Medical Resident Maximum Hour Regulations: Overcoming Institutional Resistance for Real Reform

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I. Introduction

The Accreditation Council for Graduate Medical Education (ACGME), an institution "responsible for the [accreditation of post-MD medical training programs within the United States," faced rising pressure in 2001 to address the long hours worked by medical residents. Public concern for patient safety and residents' attempts to invite government intervention forced ACGME to respond. ACGME convened a work group to address medical resident duty hours and issued a report the following year which recommended that hospitals restrict the long hours that medical residents worked. These measures were implemented on July 1, 2003, negating the need for federal intervention. The graduate medical education community waited to observe the manner in which new restrictions would be implemented.

Since then, however, the ACGME standards have fallen short of their goal to bring resident duty hours down to a level that is safe for resident physicians and their patients. ACGME's self-regulation only forestalled discussion for a few years. Non-compliance, underreporting, and other weaknesses of their approach have renewed the controversy and calls for external regulation. Federal legislation was reintroduced two years after the ACGME regulations took effect, and several states have also taken steps to regulate resident hours. The task is not straightforward, however, as regulators must address both institutional resistance to cutbacks and understaffing caused by restricting hours. Current proposals do not meet this need.

This article makes the case for a new alternative to ACGME's regulation of resident duty hours, arguing for incentives to overcome stubborn internal resistance. Legislation passed in New York State and residents' non-legislative efforts to reduce the number of hours worked. Section IV addresses the shortcomings of the current regulatory systems, focusing on the current ACGME standards. Section V examines state and federal legislation which has been offered as an alternative to the ACGME standards. Finally, Section VI recommends changes which will reduce resident work hours while avoiding the shortcomings of current proposals.

II. Background Resident Duty Hours

Unsurprisingly, it is no secret that hospital residents routinely work long hours. While popular television shows glamorize the lives of residents, the reality of their excessive schedules is far from glamorous. Their chronic sleep deprivation endangers both themselves and their patients. Nevertheless, the educational culture embraces its tradition of long hours, and stubbornly resists change.

A. The Role of Residents in Medical Education

Medical residencies play a vital and important role in graduate medical education. After completing their four-year MD programs, aspiring doctors complete a multi-year residency, choosing a specialty and learning the practice of medicine hands-on.

This article makes the case for a new alternative to ACGME's regulation of resident duty hours, arguing for incentives to overcome stubborn internal resistance. The issues involved, including the role of residents in medical education, the history of long work hours, and the dangers posed by such extended hours. Section III details the history leading up to ACGME's decision to assume the regulator's role for itself, including legislation passed in New York State and residents' non-legislative efforts to reduce the number of hours worked. Section IV addresses the shortcomings of the current regulatory systems, focusing on the current ACGME standards. Section V examines state and federal legislation which has been offered as an alternative to the ACGME standards. Finally, Section VI recommends changes which will reduce resident work hours while avoiding the shortcomings of current proposals.

I. History and Development of Residency

The modern residency program has developed over the last century to become an integral part of graduate medical education. In 1893, Johns Hopkins University built and operated a hospital as part of its program in medical education. There, "the term 'residency' was first used to describe advanced specialty training following an internship." This program became the American model, as graduate medical education shifted away from a system of apprenticeships to a hospital-centered learning process. Dr. Kenneth M. Ludmerer describes the creation of the modern internship and residency in the early 1900s:

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Even a superior experience in medical school could no longer prepare a person for private practice. Accordingly, a period of hospital education following graduation — the “internship” — became standard for every physician. In addition, further training was necessary for those who wished to enter specialty practice or pursue academic careers. For those purposes the “residency” — a several-year hospital experience following internship — became the accepted vehicle.12

These “house-staff” physicians, or “house officers,” were referred to as residents because they actually lived in the hospital and, thus, were always available. They “lived, worked, and slept in the hospital in order to follow the evolution of the illnesses of patients who were hospitalized for extended periods.”13 This “complete immersion” was seen as the best way for doctors to learn the craft.14

As an additional note on terminology, the first year of residency is often called an internship, though ACGME no longer recognizes this distinction and considers all post-graduate training programs to be residencies.15 Nevertheless, first-year residents are still often called interns.

ii. Residents are Placed Through the Match Program

Each spring, graduating MDs participate in the National Resident Matching Program (the Match Program), a private non-profit corporation founded in 1953.16 The Match Program matches residents with teaching hospitals based on surveys of participants’ preferences. Around 16,000 U.S. medical school graduates compete with roughly 18,000 independent applicants for the approximately 24,000 residency positions.17 On Match Day, the third Thursday in March, these results are announced publicly.18 The Match Program was created to replace a hodge-podge of conflicting deadlines and offers that “forced students to make rash decisions” before they heard back from all the programs they had applied to.19

Applicants for a residency are informed on the Monday before Match Day whether they have been matched.20 If not, they must scramble to find an alternate program by the next day, forgoing the typical research and thought that would ordinarily accompany such a decision, even causing some applicants to switch their specialty.21 The Match Program has also come under criticism because some residents claim that participation prevents them from bargaining over wages or hours.22

iii. A Tradition and Culture of Long Hours

Before the ACGME proposals to shorten hours took effect, the traditional resident work schedule imposed extraordinary demands. “[C]ompleting all the tasks of a trainee routinely required 100 hours of work a week or more.”23 A 1999 study found that 25% of residents reported that they worked more than 80 hours per week even when averaged over the entire year.24 Typical work hours range from 60 to 136 hours per week.25

To attain those hours each week, residents must work long overnight shifts, known as being “on-call.” A study of residents just before the ACGME guidelines took effect reported: “Most interns in our study routinely worked more than 30 consecutive hours. . . . [T]here were 275 reports from interns who worked more than 40 continuous hours.” Extrapolating nationwide “suggests that physicians in training worked approximately 20,000 extended shifts that exceeded 40 consecutive hours while caring for patients” in 2002–03.26

In contrast, the 2003 ACGME proposal limits residents to 80 duty hours per week, averaged over a four-week period, but certain programs may petition to increase to 88 hours per week. Residents must have one free day per week and cannot be on-call more often than every third night. These limits are also averaged over a four-week period. The proposals also restrict shifts to 24 hours, with up to 6 hours allowed for transfer and debriefing. Residents must be given 10 hours off between shifts. Finally, if a resident is called from home, any time spent in the hospital counts towards their limit.27

B. Long Hours Pose a Public Health Danger

Their work schedules push residents’ bodies to their functional limits. The dangers associated with excessive and long-term sleep deprivation have long been known.28 In the context of patient care, the potential for harm is extreme. Patients are at risk when they receive treatment from sleep-deprived residents, who are more prone to make medical errors.29 Furthermore, the residents themselves are at a much higher risk of hospital and automobile accidents from chronic sleep loss.30 These dangers raise the issue of resident work hours to the level of a public health risk.

