A Dose of Their Own Medicine: Why the Federal Government Must Ensure Healthy Working Conditions for Medical Residents and How Reform Should Be Accomplished

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COMMENTS

A DOSE OF THEIR OWN MEDICINE: WHY THE FEDERAL GOVERNMENT MUST ENSURE HEALTHY WORKING CONDITIONS FOR MEDICAL RESIDENTS AND HOW REFORM SHOULD BE ACCOMPLISHED

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Reflecting on his experience in the intensive care unit, a novice doctor wrote the following entry in his diary:

[I found a medical resident] trying to intubate a lifetime asthmatic who is as blue as this ink . . . . I keep hoping he's going to be too blue to go anywhere. Probably a nice man with a loving wife and concerned children, but I don’t want that SOB . . . to live if it means I don’t sleep . . . . I just want to sleep.

1. Cedars-Sinai Med. Ctr., 223 N.L.R.B. Dec. (CCH) 251, 251 (1976). Medical residents are recent medical school graduates who have earned their medical degrees but must complete accredited clinical training programs, called residencies, before becoming licensed physicians. Id. Having completed their classroom instruction, laboratory experience, and preliminary clinical training in medical school, novice doctors enter graduate training programs to expand their foundation of knowledge and improve their technical skills. Id. Traditionally, doctors in their first year of post-graduate training were called “interns,” and doctors in their second, third, fourth, or fifth years were called “residents.” Id. Over the years, however, the formal distinction between internship and residency has eroded. Frank Michota, Do Today's Medical Residents Really Have It Better?, CLEVELAND CLINIC J. MED. (Oct. 1997), available at http://www.ccjm.org/1minuteconsults/oct7com.htm. Collectively, interns and residents may be referred to as residents, house staff, or house officers. Cedars-Sinai, 223 N.L.R.B. Dec. (CCH) at 251. In the United States, there are approximately one hundred and ten thousand physicians-in-training and approximately four hundred teaching hospitals. Dolores Kong, Resident Doctors Lose One Round: Plan Appeal of Labor Decision, BOSTON GLOBE, Oct. 18, 1997, at B1.

2. Leonard C. Groopman, Medical Internship as Moral Education: An Essay on the System of Training Physicians, 11 CULTURE, MED., & PSYCHIATRY 207, 217 (1987). Other residents have expressed similar feelings. See PHILIP REILLY, TO DO NO HARM: A JOURNEY THROUGH MEDICAL SCHOOL 226 (1987). For example, one resident remarked:

+ J.D. Candidate, May 2003, The Catholic University of America, Columbus School of Law. I would like to thank Professor Benjamin Mintz for his guidance and instruction throughout the writing process. I would also like to thank my husband, David, for sharing his insight and for always lending his support.
Unfortunately, this hostile attitude arose from severe fatigue, a condition prevalent among physicians-in-training who commonly work sixty to one hundred and thirty hours per week, with uninterrupted shifts of thirty-six hours or more. Aside from demoralizing physicians, constant exhaustion prevents residents from leading healthy lifestyles and providing quality patient care. Still, young doctors routinely work at three o’clock in the morning as I stood over [a comatose patient’s] bedside starting an IV he was an enemy, part of the plot to deprive me of sleep. If he died, I could sleep for an hour. If he lived, I would be up all night.


4. In numerous studies testing concentration, memory, and cognition, sleep-deprived residents consistently performed worse than their well-rested colleagues. In one study, researchers administered four tests to assess attention span, eye-hand coordination, reaction time, visual accuracy, short-term memory, spatial perception, ability to distinguish relevant and random information, and ability to perform simple math problems. John Robbins & Fred Gottlieb, Sleep Deprivation and Cognitive Testing in Internal Medicine House Staff, 152 W. J. MED. 82, 82-83 (1990). Despite the fact that the study’s design factors mitigated against the hypothesis that sleep deprivation would impair cognitive functioning, the study showed that fatigued doctors suffered a decline in cognitive performance. Id. at 85-86. Because the skills tested are less complex than those required to provide effective patient care, the researchers concluded that the actual effects on medical residents may be even more drastic in a hospital setting. Id. at 85. The researchers also opined that sleep deprivation of physicians may have medicolegal ramifications, and that in order to promote optimal patient care, training programs ought to be reformed. Id. at 86. Another study revealed that sleep deprivation causes substantial deficits in both higher-order cognitive functions and basic skills such as computation, memory, and simple language. Michael R. Hawkins et al., Sleep and Nutritional Deprivation and Performance of House Officers, 60 J. MED. EDUC. 530, 534 (1985). The latter finding is particularly alarming because physicians experiencing impairments in their basic skills may be unaware of their deficits. Id. Like Robbins and Gottlieb, these researchers concluded that the structure of residency programs may need to change, especially as patients become more sophisticated and more aware of the problem. Id. at 535. One well-known study found that individuals who remained awake for twenty-four hours suffered the same cognitive and psychomotor impairment as those with a 0.1% blood alcohol level, the level at which a person is considered legally intoxicated. Drew Dawson & Kathryn Reid, Fatigue, Alcohol and Performance Impairment, 388 NATURE 235, 235 (1997). In fact, the effects of sleep deprivation are not just acknowledged by medical researchers. Steven R. Daugherty et al., Learning, Satisfaction, and Mistreatment During Medical Internship: A National Survey of Working
grueling hours without adequate supervision, and the few measures taken to restructure residency programs have failed.\textsuperscript{5}

Many members of the medical establishment defend the status quo and insist that the system is essential for cultivating competent doctors.\textsuperscript{6} Benefits of the current approach include promoting continuity of patient care and developing residents' stamina and endurance.\textsuperscript{7} Working long hours also allows residents to care for greater numbers of patients, each of whom presents a unique medical problem, and affords young doctors the opportunity to witness and understand acute development of various diseases.\textsuperscript{8}

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\textit{Conditions}, 279 J. AM. MED. ASS'N. 1194, 1197 (1998). In one survey, seventy percent of residents reported that they had personally observed another resident working in an impaired state. \textit{Id.} They also reported that sleep deprivation was the most common cause of physician impairment. \textit{Id.}

5. Esther B. Fein, \textit{Flouting Law, Hospitals Overwork Novice Doctors}, N.Y. TIMES, Dec. 14, 1997, at 1. In New York, hospitals have failed to comply with the new operating standards that the state passed into legislation in 1989. \textit{Id.} Efforts to enforce the laws have failed for many reasons, including loopholes in the regulations, fruitless self-monitoring by hospitals, and the refusal of the medical profession to adapt to the changes. \textit{Id.}; see also infra notes 70-72 and accompanying text. Enforcing regulations has not only been problematic in New York. See Sidney M. Wolfe, \textit{Public Citizen Petitions OSHA to Limit Residents’ Working Hours}, 17 HEALTH LETTER, June 1, 2001, available at 2001 WL 12240092. The Accreditation Council for Graduate Medical Education (ACGME), which oversees residency programs throughout the country, has also had difficulty discovering and citing residency programs that force residents to work excessive hours. \textit{Id.} Although deeply affected by the intense schedules, medical staff and residents are reluctant to report the hospitals in which they work for fear that their programs would lose accreditation. \textit{Id.} Simply put, residents do not report violations because loss of accreditation would jeopardize their own prospects of becoming licensed physicians. See \textit{id.}

6. Sandra G. Boodman, \textit{Waking Up to the Problem of Fatigue Among Medical Interns}, L.A. TIMES, Apr. 16, 2001, at S1. Residency programs have existed for over a century. \textit{Id.} Created by Johns Hopkins Hospital, these programs were designed to cultivate superior doctors by providing extensive hands-on training and close mentoring relationships. \textit{Id.} The training programs were called “residencies” because young doctors were expected to live on the wards at the hospital throughout their training. \textit{Id.} Doctors who have survived grueling residency programs often consider enduring the three-to-seven-year training periods a rite of passage during which physicians learn to rise above fatigue and hunger. \textit{Id.} This philosophy is particularly prevalent among surgeons who pride themselves on their intelligence, independence, resilience, and elite training. \textit{Id.} According to Richard Reiling, a representative for the American College of Surgeons at the American Medical Association, surgeons “are built differently” and can overcome exhaustion. \textit{Id.} Reiling and others also defend the long shifts because they enable doctors to build stamina and provide continuity of care for their patients. \textit{Id.} Hospitals often defend the system for economic reasons: decreasing resident work hours would force hospitals to hire more house staff or fully-licensed and well-salaried physicians. See \textit{All Things Considered}, supra note 3.


8. \textit{Id.}
Over the past few years, however, the media has exposed the negative aspects of resident working conditions and their effect on both resident health and patient safety.9 Growing recognition of the connection between medical errors and physician fatigue has sparked public disbelief and demands for change.10 In fact, medical professionals and legislators have recently introduced two proposals to reform the structure of residency programs: Public Citizen’s Petition to the Occupational Safety and Health Association (OSHA)11 and Congressman John Conyers’ Physician and Patient Safety and Protection Act of 2001 (PPSPA).12 Each approach advocates hours-of-service limitations and mandatory rest periods for medical residents; however, they offer different perspectives on which agencies should enforce the regulations, how far

9. See generally ABC World News Tonight: Medical Residents Lobby for Government Regulation of Work Hours (ABC television broadcast, Apr. 20, 2001), available at 2001 WL 21731606; Boodman, supra note 6; Hopkins 24/7 (ABC television broadcast, Sept. 28, 2000) (summary available on Lexis) (revealing the real-life drama inside Johns Hopkins University Hospital in Baltimore, Maryland in a six-part documentary); Jim Ritter, Docs’ Hours Hazardous to Your Health? Some Want Government to Limit the Tough Work Schedule of Residents, CHI. SUN TIMES, July 31, 2001, at 6 (discussing the “grueling regimen” of residents); Saner Hours for M.D. Residents, HARTFORD COURANT, July 9, 2000, at C2 (commenting on the “common sense” notion that residents who work demanding schedules are more prone to make mistakes). The popular television series ER addressed the issue of excessive on-call shifts in two episodes. See ER: Hazed and Confused (NBC television broadcast, Nov. 12, 1998), available at http://www.digiserve.com/er/episodes/season5/er507s-r.htm (summary of episode); ER: Good Luck, Ruth Johnson (NBC television broadcast, Dec. 10, 1998), available at http://www.digiserve.com/er/episodes/season5/er509s-r.htm (summary of episode). In the first episode, “Hazed and Confused,” Dr. Elizabeth Corday administered a dangerous dose of medicine to a patient after working thirty-six consecutive hours in the emergency room. ER: Hazed and Confused, supra. The overdose induced cardiac arrest, and the patient nearly died. Id. As a result, the head physician instructed the doctors not to discuss what had happened, drawing a curtain of silence around those who had witnessed the medical error first-hand. See id. He also consulted the hospital’s risk management team to determine the extent of information that should be revealed to the family. Id. At a morbidity and mortality conference, a meeting in which a team of doctors review a patient’s cause of death, the committee found that Dr. Corday was not at fault. ER: Good Luck, Ruth Johnson, supra. Upset by the incident, Dr. Corday proposed scheduling reform, advocating for a system in which physicians have the opportunity to be well-rested. See id. She compared reasonable work schedules for physicians to the already-existing work limits on air traffic controllers, emphasizing that both professions involve life-and-death situations. Id.

10. See ABC News, supra note 9; Boodman, supra note 6; Hopkins 24/7, supra note 9; Ritter, supra note 9; Saner Hours, supra note 9.

11. See generally Petition to OSHA, supra note 3 (seeking to limit resident work hours).

the reforms should extend, and what penalties should be imposed for non-compliance.  

