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ARTICLES

RELIGIOUS FREEDOM VERSUS PUBLIC HEALTH: THE NECESSITY OF COMPULSORY VACCINATION FOR SCHOOLCHILDREN

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I. INTRODUCTION

The United States is a country of many freedoms, such as the right to speak and refrain from speaking¹ the right to be free from unreasonable searches and seizures,² the right to familial and personal privacy,³ the freedom to choose whether to carry a pregnancy to term,⁴ and the right to own a gun.⁵ However, granting such freedoms often comes at the expense of derogating the interests

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¹ U.S. CONST. amend. I; *see also* Wooley v. Maynard, 430 U.S. 705, 714 (1977) (“[T]he right[s] . . . protected by the First Amendment . . . include both the right to speak freely and the right to refrain from speaking at all.”).

² U.S. CONST. amend. IV.

³ *See generally* Griswold v. Connecticut, 381 U.S. 479 (1965) (finding privacy rights in the U.S. Constitution).

⁴ *See generally* Roe v. Wade, 410 U.S. 113 (1973) (holding that women have the right to choose whether to have an abortion); Planned Parenthood v. Casey, 505 U.S. 833 (1992)

and constitutional rights of others. Both the courts and Congress continuously struggle to balance the constitutional rights of individuals against governmental interests that are integral to the functioning of a successful and stable nation. One such conflict is how to reconcile the administration of vaccinations for schoolchildren with the right to freedom of religion under the First Amendment.

The history of public health in the United States preceding the development of vaccinations is a tragic one, with outbreaks of diseases like smallpox and measles claiming the lives of thousands.⁶ Today, that history seems unlikely to repeat itself. Modern scientific advancements and powerful infrastructure that regulates vaccines on the state and federal level have successfully eradicated many infectious diseases by making vaccinations widely available to the general public.⁷ However, a recent 2015 outbreak of measles that began in the Disneyland amusement park in California and spread across several states has reminded the nation of the costs a country must bear when it allows states to permit non-medical exemptions to vaccinations.⁸ The measles outbreak prompted questions as to whether these exemptions can be justified in light of the risk that they pose to the general public.⁹

Mississippi has not experienced the impact of a measles outbreak since 1992.¹⁰ Whereas most states permit exemptions to vaccine laws for other reasons, such as philosophical and religious objections, Mississippi is one of three states in the country, along with West Virginia and California, that contains

(upholding core principles of *Roe v. Wade* but altering the legal framework for analyzing state restrictions on abortions by creating the undue burden standard).

⁵ U.S. CONST. amend. II.

⁶ *Measles - Q&A about Disease & Vaccine*, CENTER FOR DISEASE CONTROL AND PREVENTION, <http://www.cdc.gov/vaccines/vpd-vac/measles/faqs-dis-vac-risks.htm> (last visited May 8, 2016) (“Before the U.S. measles vaccination program started in 1963, about 3–4 million people in the U.S. got measles each year; 400–500 of them died, 48,000 were hospitalized, and 4,000 suffered encephalitis (brain swelling) due to measles.”); National Immunization Program, Center for Disease Control and Prevention, *Achievements in Public Health, 1900–1999 Impact of Vaccines Universally Recommended for Children—United States, 1990–1998*, 48 MORBIDITY & MORTALITY WKLY. REP. 12, 243 (1999), available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/00056803.htm>.

⁷ See *infra* Part II. When referring to vaccine “infrastructure” throughout this paper, the author is referring to everything from research centers and hospitals as well as more formal policymaking institutions such as state and federal legislatures.

⁸ Liz Szabo, *Measles outbreak raises question of vaccine exemptions*, USA TODAY (Jan. 23, 2015), <http://www.usatoday.com/story/news/2015/01/21/disneyland-measles-schools-outbreak/22106151/>.

⁹ *Id.*

¹⁰ Reid Wilson, *Best state in America: Mississippi, for vaccination rates*, WASH. POST (Feb. 6, 2015), http://www.washingtonpost.com/opinions/best-state-in-america-mississippi-for-vaccination-rates/2015/02/06/c4d3bc2e-acad-11e4-9c91-e9d2f9fde644_story.html.

only medical exemptions to their compulsory school vaccination laws.¹¹ States like Mississippi exemplify how effective vaccination infrastructure could prevent disease if the nation were to uniformly prohibit religious and philosophical exemptions to administration of vaccines.¹² As one of the three states that does not offer non-medical exemptions, Mississippi makes for a unique and ideal case study for why a standardized federal vaccination law would not only effectively prevent the spread of infectious disease, but also present no constitutional barriers if undertaken by the federal government.

Recently, Mississippi adopted a state Religious Freedom Restoration Act (RFRA) which mirrors the federal RFRA and grants religious exemptions to individuals when they object to state laws.¹³ When reviewing a legal challenge to the Mississippi RFRA, the state's Supreme Court specifically held that a state vaccination law without religious exemptions withstands strict scrutiny.¹⁴ Because a federal vaccination law would also have to withstand strict scrutiny under the federal RFRA, Mississippi demonstrates that a national standard for compulsory vaccinations of schoolchildren, allowing only medical exemptions, should be upheld as constitutional under the First Amendment as well as upheld under the federal RFRA.¹⁵

This Article argues that the federal government should enact a compulsory vaccination law for all schoolchildren, and that when crafting the law legislators should exclude religious and philosophical exemptions. Part I revisits the history of the often-disastrous outbreaks of infectious disease that previously plagued the nation. It also examines how state governments and courts have treated vaccination laws and requests for exemptions. Part II first explains why non-medical exemptions create a risk to the public health that is sufficiently dire as to warrant federal involvement. It also highlights how the Commerce Clause provides the federal government with the authority to take such action while still adhering to the First Amendment's protection of religious freedom. Part II concludes by arguing that Mississippi presents an effective model for an identical federal compulsory vaccination law that would raise no constitutional issues and illustrates how such a law would effectively protect public health.

II. BACKGROUND

To understand the complexity and interplay between vaccinations and freedom of religion, this article details the historical backdrop of both areas of law. Section A describes the tragic impetus for vaccine requirements in the United States. Section B highlights the various state and federal laws that shape ac-

¹¹ *See id.*

¹² *See id.*; *see also Vaccination Exemptions*, HISTORY OF VACCINES, <http://www.historyofvaccines.org/content/articles/vaccination-exemptions> (last visited May 8, 2016).

¹³ MISS. CODE ANN. § 41-23-37 (2016).

¹⁴ *Brown v. Stone*, 378 So. 2d 218, 220 (Miss. 1979).

¹⁵ *See infra* Part II.C.

ceptance and refusal by children and their families of immunizations today. Section B also provides a legal history of the most relevant vaccination case law. Section C examines how the First Amendment right to religious freedom impacts today's legal framework for public schoolchildren's religious refusals to vaccination requirements. Together, these sections illustrate the state's recognition of the importance of vaccinations to public health.

A. *The History of Vaccination Requirements in the United States*

In 1999, the Center for Disease Control ("CDC") labeled the invention of widely accessible vaccines as the most important public health achievement of the twentieth century.¹⁶ Unfortunately, the impetus for this great achievement was the tragic history of widespread disease and death. In the early 1900s, a smallpox epidemic plagued the nation, causing hundreds of deaths per year.¹⁷ In 1921, upwards of 200,000 Americans contracted diphtheria, resulting in over 15,000 deaths.¹⁸ In the 1940s, polio, a virus that attacks the nervous system and often results in permanent paralysis, spread through the United States, crippling more than 35,000 Americans per year and causing public panic.¹⁹ In the 1950s, almost every single child in the United States contracted measles, a dangerous rash, by their fifteenth birthday.²⁰ Three to four million children were infected annually, and an estimated 400 to 500 people died each year due to complications.²¹ The country was experiencing a public health crisis.

¹⁶ National Immunization Program, Center for Disease Control and Prevention, *Ten Great Public Health Achievements—United States, 1900-1999*, 48 MORBIDITY & MORTALITY WKLY. REP. 12, 241 (1999), available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/00056796.htm>.

¹⁷ *Achievements in Public Health*, *supra* note 6; *History of Smallpox*, HISTORY OF VACCINES, http://www.historyofvaccines.org/content/timelines/smallpox#EVT_000130 (last visited May 16, 2016). Smallpox is the only disease to have been eradicated by vaccine across the globe—the last documented case was in Somalia in 1977. *Id.*

¹⁸ *Diphtheria: Clinicians*, CENTER FOR DISEASE CONTROL AND PREVENTION, <http://www.cdc.gov/diphtheria/clinicians.html> (last updated May 15, 2014); see also *Vaccines and Immunizations: What Would Happen If We Stopped Vaccinations?*, CENTER FOR DISEASE CONTROL AND PREVENTION, <http://www.cdc.gov/vaccines/vac-gen/whatifstop.htm> (last updated May 19, 2014). Diphtheria is a potentially deadly and highly contagious upper respiratory disease that creates a "coating on the throat [that] can get so thick that it blocks the airway, so the person can't breathe." CENTER FOR DISEASE CONTROL AND PREVENTION, *DIPHTHERIA AND THE VACCINE (SHOT) TO PREVENT IT 2* (Feb. 2014), available at <http://www.cdc.gov/vaccines/parents/diseases/child/diphtheria-basics-color.pdf>.

¹⁹ *A Polio-Free U.S. Thanks to Vaccine Efforts*, CENTER FOR DISEASE CONTROL AND PREVENTION, <http://www.cdc.gov/Features/PolioFacts/> (last updated July 10, 2014).

²⁰ *Measles (Rubeola): Measles History*, CENTER FOR DISEASE CONTROL AND PREVENTION, <http://www.cdc.gov/measles/about/history.html> (last updated Nov. 3, 2014).

²¹ *Id.*; *Measles (Rubeola): Complications of Measles*, CENTER FOR DISEASE CONTROL AND PREVENTION, <http://www.cdc.gov/measles/about/complications.html> (last updated Feb. 17, 2015); *Measles (Rubeola): Signs and Symptoms*, CENTER FOR DISEASE CONTROL AND

Often labeled “the father of immunology,” English physician Edward Jenner is credited with discovering vaccines in 1798, thereby remedying the ongoing public health crisis caused by the repeated and widespread outbreaks of various diseases.²² Jenner made his discovery when he inoculated a child with cowpox material to immunize the child from contracting smallpox in the future.²³ However, widespread elimination of smallpox and other infectious diseases did not immediately follow Jenner’s discovery.²⁴ Although the potential impact of vaccines was obvious, it took more than a century for the safe development of vaccinations for most major viruses, as well as for the nation to build a sustainable infrastructure of state laws, federal support, and scientific research necessary for the dissemination and regulation of vaccinations to the general public.²⁵

Following Jenner’s discovery, the trajectory of vaccine regulation in the United States was fragmented but steady. In 1813, Congress enacted “An Act to Encourage Vaccination,” which created the first National Vaccine Agency, guaranteeing access to the smallpox vaccine.²⁶ In 1855, Massachusetts became the first state to implement mandatory vaccination requirements for all public schoolchildren.²⁷ In 1902, Congress passed the Biologics Control Act, the “first

PREVENTION, <http://www.cdc.gov/measles/about/signs-symptoms.html> (last updated Feb. 17, 2015). Measles presents as a rash with a fever, is especially dangerous for young children and adults over the age of twenty, and becomes particularly dangerous when the infection causes brain swelling or if the disease leads to pneumonia.

²² See *Edward Jenner*, HISTORY OF VACCINES, <http://www.historyofvaccines.org/content/timelines/jenner>.

²³ *Id.*

²⁴ See Alexandra Minna Stern and Howard Markel, *The History Of Vaccines And Immunization: Familiar Patterns, New Challenges*, 24 HEALTH AFFAIRS 611, 614–20 (May 2005), available at <http://content.healthaffairs.org/content/24/3/611.full.pdfhtml> (discussing the challenges nations faced in implementing vaccination plans). Indeed, the very concept of inoculation, the deliberate infection of an individual with a disease in order to create immunity to the virus, has roots that date back far before Jenner, reaching back to the 1600s. See Stefan Riedel, *Edward Jenner and the History of Smallpox and Vaccination*, 18 BAYLOR UNIV. MED. CTR. 23, 23 (2005), available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1200696/>.