Regulations are common in other industries where sleep-loss brings public risk. For instance, in 2002 Gaba and Howard noted that “[t]he levels of continuous duty and work hours for health care personnel are much greater than those allowed in the transportation and nuclear-power industries.”31 The long hours required of residents harm the national healthcare system. Kenneth Shine, a former president of the Institute of Medicine said, “We have house officers working enormous hours. We would never do that if we were designing a good system in terms of quality of care.”32 The problem is widespread, as 70% of residents report having seen colleagues work while impaired, most often due to lack of sleep.33 More than a simple labor dispute, excessive resident hours demand public attention.

i. Residents’ Sleep Deprivation is Dangerous for Their Patients

As a result of their work schedules, hospital residents are frequently sleep-deprived, especially during overnight call shifts. Being awake for extended periods of time impairs residents’ efficacy. One study found that psychomotor performance after being awake for 24 hours was equivalent to performance with a blood alcohol level of 0.10%, higher than the legal limit for driving a vehicle.34 If alcohol were a problem in hospitals, the public surely would not tolerate drunk doctoring. Sleep deprivation deserves the same level of scrutiny.
Under such circumstances, higher rates of error are unavoidable. A study by the Harvard Work Hours, Health and Safety Group published in 2004 compared “rates of serious medical errors made by interns while they were working according to a traditional schedule with extended (24 hours or more) work shifts every other shift (an “every third night” call schedule) and while they were working according to an intervention schedule that eliminated extra work shifts and reduced the number of hours worked per week.” The study found that the traditional schedule led to a 35.9% increase in serious medical errors, “including 56.6% more nonintercepted serious errors.” These problems are effectively addressed by reducing the number of hours worked. In a parallel study, the Harvard group also found that residents on an intervention schedule of less than 80 hours per week slept more and “had less than half the rate of attentional failures while working during on-call nights.”

These problems are also more likely to commit medical errors that harm their patients; they are also more likely to harm themselves due to their impairment. A study published in 2005 found that sleep-deprived residents were at a significantly higher risk for motor vehicle crashes when their schedule included extended work shifts. These residents were more than twice as likely to report a crash and nearly six times as likely to report a near-miss after working an extended shift than after working a shift of less than 24 hours. In addition, “every extended work shift that was scheduled in a month increased the monthly risk of a motor vehicle crash by 9.1% and increased the monthly risk of a crash during the commute from work by 16.2%.”

Tired residents are also more likely to injure themselves in the hospital. A 2006 study published by the Journal of the American Medical Association examined the way in which extended shifts for interns affect the odds of accidental needle sticks and laceration injuries, finding that the most common contributing factors were loss of concentration and fatigue. Injuries of this type were 1.61 times more frequent during extended shifts. Furthermore, the stress of long hours can take an emotional toll. Dr. Ludmerer observed that “[o]verwork and exhaustion did perverse things to caring individuals who entered medicine to serve . . . . Not surprisingly, stress-related depression, emotional impairment, and alcohol and substance abuse were well-documented phenomena among house officers.”

C. Resistance to Changes in Resident Duty Hours

Despite the risks of long work hours, reformers confront serious and nontrivial resistance from within the graduate medical education community. Many doctors believe in the virtues of long hours — that continuity of care provides benefits to residents and their patients. Other doctors point to the costs of reducing hours in a system where all available employees are already working at their limits.

i. Long Hours Viewed as Essential to the Educational Purpose of Residency

Teaching hospitals view their residents as students first and employees second, as reflected in their salaries. The average starting pay rate for residents is $43,266 per year. For those residents working over 80 hours per week this totals less than $11 per hour, meager compensation for a position requiring so much work and responsibility, as well as a four-year postgraduate degree. Moreover, the average medical graduate carried a debt of $110,000 in 2003. Since the primary purpose of residency is education, many doctors believe that the long hours are justified by the ability to watch patients’ progress through the course of a shift. Residents also reap “benefits resulting from assuming total responsibility for one’s patients.”

The residency is a unique time in a physician’s career, “fundamental in shaping the way a physician thinks, works, and acts.” Doctors see themselves as being servants to their patients’ health above all else, so they cannot control how many hours they work. In that vein, they view the residency as a time to learn under particularly grueling conditions. Michael Sutherland, a thoracic surgeon and Vice Chair of the American College of Surgeons’ Resident and Associate Society commented, “I’ve always been taught that you should train at a level harder than what you’re expected to do in private practice. It prepares you to work under adverse conditions.”

Perhaps most importantly to many critics of regulation, residents who work fewer hours have less first-hand experience when their education is complete. They argue that long hours bring educational benefits that cannot be replaced: “The long hours on duty have come at a cost, but they have allowed trainees to learn how the disease process modifies patients’ lives. Long hours have also served to teach a central professional lesson about personal responsibility to one’s patients, above and beyond work schedules and personal plans.” Even the residents themselves may feel that they are missing out on educational opportunities when they work shorter hours. Participants in one
study on reduced resident hours acknowledged that their learning had been compromised by the shorter work hours.53

Some doctors express the opinion that medical professionalism can be forged only in the flames of experience: “Limits on hours on call will disrupt one of the ways we have taught young physicians [the] critical value” of personal responsibility to patients.54 Without this understanding, many fear the soul of the profession could be lost, “exchanging out sleep-deprived healers for a cadre of wide-awake technicians.”55 The idea of low pay, the older doctor[s] say, is to impress on the beginning doctor that his duty is to patients, and not just to make money.”56

ii. Attitudes toward Long Hours

In addition to its educational benefits, many doctors look on the residency as a sort of hazing ritual for young physicians. Residents put up with the long hours to meet expectations, and their supervisors demand long hours almost as a rite of passage. The Director of Residency at one teaching hospital also recognized an attitude that, “Hey, we made it through. So should you.”57 After a 1975 strike in New York City yielded shorter weeks, one doctor griped that “When I was a boy, . . . we worked two out of three nights, and now they’re only working one night of three.”58 Those residents who cannot cope with the pressures are often dismissed from their positions.59

