U. S. Health Researchers Review Their Ethics Review Boards: A Qualitative Study

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Abstract: Virtually all research involving human subjects in the United States must be reviewed by an institutional review board, a form of research ethics review board. This article reports the results of qualitative research on how investigators regard this regulatory regime. Interviews were conducted with forty investigators conducting health-related research. Most respondents shared the regulations' goals, but doubted that the regulations, as implemented, promoted these goals efficiently, effectively and fairly. The interviews suggest that efforts to raise researchers' ethical consciousness have been, over time, quite successful, but that implementation of the regulations remains problematic. Research aimed at better defining the problem to be solved by the regulatory system, and at assessing the effectiveness of the regulatory tools for solving properly defined problems, could guide a more productive debate about human subject protection.

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For the last several decades, United States (U.S.) investigators at universities, hospitals, and other research institutions have been subject to an increasing volume of regulatory demands addressing the protection of individuals who participate in research. Under federal regulations, all federally-funded research involving human subjects must be approved by at least one research ethics review board (RERB), known in the U.S. as an institutional review board or "IRB" (U.S. Department of Health and Human Services, 2005). Typically, institutions receiving federal funding undertake to require review of all human subject research at the institution, regardless of the funder. Despite rising costs and persistent criticism, few studies have investigated how this regulatory regime works (Panel on Institutional Review Boards Surveys and Social Science Research & National Research Council, 2003). Those studies that have been conducted raise the possibility that compliance activities may cost investigators and institutions a considerable amount of time and money, and may even make some research infeasible without good ethical cause (Ceci, Peters, & Plotkin, 1985; Greene et al., 2005 (in press); Humphreys, Trafton, & Wagner, 2003; Nelson, 2004; Nelson et al., 2002; Newgard, Hui, Stamps-White, & Lewis, 2005; O'Herrin, Fost, & Kudsk, 2004; Tu et al., 2004; Wagner, Bhandari, Chadwick, & Nelson, 2003). Similar concerns have been raised in the United Kingdom (Ahmed & Nicholson, 1996; Middle, Johnson, Petty, Sims, & Macfarlane, 1995; Tully, Ninis, Booy, & Viner, 2000), Canada (McDonald, 2000a; McDonald, 2000b; Tu et al., 2004), and Australia (Israel, 2004). Studies and anecdotal reports suggest that while researchers are generally convinced of the moral importance, even primacy, of protecting human research subjects, they resent what they regard as silly or counterproductive requirements in areas like informed consent or research involving purely hypothetical risks (Anonymous, 2005; Dawson & Kass, 2005; Israel, 2004; Nelson, 2004; Saver, 2004).

We conducted in-depth, qualitative interviews with a nationwide sample of 40 investigators who conduct different types of health-related research about their experiences with and opinions about the human research subject protection system as implemented by the RERBs they work with. In this article, we present common themes that emerged from the interviews, and discuss what these themes tell us about the implementation of the human research subject protection system in the U.S. We find strong support for the value of ethics as a constraint on researcher misconduct and as a moral guide, but equally strong doubts about the efficiency of current RERB practice in promoting these benefits. We discuss the implications of these findings from a regulatory theory perspective.
Background: The Rise of Research Ethics and Ethics Regulation

Researchers are governed both by specific federal rules and a more diffuse set of social constraints associated with ethics. The first binding federal regulations requiring RERB review of federally funded research were issued in 1974 by the Department of Health, Education and Welfare (later the Department of Health and Human Services, or DHHS). These regulations only applied to research funded through that department, and were generally thought to be aimed at biomedical experimentation.

Revisions promulgated in 1981 offered for the first time a definition of “research,” which was seen as clearly expanding the coverage of the regulations to all research involving human subjects. To address widespread concerns among investigators, however, the regulations also introduced five categories of exemptions. These were designed to reduce the burdensomeness of regulation for low risk research, particularly in the social and behavioral sciences. The exemptions were intended to be used extensively: the head of the agency that drafted the regulations estimated that 80% of the research it sponsored would be exempt (Panel on Institutional Review Boards, Surveys and Social Science Research & National Research Council, 2003, p. 71). The 1981 revision also allowed “expedited” review for studies posing “no more than minimal risk.” Yet, while the application of the regulations to more types of research went steadily forward, the mechanisms to dispense with any, or with full, review were not widely adopted by individual RERBs (Grundner, 1983; Panel on Institutional Review Boards, Surveys and Social Science Research & National Research Council, 2003, p. 73).