²⁵ See Stern & Markel, *supra* note 24, at 611; see also *Achievements in Public Health*, *supra* note 6. It should be noted that, although Jenner created the smallpox vaccine, “we largely have [French chemist Louis Pasteur] to thank for today’s definition of vaccine as a ‘suspension of live (usually attenuated) or inactivated microorganisms (e.g., bacteria or viruses) or fractions thereof administered to induce immunity and prevent infectious disease or its sequelae.’” Stern & Markel, *supra* note 24, at 613. Pasteur developed the rabies vaccine in 1885. *Id.*

²⁶ *Government Regulation*, HISTORY OF VACCINES, <http://www.historyofvaccines.org/content/articles/government-regulation> (last visited May 8, 2016).

²⁷ *Id.*

modern federal legislation to control the quality of drugs.”²⁸ The Act contributed to the creation of an official laboratory for the production and testing of drugs, and today that laboratory is known as the National Institute of Health.²⁹

By the early 1900s, many states recognized the importance of immunizations and began requiring schoolchildren be vaccinated for smallpox before attending school.³⁰ The arrival of state compulsory vaccination laws unsurprisingly coincided with the implementation of compulsory state attendance laws—children were often the most at risk for contracting these viruses, and, given their highly contagious nature, there was a very real fear that any one of these diseases would spread like wildfire through a school system.³¹ However, making access to education contingent upon receiving immunizations also invited strong opposition by parents who did not wish to vaccinate their children. This was especially true where state laws imposed civil fines, or even jail time, for failure to comply.³² Such objections were often tied to concerns about adverse reactions to vaccines³³ as well as other “[h]istorical and modern examples of the real, perceived, and potential harms of vaccination, governmental abuses underlying its widespread practice, and strongly-held religious beliefs.”³⁴

Concerns about adverse reactions to improperly manufactured vaccines were not entirely unsupported.³⁵ To be effective, a vaccine must often contain a weaker strain of the living virus in order to imitate the viral infection and effectively produce immunity, which some objectors find unsettling.³⁶ When proper-

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.* See also Daniel A. Salmon et al, *Compulsory Vaccination and Conscientious or Philosophical Exemptions: Past, Present, and Future*, 367 THE LANCET 436, 439 (2006), available at http://www.commed.vcu.edu/IntroPH/Communicable_Disease/compulsoryimmunization.pdf (By 1905, “11 states had compulsory vaccination laws although three-quarters of them did not enforce the law with legal penalties for non-compliance.”).

³¹ Natalia A. Escobar, *Leaving the Herd: Rethinking New York’s Approach to Compulsory Vaccination*, 80 BROOK. L. REV. 255, 262 (2014); see also Salmon et al., *supra* note 30, at 439 (“The main intent of modern immunisation requirements was to reduce or prevent school-based outbreaks of vaccine- preventable diseases.”).

³² James G. Hodge, Jr. & Lawrence O. Gostin, *School Vaccination Requirements: Historical, Social, and Legal Perspectives*, 90 KY. L.J. 831, 833 n.9 (2001–2002).

³³ See *Vaccine Side Effects and Adverse Events*, HISTORY OF VACCINES, <http://www.historyofvaccines.org/content/articles/vaccine-side-effects-and-adverse-events> (last updated Jan. 27, 2016).

³⁴ Hodge & Gostin, *supra* note 32, at 834 (“Vaccination programs have been legally challenged as (1) inconsistent with federal constitutional principles of individual liberty and due process; (2) an unwarranted governmental interference with individual autonomy; and (3) an infringement of personal religious beliefs under First Amendment principles.”).

³⁵ See *Vaccine Side Effects and Adverse Events*, *supra* note 33.

³⁶ *Understanding How Vaccines Work*, CENTER FOR DISEASE CONTROL AND PREVENTION, <http://www.cdc.gov/vaccines/hcp/patient-ed/conversations/downloads/vacsafe-understand-color-office.pdf> (last updated Feb. 2013).

ly prepared, vaccines carry the risk of only minor symptoms such as a fever; but when improperly prepared, a vaccine can mutate into harmful toxins or cause unintended reactions.³⁷ For example, in 1955, the “Salk polio vaccine” caused an estimated two hundred people to be infected with polio³⁸ due to a tainted batch of vaccines that contained material from the polio virus that had not been properly inactivated.³⁹ Ten of these children died from the vaccine.⁴⁰

However, in contrast to medical refusals to vaccination, many early religious refusals were premised on theories and beliefs that were distinct from the state’s interest in protecting the public health.⁴¹ At the time when compulsory laws were first enacted, one popular religious theory provided that the “widening gap between the rich and the poor was God’s will and that diseases were mechanisms for controlling the balance between the blessed and the damned.”⁴² Thus, the theory concluded, “smallpox and other diseases were . . . natural controls over the size and extent of the poorer populations.”⁴³ Although this belief “was one of the most widely quoted [religious] theories of the early antivaccinationists”⁴⁴ and is still invoked today,⁴⁵ religious refusals have since evolved to include many different justifications for vaccine refusal. Some church communities, like the Faith Tabernacle Congregation in Philadelphia, object to all medical care, including vaccinations.⁴⁶ In one particularly egregious case in 1991, the measles outbreak among children in this Faith Tabernacle Congregation became so serious that health officials received a court order authorizing them to force parents to vaccinate their children because it was in the children’s best interest.⁴⁷ However, the intervention was too late for some, as six of the children still died.⁴⁸ Other religions cite faith-based dietary constraints as justification for requesting exemptions, such as being unable to eat pork, since many vaccines include gelatin components derived from pork.⁴⁹

³⁷ See *Vaccine Side Effects and Adverse Events*, *supra* note 33.

³⁸ *Vaccine Injury Compensation Programs*, HISTORY OF VACCINES, <http://www.historyofvaccines.org/content/articles/vaccine-injury-compensation-programs> (last updated Jan. 27, 2016).

³⁹ *Id.* This event, known as the Cutter incident, occurred despite the “manufacturers’ adherence to federal government standards.” *Id.*

⁴⁰ *Id.*

⁴¹ See *infra* notes 42–47 and accompanying text.

⁴² Hodge & Gostin, *supra* note 32, at 847.

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ See *infra* p. 26.

⁴⁶ Anders Kelto, *Why A Court Once Ordered Kids Vaccinated Against Their Parents’ Will*, NPR (Feb. 19, 2015), <http://www.npr.org/blogs/health/2015/02/19/386040745/why-a-court-once-ordered-kids-vaccinated-against-their-parents-will>.

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ John D. Grabenstein, *What the World’s religions teach, applied to vaccines and im-*

B. *The Development of Vaccination Law*

In 1902, an Irish immigrant by the name of Henning Jacobson was fined five dollars for refusing to receive a smallpox vaccination amidst an outbreak in Massachusetts, where state policy required all individuals—including adults—to be vaccinated.⁵⁰ Jacobson refused immunization because he believed it would cause him and his children great harm.⁵¹ He consequently challenged the state law as an infringement of his Fourteenth Amendment liberty interests, claiming that compulsory vaccinations were “unreasonable, arbitrary and oppressive, and therefore, hostile to the inherent right of every freeman to care for his own body and health in such way as to him seems best; and . . . [are] nothing short of an assault upon his person.”⁵² The argument that compulsory vaccinations constitute an unwarranted intrusion into an individual’s bodily integrity continues to persist today and is often “attributable in part to [perceived] overly aggressive public health practices and general public distrust of public health objectives.”⁵³

Laying the foundation for vaccination laws today, the United States Supreme Court dismissed Jacobson’s claims, holding that compulsory vaccination laws are a permissible exercise of the state’s police power over the safety, health, morals, and general welfare of their residents.⁵⁴ The Court emphasized that “the liberty secured by the Constitution . . . to every person within its jurisdiction does not import an absolute right in each person to be . . . wholly freed from restraint. There are manifold restraints to which every person is necessarily subject *for the common good*.”⁵⁵ Notably, “[t]he Court described police power as essentially unlimited except by provisions of the Constitution and the state’s own constitution.”⁵⁶ Looking back, this was one of the earliest indications as to how the Supreme Court would weigh public health concerns as serious as viral disease against competing constitutional interests. The *Jacobson* Court also held that “the risk of such an injury [is] too small to be seriously weighed as against the benefits coming from the discreet and proper use of the preventive,” emphasizing that the potential harm caused to an individual was not a compel-

mune globulins, 31 VACCINE 2011, 2013 (2013), available at <http://childrenshealthcare.org/wp-content/uploads/2012/01/Vaccine-Grabenstein-article.pdf>.

⁵⁰ *Jacobson v. Massachusetts*, 197 U.S. 11, 12–13 (1905).

⁵¹ *Id.* at 24 (citing *Commonwealth v. Jacobson*, 183 Mass. 242, 247 (1903)). See also MICHAEL WILRICH, *POX: AN AMERICAN HISTORY*, CH. 8: SPEAKING LAW TO POWER 7 (1st ed. 2011). Jacobson claimed that contracted a disease as a result of an earlier vaccination and that his child had also similarly suffered from a previous vaccination. *Id.*

⁵² *Id.* at 13.

⁵³ Hodge & Gostin, *supra* note 32, at 844–45.

⁵⁴ See *Jacobson*, 197 U.S. at 26.

⁵⁵ *Id.* (emphasis added).

⁵⁶ Wendy K. Mariner, *Jacobson v. Massachusetts: It’s Not Your Great-Great-Grandfather’s Public Health Law*, 95 AM. J. PUBLIC HEALTH 581, 583 (2005), available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1449224/pdf/0950581.pdf>.

ling reason for the illness or death of others.⁵⁷

Shortly after deciding *Jacobson*, the Court was presented with another challenge to a compulsory vaccination law in *Zucht v. King*.⁵⁸ This 1922 case involved a challenge to a Texas law, which mandated that “no child or other person shall attend a public school or other place of education without having first presented a certificate of vaccination.”⁵⁹ A student who was excluded from school as a result challenged this law on the same ground as in *Jacobson*: that compulsory immunization laws amount to a deprivation of liberty by requiring an individual to submit to a vaccine against his will.⁶⁰ The plaintiff also argued that the law was unnecessary and void for vagueness.⁶¹ Rejecting these arguments, the Supreme Court’s short, three paragraph opinion reaffirmed *Jacobson*, and held, “it is settled that it is within the police power of a state to provide for compulsory vaccination.”⁶²

Around the same time, courts were also grappling with the parameters of family law and, in particular, the privacy and liberty rights of parents to raise their children how they see fit.⁶³ In 1942, the Court decided *Prince v. Massachusetts*, a case factually unrelated to vaccinations.⁶⁴ It was, however, directly applicable to the legal ramifications of parental refusals for child immunizations, especially refusals stemming from religious convictions.⁶⁵ In *Prince*, a woman was convicted for violating her state’s child labor laws by allowing her niece, over whom she held legal guardianship, to circulate religious leaflets on a public sidewalk.⁶⁶ The woman argued that state law violated her right to free exercise of religion under the First Amendment and deprived her of parental liberties secured under the due process clause of the Fourteenth Amendment.⁶⁷ The Court rejected both of her arguments and held that the state government, via its police power, has broad discretion in regulating the conduct of children.⁶⁸ In dicta, the Court also asserted that the state’s police power is not

⁵⁷ *Jacobson*, 197 U.S. at 26.

⁵⁸ 260 U.S. 174 (1922).

⁵⁹ *Id.* at 175.

⁶⁰ *Id.* at 176.

⁶¹ *Id.*

⁶² *Id.*

⁶³ See *Prince v. Massachusetts*, 321 U.S. 158 (1944).

⁶⁴ See *id.* at 166–67.

