiana were asked to complete the survey in order to define goal results for effective mathematics teaching practices. These results were then used for comparison with the results from the student surveys.

After running two sample t-tests and paired t-tests on the data, several instructional techniques and activities indicated statistically significant change ( $p$ -values  $< 0.05$ ) in the pre-service teachers and approached the effective mathematics teaching practice goals. Table 1 shares these instructional techniques and activities. Note that approaching goals for effective mathematics teaching practice may mean more or less time for a particular teaching technique, depending on the type of strategy. Also, the 2-sample t-test incorporated all of the survey results where the paired test was limited to those surveys that provided correct coding to allow for the pairing of the surveys.

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Statistically Significant for both the 2 Sample t-test and the Paired t-test

- The teacher is surprised by ideas that the students develop during a lesson.
- Students explain their reasoning or thinking in solving a problem by using several sentences orally or in writing.

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Statistically Significant for the 2 Sample t-test only

- The textbook or worksheets guide the instruction.
-

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- Students invent their own methods.
  - Topics are taught separately.
  - The teacher jumps between topics.
  - Students watch the teacher demonstrate how to do a procedure or solve a problem.
  - Students complete computational exercises or procedures from a textbook or a worksheet.
  - Students work in pairs or small groups on mathematics exercises, problems, investigations, or tasks.
  - Students solve non-routine mathematical problems (e.g., problems that require new or non-formulaic thinking).
  - Students make estimates, predictions, or hypotheses.
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Statistically Significant for the Paired t-test only

- Students maintain and reflect on a mathematics portfolio of their own.
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*Statistically significant defined as  $p\text{-value} < 0.05$*

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Table 1. Instructional Techniques and Activities that Showed Significant Change in Emphasis

The three instructional techniques that demonstrated the most significant change toward the suggested effective mathematics teaching practices were (12) the teacher is surprised by ideas that the students develop during the lesson (increased expectation), (39) students explain their reasoning or thinking in solving a problem by using several sentences orally or in writing (increased expectation), and (14) the textbook or worksheets guide the instruction (decreased expectation). (The survey item number is indicated in parentheses.) According to Swan’s research,<sup>15</sup> item 12 (“teacher surprise”) represents student-centered behavior, item 14 (“textbook guided”) represents teacher-centered behavior, and item 39 (“explain thinking”) is a

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<sup>15</sup>Swan, “Designing and using research instruments.”

constructivist teaching method, often found in student-centered classrooms. All three of these strategies were modeled both in the *Principles to Actions* classroom videos and in the class taken by the pre-service teachers. As has been seen in other studies where effective mathematics teaching strategies are modeled in the classroom, these students communicated significant change toward student-centered instructional approaches that are emphasized by *Principles to Actions*.<sup>16</sup>

### Results: Qualitative Data

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- (1) Use traditional methods (worksheet - drill)
  - (2) Show using visual representations (pie charts)
  - (3) Discussion - Student Discourse
  - (4) Engage students in creating visual representations (more teacher directed)
  - (5) Exploration (student focused)
- 

Table 2. Codes for Lesson Descriptions

In both the pre- and post-surveys, students were asked to describe a lesson they would teach on equivalent fractions. Four researchers read through the responses and independently created categories to summarize the instructional style. The researchers then reviewed their categories together, to develop a consistent coding scheme for the lesson descriptions. The coding scheme (see Table 2) represented a sort of continuum from teacher-centered, transmission-based teaching to student-centered, constructivist-based teaching (as much as we can define a “continuum” in education where there are so many influencing factors and variables). “Teacher-centered practice’ is conceptualized as the teacher transmitting knowledge to students, while ‘student-centered practice’ is conceptualized as taking students’ individual

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<sup>16</sup>Swan, “Designing and using research instruments.”

processes for knowledge-building into account through instruction designed to be flexible to student needs.”<sup>17</sup> The researchers independently used the coding scheme to code the responses and then compared results to determine a final score for each response.

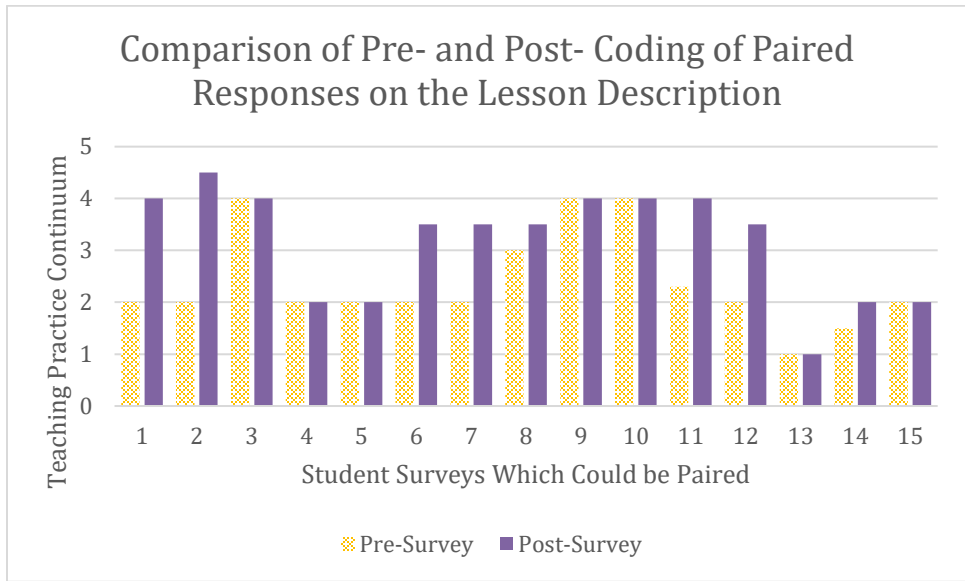


Figure 1. Comparison of Pre- and Post- Coding of Paired Responses on Lesson Description

For the lesson description, all the paired responses either indicated movement towards student-centered classrooms with constructivist views or no change in their classroom focus (see Figure 1). For the pre-survey paired responses the average was 2.45. The post-survey paired response average was 3.33, indicating some increase up the scale. This demonstrates a general movement/trend from more teacher-centered, transmission-based teaching to more student-centered, constructivist-based teaching. The overall pre-survey average was 2.3 and the post-survey average was 3.0, so here, also, there appears to be some increase up the scale in general.

<sup>17</sup>M. B. Carney, J. L. Brendefur, G. R. Hughes, and K. Thiede, “Developing a mathematics instructional practice survey: Considerations and evidence,” *Mathematics Teacher Educator* 4, no. 1 (2015): 93-118.

**(1) An emphasis on discourse - questioning**

**(2) Exploration**

Problem Solving

Allow mistakes - productive struggle

Student Centered Emphasis

Create conclusions

**(3) Collaboration - Working with others**

**(4) Emphasize process rather than product**

Why vs how

Reasoning

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Table 3. Codes for "Changed Views about Teaching Math in an Elementary Classroom"

In the post-survey an additional open response item asked the pre-service teachers to provide a description of any change in their views of teaching mathematics and to also indicate what may have brought about that change. As with the lesson descriptions, themes were noted in the responses that led to a coding scheme. The categories in Table 3 informed the analysis of the responses.

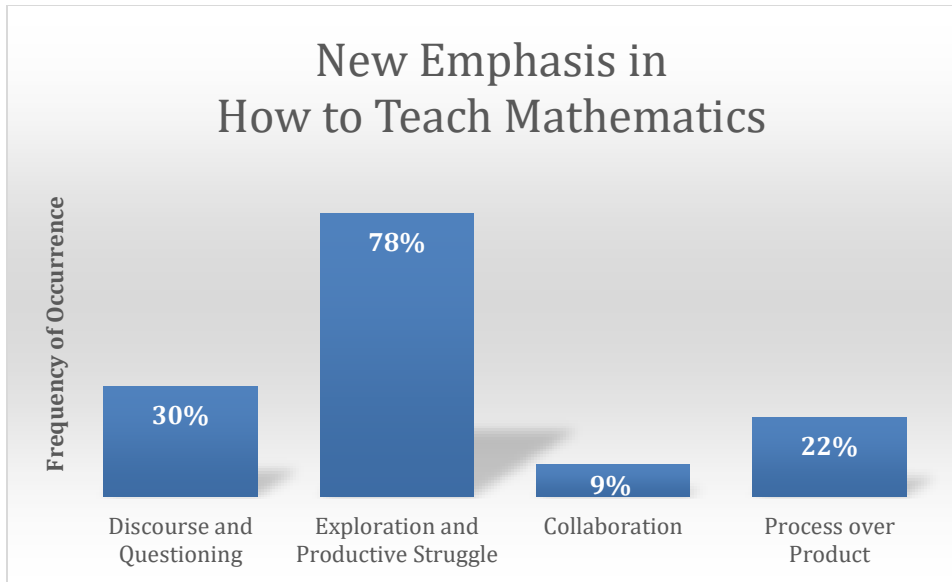


Figure 2. Student Perceived Changes in How They Will Teach Mathematics

The frequency of each of the categories is shown in Figure 2. Clearly category 2, “Exploration and Productive Struggle,” was described by the pre-service teachers the most frequently as a description of how their views of teaching mathematics had changed. The *Principles to Actions* materials and the in-class instruction both emphasized these teaching practices. One responder said that she had been most impacted by “all the hands-on activities we did in class to help us understand the concepts better” (response 7). Another student said, “[the instructor] modeled how to promote exploration and discovery through the tasks he gave us as he challenged us to figure things out for ourselves by not just giving us the answer or formula” (response 11). This theory is most clearly seen in this pre-service teacher’s response:

I have really started considering the idea of guiding students to explore on their own through asking questions. I usually would have thought it was helpful to give them some information to guide them, but I can do the same process with questions instead and although it may take longer, it is more likely to stay in their minds when they approach the same types of problems in the future. This change occurred in my thinking because of a lot of the activities we engaged in during the course, as we were asked to explore things as we were guided only with questions. It was frustrating at some points, but the success of solving a difficult problem was so much more rewarding. (Response 16)

The productive struggle and problem-solving that this pre-service teacher talks about were clearly modeled quite well in the course and made a positive impression on her. Thus, as



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exploration, productive struggle, and hands-on learning were so well incorporated into the daily classes throughout the semester, this category came up frequently in the pre-service teachers’ responses. Many of them were especially impressed by the idea of allowing students to struggle with problems until they arrive at their own conclusions/formulas/answers because the pre-service teachers themselves experienced deeper learning when their instructor had them do this. They also observed this modeled in classrooms with young children in the *Principles to Actions* videos, making the teaching practice relevant to their future teaching.