This Comment first explores the structure of medical residency programs and its consequences for resident health and patient safety. Second, this Comment reviews federal work limitations imposed on other industries and the rationales behind those regulations. Third, this Comment examines previous attempts to limit work hours within the medical profession and their failure to effect meaningful reform. Fourth, this Comment analyzes two current proposals for enforcing reasonable work-hour limitations for resident physicians: Public Citizen's Petition to OSHA and the PPSPA. This Comment compares and contrasts the provisions of, and justifications for, each proposal. It also analyzes whether the agencies with jurisdiction under each proposal are suitable to regulate the medical workplace and the likelihood of successful enforcement. Finally, this Comment concludes that the PPSPA is the sounder and more comprehensive approach and should be enacted to protect doctors and patients alike.

I. THE PLOUGH OF MEDICAL RESIDENTS: THE STRUCTURE OF RESIDENCY PROGRAMS AND ITS CONSEQUENCES FOR PHYSICIANS AND THEIR PATIENTS

After graduating from medical school, residents enter clinical training programs to continue their medical education and prepare for board certification and licensing. During residency, these physicians-in-training treat patients under the supervision of more experienced doctors. Studies indicate that medical residents routinely work an average of sixty to one hundred and thirty hours per week and are often "on-call" for thirty-six consecutive hours at a time.

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13. See Petition to OSHA, supra note 3; PPSPA, supra note 12.
16. Petition to OSHA, supra note 3. In another study, which surveyed residents across all specialties, residents reported working an average of only 58.1 hours per week, but they excluded hours in which they served beeper call. Marvin R. Dunn & Rebecca S. Miller, United States Graduate Medical Education, 1996-1997, 278 J. AM. MED. ASS'N. 750, 752-53 (1997). Furthermore, there was a huge variance in the number of hours that residents reported, and the standard deviation for the calculation was 16.2 hours per week. Id. The study also calculated that residents spent, on average, a maximum of 24.5 consecutive hours on duty. Id. at 753. The physicians' reports varied widely among the specialties, and the standard deviation for the calculations was 11.6 hours. Id.
operate especially intensive residency programs, requiring residents to work both longer shifts and more consecutive days.\textsuperscript{17}

These challenging schedules have grave effects on the physical and emotional well-being of medical residents.\textsuperscript{18} During residency, physicians are more likely to be involved in car accidents, suffer from depression, and experience complications with pregnancy.\textsuperscript{19} Excessive work schedules also interfere with residents' family lives and contribute to job dissatisfaction.\textsuperscript{20}

Aside from fostering unhealthy lifestyles among residents, extreme working conditions threaten patient safety.\textsuperscript{21} In fact, sleep-deprived

\textsuperscript{17} Id. For example, general surgery residents were on duty for thirty-two consecutive days, OB/GYN residents were on duty for thirty-one days, and internal medicine and pediatrics residents were on duty for thirty consecutive days. Id.

\textsuperscript{18} See generally Daugherty, supra note 4; Dawson & Reid, supra note 4; Hawkins, supra note 4; Landau, infra note 20; Robbins & Gottlieb, supra note 4.

\textsuperscript{19} Petition to OSHA, supra note 3. Attending physicians at one hospital interviewed surgical residents and found that six out of seven had fallen asleep while driving and that three out of seven had been involved in car accidents. James Robert Wondt & Lester J. Yen, The Resident by Moonlight: A Misguided Missile, 259 J. AM. MED. ASS'N. 43, 43 (1998). Moreover, even though pregnant residents are not at a greater risk for all obstetric complications, they do face a greater risk of premature labor and preeclampsia. See Mark A. Klebanoff et al., Outcomes of Pregnancy in a National Sample of Resident Physicians, 323 NEW ENG. J. MED. 1040, 1040 (1990). One OB/GYN resident who was twenty-six weeks pregnant was the only doctor working in an obstetrics ward when she started having contractions. Wolfe, supra note 5. Instead of seeking medical care, she inserted an IV into her arm so that she could continue working. Id. When the resident told her supervising physician about her contractions the next morning, he replied by asking whether she would be at work the next day. Id.

\textsuperscript{20} Carol Landau et al., Stress in Social and Family Relationships During the Medical Residency, 61 J. MED. EDUC. 654, 656 (1986). The study surveyed one hundred and eight residents and found that more than forty percent of the respondents who defined themselves as being in serious relationships believed that their relationships were suffering. Id. Of these respondents, seventy-two percent attributed their relationship difficulties to residency, and sixty-one percent stated that their spouses or partners agreed. Id. Another report revealed that feelings of anger, depression, and aggravation often cloud marital relationships when one spouse is completing a rigorous medical residency program. Anne Stur melting Bergman, Marital Stress and Medical Training: An Experience with a Support Group for Medical House Staff Wives, 65 PEDIATRICS 944, 945-46 (1980). These feelings stem from the time demands of residency, the resident spouse's resulting fatigue and sexual frustration, the stress of balancing a social life and quality time with a spouse, the pressure of entertaining in-laws when the resident spouse is at work, the necessity of career adjustment for the spouse who is not in residency, and the resident's changing values and priorities. Id.

\textsuperscript{21} An article in the Los Angeles Times revealed several incidents in which exhausted residents made grave errors, each of which could have been fatal. Boodman, supra note 6. One resident overlooked test results reported to him in the middle of the night, results indicating that a patient was in immediate danger of suffering a fatal arrhythmia. Id. Another resident almost mistakenly administered a medication that could have elicited a fatal stroke. Id. At the beginning of a nine-hour surgical operation, another resident
Working Conditions for Medical Residents

Doctors are more likely than rested doctors to make serious medical mistakes, which have the potential to cause patient fatalities. The fact that hospitals schedule residents, rather than senior doctors, to work consecutive daytime and nighttime shifts exacerbates the problem of resident fatigue. These schedules give residents increased responsibility for the overnight care of acutely ill patients. Ironically, "the greatest demand on a [resident] physician's skills comes when performance is most likely impaired by sleep loss."

II. FEDERAL WORK-HOUR LIMITATIONS CURRENTLY IN FORCE TO PREVENT EMPLOYEE FATIGUE AND PROMOTE PUBLIC SAFETY

In the transportation industries, the federal government has limited work hours and imposed rest-period requirements in order to prevent employee fatigue and promote public safety. For decades, the United

drifted off several times, instruments in hand, before a senior doctor told her to go home. Id. 22. Forty-one percent of residents in one study ascribed their most serious medical errors to fatigue, indicating that residents themselves recognize the ramifications of excessive work schedules on their ability to provide quality patient care. Albert W. Wu et al., Do House Officers Learn from Their Mistakes? 265 J. AM. MED. ASS'N. 2089, 2091 (1991). Other factors contributing to medical errors were lack of knowledge and work overload. Id. Ninety percent of residents claimed that their medical mistakes had significantly affected their patients by creating physical discomfort, provoking emotional distress, and even causing death. Id.

23. Robbins & Gottlieb, supra note 4, at 82.
24. Id.
25. Id. While caring for patients with severe illnesses, physicians must rely on their psychomotor and cognitive skills as well as their ability to remain calm and emotionally stable. Id. As fatigue intensifies, the physicians' ability to perform these skills suffers dramatically. Id.
26. See infra notes 33, 37, 42, and 45 and accompanying text. Years ago, the State of New York attempted to limit the number of hours bakers could work to sixty hours per week and ten hours per day. Lochner v. New York, 198 U.S. 45, 46 (1905). The state claimed that the regulation aimed at protecting the health of the bakers and the public at large. Id. at 57. The Supreme Court, however, relied on substantive due process and employed strict judicial scrutiny to strike down the New York statute. Id. at 58, 64. The Court found that New York had impermissibly infringed on the employers' and the employees' liberty to contract, which violated the Fourteenth Amendment. Id. at 53. The Court also found that there was no reasonable ground upon which the state could interfere in the bakers' employment. Id. at 57. The Court justified its decision by stating that bakers were no less intelligent or less capable than other workers; essentially, bakers were "in no sense wards of the state." Id. Moreover, because the number of hours that a baker might work did not affect the cleanliness or wholesomeness of bread, the law in no way impacted the public interest. Id. As a result, the Court decided that New York had exceeded its police powers and held the statute unconstitutional. Id. at 58. Justice Holmes, in a strong dissent, argued that the majority ignored its proper role because it failed to decide whether the legislation was rational. Id. at 75-76 (Holmes, J., dissenting).
States Department of Transportation (DOT) and its subordinate organizations have been proactive in establishing hours-of-service guidelines. By conducting research on operator fatigue and revising

Instead, the Court acted outside its authority and imposed its own preferred economic theory on the State of New York. Id. Justice Holmes succinctly noted that the Fourteenth Amendment "does not enact Mr. Herbert Spencer's Social Statistics" and neither should the Court. Id. Justice Harlan also dissented, but on different grounds. Id. at 66-74 (Harlan, J., dissenting). He argued that the New York law was a valid health regulation because it aimed at improving the working conditions and health of workers whose health status was worse than the national average. Id. at 69. Justice Harlan specifically noted that bakers were exposed to impure air, were required to exert a great deal of energy, and worked erratic nighttime hours because of the demands of the occupation. Id. at 70. As a result of these working conditions, bakers often suffered inflammation of the lungs, irritation of the eyes, rheumatism, cramps, and swollen legs. Id. at 70. Because the legislature enacted the work-hour limitations in order to protect bakers' health and because it did not violate the Constitution, Justice Harlan argued that the statute should be recognized and enforced by the courts as an expression of the will of the people. Id. at 74.

Thirty years later, the Court effectively overturned Lochner in West Coast Hotel v. Parrish, 300 U.S. 379 (1937). In West Coast Hotel, the Court upheld the constitutionality of Washington's minimum wage law, which applied only to women and minors. Id. at 386. In upholding the regulation as a valid exercise of the state's police power, the Court acknowledged the argument that the law deprived employers and employees of their liberty to contract. Id. at 391. The Court stated:

But the liberty safeguarded [by the Fourteenth Amendment] is liberty in a social organization which requires the protection of law against the evils which menace the health, safety, morals, and welfare of the people. Liberty under the Constitution is thus necessarily subject to the restraints of due process, and regulation which is reasonable in relation to its subject and is adopted in the interests of the community is due process. Id. In regulating the hours and wages of women and minors, the legislature had weighed the parties' interests and the public interest, and the legislature was entitled to regulate accordingly. Id. at 398-99. Although West Coast Hotel was a departure from the Court's reliance on substantive due process in examining the constitutionality of economic legislation, the case proved to be the foundation of many subsequent decisions. JOHN E. NOWAK & RONALD D. ROTUNDA, CONSTITUTIONAL LAW 373 (1991). West Coast Hotel served as an important precedent for upholding state regulations of the workplace in the interest of citizens' welfare, health, and safety. Id.

27. National Transportation Safety Board Safety Recommendation Â-99-45 (June 1, 1999), at http://www.ntsb.gov/Recs/letters/letters.htm. Because investigations by the National Transportation Safety Board (NTSB) often revealed that fatigue was a contributing factor in transportation accidents, the NTSB has listed operator fatigue as one of its Most Wanted Transportation Improvements since the list was established in 1990. Id. Upon completion of numerous safety investigations, the NTSB recommended that the DOT:

[1] Expedite a coordinated research program on the effects of fatigue, sleepiness, sleep disorders, and circadian factors on transportation system safety ... 
[2] Develop and disseminate educational material for transportation industry personnel and management regarding shift work; work and rest schedules; and proper regimens of health, diet, and rest ...
their standards accordingly, individual agencies ensure that their standards are scientifically-based, responsive to the biological needs of employees, and protective of public safety. Furthermore, various subdivisions of the DOT have established means of enforcement to ensure the effectiveness of the regulations.

A. Limitations on Pilots

Congress first authorized administrative agencies to limit hours of service in the aviation industry in the Civil Aeronautics Act of 1938 and the Federal Aviation Act of 1958. Both acts aimed to create a regulatory system for the entire aviation industry, thereby promoting a safe and economically sound system of air transportation. Today, the

[3] Review and upgrade regulations governing hours of service for all transportation modes to assure that they are consistent and that they incorporate the results of the latest research on fatigue and sleep issues.