⁶⁵ *Id.*

⁶⁶ *Id.* at 162. The woman argued, “This child is exercising her God-given right and her constitutional right to preach the gospel, and no creature has a right to interfere with God’s commands.” *Id.*

⁶⁷ *Id.* at 164. For her due process argument, the plaintiff relied on the precedent from *Meyer v. Nebraska*, a case which struck down a ban on foreign language instruction partially because of the liberty interest that parents carry in engaging foreign language teachers to educate their children. *Id.* (citing *Meyer v. Nebraska*, 262 U.S. 390 (1923)).

⁶⁸ *Id.* at 166–67 (“But the family itself is not beyond regulation in the public interest, as

"nullified merely because the parent grounds his claim to control the child's course of conduct on religion or conscience.⁶⁹ Thus, he cannot claim freedom from *compulsory vaccination* for the child more than for himself on religious grounds."⁷⁰

These cases—*Jacobson*, *Zucht*, and *Prince*—were integral to the creation of the framework for United States immunization laws today.⁷¹ The Supreme Court was unequivocal about refusing to interfere with states' discretion over their own public health laws, and therefore, states followed suit.⁷² By 1963, twenty states had compulsory vaccination laws for schoolchildren, a tally that rose to twenty-nine states by 1970.⁷³ The influx of compulsory vaccination laws in the 1960s and 1970s was not only a result of the Court's firm legal stance, but also a product of states finally acknowledging the overall efficacy of vaccines.⁷⁴ For example, several measles outbreaks during this period demonstrated that states with compulsory immunization laws experienced notably lower rates of measles infection.⁷⁵ The success of these preventative measures incited policy change in states without similar requirements.⁷⁶

In 1977, the Secretary of the Department of Health and Human Services took an affirmative stance on vaccinations on behalf of the federal government and sent letters to each state governor encouraging them to enact or enforce compulsory vaccination laws.⁷⁷ Concurrently, the CDC encouraged compulsory vaccinations nationwide for public school entry and requested that states reevaluate their immunizations laws—or lack thereof.⁷⁸ The CDC requested that states review their vaccination policies in advance of the CDC's acceptance of federal funds, which would support state immunization distribution and infrastructure.⁷⁹ By 1980, nearly two centuries after Jenner first discovered the vaccine for smallpox, all fifty states had finally enacted laws mandating the vaccination of schoolchildren.⁸⁰

More frequent vaccination also resulted in an increased risk of harm, which

against a claim of religious liberty. . . . Acting to guard the general interest in youth's well being, the state as *parens patriae* may restrict the parent's control by requiring school attendance, regulating or prohibiting the child's labor, and in many other ways." (internal citations omitted)).

⁶⁹ See *id.* at 166.

⁷⁰ *Id.* (emphasis added).

⁷¹ See Hodge & Gostin, *supra* note 32, at 863–64, 867.

⁷² *Id.* at 858. See also Salmon et al., *supra* note 30, at 439.

⁷³ Salmon et al., *supra* note 30, at 439.

⁷⁴ See Hodge & Gostin, *supra* note 32, at 868.

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ Salmon et al., *supra* note 30, at 439.

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.*

increased liability.⁸¹ In fact, vaccines were “so effective in preventing infectious diseases that the public became much less alarmed at the threat of . . . diseases, and much more concerned with the risk of injury from the vaccines themselves.”⁸² Although anti-vaccination movements had existed since the late 1800s, concerns largely spiked in the 1970s and 1980s due to the ill-founded fear of adverse reactions and developmental disabilities resulting from the combination vaccine for diphtheria, tetanus, and pertussis (DTP).⁸³ This resulted in “a massive increase in vaccine-related tort litigation.”⁸⁴ For example, “between 1978 and 1981 only nine product-liability suits were filed against DTP manufacturers, by the mid-1980’s the suits numbered more than 200 each year.”⁸⁵ Paying for these lawsuits was so costly that many manufacturers were forced to exit the market altogether—a consequence that Congress did not take lightly.⁸⁶

To address this problem, in 1986, Congress enacted the National Childhood Vaccine Injury Act (NCVIA).⁸⁷ The NCVIA established a no-fault compensation program for vaccine-related injury claims, which was intended as a more efficient alternative than navigating through state courts while also “stabiliz[ing] the legal environment for manufacturers, allowing them to limit their liability, better anticipate their legal costs, and reduce potential barriers to research into new vaccines.”⁸⁸ To do so, the NCVIA created a Vaccine Injury Table that “lists the vaccines covered under the Act; describes each vaccine’s compensable, adverse side effects; and indicates how soon after vaccination those side effects should first manifest themselves.”⁸⁹ If the vaccine or injury is not yet included on the table, compensation is still obtainable as long as the claimant can demonstrate that the vaccination caused the injury.⁹⁰ Notably, autism is not listed as an adverse side effect in the Vaccine Injury Table because

⁸¹ See *Bruesewitz v. Wyeth*, 131 S. Ct. 1068, 1072–73 (2011).

⁸² *Id.* at 1072.

⁸³ *History of Anti-vaccination Movements*, HISTORY OF VACCINES, <http://www.historyofvaccines.org/content/articles/history-anti-vaccination-movements> (last visited March 20, 2016). See also *Combination Vaccines*, INFORMATION FOR PARENTS, <http://www.cdc.gov/vaccines/hcp/patient-ed/conversations/downloads/fs-combo-vac.pdf> (last updated April 14, 2014) (“Combination vaccines take two or more vaccines that could be given individually and put them into one shot.”).

⁸⁴ *Bruesewitz*, 131 S.Ct. at 1072–73.

⁸⁵ *Id.*

⁸⁶ *Id.* at 1073.

⁸⁷ *Vaccine Injury Compensation Programs*, HISTORYOFVACCINES.ORG, <http://www.historyofvaccines.org/content/articles/vaccine-injury-compensation-programs> (last visited March 20, 2016).

⁸⁸ *Id.*; see also *Bruesewitz*, 131 S. Ct. at 1073.

⁸⁹ *Bruesewitz*, 131 S. Ct. at 1073–74.

⁹⁰ *Id.* at 1074 (“A claimant may also recover for unlisted side effects, and for listed side effects that occur at times other than those specified in the Table, but for those the claimant must prove causation.”).

evidence has shown no causal relationship between vaccines and the onset of that developmental disability.⁹¹

Although claimants who experience an injury within the established timeline are *prima facie* entitled to recovery, the NCVIA is not as expansive as it first appears.⁹² In its 2011 decision *Bruesewitz v. Wyeth*, the Supreme Court clarified that the NCVIA preempts state law and only allows for recovery of injuries caused by manufacturing defects (unintentional manufacturing errors) and labeling defects (failure to properly warn), but not for design defects (something inherently wrong in the blueprint of the vaccine, even if manufactured perfectly).⁹³ In a strongly worded dissent, Justice Ginsburg urged that because the Food and Drug Administration does not require that vaccines be optimally-designed or use the most advanced technology, state oversight is necessary, and therefore, recovery for design defects should be permitted in state courts.⁹⁴

Although improvement to public health was slow, it was also steady. By the turn of the twentieth century, smallpox had been eradicated entirely worldwide, and many of the other most infectious diseases had been largely eliminated in the United States due to the public's adherence to state laws requiring immunizations.⁹⁵ Both federal and state courts consistently held that compulsory vaccination laws were constitutional and should remain a part of the country's public health foundation.⁹⁶ However, the constitutionality of religious exemptions to

⁹¹ *Vaccine Injury Table*, HEALTH RESOURCES AND INJURY TABLE, <http://www.hrsa.gov/vaccinecompensation/vaccineinjurytable.pdf> (last visited May 26, 2016); *Adverse Effects of Vaccines, Evidence and Causality*, INSTITUTE OF MEDICINE OF THE NATIONAL ACADEMICS (2011), <http://www.hrsa.gov/vaccinecompensation/resources/adverseeffects.pdf>. See also *Vaccines Do Not Cause Autism*, CENTER FOR DISEASE CONTROL AND PREVENTION, <http://www.cdc.gov/vaccinesafety/concerns/autism.html> (last updated Nov. 23, 2015) ("Some people have had concerns that ASD might be linked to the vaccines children receive, but studies have shown that there is no link between receiving vaccines and developing ASD.").

⁹² *Bruesewitz*, 131 S. Ct. at 1073–74.

⁹³ *Id.* at 1082.

⁹⁴ *Id.* at 1097–99 (Ginsburg, J., dissenting).

⁹⁵ *Frequently Asked Questions about Measles in the U.S.*, CENTER FOR DISEASE CONTROL AND PREVENTION, <http://www.cdc.gov/measles/about/faqs.html> (last updated Feb. 3, 2015). For an explanation of the difference between elimination and eradication of disease, see *id.*, explaining that "elimination is defined as the absence of continuous disease transmission for 12 months or more in a specific geographic area," whereas eradication is the elimination of a disease from every country in the world; see also *Disease Eradication*, HISTORY OF VACCINES (Jan. 13, 2015), <http://www.historyofvaccines.org/content/articles/disease-eradication>.

⁹⁶ See, e.g., *Bruesewitz*, 131 S.Ct. at 1070; *Prince v. Massachusetts*, 321 U.S. 158 (1944); *Jacobson v. Massachusetts*, 197 U.S. 11, 22 (1905). See also *Duffield v. Sch. Dist.*, 29 A. 742, 742–43 (Pa. 1894) (upholding a school vaccination law and giving broad discretion to the state legislature to exercise police power); *Hazen v. Strong*, 2 Vt. 427, 432 (1830) (upholding town ordinance requiring vaccinations for smallpox).

compulsory vaccination laws for schoolchildren remained unclear.⁹⁷

C. *How States and Courts Have Handled Religious Refusals to Vaccinations*

Religious refusals to compulsory vaccination laws are not new.⁹⁸ In fact, they “have a long history, reaching back to those who rejected Edward Jenner’s 1796 mode of smallpox vaccination as contrary to God’s will.”⁹⁹ Religious refusals stem not only from unique individual objections,¹⁰⁰ but are also rooted in organized and sizeable religious anti-vaccination movements.¹⁰¹ However, while religious refusals to compulsory vaccination have deep historical roots, demonstrated evidence of their detrimental effect on public health is also longstanding.¹⁰² Unfortunately, “[n]umerous examples of vaccine-preventable outbreaks among religious schools, congregations, and communities illustrate how clusters of vulnerable people can enable epidemics, even spreading beyond those foci to neighboring, well-immunized communities.”¹⁰³ For this reason, religious refusals to immunizations are often subject to heated criticism and debate.¹⁰⁴

Today, all fifty states have laws requiring schoolchildren to be vaccinated against some or all of the following diseases: mumps, measles, rubella, diphtheria, pertussis, tetanus, and polio.¹⁰⁵ State laws, however, vary in terms of what categories of exemptions they offer and the requirements an individual must satisfy before receiving one.¹⁰⁶ Even so, states generally offer some combination of medical, religious, and philosophical exemptions.¹⁰⁷ One commonality is that all states permit exemptions for valid medical reasons, such as a docu-

⁹⁷ See, e.g., *Employment Div., Dep’t of Human Res. of Oregon v. Smith*, 494 U.S. 872 (1990).

⁹⁸ See John D. Grabenstein, *What the World’s Religions Teach, Applied to Vaccines and Immune Globulins*, 31 VACCINE 2011, 2012 (2013), <http://childrenshealthcare.org/wp-content/uploads/2012/01/Vaccine-Grabenstein-article.pdf>.

⁹⁹ *Id.*

¹⁰⁰ See *infra* p. 24.

¹⁰¹ Grabenstein, *supra* note 98, at 2012. The early establishment by Boston clergymen in 1879 of the Anti-Vaccination Society is one such example. *Id.*

¹⁰² *Id.*

¹⁰³ *Id.*

¹⁰⁴ See *id.*

¹⁰⁵ *State Vaccination Exemptions for Children Entering Public Schools*, PROCON.ORG, <http://vaccines.procon.org/view.resource.php?resourceID=003597> (last updated September 3, 2014).