Nearly all current doctors have passed through the residency program with its traditional demands for long hours. The experience is frequently described in military terms, “like basic training in the Army that toughens up a soldier.”60 One surgeon commented that the ACGME standards have “made [residents] weak and inexperienced. Look at the military. They train for war. They don’t say, oh, this is training; let’s only make them work 80 hours a week. You have to be sharp. You do it through practice.”61

iii. Monetary Costs of Restricted Work Hours

Reducing hours for residents is not simply a matter of imposing restrictions. Hospitals must either hire additional support staff to perform tasks previously done by residents or reduce their level of care. A 2002 study estimated that compliance with the ACGME hours proposal would cost hospitals between $1.4 billion and $1.8 billion each year in additional labor costs.62 Teaching hospitals with limited resources would have the most trouble making up for work lost to restricted hours. Ingrid Philibert, Director of Field Activities for ACGME, noted that “[i]f an institution can’t afford to replace a resident, you may hurt patient care by reducing resident hours.”63 The alternative that hospitals face is simply to ignore any new regulations.

Because graduate medical education is primarily concerned with patient care, the “major source of support for residency and fellowship programs came from patient care revenues.”64 This requires that residents must be, to an extent, their own support staff, performing “extraneous duties . . . such as drawing blood and inserting intravenous lines. At a number of teaching hospitals, it was estimated that house officers spent roughly one-quarter of their time at these activities.”65 Labor-saving technologies have benefited hospitals, but not residents, “for telephone calls, scheduling chores, dictations, and time spent charting increased even as the time consumed by manual procedures decreased.”66

This tends to undercut arguments that the long hours are educationally necessary. Dr. Ludmerer notes that “the amount of service actually required for learning was far less than that which hospitals typically extracted from house officers. The tradition of the economic exploitation of house officers persisted as hospitals continued to rely on trainees for an extraordinary range and amount of ancillary responsibilities.”67

III. Attempts at Regulation Lead to the ACGME Guidelines

Even before 2003, several attempts were made to regulate resident work hours. New York State acted first, implementing legislation in 1989 after a high profile case found that resident error was a factor in a patient’s death. In the face of mounting evidence of the risks associated with sleep deprivation, residents began to push for national changes. Eventually, ACGME implemented its own restrictions, obviating at least temporarily the demand for federal legislation.

A. New York State is the First to Regulate

New York State passed the nation’s first restrictions on resident duty hours after a patient’s death exposed the potential for sleep-deprived residents to make avoidable medical errors.

i. The Libby Zion Case Brings Public Pressure to Impose Regulations

In 1984, Libby Zion, an eighteen-year-old woman was admitted to New York Hospital with fever after having a tooth removed.68 During the course of an overnight stay, her condition worsened, and she died only hours after arrival.69 Amid controversy over her death, Libby’s father, Sidney Zion, a columnist for the New York Times and a former prosecutor, pressed for a grand jury investigation to investigate the death.70 The grand jury did not return any indictments, but “criticized the residency system for permitting patient fatigue resulting from long work hours and lack of supervision in the emergency room.”71 Mr. Zion eventually filed and won a malpractice suit against several of the doctors involved.72

ii. The Bell Commission Proposes Standards for New York

In response to the publicity surrounding the Zion case, the State Health Commissioner convened a commission to address excessive resident hours.73 Headed by Dr. Bertrand Bell, a professor of medicine, the commission was informally known as the Bell Commission. When the Bell Commission released its proposals, they included:

(1) an 80-hour work week, averaged over four weeks; (2) a 24-hour limit per work shift; (3) eight hours between work shifts; and (4) at least one 24-hour period per week not on call. Surgical residencies would be exempt from the 24-hour limit on work shifts under the following circumstances: (1) residents, while on call at night, are generally resting with infrequent interruptions for patient care; (2) residents are on call no less than every third night; (3) resident receive rest periods of 16 hours after on-call shift; and (4) residents may be relieved of duty if fatigued while on call.74

The legislature enacted the Bell Commission’s recommendations, which took effect on July 1, 198975 as part of the New York Health Code.76 Recognizing that the new regulations would require hospitals to hire additional ancillary staff, the legislature provided $200 million in funding.77
Penalties for noncompliance with the new law were modest, however, at only $2,000 per citation. 88

iii. Later Reforms in New York State

The years following enactment were marked by poor compliance. A 1994 report found that “violations were widespread and directly compromised patient care.” 89

A follow-up report in 1997 claimed that “hospitals were avoiding investigations by underreporting adverse incidents.” 90 After this second report, the Department of Health made surprise visits to twelve hospitals and found violations at all twelve. 91

Public outcry grew too loud to ignore in 1999, when a cardiology resident was killed in an automobile accident after a night on-call. 92 New York enacted the Health Care Reform Act of 2000, which included additional funding for enforcement and increased fines for hospitals found in violation. 93 The State may now issue fines of up to $50,000 for repeat violations. The new law, however, did not change the original Bell Commission regulations. 94

B. Residents’ Labor Organization Efforts

In 2002, a coalition of residents took a different approach to reduce duty hours and filed a class-action suit against the national medical organizations that sponsor the National Resident Matching Program and other medical institutions. They argued that the Match Program monopolized the market for medical residencies, preventing residents from bargaining for their wages or hours. 95 This was not the first attempt for residents to gain bargaining rights, but it has been the most significant action in recent years.

i. Early Activism Seeks Collective Bargaining Rights

The 1970s were an era of student activism, and medical residents were no exception. In protests seeking collective bargaining rights, student activists “concentrated mainly on training concerns, particularly levels of pay and hours of work.” 96 The Committee of Interns and Residents (CIR), formed in 1958, took the “initial steps at unionization.” 97

Through a March 1975 strike in New York City, CIR sought and won 80 hour work-weeks. Just as with national efforts, “[h]ospital officials decried this demand as demonstrating a lack of professionalism and a move toward a “shift mentality.” 98 In response to the strike, Dr. S. David Pomrinse, a hospital medical director, echoed the familiar concerns, describing the long hours as “a way of building the stamina that doctors must have.” 99