Id.
28. Id.
32. See CHARLES S. RHYNE, CIVIL AERONAUTICS ACT ANNOTATED: WITH THE CONGRESSIONAL HISTORY WHICH PRODUCED IT, AND THE PRECEDENTS UPON WHICH IT IS BASED 1-7 (1939). By the late 1930s, technological advances moved aviation from its status as a romantic, fanciful mode of travel to an industry that required businesslike administration. Id. In recognition of these monumental changes, Congress enacted the Civil Aeronautics Act. Id. The act’s purposes were: (1) to promote the development of an air transportation system that could meet the demands of domestic and foreign commerce and national defense; (2) to regulate the economic and safety aspects of air transportation; and (3) to foster the development of civil aeronautics. HENRY G. HOTCHKISS, A TREATISE ON AVIATION LAW 99 (2d ed. 1938). The act established the Civil Aeronautics Authority to regulate the growing aviation industry and included a provision that allowed the board, under its general safety powers, to establish and continually revise maximum hours of service for employees of the air carriers. Civil Aeronautics Act of 1938, Pub. L. No. 75-706, 52 Stat. 973 (codified as amended at 49 U.S.C. §§ 40101-49105 (1994)). Twenty years after Congress enacted the Civil Aeronautics Act, two tragic accidents provoked the President and Congress to reconsider the effectiveness and comprehensiveness of federal aviation regulation. See Letter to Congress from President Dwight D. Eisenhower (June 13, 1958) (as published in the Hearing Before a Subcommittee of the Committee on Interstate and Foreign Commerce (report of June 24, 1958)), in LEGISLATIVE HISTORY OF THE FEDERAL AVIATION ACT OF 1958, 145-48 (1958). In a letter to Congress, President Dwight D. Eisenhower referenced midair aircraft collisions over the Grand Canyon and Maryland, both of which caused many human casualties. Id. In light of the tragedies, the President urged the passage of legislation to address air transportation safety and improve national air traffic.
Federal Aviation Administration (FAA) mandates rest periods after eight to ten hours of commercial flying and limits flight time to thirty to thirty-four hours per week, depending on the type of flight the crew is operating. In an effort to ensure the continued effectiveness of its regulations, the FAA recently closed regulatory loopholes that had allowed airlines to extend pilots’ on-duty time to sixteen hours when weather and technical difficulties caused unforeseen delays. The FAA has also demonstrated its willingness to enforce regulations by imposing large civil fines on airlines that violate the law.

management. Id. The President also advocated for the creation of a unified agency, the Federal Aviation Agency, to oversee the practice of air traffic control, the operation of aviation facilities, the inspection of aircraft, and the certification of pilots. Id. Along with many other provisions of the Federal Aviation Act of 1938, Congress reauthorized the regulation of crewmember hours of service in the interest of public safety. Id.

33. 14 C.F.R. § 121.471 (2001); Id. § 135. The schedules of all domestic flight crewmembers must not exceed one thousand hours per calendar year, one hundred hours per calendar month, thirty hours per week, and eight hours between required rest periods. Id. § 121.471. The schedules of other commercial flight crewmembers are limited to twelve hundred hours per calendar year, one hundred and twenty hours per calendar month, thirty-four hours per week, and eight hours between required rest periods. Id. § 135.265. Under both FAA regulations, airlines must allow their flight crews substantial periods of rest, ranging from nine to eleven consecutive hours, between scheduled flights. Id. § 121.471; Id. § 135.265 (2001).

34. FAA Deputy Chief Counsel’s Interpretation of 14 C.F.R. pt. 121.471(b) (Nov. 20, 2000), at http://www.alpa.org/Internet/projects/fdt/faacorr/faalet11-20.html. As of the summer of 2001, however, the NTSB continues to list stricter limitations on pilot duty hours as one of its “Most Wanted” reforms. Alan Levin, Pilots, Airlines, Regulators Battle Over Fatigue, USA TODAY, Aug. 29, 2001, at 4A. Of course, the debate pitted pilots and their representative organization against the airlines. Id. While both sides agree that the current regulations contain ambiguous standards, they argue about what changes ought to be made. Id. For example, the airlines crave greater flexibility to arrange flight schedules. Id. The pilots, on the other hand, call for stricter limitations on work hours and longer periods for rest and recovery. Id. The debate has highlighted several problems. Id. For example, by basing flight-time estimates on seasonal winds, airlines claim that flights between certain destinations are shorter than eight hours at certain times of the year, even though the flights routinely exceed eight hours. Id. Moreover, any cargo carrier or airline that flies internationally may be excused from domestic regulations that mandate nine-hour rest periods for pilots. Id. In addition, there are no rules that prohibit flying in different time zones, even though such schedules require pilots to work during their normal hours of sleep. Id.

35. Levin, supra note 29. In the summer of 2001, the FAA imposed a civil fine of $285 thousand on American Airlines for violating hours-of-service regulations. Id. In fact, the airline required its reserve pilots to fly without affording them the proper rest periods, and thirty-eight violations occurred within a two-week period. Id. By using reserve pilots in contravention of the rules, the airline was able to delay hiring additional pilots and saved millions of dollars. Id. The FAA initially investigated American Airlines to determine the cause of an airplane crash, which killed eleven people in Little Rock, Arkansas on June 1, 1999. Id. According to a sleep expert who testified in front of the NTSB, it was “very likely” that pilot fatigue contributed to the accident. Id.
B. Limitations on Commercial Drivers

In order to promote highway safety, the Motor Carrier Act of 1935 authorized the Interstate Commerce Commission to restrict the work hours of commercial drivers.\(^{36}\) Since that time, the Federal Motor Carrier Safety Administration has established and continually revised its hours-of-service and mandatory rest requirements.\(^{37}\) Both drivers and motor carriers must comply with the regulations.\(^{38}\) Drivers must keep current records of their work hours and duty schedules, and motor carriers must maintain those records for six months.\(^{39}\) Failure to comply with the recording and preservation regulations subjects both drivers and motor carriers to criminal prosecution.\(^{40}\)

C. Limitations on Railroad Operators

The Railroad Hours of Service Act of 1907 also recognized the need to limit the hours of railroad operators because of the relation between fatigue, human error, and railroad accidents.\(^{41}\) The Federal Railroad Administration’s regulations establish maximum hours of service and minimum hours of rest for all employees engaged in train and engine

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36. WARREN H. WAGNER, A LEGISLATIVE HISTORY OF THE MOTOR CARRIER ACT OF 1935, 15, 31-36 (1935). The Motor Carrier Act of 1935 granted authority to the Interstate Commerce Commission to regulate drivers’ hours in order to minimize driver fatigue and promote public safety. Id. The act did not articulate specific work-hour limits because the Commission wanted to investigate the matter, report to Congress, and promulgate rules that were founded on the results of scientific research. Id.

37. See 49 C.F.R. § 395.3 (2000). Currently, driving time may not exceed ten hours, and on-duty time may not exceed fifteen hours. Id. Following either period of work, drivers must receive an eight-hour rest period. Id. Moreover, if the motor carrier operates seven days per week, drivers cannot work more than seventy hours in an eight-day period. Id. Similarly, if the motor carrier does not operate seven days per week, drivers cannot work more than sixty hours in a one-week period. Id.

38. Id. § 395.13.

39. Id. § 395.8.

40. Id.

service.\textsuperscript{42} Civil and criminal penalties for violating the regulations apply to the railroads, their management, and the employees themselves.\textsuperscript{43}

\textbf{D. Limitations on Maritime Crews}

In the interest of public safety, the federal government has also regulated maritime crews' work schedules.\textsuperscript{44} Specific work-hour requirements vary according to type of vessel, but seamen may work in excess of those requirements when life and property are in jeopardy.\textsuperscript{45} Absent an emergency, individuals who violate the hours-of-service regulations may be assessed stiff civil penalties of up to $10 thousand.\textsuperscript{46}

\section*{III. Regulation of the Medical Workplace}

\textbf{A. The International Perspective}

In a unanimous vote, members of the European Union recently decided to regulate the medical workplace by limiting the work week of junior doctors.\textsuperscript{47} Physician organizations celebrated the reform, but they also criticized England for prolonging the implementation of the new rules.\textsuperscript{48} As a result of the British influence, the reforms will come in

\begin{itemize}
  \item \textsuperscript{42} 49 C.F.R. pt. 228, app. A (2000). The regulations specify that employees assigned to engine or train service may not work more than twelve consecutive hours. \textit{Id.} After completing a twelve-hour shift, employees must be allowed to rest for at least ten consecutive hours. \textit{Id.} Furthermore, employees may begin duty only if they have had a minimum of eight consecutive hours off-duty in the previous twenty-four hours. \textit{Id.}
  \item \textsuperscript{43} 49 C.F.R. §§ 228.21, 228.23 (2000). Civil penalties range from $500 to $11 thousand per violation. \textit{Id.} § 228.21 (2000). If the violation is willful, grossly negligent, part of a pattern that created an imminent danger of injury or death, or caused injury or death, the penalty may be as much as $22 thousand. \textit{Id.} Individuals who knowingly and willfully violate the hours-of-service regulations may face criminal penalties of imprisonment up to two years, fines up to $5 thousand, or both. \textit{Id.} § 228.23 (2000).
  \item \textsuperscript{45} \textit{Id.} For example, officers in charge of deck watch on a vessel in the process of departing from port may work only if they have been off duty for six hours within the twelve hours immediately prior to departure. \textit{Id.} § 8104(a). On a vessel of less than one hundred gross tons, crew members cannot work more than nine of twenty-four hours when in port or twelve of twenty-four hours when at sea, unless there is an emergency and life and property are in jeopardy. \textit{Id.} § 8104(b). On a merchant vessel of more than one hundred gross tons, licensed seamen on deck or engine service may only work eight hours per day unless there is an unexpected emergency that endangers human life or property. \textit{Id.} § 8104(d).
  \item \textsuperscript{46} \textit{Id.} § 8104(i)-(j).
  \item \textsuperscript{47} Paul R. McGinn, \textit{Europe Will Limit Resident Hours}, 42 MSJAMA ONLINE (Sept. 20, 1999), \texttt{at http://www.ama-assn.org/sci-pubs/msjama/articles/vol_282/no_13/europe.htm}.
  \item \textsuperscript{48} \textit{Id.} In 1993, the British government successfully excluded novice doctors from a European Union directive that limited most European workers to a forty-eight hour work
\end{itemize}
waves, limiting the resident work week to sixty hours by 2003, fifty-six hours by 2006, fifty-two hours by 2009, and forty-eight hours by 2012.\textsuperscript{49} Advocates of the directive stress that the gradual reduction in resident work hours will allow the system to adjust without jeopardizing medical education and patient care.\textsuperscript{50}

Prior to the passage of the European Union's directive, many industrialized nations had instituted limitations on physician work hours to combat the problem of physician fatigue.\textsuperscript{51} Whether instituted via legislation, decrees, or collective agreements, such regulations included work-hour limitations and rest-period requirements.\textsuperscript{52}

For example, after years of discussion with the medical community, the Dutch government passed national legislation to address the issue of excessive working hours in 1993.\textsuperscript{53} The regulations, which were implemented in 1997, limited doctors to working an average of forty-eight hours per week.\textsuperscript{54} In Denmark, collective agreements have limited the work schedules of novice doctors since 1937.\textsuperscript{55} The regulations mandate daily rest periods and the distribution of night shifts among all doctors, rather than only those doctors newest in the field.\textsuperscript{56} In fact, doctors in Denmark recently pushed for even better working conditions and reduced their average work schedules from seventy hours to forty-five hours per week.\textsuperscript{57} In Germany, both collective agreements and legislation regulate the workload of junior doctors.\textsuperscript{58} The duty schedules of German doctors may not exceed twenty-four consecutive hours, and

\textsuperscript{49} Id. Britain was able to influence the entire European Union, which consists of fifteen nations, because European Union law mandates that such measures pass unanimously. Id.

\textsuperscript{50} Id.


\textsuperscript{52} Id.