In 1991, DHHS’s regulations were adopted as “the Common Rule” of fifteen federal departments and agencies and the CIA, and the FDA changed its regulations to be more consistent with the Common Rule (Panel on Institutional Review Boards, Surveys and Social Science Research & National Research Council, 2003). At the same time, the definition of research was expanded to include “research development, testing and evaluation,” and the criteria for several exemptions were qualified in ways that gave RERBs more grounds for requiring review. The rules on expediting research were again changed in 1998, adding more categories of research eligible for expedited review. As with the 1981 changes, however, most university RERBs probably continued to require expedited review of “exempt” studies and full review of studies that appeared to qualify for expedited handling (Panel on Institutional Review Boards, Surveys and Social Science Research & National Research Council, 2003). By contrast, a 2001 survey of federal agency review practices found many federal agencies reporting that all, or nearly, all of their research was exempt (National Bioethics Advisory Commission, 2001b).

In the later half of the ’90s and the early years of this century, a series of reports criticized RERBs as overworked, under-resourced and too concerned with minutiae (Department of Health and Human Services & Office of Inspector General, 1998; General Accounting Office, 1996; National Bioethics Advisory Commission, 2001a). In 2000, oversight of RERBs was taken out of the National Institutes of Health and placed in the office of the Secretary of DHHS. The new Office of Human Research Protections (OHRP) was intended to be more independent and proactive than its NIH predecessor, the Office for Protection from Research Risks (Heinrich, 2001).

It has been aptly pointed out that “[d]istinguishing regulatory effects from the larger changes in norms, values and institutions is, to say the least, a formidable methodological problem” (Gray & Cooke, 1980). Concern for research subjects has a long history (Dalla-Vorgia, Lascaratos, Skiadas, & Garanis-Papadatos, 2001; Halpern, 2001; Jonsen, 1998; McCullough, 2000; Rothman, 1991). Notable in this history are “whistle-blowers” of the late fifties and early sixties, like Henry Beecher and Maurice Pappworth (Beecher, 1966; Pappworth, 1967), the Helsinki Declaration, public servants like NIH director James Shannon and Senator Edward Kennedy, and moral entrepreneurs like Paul Ramsey and Hans Jonas, all contributing to an increase in investigator and public awareness of research subject protection (Faden & Beauchamp, 1986; Halpern, 2001; Jonsen, 1998; Moreno, 2001a; Moreno, 2001b).

The movement to raise the standards of protection for human research subjects, grounded in ethics and supported by law, has been a major success by many measures. Risky, nontherapeutic research among prisoners and charity patients that a half-century ago was lauded in the press as the heroic pursuit of the common good is now seen as unethically coercive, if not barbaric (Halpern, 2001). The idea that research-subject protection can be left to the discretion of investigators has given way to the view that external regulation is required (Moreno, 2001b; Rothman, 1991). Actual harm to participants attributable to research misconduct, though apparently very rare (Bell, Whiton, & Connelly, 1998; Cardon, Dommel, & Trumble, 1976; Kass, 1996), is a more salient matter than ever, and provokes a harsh
media response (Steinbrook, 2002a, 2002b). Indeed, complying with the federal rules seems to provide no immunity against accusations of being unethical (Lurie & Wolfe, 1997). A thriving bioethics profession continues to expand its jurisdiction, moving into new fields like public health and new areas of analysis, like conflict of interest (Burris, Buehler, & Lazzarini, 2003; Moreno, 2001a). This sort of growth has also, more negatively, been characterized as “mission creep” (Anonymous, 2005; Saver, 2004). In this paper, we explore the views of researchers about the implementation of federal regulations by RERBs.

Methods

STUDY SAMPLE
This study used a sample of 40 investigators from throughout the United States. Thirty-six were selected from the Computer Retrieval of Information on Scientific Projects (CRISP) database, an electronic database of federally funded biomedical research projects conducted at universities, hospitals, and other research organizations (http://crisp.cit.nih.gov/). They were purposively selected to be heterogeneous in type of employment setting, degree of experience, and research focus. Thirty-four worked in universities, two in non-university research and treatment facilities, and three in free-standing research centers. Of those who worked in universities, 18 were full professors, 11 were associate professors, five were assistant professors and one was a post-doctoral student. Of the two who worked in non-university research and treatment facilities, both were classified as research faculty. Of the three who worked in free standing research centers, all were their center’s director. The focus of the investigators’ research also varied greatly, including mental health, substance abuse, disabilities, bioterrorism, gender differences, genetic issues, Alzheimer’s disease, and health promotion, among others.

