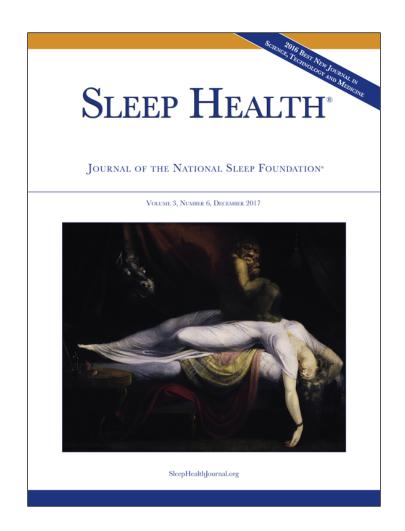
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Law-based arguments and messages to advocate for later school start time policies in the United States[☆]



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ABSTRACT

The increasing scientific evidence that early school start times are harmful to the health and safety of teenagers has generated much recent debate about changing school start times policies for adolescent students. Although efforts to promote and implement such changes have proliferated in the United States in recent years, they have rarely been supported by law-based arguments and messages that leverage the existing legal infrastructure regulating public education and child welfare in the United States. Furthermore, the legal bases to support or resist such changes have not been explored in detail to date. This article provides an overview of how law-based arguments and messages can be constructed and applied to advocate for later school start time policies in US public secondary schools. The legal infrastructure impacting school start time policies in the United States is briefly reviewed, including descriptions of how government regulates education, what legal obligations school officials have concerning their students' welfare, and what laws and public policies currently exist that address adolescent sleep health and safety. On the basis of this legal infrastructure, some hypothetical examples of law-based arguments and messages that could be applied to various types of advocacy activities (eg, litigation, legislative and administrative advocacy, media and public outreach) to promote later school start times are discussed. Particular consideration is given to hypothetical arguments and messages aimed at emphasizing the consistency of later school start time policies with existing child welfare law and practices, legal responsibilities of school officials and governmental authorities, and societal values and norms.

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Introduction

The mounting scientific evidence of the adverse health, safety, behavioral, and academic impacts that early daily school start times have on American teenagers ^{1–7} has inspired recent advocacy efforts to promote the implementation of later daily start time policies in public secondary schools across the United States. ^{8,9} These efforts have relied primarily on arguments and messages relating to the positive health, safety, behavioral, academic, economic, and budgetary impacts of such policies on students, schools, and communities. ^{10,11}

To date, however, law-based arguments and messages rarely have been incorporated into advocacy efforts to promote later school start time policies.

Law-based arguments and messages are developed from legal authorities, precedents, and principles set forth in sources of law such as constitutions, legislation and statutes, agency rules and regulations, executive orders and actions, court decisions, legal instruments, and official policies and procedures. Litigation, whether via private lawsuit or class action, is the most obvious advocacy activity that applies law-based arguments and messages to influence governmental action and public policy at the local, state, and federal levels. Law-based arguments and messages also can be applied to other advocacy activities, however, such as testimony at public meetings of governmental bodies, private meetings and correspondence with individual decision makers, and public outreach with the media and community stakeholders.

[☆] Authors' Note: The contents of this article should not be construed as legal advice in any way and should be used strictly for informational purposes only. Please consult with appropriate legal counsel for formal legal advice.

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This article provides an overview of how law-based arguments and messages can be constructed and applied to advocate for later start time policies in US public secondary schools. After briefly reviewing the history of later school start time policies and advocacy efforts in the United States, an argument is made for incorporating law-based arguments and messages into future advocacy efforts (Advocating for later school start times in the United States). Next, the legal infrastructure impacting school start time policies in the United States is discussed, including governmental regulation of education, the legal obligations school officials have concerning their students' welfare, and existing laws and public policies addressing adolescent sleep health and safety (Legal infrastructure impacting school start times policies). On the basis of this legal infrastructure, some hypothetical examples of lawbased arguments and messages that could be applied to various types of advocacy activities (eg, litigation, legislative and administrative advocacy, media and public outreach) to promote later school start times are discussed (Law-based arguments and messages to advocate for later school start times). Finally, some concluding remarks about using law-based arguments and messages to advocate for later school start time policies are provided (Conclusions).

Advocating for later school start times in the United States

In 1913, educational psychologist Lewis Terman and Adeline Hocking observed that US students slept 60 to 90 minutes longer than did children and adolescents in earlier starting European schools.^{12,13} Recognizing the association between school hours and sleep sufficiency, Terman and Hocking counseled:

The European custom of beginning school at 7 to 8 o'clock in the morning works great hardship, often causing the pupil to rush away to school in nervous haste and without breakfast. The American practice of beginning at 9 o'clock is far wiser, and should never be changed unless for very special reasons. ^{13(p271)}

As American school districts grew in size and complexity and as public schools evolved to provide care for the children of working and middle class laborers over the next century, however, the "wiser" 9 $_{\rm AM}$ start time gradually yielded to earlier starting hours. $^{14-18}$

Recent advances in knowledge about adolescent sleep health 19-22 suggest that the early daily school start time policies currently prevalent throughout the United States may have profound deleterious impacts on adolescent students. ^{1,2,4,23–31} In brief, adolescents naturally experience on average a 2- to 3-hour delay of their internal circadian (24-hour) clock, 32 which in turn delays when they can fall asleep and obtain good quality sleep to a later time of night. Furthermore, the brain mechanisms regulating the accumulation of homeostatic sleep "pressure" (ie, the threshold at which sleep can occur) become slower in adolescence so that adolescents require a longer wake episode before reaching their threshold for sleep. 32 Consequently, teenagers cannot fall asleep early enough to obtain the 8 to 10 hours of sleep per night recommended by the American Academy of Sleep Medicine³³ before waking up for school in the morning, causing them systematic sleep loss. ^{23–30} In addition to the immediate safety concerns associated with increased sleepiness,^{28–30} chronic sleep loss has significant negative impacts over time on the overall welfare of adolescent students, including on their risk-taking behavior,³¹ brain development,³⁴ and risk of depression.^{1,35}

Growing recognition of the adverse consequences arising from the lack of synchronization between the daily school start times and circadian rhythms of adolescent students has spurred efforts around the world to implement or advocate for later school start times for adolescent students. ³⁶ In the United States, these efforts have ranged from school scheduling decisions of local school districts to proposed legislation at the state and national levels addressing secondary school start times. ³⁷ The medical and public health communities have endorsed these policy efforts to promote good sleep health and academic performance in adolescent students, ⁵⁻⁷ and advocates promoting these policies have included health care and public health professionals, scientists, educators, students, community organizations, lawmakers, and the media. ³⁸

Despite the broad-based support for later daily school start times for adolescent students, restoring later starting hours in modern US public schools faces numerous challenges. Among the chief barriers are institutionalized components of modern school systems that were nonexistent in Terman and Hocking's time (eg, teachers' unions, multitiered bus schedules, and before- and after-school extracurricular activities), but have since been accepted by local school officials, educators, and the communities they serve. ^{39,40} Consequently, school and community stakeholders have raised both well-considered and misguided objections to later school start time policies. ^{4,40–42} Moreover, addressing sleep deficiency in adolescent students historically has not been a preeminent scheduling consideration for most school superintendents. ⁴² In fact, some school leaders simply have ignored or repudiated the relevant science on adolescent circadian biology and health. ⁴³

Efforts to increase knowledge and influence attitudes among school officials and the general public about the need for later, healthier school start time policies may be the first step in marshaling support for school start time change in a community. The curriculum of budding educators seldom includes sleep as a subject matter, 44 which contributes to ignorance of the topic among school officials. High levels of advocacy and cooperation from school officials, however, do not guarantee implementation and enforcement of healthy school hours in a community. The best interests of children may be superseded by financial, logistical, contractual, or political considerations in the community. 411,40–42,45

Given these competing interests, community education efforts need to be bolstered with additional advocacy activities that deliver more assertive arguments and messages in favor of later school start time policies. Existing laws and public policies pertaining to student and child welfare are prime sources of rhetorical material for constructing such assertive arguments and messages for use in various advocacy activities. In fact, incorporating law-based arguments and messages into advocacy activities is a promising but underused strategy to support implementation of later school start time policies in communities throughout the United States.