Category 1, “Discourse and Questioning,” was also a common description of change in instructional focus, occurring in one of every three responses. Here is one response:

There is a need for students to have productive struggle and conversation/discourse when learning math. I think what brought about this change was all the hands-on activities we did in class to help us understand the concepts better, as well as the reflections that were done in class...where we watched a video, had the script, and were able to discuss it. Just like in learning math concepts, learning how to teach math we need...the discourse on how to teach math. (Response 7)

This student learned the benefit of math discourse through actual practice in class as well as through the videos and reflections written. Another student says, “Math should be more exploration, hands-on, collaborative, and facilitated with lots of thought-provoking questions. After being in [my practicum experience], working in my math group in class, and also watching and writing the math reflections, I now see the importance of these things!” (response 12). Again, the student emphasizes the in-class experiences and the *Principles to Actions* videos with reflections as fundamental for developing new commitments toward teaching mathematics.

Category 4, “Emphasizing Process over Product, Why vs. How,” was usually connected to an emphasis on “deeper learning” gained by students when this was the instructional focus. For example, response 9 says, “I have learned that it is important for students to see why concepts and formulas make sense. Even better, the students should be given the opportunity to create a formula for a concept, and by them creating the formula, they will have a deeper

understanding for the concept." Another example, response 15, says, "My views have changed in the sense that I want to make my math students understand why things work instead of just how they work. I want to help them understand the why because that will help them understand the concepts." Thus, we see here that these pre-service teachers moved towards the Effective Mathematics Teaching Practice of using and connecting mathematical representations, for in this practice, "effective teaching of mathematics engages students in making connections among mathematical representations to deepen understanding of mathematics concepts and procedures and as tools for problem solving."<sup>18</sup>

While category 2, "Collaboration" developed as a code prior to the independent coding, very few responses actually received this final code. While collaboration may be implied by areas such as discourse and even exploration, the responses didn't indicate this emphasis. Since these students were required to complete the final half of their semester in an asynchronous online format due to the COVID-19 pandemic it is possible that collaborative instructional techniques were less impacting than the other emphases.

## Conclusions

As has been observed in other studies, providing coursework that emphasizes effective mathematics teaching practices helps pre-service elementary teachers develop commitments toward those teaching strategies. The students in this study benefited from instruction that was guided by the Effective Teaching Practices as presented in *Principles to Actions*.<sup>19</sup> The instructor modeled those techniques and the *Principles to Actions* classroom videos allowed students to see the same teaching practices used with elementary-aged children. In the quantitative data, the pre-

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<sup>18</sup>National Council of Teachers of Mathematics, *Principles to Actions: Ensuring Mathematical Success for All* (National Council of Teachers of Mathematics, 2014), 24.

<sup>19</sup>National Council of Teachers of Mathematics, *Principles to Actions*.

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service elementary teachers showed significant change toward measures of instructional techniques that are indicated as effective mathematics teaching practices according to mathematics teacher educators. The teaching strategies indicating the most significant growth emphasized students developing their own conclusions or strategies prompting teacher surprise and students explaining their reasoning and thinking. These strategies are similar to the effective teaching practices shared in *Principles to Actions*<sup>20</sup> that emphasize students engaged in problem solving and reasoning, students making connections, students engaging in discourse, and the teacher posing purposeful questions. The instructional strategy of using the textbook or worksheets to guide instruction showed a significant decrease in importance among the pre-service teachers as the students learned the value of working in groups and with hands-on activities.

The students communicated their growth in a similar manner through descriptions of a lesson to teach equivalent fractions where pre-survey descriptions tended to be more teacher-centered and post-survey descriptions communicated a more student-centered focus. The pre-service teachers’ self-assessment of their growth, as shared in the post-survey, also indicated a commitment toward student-centered instructional practices. Not surprisingly, the themes that became apparent in the responses paralleled several of the effective teaching practices noted in the *Principles to Actions* materials such as “productive struggle,” “questioning,” and “discourse.” Even with half of the course instruction given online during forced stay-at-home requirements from the COVID-19 pandemic, the pre-service teachers described their changes in instructional commitments as coming both from their experiences within the course and the experiences related to the *Principles to Actions* videos and reflections.

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<sup>20</sup>National Council of Teachers of Mathematics, *Principles to Actions*.

The results of this study are similar to many noted by Hart, et. al.<sup>21</sup> They note that a number of different pedagogical approaches applied to mathematics content classes for teachers (e.g., problem-based learning, working in groups, etc.) encourage a shift in beliefs from more teacher-centered to more student-centered approaches to teaching. The pre-service teachers in this study experienced instruction that was guided by the *Principles to Actions*<sup>22</sup> “Effective Mathematics Teaching Practices” both in classroom experiences and in videos of those practices used in elementary classrooms.

One of the concerns with the shift in beliefs is a maintained commitment to those teaching practices when the elementary pre-service teachers have their own classroom. “Changes seen in EPTs [elementary pre-service teachers] during courses may not carry over to the practicing teacher.”<sup>23</sup> Swars<sup>24</sup> found a maintenance of new pedagogical commitments in student teaching due in part to alignment of teaching strategies used in the university content classroom with successful modeling of those teaching practices by cooperating teachers in field placements. For many programs, finding cooperating teachers in field placements who mirror the effective mathematics teaching strategies used in the university courses is not a possibility. One benefit provided by the *Principles to Actions* videos is that students are able to see and reflect on the use of the “Effective Mathematics Teaching Practices” by teachers in *real* elementary classrooms. While this study does not have data to document a maintenance of commitment to change as the pre-service teachers enter their own classrooms, there is hope that the exposure to classrooms modeling effective teaching strategies, as shared in the *Principles to Actions* videos, will provide

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<sup>21</sup>Hart et al., “A review of research.”

<sup>22</sup>National Council of Teachers of Mathematics, *Principles to Actions*.

<sup>23</sup>Hart et al., “A review of research,” 11.

<sup>24</sup>Swars et al., “A longitudinal study.”

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these teachers with a vision for effective teaching in their future classrooms that may develop as they gain greater confidence in their teaching.

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## **The Fight Against the Threat of Witchcraft and Paganism in Anglo-Saxon England**

By Russell Knapp

### **Introduction**

In the middle-years of the 10th century AD, an Anglo-Saxon woman living in Ailsworth, England lost her husband. While her name is now lost to time, for the purposes of this paper, she will be called Eawynn, a popular Anglo-Saxon name. Years before her husband died, Eawynn and her husband had a son who they raised together on their land at Ailsworth. They must have been a relatively well-off family based on the substantial amount of land they owned. After her husband's tragic death, Eawynn was left on her own to care for her son and to take care of the land.

Seeing that the land was now run by just a widow and her son, a wealthy man named Ælfsige began pressuring Eawynn. It is unknown whether he wanted her land or something else that created her ill-will, but it must have been something serious. At her wit's end, the grief-stricken woman decided to take things into her own hands. Eawynn had heard of a practice specifically outlawed by the Christian government and condemned by the Church. If she tried it, it could mean death—but what else was she to turn to? With her son's help, Eawynn carefully toiled over and fashioned a wax figure in the likeness of Ælfsige. A figure like this could be used to harm who it represented. When the image was completed, she drove iron pins into the wax, perhaps muttering the sacred words of a charm. Her intent was Ælfsige's death.

Somehow, Eawynn's plan was found out. The townspeople, including a still-alive Ælfsige, seized Eawynn and her son and brought them to London. On the way there, her son escaped, but Eawynn was not so lucky. Eawynn likely pleaded for her life as the townspeople—

her townspeople—dragged her into the River Thames, shoved her head under the water, and drowned her. In her death, perhaps Eawynn felt some sliver of joy in the fact that her son still lived, or maybe she just felt hatred towards the man she wanted dead. Nevertheless, after her execution, the land at Ailsworth was given to Ælfsige, and the memory of Eawynn became the memory of a witch.<sup>1</sup>

The anonymous woman of Ailsworth was killed by people she knew for putting pins in a doll. What kind of atmosphere needed to exist that such fear towards certain practices resulted in the killing of widows? While this is an early and unusually documented example of a witch hunt, the culture and ideas behind this killing were not unusual in Anglo-Saxon England. This paper will use primary source evidence to determine what the Anglo-Saxon views on witchcraft were, what influenced them, how they changed, and how their sources can help determine this information. It will do this by providing a brief historical background on pre-Alfred Christian Anglo-Saxon England (circa 600-870 AD), defining what the Anglo-Saxons meant by and what this paper means by “witchcraft,” analyzing Alfred the Great’s reign through his education reforms and law code, and examining penitentials and other sources to determine the Church’s and laypeople’s perspectives on witchcraft.