¹⁰⁶ For an interactive guide to the requirements and exemptions of each state, see *School and Childcare Vaccination Surveys*, CENTER FOR DISEASE CONTROL AND PREVENTION, <http://www2a.cdc.gov/nip/schoolsurv/schImmRqmt.asp> (last updated July 11, 2011).

¹⁰⁷ *Vaccination Exemptions*, HISTORY OF VACCINES, <http://www.historyofvaccines.org/content/articles/vaccination-exemptions> (last visited Mar. 20, 2016).

mented allergy to a virus or some other medical condition that would be incompatible with the specific vaccination.¹⁰⁸ Nearly all states offer religious exemptions—forty-seven states to be exact, with Mississippi, West Virginia, and California as the outliers—and nineteen of those states also offer philosophical exemptions.¹⁰⁹

Like most constitutional rights, the right to free exercise of religion and the right to be free from the government's establishment of religion are not absolute, and can be subject to many limitations.¹¹⁰ For example, *Prince v. Massachusetts* held that "[t]he right to practice religion freedly [sic] does not include liberty to expose the community or the child to communicable disease or the latter to ill health or death."¹¹¹ Yet, despite this precedent, forty-seven states have included religious exemptions for vaccinations in their laws,¹¹² despite the fact that "requesting a person to submit to vaccination against his religious beliefs is generally viewed as constitutional" in light of the Supreme Court's 1990 landmark decision *Employment Division v. Smith*.¹¹³

In *Smith*, two employees brought a free exercise claim against their employer after they were terminated for ingesting peyote (a controlled substance/hallucinogen) as part of a religious ritual at a Native American Church ceremony.¹¹⁴ The employer urged that this adverse employment action was permissible under Oregon's controlled substances act, which prohibits and criminalizes the possession of controlled substances.¹¹⁵ The Supreme Court sided with the employer, holding that a "valid and neutral law of general applicability," which incidentally impacts the free exercise of religion, need only be subject to rational

¹⁰⁸ *Id.* Medical exemptions generally include: "The child's immune status is compromised by a permanent or temporary condition. . . . The child has a serious allergic reaction to a vaccine component. The child has had a prior serious adverse event related to vaccination." *Id.* See also Salmon et al., *supra* note 30, at 439.

¹⁰⁹ *States with Religious and Philosophical Exemptions from School Immunization Requirements*, NAT'L CONFERENCE OF STATE LEGISLATURES, <http://www.ncsl.org/research/health/school-immunization-exemption-state-laws.aspx> (last updated Mar. 2, 2015). In July 2016, Vermont's repeal of their philosophical exemption will go into effect and the state will only offer religious exemptions. Due to this change, in July 2016, forty-seven states will offer religious exemptions and eighteen states will offer philosophical exemptions. *Id.* See also *Vaccination Exemptions*, *supra* note 107.

¹¹⁰ See, e.g., *Prince v. Massachusetts*, 321 U.S. 158, 166–67 (1944).

¹¹¹ *Id.*

¹¹² *States with Religious and Philosophical Exemptions from School Immunization Requirements*, *supra* note 109. This number will change to forty-eight in July 2016 when Vermont repeals its philosophical exemption, at which time it will offer only a religious exemption. *Id.*

¹¹³ *Hodge & Gostin*, *supra* note 32, at 859; *Employment Div., Dep't of Human Res. of Or. v. Smith*, 494 U.S. 872 (1990).

¹¹⁴ *Smith*, 494 U.S. at 872.

¹¹⁵ *Id.* at 874.

basis review.¹¹⁶ Rational basis review, the lowest level of judicial scrutiny, merely requires the law to be rationally related to a legitimate government interest.¹¹⁷

The outcome of *Smith*, a significant departure from the framework the Court had previously set for analyzing free exercise challenges,¹¹⁸ caused uproar both among the states and in Congress.¹¹⁹ In response, Congress passed the Religious Freedom Restoration Act ("RFRA"), attempting to restore the pre-*Smith* standard.¹²⁰ Under RFRA, to survive constitutional review, burdens on religious exercise: "(1) [must be] in furtherance of a compelling governmental interest; and (2) [be the] least restrictive means of furthering that compelling governmental interest."¹²¹ As enacted, RFRA applies both federally and to the individual states.¹²² However, its application to the states was short-lived, as the Supreme Court in *City of Boerne v. Flores* struck down RFRA as binding upon the states because Congress did not invoke proper authority in extending RFRA's requirements beyond the federal government.¹²³

The progression from *Smith* to the enactment of RFRA to RFRA's repeal as applied to the states in *City of Boerne* is significant for analyzing state compulsory vaccination laws today. The invalidation of RFRA as applied to the states means that *Smith*'s rational basis standard remains the binding framework for analyzing free exercise challenges to these laws.¹²⁴ That is, unless a state has enacted its own RFRA or has interpreted its state constitution in a manner strongly protective of free exercise.¹²⁵ Thirty-one states currently have height-

¹¹⁶ *Id.* at 879.

¹¹⁷ *Id.* at 879. A law that is not neutral or generally applicable, usually as a result of granting too many exemptions for non-religious reasons so that the law ultimately appears to discriminate on the basis of religion, must be justified by a compelling government interest and narrowly tailored to advance that interest. *See Church of the Lukumi Babalu Aye, Inc. v. City of Hialeah*, 508 U.S. 520, 531–32 (1993) (striking down town ordinance prohibiting animal sacrifice because it failed strict scrutiny and burdened religious exercise).

¹¹⁸ Compare *Smith*, 494 U.S. 872, with *Wisconsin v. Yoder*, 406 U.S. 205 (1972), and *Sherbert v. Verner*, 374 U.S. 398 (1963). The Court in *Yoder* and *Verner* held that if a generally applicable law burdens religion, it must be narrowly tailored to serve a compelling government interest. *Yoder*, 406 U.S. at 215; *Sherbert*, 374 U.S. at 403. Compared to the *Yoder* and *Verner* test, the *Smith* framework lowered the government's burden and raised the burden of proof for those claiming infringement on their religious freedom. *Smith*, 494 U.S. at 879.

¹¹⁹ *See Burwell v. Hobby Lobby Stores, Inc.*, 134 S. Ct. 2751, 2761 (2014).

¹²⁰ *Id.*

¹²¹ *See id.*

¹²² *Id.*

¹²³ *City of Boerne v. Flores*, 521 U.S. 507, 507 (1997).

¹²⁴ Kevin M. Malone & Alan R. Hinman, *Vaccination Mandates: The Public Health Imperative and Individual Rights*, in *LAW IN PUBLIC HEALTH PRACTICE* 262, 276 (Richard A. Goodman et al. eds., 2007).

¹²⁵ Juliet Eilperin, *31 states have heightened religious freedom protections*, WASH. POST

ened religious exercise protections beyond what is required in *Smith* and eighteen states have statutes specifically mirroring that of the federal RFRA, including Mississippi—one of the three states that do not allow religious exemptions for vaccinations.¹²⁶ To withstand judicial review, Mississippi's RFRA, adopted in 2014, requires the same showing as does the federal RFRA for any law that burdens religious exercise.¹²⁷ West Virginia, one of the only three states that does not permit religious exemptions for immunizations, does not have any heightened religious freedom protections, and religious freedom claims in West Virginia are thus still analyzed under the *Smith* framework.¹²⁸

Mississippi has grappled with legal challenges to its compulsory vaccination laws before. In the 1979 case, *Brown v. Stone*, the Mississippi Supreme Court upheld a state's compulsory vaccination law against a challenge that its lack of religious exemption violated the First Amendment right to free exercise of religion.¹²⁹ The court grappled with whether "[i]t [was] mandated by the First Amendment to the United States Constitution that innocent children, too young to decide for themselves, are to be denied the protection against crippling and death that immunization provides because of a religious belief adhered to by a parent or parents"¹³⁰ The court held that the state carries a compelling interest in requiring compulsory vaccinations, regardless of religious objections.¹³¹ Notably, the Mississippi Supreme Court decided *Brown* in 1979, before the *Smith* decision.¹³² Thus, this case is binding today because when Mississippi enacted a state RFRA, they restored the pre-*Smith* framework for analyzing religious freedom claims—the same framework used to decide *Brown*.¹³³

As Mississippi demonstrates, in crafting state compulsory vaccination laws, it is constitutional to do so without inclusion of religious exemptions, despite free exercise claims.¹³⁴ However, although free exercise of religion is certainly at the forefront of the vaccination debate, commentators and courts have also analyzed religious exemptions for vaccinations under the concomitant framework

(Mar. 1, 2014), <http://www.washingtonpost.com/blogs/the-fix/wp/2014/03/01/where-in-the-u-s-are-there-heightened-protections-for-religious-freedom/>.

¹²⁶ *Id.* See also MISS. CODE ANN. § 41-23-37 (West 2015).

¹²⁷ Mississippi Religious Freedom Restoration Act, MISS. CODE ANN. § 11-61-1 (West 2015).

¹²⁸ See Eilperin, *supra* note 125; Jacob Gershman, *Religious-Freedom Bills Proliferate in Statehouses*, WALL STREET J.L. BLOG (Feb. 25, 2014, 8:02 PM), <http://blogs.wsj.com/law/2014/02/25/religious-freedom-bills-proliferate-in-statehouses/>. See also W. Va. Code R. § 16-3-4 (2015).

¹²⁹ *Brown v. Stone*, 378 So. 2d 218, 223–24 (Miss. 1979).

¹³⁰ *Id.* at 221.

¹³¹ *Id.* at 222–23.

¹³² See generally *Employment Div., Dep't of Human Res. of Or. v. Smith*, 494 U.S. 872 (1990); *Stone*, 378 So. 2d at 220.

¹³³ *Stone*, 378 So. 2d at 222–23.

¹³⁴ *Id.* at 223–24.

of the Establishment Clause.¹³⁵ Establishment clause challenges to compulsory vaccination laws have generally questioned whether the government impermissibly entangles itself in religion by endorsing religion when it decides which religious beliefs are sufficiently sincere to merit vaccination exemptions,¹³⁶ or whether—in states that have religious exemptions but not philosophical ones—the state government may be impermissibly favoring religion over non-religion.¹³⁷

Although the Supreme Court has yet to affirmatively rule on whether religious exemptions for vaccinations are constitutional, the Court has alluded to their constitutionality in cases like *Smith*.¹³⁸ Moreover, the laws in the forty-seven states that do have religious exemptions have sustained many legal challenges.¹³⁹ However, although Establishment Clause challenges have not proved fatal to these laws, in many cases such challenges altered the laws' scope. For example, in *Sherr v. Northport*, "a federal district court upheld an exemption for children of parents with 'sincere religious beliefs,' but found a provision requiring them to be 'bona fide members of a recognized religious organization' in violation of the Establishment Clause" because the government cannot show a preference for one religion over another.¹⁴⁰ Yet, courts continue to vary in their analysis of these establishment questions. For example, in *Kleid v. Board of Education*, a different federal district court held that granting vaccination accommodations only to those belonging to a "nationally recognized and established church or religious denomination" was constitutional under the Establishment Clause.¹⁴¹

III. ANALYSIS

Combined with the increased effectiveness of immunizations, compulsory vaccination laws for schoolchildren have aided in largely eliminating some of the most serious infectious diseases that had previously plagued the nation. However, the legal system within which these compulsory vaccination laws must operate has hindered the effectiveness of immunizations for the overall population in the United States, as so many states permit religious exemptions in their compulsory vaccination laws. Section A of this Part argues that the states' approach to compulsory vaccination laws is insufficient to further the compelling governmental interest to protect our nation's public health, an in-

¹³⁵ Hodge & Gostin, *supra* note 32, at 858–60.

¹³⁶ See *Kleid v. Bd. of Educ.*, 406 F. Supp. 902, 906 (W.D. Ky. 1976).

¹³⁷ See generally *Mason v. Gen. Brown Cent. Sch. Dist.*, 851 F.2d 47 (2d Cir. 1988).