This era was brought to a close in 1976 with the Cedars-Sinai Medical Center decision in which the National Labor Relations Board (NLRB) ruled that residents are “primarily students,” not employees. Therefore, they were “ineligible to engage in union organization under the jurisdiction of the National Labor Relations Act.” 100

In 1999, the NLRB revisited that ruling, and held that residents had a dual role as both students and employees, and that hospitals could not resist organization because they considered residents to be students. 101 This decision overruled Cedars-Sinai as “erroneous.” 102 In contrast to the earlier decision, the NLRB no longer believes that “the fact that house staff are also students warrants depriving them of collective-bargaining rights.” 103 Today, residents can and do form unions in some places, though this practice is not common. 104

ii. The Jung Case Alleges that the Match Program Violates Antitrust Laws

Despite the recent NLRB reversal, residents still face considerable difficulties when attempting to organize. The complaint in Jung v. Association of American Medical Colleges stated that the defendants “contract, combine, and conspire to restrain competition in the recruitment, hiring, employment, and compensation of resident physicians by regularly exchanging among themselves competitively sensitive information on resident compensation and other terms of employment.” 105 Noting that the Match Program assigned over 80% of hospital internships in 2000, 106 the plaintiffs claimed that the Match Program “eliminated competition for resident services,” 107 allowing hospitals to “exploit resident physicians by routinely requiring 60 to 100 hours of work per week, or more, often including 36-hour and 48-hour shifts.” 108 Medical school graduates “sign binding work agreements with residency programs the minute they file their applications, before most hospitals have announced the wages.” 109

iii. Congress and the Courts Side Against the Plaintiffs

After the district court denied the defendants’ motion to dismiss, the case appeared to be headed to trial.
At the same time, Congress passed a law which contained findings that describe the Match Program as a “highly efficient, pro-competitive and long-standing process.” Further, the law specifically exempted the Match Program from antitrust regulation in an attempt to “derail” the pending lawsuit. This residency provision was passed as part of a broader bill which offered relief to companies providing traditional pension plans. The bill won bipartisan support and carried the residency provision into law. This provision was attached to the pension bill without debate or hearings in either house of Congress. The language was instead inserted while the bill was in conference committee. When the bill was returned from the conference committee, it quickly passed in the House of Representatives, but the antitrust exemption drew debate on the floor of the Senate. Senators Russ Feingold (D-WI), Jeff Bingaman (D-NM), and Herb Kohl (D-WI) expressed their reservations about the antitrust exemption; however, they eventually supported the bill because they supported the pension reforms. These senators protested the way the language had been inserted without hearings, evidence, or debate. Furthermore, the relevant committee chairs did not receive notice of the insertion. Finally, they suggested that the underhanded nature of the proposal raised constitutional concerns because the provision would have been enacted without due process of law. Senators Feingold and Bingaman both noted the relevance of the pending lawsuit. They also suggested that the language of the exemption might not apply to price-fixing, which had been alleged in the Jung case. In rebuttal, Senator Judd Gregg (R-NH), who sat on the conference committee, claimed that the new language would indeed apply to the pending case.

The provision was inserted “at the behest of” Senator Edward Kennedy (D-MA) and Senator Gregg, and it was also supported by “the Association of American Medical Colleges and other medical associations.” Lobbying records for the AAMC and the American Hospital Association, sponsors of the Match Program, reveal that they directly lobbied Congress in support of the exemptions. Not only does this reveal the lengths to which the graduate medical education community would go to prevent outside influence over the Match Program and resident compensation, but it also suggests that this community has a considerable level of influence in Congress. This could make enacting more sweeping federal legislation difficult, if not impossible, without their support.

In light of the new law, the Federal District Court sustained a motion for judgment on the pleadings in favor of the defendants. The judge addressed and dismissed the concerns raised during the Senate debate. The plaintiffs appealed this decision, but again lost at the appellate level. Finally, the Supreme Court refused to hear their case in 2007, ending the legal battle over the Match Program.

### iv. No Likely Relationship between the Match Program and Resident Wages

Given the result of the case, the effect of the Match Program on residents’ bargaining power was left unanswered. To address the question of whether the Match Program depresses wages, Niederle and Roth analyzed “similar markets for postgraduate medical fellowships that operate with and without a match.” They found no relationship between match programs and wages, suggesting that “eliminating the resident match would not necessarily increase residents’ wages.” This implies that in order to be effective, future organizing efforts should not focus on the Match Program.

### C. Attempts at Federal Regulation

Residents have also made several attempts to convince the Federal Government to regulate work hours. These efforts, so far, have been unsuccessful.

#### i. Residents’ Petition to OSHA

In 2002, the Public Citizen Health Research Group presented a petition to the Occupational Safety and Health Administration (OSHA) to recommend that OSHA restrict and monitor resident hours. “Signers of the petition included: Public Citizen, a consumer and health advocacy group; the Committee on Interns and Residents; a house staff union; the American Medical Student Association; Dr. Bell [of New York’s Bell Commission]; and Kingman Strohl, MD, director of the Sleep Disorders Research Center at Case Western University.”

OSHA rejected the petition and noted the regulatory system already in place in New York and the soon-to-be-implemented ACGME regulations. OSHA deferred to these regulations, claiming that “the ACGME and other entities are well-suited to address work-duty restrictions of medical residents and fellows.”

#### ii. Proposed Legislation Ties Restriction to Medicare Funding

The American Medical Student Association (AMSA) drafted the Patient and Physician Safety and Protection Act to implement federal resident hours regulation, which was first introduced by Representative John Conyers (D-MI) in November 2001. The legislation imposes regulations on hospitals as a condition of participation in Medicare, ensuring the broadest possible federal application. The proposed restrictions are similar to restrictions enacted by New York State. The Department of Health and Human Services would track violations, which residents could report anonymously. Reporting residents would have whistleblower protection from retaliation. Hospitals that fail to comply with these provisions could face fines up to $100,000 for each program in a 6-month period. Further, these violations would be publicly disclosed. Congress would also provide funding to help hospitals pay for changes necessary to comply with these new provisions.