Unlike the general assumption that England was completely Christianized after Augustine’s mission to the island, witchcraft and paganism thrived all throughout the Christian period of Anglo-Saxon history. Sources condemning witchcraft and paganism increased during the Danish raids in the mid-ninth century and beyond due to an increased sense of a *perceived threat of paganism*. King Alfred himself reacted to this threat by doing everything he could to

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<sup>1</sup>“Old English deed of exchange in which Æthelwold, bishop of Winchester, obtained an estate forfeited by a woman for practising witchcraft,” 963-975, in *English Historical Documents* vol. 1, eds. David C. Douglas, Dorothy Whitelock, George William Greenaway, Harry Rothwell, A. R. Myers, C. H. Williams, Andrew Browning, et al. (New York, NY: Oxford University Press, 1953), 519.



strengthen his people in their Christian beliefs through education reform and his law code. The Church battled against the perceived threat through penitentials—which they used to discourage pagan practices. Laypeople fought against paganism sometimes by the simple act of confessing to their priests, and sometimes by taking protection from the *perceived threat* into their own hands like in the case of the anonymous widow from Ailsworth. While witchcraft prevailed throughout the entire pre-Alfred Anglo-Saxon period (circa 600-870), the Anglo-Saxons’ perception of the *threat of paganism*—especially during the Danish raids in the mid-ninth century—caused nearly all aspects of Anglo-Saxon Christendom to fight against paganism and witchcraft in their respective ways.

### **Historical Context**

In 597 a monk by the name of Augustine sailed to England on the Pope’s command to spread Christianity to the Anglo-Saxons. Bede, writing in the 8th century, called them a “barbarous, fierce, and unbelieving nation.”<sup>2</sup> According to Bede, Augustine brought Christianity to England, but that is not entirely true; there were already many Christians in England. The Britons, mainly relegated to Wales but also present everywhere on the island, had been Christians since the Roman occupation. In addition, both Ireland and Frankia nearby were largely Christian as well, and the Irish had even tried to convert Northumbria.<sup>3</sup> Even King Ethelbert of Kent—who Augustine was received by when first arriving on the island—had a Christian wife from Frankia.<sup>4</sup>

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<sup>2</sup>Bede, *The Ecclesiastical History of the English Nation*, 731, translator not clear, (New York, NY: E.P. Dutton, 1910; Internet Medieval Sourcebook, 1998), book 1, ch. XXIII.

<sup>3</sup>Rob Meens, “A Background to Augustine’s Mission to Anglo-Saxon England,” *Anglo-Saxon England* 23 (1994): 5, <https://www.jstor.org/stable/44510234>.

<sup>4</sup>Bede, *The Ecclesiastical History of the English Nation*, book 1, ch. XX.

When Augustine arrived by boat on an island off of Kent, Ethelbert was afraid Augustine and his company would use magic on him to take advantage of him. But the King had no reason to be scared. Bede noted that Augustine’s group “came furnished with Divine, not with magic virtue, bearing a silver cross for their banner, and the image of our Lord and Saviour painted on a board.”<sup>5</sup> Already on the “first” contact between Christians and Anglo-Saxon pagans, Bede presented the two belief systems as diametrically opposed—pagan magic as something frightful and dark, and Christianity as good and hopeful. When King Ethelbert saw that Augustine had good intentions, he allowed his company to set up and operate out of Canterbury with no restrictions on preaching.<sup>6</sup> This started what became the Christianization of the Anglo-Saxons.

Throughout the next two-and-a-half centuries, Christianity flourished in England as it was spread across the land by its new religious center of Canterbury. The position of Archbishop of England transferred from Augustine to Laurentius, to Mellitus, and onward. During this period, the first Anglo-Saxon penitentials were published, as well as great works like Bede’s *Ecclesiastical History of England*. In short, Augustine’s mission of Christianizing England had succeeded. However, the strong pagan presence never ceased to be active, often counter-culturally to the new Christian majority, but also influencing local Christian practices.

While there was always limited Scandinavian contact with England, Danish invaders and other Scandinavians began attacking, pillaging, and settling in England with far more frequency in the 9th century. This coalesced in every Anglo-Saxon kingdom except for Wessex being overthrown, and a new “Danelaw” being formed under Danish control. The Danes were nearly entirely pagan, which presented a huge religious threat to the Christian Anglo-Saxons. During this time, King Alfred of Wessex (later called Alfred the Great) successfully defended against

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<sup>5</sup>Bede, *The Ecclesiastical History of the English Nation*, book 1, ch. XX.

<sup>6</sup>Bede, *The Ecclesiastical History of the English Nation*, book 1, ch. XX.

the Danes and brought back extensive Anglo-Saxon control of the island during his reign (871-899). He and his successors brought back an Anglo-Saxon (and therefore Christian) dominance to the island. Alfred also initiated a great education reform, translating and distributing many texts for the benefit of a Christian society. He then released an incredibly influential law code that explicitly condemned witchcraft and paganism.<sup>7</sup>

The growth in the number of written sources being produced that started with Alfred’s education reform continued after his reign. Alfred died in 899, but more texts were being created and reproduced all the way through the Norman conquest in 1066. In addition, many of Alfred’s successor kings issued law codes, all of which contained laws regarding witchcraft, while all law codes pre-Alfred did not specifically mention magic or witchcraft.<sup>8</sup> In fact, mentions of witchcraft and magic greatly increased in all forms of writing during Alfred’s reign until the conquest. This may suggest an actual increase in Anglo-Saxons practicing witchcraft due to the presence of the Danes. That being said, evidence shows that pagan Anglo-Saxons were practicing witchcraft all throughout their history. Despite this, the presence of the Danes certainly increased the *perceived* threat of paganism.

### **Defining Anglo-Saxon Witchcraft**

There is sometimes an assumption that witchcraft only started being practiced extensively by the Anglo-Saxons when Scandinavian raids on England became more common in the ninth century, or perhaps during Alfred the Great’s rule in Wessex when he wrote his law code. Robin Melrose, in her book *Magic in Britain*, even claims that the case of the Ailsworth widow and her son being executed—which she dates between 963-975—is the *first* reference to witchcraft in

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<sup>7</sup>James Campbell, et al., *The Anglo-Saxons* (London, UK: Penguin, 1982), 215.

<sup>8</sup>Jane Crawford, “Evidences for Anglo-Saxon Witchcraft,” *Medium Ævum* 32, no. 2 (1963): 107.

Anglo-Saxon England.<sup>9</sup> This assumption is made due to a misunderstanding of what the Anglo-Saxons considered to be witchcraft, and through the idea that the Anglo-Saxons had been thoroughly Christianized in the centuries between Augustine’s mission and the Scandinavian raids. Certainly, the perceived threat of witchcraft increased due to Scandinavian presence on the island during Alfred’s reign, but witchcraft and pagan practice also existed all throughout Anglo-Saxon history. To understand the full extent of witchcraft in Anglo-Saxon society, defining witchcraft in the Anglo-Saxons’ eyes is necessary, as well as looking at the abundant primary source evidence for thriving witchcraft during Augustine’s mission all the way through Alfred’s reign.

The Anglo-Saxons did not view witchcraft, magic, or sorcery in the same way that western cultures do today. Today, there are separate understandings of what is natural and supernatural. For example, a doctor giving medicine to a patient would be seen as a remedy thoroughly within the concept of natural science, but a person who claims to have healing powers putting a spell on someone—if even believed to be possible—would be considered supernatural. This distinction is not present among the Anglo-Saxons. As D. G. Stragg points out, no one in Anglo-Saxon England would have distinguished between magic and medicine.<sup>10</sup> This is not to say that all medicine was seen as witchcraft; rather, what made something witchcraft or not depended on its connection to pagan practices. This is clearly illustrated in one of Ælfric’s homilies, where after discussing witchcraft and paganism, he stated that it is not bad to eat a medicinal herb if done so in the name of God. Ælfric wrote, “No man shall enchant a

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<sup>9</sup>Robin Melrose, *Magic in Britain: a History of Medieval and Earlier Practices* (Jefferson, NC: Mcfarland & Company, 2018), 54.

<sup>10</sup>*Superstition and Popular Medicine in Anglo-Saxon England*, ed. D. G. Stragg (Manchester, UK: Manchester Centre for Anglo-Saxon Studies, 1989), 7.

herb with magic, but with God's words shall bless it, and so eat it.”<sup>11</sup> Clearly in this case, witchcraft was associated with paganism and not a specific medicinal practice. This idea did not extend only to medicine, either. J. S. P. Tatlock notes that this is the case with trickery or performance “magic” as well; Tatlock writes, “indeed any remarkable performance with a secular background might be attributed to magic, just as any with a Christian background might be called a miracle.”<sup>12</sup> In other words, certain remarkable things could be considered magic if done in a pagan context, or a miracle if done in a Christian context. Clearly in many cases, magic and witchcraft had a closer connection to whether the act was pagan than the specific action involved.

The link between witchcraft and pagan practices is made even clearer when one considers that the Anglo-Saxons had *Christian* charms and spells that could be seen today as magical or supernatural but were not considered witchcraft. One example is the *Æcerbot Ritual*, known often as the Anglo-Saxon field remedy, written in the late 900s or early 1000s. The field remedy was a ritualistic way to cure a field or crop’s bad production. The ritual included dripping holy water on various plants, creating and planting crosses with biblical words written on them, moving these crosses according to the sun, and more, all the while chanting various things in Latin and Old English. This was not a prayer, but a charm much like and clearly influenced by similar pagan charms. However, the field remedy was not considered to be witchcraft, or even magic. The opening line of the remedy says, “Here is the remedy, how you may better your land, if it will not grow well, or if some harmful thing has been done to it by a sorcerer or by a

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<sup>11</sup>AElfric, *Homilies of the Catholic Church*, 990-992, trans. Benjamin Thorpe (London, UK, 1844; Project Gutenberg, 2011), 477.