Legal infrastructure impacting school start times policies

Legal infrastructure regulating education in the United States

Education in the United States is governed by a complex scheme of interrelated federal, state, and local legal authorities covering issues ranging from high-level constitutional principles relating to equal educational opportunity to local school board rules controlling mundane matters such as transportation or class sizes. 46 Under American federalism principles, state and local governments have

ⁱ The contents of this article should not be construed as legal advice in any way and should be used strictly for informational purposes only. Readers should consult with their legal counsel for formal legal advice. Furthermore, the views and opinions expressed in this article are entirely those of the authors and do not represent the official positions of the authors' respective affiliated institutions.

primary responsibility for regulating public education, ii and education law and policy questions in the United States were almost exclusively addressed at the state and local school board levels until the mid-20th century. Although state systems had much in common with each other, they also diverged considerably on many issues such as mandatory schooling ages, teacher qualifications, and policies for educating children with special needs. Beginning with the Civil Rights Movement in the 1950s and 1960s, the US federal government began to exert greater influence on education law and policy as civil rights and equal opportunity issues in education came to the fore in American public discourse.ⁱⁱⁱ Based largely on its powers under the Commerce Clause^{iv} and the Taxing and Spending Clause^v of the US Constitution, the federal government subsequently expanded its influence on education law and policy with the development of special education law in the late 1960s and early 1970s, the creation of the US Department of Education in 1979, and the enactment of the No Child Left Behind Act (Pub. L. No. 107-110) in the 2000s.47

Despite the gradual shift toward greater federal involvement in education since the mid-20th Century, education law and policy in the United States continues to be dominated by state legislatures and local school boards. Fesponsibility for education is still largely borne by elected members of local school boards, and local control remains a mantra of education law today. School superintendents selected by local school boards serve as each jurisdiction's "instructional leader," and most board members look to the superintendent for operational and policy leadership at the local level. Within each local jurisdiction, administrators and teachers at individual schools exercise significant discretion and decision-making authority around issues such as student discipline and teacher evaluation. Meanwhile, criticism of the increased federal influence on school law and policy has grown substantially in recent years.

The diversity and decentralization of law and policy approaches to delivering education in the United States makes it difficult to reform practices nationwide, especially if the change sought relates to how institutions operate. ⁴⁶ Moreover, even when good laws or policies exist, effective implementation and enforcement of these laws and policies may be hindered by multiple levels of bureaucracy, decentralized governance of schools, lack of resources to implement changes, or political forces opposing change. University of Minnesota researcher Kyla Wahlstrom succinctly summarized the net effect of these circumstances in a recent statement to a newspaper reporter:

"[E]ducation is the second-slowest institution in the world to change. The slowest is religion."⁵¹

Nevertheless, as discussed in the following subsections, certain legal principles and responsibilities apply to public school systems and officials throughout the United States. As used in this article, the term "public schools" refers to public school systems and officials collectively, and the term "school officials" include elected and nonelected individuals at the state or local level responsible for overseeing or administering the operations of a public school system or an individual public school.

Legal responsibilities of public schools

Responsibilities to students

Public school systems and officials in the United States have a broad set of responsibilities to students under federal, state, and local laws. In addition, the US legal system recognizes education's impact upon the "social, economic, intellectual and psychological well-being" of children. viii Increasingly complex federal laws require public schools to improve educational outcomes for students (20 U.S.C. § 6301 et seq.), protect student privacy (20 U.S.C. § 1232g), provide bilingual education (20 U.S.C. § 1701 et seq.), and ensure that students with disabilities receive a free appropriate public education (20 U.S.C. § 1400 et seq.). Public schools are also required to provide students facing school discipline with fair treatment and procedural safeguards consistent with constitutional due process principles. ix Furthermore, public schools have obligations under the US Constitution and federal laws to ensure that school policies and actions neither discriminate against students based on their race (eg, Civil Rights Act of 1964, Pub. L. No. 88-352) or gender (eg, Title IX of the Education Amendments of 1972, Pub. L. No. 92-318), nor infringe on students' rights to free expression and religious liberty.x

At the state and local levels, public schools have a common law (ie, law derived from judicial decisions and precedents rather than from statutes or constitutions) or statutory duty to supervise students at school and protect them from foreseeable harms. 46,52-54 This duty arises in part from the compulsory nature of education: public schools become the custodians of students who are required to attend, thereby giving rise to a special relationship which imposes on public schools an affirmative legal duty to provide a reasonable standard of care to their students. Courts have typically interpreted such a standard of care to include public school duties to supervise, to warn of known risks or dangers, and to provide a safe environment for students. These duties may extend beyond school grounds in some circumstances, such as where a school system or officials undertake transportation of students, allow a known dangerous nearby condition to continue unabated, or fail to adequately supervise campus departures. 53,54 Public schools also may be responsible for foreseeable student action arising from situations in which the school system or officials have placed the student. However, public schools are not absolute insurers of student health and safety. Furthermore, governmental and qualified immunity doctrines can protect public school systems and officials from civil liability for their official actions so long as their conduct does not violate a student's "clearly established" constitutional or statutory rights (see Affirmative defenses of defendant-public schools).

Public schools may be subject to specific duties to promote and protect student welfare through state or local laws. For example, Maine statutorily requires its state Board of Occupational Safety and

ⁱⁱ The Tenth Amendment to the US Constitution provides that powers "not delegated to the [federal government] by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."

ⁱⁱⁱ See *Brown v Bd. of Educ.*, 347 U.S. 483 (1954) (holding that segregation of public education based solely on race violates the Equal Protection Clause of the Fourteenth Amendment to the US Constitution).

ⁱⁱⁱ See *Brown v Bd. of Educ.*, 347 U.S. 483 (1954) (holding that segregation of public education based solely on race violates the Equal Protection Clause of the Fourteenth Amendment to the US Constitution).

^{iv} Article I, Section 8, Clause 3 of the US Constitution provides in part that Congress shall have the power to "regulate Commerce with foreign Nations, and among the several States[.]"

Varticle I, Section 8, Clause 1 of the US Constitution provides in part that "Congress shall have Power To lay and collect Taxes, Duties, Imposts and Excises...[to provide for the] general Welfare of the United States[.]"

vi Epperson v Arkansas, 393 U.S. 97, 104 (1968) ("By and large, public education in our Nation is committed to the control of state and local authorities.").

vii Bd. of Educ. v Pico, 457 U.S. 853, 863 (1982) ("[L]ocal school boards have broad discretion in the management of school affairs.").

viii Plyler v Doe, 457 U.S. 202, 222 (1982).

ix For example, *Goss v Lopez*, 419 U.S. 565 (1975) (holding that students are entitled to notice and an opportunity to be heard when facing even short-term suspension or exclusion from school).

^x For example, *Tinker v Des Moines Indep. Cmty. Sch. Dist.*, 393 U.S. 503 (1969) (holding that excluding students from school for nondisruptive speech violated their constitutionally protected free speech rights).

Health to "formulate and adopt reasonable rules to ensure safe and healthful conditions for students in public educational facilities[,]" including rules that "address safety and health hazards created by the use of or exposure to equipment or material or the exposure to other conditions within the educational facility that minors would be prohibited from using or being exposed to in a work environment" (Me. Rev. Stat. Ann. tit. 26, § 565-B). Furthermore, the recent proliferation of laws, policies, and litigation around bullying and sexual harassment issues has created important new legal obligations to improve school climate for students. 55 Some states have also granted their children a statutorily protectable right to learn (eg, Mich. Comp. Laws § 380.1278). Such statutes and other theories regarding the legal responsibility of public schools to provide students with an education have been at the center of "educational malpractice" or "right to learn" litigation, in which student plaintiffs have claimed that they were not given the education to which they were legally entitled.⁵⁶

Responsibilities to the community

The obligations of public schools to the communities they serve are broader and less obvious than the obligation of public schools to educate the communities' students. Community residents typically elect their local school board members. Critics have noted that unlike school superintendents, school board members "usually have not possessed, nor felt that they needed, deep knowledge of education" 57 (p6) and can qualify for office simply by meeting local eligibility criteria and conflict of interest rules for officeholders. 58 Some critics also allege that because local school board members are often elected in off-year races, they may be less bound by their constituents' views. 59

Legal responsibilities of parents and guardians concerning children's education

Parents and guardians also have legal obligations regarding the education of the children under their care. Every state has compulsory education laws requiring parents and guardians to ensure that their children are enrolled in and attend school. ⁴⁷ Furthermore, parents and guardians are legally responsible for important decisions about their children's educational program and may seek legal recourse to protect their children's rights under various federal and state education laws. ⁶⁰ In fact, many legally mandated educational responsibilities of public schools to schoolchildren would be unenforceable without a parent or guardian to assert the child's rights.