#### D. ACGME Self-Regulates

Under the threat of federal regulation, and with other states also considering legislation, ACGME took action to regulate the graduate medical education field. A spokeswoman for ACGME expressed the view that “ACGME is the best organization to develop duty hour regulations.” Dr. Jeff Kempf, Pediatric Program Director of Residency, recalled that “There was great concern that if the ACGME didn’t act, there would probably be an act of federal legislation,” and hospitals wanted to avoid government regulation and fines. After ACGME took action, the bills in Congress died in committee.

#### i. The ACGME Regulations

The regulations imposed by ACGME were based on the Bell Commission recommendations and included: a maximum of 80 hours per week, averaged over four weeks, with possible exemptions up to 88 hours per week; a maximum of 24 hour per shift, with up to 6 additional hours for non-patient
care duties such as paperwork and patient transfers; a minimum of 10 hours between daily shifts; mandatory 24 consecutive hours off every week, averaged over four weeks; and overnight on-call shifts no more than every third night, averaged over four weeks.123

ii. Methods of Enforcement
ACGME monitors resident hours through surveys sent to residents to complete anonymously. A hospital in violation may be put on probation,124 but the only meaningful punishment that ACGME may impress upon hospitals is to revoke accreditation. This drastic penalty is excessively harsh, and has yet to be used.

IV. Shortcomings of Current Regulation Plans
While the proposals of the Bell Commission shaped the current regulatory system in New York and influenced the ACGME restrictions, there are still many areas where the current regulations fall short of their goals.

A. Noncompliance in New York State
Compliance levels in New York were poor throughout the 1990s.125 Today, inspectors from the Island Peer Review Organization (IPRO), on contract with the New York State Department of Health (NYSDOH), “conduct interviews with residents and other appropriate hospital staff, observe resident working conditions, and review medical records, operating room logs and other documentation to determine each hospital’s compliance.”126

Surveys of hospital compliance before and after the implementation of the ACGME standards seem to show significant improvements in compliance over the last several years. In 2002, the NYSDOH reported that of 82 teaching hospitals surveyed after November 2001, 54 were cited for resident hour violations. This represents a 64% noncompliance rate.127 By 2005, the NYSDOH reported a drastic change in the rate of noncompliance, to just 12%.128

The sudden change in compliance levels could be an indirect result of misreporting under the more recent ACGME standards. As residents and teaching hospitals fear losing their accreditation, they may be far less likely to record resident work-hour violations.

One additional problem with the New York State regulations may be that, on their own, they simply do not provide enough of a deterrent against violations. The Health Care Reform Act of 2000 increased fines for teaching hospitals, but these fines are still not large enough to be meaningful. For example, the NYSDOH reported in 2002 that for a “recurring resident work hour violation,” New York University Hospital had been fined just $24,000.129 A fine this minimal does not dissuade hospitals from overworking their residents. Hospitals do not incur any extra labor costs for excessive hours because residents have a fixed salary.

B. Shortcomings of the ACGME Regulations
The ACGME regulations face many of the same difficulties with compliance as the regulations in New York State. The problems of the ACGME regulations are compounded, however, by one significant difference: the penalty for noncompliance is revocation of accreditation. This extreme penalty harms teaching hospitals and their residents and creates perverse incentives to cover up hour violations.

i. ACGME’s Monitoring Efforts
ACGME does not monitor hours directly. “Because most residents do not punch time clocks, hospital administrators who employ them often have no real-time knowledge of the hours their residents are working. Responsibility for monitoring work hours lays with the institutional- and program-level directors of some 8,000 residency and fellowship programs in about 750 hospitals across the nation.”130 As an accrediting institution, it is unrealistic to expect ACGME to establish a monitoring apparatus on par with government regulation; instead, ACGME relies on surveys and residents’ reports of violations.

ii. The Harsh Penalty Leads to Noncompliance and Underreporting
A study published in 2006 by the Harvard Work Hours, Health and Safety Group found that noncompliance was far higher than reported by ACGME.131 “In the year following implementation, 1,068 (83.6%) of 1,278 participating interns reported work hours that were noncompliant with the ACGME standards during at least one month.”132 Furthermore, although ACGME surveys residents anonymously, there are no whistleblower protections for those residents that do report their hospital’s violations. Thus, residents are reluctant to report violations for fear of personal consequences.

ACGME’s sole penalty of revoking accreditation is disproportionate to the problem and actually discourages reporting by residents. While accreditation is technically voluntary for teaching hospitals, it is vitally important to medical education programs. Those hospitals that lose their accreditation are disqualified from receiving federal funds, which total about $8 billion each year. Furthermore, residents
from those programs cannot sit for their board certification exams. This provides a strong disincentive for residents to report any hour violations in their programs. Dr. Simon Ahtaridis, President of the Committee of Interns and Residents, said that reporting hour violations makes residents uncomfortable because they do not want to harm their careers by risking dis-accreditation.

iii. ACGME Does Not Provide Funding to Replace Lost Work

Unlike the regulations in place in New York State and the proposed federal legislation, ACGME provides no additional funding to “remove the burden of non-educational activities from residents and medical students.” Due to this shortfall, “[medical] students are sometimes being asked to perform duties previously handled by residents during the clinical rotations that usually make up the third year of medical school.” This includes finishing paperwork or clinical work for residents limited by ACGME’s hour limits. The medical students, in turn, are “reluctant to report being overworked because of peer pressure and the fact they are graded by their residents.” As with residents, some doctors resist the idea of tougher restrictions on student work for fear that learning opportunities might be lost.

iv. Case Study: The University of Iowa Hospitals and Clinics

As a case study, the author interviewed a student at the University of Iowa familiar with the residency program, who spoke on the condition of anonymity. The University of Iowa Hospitals and Clinics follow the ACGME regulations in their guidelines for resident hours. The experience of this student, at least anecdotally, confirms that, while the residency program complies with the regulations on paper, it does not embrace the spirit or goals of the hour restrictions. This example is not intended to single out the residency program at the University of Iowa, but is offered merely to illustrate the problems faced by all teaching hospitals.