<sup>12</sup>J. S. P. Tatlock, *The Legendary History of Britain; Geoffrey of Monmouth's Historia Regum Britanniae and Its Early Vernacular Versions*, (New York, NY: Gordian Press, 1974), 363.

poisoner.”<sup>13</sup> Later on, a section that is to be chanted aloud says, “Now I bid the ruler, who shaped this world, that there be no speaking-woman nor artful man that can overturn these words thus spoken.”<sup>14</sup> The “speaking-woman” and “artful man” are those who would use pagan magic (including poisons) to harm the field. These two quotes show that this Christian ritual or charm could be used to combat against pagan magic. It was charm against charm, ritual against ritual—Christian charm or ritual against pagan witchcraft.

The Anglo-Saxons used many words to describe “witchcraft,” and did not have clear distinctions between words like witchcraft, magic, sorcery, wizards, enchanters, and even poisoners. In several sources multiple of these words are listed together, correlating them, such as in a homily of Ælfric, as well as Cnut’s, Alfred’s, and Aethelstan’s law codes.<sup>15</sup> Some historians such as Audrey Meaney differentiate between these words,<sup>16</sup> and while there may be some semantic differences, especially between witchcraft that would be considered white or black (which is beyond the scope of this paper), they would still all fit under the same category of “witchcraft” and were considered pagan.

Now that the pagan connections to witchcraft and the multiple words that can be used to describe witchcraft are clear, it is useful to develop a specific definition of witchcraft as it will be understood in this paper. Witchcraft is any action that is explicitly connected to pagan practices and is described in the sources with words such as “magic,” “sorcery,” “divination,” etc., but is not necessarily “supernatural” in the way that modern people understand it.

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<sup>13</sup>*Æcerbot Field Remedy Ritual*, late 9th century or early 10th century, trans. Karen Louise Jolly (Chapel Hill: University of North Carolina Press, 1996; *Anglo-Saxon Charms*, 2018).

<sup>14</sup>*Æcerbot Field Remedy Ritual*

<sup>15</sup>Ælfric, *Homilies*, 477; Wulfstan, *Cnut’s Law Code*, 1018, in “Cnut’s Law Code of 1018,” A.G. Kenedy, *Anglo-Saxon England* 11, (1983): 57–81; Alfred, *Alfred’s Law Code*, 893, in *Internet Medieval Sourcebook*, ed. Paul Halsall, Fordham University Center for Medieval Studies, 1998; Aethelstan, *Aethelstan’s Law Code*, 924-927, in *Internet Medieval Sourcebook*, ed. Paul Halsall, Fordham University Center for Medieval Studies, 199.

<sup>16</sup>Audrey L. Meaney, “Women, Witchcraft, and Magic in Anglo-Saxon England,” 1989, in *Superstition and Popular Medicine in Anglo-Saxon England*, ed. Scragg, 14-15.

## **The Extent of Witchcraft in Anglo-Saxon England Before Alfred the Great**

To discuss the battle the Anglo-Saxons had against their perceived threat of paganism from the invading Danes in the 9th century, it must first be established that pagan practices and witchcraft was thriving all throughout Christian Anglo-Saxon history. Many historians believe that pagan practices were quite thoroughly wiped out by the growth of Christian religion after Augustine’s mission, at least until increased Scandinavian invasions. The conclusion Jane Crawford comes to in her “Evidences for Witchcraft in Anglo-Saxon England” is that there previously was a strong pagan religion in England, it was mostly extinguished by Christianity, and it then became more prominent again around Alfred’s reign. She cites the fact that pre-Alfred law codes do not specifically mention witchcraft, there is a lack of magic in Anglo-Saxon heroic verse, and that post-Alfred sources include many more references to witchcraft.<sup>17</sup> While these are all true, they do not point to witchcraft becoming more prominent in Alfred’s time; rather, they point to witchcraft becoming more of an actively *perceived threat*. The difference is this: while there was always a presence of witchcraft and paganism on the island, the conflicts against the Danes brought witchcraft and paganism to the forefront of everyone’s minds. Their perceived threat of the spread of pagan culture became much more *active* with the occupying pagan presence of the Danes. Besides, while there *are* fewer sources that mention witchcraft before Alfred, there still are many. And the sources that do exist prove that witchcraft was prominent throughout all of Anglo-Saxon history.

During the end of Augustine’s time as archbishop, and shortly after his death, problems began to arise concerning pagan religion in England. Mellitus—one of Augustine’s bishops and future archbishop—received a letter from Pope Gregory that said to remove pagan idols in

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<sup>17</sup>Crawford, “Evidences for Anglo-Saxon Witchcraft,” 99–116.

England but use pagan places of worship as churches. It also said to ban pagan practices like animal sacrifices, except in cases of cultural festivals to provide cheer. The Pope wrote concerning animal sacrifices, “they should offer them to God, and not to idols.”<sup>18</sup> This is another example of a practice itself not being pagan, and that the same practice could be done for God and be considered holy. Hunter Blair notes that the idea behind Gregory’s advice may have been to let the Anglo-Saxons keep some of their cultural comforts to make them more susceptible to Christianity.<sup>19</sup> This is likely true, but the letter also shows that continued pagan practices were most likely already a problem in Anglo-Saxon England, which is why advice was needed in the first place. Already, pagan practices show their stubborn persistence in England.

What exacerbated these problems even further was the coming to power of multiple pagan rulers in England, even though the royalty was already Christianized. Æthelberht, King of Kent, and Sabert, King of the East-Saxons were both early converts to Christianity. But according to Bede in his *Ecclesiastical History*, upon their deaths (both in 616), their pagan sons began ruling and allowing pagan practices again. The sons of Sabert even quarreled with Melittus’s church, causing him to flee the country for a short time.<sup>20</sup> In 627, Redwald, King of East Anglia, a previously strong Christian, was convinced by his wife and “certain perverse teachers” to return to certain pagan practices, like keeping an altar to devils (which were likely pagan gods).<sup>21</sup> If multiple kings that were supposed to be Christian could fall away from the faith into paganism, the likelihood that the common folk—who would not have had much exposure to Christian teachings anyway—stayed good, stalwart Christians is very unlikely. It is also telling that Bede included these accounts at all, because for the most part, he was interested in telling

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<sup>18</sup>Bede, *The Ecclesiastical History of the English Nation*, book 1, ch. XXX.

<sup>19</sup>Hunter Blair, *An Introduction to Anglo-Saxon England* (Cambridge, UK: University Press, 1959.), 120.

<sup>20</sup>Bede, *The Ecclesiastical History of the English Nation*, book 2 ch. V.

<sup>21</sup>Bede, *The Ecclesiastical History of the English Nation*, ch. XV.



the *Christian* history of the island. He had reason to emphasize the Christianness of the Anglo-Saxons, and often over-exaggerated the extent of Christianity and the role Augustine and his successors had in spreading it.<sup>22</sup>

Another documented example of both pagan religion and a specific reference to witchcraft itself was written about by Eddius Stephanus in the early 700s in his *Life of Bishop Wilfrid*. The event occurred in 666 when the bishop was on his way back to England from Gaul and his ship was blown ashore in Southern England by a storm. Upon landing, “a huge army of pagans arrived intending to seize the ship.”<sup>23</sup> The fact that there was reportedly that big of a pagan army in the South of England over seventy years after Augustine’s mission shows how much paganism still thrived. According to Stephanus, the chief priest of the pagans “attempted to curse the people of God, and to bind their hands by means of his magical arts.”<sup>24</sup> Then, one of the bishop’s companions took a stone that had been blessed and slung it at the priest, killing him. This is yet another proof of a Christian “magic” charm beating out a pagan one. Afterwards, the opposing groups fought, and despite fewer numbers, the Christians won their battle against the pagans with only five Christians killed.<sup>25</sup> It is likely that this conflict was somewhat exaggerated in order to supply the story with Biblical allusions.<sup>26</sup> Despite its exaggeration, a conflict certainly did occur and is evidence of large groups of people continuing to hold to pagan practices living in southern England long after Augustine’s time.

In 747 a church council was held at Clovesho. The council told the English bishops to travel to their dioceses yearly and preach the word of God, including forbidding pagan practices

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<sup>22</sup>Meens, “A Background to Augustine’s Mission to Anglo-Saxon England,” 5.

<sup>23</sup>Eddius Stephanus, *The Life of Bishop Wilfrid, 709-720*, trans. Bertram Colgrave (Cambridge, UK: Cambridge University Press, 1985), 27.

<sup>24</sup>Stephanus, *The Life of Bishop Wilfrid*, 29.

<sup>25</sup>Stephanus, *The Life of Bishop Wilfrid*, 29.

<sup>26</sup>Stephanus, *The Life of Bishop Wilfrid*, 27, 29.

such as "soothsayers, sorcerers, auguries, auspices, amulets, spells, or all the filth of the impious and errors of the heathen."<sup>27</sup> If it was necessary to forbid pagan practices yearly, it is clear that they were a problem. Pagan practice was one of the first things addressed by the council, potentially showing its importance. Other textual evidence from this time period that shows the continuation of pagan practices and witchcraft can be found within the Anglo-Saxon penitentials, which will be defined and covered extensively later in the paper.

In addition to all the textual evidence of pagan practices and witchcraft throughout pre-Alfred Anglo-Saxon history, there is also physical evidence. Various pagan objects have been found buried from all throughout the Anglo-Saxon period. This includes crystal balls, boxes with herbs in them, found objects (which were old venerated mundane objects), and more. Audrey Meaney suspects that these objects have origins in magic and witchcraft, and they certainly have pagan origins, but also notes that there is no *direct* evidence that these objects were used in magic or witchcraft.<sup>28</sup> Others, such as in the book *The Anglo-Saxons*, argue using specific artifact types, such as amulets, that Christian amulets were much more frequent than pagan ones.<sup>29</sup> While this is true, and Christians were certainly more populous, it does not fully answer all the textual and physical evidence that paganism was alive and well throughout the period.