Four additional researchers were purposively selected from a single university, in order to explore researcher experiences at one university in greater depth. These researchers also varied according to their amount of experience and research focus. Three were full professors and one was an associate professor. One focused on mental health problems, one on risk and protective factors for children and families, one on women’s issues, and one on a variety of medical issues.

DATA COLLECTION
The interviews focused on the investigators’ experiences with and attitudes toward the human subjects protection system generally and the RERB in particular. The interview guide was open-ended, addressing 18 main topic areas, including time spent on the RERB process, ethical and methodological determinations made as a result of experience with the RERB process, issues related to informed consent, issues related to HIPAA, and positive and negative perceptions of the protection of human research subjects regulatory requirements. The instrument was pilot tested on four researchers. The topic guide was then revised.

The interviews were conducted by telephone. Using the topic guide, the interviewer (Dr. Moss) let the answers evoked by her initial questions shape her subsequent ones, and pursued topics included in the topic guide and those raised by the respondent (Patton, 2002). She was flexible with regard to the particular wording and order of the questions, those questions she did and did not ask, and when and how she pursued specific topics raised by the respondents (Patton, 2002). Dr. Moss typed respondents’ answers during the interviews. All of the interview data were entered into the qualitative software package ATLAS.ti V5.0 (Scientific Software Development 2002) for coding, management, and analysis.

DATA ANALYSIS
Dr. Moss and Professor Burris developed a coding scheme to identify the major emergent themes (Glaser & Strauss, 1967). Each deployed the coding scheme independently to code three randomly selected interviews. The investigators then reconciled coding discrepancies and revised the coding scheme. Dr. Moss and a research assistant used the revised coding scheme to independently code four more randomly selected interviews. They then met to reconcile coding discrepancies and finalize the coding scheme. The 40 transcripts were then coded. (For more detailed information on the study methods, including the questionnaire and code book, see the Methodological Appendix at http://www.temple.edu/lawschool/phrhcs/hsr.htm. Dr. Moss and Professor Burris reviewed the coded transcripts to develop the final themes discussed below. In order to preserve the confidentiality of respondents, data are presented without information that could reasonably allow identification of the respondents or their institutions.

Results

Eight major themes emerged from the interviews and are discussed below.
Theme 1. Views of the Need for Regulation

In general, respondents believed that some kind of monitoring system to protect individuals who participate in research is useful and justified. Several reported that the current system brought benefits to them directly. "It keeps me on the straight and narrow," according to one investigator. Another said, "[a]s a result of the required trainings and the process of submitting multiple IRB proposals for various projects, I have learned more about the consent process." An AIDS researcher who works with mothers and infants in Africa observed, "the IRB process keeps you on your toes, keeps you thinking, aware and careful . . . It's enlightening."

Many respondents were, however, critical of the current regulatory system. RERBs and their administrators were seen as having too few resources to do their jobs properly. They were viewed as overly concerned with "trivial" issues, such as "how many times are we going to knock on someone's door after an initial response for an interview." Some had a more fundamental criticism: they perceived RERBs as "incompetent to judge many types of research" and, therefore, as "unsuitable regulators" of essentially any scientific research. A health promotion researcher said:

"RERBs meddle in science where they have no business to meddle. They step way beyond their role, which is the safety of participants. They get into measurement and research issues, which is inappropriate and which damage a study. I have heard from another investigator of a case where an IRB forced the investigator to change his design because it believed erroneously that a control group couldn't be created. I think that IRBs have the potential for causing a lot of damage, especially if the right people aren't sitting on it. They need, but seldom have, people who are familiar with science to make informed suggestions."

A third group of researchers was ambivalent. For instance, one researcher, the director of a center, observed that

"IRBs are getting involved in study design issues, for example, in judgments about statistical power. In the past, this was not considered the purview of IRBs. Instead, it was an issue of scientific merit. I actually think IRBs should protect human subjects from participating in research that is a waste of everyone's time. However, this attention to research design by IRBs means that they are turning into additional study sections. For example, frequently an IRB requests a revised survey or modified recruitment material . . . I think this is justified because recruitment raises issues about getting permission to talk to people and who should be giving that permission. For example, under what circumstances, if ever, should physicians be giving permission. Things like these are an evolving social standard."