While most residents are limited by the ACGME standards to 80 hours per week, some specialties receive an exemption of up to eight additional hours per week. In this student’s observation, surgical residents rarely work only 88 hours in a week. They are only asked to record hours worked when they are directly involved in patient care, but do not include unavoidable time such as down-time between surgeries or time for meals. Most residents also arrive 30 to 60 minutes before their morning rounds to review their patients’ status, write notes, and attend to other record keeping tasks. These times are not counted toward the work limit. Resident education programs not related to direct patient care are supposed to be counted towards the work hour limit, but are often left off.

Residents report their own hours online at least once per month. They can report whatever hours they choose, but the trend is to underreport the actual number of hours worked. Faculty members review the reports, and residents are aware that working more than the hour limit reflects poorly on their department. They are also aware that working too many hours could even jeopardize the residency program if ACGME imposed sanctions. Thus, residents who work more than the limit tend to report only the maximum number of hours, rather than their actual hours worked.

C. Validation for Those Who Say Restrictions Harm Education

Under a limited-hours regime, when residents are asked to perform the same tasks in less time without any additional support staff, they must either decrease their level of care or ignore the time restrictions. A study released in 2006 found that 80% of responding residents reported exceeding work-hour restrictions, with concern for patient care as the most important factor. The study’s authors concluded that “a significant number of residents feel compelled to exceed work-hour regulations and report those hours falsely.” This result reflects and validates certain attitudes against limiting resident hours. Robert O. Carpenter, who was a resident at Vanderbilt University Medical Center when the ACGME restrictions went into effect, reported that “there were a lot of [attending physicians] pressing you to work the old way, just look the other direction and write down the hours.”

Additionally, residents express sentiments that their education has been harmed by the new restrictions. A study of resident surgeons found that “Fifty-four percent of respondents believed that trauma education has worsened and 45 percent believed that patient care has worsened as a result of the work-hour restrictions.” Residents after the regulations took effect “showed a 40% decrease in technically advanced procedures, with a 44% increase in basic procedures.” Furthermore, resident surgeons were only able to follow their patients’ progress after surgery half as often as they did before the time restrictions. Volume and practice are undeniably
important in a doctor’s education, and they appear to have deteriorated under the work-hour restrictions. To address these problems, educationally unnecessary work should be delegated to support staff.

V. Alternatives to ACGME’s Regulations

In the three years since ACGME’s regulations took effect, a number of other alternatives have been proposed. Several states have considered legislation, and federal legislation has been revived.

A. States’ Efforts Since ACGME

Puerto Rico passed legislation that took effect at the same time as the ACGME regulations in 2003. Several state legislatures have also proposed new legislation over the past few years, though none have passed into law. All the proposals are similar, though several include whistleblower protections and do not allow residents to average hours over several weeks. The Delaware Senate considered one proposal in 2003. The New Jersey Assembly and Senate proposed bills in 2004. The Massachusetts Senate considered a bill in 2005, as did the Pennsylvania General Assembly. Although these state proposals were not adopted, they reflect a growing dissatisfaction with the ACGME standards and a growing desire for outside regulation over resident hours.

B. Federal Legislation is Revived

Two years after the ACGME regulations took effect, the Patient and Physician Safety and Protection Act (the Act), drafted by the American Medical Student Association, again appeared before Congress. Representative John Conyers (D-MI) introduced the Act in the House of Representatives on March 10, 2005 and Senator Jon Corzine (D-NJ) introduced the Act in the Senate on June 23, 2005. Reintroduction of the Act signified dissatisfaction with the ACGME standards and represented the hope that the additional provisions of the federal legislation would prove more effective. These provisions included whistleblower protection, fines, and funding for hospitals to hire additional staff. Nevertheless, the bill again died in committee.

In 2006, Clark J. Lee proposed in the Journal of Health Law and Policy that the federal government should impose regulation. He further proposed that the Department of Health and Human Services (HHS) should have discretion to set work-hour limits, and suggested ways that HHS would implement and monitor the regulations.

VI. Recommendations for Improved Compliance

Although the dangers of long resident work hours are clear, resistance to change remains strong. Previous attempts at regulation have been met with noncompliance, underreporting, and a sense that the educational goals of residency were being undermined. The proposed federal solutions are an improvement, but they do not address the biggest issues: internal resistance and the desire for professional self-determination. A successful regulation regime must confront these problems.

A. Professional Autonomy Supported by Government Funds

One of the greatest shortcomings of the ACGME regulations is that ACGME does not provide hospitals with adequate funding to enable them to hire support staff for replacing lost work performed by residents. The federal government can provide this funding, but the currently proposed legislation removes professional autonomy. When faced with that prospect, the graduate medical education community has fought to protect itself from external influences: forestalling federal legislation by implementing the ACGME regulations and lobbying Congress for a law that protected the Match Program. The paradox here is that in regulating itself, the graduate medical community cannot provide additional funds to replace lost hours. Thus, it must resist its own regulations.

A compromise would allow an industry coalition to establish resident hour standards set to any desired level, keeping the creative energy behind regulation within the field. With a condition of anonymous reports and open reporting data, the government could subsidize replacement staff while assuring transparency. Furthermore, the size of the subsidy for hiring could depend upon how many additional staff members would be required, creating an incentive for hospitals to impose lower hour requirements. This would eliminate the disincentives that residents have against reporting their actual work hours. Openly published work statistics could provide them with some of the bargaining power lost to the Match Program.

With additional funding available, the graduate medical education community would be free to reshape residency programs to better accomplish its educational goals within the constraint of fewer duty hours. Paperwork and support tasks could be delegated to new hires, while residents could concentrate their time on valuable hands-on experience.
i. Hospitals Have Accepted Similar Arrangements in the Past

Although hospitals fiercely defend their autonomy, Congress has successfully regulated other aspects of graduate medical education in the past. In the 1960s, “federal appropriations for medical schools began to come with strings attached.” Congress used so-called “capitation” grants to entice medical schools to increase their enrollment, causing “considerable consternation.” However, “the lure of funds that could be used in an unrestricted fashion was too great. No school turned down the opportunity, whatever misgivings about enlarging class size it may have had.” In the 1970s, the grants were expanded “to modify the geographic and specialty distribution of physicians.”

In this example, we find a model that could be adapted to the problem of resident duty hours. Congress could provide unrestricted funds, set at or above the level required to hire additional support staff. These funds would be provided to schools that limit resident hours; however, participation in the government grants would be voluntary. Unlike current proposals, this plan would not punish hospitals that choose not to participate; instead it would offer an incentive that hospitals would find hard to resist.