Existing laws and public policies addressing adolescent sleep health and safety

Governments worldwide have implemented legal and policy interventions to address health and safety hazards associated with poor sleep health in the populations they serve. ^{61,62} Many of these interventions specifically protect adolescents from these hazards. For example, most US states have enacted graduated driver-licensing laws that prohibit nonadult teenage drivers from driving late at night while unsupervised by an adult, in part to reduce the risk of sleepiness-related crashes involving teenage drivers. ^{63,64} Furthermore, federal child labor laws regulate the work hours of nonadult teenagers and include restrictions on daily, weekly, and nighttime work hours (eg, Fair Labor Standards Act of 1938, Pub. L. No. 75-718; 29 U.S.C. 213[c][6][A] and 29 C.F.R. §§ 570.35, 570.52[b][2]).xii

Some state courts have considered sleep health and safety issues in child welfare and family law cases. For example, a Virginia court awarded primary custody of a young child to the father after finding in part that the mother had emotionally abused the child by using "punishment and reward tactics through sleep deprivation and food" to manipulate the child as part of the mother's campaign to alienate the child from the father.Xii Courts also have held that parental neglect resulting in a child's sleep deprivation brings a child within state court dependency jurisdiction, xiii and have recognized that sleep deprivation is a factor to be considered when assessing the voluntariness of admissions made by children in delinquency cases.xiv

Federal law also protects children with a sleep-related disability from discrimination based on their disability. Specifically, the Americans with Disabilities Act (ADA, Pub. L. No. 101-336 [1990], amended by Pub. L. No. 110-325 [2008]) prohibits governmental entities (including public schools) from excluding individuals from participating in or receiving benefits from public services, programs, or activities on the basis of a disability if the individual otherwise would be eligible to participate in or receive such public services, programs, or activities (42 U.S.C. §§ 12131 and 12132). The ADA defines "disability" to mean "a physical or mental impairment that substantially limits one or more major life activities of such individual[,]" where "major life activity" includes sleeping (42 U.S.C. § 12102[1][A] and [2][A]). Thus, children with sleep disorders or other conditions interfering with their sleep arguably have a disability as defined by the ADA and are therefore subject to the ADA's protections.

Law-based arguments and messages to advocate for later school start times

The existing legal infrastructure regulating public education, child welfare, and adolescent sleep health and safety provides prime material for constructing assertive, law-based arguments and messages for future advocacy efforts promoting later school start time policies in the United States. These law-based arguments and messages could be used to leverage various legal risks that public schools may potentially face if they continue their current early school start time policies. They also could be used to remind decision makers, the media, community stakeholders, and residents of how later school start time policies are consistent with existing laws, policies, societal values, and norms concerning child welfare in their jurisdictions.

Litigation arising from implementation of early school start time policies

To the American public, lawsuits are perhaps the most familiar application of law-based arguments to advocate for a cause. In the face of opposition or apparent bad faith resistance by local school officials, later school start time advocates acting on behalf of impacted students and their parents may consider suing the recalcitrant public schools to effect policy change. If advocates pursue litigation as a strategy, they need to make several strategic decisions with their legal counsel, including the following: the legal basis or theory underlying the lawsuit, and whether this theory derives from local, state, or federal law; identification of plaintiffs with standing to sue under the chosen legal theory; whether to proceed with the lawsuit as a private or class action; the remedies sought from the court; and anticipation of the legal and procedural obstacles that the defendant-public schools will raise through counterarguments and affirmative defenses. Some legal theories, allegations, and defense arguments that may be raised in such hypothetical litigation

xi In fact, the US Secretary of Labor has determined that 14- and 15-year-old employees may not begin work before 7 AM (29 C.F.R. § 570.35 (a)(6)) in part to ensure that their employment does not interfere with their schooling or their health and well-being (29 U.S.C. § 203 (l) and 29 C.F.R. § 570.31).

 $^{^{\}rm xii}$ Canedo v Canedo, No. 0851–12-4, 2013 WL 708085 (Va. Ct. App. Feb. 26, 2013).

xiii For example, *In re* Padgett, 577 S.E.2d 337, 340 (N.C. Ct. App. 2003).

xiv For example, *In re* SLL, 631 N.W.2d 775, 778-79 (Mich. Ct. App. 2001).

are summarized in Table 1. Although a comprehensive analysis of the arguments and outcomes of these hypothetical cases is beyond the scope of this article, some of the legal and procedural issues that might arise from such cases are considered briefly in the following subsections for the reader's edification. XV

Allegations and arguments of plaintiff-students

Students may attempt to sue public schools that have adopted early daily school start time policies to seek redress for or relief from alleged injuries resulting from these policies. Injuries in this context might include physical, mental, or financial harm to students resulting from sleepiness-related incidents (eg, a car accident en route to or from school or on school grounds), poor health (eg, insufficient sleep syndrome), or poor academic outcomes attributable to early school start time policies. Such a lawsuit might be especially attractive in jurisdictions that impose clear statutory or constitutional obligations on school officials to protect the health, safety, or academic performance of their students. In such cases, students injured by an early start time policy might allege that the public school's implementation and enforcement of the policy is in violation of the law and demand remedies provided for by statute or judicial precedents.

Other statutes or constitutional provisions also may provide potential statutory causes of action and remedies for certain types of student plaintiffs injured by early school start time policies. For example, students with sleep-related disabilities who are adversely impacted by a school district's early daily start time policy might argue that the policy effectively excludes them from receiving the public service and benefit of a public education, in direct violation of the ADA's prohibition against such disabilities-based discrimination. Moreover, the Fourteenth Amendment to the US Constitution prohibits states from "depriv[ing] any person of life, liberty, or property, without due process of law[.]" Public school students arguably have a life and liberty interest in maintaining their personal welfare, and public schools arguably threaten these interests by compelling students to be in an environment (ie, school) where they are subjected to conditions (ie, early daily start times) that systematically compromise their welfare. Consequently, students in such circumstances might argue that their constitutionally-protected substantive due process rights have been violated, especially if the early school start time policy is not rationally connected to a legitimate government purpose or if implementation and enforcement of the policy is deemed to be an arbitrary and capricious governmental act.

Absent such statutory or constitutional obligations, a lawsuit might rely on traditional tort theories of liability to redress students' injuries. For example, students negatively impacted by early school start time policies may argue that the school officials owed them a legal duty to provide a safe and adequate environment to learn, that the school breached this duty by implementing and enforcing its early start time policy and undermining the quality of the learning environment, that this breach of duty caused the students to be injured (physically, mentally, financially, etc), and that the students were harmed (ie, suffered a

loss) because of their injuries resulting from the breach in duty. On the basis of these allegations, the students may have a negligence-based cause of action which they can pursue to obtain monetary damages or equitable relief (eg, a court order for school officials to stop a specified act or behavior) to remedy their injuries resulting from the school officials' allegedly negligent activities. Alternatively, students might base their lawsuit on intentional tort theories, arguing that the school officials acted maliciously or with reckless disregard for the health, safety, or academic performance of students by implementing and enforcing an early school start time policy despite knowing about the adverse impacts of such policies on adolescent welfare. Given that actions underlying a private lawsuit based in intentional tort are often also statutorily-defined criminal offenses, it is theoretically possible that state or local prosecutors may bring criminal charges against school officials for recklessly implementing and enforcing early school start time policies and endangering the health and safety of students.