\textsuperscript{53} Id. The statute limits employees to working an average of nine hours per day and forty-eight hours per week. Id. In certain circumstances, the legislation allows for employees to work up to eleven hours per day and sixty hours per week, but the work schedules still must meet the standards as averaged over thirteen weeks. Id. The legislation also restricts hospital shifts to twenty-four hours and affords junior doctors off-duty periods of at least ten hours. Id.

\textsuperscript{54} Id.

\textsuperscript{55} Id.

\textsuperscript{56} Id.

\textsuperscript{57} Id.

\textsuperscript{58} Id.
rest periods must be built into work schedules both during and between shifts. 59

B. State Regulation

1. New York State Health Code: A Solid Attempt But a Thorough Failure

In 1989, New York became the only state in the United States to pass legislation directly related to the problems of excessive work hours, resident fatigue, and their effect on public health. 60 The tragic death of Libby Zion, the daughter of a prominent New York journalist, triggered the reform effort. 61 Zion was an eighteen-year-old college student who was admitted to the emergency room of a New York hospital with an extremely high fever and tremors. 62 While in the emergency room, a medical resident administered a drug that was contraindicated with her scheduled medication, which caused Zion to suffer fatal respiratory

59. Id.


61. See Dominic A. Sisti, Zzzzzzzzz: Sleep Deprived Residents and Social Control in the Clinic, AM. J. BIOETHICS ONLINE (Nov. 12, 1998), at http://www.ajobonline.com/er_bioethics.php?task=view&articleID=438. The medical resident assigned to Libby Zion obtained her medical history, which indicated that Zion was taking medication to relieve depression and stress. Id. After receiving intravenous fluid and medication, Zion became agitated, and her condition worsened during the night. Id. When Zion began to act violently, the resident prescribed another medication and ordered Zion to be physically restrained. Id. Unfortunately, the second medication reacted with the drugs Zion was already taking. Id. As a result of the drug interaction, Zion's temperature soared above one hundred and seven degrees Fahrenheit, and she suffered respiratory failure, which proved fatal. Id. Zion's father, an influential columnist for the New York Times and former federal prosecutor, believed that Zion was "the victim of gross negligence and incompetence by attending physicians, and [he] has carried on a restless war against them ever since." Charles Trueheart, The Unquiet Death of Libby Zion, WASH. POST, Nov. 22, 1988, at E7. Zion's father convinced a New York district attorney to initiate a grand jury investigation into his daughter's death. Michota, supra note 1. The grand jury found insufficient evidence to indict the hospital or the doctors but found that long shifts clouded the residents' judgment and undermined their ability to make sound medical decisions. Sisti, supra. The grand jury also recommended that hospitals limit the duty hours of novice doctors, provide them with adequate supervision, and staff their emergency rooms with physicians who are trained in the field of emergency medicine. Michota, supra note 1. Despite exoneration by the grand jury, the medical resident who prescribed the contraindicated medication to Zion continued to suffer from embarrassment and fear for over four years after Zion's death. Trueheart, supra. The investigation devastated the career of the young doctor. Id. Although Zion's father would not agree, the fateful case shows that "there are no villains in this tragedy, only victims, not all of them named Zion." Id.

62. Sisti, supra note 61.
failure. Motivated by the grand jury’s findings, the New York State Legislature amended the health code to include provisions that limited medical residents to an eighty-hour work week, as averaged over a four-week period. The provisions also prohibited on-call shifts of more than twenty-four consecutive hours.

Soon after New York amended its health code, the Hospital Association of New York State filed a lawsuit challenging the new provisions. A New York court upheld the regulations despite claims that the work-hour limitations were arbitrary and comprised an abuse of discretion. The court also held that the Department of Health had the authority to promulgate such regulations to promote quality medical care.

Despite success in the courts, the New York regulations have failed miserably in practice. The regulations included loopholes that allowed hospitals to continue scheduling residents as they had before. In fact, hospitals throughout New York continue to operate in flagrant violation of the health regulations without penalty.

63. Id.
64. Id.
68. Id. at 532-33. The court rejected the argument that it would be impossible to comply with the new regulations because the workforce could not supply the number of additional employees that the hospitals demanded. Id. The court stated that hospitals and health care facilities did not need to hire additional staff to comply with the new law; instead, they could reorganize the schedules of existing employees and create new internal systems of operation. Id.
69. Id. at 533. The court rejected the contention that only the Department of Education and Board of Regents had the authority to regulate the education and clinical training of post-graduate doctors. Id. The opinion questioned whether physicians could derive any educational benefit at all from working one hundred hours per week. Id. Moreover, since the purpose of the regulations was to improve patient care, the Commissioner of Health had the authority to promulgate the regulations. Id.
70. See Fein, supra note 5.
71. See id. For example, resident work schedules could not exceed eighty hours per week, as averaged over four weeks. Id. Therefore, hospitals could comply with the law even if they mandated residents to work one hundred hours per week, as long as their schedules met the required averages for the month. See id. (noting a problem with survey methods and inadequate monitoring).
72. Id. Hospitals in New York have ignored the amendments to the New York State Health Code that sought to reform the work environment of medical residency programs.
2. Maine Overtime Laws and the Exemption of Physicians and Residents

For most employees, Maine's overtime laws limit mandatory overtime and prohibit employers from requiring employees to exceed eighty hours of work in a two-week period. However, the statute does not apply to employees who perform essential services, public health and safety workers, or medical residents. On June 13, 2001, in light of public concern, an amendment extended the overtime protection to nurses. The amendment provides that, absent an unforeseen emergency, employers may not discipline nurses who refuse to work more than twelve consecutive hours. Moreover, if an urgent situation requiring overtime arises, nurses must be afforded an off-duty period of at least ten hours immediately following the extended shift. Despite this public policy shift towards limited duty hours for health care workers, physicians and medical residents were not afforded the same protection.

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Id. Despite “a fair number of citations” issued by the State Health Commissioner, most residency programs continue to disobey the regulations. Id. New York City’s Public Advocate, Mark Green, attributed the regulations’ failure to the system by which hospitals are monitored. Id. For example, hospitals are expected to report their own shortcomings. Id. Moreover, residency programs do not always operate in flagrant disregard for the law. Id. Posted schedules comply with the state limitations, but the hospitals create a culture in which residents know that they are expected to arrive earlier and stay later than their official schedules dictate. Id. Similarly, residents face enormous pressure to attend medical conferences, which are technically optional, and the time spent in attendance does not count towards their hours of labor. Id. Thus, while work schedules may meet the standards on paper, they violate the standards in practice. Id. Dr. Bertrand Bell, author of the New York regulations, admitted that the regulations attempted to change the culture of medical residencies and that they failed to achieve that goal. Id. The failure of the hospitals to comply with the rules is particularly distressing because New York provided hospitals with $200 million per year to aid the transition to the new operating standards. Id. According to the State Health Commissioner, the funds were supposed to be used to hire more support staff and licensed doctors, but the hospitals apparently spent the funds for other purposes. Id.

74. Id.
75. 2001 Me. Legis. Serv. 401 (West).
76. Id.
77. Id.
78. See id.
C. The Absence of Binding, Enforceable National Regulation of Resident Work Hours

1. Federal Aid to Residency Programs

In order to counteract the high cost of training recent medical school graduates, the federal government provides substantial financial support to graduate medical education. Hospitals are eligible for funds as long as they sponsor "approved medical residency training programs." Residency programs are considered approved only if they are accredited.

Prior to the Balanced Budget Act of 1997, accreditation was the sole criterion for residency programs to receive government financing. However, in light of the growing number of residency positions, the excess of medical specialists, and the geographic maldistribution of primary care physicians, the federal government decided to impose additional requirements on residency programs that receive graduate medical education funding. In this way, the government sought to make the physician workforce more responsive to the public's health care needs. Hospitals responded to the regulations favorably by downsizing their residency programs, which furthered the government's goal of reducing the number of specialists entering the medical profession. Despite the success of the initial program, the federal government failed to establish any additional criteria for residency programs that receive federal funds.

81. Id. § 1395ww(h)(5)(A).
83. Katherine Huang, Note, Graduate Medical Education: The Federal Government's Opportunity to Shape the Nation's Workforce, 16 YALE J. REG. 175, 177-79 (1999).
84. Id. The Balanced Budget Act restricted the number of Medicare-funded residents and offered incentives for additional downsizing. Patrick Knott & Kathleen Ruroede, One Solution for Managing Risks During Cutbacks in Residency Training Programs, 11 RISK: HEALTH, SAFETY, AND ENVIRONMENT 35, 36-37 (2000).
85. Huang, supra note 83, at 177.
86. Knott & Ruroede, supra note 84, at 37.
87. See id.
2. Accreditation Council for Graduate Medical Education: Allowing Hospitals to Set Their Own Standards

To become licensed, medical school graduates must pass state medical board examinations and complete their training in residency programs accredited by the ACGME. In order to foster meaningful education and high-caliber patient care, ACGME establishes educational standards regarding duty hours and resident supervision. Residency programs are accredited if they comply with the Essentials of Accredited Residencies in Graduate Medical Education (Essentials). The Essentials consist of Program Requirements, which only apply to their respective specialties, and Institutional Requirements, which apply to all residency programs.

Although the Program Requirements vary greatly according to specialty areas, two requirements are common to many specialties. Acknowledging that on-call duty is necessary for proper resident education and effective patient care, the first common requirement limits the frequency of on-call shifts to every third night. The second common

90. Section 1, Graduate Medical Education Information, Review and Accreditation of Graduate Medical Education Programs, at http://www.acgme.org/GmeDir/sect1info.asp (last visited Nov. 11, 2001).
91. Id. The ACGME guidelines have been criticized as ineffective because they are “weak, voluntary, and [different] for each specialty.” Wolfe, supra note 5.
92. Two specialties, internal medicine and emergency medicine, have unique requirements. Internal medicine residents may not work more than eighty hours per week performing patient care, as averaged over a four-week period. See Program Requirements for Residency Education in the Subspecialties of Internal Medicine, at http://www.acgme.org/req/lmSub_pr799.asp (last visited Oct. 22, 2001). Emergency medicine programs have the greatest restrictions. See Program Requirements for Residency Education in Emergency Medicine, at http://www.acgme.org/req/110pr795.asp (last visited Oct. 22, 2001). Emergency room shifts may not exceed twelve consecutive hours, and they must be followed by an equivalent period of continuous rest. Id. Furthermore, emergency departments may schedule residents to perform patient care for a maximum of sixty hours per week and to be on duty for a maximum of seventy-two hours per week. Id.
93. See infra notes 94, 95.
94. Some Residency Review Committees require that residents, on average, be on-call every third night while other specialties recommend it. The following specialties mandate the restriction: neurology, family practice, and internal medicine. See Program Requirements for Residency Education in Neurology, at http://www.acgme.org/req/180pr999.asp (last visited Oct. 22, 2001); Program Requirements for Residency Education in Family Practice, at http://www.acgme.org/req/120pr797.asp (last visited Oct. 22, 2001); Program Requirements for Internal Medicine, supra note 92. The following specialties recommend that residents be on-call every third night: obstetrics/gynecology, neurological surgery, psychiatry, and pediatrics. See Program Requirements for Residency Education

requirement provides that every seven days a resident must be afforded a twenty-four hour period away from the hospital without any clinical or academic responsibilities. 95

In contrast to the Program Requirements, ACGME's Institutional Requirements apply to all residency programs, regardless of specialty. 96 These guidelines allow hospitals to formulate their own written policies regarding duty hours provided the policies advance resident education and promote the quality and continuity of patient care. 97 The Institutional Requirements caution that physicians have a responsibility to provide continuous patient care and that automatic termination of duties at a specific time is unacceptable. 98 The guidelines also state that resident duty hours and on-call shifts cannot be "excessive." 99 Due to the vagueness of the guidelines, institutions can establish their own standards regarding resident supervision as long as they provide sufficient direction and increased responsibility to residents as they progress through the program. 100


95. Some Residency Review Committees require that residents, on average, be afforded one day off every seven days while other specialties recommend it. The following specialties mandate the restriction: emergency medicine, neurology, and family practice. See Program Requirements for Emergency Medicine, supra note 92; Program Requirements for Neurology, supra note 94; Program Requirements for Family Practice, supra note 94. The following specialties recommend the restriction: obstetrics/gynecology, neurological surgery, psychiatry, pediatrics, and plastic surgery. See Program Requirements for Obstetrics/Gynecology, supra note 94; Program Requirements for Neurological Surgery, supra note 94; Program Requirements for Psychiatry, supra note 94; Program Requirements for Pediatrics, supra note 94; Program Requirements for Residency Education in Plastic Surgery, at http://www.acgme.org/req/360pr799.asp (last visited Oct. 22, 2001).