By defining witchcraft in the lens of pagan practices and looking at numerous examples of the survival of pagan practices and witchcraft after Augustine's mission, it is evident that witchcraft was prevalent all throughout Anglo-Saxon history. Therefore, the increase in sources mentioning witchcraft in Alfred's time and later is not necessarily due to an increased amount of

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<sup>27</sup>*Council of Clovesho* (747), quoted in George Lyman Kittredge, *Witchcraft in Old and New England* (New York, NY: Russell & Russell, 1958), 27.

<sup>28</sup>Meaney, "Women, Witchcraft, and Magic in Anglo-Saxon England," 9-12.

<sup>29</sup>Campbell, *The Anglo-Saxons*, 56-57.

Anglo-Saxon paganism, but more likely due to an increased sense of a religious and cultural threat of paganism from the influence of invading Danes.

### **King Alfred’s Struggle Against the Threat of Paganism**

King Alfred’s reign, and really his life, was defined by conflict against the threat of paganism. This manifested itself physically in warfare against the ever-invading Danish, who were pagan, as well as intellectually and spiritually against the pagan cultural influences from the Danes. Even before he was king, Alfred was fighting alongside his brother, King Eathered, against the Danish storm that was sweeping the island. During Alfred’s reign, which lasted from 871 to 899, the enemy had taken control of nearly all of England, including the kingdom of Wessex, relegating Alfred and a small band of supporters to hide in a swamp. To Alfred, the Danes were the catalyst and the embodiment of his perceived threat of paganism. The Danes were pagan, and they were often *winning*. Through both great luck and skill (or perhaps providence), Alfred later saw great success against the Danes, both in warfare and through his intellectual fight against paganism—which utilized an education reform and a new law code. Nevertheless, when the chronicler wrote of Alfred’s success in creating and ruling over all of England, he still had to clarify: “except that part that was under the power of the Danes.”<sup>30</sup>

Alfred’s lifelong struggle with the pagan Danes was not solely accomplished through military exploits, but also through something Alfred saw as just as vital—the strengthening of the Christian religion through education. According to David Daniell, who wrote about how Anglo-Saxons viewed and interpreted the Bible and other religious texts, Alfred saw himself in the light of an Old Testament king,<sup>31</sup> and therefore needed to make sure God was on the side of

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<sup>30</sup>*Anglo-Saxon Chronicle*, various years (New Haven, CT: Yale Law School; The Avalon Project, 2008), AD 901.

<sup>31</sup>David Daniell, “THE ANGLO-SAXON BIBLE, 850–1066,” in David Daniell, *The Bible in English: Its History and Influence* (New Haven, CT: Yale University Press, 2003), 45.

the English nation to defeat the pagans. To Alfred, religious revival of the nation could only be done through education,<sup>32</sup> so he instituted a great period of education reform and intellectual growth in Anglo-Saxon England. He also fought the pagan influence from the Danes by instituting a strong and specific law code that specifically dealt with witchcraft.

The Anglo-Saxons already had problems with consistent pagan practices all throughout their history, but now with even more pagan influence on the island, Alfred needed to win a war of the mind as well as a war of the battlefield. Whether the Saxons or the Danes controlled certain territories could go back and forth, but if the Anglo-Saxons reverted back to the pagan practices of their ancestors, God would certainly allow the pagan Danes to destroy the Saxons. After all, this had already happened. Asser, in his *Life of Alfred*, wrote an account of the fall of the kingdom of Northumbria to a pagan force in the north of England which occurred in 678. Asser wrote that through the devil, the Northumbrians had “incurred the wrath of God” and that because of this, the heathen army approached and defeated the Northumbrians by divine providence.<sup>33</sup> Asser was a mentor of Alfred’s, and he finished his *Life of Alfred* while the king was still alive. Alfred even mentioned Asser by name in his Preface to *Pastoral Care*.<sup>34</sup> It is safe to assume that Alfred shared very similar beliefs in this regard to his friend and mentor. To Alfred, God would allow the pagan Danes to destroy Wessex and the Anglo-Saxons just like he did with the Northumbrians if they did not reform and become a kingdom of God. This was the *perceived threat* of paganism that led Alfred to include witchcraft punishments in his law code.

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<sup>32</sup>Campbell, *The Anglo-Saxons*, 215.

<sup>33</sup>Asser, *Life of King Alfred*, 893, trans. Alfred S. Cook (Boston, MA: Athenaeum Press, 1901; Project Gutenberg, 2020), 27.

<sup>34</sup>Alfred, *King Alfred’s West-Saxon Version of Gregory’s Pastoral Care, with an English Translation, the Latin Text, Notes, and an Introduction*, 890, ed. Henry Sweet (London, UK: Early English Text Society, 1871; Bible-Researcher, n.d.).

This perceived threat (from both the Danes and from God) was the context for Alfred’s education program. The people needed to be strongly educated in Christian values if they were to withstand the temptations of paganism from the Danes. Whether the perceived threat was justified or not is subject to debate. F. M. Stenton argues that Christianity was much more of an influence on the Danes than the other way around, and notes that the Danes were not even particularly antagonistic to Christianity. Stenton cites Guthrum and his followers’ baptisms (that were required in their treaty with Alfred) as evidence that the Danes were not largely opposed to Christianity.<sup>35</sup> Certainly Christianity “won” on the island in the end, and perhaps due to this the perceived threat was unfounded, but it may also be the case that Alfred’s efforts to strengthen Christianity among the Anglo-Saxons through learning and his law code may have nullified what would have been a larger pagan influence, and thus the perceived threat *was* justified. But whether Alfred successfully combated the perceived threat or not is beyond the scope of this paper.

While Alfred’s educational renaissance was another component of the battle against the paganism of the Danes, it may be difficult to see where witchcraft and pagan practice comes in. In Alfred’s preface to his own translation of Pope Gregory’s *Pastoral Care*, he wrote, “Consider what punishments would come upon us on account of this world, if we neither loved [wisdom] ourselves nor suffered other men to obtain it: we should love the name only of Christian, and very few of the virtues.”<sup>36</sup> If Alfred saw himself as an Old Testament king, the pagan invasions must have been seen as punishment from God on account of the world.<sup>37</sup> As we have previously seen, paganism and witchcraft were already prevalent in England and had been for centuries,

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<sup>35</sup>Stenton, *Anglo-Saxon England*, 427.

<sup>36</sup>Alfred, preface to *Pastoral Care*.

<sup>37</sup>Daniell, *The Bible in English*, 44-45.

which certainly was a punishable offense. In addition, as argued by Daniell (and clear in Alfred’s preface), the church was experiencing decay in England.<sup>38</sup> Just like Old Testament Israel, Alfred was highly concerned with the punishment God might place upon England if he himself (as God’s appointed ruler) did not turn things around. He attempted to do so both through education and law.

Alfred’s decision to focus specifically on education rather than other ways of restoring the church probably came from his disappointment in his own lack of education as a boy. In Asser’s *Life of King Alfred*, Asser notes that Alfred’s biggest disappointment was that he was never able to receive a proper education as a child due to the lack of teachers.<sup>39</sup> This lack of education in Alfred’s own childhood likely strengthened his stance on teaching reading to children. In Alfred’s preface to *Pastoral Care*, Alfred wrote that his goal was that all youth (who could afford it) could one day be taught to read English.<sup>40</sup> Reading in the English language was important to Alfred. Previously, most reading in England and on the continent was done only in Latin. Alfred lamented that before the Scandinavian raids destroyed the churches of England, there used to be multitudes of books stored in the churches—but no one could read them.<sup>41</sup> This was why Alfred focused heavily on translating popular works into English; he wanted to create a literate, godly society that was fair and wise. Alfred was so convinced of this that he demanded his judges to study wisdom (meaning to read relevant works) or else give up their positions.<sup>42</sup>

As part of Alfred’s translation program, he had five great works translated into English. These were: Pope Gregory’s *Pastoral Care*, Boethius’s *Consolation of Philosophy*, St.

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<sup>38</sup>Daniell, *The Bible in English*, 45.

<sup>39</sup>Asser, *Life of King Alfred*, 25.

<sup>40</sup>Alfred, preface to *Pastoral Care*.

<sup>41</sup>Alfred, preface to *Pastoral Care*.

<sup>42</sup>Asser, *Life of King Alfred*, 106.

Augustine’s *Soliloquies*, Bede’s *Ecclesiastical History*, and Orosius’s *Histories against the Pagans*. According to linguistic studies, Alfred himself likely translated Boethius’s *Consolation* and Augustine’s *Soliloquies*.<sup>43</sup> It is even clearer that Alfred translated *Pastoral Care* based on the preface he wrote for it.<sup>44</sup> Since Alfred found these works important enough to have translated into English, it is safe to assume they were important parts of Anglo-Saxon intellectual and religious belief. Because they were translated into English and thereafter widely distributed,<sup>45</sup> they made up an important part of the *Anglo-Saxon cultural canon*. It is helpful to analyze what some of the works in the cultural canon had to say about witchcraft and paganism, and how they applied to Alfred’s England.