In addition to substantive legal challenges to early school start time policies, procedural legal challenges against how such policies are developed, implemented, and enforced may be available. For example, if a state education department promulgated regulations concerning school start time policies, the rule-making process would be subject to state administrative procedures statutes and procedural due process constitutional guarantees. Violations of these statutes and constitutional provisions may give rise to legal causes of action or other authorized remedies and sanctions.

Procedural and legal obstacles for plaintiff-students

Any lawsuit challenging early school start time policies will inevitably encounter procedural and legal obstacles. In responding to the plaintiff-students' lawsuit, the defendant-public schools will deny the plaintiffs' allegations and raise various arguments as to why the students' lawsuit should be dismissed on procedural grounds or why the public schools should prevail on the merits. Plaintiffs would then have the burden of demonstrating why their lawsuit should survive procedural challenges and ultimately why they should prevail on the merits while rebutting the affirmative defenses and counterarguments raised by the defendants.

Procedural Challenges. Before a lawsuit can proceed on the merits, it must meet certain threshold justiciability requirements. For a case to be justiciable, 65,68 the presiding court must not be offering an advisory opinion, the plaintiff must have standing to sue (ie, a right to make a legal claim or seek judicial enforcement of a duty or right), and the issues being litigated must be ripe (ie, the facts underlying the litigation have developed sufficiently to allow a useful decision to be made) but neither moot (ie, the litigation presents only an abstract question that does not arise from existing facts or rights) nor related to political or administrative questions (ie, issues a court will not consider because they involve the exercise of discretionary power by the legislative or executive branches of government). The political-question doctrine may be especially relevant in litigation arising from implementation of early school start time policies: the defendant-public schools will argue that school start time policies are political and administrative questions with which courts should not interfere.

Even if justiciability requirements are met, defendants can still have the lawsuit dismissed by asserting that the plaintiffs have failed to state a claim upon which relief can be granted (eg, Rule 12[b][6] of the Federal Rules of Civil Procedure). For example, in response to a student-filed lawsuit, school officials may argue that the lawsuit should be dismissed because the students have not alleged sufficient facts to make the case that they have suffered any injury resulting

XV Before commencing or threatening litigation, later school start time advocates should be mindful that school reform lawsuits seldom meet with success (eg, North Carolina Ass'n of Educators, Inc. v State, 786 S.E.2d 255 [N.C. 2016], holding that North Carolina's retroactive repeal of teachers' vested career status violates the Contract Clause of the US Constitution) and may make permanent adversaries of the very individuals they need to persuade to effect the policy change they seek. Furthermore, advocates should consider the risk that an unsuccessful foray into the courtroom may harden the positions of school officials already indisposed to modifying school starting hours. As will be discussed, theories of litigation may better serve as the underpinnings of arguments intended to advance the cause of later school scheduling (see the Lawbased arguments and messaging for nonlitigation advocacy activities).

 Table 1

 Litigation arising from implementation of early school start time policies: hypothetical allegations and defenses

Legal theory	Hypothetical example					
	Students, parents, and advocates for later school start ti		,	Public schools (defendants)		
	Sample pleading or cause of action	Plaintiff allegations	Prayer for relief	Defense arguments		
Federal Constitutional and Statutory Violation	Substantive due process violation ^a Federal civil rights violation ^b	 By implementing and enforcing an early school start time policy, the public schools have created a dangerous educational environment and deprived students of their life and liberty interest in maintaining their personal welfare. The early school start time policy is neither necessary to advance a compelling government purpose nor rationally related to a legitimate government interest. Consequently, implementation and enforcement of the early school start time policy violates students' due process rights under the US Constitution and civil rights. 	Strike down the existing early school start time policy as constitutionally invalid and in violation of students' civil rights.	Case is nonjusticiable (eg, students have no standing to sue; school start time policy is a political question). Early school start time policy is rationally related to a legitimate government interest and not an arbitrary governmental act.		
Federal and State Constitutional Violation Federal Statutory Violation	 Federal and state Equal Protection violation^c Americans with Disabilities Act violation 	School officials have discriminated against students with a sleep-related disability by implementing and enforcing an early school start time policy. The discriminatory treatment school officials have given to students with a sleep-related disability is neither necessary to advance a compelling government purpose nor rationally related to a legitimate government interest.	Strike down the existing early school start time policy as constitutionally invalid. Compel school officials to adopt later school start times as a reasonable accommodation for students with sleep-related disabilities.	 School officials' conduct was not discriminatory on the basis of a disability. Early school start time policy is rationally related to a legitimate government interest and not an arbitrary governmental act. Adopting a later school start time policy is an overly burdensome remedy (eg, the accommodation requested is unreasonable). 		
State Constitutional Violation	Violation of state constitution provision granting certain rights to students relating to the adequacy of their education	Implementation and enforcement of an early school start time policy infringes on students' constitutionally protected right to an adequate education.	Strike down the existing early school start time policy as constitutionally invalid.	 Case is nonjusticiable (eg, students have no standing to sue; school start time policy is a political question). Early school start time policy does not infringe on any constitutionally-protected right of students. 		
State Statutory Violation	Violation of state statute imposing duties on school officials to protect student welfare	By implementing and enforcing an early school start time policy, school officials have injured students in violation of a state statutory duty to protect student welfare.	Statutory remedies	No statutory violation occurred. Students' injuries occurred independently of the actions of the public schools.		
Administrative Law Violation	Violation of state administrative procedures act Violation of constitutional procedural due process guarantees ^d	Decision of state education department to promulgate regulations on school start times without public notice or opportunity for public comment violates state administrative procedures act or constitutional guarantees to procedural due process.	Regulations invalidated or sent back to administrative agencies for further proceedings consistent with the applicable legal authorities.	Adequate public notice and opportunity for public comment was provided before the regulations were promulgated.		
Negligence ^e	School officials acted negligently in implementing and enforcing an early school start time policy despite being aware of the research on the adverse impacts of early school start times, resulting in students' injuries related to any of the following: • A sleepiness-related incident while driving to or from school • A sleepiness-related incident at school during regular school hours • Adverse health outcomes for the students	Duty: School officials owed students a legal duty (eg, duty to protect students from foreseeable health and safety risks related to school activities). Breach: School officials breached their legal duty to students by implementing and enforcing an early school start time policy and thus failing to exercise reasonable care.	Monetary damages (ie, to make the students "whole" by putting them in the same position as if the torte had not occurred) Equitable relief (eg, an injunction against enforcement of early school start time policies)	School officials did not have a legal duty to ensure that students were subject to safe and healthy school start times, because applicable legal authorities and precedents either are silent on the issue or explicitly rule out the existence of such a duty. No breach of duty because under applicable legal authorities and precedents, the extent and scope of the duty does not include ensuring that		

Table 1 (continued)

Legal theory	Hypothetical example					
	Students, parents,	Public schools (defendants)				
	Sample pleading or cause of action	Plaintiff allegations	Prayer for relief	Defense arguments		
	Adverse educational outcomes for the students (ie, educational malpractice)			students are subject to safe and healthy school start times.		
	mapacaccy	Causation: The school officials' breach of duty caused students to be injured (physically, mentally, financially, etc).		 Reasonable care was exercised in adopting the early school start time policy or refusing to adopt a later school start time policy. Students' injuries related to early school start time policy were not sufficiently foreseeable or preventable by school officials exercising reasonable care or supervision. Insufficient nexus between breach of duty and students' injuries. 		
		Harm: Students suffered a loss because of their injuries resulting from the school officials' breach of duty.		injuries. • Students did not suffer an actual loss or a loss that can be remedied under the law. • Contributory or comparative negligence of the students. • Qualified immunity for school officials • Governmental immunity		
Intentional Tort ^e	 Intentional infliction of emotional distress Other intentional tort provided for by statute 	School officials acted with reckless disregard for the health, safety, and education of students by implementing and enforcing an early school start time policy despite knowing and understanding the research on the adverse impacts of early school start times.	Monetary damages Equitable relief Statutorily authorized civil penalties	School officials' conduct does not meet the intention requirement of the torte under applicable legal authorities and precedents. Students did not suffer an actual loss or a loss that can be remedied under the law. Qualified immunity of school officials Governmental immunity		
Criminal Offense	Violation of a statute criminalizing acts demonstrating a reckless disregard for the health and safety of minors			School officials' conduct does not meet the physical or mental elements of the crime under applicable legal authorities and precedents.		