¹³⁸ Alicia Novak, *The Religious and Philosophical Exemptions to State-Compelled Vaccination: Constitutional and Other Challenges*, 7 U. PA. J. CONST. L. 1101, 1107 (2005).

¹³⁹ *Id.*

¹⁴⁰ Hodge & Gostin, *supra* note 32, at 861 (citing *Sherr v. Northport-East Northport Union Free Sch. Dist.*, 672 F. Supp. 81 (E.D.N.Y. 1987)).

¹⁴¹ *Id.* at 861.

sufficiency that warrants a national framework to replace the state-by-state vaccination laws we have today. Section B asserts that the United States government has the constitutional authority to pass a standardized national compulsory vaccination law devoid of personal or religious exemptions. Finally, Section C explains how Mississippi serves as the ideal model for such a national system, as both Mississippi and the federal government are bound by nearly identical RFRAs.

A. *Insufficiency of State-by-State Laws with Religious Exemptions*

Clustered outbreaks of vaccine-preventable disease have recently emerged across the country.¹⁴² Unsurprisingly, many outbreaks have been traced back to communities and families who have refused to vaccinate their children.¹⁴³ The recent return of the most serious of these diseases—measles, whooping cough, and mumps—has once again thrust states with religious and philosophical exemptions to compulsory vaccination laws under medical, societal, and legal scrutiny, rightly pressuring them to rethink whether such exemptions are in the best interest of public health.¹⁴⁴

The increase in outbreaks suggests that the current state-by-state frameworks for controlling the spread of disease are inadequate. Between January 4 and April 2 of 2015, there were 159 cases of measles reported nationwide.¹⁴⁵ Between 2001 and 2011—the time period immediately preceding the most recent spikes in measles outbreaks—the average number of measles cases per year was sixty-two.¹⁴⁶ The recent spike is largely due to the January 2015 measles outbreak at the California amusement park Disneyland, where more than 130 people¹⁴⁷ across seven different states contracted the disease.¹⁴⁸ Experts speculate that an individual who was visiting from overseas likely initiated the outbreak.¹⁴⁹ However, the disease was able to spread so quickly and widely due to the presence of so many unvaccinated children and adults: “[o]f the 131 cases,

¹⁴² See *Map: Vaccine-Preventable Outbreaks*, COUNCIL ON FOREIGN RELATIONS, available at http://www.cfr.org/interactives/GH_Vaccine_Map/#map (last visited Apr. 8, 2016).

¹⁴³ *Id.*

¹⁴⁴ See *Vaccination debate spills over into 2016 White House race*, FOXNEWS, (Feb. 4, 2015), <http://www.foxnews.com/politics/2015/02/03/chris-christie-rand-paul-under-fire-for-vaccine-remarks/>.

¹⁴⁵ Lisa Schnirring, *CDC details US measles outbreaks, vaccination gaps*, CENTER FOR INFECTIOUS DISEASE RESEARCH AND POLICY, <http://www.cidrap.umn.edu/news-perspective/2015/04/cdc-details-us-measles-outbreaks-vaccination-gaps> (last visited Apr. 8, 2016).

¹⁴⁶ Preeta Kuty et al., *Chapter 7: Measles*, 1 VPD SURVEILLANCE MANUAL 7-1, 7-2 (2013), available at <http://www.cdc.gov/vaccines/pubs/surv-manual/chpt07-measles.pdf>.

¹⁴⁷ Steve Almasy, *California measles outbreak over*, CNN (Apr. 17, 2015), <http://www.cnn.com/2015/04/17/health/california-measles-outbreak/>.

¹⁴⁸ *U.S. Multi-state Measles Outbreak 2014–2015*, CENTER FOR DISEASE CONTROL AND PREVENTION, <http://emergency.cdc.gov/han/han00376.asp> (last updated Jan. 3, 2015).

¹⁴⁹ Maggie Fox, *Disney Measles Outbreak Came From Overseas, CDC Says*, NBC NEWS

the state was able to obtain the vaccination status for 81 patients [and] [o]f the 81, 70% were unvaccinated.”¹⁵⁰ If religious and philosophical exemptions were unavailable across the country, the measles outbreak likely would have faltered, affecting far fewer individuals.¹⁵¹

In addition to this recent measles outbreak, which health officials declared over in April 2015,¹⁵² there has also been an increase in whooping cough cases.¹⁵³ In 2014, the United States experienced a 15% increase in whooping cough cases as compared to the previous year.¹⁵⁴ Washington state has been hit particularly hard by whooping cough.¹⁵⁵ Washington has both philosophical and religious exemptions,¹⁵⁶ and also experiences a high anti-vaccination rate of 3.1% to 4%.¹⁵⁷ This high vaccination rate may be due to the state’s low bar to receiving an exemption, as the state only requires a health care professional’s signature to procure an exemption.¹⁵⁸ By April 2015, Washington had already experienced 319 whooping cough cases compared to forty-nine whooping cough cases during the same period in 2014.¹⁵⁹ States like Washington have taken emergency measures to prevent future outbreaks, since recent surges in measles and whooping cough cases have helped lawmakers understand that religious and philosophical exemption options can be detrimental to public

(Jan. 29, 2015), <http://www.nbcnews.com/storyline/measles-outbreak/disney-measles-outbreak-came-overseas-cdc-says-n296441>.

¹⁵⁰ Almas, *supra* note 147.

¹⁵¹ See Rich Harris et al., *Watch how the measles outbreak spreads when kids get vaccinated – and when they don’t*, THE GUARDIAN, (Feb. 05, 2015), <http://www.theguardian.com/society/ng-interactive/2015/feb/05/-sp-watch-how-measles-outbreak-spreads-when-kids-get-vaccinated>.

¹⁵² *Measles Outbreak Traced to Disneyland is Declared Over*, NBC NEWS (April 17, 2005), <http://www.nbcnews.com/storyline/measles-outbreak/measles-outbreak-traced-disneyland-declared-over-n343686>.

¹⁵³ *Pertussis Outbreak Trends*, CENTER FOR DISEASE CONTROL AND PREVENTION, <http://www.cdc.gov/pertussis/outbreaks/trends.html> (last updated Feb. 10, 2015).

¹⁵⁴ *Id.* (“As of December 31, 28,660 cases of pertussis were reported to CDC during 2014, and this number is expected to increase as case counts are reconciled. This represents a 15% increase compared to the provisional numbers that were reported at the same time in 2013. The final case count in 2013 was 28,639.”).

¹⁵⁵ JoNel Aleccia, *Whooping-cough cases spike; vaccination is key, officials say*, SEATTLE TIMES, (Apr. 16, 2015, 2:37 PM), <http://www.seattletimes.com/seattle-news/health/whooping-cough-cases-spike-vaccination-is-key-officials-say/>.

¹⁵⁶ *States With Religious And Philosophical Exemptions From School Immunization Requirements*, NAT’L CONFERENCE OF STATE LEGISLATURES (Mar. 3, 2015), <http://www.ncsl.org/research/health/school-immunization-exemption-state-laws.aspx>.

¹⁵⁷ Tasneem Raja & Chris Mooney, *How Many People Aren’t Vaccinating Their Kids in Your State?*, MOTHER JONES (Feb. 17, 2014, 6:00 AM), <http://www.motherjones.com/environment/2014/02/vaccine-exemptions-states-pertussis-map>.

¹⁵⁸ *Id.*

¹⁵⁹ Aleccia, *supra* note 155.

health.¹⁶⁰ In an effort to prevent infection, a Washington school district recently “pulled 143 students who lacked documentation proving they had received required immunizations from classrooms”¹⁶¹

Similarly, in California, where the Disneyland measles outbreak originated, lawmakers and concerned citizens pushed for new legislation that would entirely eliminate the personal and religious exemptions, in the belief that such exemptions escalated the scope and severity of the outbreak.¹⁶² In June 2015, the California Governor signed a bill into law—becoming the third state to require vaccines for public school attendance regardless of philosophical or religious exemption.¹⁶³ When first introduced, the bill sparked substantial pushback from the anti-vaccination community.¹⁶⁴ Because California previously allowed for philosophical exemptions in addition to religious ones, the rationale given by the anti-vaccination community regarding why the bill should fail provided insight into the underpinnings of the community’s anti-vaccination beliefs. For example, one objector asserted, “I strongly oppose injection of questionable materials into the bodies of our children as a condition of education.”¹⁶⁵ Another objector, mixing religious reasoning with non-religious personal beliefs, stated, “We believe that God gave us the ability to heal from within and he gave us all the tools to heal naturally so we’re willing to risk a childhood illness over risking something more serious like autism,”¹⁶⁶

Although neither of these claims are supported by medical proof or robust religious doctrine,¹⁶⁷ both of these justifications would have been sufficient to

¹⁶⁰ Eric M. Johnson & Paul Tait, *Washington state school district removes nearly 150 unvaccinated students amid measles outbreak*, RAW STORY (Apr. 13, 2015, 11:29 PM), <http://www.rawstory.com/rs/2015/04/washington-state-school-district-removes-nearly-150-unvaccinated-students-amid-measles-outbreak/>.

¹⁶¹ *Id.*

¹⁶² Robert B. Gunnison, *California Parents Opposing State-Mandated Vaccinations of Children Delay Vote*, N.Y. TIMES (Apr. 15, 2015), http://www.nytimes.com/2015/04/16/us/california-parents-opposing-state-mandated-vaccinations-of-children-delay-vote.html?_r=0.

¹⁶³ Melissa Pamer, *Gov. Brown Signs Law Ending Personal, Religious Exemptions to School Vaccine Requirements*, KTLA (June 30, 2015, 10:28 AM), <http://ktla.com/2015/06/30/gov-brown-signs-law-ending-personal-religious-exemptions-to-school-vaccine-requirements/>; Jon Brookes, *California Ends Personal Belief Exemption for Vaccines*, KQED NEWS (June 29, 2015), <http://www.kqed.org/stateofhealth/2015/06/29/bill-ending-vaccine-exemptions-passes-california-senate-moves-to-governors-desk/>.

¹⁶⁴ Gunnison, *supra* note 162.

¹⁶⁵ *Id.*

¹⁶⁶ *Mandatory vaccine bill sparks protests in California*, CBS (Apr. 9, 2015, 1:47 PM), <http://www.cbsnews.com/news/mandatory-vaccine-bill-sparks-protests-in-california/>.

¹⁶⁷ Anjali Jain et al., *Autism Occurrence by MMR Vaccine Status Among US Children With Older Siblings With and Without Autism*, 313 JAMA 1534 (2015) (finding no link between vaccinations and autism); *Vaccine Safety: What You Should Know*, CENTER FOR DISEASE CONTROL AND PREVENTION, <http://www.cdc.gov/Features/VaccineSafety/> (last visited Apr. 18, 2015).

receive an exemption in California prior to the new vaccination law.¹⁶⁸ Previously, state law required only that a parent who objected to vaccinating their children sign a form along with a healthcare professional's signature attesting that they explained to the parent the benefits and risks associated with forgoing vaccinations.¹⁶⁹ Interestingly, in states that have both religious and personal or philosophical exemptions, more individuals exercise the personal belief exemption than the religious exemption.¹⁷⁰ In fact, "opt-out rates in states that allow personal-belief exemptions are 2.5 times higher than rates in states that only permit religious exemptions."¹⁷¹ Although offering only religious refusals may curb the frequency of opt-outs, many states with only religious exemptions require very little of claimants, making it easy for parents to evade state law by claiming their beliefs are religious, when in fact they are based upon other concerns.¹⁷² For example, in Maryland, the objecting parent need only attest that, "Because of my bona fide religious beliefs and practices, I object to any immunizations being given to my child."¹⁷³ Lax requirements like these do not match the severity of public health consequences if an outbreak occurs.