Two of the works in the *cultural canon* were histories; Bede’s was a history of the English (an obvious choice), and Orosius’s a history of pagan peoples (perhaps a more curious choice). *Histories Against the Pagans* was written nearly five-hundred years before Alfred—after the city of Rome was captured by the Goths, a pagan Germanic tribe. Orosius’s great work consisted of seven books spanning from the traditional foundation of Rome (752 BC) until its “fall” to the Goths (417 AD). The books were written to address the widespread idea that Rome fell due to its official conversion to Christianity.<sup>46</sup> It did this by detailing various histories of pagan groups, stressing their losses and depravity, and emphasizing the centrality of the Christian faith. Orosius’s thesis in his own words was, “My investigation has shown, as was proper it should, that death and a thirst for bloodshed prevailed during the time in which the religion that forbids bloodshed (Christianity) was unknown; that as the new faith dawned, the old

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<sup>43</sup>Campbell, *Anglo-Saxon England*, 217.

<sup>44</sup>Alfred, preface to *Pastoral Care*.

<sup>45</sup>Alfred, preface to *Pastoral Care*.

<sup>46</sup>Mary Kate Hurley, “Alfredian Temporalities: Time and Translation in the Old English Orosius,” in *The Journal of English and Germanic Philology* 112, no. 4 (2013): 407.

grew faint; that while the old neared its end, the new was already victorious.”<sup>47</sup> With the context of Orosius’s goal for his *Histories*, it makes more sense why Alfred would find this work important. In Alfred’s time and before, Danish forces had consistently competed with—if not overwhelmed—the Christian Anglo-Saxons. Churches were burned, cities sacked, and for a short time nearly the entire island was controlled by the Danes. How could a pagan force so utterly humiliate a Christian one? The middle to late 800s in England must have felt very similar to how Roman Christians felt in the early 400s. Providing confidence in Christianity’s centrality in history was key to comforting Anglo-Saxons when it seemed that a pagan threat was everywhere. It was also key to fighting the perceived threat of paganism and preventing conversions to paganism by showing its terrible faults. Orosius’s *Histories* made the important claim: *no matter what it looks like now, the Christian God is still in power.*

Bede’s 731 work *Ecclesiastical History* makes even more intrinsic sense for Alfred to have translated than Orosius’s *Histories*. After all, a comprehensive history of England was a logical choice for an English translation and distribution, and it had only existed in Latin up until that point. It is even more important that Bede’s history was an *Ecclesiastical* history. It focused on the Church and the Christianization of England. It heroized bishops, and villainized pagans. One might think that due to Bede’s biases, he might have deemphasized and left out instances of heresies, paganism, or departures from Christianity to pagan religion; but instead, Bede actively tried to include these things in his *History*. Hunter Blair notes that generally speaking, Anglo-Saxons suppressed accounts of heathenism in their writings so knowledge of pagan practices would not be passed on,<sup>48</sup> but Bede wrote, regarding his own histories,, “if it mentions evil things

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<sup>47</sup>Orosius, *Histories Against the Pagans*, 418, trans. I. W. Raymond (1936), in A. T. Fear, *Translated Texts for Historians* 54 (Liverpool, UK: Liverpool University Press, 2010), book 1, ch. 1, p. 14.

<sup>48</sup>Blair, *An Introduction to Anglo-Saxon England*, 121.



of wicked persons...[the reader], shunning that which is hurtful and perverse, is the more earnestly excited to perform those things which he knows to be good, and worthy of God.”<sup>49</sup> In other words, Bede used his presentation of pagan practices to highlight what was wrong and point his audience towards godliness. This is exactly what Alfred wanted during his reign—a condemnation (but acknowledgement) of evil, and a reassurance of the Christian history of the Anglo-Saxons, all to combat Alfred’s perceived threat of increased pagan influence from the Danish invaders.

In addition to Alfred’s education reform and translations of multiple popular works, he also fought against the threat of paganism through the law. At no previous time in Anglo-Saxon history before Alfred was witchcraft mentioned in a law code, but after Alfred’s law code, many kings explicitly mentioned it in their law codes. At first glance, this seems to indicate that witchcraft was not as common before Alfred, but as has been shown, witchcraft was prevalent throughout Christian Anglo-Saxon history from Augustine’s mission onward. Even the extensive law code of Æthelberht, King of Kent, did not include witchcraft or any pagan practices, despite it being written “in the days of Augustine”<sup>50</sup> when witchcraft would have been the most prevalent. While more people were pagans and likely practicing witchcraft in Æthelberht’s times than in Alfred’s, Alfred felt more need to include witchcraft in his own law code. This is because of the perceived threat of paganism from the ever-present Danes. It had to be clear-cut and written in law that these practices were not allowed, lest they spread, and paganism gain even more hold on the culture and the people, straying the Anglo-Saxons even further from God.

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<sup>49</sup> Bede, preface to *The Ecclesiastical History of the English Nation*.

<sup>50</sup>*The Laws of Æthelberht, King of Kent, 560-616*, in *The Library of Original Sources Vol. IV: The Early Medieval World*, ed. Oliver J. Thatcher (Milwaukee, WI: University Research Extension, 1901; Internet Medieval Sourcebook, 1998) 211-239.

Alfred, striving to be the Christian king, fought against this potential spread of paganism by specifically outlawing witchcraft in his revolutionary law code. The Domboc (law code) included three parts: an introduction (which also outlawed practices), a set of laws, and an earlier law code by Ine written sometime in the early eighth century. In the introduction section, Alfred mentioned paganism four times, and witchcraft explicitly once. In fact, the very first law Alfred includes is, “You will not love false gods over [God].”<sup>51</sup> This is the first of the ten commandments, which are the first ten laws of the Domboc. Later in the law code, witchcraft and paganism were more specifically addressed. One law says, “The women who are wont to receive wizards and magicians and witches, do not let them live.”<sup>52</sup> This is interesting because it does not address wizards, magicians, and witches themselves, but the people who welcome them. Alfred’s abhorrence of witchcraft and duty to protect his people from the threat of paganism was so deeply ingrained that even people who *associated* with witches were to be put to death. Later in the law code, sacrificing to pagan idols is given the death penalty, and swearing by pagan gods is warned against, but not given an explicit punishment.<sup>53</sup> This type of strict and harsh punishment given to paganism and witchcraft that extended even to people who associated with witches had never been seen previously.

Todd Preston, the author of *King Alfred’s Book of Laws*, notes the utter importance of Alfred’s law code. He says that scholars have consistently underutilized the law code as a source of cultural insight into the time. “Even as it codifies law, the text encodes culture.”<sup>54</sup> This is absolutely true. Alfred’s law code can point to exactly what the Anglo-Saxons cared about at the

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<sup>51</sup>Alfred, *Alfred’s Law Code*, 887-893, in Todd Preston, *King Alfred’s Book of Laws: A Study of the Domboc and Its Influence on English Identity, with a Complete Translation* (Jefferson, NC: McFarland, 2012), 110.

<sup>52</sup> Alfred, *Alfred’s Law Code*, 114.

<sup>53</sup>Alfred, *Alfred’s Law Code*, 114, 116.

<sup>54</sup>Preston, *King Alfred’s Book of Laws*, 101, 104.

time through what was outlawed. In this case, it is very clear that witchcraft and paganism was deemed important enough a threat to apply the death penalty to. Preston also explicitly addresses the issue of the Danish threat during Alfred’s time, writing, “The menace of the Danish invaders is a source of both political and cultural anxiety for Alfred and his people. These invaders would subjugate his kingdom to both Danish rule and culture. In the face of possible invasion and conquest, the Domboc (law code) carries a soothing message: we are a unified and ordered people.” While Preston’s conclusion is mostly apt, Alfred’s law code was not just about unity and order. It was about saying: this is a *Christian* kingdom, and it will remain that way. That is why the law code opens with the ten commandments and why Alfred stresses the continuation of his law code from Biblical laws.<sup>55</sup>

Alfred also helped create a lesser-known law code that was more of an agreement between Alfred and Guthrum—a Danish leader defeated by Alfred who agreed to convert to Christianity. This code was even more explicitly against paganism and witchcraft than Alfred’s previous one, probably because of the large Danish population of East Anglia, where Guthrum ruled. The code, overall, was harsher, but also allowed for crime forgiveness if a certain price was paid.<sup>56</sup> This is likely because it would have been impractical to put to death *everyone* who was still practicing pagan beliefs that they only recently were told to stop—especially in an area that had a large Danish population.

Future law codes after Alfred’s tended to follow a very similar outline in regard to witchcraft but seemed to get at least somewhat less harsh as time went on. Æthelstan’s law code, written between 924-939, goes into further detail with different punishments for how well-

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<sup>55</sup>Alfred, *Alfred’s Law Code*, 110, 116-117.

<sup>56</sup>*The Laws of Alfred, Guthrum, and Edward the Elder*, 871-901, in *The Library of Original Sources Vol. IV*, 211-239.

proven the case of witchcraft was. If there was certain proof, the witch was to be killed. If there was no proof and they denied the accusation, they would go through various tests to see if they were truly a witch. But even if they were found guilty, they then only had to be in prison for four months, pay the allotted price, and then desist from further practice.<sup>57</sup> Edmund I’s law code, written just a few years after Æthelstan’s was even less harsh, with no death punishments, just the punishment of being cast out.<sup>58</sup> This general theme of the law codes getting less harsh also implies that Alfred’s code was part of a specific effort to stamp down upon witchcraft and pagan practices in his time, and a fear that the Danes would influence the Anglo-Saxon Christians. But over time as the Danes became less of an active threat, paganism and witchcraft became less of a cultural threat as well, leading the law codes to be less harsh.

Todd Preston notes that texts like Alfred’s preface in *Pastoral Care* show what he believes, while his law codes show the application of his beliefs.<sup>59</sup> This is certainly true. In the preface, Alfred detailed his thoughts on the sorry state of England, which he calls “ravaged and burnt.”<sup>60</sup> He laid out his plan in the preface to make England better, to properly Christianize his nation and to defend his country against the pagan threat.<sup>61</sup> He did this through his educational reform and translations of popular works, improving the Christian wisdom and knowledge of the country. He also did this through his law code, which affected the everyday lives of the Anglo-Saxons in a very practical sense.