The hypothetical examples are for illustrative purposes only and are not intended to provide advice about or reflect the law in any federal, state, or local jurisdiction. Variations in the law may exist between jurisdictions. The term "public schools" refers to public school systems and officials collectively, and the term "school officials" include elected and nonelected individuals at the state or local level responsible for overseeing or administering the operations of a public school system or an individual public school.

- ^a Substantive due process is the doctrine under the Due Process Clauses of the Fifth and Fourteenth Amendments of the US Constitution requiring governmental intrusions into fundamental rights to be fair and reasonable and to further a legitimate governmental objective. ⁶⁵ The Fifth Amendment directly regulates the actions of the federal government and the Fourteenth Amendment directly regulates the actions of the states.
- b Under 42 U.S.C. § 1983, any US citizen or person within the jurisdiction of the United States may file a "Section 1983 lawsuit" in federal court against any person who, while acting under color of state law, subjects the suing party or causes the suing party to be subjected "to the deprivation of any rights, privileges, or immunities secured by the Constitution and laws for the United States.!"
- ^c Equal protection is the principle under the Equal Protection Clause of the Fourteenth Amendment of the US Constitution requiring the states to give similarly situated persons or classes of persons similar treatment under the law.⁶⁵ Many state constitutions also include equal protection provisions.⁶⁶
- d Procedural due process is the principle under the Due Process Clauses of the Fifth and Fourteenth Amendments of the US Constitution requiring a governmental entity to provide a person notice and a hearing before depriving the person of a life, liberty, or property interest. The Fifth Amendment directly regulates the actions of the federal government and the Fourteenth Amendment directly regulates the actions of the states.
- e Torts refer to conduct that injures another party and that amounts to a civil wrong subject to civil liability. Examples of torts include negligence and intentional torts. Although some tort law scholars distinguish between "injury" (invasion of a legally protected interest) and "harm" (a "loss or detriment in fact of any kind to a person resulting from any cause"), 67(§§ 6 and 7) these terms are used interchangeably in this article, as is common in legal practice.

from an early school start time policy that can be redressed under the law of the relevant jurisdiction.

Affirmative defenses of defendant-public schools If a lawsuit survives procedural challenges and is allowed to proceed, the defendants may raise affirmative defenses against the plaintiffs' allegations. Affirmative defenses refer to assertions of facts and arguments by the defendant which, if proven, will negate or diminish a plaintiff's claim of liability

even if all the allegations in the plaintiff's lawsuit are true. ⁶⁵ Certain affirmative defenses are available to defendants for specific legal theories and causes of action pursued by the plaintiff, depending on the specifics of the law in a jurisdiction. For example, in a negligence-based case, the defendant may argue that the plaintiff's own negligent conduct contributed to the plaintiff's injury, which should either bar or reduce any monetary damages recovered by the plaintiff. Thus, if a student injured in a drowsy driving crash sued local school officials

for allegedly acting negligently by implementing and enforcing an early school start time policy and thereby putting the student at risk for sustaining a sleepiness-related injury, the school officials could argue that the student contributed to his or her own injury by negligently deciding to get behind the wheel and driving while drowsy.

In addition to affirmative defenses for specific causes of actions, various immunity-based defenses may protect public school officials from liability arising from the execution of their public duties. As governmental units, local school boards and state education departments may enjoy immunity from tort liability for "discretionary acts" related to governmental planning or decision making, but not for "ministerial acts" related to governmental operations. $^{54(\S\S~5:29~and~30)}$ Whether implementation and enforcement of an early school start time policy constitutes a discretionary or ministerial act would likely be a disputed issue during litigation. Even in jurisdictions that have abolished state or local governmental tort immunity, some courts have applied a "public duty" doctrine to limit governmental liability so that a governmental duty owed to the public at large (eg, duty of the police to protect citizens) is not owed to a specific individual unless a special relationship exists between the governmental entity and the individual.⁶⁹ Such a special relationship may be demonstrated where the governmental entity assumes an affirmative duty to act on behalf of an individual, the agents of the governmental entity know that governmental inaction could lead to harm to the individual, the governmental agents have had some direct contact with the individual, and the individual justifiably relies on the governmental entity's assumption of duty to act. By legally requiring students to attend school, the public duty exception to governmental tort immunity may not be available as an affirmative defense for local school boards and state education agencies in a tort-based lawsuit arising from injuries related to implementation and enforcement of early school start time policies.

Individual public school officials may enjoy official immunity from tort liability arising from their "discretionary act" of implementing and enforcing early start time policies as part of their official duties, unless the act is done maliciously or for an improper purpose. ^{54(§ 5:32)} Furthermore, individual public school officials may enjoy qualified immunity from individual civil liability arising from their implementation and enforcement of early start time policies, unless such conduct violates a clear statutory or constitutional right enjoyed by the plaintiffs in a particular jurisdiction. Thus, absent a state statute or constitutional provision that clearly obligates school officials to avoid actions that harm student welfare, qualified immunity may attach to negligence or intentional tort cases arising from an injury related to an early school start time policy.

Defendant-public schools' counterarguments on the merits Aside from procedural challenges and affirmative defenses, school officials may raise various counterarguments to challenge the legal merits of a lawsuit arising from the implementation of an early school start time policy. Perhaps the most basic of these counterarguments would be that the defendant-public schools have not violated any legal obligation or restriction by implementing and enforcing early school start time policies, if any such obligation or restriction even exists. Thus, for lawsuits based on statutory violations, defendants may argue that the statute underpinning the plaintiffs' case is inapplicable to the case at bar, or that defendants' conduct did not constitute a violation of the statute. Similar counterarguments may be raised to challenge allegations of constitutional violations. In addition, defendants may argue that an alleged constitutional violation passes legal muster under an established standard of judicial review favorable to the public schools (eg, rational basis review, whereby a governmental action passes constitutional muster if it is rationally related to a legitimate governmental purpose). For tort-based litigation, school officials may argue that they are not absolute insurers of student welfare and that they therefore have a limited (if any) legal duty to protect students from health and safety hazards away from school grounds or outside of school hours. The school officials would further argue that ensuring students are subject to school start times that are optimal for student health, safety, and academic performance falls outside the scope of any legal duty public schools may have to students.

Another significant counterargument school officials could raise against plaintiff allegations, particularly in tort-based litigation, is that there is an insufficient causal link between the school officials' implementation and enforcement of an early start time policy and the students' alleged injury. In negligence cases, liability applies only for injuries that are reasonably foreseeable or where the risk of injury is actually or constructively known to defendants and is preventable by reasonable supervision or care. 67(ch12), 70(pp 245-249) Sleepiness-related injuries among adolescents due to their delayed circadian rhythms and consequent sleep deprivation are reasonably foreseeable given the established science on adolescent circadian biology and associated health and safety risks. Nevertheless, school officials may argue that independent intervening factors break the causal link between implementation of an early start time policy and a student's injury, thereby absolving the school officials from liability for the student's injury. For example, a car crash involving a sleepy high school student driver could be attributed to causes entirely unrelated to the early start time policy implemented and enforced by the defendantpublic schools, such as poor road and weather conditions at the time of the crash or negligence on the part of the student driver or other motorists involved in the crash. Cases involving sleepinessrelated incidents on school grounds during school hours (eg, where students who are so sleepy in class that they fail to learn the material taught them and their academic performance is adversely impacted) also could be defended in this manner, as such incidents could be attributed to independent causes unrelated to an early start time policy such as stressful experiences in the students' personal lives outside of school.