96. Institutional Requirements, at http://www.acgme.org/IRC/Ircpr900.asp (last visited Oct. 22, 2001). The Institutional Requirements instruct graduate medical education programs to "provide appropriate supervision for all residents, as well as a duty hour schedule and work environment, that is consistent with patient care, the educational needs of residents, and the applicable Program Requirements." Id.

97. Id.

98. Id.

99. Id.

100. Id. In an attempt to regulate the operating standards of residency programs, Massachusetts hospitals adopted a voluntary code. Joshua M. Sharfstein, Asleep on the Job, NEW REPUBLIC 17-18 (June 21, 1999). The code established that residents should work a maximum of eighty "active patient care" hours per week. Id. However, many duties fall outside the definition of "active patient care," including drawing blood,
In accordance with these loosely stated standards, ACGME evaluates residency programs, conducts peer review, and ultimately accredits the programs. However, it is rare for any facility to lose accreditation for failure to comply with one standard. Instead, ACGME issues citations and monitors delinquent programs for “substantial compliance” with their guidelines. If an institution is continually unable to meet several of ACGME’s standards and fails three successive reviews, ACGME will withdraw accreditation. Although ACGME establishes duty-hour “requirements” and has a disciplinary system for health care facilities that violate ACGME’s rules, no residency program has ever lost accreditation for failure to establish reasonable work schedules for their residents.

IV. RESIDENTS: ARE THEY STUDENTS OR EMPLOYEES, AND WHY DOES IT MATTER?

One of the main purposes of residency programs is to further the clinical education of novice doctors. Because residents learn by working in the hospital setting and providing patient care, a debate has arisen over whether to classify residents as students or employees. This issue is critical because regulating work hours through the Department of Labor and OSHA requires the existence of an employment relationship. While OSHA does regulate hospitals as workplaces, completing reports on laboratory results, and writing notes in patients’ charts. According to the chairman of the committee that drafted the code, eighty “active patient care” hours typically translate into one hundred and ten hours at the hospital. The concept is easy for legal practitioners to understand; in essence, doctors only have to bill eighty hours, but they actually work one hundred and ten hours simply to get their jobs done.

101. Section 1, Graduate Medical Education: Review and Accreditation of Graduate Medical Education Programs, at http://www.acgme.org/GmeDir/sect1.info.asp (last visited Nov. 13, 2001).
102. Id.
103. Id.
104. See id.
107. See infra notes 108-123 and accompanying text.
108. See Occupational Safety and Health Act of 1970 § 4(a) (codified at 29 U.S.C. § 653(a) (1994)). The Occupational Safety and Health Act applies only to “employment performed in a workplace” in the United States. Id. Under the act, an employer is a
OSHA has not considered the specific issue of whether medical residents are employees. The issue has surfaced, however, in various decisions by the National Labor Relations Board (NLRB), which grappled with whether medical residents should have the right to form a union and collectively bargain as employees.  

Historically, the NLRB found that medical residents were primarily students, not employees. The NLRB reasoned that the purpose of participating in a residency program was not to earn a living, but to train to be licensed in the practice of medicine. The decision to classify


109. See infra notes 110-123 and accompanying text.

110. Cedars-Sinai Med. Ctr., 223 N.L.R.B. Dec. (CCH) 251, 253 (1976). The NLRB interpreted the National Labor Relations Act, which describes unfair labor practices and establishes the procedure for creating a union. Id. at 251, 253. The NLRB acknowledged that residents spend the vast majority of their time caring for patients by “taking their medical histories, performing examinations, preparing medical records and charts,. . . developing diagnostic and therapeutic plans,. . . participating in service rounds and assisting in surgical procedures.” Id. at 252. However, the NLRB emphasized that providing such care was primarily a means by which residents learned skills integral to the practice of medicine. Id. at 253. The NLRB also relied on the fact that residents’ compensation did not correlate with the quantity of hours they worked or the quality of care they provided. Id. Instead, the stipend served more as a living allowance than recompense for services. Id. The NLRB also noted that the programs’ main purpose was to provide an opportunity for young doctors to gain the clinical skills necessary to practice medicine in the field of their choice and not to meet hospital staffing requirements. Id. In support of this view, the NLRB observed that the ACGME identifies education as the primary purpose of residency programs. Id. The NLRB further commented that almost all of the residents leave the hospitals that sponsor their residency programs once they complete their graduate medical education to seek employment elsewhere. Id.

111. Id. at 253. In the 1920s and 1930s, medicine was a “way of life.” Michota, supra note 1. During that era, first-year residents, called interns, received no pay. Id. The learning opportunity alone served as their compensation. Id. The hospital supplied room and board, and interns were prohibited from marrying. Id. Residents stayed at the hospital twenty-four hours a day. Id. By literally living at the hospital, novice doctors learned how to diagnose diseases and observed how they developed by continuously examining patients. Id. In the decades following World War II, however, the demographics of medical residents as a group changed. Id. Residents were older, many had families, and they rejected the idea of training without being paid. Id. Even when they began receiving compensation, residents were paid minimal wages. Id. Moreover, hours remained long, and resident doctors worked thirty-six hour shifts, separated by rest periods of twelve hours. Id. In the 1960s, the distinction between internship (the first year of graduate medical education) and residency (the subsequent years of graduate medical education) began to erode. Id. Novice doctors began to spend their entire first year of residency in one discipline, rather than rotate through various departments of the hospital as they had done in the past. Id. This new practice enabled residents to focus on a limited patient population and to develop a deeper understanding of one particular area of medicine. Id. As this trend developed, criticism of the traditional distinction between internship and residency increased. Id. During the 1970s, the American Medical
residents as students rested on the "fundamental difference between an educational and an employment relationship." In later decisions, the NLRB clarified its earlier interpretation by stating that the relationship between residents and hospitals was more educational than commercial, and that both residents and hospitals had a mutual interest in educational rather than economic goals.

In 1997, medical residents in Boston rallied for the right to unionize. The house officers wanted to collectively voice concerns about excessive hours, minimal pay, unsafe sleeping rooms, and lack of translators for their patients who did not speak English. Yet before forming a union, the residents had to gain recognition as employees, a status they claimed to deserve because they shouldered employee responsibilities. The residents emphasized that they performed duties similar to those performed by fully-licensed doctors and paid taxes to the Internal Association (AMA) responded to calls for reform and announced that internships would only be approved if hospitals incorporated them into residency programs. Id. Also during the 1970s, house officers in Washington, DC and New York went on strike, protesting the grueling work hours and the imposition of menial paperwork. Id. With the AMA's support, New York residents procured two-year contracts that limited call nights to every fourth night, increased resident pay, and required hospitals to meet the AMA's requirements for residency programs. Id. After the successful strike in New York, house staff in Los Angeles and Chicago followed suit and obtained similar results. Id. In the 1980s, the death of Libby Zion exposed resident working conditions to the public, provoking reform. Id. Although the grand jury that investigated her death did not criminally indict the hospital or the physicians involved, it issued a report identifying the circumstances that contributed to Zion's death and the issues that the medical community needed to address. Id. Specifically, the grand jury noted that no attending physician had examined her, the residents assigned to her had been working for over eighteen hours, and the hospital lacked a computerized system to check for contraindicated drugs. Id. The report advocated for closer supervision of residents and limitations on their duty hours. Id. Subsequently, the New York Health Department acknowledged that resident errors caused many hospital deaths in New York but refused to implement the grand jury's specific recommendations because they were too expensive. Id. However, the Health Department recommended limiting residents to an average work week of eighty hours, with on-call shifts not to exceed twenty-four hours. Id. In 1989, the recommendation was adopted into the New York State Health Code. Id. By the late 1990s, the conditions of medical residents were vastly different from those of their early predecessors. Id. In fact, most residents were married, many had children, and many had the option of taking maternity or paternity leave when their children were born. Id. Additionally, residents' salaries increased slightly, they worked fewer hours, and hospitals reduced out-of-title work. Id.

114. All Things Considered, supra note 3.
115. Id.
116. Id.
Revenue Service and the Social Security Administration. The hospitals, however, opposed granting employee status to house officers. Specifically, hospital administrators worried that educators would lose control over training programs and that academic freedom would be undermined.

In the landmark decision Boston Medical Center, the NLRB reversed its prior rulings and held that residents are employees. The NLRB acknowledged that medical house staff are in the process of being educated but also noted that they provide patient care, work for an employer, receive compensation for their services, and acquire fringe benefits. The NLRB determined that, as employees, medical residents are “entitled to all the statutory rights and obligations that flow from [that] conclusion.”

117. Id.

118. Id.

119. Id. Hospital administrators argue that decisions about whether residents are performing adequately are purely academic and cannot be subject to collective bargaining agreements. Id. They contend that third-party arbitrators should not be allowed to make decisions as important as whether particular residents have met the residency standards and are qualified to perform medical procedures. Id. However, representatives from the Committee of Interns and Residents claim that the hospitals are “fearmongering” and “playing their best card... because they don’t want to talk about the economic stake that they have in keeping house staff just the way they are right now.” Id.


121. Id. at 152.

122. Id. at 160-61. The NLRB began its analysis by reviewing section 2(3) of the National Labor Relations Act, which defines the term “employee” as any employee who is not employed in agricultural labor, in the domestic service of anyone at his home, by his parent or spouse, or as an independent contractor. Id. at 159-60. The NLRB emphasized the narrowness of the exceptions and the fact that the category of students was not among them. Id. at 160. After finding no statutory reason for declaring residents non-employees, the NLRB also discussed various factors that indicated that the hospital did, in fact, have an employer-employee relationship with the house staff. Id. at 160-61. For example, hospitals are employers within the National Labor Relations Act. Id. at 160. Residents receive compensation and benefits in exchange for their services, and a majority of their duties consist of direct patient care. Id. at 160-61. The NLRB noted that the role of house staff resembles that of traditional apprentices, whose status as employees has always been evident. Id. at 161. The NLRB also explained that house staff differ from students in a traditional academic setting because they do not pay tuition, register for classes, take written exams, or receive grades. Id.