### **The Fight Against the Threat Witchcraft Among the Clergy and Commoners**

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<sup>57</sup>*The Laws of Athelstan*, 924-939, in *The Library of Original Sources Vol. IV*, 211-239.

<sup>58</sup>*The Laws of King Edmund I*, 939-946, in *The Library of Original Sources Vol. IV*, 211-239.

<sup>59</sup>Preston, *King Alfred's Book of Laws*, 101.

<sup>60</sup>Alfred, preface to *Pastoral Care*.

<sup>61</sup>Alfred, preface to *Pastoral Care*.

So far, this paper has explored witchcraft and the fight against the perceived threat of paganism somewhat in timeline order. First, witchcraft in the Anglo-Saxon context was defined as explicitly pagan and described in the sources as “magic,” “sorcery,” “witchcraft,” etc., but was not necessarily “supernatural” (a modern designation). Then, evidence was provided for the—perhaps not thriving, but still prevalent—survival of pagan belief and witchcraft throughout the period of roughly 600 to the late 800s. Finally, Alfred’s spiritual and intellectual battle against the perceived threat of paganism was examined, especially in regard to his revolutionary translation and education program, as well as his law code. Now in this final section, the penitentials, along with a few other sources, will be used to reveal the cultural understandings and attitudes that the clergy and everyday Anglo-Saxons had regarding witchcraft, and how the conflict against the perceived threat of paganism was present extensively in the penitentials and other textual sources.

Penitentials were written documents that were used by priests to help determine self-punishments, or penances, for their parishioners during confession. They normally included lists of sins and correlated penances. The original penitentials were written mainly in Ireland, but they eventually became popular on the continent and in England.<sup>62</sup> The first known Anglo-Saxon penitential is the *Penitential of Theodore*, which was written in the early 8th century. There are multiple later penitentials of equal importance, and they tend to build off each other. The importance of the information provided about witchcraft and paganism within the penitentials cannot be overstated. Much detail was often provided with the goal of the suppression of these practices. McNeill and Gamer, in their collection of penances, put it excellently when they wrote, “Writers of penitential books took up [the] crusade for the suppression of these ancestral

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<sup>62</sup>*Medieval Handbooks of Penance: A Translation of the Principal Libri Poenitentiales and Selections from Related Documents*, ed. John T. McNeill and Helena M. Gamer (New York, NY: Octagon Books, 1965.), 26.

superstitions. Their anxious attention to the subject often led them to enlarge upon it in such a way as to supply historically priceless material on medieval pagan survivals."<sup>63</sup> In other words, the Anglo-Saxons' fear of witchcraft led them to include a lot of information about it in the penitentials with the purpose of trying to quell it. This anxiety about witchcraft was the same as Alfred's fear of the threat of paganism. While Alfred fought against this threat through education and law, the authors of the penitentials fought against the threat through confession and penance. In a way, the method of providing plentiful detail in the penitentials is similar to Bede's idea of providing lots of information about paganism so people will turn away from it, but in the case of the penitentials, this may simply have been done to provide the priest with as much detail as possible to help with confession. Nevertheless, the penitentials provide crucial information for modern scholars.

Penitentials are similar to law codes in both format and goal in regard to witchcraft. Richard Raiswell and Peter Dendle note in their "Demon Possession in Anglo-Saxon and Early Modern England" that both types of sources, among others, exhibit a hostility towards witchcraft that aimed at extinguishing the continued practice of paganism.<sup>64</sup> In other words, the penitentials were just as concerned with the perceived threat of paganism that Alfred and later kings were in their law codes. It is helpful to look at the law codes as the state's answer to the threat of paganism, and the penitentials as the local church's answer to the threat. The major difference between the two is that through the law, the offender could be killed (thus removing the pagan problem), but through the penitentials, the only real goal could be convincing the parishioner to stop.

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<sup>63</sup>*Medieval Handbooks of Penance*, 39.

<sup>64</sup>Richard Raiswell and Peter Dendle, "Demon Possession in Anglo-Saxon and Early Modern England: Continuity and Evolution in Social Context," *Journal of British Studies* 47, no. 4 (2008): 750.

In studying the penitentials, it must also be remembered that in any actual use of a penitential book, the sinner *voluntarily* made known their sin to the priest. This means that the witchcraft practices found in penitentials were most often being done by people who considered themselves to be Christian. The importance of Christians confessing their sins involving witchcraft is demonstrated in Ælfric’s *Lives of Saints*, where he makes clear that those who practice witchcraft are separated from God forever, “unless he offer alms and much penance.”<sup>65</sup>

In a way, the lay people who confessed their pagan actions to a priest were also doing their part in combating the threat of paganism. Often, parishioners may not have even known what practices were pagan or not due the extensive interweaving of pagan and Christian belief that was occurring. This was seen previously in this paper in the discussion of the Anglo-Saxon field remedy. Using Christian texts for charms or medicinal purposes was not uncommon at all, showing significant overlap of pagan and Christian ideas. Kittredge notes in his *Witchcraft in Old and New England* that, “So intertwined were Christianity and paganism that even the *Pater Noster* [Lord’s Prayer] itself was treated by learned and pious men in a manner that approaches witchcraft.”<sup>66</sup> In addition, there were popular medicinal sources called leechbooks that were, according to Kittredge, incredibly popular in Anglo-Saxon England. These leechbooks had remedies for all sorts of ailments from eye sores, to bug bites, to warding off witches—and these books were not necessarily considered pagan.<sup>67</sup> With this significant intermixing and overlap between pagan and Christian belief, it only makes sense that the average person may not have immediately known the difference between pagan rituals and Christian ones.

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<sup>65</sup> Ælfric, *Lives of the Saints*, 990s, ed. Walter Skeat (London, UK: N. Trübner, 1881; Wikisource, 2022), 371.

<sup>66</sup> Kittredge, *Witchcraft in Old and New England*, 31.

<sup>67</sup> Kittredge, *Witchcraft in Old and New England*, 32.

In the late 10th century, Ælfric wrote in his *Catholic Homilies* that if any Christian man sought medical help from any unallowed practices, including witchcraft, he was “like to those heathen men.”<sup>68</sup> Ælfric then said to not seek health from a stone or tree, a clear reference to pagan naturalism, but from holy relics. He later confirmed that some herbs were okay to use medicinally, but only if it was not enchanted with magic, and that it was understood that its healing properties came from God.<sup>69</sup> Still, actual pagan rituals remained popular forms of treatment, as evidenced by the penitentials. In the *Penitentials of Theodore*, it says, “If a woman places her child upon a roof or in an oven in order to cure a fever, she shall do penance for five years.”<sup>70</sup> *The Scirftboc Penitential* also provides a penance for this same ritual, and includes another that says, “Whoever burns grain in a place where a man died in order to give health to living men and to the house, he is to fast five years.”<sup>71</sup> In the *OE Penitential*, a penance is given for “if she cures her child with any witchcraft or at a crossroads lets it be drawn through the earth, for that is a very heathen practice.”<sup>72</sup> These are all examples of practices that were to be used for healing, but were considered to be witchcraft because of their pagan connections. The punishments for these healings in both the *Penitentials of Theodore* and *the Scirftboc Penitential* were fasting for long periods of time.

In the *Scirftboc Penitential*, the penance for putting a child on the roof to cure them is harsher than the penance for murdering someone with witchcraft.<sup>73</sup> There are two reasons why this could be the case. One is that the law consequences for killing someone was already death, so a harsh penance from the church didn’t really make sense. The other, and more likely, reason

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<sup>68</sup> Ælfric, *Homilies*, 477.

<sup>69</sup> Ælfric, *Homilies*, 477.

<sup>70</sup> *Penitentials of Theodore*, early 8th century, in *Medieval Handbooks of Penance*, 198.

<sup>71</sup> *Scirftboc Penitential*, in Allen J. Franzen, *Anglo-Saxon Penitentials: A Cultural Database* (2003-2022), X16.03.01.

<sup>72</sup> *OE Penitential*, in Allen J. Franzen, *Anglo-Saxon Penitentials: A Cultural Database* (2003-2022), Y44.16.01.

<sup>73</sup> *Scirftboc Penitential*, X14.06.01.



is that it seems the Anglo-Saxons had a very high regard for children, and would therefore be more offended by the child’s exposure to witchcraft. This higher regard for children and fear of their exposure to paganism is evidenced throughout the penitentials in correlating similar penances for sins against children and adults. For example, in the *Scriftboc Penitential*, using pagan cures on children results in the parent having to fast for five to seven years. But if a woman used a pagan cure on herself—such as drinking her husband’s blood, or using a love-magic concoction to make herself more attractive to a man—she only had to fast for forty days or three years respectively.<sup>74</sup> The only noticeable difference here between these different pagan cures is whether they were used on children or on adults. Another example of the concern for children’s faith is evidenced by the penances for if a child died as a heathen. In the *Scriftboc Penitential*, if a parent’s heathen child died, they were to fast for three years, and in the *OE Handbook*, the priest who was taking care of a sick child who died a heathen had to forfeit their position and fast for three years.<sup>75</sup> This concern for pagan influences on children shows that the perceived threat of paganism extended to the minds of parents. If the children of the realm were influenced by paganism—potentially through their parents trying to cure them—there was little hope for the next generation, and the threat of paganism won. The penitentials sought to act against that outcome by enacting harsher penances when children were exposed to witchcraft.