When disease outbreaks such as those in California and Washington occur, the importance of herd immunity to the protection of public health, especially the public health of the youngest and most vulnerable schoolchildren, is highlighted.¹⁷⁴ Herd immunity describes "the protection bestowed upon a population against an infectious disease when a critical mass of that population is immune to the particular disease."¹⁷⁵ Many individuals who forego vaccinations for their children rely on herd immunity as the only protection against their children catching infectious diseases, and "perceive the risks to each individual child from vaccination as greater than the collective risks to the popula-

¹⁶⁸ *Exemptions Permitted by California Law*, SHOTSFOR SCHOOL, <http://www.shotsforschool.org/laws/exemptions/> (last visited Apr. 18, 2015).

¹⁶⁹ *Id.*

¹⁷⁰ See Saad B. Omer, *Vaccination Policies and Rates of Exemption from Immunization, 2005–2011*, 367 NEW ENG. J. OF MED. 1170, 1171, 1172 (2012), available at <http://www.nejm.org/doi/pdf/10.1056/NEJMc1209037>. See also Raja & Mooney, *supra* note 157.

¹⁷¹ Raja & Mooney, *supra* note 157.

¹⁷² Saad B. Omer, *Nonmedical Exemptions to School Immunization Requirements: Secular Trends and Association of State Policies With Pertussis Incidence*, 296 JAMA 1757, 1758, 1761 (2006) ("[S]tates that easily granted exemptions had higher exemption rates compared with states with medium and difficult processes for granting exemptions.").

¹⁷³ *Id.* See also *Immunization Certificate*, MARYLAND DEPARTMENT OF HEALTH AND MENTAL HYGIENE, [http://phpa.dhmmh.maryland.gov/OIDEOR/IMMUN/Shared%20Documents/Maryland%20Immunization%20Certification%20Form%20\(DHMH%20896%20-%20February%202014\).pdf](http://phpa.dhmmh.maryland.gov/OIDEOR/IMMUN/Shared%20Documents/Maryland%20Immunization%20Certification%20Form%20(DHMH%20896%20-%20February%202014).pdf) (last visited Apr. 18, 2015).

¹⁷⁴ See Novak, *supra* note 138, at 1122 ("Although the occurrence of outbreaks within communities that deny vaccinations to their children is not frequent because of the benefits of herd immunity, when outbreaks do occur they are deadly and often affect the younger and more vulnerable school-age children within the community first.").

¹⁷⁵ *Id.* at 1122 n.128.

tion due to the failure to vaccinate.”¹⁷⁶ Most importantly, it does not take many unvaccinated individuals to damage herd immunity:

The required percentage of vaccinations to ensure herd immunity varies by disease; for pertussis (whooping cough), it’s between 93 and 95 percent So if even a seemingly small number of kids across the state aren’t getting their shots, the immunity rate of the entire community can drop below safe levels.¹⁷⁷

Herd immunity becomes less effective as more individuals opt out of immunizations, resulting in an increased risk for both the unvaccinated *and the vaccinated* to contract disease.¹⁷⁸ Many individuals do not realize that even the most effective vaccinations, such as the measles vaccine, still have a failure rate, and thus those individuals who do not respond properly to the vaccination will be subjected to infection by those who chose not to vaccinate at all.¹⁷⁹ This occurred recently in California, where six individuals contracted measles despite receiving their vaccinations.¹⁸⁰ State laws facilitating individual exemptions are not germane only to objecting individuals, they can also negatively and unfairly impact individuals who took due care to protect themselves by receiving vaccinations.

From a public health perspective, the risk of erosion of herd immunity is cause for significant concern on the national level. Religious exemptions pose particular problems because “[e]ven though religiously exempt persons comprise a small portion of the population, they often form concentrated communities that are more vulnerable to disease, and often can transmit disease into the larger nonexempt population.”¹⁸¹ For example, in 2010, “California experienced one of the worst outbreaks of pertussis, more commonly known as whooping cough, in several decades, resulting in 9,120 illnesses and the death of ten infants who were too young to receive the vaccine.”¹⁸² Researchers concluded that vaccine refusals by individuals living in clustered communities throughout the state fueled the outbreak.¹⁸³

Another recurring concern about religious refusals for vaccinations is wheth-

¹⁷⁶ See Jo Craven McGinty, *How Anti-Vaccination Trends Vex Herd Immunity*, WALL STREET J. (Feb. 6, 2015), <http://www.wsj.com/articles/how-anti-vaccination-trends-vex-herd-immunity-1423241871>.

¹⁷⁷ Raja & Mooney, *supra* note 157.

¹⁷⁸ *Id.*

¹⁷⁹ Katie M. Palmer, *Why Did Vaccinated People Get Measles at Disneyland? Blame the Unvaccinated*, WIRED, (Jan. 26, 2015), <http://www.wired.com/2015/01/vaccinated-people-get-measles-disneyland-blame-unvaccinated/>.

¹⁸⁰ *Id.*

¹⁸¹ Timothy J. Aspinwall, *Religious Exemptions to Childhood Immunization Statutes: Reaching for a More Optimal Balance Between Religious Freedom and Public Health*, 29 LOY. U. CHI. L.J. 109, 113 (1997).

¹⁸² Escobar, *supra* note 31, at 255.

¹⁸³ Nancy Schute, *Vaccine Refusals Fueled California’s Whooping Cough Epidemic*,

er the individuals claiming them are sincere.¹⁸⁴ This concern is most relevant in the twenty-eight states that only offer religious exemptions, without an option to object due to personal belief or philosophical reasons, because there is a greater risk that vaccine-averse individuals will insincerely claim a religious objection in these states to justify receiving a vaccine exemption.¹⁸⁵ According to a study that analyzed sixty different preventable disease outbreaks linked to religious communities and eleven of the most populous religious groups, the three most cited reasons for asserting religious objections were: “(a) violation of prohibitions against taking life, (b) violation of dietary laws, or (c) interference with natural order by not letting events take their course.”¹⁸⁶ Notably, this study also found that “[i]n multiple cases, ostensibly religious reasons to decline immunization actually reflected concerns about vaccine safety or personal beliefs among a social network of people organized around a faith community, rather than theologically based objections per se.”¹⁸⁷ In a separate study, the most commonly cited reason for refusing to vaccinate one’s children was not religious, but was instead concern about vaccine safety.¹⁸⁸ Although there may be sources in scripture that invoke objections to immunizations, they are few and far between, with the more common reason for objecting to these laws being fear of harm—a non-religious belief that neither of the First Amendment clauses protect.

B. Governmental Authority to Pass a Federal Compulsory Vaccination Law

Individuals are exercising non-medical exemptions at an increasing and accelerating rate and the United States is experiencing the consequences in the form of escalating disease outbreaks.¹⁸⁹ Although the police power is generally reserved to the states, the federal government is not immobile in the face of threats to public health and safety.¹⁹⁰ Congress has federal jurisdiction to pass

NPR (Sep. 30, 2013, 9:57 AM), <http://www.npr.org/blogs/health/2013/09/25/226147147/vaccine-refusals-fueled-californias-whooping-cough-epidemic>.

¹⁸⁴ *Parents Fake Religion To Avoid Vaccines*, CBS News, (Oct. 17, 2007, 9:59 PM), <http://www.cbsnews.com/news/parents-fake-religion-to-avoid-vaccines/>.

¹⁸⁵ Mark A. Kellner, ‘Religious’ objections to vaccinations? There really aren’t any, DESERT NEWS NATIONAL (Feb. 7, 2015), <http://national.deseretnews.com/article/3483/religious-objections-to-vaccinations-there-really-arent-any.html> (comparing California, a state that at the time offered philosophical exemptions, to Illinois, a state that only offers religious exemptions, as an illustration of how most exemptions are philosophical and not religious).

¹⁸⁶ Grabenstein, *supra* note 98, at 2013.

¹⁸⁷ *Id.* at 2011.

¹⁸⁸ Daniel A. Salmon et al., *Factors Associated With Refusal of Childhood Vaccines Among Parents of School-aged Children: A Case-Control Study*, 159 JAMA PEDIATRICS 470, 470 (2005).

¹⁸⁹ *Vaccination Policies and Rates of Exemption from Immunization, 2005–2011*, *supra* note 170.

¹⁹⁰ Jared P. Cole & Kathleen S. Swendiman, *Mandatory Vaccinations: Precedent and*

legislation concerning the public health pursuant to the Commerce Clause of the United States Constitution, which states that Congress has the authority “[t]o regulate Commerce with foreign Nations, and among the several States”¹⁹¹ A long line of cases grappling with the outer limits of the Commerce Clause have interpreted its powers to be quite broad, extending to many activities that would otherwise be left up to state regulation, such as the minimum wage,¹⁹² collective bargaining rights,¹⁹³ agriculture production,¹⁹⁴ and the use of controlled substances.¹⁹⁵

Deriving power from the Commerce Clause, Congress in 1944 enacted the Public Health Services Act.¹⁹⁶ The Act empowers the Surgeon General “to make and enforce such regulations as in his judgment are necessary to prevent the introduction, transmission, or spread of communicable diseases from foreign countries into the States or possessions, or from one State or possession into any other State or possession.”¹⁹⁷ Under this Act, and pursuant to the Commerce Clause, the federal government has exercised broad authority over how the states treat infectious disease and administer immunizations.¹⁹⁸ Congress has established vaccine clinics to quarantine those who have contracted a virus in order to prevent the wider spread of infectious disease, has created the National Vaccine Plan, formed the National Vaccine Advisory Committee, and has instituted the National Vaccine Injury Compensation Program, which compensates individuals harmed by defective vaccines and preempts state law.¹⁹⁹

Although “[n]o mandatory vaccination programs are specifically authorized [under the Act], nor do there appear to be any regulations regarding the implementation of a mandatory vaccination program at the federal level during a public health emergency[.]” that does not mean that there could never be a mandatory vaccination program, or that there is not currently a need for one.²⁰⁰ Although the current rate of infectious disease outbreaks in the United States may not yet have risen to emergency levels,²⁰¹ the nation has experienced near-

Current Laws, THE CONG. RESEARCH SERV. 9 (May 21, 2014), <https://www.fas.org/sgp/crs/misc/RS21414.pdf>.

¹⁹¹ U.S. CONST. art. I, § 8, cl. 3.

¹⁹² *United States v. Darby Lumber Co.*, 312 U.S. 100, 125 (1941).

¹⁹³ *Nat'l Lab. Rel. Board v. Jones & Laughlin Steel Corp.*, 301 U.S. 1 (1937).

¹⁹⁴ *Wickard v. Filburn*, 317 U.S. 111, 130–32 (1942).

¹⁹⁵ *Gonzales v. Raich*, 545 U.S. 1, 9 (2005).

¹⁹⁶ 42 U.S.C.A. § 264 (West 2002).

¹⁹⁷ *Id.*

¹⁹⁸ See Abigale L. Ottenberg et al., *Vaccinating Health Care Workers Against Influenza: The Ethical and Legal Rationale for a Mandate*, 101 AM. J. OF PUB. HEALTH 212, 214 (2011), <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3020194/pdf/212.pdf>.

¹⁹⁹ *Id.*

²⁰⁰ Cole & Swendiman, *supra* note 190, at 9.

²⁰¹ Anna Almendrala, *Vaccines Should Be As Nonnegotiable As Seat Belts, Experts Say*, HUFFINGTON POST (Feb. 4, 2015), <http://www.huffingtonpost.com/2015/02/03/mandatory->

critical conditions before, and it would be unwise to assume that such conditions could not happen again, especially given that individuals continue to seek exemptions for their children.²⁰² A University of Pittsburgh simulation demonstrated how quickly an outbreak of measles could spread, supposing only 80% of the country's schoolchildren were vaccinated.²⁰³ The result would be the loss of herd immunity, gravely impacting public health.²⁰⁴ The tipping point at which herd immunity is destroyed "occurs when too few people are vaccinated to protect the community."²⁰⁵ In the 2013-2014 school year, the vaccination rate for kindergarten-age children was below 92%, which, although insufficient to destroy herd immunity, certainly approaches that tipping point given the rising levels of active exemptions.²⁰⁶

Moreover, although the federal government's primary concern should be public health, it also has an acute financial interest in the efficacy of state vaccination policies—especially state enforcement of compulsory vaccination for schoolchildren, because the federal government is the primary source of public immunization funds. Vaccinations are expensive, often oppressively so.²⁰⁷ Whereas in 1986 the average private insurance cost of fully vaccinating a child to the age of eighteen was \$100, today it costs an average of \$2,192.²⁰⁸ However, despite the high costs, "[c]hildhood immunizations are so vital to public health that the Affordable Care Act mandates their coverage at no out-of-pocket cost . . ."²⁰⁹ Because the federal government recognizes the high stakes that accompany low vaccination rates, "federal funds pay for approximately 95 per-

measles-vaccines_n_6601564.html ("You usually have to have an epidemic or a disaster or some demonstration of harm before you take away individual choice . . .").