123. Id. at 159.
V. FEDERAL AGENCIES AND DEPARTMENTS EMPOWERED TO
PROMOTE HEALTH AND SAFETY: IN THE WORKPLACE AND IN THE
PUBLIC SPHERE

A. The Occupational Safety and Health Administration: Protecting
Workers and the Nation

In the late 1960s, President Lyndon B. Johnson recommended that the
federal government establish a program "to protect the worker on the
job."\footnote{124} Congressmen and Senators introduced legislative bills to
implement such a program, and a debate erupted on Capitol Hill.\footnote{125}
Proponents argued that, every year, thousands of workers died and
millions of workers were injured or disabled because of industrial
accidents.\footnote{126} Supporters also claimed that while the problem of worker
safety was too massive to be solved by private safety programs, such
programs demonstrated that prioritizing worker safety can significantly
reduce occupational accidents.\footnote{127} Opponents of the federal proposals
maintained that occupational safety did not present a national crisis, that
voluntary action and state regulation could adequately handle the
problem, that federal regulation would be overly intrusive, and that visits
by OSHA would entice workers to report employers for ulterior
motives.\footnote{128}

In 1970, proponents of the legislation triumphed, and Congress passed
the Occupational Safety and Health Act.\footnote{129} Congress enacted the law in
order to combat the social and economic costs that work-related injuries
and illnesses imposed on the nation.\footnote{130} In order to foster safe work
environments and preserve the nation's human resources, Congress
encouraged OSHA to develop research, disseminate information, and
provide education and training on occupational health and safety.\footnote{131}

\footnote{125} Id. at 5-13. Labor unions, public interest groups, and health organizations
championed the proposals, but industry representatives strongly resisted them. Id.
\footnote{126} Id. at 5-6.
\footnote{127} Id. at 5-8.
\footnote{128} Id. at 13.
\footnote{129} Occupational Safety and Health Act of 1970, Pub. L. No. 91-596, 84 Stat. 1590
\footnote{130} Occupational Safety and Health Act of 1970 § 2 (codified at 29 U.S.C. § 651
(1994)). When employees were injured on the job, the company and the nation suffered
from loss of production, the worker's family suffered loss of wages, and the government
had to pay disability benefits out of the public purse. 29 U.S.C. § 651(a) (1994).
\footnote{131} Id. § 651(b).
Congress authorized OSHA to develop and enforce occupational standards to ensure the safety of America’s workplaces. In particular, Congress empowered OSHA to promulgate occupational health and safety standards and mandate “practices, means, methods, operations, or processes, reasonably necessary or appropriate to provide safe or healthful employment and places of employment.” To promulgate rules with the force of law, the Secretary of Labor must follow standard notice-and-comment rulemaking procedures. Once promulgated, the rules are subject to both congressional review and judicial review, which may affirm, modify, or invalidate the new agency regulation in part or in whole.

To enforce the regulations, the Secretary may enter any workplace or work environment to inspect working conditions, as long as he investigates at a reasonable time and in a reasonable manner and secures an administrative warrant. While examining the premises, the

132. Id. § 651(b)(9),(10).
133. Id. § 651(b)(9).
135. Occupational Safety and Health Act of 1970 § 6 (codified at 29 U.S.C. § 655 (1994)). Whenever the Secretary of Labor determines that a regulation should be promulgated in order to advance occupational safety and health, the Secretary either drafts a regulation with the aid of various health-related government organizations or requests the guidance of an advisory committee. 29 U.S.C. § 655(b)(1) (1994). If an advisory committee is formed, it receives relevant information from both the Secretary of Labor and the Secretary of Health and Human Services before formulating its own recommendations. Id. After receiving input from various organizations or the advisory committee, the Secretary publishes a proposed rule in the Federal Register. Id. § 655(b)(2). By publishing the proposed rule, the Secretary gives notice to interested parties and begins a thirty-day period in which interested parties may submit written comments on the rule or request a hearing. Id. If a hearing is requested, the Secretary must also provide notice of the hearing by publishing the time and the location at which it will be held. Id. § 655(b)(3). Following the notice-and-comment period and the hearing, if requested, the Secretary will promulgate the final rule or decide that no such rule should be issued. Id. § 655(b)(4). If a final rule is promulgated, employers may apply for temporary variances, which grant employers more time to adopt practices and procedures that allow them to comply with the new law. Id. § 655(b)(6)(A).
Secretary has the authority to examine all "conditions, structures, machines, apparatus, devices, equipment, and materials therein, and to question privately any such employer, owner, operator, agent or employee." Additionally, beyond physical inspection of the premises, the Secretary may require testimony of witnesses and presentation of evidence under oath.

Even though Congress delegated broad authority to OSHA to regulate and enforce employer practices and workplace conditions, OSHA has never promulgated regulations regarding limitations on work hours. Instead, OSHA regulations have imposed other rules designed to prevent industrial accidents and occupational diseases. For example, OSHA's safety standards require certain employers to provide personal protective equipment, safety training, and medical and first aid

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140. 29 U.S.C. § 657(a)(2)(1994). The Secretary may require employers to record and report the methods by which they comply with the occupational safety and health standards as well as all employee deaths, injuries, and sicknesses that are related to the workplace and are not minor in nature. Id. § 657(c)(1)-(2). Employers who do not comply with OSHA's rules and regulations become subject to civil and criminal penalties. Occupational Safety and Health Act of 1970 § 17 (codified at 29 U.S.C. § 666 (1994)). Civil penalties of up to $7,000 may be assessed for each violation. Id. If violations are made willfully and repeatedly, the employers are subject to harsher fines, ranging from $5,000 to $70 thousand. Id. If an employer willfully violates a regulation and that violation causes an employee's death, the employer is subject to fines and imprisonment. Id. Despite these enforcement techniques, commentators have criticized OSHA for its failure to enforce regulations and protect workers from dangerous working conditions. See generally James A. Gross, The Broken Promises of the National Labor Relations Act and the Occupational Safety and Health Act: Conflicting Values and Conceptions of Rights and Justice, 73 CHI.-KENT L. REV. 351 (1998). In determining whether to comply with OSHA regulations, many employers weigh the costs of compliance, which include the expense involved in following the rules, and the costs of non-compliance, which include the size of the applicable penalties and the probability that the workplace will be subject to inspection. Id. at 362. Because there are approximately four thousand OSHA inspectors and six million workplaces, the probability of inspection is low. Id. In addition, the fines that employers face are insufficient to encourage compliance with the regulations, which may be very costly. Id. Thus, when employers undergo a cost-benefit analysis to determine whether they should comply with the safety and health rules, they often determine that it is more beneficial to ignore the rule. Id. Moreover, penalties of criminal prosecution are only applicable if an employer willfully violates a rule resulting in an employee's death; they are inapplicable if a willful violation results in serious injury or illness. Id. at 362-63. Even in these most severe circumstances, where employees have lost their lives, OSHA has failed to enforce its laws via criminal prosecution. Id.

141. Occupational Safety and Health Act of 1970 § 8(b) (codified at 29 U.S.C. § 657(b)(1994)). Failing to comply with the Secretary's request for testimony or documents may result in a court order of civil contempt. Id.


143. Id.
equipment and personnel. OSHA also oversees the physical conditions of workplaces to ensure structurally-safe buildings, machine safety, protection against hazardous materials, and fire protection. Additionally, OSHA’s health standards regulate workplace ventilation, noise, radiation, and sanitation; they also control exposure to air contaminants and toxic substances. OSHA has specifically addressed problems in the medical workplace by promulgating rules about bloodborne pathogens and needlestick injuries.

144. Id. at 68-76. Whenever the work environment calls for personal protective equipment, employers must ensure that employees wear proper clothing, helmets, gloves, safety shoes, and safety belts. Id. at 68; 29 C.F.R. § 1910.132(a) (2001). If the workplace presents a risk of flying objects, glare, or radiation, OSHA requires that employees wear protective gear for their eyes and faces. Id. § 1910.133(a). In other situations, regulations require head and foot protection such as hard hats and safety-toe boots. Id. §§ 1910.135-1910.136.

145. OCCUPATIONAL SAFETY AND HEALTH LAW, supra note 142, at 76-79. To be structurally safe, workplaces must comply with regulations regarding walking and working surfaces. 29 C.F.R. §§ 1910.21-1910.31 (2001). To prevent falling and tripping accidents, workplaces must be “clean” and “orderly.” Id. § 1910.22(a)(1). Furthermore, passageways must allow for “safe clearances” so that employees will not be trapped between an obstacle and a moving object. Id. § 1910.22(b)(1). Employers must also provide protection against open pits, tanks, vats, and ditches. Id. § 1910.22(c). More specific standards apply to platforms, runways, stairways, ladders, scaffolds, and towers. Id. §§ 1910.23-1910.30. OSHA standards also require safe means of egress so that employees may vacate the premises in case of an emergency. Id. §§ 1910.35-1910.38.

146. OCCUPATIONAL SAFETY AND HEALTH LAW, supra note 142, at 81-88. Safety standards concerning machines protect employees from the dangers of operating heavy machinery as well as portable power tools. 29 C.F.R. §§ 1910.211-1910.219 (2001). Many regulations are specific to the machines being utilized. Id. In general, however, employers may install barrier guards, two-hand tripping devices, and electronic safety devices to protect employees from dangerous machinery. Id. § 1910.212(a)(1).

147. OCCUPATIONAL SAFETY AND HEALTH LAW, supra note 142, at 88-91. OSHA has developed various standards to ensure secure storage and handling of compressed gases and flammable, combustible substances. 29 C.F.R. §§ 1910.101-1910.106 (2001). The agency also regulates the storage, transportation, and use of explosives. Id. § 1910.109.


149. OCCUPATIONAL SAFETY AND HEALTH LAW, supra note 142, at 92-107. Many standards regarding toxic and hazardous substances place exposure limits on various chemicals. Id. Other standards require monitoring procedures, protective equipment, signs and labels, hygiene facilities, employee training, medical surveillance, and recordkeeping. Id.

150. 29 C.F.R. § 1910.1030 (1999). Under this regulation, employers must develop plans to eliminate or minimize employee exposure to bloodborne pathogens, which are microorganisms contained in human blood that have the potential to cause disease in humans. Id. § 1910.1030(c). Such pathogens include the hepatitis B virus and human
B. The Department of Health and Human Services: Protecting the Health of the Nation

The Department of Health and Human Services (HHS) is the primary agency in charge of protecting the most vulnerable members of society: the elderly, the poor, children, and infants. HHS is also responsible for safeguarding public health and implementing policies that foster a healthy society. In order to address the panoply of issues affecting public health, various organizations within HHS are charged with researching specific health issues and implementing policies to safeguard the health of certain at-risk groups.

The Agency for Healthcare Research and Quality (AHRQ) is one of many operating divisions within HHS. AHRQ’s mission is to conduct and support research in an effort to enhance the quality of health care, reduce its cost, protect patient safety, and expand public access to health services. The agency provides information to leaders in the field of health care so that they may make informed and sound policy decisions.

In 1999, at the direction of President William J. Clinton, AHRQ began to research the epidemic problem of medical errors and how to avoid them. The President ordered a task force to review the relevant research and recommend how best to combat the problem of medical

immunodeficiency virus. Id. § 1910.1030(b). The regulations also require employers to take specific precautions to reduce the risk of exposure to bloodborne pathogens. Id. § 1910.1030(d). These precautions include engineering and work practice controls, personal protective equipment, housekeeping, and training. Id. § 1910.1030(d).

Id. § 1904.8. OSHA also requires that employers record and report work-related injuries and illnesses, including needlestick injuries and injuries resulting from objects contaminated with blood or another potentially infectious substances. Id. § 1904.8(a).

151. Greetings from the Secretary, at http://www.hhs.gov/about/greeting.html (last visited Nov. 11, 2001).
153. HHS Agencies, at http://www.hhs.gov/agencies (last visited Nov. 11, 2001). Agencies within the Department of Health and Human Services include the Administration for Children and Families, the Administration on Aging, the Agency for Toxic Substances and Disease Registry, the Agency for Healthcare Research and Quality, the Center for Disease Control and Prevention, the Centers for Medicare and Medicaid Services, the Food and Drug Administration, the Health Resources and Services Administration, the Indian Health Service, the National Institutes of Health, and the Substance Abuse and Mental Health Administration. Id.
154. Id.
155. Id.
156. Id.
157. Id.
errors. This project was inspired largely by an Institute of Medicine report, which estimated that medical errors kill between forty-four thousand and ninety-eight thousand patients in hospitals and health care facilities every year. Researchers also estimated that medical errors cost the nation about $37.6 billion per year, with almost half of those costs caused by preventable errors. Moreover, a report previously issued by the President’s Advisory Commission on Consumer Protection and Quality in the Health Care Industry identified medical errors as one of the four greatest challenges to improving the quality of health care.

AHRQ’s research and the Institute of Medicine report both emphasized that, in order to effect meaningful reform, policymakers must focus on improving the health care system itself, instead of blaming individual health care providers for errors that occur. The director of AHRQ noted that the culture in which doctors work contributes significantly to error-prone medical care. The director specifically cited long hours, fatigue, and stress as factors that impair physicians and affect their ability to perform.