One specific component of pagan religion and witchcraft the penitentials and other sources mention often are auguries. The practice of auguries generally involved looking at the natural world such as the stars, the behaviors of birds and other animals, or people’s dreams in order to ascertain something—generally about the future. The *Penitential Ascribed by Albers to*

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<sup>74</sup> *Scriftboc Penitential*, X14.08.01. X15.11.01.

<sup>75</sup> *Scriftboc Penitential*, X07.01.01; *OE Handbook*, in Allen J. Franzen, *Anglo-Saxon Penitentials: A Cultural Database* (2003-2022), Y44.16.01.

*Bede* (which was not actually written by Bede) includes uttering prophesies from “some sort of writings” as part of practicing auguries.<sup>76</sup>

The *OE Penitential* contains the most content about auguries. It says twice that practicing auguries “as heathen men do” is not allowed and it gives two different penances for it. The first penance gives another definition of what the author meant by practicing auguries: “that is that they believe in the sun and the moon and the stars' course and seek time-auguries to begin their events.”<sup>77</sup> The first penance says to fast for forty days on the first infraction, but three years on the second. The second penance simply says to fast for three years. Unlike most penances in the penitentials, this second penance for practicing auguries gives specific instructions for how specifically to fast: “1 [year] on bread and water and for 2 years on Wednesdays and Fridays [he is to fast] on bread and water and on the other days partake of his meals except for meat only.”<sup>78</sup> The *Penitential of Theodore*—the oldest penitential—also provides penance for the practice of auguries. It gives the same penance—five years—to both practicing auguries yourself and for inviting someone into your home who practices auguries. This extensive coverage of auguries in many different penitentials shows how common these practices were, and the penances themselves show how seriously the practice of auguries was taken. Being able to tell the future without the help of God went directly against Christian belief and was a dangerous part of the threat of paganism—especially if it worked.

One aspect of the fight against the threat of paganism not yet detailed in this paper is the belief about the harm witchcraft itself could do. Not cultural or religious harm in the spread of pagan religion, but actual physical harm that could come from witchcraft. This issue comes down

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<sup>76</sup>*Penitential Ascribed by Albers to Bede*, early 8th century, in *Medieval Handbooks of Penance*, 228-229.

<sup>77</sup>*OE Penitential*, Y42.23.01.

<sup>78</sup>*OE Penitential*, Y42.23.02, Y44.15.01.

to whether Christian Anglo-Saxons believed that witchcraft practices, auguries, cures, charms, and more *actually* worked. The answer to this question is somewhat mixed and not perfectly clear, though overall it seems that at least the commonfolk did believe that witchcraft worked in some form.

In the case of auguries about the future, some Christian sources suggest that they did work, while others suggest it is ridiculous to believe in them. For example, the *OE Penitential*, in addition to listing punishments for practicing auguries, describes auguries as “useless” and “vain things.”<sup>79</sup> These words suggest that the writer(s) of the penitential did not believe the auguries could actually be of use. On the other hand, Ælfric wrote a sermon entitled “On Auguries” in his *Lives of Saints* in the late 10th century in which he says that the devil may reveal truths to a witch in order to tempt others into destroying their Christianity.<sup>80</sup> In other words, auguries could work, but only through the devil trying to get people to forsake their faith. If there was a general belief that auguries actually worked, the perceived threat of paganism not only had to do with pagan religion winning over Christianity, but also actual physical consequences.

As for whether pagan ritual-cures for ailments worked, it is even less clear. The penitentials do not offer any insight, they just provide penance for when those cures are attempted. Ælfric in his *Lives of Saints* called women “witless”<sup>81</sup> who tried the “drawing through the earth at a crossroads” cure mentioned earlier in the *OE Penitential*. But this witlessness may be in regard to the fact that the woman had “commit[ed] themselves and their children to the devil,”<sup>82</sup> not that the ritual itself was useless. As was discussed earlier in the paper, oftentimes medicinal cures that did work were considered pagan unless they were used in a Christian

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<sup>79</sup>*OE Penitential*, Y42.23.01, Y42.23.02.

<sup>80</sup>Ælfric, *Lives of the Saints*, 273.

<sup>81</sup>Ælfric, *Lives of the Saints*, 275.

<sup>82</sup>Ælfric, *Lives of the Saints*, 275.

context.<sup>83</sup> In these cases, the medicine—although considered pagan if used in correlation with a pagan charm—must have been thought to work. It is also important to note that the mere mentioning of ritual-cures in the penitentials meant that they were attempted often enough to warrant inclusion. This suggests that there would have been at least some belief in them by the commonfolk.

The form of witchcraft that has the most evidence for the general belief in its working is charms and rituals to harm others. In the penitentials, it is shocking how matter of fact it is stated. In the *Scirftboc Penitential*, it simply states, “If a woman kills someone with her sorcery, she is to fast six years.”<sup>84</sup> Likewise, the *OE Penitential* says, “If any one kill another with witchcraft, he is to fast 7 years.”<sup>85</sup> As discussed in the definition of witchcraft, these murders could have been done with poison, which was still in the realm of witchcraft—but it is very clear that however the Anglo-Saxons would have understood this penance, they would have believed that witchcraft was capable of killing. Ælfric also makes it clear he believed witches could hurt people in his “On Auguries” sermon, but he also explains that any harm a witch could do was through God’s permission, and that nothing was out of his control.<sup>86</sup> He meant this in the sense that God could test the faithful through others using witchcraft.

There is one specific instance of witchcraft, of which quite few are known, where from every perspective, it is obvious that the Anglo-Saxons did believe in witchcraft. This was the case of the anonymous woman from Ailsworth who used pins on an effigy. This case also shows the difference between the average person’s response to the threat of paganism, and the local church’s response.

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<sup>83</sup> Ælfric, *Homilies*, 477.

<sup>84</sup> *Scirftboc Penitential*, X14.06.01.

<sup>85</sup> *OE Penitential*, Y44.12.01.

<sup>86</sup> Ælfric, *Lives of Saints*, 277.

In both the *OE Penitential* and the *OE Handbook*, the penance for using pins on an effigy of a person in order to harm them was to fast for three years. If the person died, they were to fast for seven years.<sup>87</sup> Already in the penitentials, there is proof that the Anglo-Saxons believed this type of witchcraft worked. If they believed it did not, they would not have included separate penances for if it worked or if it did not. Unfortunately, there is no law code from the time this event took place (971), but it is clear from every other law code available that the punishment for murderous witchcraft was death. For example, Aethelstan, who ruled between 924 and 939 AD, wrote in his law that if someone used witchcraft to kill another, the murderer was to be killed in punishment.<sup>88</sup> What is interesting about this incident is that the man the woman had an effigy of, Ælfsige, did not die, yet the woman was still killed.<sup>89</sup> The fact that Ælfsige was not harmed, yet the woman was still drowned shows how deeply the Anglo-Saxons believed that this practice *could* kill. All she did was put a few iron pins into a small figure that represented Ælfsige, and when “the murderous instrument”<sup>90</sup> was found, the perceived threat of this pagan practice was ended by her death. If the anonymous woman would have confessed to a priest, perhaps she would only have had to fast for a few years to make her penance. But instead, the Saxons took their protection against the threat of paganism into their own hands and killed the woman.

The perceived threat of paganism was ever-present to all sorts of Anglo-Saxons. While Alfred and later kings fought against the threat from the top-level using education and law, church priests fought against the threat in everyday confession using penitentials, and the commonfolk—while sometimes not knowing exactly what was pagan and what was not—did

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<sup>87</sup>*OE Penitential*, Y44.13.01; *OE Handbook*, D54.36.01.

<sup>88</sup>Aethelstan, *Aethelstan's Law Code*, 199.

<sup>89</sup>“Old English deed of exchange,” 519.

<sup>90</sup>“Old English deed of exchange,” 519.

their part by doing their penances, and in some rare instances, extinguishing the threat on their own by killing a witch.

## **Conclusion**

Relatively widespread paganism and witchcraft was occurring through the entire Christian Anglo-Saxon period from Augustine’s mission in 597 to Alfred’s rise to power in 871 and beyond. But due to invasions by staunch pagans—namely, the Danish—an increased threatening sense of paganism was felt by all Christian Anglo-Saxons. The Anglo-Saxons did not let this threat fly by without regard. Anthony Davies in his case studies on Anglo-Saxon witchcraft says, “The Anglo-Saxons took witchcraft seriously. They legislated against it in secular and ecclesiastical law codes, they preached against it in homilies and saints’ lives, they condemned it in penitentials and in pastoral letters.”<sup>91</sup> In other words, every aspect of Saxon society felt and was involved in this fight against witchcraft and paganism. In addition to what Davies listed, even the commonfolk felt the threat and confessed their sins when they themselves performed pagan practices, and sometimes even made their fight against paganism physical, as in the case of the Ailsworth widow.

Though these groups all shared the same sense of the threat of paganism, they were unaware of each other—unaware that they were all part of this same cultural wave. The townsfolk who killed Ailsworth were not concerned with cultural trends or how posterity would view them, they simply did what they thought the Lord wanted them to do and executed who they saw as a would-be murderer. The writers of the penitentials did not know they would give future historians greater insight into what witchcraft was like in their times, they were simply addressing through confession what they saw was a growing problem among the commonfolk.

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<sup>91</sup>Anthony Davies, “Witches in Anglo-Saxon England: Five Case Histories,” in *Superstition and Popular Medicine in Anglo-Saxon England*, 41.

Even Alfred, while perhaps the most aware of the fight against paganism, was likely trying to do what he thought would please God and spare his people from the pagan threat. This is important to remember in the study of history. These are real people, and individually, they were more than just a cultural trend. They were all influenced by the perception of a pagan threat, especially during a time when it seemed that their world was not ensured—the Danes were right next door. They did what they could in their fight against the threat of paganism to protect their religion and lifestyle.

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