Nonetheless, most researchers agreed that some regulatory system is necessary (although not necessarily the current one), and mainly to prevent abuse by a handful of researchers (usually not the respondents themselves) who conduct high-risk research projects. This belief was illustrated with references to historical abuses in research (e.g., Willowbrook, Tuskegee) and more recent high-risk investigations (e.g., the University of Pennsylvania gene therapy trial, the lead paint abatement study conducted at a research institution affiliated with Johns Hopkins University).

Theme 2. Satisfaction of Respondents with Their Own RERBs

Respondents varied markedly in their satisfaction with their own RERBs. Some believed that their RERB was extremely helpful. A respondent who conducts research on children and families said: "On balance, the IRB has been very helpful. I can always pick up the telephone, call one of the IRB members, and get good consultation on consent-related issues." This viewpoint was repeated by many investigators, especially those who had formed relationships with RERB members or staff. A psychiatrist who conducts clinical research on dementia observed that "the IRB is helpful: when I have asked for assistance they have been there, they are available on the phone, they have come to my office." He went on to say that giving the RERB the proper documentation allows the RERB to be helpful and reasonable in its demands: "We are pretty fortunate. They [the RERB] have been reasonable to work with as long as they are given the stuff they need. They have clear guidelines in terms of what you need to provide. If you provide that, it doesn't take them too long."

This was not the only view. Many respondents expressed extremely negative views about their RERB. Non-clinical, social scientist researchers who had to submit their protocols to medical RERBs were particularly critical. They tended to feel that the RERB's medical orientation and the information it required were irrelevant to their research. The belief among non-clinical, social scientist researchers that medically-oriented RERBs
did not understand their work was also pervasive. One such investigator (a mental health researcher) summed up this attitude as follows:

“The IRB is concerned with issues I don’t think are terribly important . . . Yes, they ask us to make changes in an effort to be rigorous, but also because the IRB is a medical model IRB and doesn’t understand social science research. They have concerns that reflect a lack of understanding about things outside of clinical trials. All of my social science colleagues agree with my viewpoint on this.”

Theme 3. RERB Policies and Practices about Informed Consent

Among all of the themes identified from the interview transcripts, this theme evidenced the strongest emotions. Some respondents viewed their RERB’s policies and practices about informed consent as necessary and, in some few cases, as helpful. One mental health researcher explained:

“We now have a sophisticated protocol we use if our research participants become agitated. I credit the IRB with this. It wanted more detail on what we meant by terminating the recruitment interview if people became upset. As a result of the IRB, we ended up creating a document which outlined what we would do.”

A molecular epidemiologist involved in cancer researcher also had a positive opinion:

“We take it [the informed consent procedure] a lot more seriously now. In the past, we briefly told participants about the study, and said ‘you need to sign here’. Now we are very careful. We don’t do interventions, just observational research. But we are careful to explain each section [of the form] to people and make sure they understand what they are being told and that consent is truly informed. The process takes a lot longer now. But this is the right way to do it. People should know what they are getting into and why.”

Notwithstanding these favorable attitudes, the majority of our sample viewed their RERB’s policies and practices about informed consent as “broken” and “in need of major reform.” One common concern is that the consent forms are now so long and complex that they do not allow potential research participants to actually evaluate the risks and benefits of participation. The interview transcripts provide no indication of whether respondents have given thought to why forms must now be so long and poorly written—for example, whether RERBs are simply trying to make sure they contain full information, actually line-editing the forms, or requiring investigators to line edit them. Regardless, the issue of investigators believing that consent forms are overly long appears frequently in the interview transcripts. For example, a health promotion researcher noted,

“There is an incredible amount of legalese that has to be in informed consent documents, much of which doesn’t apply to participants in research about health promotion or physical activity. So all of my forms are incredibly long. They are useless and don’t inform people’s choices.”

A child development researcher explained,

“What’s happened is that legal processes have run amuck and have become burdensome. Basically, I am not doing anything differently than I was doing 20 years ago. But we have become incredibly burdened with paperwork, especially to document consent. The paperwork has not changed anything we are doing except to make the research much more difficult to do because of the burdensomeness of the rules.”

Respondents were concerned that the length of the forms, rather than protecting research participants, actually frightens them, thereby discouraging potential participants from participating in research. This seems to be especially the case for research conducted with people who have little experience with North American culture, limited English skills, or limited education, and special populations, such as drug users. A social science researcher who works with low-income, non-English speaking families in a large California city observed: “the forms are turning them off because they can’t read them.”