On October 11, 2001, inspired by the preliminary research of AHRQ and other task forces, HHS announced the release of $50 million to finance almost one hundred new research projects. The goal of the

159. Id.
160. Id.; To Err is Human: Building a Safer Health System 1 (Linda T. Kohn et al. eds., 2000). Even when based on the lower estimate, medical errors are the eighth leading cause of death in the United States, causing more fatalities than motor vehicle accidents (43,458), breast cancer (42,297), and AIDS (16,516). Medical Errors, supra note 158. Approximately seven thousand deaths per year result from medication errors alone, which is about one thousand more deaths than the number of deaths caused by workplace accidents and illnesses. Id.
161. Medical Errors, supra note 158; see also To Err Is Human, supra note 160.
162. Medical Errors, supra note 158.
163. Id. The director of AHRQ said that one of the key ingredients of successful reform is to abandon the “name you, blame you, shame you” approach, which simply encourages medical professionals to hide their mistakes. Testimony on Patient Safety and Medical Errors, John M. Eisenberg, MD, Director, AHRQ, Before the Senate Health Education Labor Pension Comm. (Feb. 16, 2000) at http://www.ahcpr.gov/news/ tst21600.htm.
164. Testimony on Patient Safety and Medical Errors, supra note 163. Comprehensive research must address all types of errors, including drug interactions, diagnostic errors, equipment failure, infections, misguided blood transfusions, and misinterpretation of medical orders. See Medical Errors, supra note 158.
165. Testimony on Patient Safety and Medical Errors, supra note 163.
166. Press Release, HHS Announces $50 Million Investment to Improve Patient Safety (Oct. 11, 2001), at http://www.ahrq.gov/news/press/pr2001/patsafpr.htm. The $50 million initiative represents only the first phase of the effort. Id. Many of the participating state agencies, universities, hospitals, clinics, nursing homes, doctors’ offices,
Specifically, the projects aim to ascertain the causes of medical errors, identify already-existing strategies that successfully decrease errors, and develop new and effective responses to the problem. The funds will be divided among six major categories, one of which will examine how staffing, fatigue, sleep deprivation, organizational culture, and stress contribute to medical errors.

VI. CURRENT PROPOSALS FOR REGULATION OF THE MEDICAL WORKPLACE: AN OVERVIEW AND COMPARISON

A. Public Citizen's Petition to OSHA Requesting a Limit on Medical Resident Work Hours

On April 30, 2001, Public Citizen, the American Medical Student Association, and the Committee of Interns and Residents filed a petition with OSHA, asking the agency to mandate work-hour limitations for medical residents. The petition emphasized the need for federal and professional organizations will receive additional funds to continue their research in subsequent years. Id.

167. Id.
168. Id.
169. Id. The six awards will fund the following projects: (1) Supporting Demonstration Projects to Report Medical Errors Data; (2) Using Computers and Information Technology to Prevent Medical Errors; (3) Understanding the Impact of Working Conditions on Patient Safety; (4) Developing Innovative Approaches to Improving Patient Safety; (5) Disseminating Research Results; and (6) Additional Patient Safety Initiatives. Id. Eight organizations have already been awarded grants to research the effect of working conditions on medical errors, including Brigham and Women's Hospital, Harvard Medical School; Oregon Health & Science University; University of California, San Francisco, School of Nursing; University of Michigan; University of Colorado, Health Sciences Center School of Nursing; Massachusetts General Hospital; American College of Surgeons; and National Academy of Sciences. Understanding the Impact of Working Conditions on Patient Safety, at http://www.ahrq.gov/qual/newgrants/working.htm (last visited Oct. 27, 2001).

170. See generally Petition to OSHA, supra note 3. Public Citizen is a national, nonprofit consumer and health advocacy group that was founded by Ralph Nader in 1971. Want to Know About Public Citizen?, at http://www.citizen.org/about/ (last visited Oct. 29, 2001). The organization fights:
   [F]or openness and democratic accountability in government, for the right of consumers to seek redress in the courts; for clean, safe and sustainable energy sources; for social and economic justice in trade policies; for strong health, safety and environmental protections; and for safe, effective and affordable prescription drugs and health care.

Id. The Committee of Interns and Residents is a house staff union that represents more than ten thousand physicians-in-training in California, Florida, Massachusetts, New Jersey, New York, and Washington, D.C. Who We Are and What We Do, at http://www.cirdocs.org/whatis/1memopage.htm (last visited Oct. 29, 2001).
In support of its argument for federal intervention, the petition noted the failure of the states and the ACGME to adequately address the problem of resident sleep deprivation and fatigue. The petition also analogized the need for federal regulation of the medical workplace to the need for federal regulation of railroads, airlines, motor carriers, and maritime crews. Because both the health care and transportation industries operate twenty-four hours per day, there is a dangerous incentive to work employees around the clock, a practice which poses a serious threat to the safety of workers and the public. In light of these risks, the petitioners sought help from OSHA because OSHA was created to "assure so far as possible every working man and woman in the Nation safe and healthful working conditions."

In support of their request, the organizations illustrated the demanding nature of graduate medical education and emphasized the various ways

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171. Petition to OSHA, supra note 3.
172. Id. The petition explained that only one state, New York, has established work-hour restrictions for house staff. Id. Even in New York, however, hospitals continue to overwork residents. Id. The petition blamed the failure of the regulations on the insubstantial fines, stating that they are simply "inadequate to affect hospital policy." Id. The petition also criticized ACGME for its weak, voluntary guidelines that vary according to specialty, even though fatigue and sleep deprivation affect physicians in all areas of practice. Id. In essence, the petitioners argued that OSHA must intervene because neither the states nor organized medicine have been able to effect systemic change. Id.
173. Id. The petition provided a detailed examination of work-hour regulations promulgated by the Federal Railroad Administration, the Federal Aviation Administration, the Federal Motor Carrier Safety Administration, and the United States Coast Guard. Id.
174. See id.
in which current residency programs endanger novice doctors. Beyond sleep deprivation and fatigue, the petition highlighted three areas in which the working conditions of residents caused specific physical and emotional harm to residents: increased likelihood of car accidents, increased incidence of depression, and increased probabilities of complications during pregnancy. Given the alarming results of numerous studies in these areas, the petition requested that OSHA promulgate work-hour standards in furtherance of its mission “to send every worker home whole and healthy every day.”

Specifically, the petition requested that OSHA regulate medical residency and fellowship programs so that no physician would work more than eighty hours per week or more than twenty-four consecutive hours in one shift. Furthermore, the petition advocated for limiting on-call shifts to every third night, guaranteeing a ten-hour rest period between shifts, and providing at least one twenty-four hour rest period per week. The petition also included more stringent restrictions for residents working in busy emergency medicine units. Although the petitioners viewed these limitations as a necessary first step, the organizations also requested that OSHA investigate whether more restrictive standards should be implemented.

In order to enforce the proposed restrictions, the petition requested that OSHA require hospitals to keep public records of resident and fellow work schedules, conduct unannounced and recurrent inspections, and impose fines substantial enough to deter future violations. The petition also requested that OSHA establish an official procedure through which residents and fellows could report their employers to OSHA in confidence and without fear of retaliation.

176. Petition to OSHA, supra note 3. The petition provided a snapshot of the quality of life of surgical residents at Johns Hopkins Hospital, which runs one of the most competitive and demanding residency programs in the country. Id. Dr. Risa Moriarty, a former surgical resident at Johns Hopkins, and others reported working as many as one hundred and forty hours in one week and being on call for as many as sixty consecutive hours. Id. Because of the effects on her personal life and on her relationships with patients, Dr. Moriarity left the training program in order to lead a more “balanced life.” Id.

177. Id.
178. Id.
179. Id.
180. Id.
181. Id.
182. Id.
183. Id.
184. Id.
B. Congressman Conyers’ Patient and Physician Safety and Protection Act of 2001

In the summer of 2001, Representative John Conyers drafted the PPSPA in an effort to reform the operating standards of medical residency programs, improve the working conditions of physicians-in-training, and safeguard the public health.\(^{185}\) The bill contains hours-of-service limitations identical to those requested in Public Citizen’s Petition to OSHA.\(^{186}\) The bill also requires post-graduate medical trainees to notify their residency programs of any outside employment.\(^{187}\) In fact, the bill prevents residents from working outside the hospital as professional physicians if their total hours of work exceed the limits established by law.\(^{188}\)

Moreover, the bill establishes guidelines for the assignment of resident responsibilities and the extent of resident supervision.\(^{189}\) Specifically, experienced physicians must closely supervise novice doctors, provide written documentation of the novice doctors’ duties and privileges to other medical staff, and monitor resident activities to ensure that they are acting within the scope of responsibilities outlined for them.\(^{190}\) The medical staff must discipline all doctors who practice medicine outside the scope of their authority or in violation of the established schedule limits.\(^{191}\) If a staff member reports a violation or cooperates with an investigation into the operating standards of the residency program in good faith, the hospital may not retaliate against the staff member.\(^{192}\)

Regarding enforcement, the bill requires that residency programs obey the regulations in order to receive federal Medicare funding.\(^{193}\) The legislation also delegates oversight of the regulations to the Department of Health, which in turn designates someone within HHS to handle

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188. Id.
189. Id. § 2(a)(j)(2), supra note 12.
190. See id. More specific guidelines prevail for the supervision of surgical residents. See id. In particular, attending physicians must personally oversee all surgical procedures that require general anesthesia or an operating room. Id. Attending physicians also need to examine and assess patients before and after surgeries performed by residents on a daily basis. Id.
191. Id.
192. Id. § 2(c)(1)-(2). This provision was enacted to protect whistleblowers. See id. When reporting a residency program for noncompliance, a person acts in good faith if he or she reasonably believes “(1) that the information reported or disclosed is true; and (2) that a violation has occurred or may occur.” Id.
193. Id. § 2(a).
complaints of noncompliance and to make annual reports to Congress. Finally, the bill appropriates funding for five years to aid hospitals that struggle financially while adjusting to the new regulations.

VII. WHETHER EITHER PROPOSAL CAN SUCCEED, AND IF SO, WHICH PROPOSAL OFFERS THE BETTER PATH TOWARDS MEDICAL RESIDENCY REFORM

A. Can Reform Be Accomplished at All?

The question remains: can reform truly be successful, especially if it is government-initiated? Looking at the historical development of medical residencies, changes in society have been the impetus for graduate medical education reform in the past. Learning medicine used to be a "way of life" in which novice doctors literally became "residents" of the hospital. However, after World War II, young doctors no longer lived at hospitals because they were more mature and some had already started families. Residency programs adapted – albeit nominally - to accommodate residents' changing needs.

In the following decades, unfortunate accidents triggered further reorganization within the medical community. In 1989, the tragic death of a young woman sparked additional reform, but as the New York experience demonstrates, state-initiated reform has failed miserably. The author of the state regulations admitted that the new laws had attempted to change the ingrained culture of graduate medical education, but that they had failed. On the other hand, medical residency reform sponsored by the federal government, in order to reshape the medical workforce, has proven extremely successful.

194. Id. § 2(b).
195. Id. § 3(a)-(b). The bill authorizes payments to hospitals needing financial assistance to comply with the new standards. Id. Specifically, the federal government may provide teaching programs with total funds of up to $1 trillion in 2003, $800 million in 2004, $600 million in 2005, $400 million in 2006, and $200 million in 2007. Id.
196. Michota, supra note 1.
197. Id.
198. Id.
199. Id.
200. Id.
201. Fein, supra note 5.
202. Id.
203. See supra notes 84-86 and accompanying text.
Since the passage of the New York amendments in 1989, significant changes have occurred. Newspapers, documentaries, and popular television programs have shed light on the problem of excessive work hours during residency. This national attention has exposed a system previously hidden from the public eye, and it has sparked criticism and outrage.