Law-based arguments and messaging for nonlitigation advocacy activities

The difficulty facing advocates who want to challenge early school start time policies through litigation is reflected in the fact that no US public schools have been sued successfully and held liable for student injuries resulting from early school start time policies. Thus, despite the breadth of possible legal theories available for challenging early school start time policies through litigation, ultimate success in such endeavors seems improbable as a practical matter.xvi Advocates may, however, pursue or threaten litigation for strategic purposes such as generating publicity about an issue or incentivizing school officials to take preemptive policy action rather than to attain desired policy outcomes directly. Litigation introduces an adversarial approach to the policy dispute that may encourage advocates and school officials to work harder to find common ground and expeditiously resolve the dispute. On the other hand, an unsuccessful lawsuit could easily result in substantial costs for the plaintiffs and stiffen resistance from school officials. Furthermore, litigation approaches to other areas of education

xvi However, the Supreme Court of Michigan recently remanded for reconsideration by a lower appellate court the question of whether a high school coach's directive to enter a roadway during a predawn practice run proximately caused severe injury to a student-athlete struck by a motorist. *Ray v Swager*, No. 152723, 2017 WL 3254724 (Mich. July 31, 2017).

reform have had inconsistent and unsatisfactory results (see Footnote xv) 71,72

Despite the disadvantages of advocating for later school start time policies through litigation, the arguments raised in litigation and their component language and analyses can be repackaged into law-based messages for use in public debates and other advocacy activities to promote later school start time policies. Even if a court finds school start time policies to be a nonjusticiable political question involving the exercise of discretionary power by the executive or legislative branches of government, 65 the legal arguments raised in litigation may provide powerful political rhetoric for the debates concerning such policies and related legislation and regulations that might be considered at the local, state, or even regional or federal levels. These debates could take place privately through correspondence or meetings with individual decision makers (eg, elected officials and appointed officials), or publicly before policy-making bodies (eg, legislatures, executive branch agencies, and local school boards) or through communications channels that influence public perceptions and opinion (eg, news media, social media, and community organizations). Some examples of how law-based messages might be applied strategically to advocate for later school start time policies, including hypothetical arguments to advance these strategies (see Table 2), are presented in the following subsections.

Emphasizing consistency with existing child welfare laws and policies

One particularly potent law-based messaging strategy that could be applied to nonlitigation advocacy activities would emphasize how later school start time policies are consistent with existing practices concerning child welfare that a given jurisdiction has long adopted as a matter of public policy and enforced as a matter of law. For example, if governmental authorities in a jurisdiction previously have implemented policies, rules, or laws aimed at protecting adolescents from the dangers to their welfare posed by sleep deficiency (see Existing laws and public policies addressing adolescent sleep health and safety), advocates could argue that implementation of policies, rules, or laws relating to later school start times would be entirely consistent with the jurisdiction's existing public policy on sleep health and adolescent welfare. This argument becomes especially potent if the existing policies, rules, or laws: (1) have been developed and enforced by multiple branches of government (ie, legislative, executive, and judicial) in a jurisdiction; (2) apply to voluntary adolescent activities (eg, employment and driving) rather than mandatory adolescent activities (eg, attending school); or (3) value adolescent welfare over other interests in the community (eg, business interests). Such law-based arguments and messages may be particularly effective when advocating for legislation, which is arguably the clearest and least impeachable legal means of achieving later school start times for adolescent students as a matter of public policy.

Emphasizing consistency with existing legal responsibilities

Law-based messages also can be used to emphasize how later school start time policies are consistent with the existing legal responsibilities of public schools and other governmental authorities in a jurisdiction. For example, advocates can use a negligence framework to advance arguments about how later school start times are consistent with the "duty of care" public school systems and officials owe their students, and how failure to implement a later start time policy causes harm to students (see Legal responsibilities of public schools and Allegations and arguments of plaintiff-students). Such law-based arguments can be applied in a manner less threatening and confrontational than litigation to persuade relevant decision makers to support later school start time policies and to empower them to implement and enforce such policies.

Emphasizing consistency with existing societal values and norms

Advocates can also use law-based messages in media or public messaging campaigns: (1) to remind decision makers and stakeholders of the societal values and norms concerning child welfare reflected in their past actions to protect children and adolescents in their jurisdictions, even at the expense of other societal or community interests; and (2) to argue that implementing later school start time policies would be a reaffirmation of these societal values and norms. Such lofty rhetoric could appeal to the "better angels" of the decision makers' and stakeholders' nature and thereby shift public perceptions and opinion regarding the school start time issue in a more favorable direction. In certain jurisdictions or for certain audiences (eg, federal stakeholders), this line of reasoning could be bolstered with arguments about how sleep is an internationally-recognized human rights issue and that the US federal government has arguably endorsed this view in the past. 74 This application of law-based arguments and messages may be especially effective in promoting state-level or regional approaches to reforming daily school start times, which some analysts have advocated over single-community local approaches as a better means of addressing various conflicts associated with implementing later school start time policies. 10,75

Conclusions

As public awareness of the detrimental effects of early school start times on adolescent welfare increases and calls to action to promote the implementation of later start time policies proliferate across the United States, advocates will need to adopt a multipronged strategy for their efforts. One such strategy prong could involve developing and applying law-based arguments and messages in support of later school start time policies. Although litigation would be the most obvious operationalization of this strategy, law-based arguments and messages could be readily applied to other types of advocacy activities in ways that leverage the existing legal infrastructure regulating public education and child welfare in the United States and that resonate with existing societal values and norms that prioritize child welfare over other community interests. This approach may be especially effective for legislative advocacy, which may be the most promising legal means of achieving later school start times for adolescent students as a matter of public policy in the United States.

Disclosures

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DMN is the author of *The Impact of School Start Times on Adolescent Health and Academic Performance* Web blog (https://schoolstarttime.org).

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Table 2Hypothetical law-based arguments to promote later school start time policies

Argument	Messaging Strategy					
Component	Emphasizing Consistency with Existing Child Welfare Laws and Policies	Emphasizing Consistency with Existing Legal Responsibilities	Emphasizing Consistency with Existing Societal Valuesand Norms			
POLICY ARGUMENT	Later school start time policiesare consistent with existing legal work hour restrictions for adolescents.	The combination of early school start times and biological limitations on sleep may directly cause or exacerbate certain clinical sleep disorders, thereby triggering certain responsibilities for public schools and protections for students under existing law that compel public schools to implement later school start time policies.	Later school start time policies reinforce societal values and norms concerning adolescent welfare.			
RATIONALE	Federal child labor laws prohibit work before 7 a.m.for some adolescents (see 29 C.F.R. § 570.35(a)(6)), presumably to protect child welfare and sleep (see 29 C.F.R. § 570.31). By contrast, some schools routinely start classes at or around 7 a.m. and schedule extra-curricular activities at an even earliertime.	Sleep disorders that may be caused or exacerbated by the combination of early school start times and biological limitations include: Delayed Sleep-Wake Phase Disorder* Insufficient Sleep Syndrome* Such clinical sleep disorders arguably constitute an injury that is redressable under existing law (e.g., Americans with Disabilities Act; state tort law).	Communities expect their public schools to provide an environment for their students to learn that does not harm the overall welfare of students. Early school start times inevitably cause sleep restriction, which arguably meets the definition of harming the welfare of students. Community members understand this intuitively, as they would likely object to a 4 a.m. school start time because of their intuitive appreciation of the harmful impact that such an early start time would have on student health, safety, and academic performance. Because the first classes of the day are particularly prone to having sleepy students, scheduling key subjects at this time (e.g., English or Mathematics) may foreseeably limit students' achievement in these key educational indicators.			
POLICY QUESTIONS	Should schools be permitted to schedule any activity, even if voluntary, before 7 a.m. given the risk to child welfare established by existing child labor laws?	If school start times have a direct causal role in the development of clinical sleep disorders, would delayingschool start times only for the clinically diagnosed students be sufficient accommodation, or will it be necessary to delay school start times for all students? If early school start times can be demonstrated to cause clinical sleep disorders, what should the legal consequences be for public schools? Even without evidence of a clinical sleep disorder, are students with biological clocks that are naturally (and genetically) timed later than the average adolescent discriminated against when they are required to wake up and learn during their biological night?	Should schools be held responsible for increasing sleepiness in students through the imposition of early start times in the same way that employers may be held responsible if they schedule workers to hours that induce sleep loss? Should key subjects (e.g., English or Mathematics) be scheduled at the beginning of the school day, given that sleepy students are particularly prevalent in the first classes of the day?			