B. An Alternative Enforcement Role for ACGME

The current ACGME regulations are detrimental because the penalty of dis-accreditation creates incentives to violate the rules it is supposed to enforce. A new regulatory scheme could still have a place for ACGME, but the conditions for dis-accreditation would have to be structural, reinforcing an external regulatory framework. ACGME might sanction only those hospitals that do not participate in any outside regulation program. Alternatively, ACGME could retain more control over the process by sanctioning those hospitals that, for example, do not publicize their work hour data or offer whistleblower protections.

VII. Conclusion

The problem of extensive medical resident hours is serious. Sleepy and overworked residents pose a risk to themselves and their patients. This problem cannot and should not be swept under a rug.

The proposals presented here are just one potential way to address this issue. The critical point to note, however, is that institutional resistance will undermine reforms that do not reinforce educational goals. Any further attempts at regulation must recognize that restrictions cannot simply be imposed on this industry. Regulations must respect the profession, and regulators must find a way to dovetail their interests with the educational purpose of residency programs. Only then will regulators overcome stiff resistance, and only then will America’s resident physicians be able to meet the demands of their profession open and honestly, with time left for a good night’s sleep.

8 Jeffrey M. Drazen & Arnold M. Epstein, Rethinking Medical Training—The Critical Work Ahead, 347 NEW ENG. J. MED. 1271, 1272 (2002) (“The years of internship and residency are sandwiched between medical school and a first job as ‘a real doctor.’”)
9 Paul Starr, The Social Transformation of American Medicine, 115-16 (Basic Books 1982).
10 Id. at 116.
11 Id. (“Here were the glimmerings of the great university-dominated medical centers of the next century.”); Kenneth M. Ludmerer, Time to Heal 19 (Oxford U.P. 1999) (“In the ensuing 15 years [after 1910], hospitals across the country . . . reconsidered their role in teaching and research, and the modern teaching hospital was born, with the Johns Hopkins Hospital as the model”); see also, Marc K. Wallack & Lynn Chao, Resident Work Hours: the Evolution of a Revolution, 136 ARCHIVES OF SURGERY 1426, 1426 (2001) (“The concept of surgical residency as we know it” was introduced at Johns Hopkins in 1897.).
12 Ludmerer, supra note 11, at 79.
13 Laura K. Barger et al., Extended Work Shifts and the Risk of Motor Vehicle Crashes among Interns, 352 NEW ENG. J. MED. 125 (2005); see also, Eric J. Cassell, Historical Perspective of Medical Residency Training: 50 Years of Changes, 281 J. AM. MED. ASS’N 1231, 1231 (1999).
14 Drazen & Epstein, supra note 8, at 1272.
16 National Resident Matching Program, http://www.nrmp.org/about_nrmp/ (last visited Oct. 23, 2008) (The NRMP is sponsored by the American Board of Medical Specialties, the American Medical Association, the Association of American Medical Colleges, the American Hospital Association, and the Council of Medical Specialty Societies).
17 Id. (“Independent applicants include former graduates of U.S. medical schools, U.S. osteopathic students, Canadian students, and graduates of foreign medical schools.”).
20 Wright & Katz, supra note 19, at F5.
21 M.H. Kliman, Medical Education’s Dirtiest Secret, Nov.–Dec. 2003 HUMANIST, at 30; Wright & Katz, supra note 19, at F5; Residency Match FAQ, National Resident Matching Program, http://www.nrmp.org/res_match/faq/us_seniors_faq.html#new04 (last visited Sept. 28, 2008) (“The Scramble is the period of time during which unmatched or partially matched applicants attempt to obtain positions in unfilled programs. The Scramble begins at noon Eastern Time on Tuesday of Match Week after the Dynamic List of Unfilled Programs is posted to the NRMP Web site.”).
23 Drazen & Epstein, supra note 8, at 1271.
25 Kliman, supra note 21, at 30.
26. Barger et al., supra note 13, at 125.
27. ACGME Report, supra note 2, at 1.
29. Christopher P. Landrigan et al., Effect of Reducing Interns' Work Hours on Serious Medical Errors in Intensive Care Units, 351 NEW ENG. J. MED. 1838, 1838 (2004) ("Interns made substantially more serious medical errors when they worked frequent shifts of 24 hours or more than when they worked shorter shifts.").
33. Daugherty et al., supra note 24, at 1194.
35. Landrigan et al., supra note 29, at 1838. For criticism of the Harvard study's methods, see Letters to the Editor, Interns' Work Hours, 352 NEW ENG. J. MED. 726 (2005) ("One effect not quantified in the study was the interns' learning, which we felt was compromised by the intervention schedule.").
36. Landrigan et al., supra note 29, at 1838.
37. Steven W. Lockley et al., Effect of Reducing Interns' Work Hours on Sleep and Attentional Failures, 351 NEW ENG. J. MED. 1829 (2004).
38. Barger et al., supra note 13, at 125. But see Letters to the Editor, Post-Call Accidents, 352 NEW ENG. J. MED. 1491 (2005) (giving readers' criticism and the authors' response).
39. Barger et al., supra note 13, at 125.
40. Id.
42. Id.
43. LUDMERER, supra note 11, at 320.
44. See Boston Med. Ctr. Corp., 330 N.L.R.B. 152, 152 (1999) (presenting arguments by hospital that residents were students and therefore could not be "employees"); LUDMERER, supra note 11, at 246.
46. See also Klaiman, supra note 21, at 30.
47. Wright & Katz, supra note 19, at F5.
48. LUDMERER, supra note 11, at 249.
49. Drazen & Epstein, supra note 8, at 1271.
51. Drazen & Epstein, supra note 8, at 1272.