In addition to the media and the public, doctors themselves have voiced serious concerns about the structure of graduate medical education. Numerous residents have demonstrated their frustration; in fact, some residents have left grueling training programs altogether. Other sleep-deprived residents have suffered the crises of making fatal medical errors and having their careers forever tarnished as a result. Beyond novice doctors, members of the medical establishment have also lobbied for reform. Medical researchers have concluded that reform is necessary to promote resident performance, ensure quality medical care, and avoid medicolegal disasters. Moreover, some Residency Review Committees in the ACGME have already developed guidelines for specific graduate medical education programs, recognizing the need to limit the hours that physicians-in-training spend in hospitals, providing patient care.

B. Why Federal Reform Is Necessary

While the trends among the media, medical residents, and medical professionals all suggest that work-hour restrictions are both possible and desirable, none has been successful in inspiring effective reform. Previous efforts at the state or academic levels have failed because their proponents lacked either the power to make rules with the force of law or the ability to enforce them. Thus, reformers have turned to

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204. See supra note 9; see also infra notes 205-212 and accompanying text.
205. See supra note 9.
206. See supra note 9.
207. See infra notes 208-212 and accompanying text.
208. See supra note 2; see also Daugherty, supra note 4; supra note 176.
209. See, e.g. Trueheart, supra note 61; see also supra note 163 and accompanying text.
210. Hawkins, supra note 4; Robbins & Gottlieb, supra note 4.
211. Hawkins, supra note 4; Robbins & Gottlieb, supra note 4.
212. See supra notes 92-95 and accompanying text.
213. See supra notes 70-72 and accompanying text; see also notes 101-105 and accompanying text.
powerful federal agencies and Congress to prevent resident fatigue and effect meaningful change.  

Although all existing federal work-hour regulations apply to the transportation industry, the situations that inspired national regulation parallel the situations of medical residents and their patients. For example, both industries directly affect large sectors of the public and are entrusted with the public’s safety. Furthermore, research on the effects of sleep deprivation and erratic sleep patterns on employee performance is relevant to pilots, railroad operators, and medical residents alike. The work of the DOT and the NTSB demonstrates that regulating work hours to prevent fatigue, protect employee health, and promote public safety is an appropriate and necessary function of the federal government. As evidenced by HHS’ recent announcement of a major initiative to fight medical errors and their causes, even the federal government has recognized that the time is ripe for federal intervention.

C. How Federal Reform Should Be Accomplished

Despite their parallel calls for federal action, the Petition to OSHA and the PPSPA offer different channels for reform. For example, each proposed solution is based on a distinct rationale and advocates its own scope of regulation. In addition, each proposal identifies a particular agency to implement the regulations and contemplates different penalties and enforcement techniques.

While it certainly contemplates how work-hour limits benefit patient care, the Petition to OSHA primarily focuses on the dangers that clinical training programs present for residents, both physically and

214. See Petition to OSHA, supra note 3; Physician and Patient Safety and Protection Act, supra note 12.
215. Petition to OSHA, supra note 3.
216. See id.
217. Id.; see also West Coast Hotel v. Parrish, 300 U.S. 379, 391 (1979) (concluding that restricting the hours of workers in order to protect their health and the public welfare was an appropriate use of the state’s police powers).
218. See HHS Announces $50 Million Investment, supra note 166.
220. Compare Petition to OSHA, supra note 3, with Physician and Patient Safety and Protection Act, supra note 12.
221. Compare Petition to OSHA, supra note 3, with Physician and Patient Safety and Protection Act, supra note 12.
222. Compare Petition to OSHA, supra note 3, with Physician and Patient Safety and Protection Act, supra note 12.
emotionally. The petition devotes nearly ten pages to a detailed discussion of the ways in which excessive work hours endanger resident health, but it only spends one page summarizing the system’s effects on patient care. Furthermore, when discussing the deleterious effects that intense working conditions have on doctor-patient relationships, the petition focuses on the ramifications for the professionalism of young doctors as much as it focuses on the adverse effects on patients. In addition, the suggested reforms ignore issues of resident supervision and encompass only one aspect of graduate medical education: the restructuring of duty hours.

The PPSPA, on the other hand, proposes a more comprehensive plan because it aims to improve medical care and protect patient safety. The bill places stricter requirements on resident supervision and limits the scope of resident authority in order to enhance resident education and safeguard patient safety. The bill also includes provisions limiting the hours that physicians-in-training work, both inside and outside of the hospital setting. This component is necessary if the legislation’s goal is to prevent sleep deprivation and fatigue among physicians-in-training because novice doctors tire whether they work all of their hours in one location or many.

Each proposal also designates a different agency to handle the reform efforts. Consistent with the petition’s overall approach, Public Citizen, the Committee of Interns and Residents, and the American Medical

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223. Petition to OSHA, supra note 3. In fact, in the opening paragraph, the petitioners state that they seek aid from OSHA “with the primary intent of providing more humane and safe conditions for medical residents and fellows.” Id.

224. Id. The petition also notes that “[w]hereas previous appeals to limit residents’ work hours have focused on the well-documented risks patients face due to tired physicians, this petition concentrates on the often-overlooked health risks faced by residents who endure long hours.” Id.

225. Id.

226. Id.


228. See supra notes 189-191 and accompanying text; see also Daugherty, supra note 4 at 1995-96. When rating the various factors that contributed to their learning, residents ranked collaboration with other residents and exposure to special patients above learning from attending physicians. Id. In fact, residents reported that reading medical journals and medical books contributed as much to their education as supervising doctors. Id. On average, residents reported spending two and one half hours per day with supervising physicians and experienced doctors. Id.

229. See supra notes 187-188 and accompanying text.

230. See supra notes 187-188 and accompanying text.

231. Compare Petition to OSHA, supra note 3, with Physician and Patient Safety and Protection Act § 2(b), supra note 12.
Student Association submitted their concerns to OSHA, the agency charged with protecting America’s workers and ensuring them safe workplaces. However, OSHA was established to protect workers from occupational accidents and disease. Accordingly, OSHA’s regulations endeavor to make workplaces safe by ridding them of hazardous materials, toxic substances, unsafe machinery, and structurally unsound buildings. None of OSHA’s regulations has dealt with excessive work hours and the effects on workers’ lives because OSHA did not initially contemplate reform in this area. Moreover, recent experimentation in a new area of regulation has proved unsuccessful. After OSHA spent years developing regulations on ergonomics, Congress reviewed and vetoed the regulations. All of the research, time, and effort OSHA invested in developing the rule proved futile. Accordingly, it is likely that OSHA’s entry into another new sphere of regulation, which is so distinct from its existing body of regulations, would also be thwarted by Congressional veto.

Unlike the petition, the PPSPA identifies HHS as the appropriate agency to oversee the reform, which is consistent with the bill’s overall goal of improving the nation’s health. In upholding similar regulations in New York, a New York court specifically noted that the New York State Department of Health was the appropriate authority to limit physician work hours in order to promote quality medical care. In fact, HHS has already assumed responsibility for addressing the problem of medical errors and the connection to resident working conditions. By releasing $50 million to fund projects devoted to reducing medical errors and to investigating their causes, HHS has clearly indicated its commitment to finding solutions in this area.

232. Petition to OSHA, supra note 3.
233. See MINTZ, supra note 124, at 5-13.
234. See supra notes 142-151 and accompanying text.
235. See supra notes 142-151 and accompanying text.
236. See Solomon, supra note 136, at 1142-43.
237. Id. at 1143.
238. Id.
239. Physician and Patient Safety and Protection Act § 2(b), supra note 12.
241. HHS Announces $50 Million Investment, supra note 166.
242. Id.
Finally, the penalties and enforcement procedures suggested by the Petition to OSHA and the PPSPA are dramatically different. If OSHA successfully promulgates work-hour regulations, its only enforcement power will be to issue citations and impose fines on hospitals not in compliance, a technique that has proven ineffective in New York. Moreover, some commentators argue that OSHA itself has failed to use these enforcement techniques successfully in other contexts.

The proposed legislation, however, employs an enforcement technique already proven to be successful: attaching criteria to the dispersal of federal funding. Under the Balanced Budget Act of 1997, the federal government successfully imposed substantive guidelines on residency programs to shape the physician workforce and better serve public health demands. The initiative was extremely successful and met its goals by attaching conditions to federal grants, upon which hospitals and health care facilities rely to fund graduate medical education. Even more importantly, the legislation offers incentives for hospitals to conform with the new rules by authorizing financial assistance to hospitals adjusting to the new rules in the first five years.

VIII. AS A MEASURE AIMED PRIMARILY AT SAFEGUARDING PATIENTS, THE PROPOSED BILL OFFERS THE BEST SOLUTION TO THE PROBLEM OF EXCESSIVE WORKING HOURS DURING MEDICAL RESIDENCY

Currently, the structure of graduate medical education forces young doctors to work long hours and allows them to treat and operate on patients even when they are severely fatigued and their judgment and skills are critically impaired. Outside the medical profession, these work schedules are simply not tolerated, let alone revered, when they jeopardize public safety. Both the Petition to OSHA and the PPSPA offer solutions to this critical problem, but their motivations and

244. See supra notes 70-72.
245. See Gross, supra note 140, at 362-63.
246. See Physician and Patient Safety and Protection Act § 2(a), supra note 12.
248. Id.
249. Physician and Patient Safety and Protection Act § 3, supra note 12. In this way, the proposed federal legislation offers hospitals both incentives to conform to the law and punishment for noncompliance. Id.
250. See supra notes 14-25 and accompanying text.
251. See supra notes 26-46 and accompanying text.
ramifications differ significantly. Analyzing the ways in which the proposals diverge provides valuable insight into the message the resulting regulation would send to the public. Because the proposed bill's comprehensive provisions and delegation to HHS are more closely aligned with the public interest, it will likely win more support from the public at large.

Similarly, the proposed bill has a greater chance of acceptance by the medical community because doctors are trained to do what is best for their patients and because hospitals will welcome the financial assistance as they adjust to the new system. Therefore, Congress should enact the PPSPA not only to promote the quality of life of residents but, more importantly, to promote the quality of medical care for patients. By couching reform in terms of patient safety rather than workplace regulation, the government can garner more support, implement sounder policy, and make hospitals a safer place for physicians and patients alike.

IX. CONCLUSION

The structure of medical residency programs poses grave dangers to resident health and patient safety. In similar contexts, where excessive work hours have endangered public health, the federal government has successfully limited employees' work schedules to prevent fatigue and avoid impaired performance. Two current proposals for enforcing

252. Compare Petition to OSHA, supra note 3, with Physician and Patient Safety and Protection Act §2(a), supra note 12.
253. See supra notes 196-249 and accompanying text.
254. See supra notes 196-249 and accompanying text.
255. See supra notes 196-249 and accompanying text.
256. See supra notes 196-249 and accompanying text. Even though the PPSPA offers a sounder solution to the problem of resident fatigue, some of the bill's language must be changed in order to close loopholes similar to those that have plagued the New York legislation and ACGME's academic guidelines. See supra notes 5, 70-72 and accompanying text. For example, the bill mandates that residents shall not be "scheduled" to work more than eighty hours per week or twenty-four consecutive hours at a time. Physician and Patient Safety and Protection Act § 2(a)(jj)(1)(B), supra note 12. Instead, the bill should state that residents "shall not work" more than eighty hours per week or twenty-four consecutive hours in a shift, and they "shall not be" on-call more often than every third night. Furthermore, Congress should eliminate the language in the bill that exempts specialties other than anesthesiology, family practice, medical, surgical, obstetrical, and pediatric residency programs from the new regulations. Otherwise, the bill would mirror the ineffective Institutional Requirements of ACGME and would enable many specialties to design their own guidelines, which would result in the PPSPA suffering the same fate. See supra notes 96-100 and accompanying text.
257. See supra notes 96-100 and accompanying text.
reasonable work-hour limitations for resident physicians, Public Citizen’s Petition to OSHA and the PPSPA, offer opportunities to restructure resident work hours for the same reasons. Because of its underlying justification as well as its specific provisions and enforcement techniques, the PPSPA is the sounder and more comprehensive approach and should be enacted to protect doctors as well as all patients entrusted to their care.