The hypothetical arguments are for illustrative purposes only and are not intended to provide advice about or reflect the law in any federal, state, or local jurisdiction. Variations in the law may exist between jurisdictions. The term "public schools" refers to public school systems and officials collectively, and the term "school officials" include elected and non-elected individuals at the state or local level responsible for overseeing or administering the operations of a public school system or an individual public school.

^a Delayed sleep-wake phase disorder is relatively common in teenagers and is "characterized by habitual sleep-wake timing that is delayed, usually more than two hours, relative to conventional or socially acceptable timing." Furthermore: "[a]ffected individuals complain of difficulty falling asleep at a socially acceptable time, as required to obtain sufficient sleep duration on a school or work night. Once sleep onset occurs, it is reportedly of normal duration. These individuals also experience difficulty arising at a socially acceptable wake time, as required to prepare for school or work. When allowed to follow his or her preferred schedule, the patient's timing of sleep is delayed" [italics added for emphasis].

b Insufficient sleep syndrome (also called behaviorally-induced insufficient sleep syndrome) could be caused by systematically restricting the time available for sleep and "occurs when an individual persistently fails to obtain the amount of sleep required to maintain normal levels of alertness and wakefulness." The individual is chronically sleep deprived as a result of failure to achieve necessary sleep time due to reduced time in bed. ... A detailed history of the sleep pattern reveals a substantial disparity between the need for sleep and the amount actually obtained. The significance of this disparity often goes unappreciated by the patient. Sleep time that is markedly extended on weekend nights or during holidays compared to weekday nights is also suggestive of this disorder" [italics added for emphasis].

^c In some states, employers have been held liable for injuries resulting from drowsy driving crashes involving employees commuting home who were sleep deprived as a result of their long work hours (eg, *Robertson v LeMaster*, 301 S.E.2d 563 (W.V. 1983) (refusing to hold that a railroad company that required its employee to work approximately 27 hours and then "setting [the employee] loose upon the highway in an obviously exhausted condition" did not "create a foreseeable risk of harm to others which the [employer] had a duty to guard against"). Most states, however, have refused to hold employers liable for such incidents.⁶¹

References

- 1. Wheaton AG, Chapman DP, Croft JB. School start times, sleep, behavioral, health, and academic outcomes: a review of the literature. *J Sch Health*. 2016;86(5): 363–381
- Morgenthaler TI, Hashmi S, Croft JB, Dort L, Heald JL, Mullington J. High school start times and the impact on high school students: what we know, and what we hope to learn. J Clin Sleep Med. 2016;12(12):1681–1689.
- Kelley P, Lee C. Later School Start Times in Adolescence: Time for Change. Denver, CO: Education Commission of the States; 2014.
- Owens J, Drobnich D, Baylor A, Lewin D. School start time change: an in-depth examination of school districts in the United States. *Mind Brain Educ*. 2014;8(4): 182–213.
- Adolescent Sleep Working Group. Committee on adolescence, council on school health. School start times for adolescents. *Pediatrics*. 2014;134(3): 642–649.
- Wheaton AG, Ferro GA, Croft JB. School start times for middle school and high school students—United States, 2011-12 school year. *Morb Mortal Wkly Rep.* 2015;64(30): 809-813.
- Watson NF, Martin JL, Wise MS, et al. Delaying middle school and high school start times promotes student health and performance: an American Academy of Sleep Medicine position statement. J Clin Sleep Med. 2017;13(4):623–625.
- Start School Later. Success stories. http://www.startschoollater.net/success-stories. html; 2017.
- Start School Later. Case studies. http://www.startschoollater.net/case-studies. html; 2017.
- Jacob BA, Rockoff JE. Organizing Schools to Improve Student Achievement: Start Times, Grade Configurations, and Teacher Assignments. Washington, DC: The Hamilton Project, Brookings; 2011.
- Wahlstrom K. School start times and sleepy teens. Arch Pediatr Adolesc Med. 2010; 164(7):676–677.
- Terman LM, Hocking A. The sleep of school children, its distribution according to age, and its relation to physical and mental efficiency: part I. The distribution of sleep according to age. J Educ Psychol. 1913;4(3):138–147.
- Terman LM, Hocking A. The sleep of school children, its distribution according to age, and its relation to physical and mental efficiency: part III. The conditions of children's sleep. J Educ Psychol. 1913;4(5):269–282.
- Fischel WA. Neither "creatures of the state" nor "accidents of geography": the creation of American public school districts in the twentieth century. *Univ Chic Law Rev.* 2010;77:177–199.
- Gray L, Bitterman A, Goldring R, Broughman S. Characteristics of Public School Districts in the United States: Results From the 2011–12 Schools and Staffing Survey (NCES 2013-311). Washington, DC: National Center for Education Statistics, U.S. Department of Education: 2013.
- Wolf-Meyer MJ. The Slumbering Masses: Sleep, Medicine, and Modern American Life. Minneapolis, MN: University of Minnesota Press; 2012.
- Carskadon M, Acebo C. Historical view of high school start time: preliminary results. Sleep Res. 1997;26:184.
- O'Malley EB, O'Malley MB. School Start Time and its Impact on Learning and Behavior. In: Ivanenko A, editor. Sleep and Psychiatric Disorders in Children and Adolescents. New York, NY: Informa Healthcare; 2008. p. 79–94.
- 19. Mitru G, Millrood DL, Mateika JH. The impact of sleep on learning and behavior in adolescents. *Teach Coll Rec.* 2002;104(4):704–726.
- Miller NL, Tvaryanas AP, Shattuck LG. Accommodating adolescent sleep-wake patterns: the effects of shifting the timing of sleep on training effectiveness. Sleep. 2012;35(8):1123–1136.
- 21. Owens J. Insufficient sleep in adolescents and young adults: an update on causes and consequences. *Pediatrics*. 2014;134(3):e921–e932.
- Raine A, Venables PH. Adolescent daytime sleepiness as a risk factor for adult crime. J Child Psychol Psychiatry. 2017;58(6):728–735.
- Wahlstrom KL, Berger AT, Widome R. Relationships between school start time, sleep duration, and adolescent behaviors. Sleep Health. 2017;3(3).
- McKeever PM, Clark L. Delayed high school start times later than 8:30 AM and impact on graduation rates and attendance rates. Sleep Health. 2017;3(2):119–125.
- Thacher PV, Onyper SV. Longitudinal outcomes of start time delay on sleep, behavior, and achievement in high school. Sleep. 2016;39(2):271–281.
- 26. Gariépy G, Janssen Ian, Sentenac Mariane, Elgar FJ. School start time and sleep in Canadian adolescents. *I Sleep Res.* 2016.
- 27. Edwards F. Early to rise? The effect of daily start times on academic performance.
- Econ Educ Rev. 2012;31(6):970–983.
 28. Danner F, Phillips B. Adolescent sleep, school start times, and teen motor vehicle crashes. J Clin Sleep Med. 2008;4(6):533–535.
- 29. Vorona RD, Szklo-Coxe M, Wu A, Dubik M, Zhao Y, Ware JC. Dissimilar teen crash rates in two neighboring southeastern Virginia cities with different high school start times. *J Clin Sleep Med.* 2011;7(2):145–151.
- Vorona RD, Szklo-Coxe M, Lamichhane R, Ware JC, McNallen A, Leszczyszyn D. Adolescent crash rates and school start times in two Central Virginia counties, 2009-2011: a follow-up study to a southeastern Virginia study, 2007-2008. J Clin Sleep Med. 2014;10(11):1169-1177.
- 31. Wheaton AG, Olsen EOM, Miller GF, Croft JB. Sleep duration and injury-related risk behaviors among high school students—United States, 2007-2013. *Morb Mortal Wkly Rep.* 2016;65(13):337–341.
- Hagenauer MH, Perryman JI, Lee TM, Carskadon MA. Adolescent changes in the homeostatic and circadian regulation of sleep. *Dev Neurosci.* 2009; 31(4):276–284.