²⁰² See Harris et al., *supra* note 151; see also *infra* Part I.A.

²⁰³ Rebecca Harrington, *How Quickly Would Measles Spread If Too Few People Were Vaccinated?*, Sci. AM., Mar. 9, 2015, <http://blogs.scientificamerican.com/observations/2015/03/09/how-quickly-would-measles-spread-if-too-few-people-were-vaccinated/>. See also Bonnie Berkowitz & Lazaro Gamio, *What you need to know about the measles outbreak*, WASH. POST (Feb. 6, 2015), <http://www.washingtonpost.com/graphics/health/how-fast-does-measles-spread/>.

²⁰⁴ Harrington, *supra* note 203.

²⁰⁵ *Id.*

²⁰⁶ *Id.* The vaccination rate required to support herd immunity varies depending on the disease. For example, it has been estimated that herd immunity from infectious diseases like measles will be destroyed when the vaccination rate drops below 95%. Russell Sanders, *Anti-Vaxxers Are Destroying the Herd Immunity They Rely On*, DAILY BEAST (Oct. 13, 2015), <http://www.thedailybeast.com/articles/2015/10/13/anti-vaxxers-are-destroying-the-herd-immunity-they-rely-on.html>.

²⁰⁷ Elisabeth Rosenthal, *The Price of Prevention: Vaccine Costs Are Soaring*, N.Y. TIMES (July 2, 2014), http://www.nytimes.com/2014/07/03/health/Vaccine-Costs-Soaring-Paying-Till-It-Hurts.html?_r=0.

²⁰⁸ *Id.*

²⁰⁹ *Id.*

cent of all publicly funded vaccinations” to help deflect costs.²¹⁰

By expending significant resources, the federal government is inextricably intertwined with sustaining the vaccination infrastructure.²¹¹ This infrastructure is weakened by the outbreak of disease because outbreaks indicate a decrease in herd immunity, which thereby increases costs and the need for future vaccinations and healthcare.²¹² However, disease outbreaks in and of themselves are also prohibitively expensive—for health care providers who front the cost of purchasing more vaccines,²¹³ for hospitals responding to outbreaks as they occur,²¹⁴ for the federal government funding the brunt of the vaccination programs,²¹⁵ and for the taxpayers who fund the public health resources states must drain to address outbreaks.²¹⁶ These financial losses provide good reason to enact a national compulsory vaccination law for schoolchildren, because “if a disease is associated with high economic externalities, including extremely expensive individual care for which the cost must be spread over society, a mandate has greater justification.”²¹⁷ And the economic externalities of recent outbreaks are substantial.²¹⁸ For example, “[du]ring [a measles] outbreak in 2008, during which an intentionally unvaccinated 7-year-old boy returned from Switzerland with the virus, San Diego grappled with 11 additional cases, costing taxpayers \$10,376 per case.”²¹⁹ In another example, “[i]n 2011, a case of 16 outbreaks across the country that infected 107 people cost an estimated \$2.7 million to \$5.3 million for just public health systems alone.”²²⁰

These prices only promise to rise as the current trend of vaccine-exempted children continues, providing additional impetus for the federal government to

²¹⁰ NAT’L CONFERENCE OF STATE LEGISLATURES, Immunizations Policy Issues Overview (Jan. 12, 2015), available at <http://www.ncsl.org/research/health/immunizations-policy-issues-overview.aspx>.

²¹¹ Rosenthal, *supra* note 207.

²¹² Sanny Y. Chen et al., *Health Care–Associated Measles Outbreak in the United States After an Importation: Challenges and Economic Impact*, 203 J. OF INFECTIOUS DISEASES 1517, 1523–24 (2011), available at <http://jid.oxfordjournals.org/content/early/2011/04/25/infdis.jir115.full.pdf>.

²¹³ Rosenthal, *supra* note 207.

²¹⁴ Sanny Y. Chen et al., *supra* note 212, at 1524.

²¹⁵ Rosenthal, *supra* note 207.

²¹⁶ Vanessa McGrady, *Measles Outbreaks Cost Taxpayers Millions*, FORBES (Feb. 06, 2015, 12:13 PM), <http://www.forbes.com/sites/vanessamcgrady/2015/02/06/measles1/>.

²¹⁷ Allen Craig et al., *New Adolescent Vaccines: Legal and Legislative Issues*, 35 J.L. MED. & ETHICS 106, 108 (2007). An economic externality is “[a] consequence or side effect of one’s economic activity, causing another to benefit without paying or to suffer without compensation.” *Externality*, BLACK’S LAW DICTIONARY (10th ed. 2014).

²¹⁸ Tara Hælle, *Measles Outbreak in Dollars and Cents: It Costs Taxpayers Bigtime*, FORBES (Feb. 11, 2015, 7:01 AM), <http://www.forbes.com/sites/tarahaelle/2015/02/11/measles-outbreak-in-dollars-and-cents-it-costs-taxpayers-bigtime/#6db640c36101>.

²¹⁹ *Id.*

²²⁰ McGrady, *supra* note 216.

intervene in state vaccination policy.²²¹ As has been established under the Public Health Services Act, the spread of communicable disease and the efficacy of vaccination has a direct impact on interstate commerce.²²² Therefore, the federal government has adequate authority to move forward with a national requirement that all public schoolchildren receive vaccinations upon school entry, especially considering the fact that the federal government funds both vaccinations and public schooling.²²³

C. *Mississippi as a Model for an Effective and Constitutional Federal Vaccination Law*

A national compulsory vaccination scheme applicable to all schoolchildren that permits only medical exemptions would help insulate the public from future preventable infectious disease outbreaks. Such regulation, however, would certainly not be without drawbacks. A standardized vaccination policy would strip the option to exercise religious, philosophical, and personal beliefs inconsonant with immunizations from forty-seven states, and all residents within those states.²²⁴ Moreover, such a policy would be a controversial and significant departure from the current framework that cases like *Jacobson*, *Zucht*, and *Prince* affirmed, where vaccination law and parental choice in the matters of immunizations were left up to the state's discretion and police power.²²⁵

To survive the inevitable onslaught of legal challenges that would follow a nationwide mandate, Congress would need to carefully craft legislation which closely adheres to the confines of the First Amendment, as well as RFRA.²²⁶ In doing so, it would be prudent for Congress to look to Mississippi as a model for its own federal legislation. Mississippi is the only state in the country that has no philosophical or religious exemptions, has enacted a state RFRA identical to the federal RFRA, and whose state supreme court has affirmatively upheld as constitutional the compulsory vaccination law of schoolchildren in spite of First Amendment free exercise challenges.²²⁷ As such, Mississippi provides an ideal prototype for federal legislation because its legal atmosphere is parallel to the legal atmosphere under which the federal government must operate. Moreover, the efficacy of Mississippi's vaccination framework establishes firm precedent

²²¹ See Rosenthal, *supra* note 207.

²²² 42 U.S.C.A. § 264 (West 2002).

²²³ IMMUNIZATIONS POLICY ISSUES OVERVIEW, *supra* note 210; U.S. DEP'T OF EDUC., THE FEDERAL ROLE IN EDUCATION, <http://www2.ed.gov/about/overview/fed/role.html> (last modified Feb. 13, 2012).

²²⁴ Chris Kirk, *How Tough Are the Vaccination Laws in Your State?*, SLATE (Feb. 4, 2015), http://www.slate.com/articles/health_and_science/medical_examiner/2015/02/map_of_vaccination_laws_by_state_personal_belief_exemptions_measles_and.html.

²²⁵ See *Prince v. Massachusetts*, 321 U.S. 158, 166 (1944); *Zucht v. King*, 260 U.S. 174, 176–77 (1922); *Jacobson v. Massachusetts*, 197 U.S. 11, 12–13 (1905).

²²⁶ U.S. CONST. amend. I; 42 U.S.C. §§ 2000bb–1(a), (b) (2012).

²²⁷ See *supra* Part II.B.

as to why a matching federal law would be similarly successful, as well as constitutional.²²⁸

The requirements under the federal RFRA are the same as under Mississippi's RFRA.²²⁹ Both statutes declare that the government will be prohibited from:

"substantially burden[ing] a person's exercise of religion even if the burden results from a rule of general applicability unless the Government demonstrates that application of the burden to the person—(1) is in furtherance of a compelling governmental interest; and (2) is the least restrictive means of furthering that compelling governmental interest."²³⁰

Although the Mississippi RFRA has yet to be interpreted or analyzed by the courts, previous state precedent has arguably already decided its application to compulsory vaccination laws without religious exemptions.²³¹ As previously mentioned, in 1979 the Mississippi state supreme court decided *Brown v. Stone*, holding that the state has a compelling interest in requiring compulsory vaccinations regardless of religious objections, and that the law is "complete in itself" without such exemptions because the alternative—allowing exemptions—would be too detrimental to the student's public health.²³² Because the Mississippi Supreme Court decided *Brown v. Stone* eleven years before the United States Supreme Court handed down their opinion in *Employment Division v. Smith*, which lowered the standard of review for laws of general applicability that incidentally burden religion, the Mississippi court used the same heightened scrutiny in deciding *Brown* that the state RFRA requires today.²³³ As such, *Brown v. Stone* would substantiate the federal government's assertion that a federal compulsory vaccination law without religious or philosophical exemptions is similarly constitutional.²³⁴

A federal vaccination law is also likely to survive a RFRA challenge because, irrespective of *Brown v. Stone*, such a law would objectively serve a compelling governmental interest today and would be the least restrictive means of doing so, surviving constitutional challenges despite the substantial

²²⁸ Todd C. Frankel, *Mississippi – yes, Mississippi – has the nation's best child vaccination rate. Here's why*, WASH. POST (Jan. 30, 2015), <http://www.washingtonpost.com/news/storyline/wp/2015/01/30/mississippi-yes-mississippi-has-the-nations-best-child-vaccination-rate-heres-why/>.

²²⁹ S.B. 2681, 2014129th Leg., 129th Sess. (Miss. 2014).

²³⁰ *Burwell v. Hobby Lobby Stores, Inc.*, 134 S. Ct. 2751, 2754 (2014) (internal quotations omitted); 42 U.S.C. §§ 2000bb–1(a), (b).

²³¹ See *Brown v. Stone*, 378 So. 2d 218 (Miss. 1979).

²³² *Id.* at 223 (internal quotations omitted).

²³³ Compare *Emp. Div., Dep't of Hum. Res. of Or. v. Smith*, 494 U.S. 872 (1990); with *Stone*, 378 So. 2d at 223. See also 42 U.S.C. §§ 2000bb–1(a), (b).

²³⁴ *Stone*, 378 So. 2d at 223.

burden such a law may place on religion.²³⁵ There is ample evidence that the public's immunity to infectious disease would be optimal when the entire United States population receives vaccinations.²³⁶ In enforcing vaccination requirements, the government has a particularly compelling interest to do so by making school entry contingent upon receiving immunizations.²³⁷ Schools are an ideal breeding ground for the spread of infectious disease, as they gather young children in tight quarters for long periods.²³⁸ The United States has unfortunate experience with this truth, as nearly every child in the nation contracted measles by the age of fifteen in the 1950s.²³⁹ While removing religious exemptions may present religious objectors with a Hobson's choice of vaccinating their child against the tenets of their religion or not sending their child to school at all, conditioning school entry on vaccinations "does not force any person to be vaccinated, but rather provides strong incentives (i.e., school attendance) to seek compliance."²⁴⁰ Homeschooling would remain an option for any religious objector that wishes to forgo child vaccinations.