52. Edward E. Whang et al., Implementing Resident Work Hour Limitations: Lessons from the New York State Experience, 237 ANNALS OF SURGERY 449, 451 (2003) (reporting in a study of surgical residents, "[t]hirty-five percent of respondents reported that the work hour limitations have hurt the quality of resident surgical training, whereas only 22% of participants reported that the changes have improved the quality of training"); Buckner, supra note 50 ("50% of NY residents surveyed reported a decreased number of operations in which they participated, and 51% felt they missed too many learning opportunities.").
53. Letters to the Editor, Interns' Work Hours, 352 NEW ENG. J. MED. 726 (2005).
54. Drazen & Epstein, supra note 8, at 1272.
55. Id.
57. Lightening the Load, Plain Dealer (Cleveland), Mar. 13, 2005, at 15.
58. Bird, supra note 56, at 50 (quoting Dr. S. David Pomerinse).
60. Bird, supra note 56, at 50 (quoting Dr. Leonard S. Lustgarten).
61. Buckner, supra note 50 (quoting John Zelen).
63. Buckner, supra note 50.
64. LUDMERER, supra note 11, at 317.
65. Id. at 319-20.
66. Id. at 320.
67. Id. Ludmerer also notes that the length of the average patient stay has decreased over time, further undercutting traditional arguments for the educational necessity of long hours, id. at 358.
68. Lee, supra note 4, at 175.
70. Lee, supra note 4, at 177.
71. Id.
72. Id. at 179.
73. Cherr, supra note 69, at 24.
74. Id.
75. Id.
77. Wallack & Chao, supra note 11, at 1428.
78. Id. at 1429.
79. Id.
80. Id.
81. Id.
82. Cherr, supra note 69, at 24.
83. N.Y. PUB. HEALTH LAW § 2803 (2008); Wallack & Chao, supra note 11, at 1429.
84. N.Y. PUB. HEALTH LAW § 2803 (2008).
86. LUDMERER, supra note 11, at 244.
87. Id. at 245.
88. Id. at 247.
89. Bird, supra note 56, at 50.
90. Cedars-Sinai Med. Ctr., 223 N.L.R.B. 251, 251 (1976) ("[I]nterns, residents, and clinical fellows, although they possess certain employee characteristics, are primarily students."). The NLRA clarified this position the next year, emphasizing that residents at nonprofit hospitals are not entitled to collective-bargaining rights, St. Clare's Hosp. & Health Ctr., 229 N.L.R.B. 1000, 1000 (1977).
91. LUDMERER, supra note 11, at 248-49.
92. Boston Med. Ctr. Corp., 330 N.L.R.B. 152, 152 (1999) (finding that "the interns, residents, and fellows employed by BMC, while they may be students learning their chosen medical craft, are also 'employees' within the meaning of Section 2(3) of the [National Labor Relations] Act.").
93. Id. at 159.
94. Id. at 164.
95. E.g., the Committee of Interns and Residents represents over 13,000 residents. See, Committee of Interns and Residents, Who We Are, http://www.circeu.org/about/default.aspx (last visited Oct. 23, 2008).
97. Id. at ¶ 71.
98. Id. at ¶ 92.
99. Id. at ¶ 96.
100. Wright & Katz, supra note 19, at F5.
107 150 CONG. REC. S3985 (statement of Sen. Gregg).
108 Crenshaw, supra note 102, at A2.
110 Jung v. Ass’n of Am. Med. Colleges, 339 F.Supp. 2d 26, 46 (D.D.C. 2004).”[In view of the enactment of Section 207 by Congress, the Court concludes that . . . it must grant [the defendants’ ] motion for judgment on the pleadings].”
114 Id.
116 Cherr, supra note 69, at 25.
119 Patient and Physician Safety and Protection Act of 2001, H.R. 3236, 107th Cong. (2001). See also S. 2614, 107th Cong. (2002), a bill to amend title XVIII of the Social Security Act to reduce the work hours and increase the supervision of resident physicians to ensure the safety of patient and resident physicians themselves.
124 Lightening the Load, supra note 121.
125 Wallack & Chao, supra note 11 at 1429. See also Robert Steinbrook, The Debate over Residents’ Work Hours, 347 NEW ENGL. J. MED. 1296 (Oct. 17, 2002).
128 N.Y. State Dep’t of Health, supra note 125; ISLAND PEER REVIEW ORGANIZATION, WORKING HOURS AND CONDITIONS: POST-GRADUATE TRAINEES ANNUAL COMPLIANCE ASSESSMENT—CONTRACT YEAR 4 10/1/04–9/30/05 (2006), http://www.health.state.ny.us/nychd/hospital/reports/resident_work_hours/resident_working_hours_and_conditions.pdf.
129 N.Y. State Dep’t of Health, supra note 126.
130 Lola Butcher, Resident Rules, HEALTH LEADERS, Feb. 2007, at 44.
132 Id. at 1065. The study also found noncompliance in 85.4% of the represented residency programs and 90.8% of the represented hospitals.
133 Mitchell, supra note 120.
137 Id.
138 Id.
139 E-mail from University of Iowa student (anonymous), to author (Feb. 12, 2007, 08:19:45 CST) (on file with author).
141 E-mail from University of Iowa student (anonymous), supra note 138.
142 Id.
143 Id.
145 Id. (“Forty-nine percent of respondents admitted underreporting their work hours.”)
146 Butcher, supra note 129, at 44.
147 Matthew C. Byrnes et al., Impact of Resident Work-Hour Restrictions on Trauma Care, 191 AM. J. OF SURGERY 338 (Mar. 2006).
148 Mark A. Fennelly et al., Impact of the 80-Hour Work Week on Resident Emergency Operating Experience, 190 AM. J. OF SURGERY 168 (Dec. 2005).
149 Id. (“Operative continuity of care by residents decreased from 60% to 26% of cases.”).
151 The American Medical Student Association maintains a list of each state’s proposals available at http://www.amsoa.org/rwh/efforts.cfm.
153 S. 133, 142nd Leg. (Del. 2003).
155 S. 1263, 184th Leg. (Mass. 2005).
156 S. 331, Gen Assembly, 2005 Sess. (Pa. 2005). This bill was referred to the Committee on Consumer Protection and Professional Licensure on Mar. 3, 2005, and had no further action, see http://www.legis.state.pa.us/WU01/LI/BU/BH/2005/0/SB0331.HTM.
159 Lee, supra note 4, at 213. Lee, a former law student at the University of Maryland, also holds a Masters degree in Public Health Administration.
160 LUDERER, supra note 11, at 270 (“Medical schools, like their parent universities, had always fiercely defended their rights as educational institutions to determine their academic policies.”).
161 Id. at 271.
162 Id.
163 Id.
164 Id. at 272.