- American Academy of Sleep Medicine. Health advisory: teen sleep duration. http:// www.aasmnet.org/resources/pdf/pressroom/teen-sleep-duration-recommendation. pdf: 2016.
- 34. Gibson ES, Powles AP, Thabane L, et al. "Sleepiness" is serious in adolescence: two surveys of 3235 Canadian students. *BMC Public Health*. 2006;6:116.
- Winsler A, Deutsch A, Vorona RD, Payne PA, Szklo-Coxe M. Sleepless in Fairfax: the difference one more hour of sleep can make for teen hopelessness, suicidal ideation, and substance use. J Youth Adolesc. 2015;44(2):362–378.
- Kelley P, Lockley SW, Foster RG, Kelley J. Synchronizing education to adolescent biology: 'let teens sleep, start school later'. Learn Media Technol. 2015;40(2):210–226.
- Start School Later. Current legislation. http://www.startschoollater.net/legislation. html; 2017.
- Start School Later. Start school later at work. http://www.startschoollater.net/ start-school-later-at-work.html; 2017.
- Sable J, Plotts C, Mitchell L, Chen C-S. Characteristics of the 100 Largest Public Elementary and Secondary School Districts in the United States: 2008-09 (NCES 2011-301). Washington, DC: National Center for Education Statistics, U.S. Department of Education; 2010.
- Barnes M, Davis K, Mancini M, Ruffin J, Simpson T, Casazza K. Setting adolescents up for success: promoting a policy to delay high school start times. J Sch Health. 2016;86(7):552–557.
- Wahlstrom KL. Accommodating the sleep patterns of adolescents within current educational structures: an uncharted path. In: Carskadon MA, editor. Adolescent Sleep Patterns: Biological, Social, and Psychological Influences. New York, NY: Cambridge University Press; 2002. p. 172–197.
- Wolfson AR, Carskadon MA. A survey of factors influencing high school start times. NASSP Bull. 2005;89(642):47–66.
- Nolan D. Incognizant "educators." the impact of school start times on adolescent health and academic performance. 2011-2017 [https://schoolstarttime.org/2011/ 09/23/oblivious-educators/].
- 44. Wolfson AR. Bridging the gap between research and practice: what will adolescents' sleep-wake patterns look like in the 21st century? In: Carskadon MA, editor. Adolescent Sleep Patterns: Biological, Social, and Psychological Influences. New York, NY: Cambridge University Press; 2002. p. 198–219.
- Wahlstrom KL. The prickly politics of school starting times. *Phi Delta Kappan*. 1999:80(5):344–347.
- Biegel S, Kim R, Welner K. Education and the Law. 4th ed. St. Paul, MN: West Academic Publishing; 2016.
- 47. Yudof MG, Levin B, Moran RF, Ryan JE, Bowman KL. Educational Policy and the Law. 5th ed. Belmont, CA: Wadsworth Publishing; 2012.
- 48. Murphy J, Hallinger P. The superintendent as instructional leader: findings from effective school districts. *J Educ Adm.* 1986;24(2):213–236.
- Hess FM, Meeks O. School Boards Circa 2010: Governance in the Accountability Era. Alexandria, VA: National School Boards Association; 2010.
- 50. Ravitch D. The Death and Life of the Great American School System: How Testing and Choice Are Undermining Education. New York, NY: Basic Books; 2010.
- Ross A. Why are teens going to school so early? research shows educators may need a wake-up call. Courier-Journal; 2017[http://www.courier-journal.com/ story/news/education/back-to-school/2017/07/19/jcps-other-districts-startingtoo-early-teens-research-may-wake-up-call/440533001/].
- Norris DA. Tort liability of public schools and institutions of higher learning. American Law Reports. Rochester, NY: Lawyers Co-operative Publishing Co; 1946. p. 7–246.
- 53. Korpela AE. Tort liability of public schools and institutions of higher learning for injuries resulting from lack or insufficiency of supervision. American Law Reports 3d Series. Rochester, NY: Lawyers Co-operative Publishing Co; 1971. p. 830–900.
- Lentz MA. Chapter 5. Negligence and liability. Lentz School Security. Thomson Reuters: New York. NY: 2016.
- Weddle DB. Bullying in schools: the disconnect between empirical research and constitutional, statutory, and tort duties to supervise. Temple Law Rev. 2004;77:641–699.
- Standler RB. Educational malpractice law in the USA. http://www.rbs2.com/ edumal3.pdf.
- Task Force on School District Leadership. Leadership for Student Learning: Restructuring School District Leadership. Washington, DC: Institute for Educational Leadership; 2001.
- Kaufman MJ, Kaufman SR. Education Law, Policy, and Practice: Cases and Materials. 2nd ed. New York, NY: Aspen Publishers; 2009.
- Miller M. First, kill all the school boards: a modest proposal to fix the schools. The Atlantic; 2008[https://www.theatlantic.com/magazine/archive/2008/01/first-kill-all-the-school-boards/306579/].
- Schlueter LL. Parental rights in the twenty-first century: parents as full partners in education. St Mary's Law J. 2001;32(4):611–808.
- Lee CJ, Jones CB, Rajaratnam SMW. Legal implications of circadian rhythm sleep disorders. Reference Module in Neuroscience and Biobehavioral Psychology. Elsevier; 2017.
- Lee CJ, Sanna RA, Czeisler CA. Public policy, sleep science, and sleep medicine. In: Kushida CA, editor. Encyclopedia of Sleep. Waltham, MA: Academic Press; 2013. p. 156–166.
- Rajaratnam SMW, Landrigan CP, Wang W, Kaprielian R, Moore RT, Czeisler CA. Teen crashes declined after Massachusetts raised penalties for graduated licensing law restricting night driving. *Health Aff.* 2015;34(6):963–970.
- 64. Governors Highway Safety Association. State Laws by issue: teen and novice drivers. http://www.ghsa.org/state-laws/issues/Teen-and-Novice-Drivers.
- 65. Garner BA, editor. Black's Law Dictionary. 10th ed. St. Paul, MN: Thomson Reuters; 2014.

- Parness JA. American state constitutional equalities. Gonzaga Law Rev. 2010;45(3): 773–795.
- 67. American Law Institute. Restatement (Second) of Torts. St. Paul, MN: American Law Institute Publishers; 1965.
- 68. Wright CA, Miller AR, Cooper EH, et al. § 3529 Justiciability. Federal Practice and Procedure. 3rd ed. St. Paul, MN: West Publishing; 2008.
- Derrick JH. Modern status of rule excusing governmental unit from tort liability on theory that only general, not particular, duty was owed under circumstances. American Law Reports 4th Series. Rochester, NY: Lawyers Co-operative Publishing Co; 1985. p. 1194–1205.
- 70. Prosser WL. Handbook of the Law of Torts. 4th ed. St. Paul, MN: West Publishing; 1971.
- 71. Heise MR. Litigated learning and the limits of law. *Vanderbilt Law Rev.* 2004;57(6): 2417–2461.
- Pudelski S. Rethinking Special Education Due Process: A Proposal for the Next Reauthorization of the Individuals with Disabilities Education Act. Alexandria, VA: American Association of School Administrators; 2016.
- 73. American Academy of Sleep Medicine. International Classification of Sleep Disorders. 3d ed. Darien, IL: American Academy of Sleep Medicine; 2014.
- 74. Lee CJ. Sleep: a human rights issue. Sleep Health. 2016;2(1):6-7.
- Krueger J. High school start times and healthy sleep. Public Health Law Blog; 2015 [https://www.networkforphl.org/the_network_blog/2015/03/03/553/high_school_start_times_and_healthy_sleep].