Even if the government interest is found to be compelling, the enforcement of the law must also be the least restrictive means of achieving the government's interest.²⁴¹ Some may argue that a less restrictive alternative to eliminating religious exemptions would be to have special carve-outs in the law in the event of public health emergencies. For example, New York, a state that has both philosophical and religious exemptions, provides that, "in the event of an outbreak . . . of a vaccine-preventable disease in a school, the commissioner, or his or her designee, . . . may order the appropriate school officials to exclude from attendance" students who are unvaccinated.²⁴² However, although this compromise may help to appease both sides of the debate by allowing unvaccinated children to attend school while also including measures to inhibit wide-

²³⁵ See *infra*, notes 240–249 and accompanying text; *Stone*, 378 So. 2d at 223.

²³⁶ Berkowitz & Gamio, *supra* note 203.

²³⁷ *Stone*, 378 So. 2d at 223.

²³⁸ Escobar, *supra* note 31, at 262.

²³⁹ *Measles (Rubeola): Measles History*, *supra* note 21.

²⁴⁰ Hodge & Gostin, *supra* note 32, at 835. A Hobson's choice is "an apparently free choice when there is no real alternative." *Hobson's Choice*, MERRIAM-WEBSTER, <http://www.merriam-webster.com/dictionary/Hobson's%20choice> (last visited May 22, 2016).

²⁴¹ *Stone*, 378 So. 2d at 223.

²⁴² 10 N.Y.C.R.R. § 66-1.10 (2015). Parents who obtained non-medical exemptions for their children recently challenged this regulation in the Second Circuit as unconstitutional under the Free Exercise clause in *Phillips v. City of New York*. Applying rational basis, the Second Circuit rejected their free-exercise claims and held that, "New York could constitutionally require that all children be vaccinated in order to attend public school. New York law goes beyond what the Constitution requires by allowing an exemption for parents with genuine and sincere religious beliefs." *Phillips v. City of New York*, 775 F.3d 538, 543 (2d Cir. 2015).

spread outbreaks,²⁴³ it would not further the compelling governmental interest as successfully as would a law that only allows medical exemptions because the removal of the unvaccinated child from school will often occur too late.²⁴⁴ The measles virus is so contagious that it “infect[s] 90 percent of susceptible individuals and remain[s] airborne up to two hours after an infectious person has left the area, [with] the number of contacts a single case can generate grow[ing] exponentially once an outbreak begins.”²⁴⁵

Other alternatives used by some states to mitigate the intensity of disease outbreaks among unvaccinated children would similarly be less effective at advancing the government’s compelling interest in protecting public health.²⁴⁶ During past widespread outbreaks, public health officials have obtained emergency court orders to force parents to vaccinate their children.²⁴⁷ In the early 1990s, measles rapidly spread across the United States, disproportionately impacting religious objectors clustered in communities. For example, the Faith Tabernacle Congregation in Philadelphia, whose members objected to vaccinations, objected to all medical care and ran a school where all one thousand schoolchildren were unvaccinated.²⁴⁸ Public health officials took measures to obtain a court order to vaccinate many of the children.²⁴⁹ However, nine still died, demonstrating that *ex post facto* disease prevention, such as court orders and removing children from school during an outbreak, is unsatisfactory.²⁵⁰

Prohibiting religious and personal exemptions also ensures that the law will be less susceptible to Establishment Clause challenges.²⁵¹ With persuasive authority like *Sherr v. Northport-East Northport Union Free Sch. Dist.*, which struck down a requirement that religious vaccination objections be associated with a “recognized” religion, it is likely that Congress would be unable to tailor the class of religious objectors beyond requiring that their religious beliefs be sincerely held.²⁵² Any narrower requirement would raise similar questions fatal to the law struck down in *Sherr* (whether the law advances or inhibits the rights of recognized religions over obscure religions, and whether the law “result[s] in an excessive entanglement of government with religion” by requiring the gov-

²⁴³ But see *Phillips*, 775 F.3d at 538.

²⁴⁴ See Berkowitz & Gamio, *supra* note 203.

²⁴⁵ Tara Haelle, *Measles Outbreak in Dollars and Cents: It Costs Taxpayers Bigtime*, FORBES (Feb. 11, 2015, 7:01 AM), <http://www.forbes.com/sites/tarahaelle/2015/02/11/measles-outbreak-in-dollars-and-cents-it-costs-taxpayers-bigtime/>.

²⁴⁶ Kelto, *supra* note 46.

²⁴⁷ *Id.*

²⁴⁸ *Id.*

²⁴⁹ *Id.*

²⁵⁰ *Id.*

²⁵¹ U.S. CONST. amend. I.

²⁵² *Sherr v. Northport-East Northport Union Free Sch. Dist.*, 672 F. Supp. 81, 98 (E.D.N.Y. 1987).

ernment to choose which religions should be granted official recognition).²⁵³

However, a law that provides for only sincerely held religious exemptions still carries the potential to erode herd immunity and negatively impact public health because the standard to obtain such an exemption is quite low. To avoid violating the Establishment Clause, courts analyzing the sincerity of religious beliefs do not require that such beliefs “conform with the beliefs of other members of his or her religious group, nor is the individual required to be a member of a religious group at all.”²⁵⁴ The standard is so low because courts have held that “the accuracy of an individual’s religious belief need not be verified by factual findings.”²⁵⁵ By only examining “whether the individual applies the belief consistently in his or her own practices,” there is a potential for abuse.²⁵⁶

Moreover, some religions have changed their official stances on vaccinations over the years, coming to eventually accept the clinical value of vaccinations in more modern times. Jehovah’s Witnesses “denounced vaccination from the 1920s through the 1940s, citing scriptural passages . . . [and] banned their members from [receiving vaccinations] around this time, under penalty of excommunication.”²⁵⁷ However, in the 1990s, they “began acknowledging the clinical value of vaccination.”²⁵⁸ Such drastic changes to religious beliefs call into question whether a religious refusal of one individual—based upon religious convictions that might be actually impermanent in sincerity and subject to revision based upon religious authority—are worth compromising the public health. Just as accommodating religious beliefs opposing the payment of taxes would unduly interfere with the fulfillment of the government’s interest in maintaining a comprehensive social security system, permitting continual religious objections to school vaccinations would similarly threaten the government’s immunization infrastructure and its efficacy.²⁵⁹

Although frequently subjected to legislative attack by conscientious objectors, the success of Mississippi’s compulsory vaccinations laws for schoolchil-

²⁵³ *Id.* at 89.

²⁵⁴ Cynthia Brougher, *Legal Analysis of Religious Exemptions for Photo Identification Requirements*, THE CONG. RESEARCH SERV. 3 (2012), <http://fas.org/sgp/crs/misc/R40515.pdf>.

²⁵⁵ *Id.*

²⁵⁶ *Id.*

²⁵⁷ Grabenstein, *supra* note 98, at 2016.

²⁵⁸ *Id.* (“It is important to note that there may be differences between what individual believers profess and what their canonical texts teach. Indeed, different sects within a faith tradition can interpret the same scriptural passages differently. Vaccines did not exist when the Torah, Bible, Qur’an, or major Sanskrit texts were originally written. Subsequent interpretations are fundamental to how contemporary believers approach immunization.”).

²⁵⁹ See generally *United States v. Lee*, 455 U.S. 252 (1982) (holding that the government has a compelling interest in requiring an Old Order Amish to pay the federal government’s requirement that he pay the employer’s share of social security taxes despite his religious objections to such conduct).

dren is demonstrated from a public health and court challenge standpoint, and should guide the federal government in the crafting of its own legislation since Mississippi continues to have the highest rates of vaccinations in the country.²⁶⁰ Allowing only medical exemptions for school entry vaccination requirements, Mississippi had a 99.7% rate of vaccination in 2014²⁶¹ and has not had a measles case in the state since 1992.²⁶² Following the lead of Mississippi, in February 2015 two members of Congress introduced a federal bill entitled "Head Start on Vaccinations Act."²⁶³ This bill would "amend the Head Start Act to ensure that all children in Head Start and Early Head Start programs are vaccinated, and allow exemptions only for children with underlying medical conditions, for whom vaccines are therefore medically contraindicated."²⁶⁴ Although this bill would only apply to those enrolled in Head Start programs, which currently includes around one million pre-school age children, proposing legislation of this nature is a promising step forward.²⁶⁵ However, until a federal law is passed that requires all school-aged children to obtain vaccinations, subject only to medical exemptions, infectious disease will continue to spread.

IV. CONCLUSION

Although smallpox has been eradicated and the nation's medical advancements have surpassed those in the 1900s when measles spread rampantly through the United States,²⁶⁶ infectious disease is still a national threat today.²⁶⁷ The recent increase in outbreaks over the past decade serves as a reminder of the fragility and key protective function of herd immunity,²⁶⁸ raising questions

²⁶⁰ Todd C. Frankel, *supra* note 228; Alan Blinder, *Mississippi, a Vaccination Leader, Stands by Its Strict Rules*, N.Y. TIMES (Feb. 4, 2015), <http://www.nytimes.com/2015/02/05/us/mississippi-a-leader-on-vaccination-rates-stands-by-strict-rules.html>.

²⁶¹ Wilson, *supra* note 10.

²⁶² *Id.*

²⁶³ Head Start on Vaccinations Act, H.R. 933, 114th Cong. (2015–2016), available at <https://www.congress.gov/bill/114th-congress/house-bill/933/text>. The bill was introduced by Representative Anna G. Eshoo and U.S. Senator Barbara Boxer, both democrat congresswomen from California. *Id.* The Head Start Program is a federal program run by the United States Department of Health and Human Services which helps to fund and set up early educational opportunities for children from low-income families. HEAD START SERVICES, U.S. DEP'T OF HEALTH & HUM. SERV., <http://www.acf.hhs.gov/programs/ohs/about/head-start> (last visited, Apr. 18, 2015).

²⁶⁴ Head Start on Vaccinations Act, H.R. 933, 114th Cong. (2015–2016), available at <https://www.congress.gov/bill/114th-congress/house-bill/933/text>.

²⁶⁵ HEAD START SERVICES, OFFICE OF HEAD START, AN OFFICE OF THE ADMIN. FOR CHILDREN & FAMILIES, <http://www.acf.hhs.gov/programs/ohs/about/head-start> (last visited May 21, 2016).

²⁶⁶ See *Government Regulation*, *supra* note 26.

²⁶⁷ See *U.S. Multi-state Measles Outbreak 2014–2015*, *supra* note 148.

²⁶⁸ See Novak, *supra* note 138, at 1122.

as to whether the states' patchwork system of religious and philosophical exemptions is sufficient to protect the public health from deadly diseases.²⁶⁹ Although the United States is a nation of many freedoms, granting individuals religious exemptions is difficult to justify when such exemptions result in viral infection to not only those unvaccinated individuals, but also to individuals who are too young or too sick to be vaccinated.²⁷⁰ The federal government holds a compelling interest in protecting the public health of its citizens and, in light of the rising levels of non-medical exemptions and the resulting spread of disease, standardizing compulsory federal vaccination laws for schoolchildren is important and necessary.²⁷¹

²⁶⁹ See Szabo, *supra* note 8.

²⁷⁰ Escobar, *supra* note 31, at 255; Tim Jacks, *To the Parent of the Unvaccinated Child Who Exposed My Family to Measles*, MOTHER JONES (Feb. 2, 2015), <http://www.motherjones.com/environment/2015/02/open-letter-parent-unvaccinated-child-measles-exposure>.

²⁷¹ Berkowitz & Gamio, *supra* note 203; *Brown v. Stone*, 378 So. 2d 218, 223 (1979).