Respondents repeatedly complained about the time they had to spend responding to the RERB’s requests for what they believe to be trivial wording changes. One respondent noted that “too often my time is spent making sure that I have the right phrases.” Another said, “Every year we use the same consent forms but every year we have to change the wording.” Still another said that “we are constantly having to dumb down the language.” A child development researcher observed,

“One hundred percent of the time, the IRB asks for changes. Sometimes the changes are substantive. But most of the time we are asked to make wording changes. They usually ask us to change the reading level. Frequently, they ask us to change first-person language to third-person language.”
An additional concern was that RERBs place far too much emphasis on documenting consent to protect the institution, not the prospective research participant. As a health promotion researcher put it, “my big concern is that universities need to cover their asses because of liability.” Another, who had served as a member of an RERB, explained,

“The whole system is set up in an awkward manner. The basic premise is coming from legalistic issues. When you are on an IRB, you see they are tape recording every word coming out of everyone’s mouth. Then the tapes are put away. IRBs are not at fault. They are under the legal gun, too.”

The accusation that institutions are motivated by trying to protect themselves arises from respondents’ inferences about RERB motivation. None of the interviewees reported an instance in which an RERB representative explicitly told an investigator to change an informed consent form to protect an institution.

Finally, several respondents were dismayed about the overlap of obtaining informed consent from human subjects to participate in their research, and getting signatures under the Health Insurance Portability and Accountability Act of 1996 (HIPAA) (“Health Insurance Portability and Accountability Act of 1996,” 1996). HIPAA was enacted ostensibly to give patients rights over their health information and to limit who can look at and receive a patient’s health information. Information that is protected by HIPAA includes information that medical providers put in a patient’s medical record, conversations about a patient among his or her doctor and other health care providers, data about patients in computer systems, billing records, and most other health information about patients held by covered entities. Most health care providers, insurance companies, HMOs, employer group health plans, and certain government programs that pay for health care, such as Medicare and Medicaid, must follow HIPAA (“Health Insurance Portability and Accountability Act of 1996,” 1996; U.S. Department of Health and Human Services, 2000).

An in-depth discussion of HIPAA is beyond the scope of this paper. What is relevant, though, is that when HIPAA was originally enacted, many universities, hospitals and other institutions employing researchers, as well as many researchers, anticipated HIPAA would stymie research. For most of the respondents we interviewed, including those who never use medical records in their research, and even some who do use medical records, this proved not to be the case. For example, one respondent said that “we were always very particular in keeping files and how we communicate research so that it has affected our paperwork processing, but not how we execute research.” Another respondent noted that “we were pretty much already doing what HIPAA requires us to do.”

Still, respondents reported frustration with HIPAA. For example, a health promotion researcher noted that universities and hospitals vary regarding whether they require HIPAA language within informed consent forms. This respondent was employed by an institution that requires the HIPAA language within informed consent forms:

“HIPAA is another example of good sense gone awry. It is very interesting to see how different universities have decided to follow HIPAA rules. HIPAA language here at . . . . [name of university] in our informed consent forms needs to be three pages long. We are trying to work with the IRB to separate out HIPAA language. So far they have changed it to remain in the document but be deemphasized. My colleagues at other universities don’t have HIPAA language in informed consent. Their universities have read the rules differently. They have decided that the university is not the health care provider and so HIPAA rules do not apply to them. But I am forced to comply with my university’s rules. The whole thing makes me irate.”

Theme 4. Time Required to Prepare Protocols, Respond to the RERB, and Receive RERB Approval

The issue of how much time it takes to prepare protocols for the RERB and to respond to questions and requirements pertaining to changes is an issue over which there was consensus among respondents. Almost all of them agreed, including those who had positive views about their RERB, that RERB-related issues take a great deal of time, their own or their staff’s. In a few cases, researchers have an individual on staff whose entire job is devoted to preparing protocols and responding to the RERB.

Several respondents felt that the benefits of spending this time outweighed the costs. Of these, several reported that the benefits came in the form of increased consciousness about conducting more ethical research. As one said, “There is no question that the changes are for better. It takes more effort and it is a headache. But it is the right thing to do.” Thinking through the ethical issues (and how the RERB handles them) in advance can also save time in the RERB process, because revisions are then avoided. She said, “If you do the work up front, then most of the stuff can be culled from what you have already put together. There is lots of photocopying, but the materials are already there.”
The majority of investigators reported great frustration with the amount of time they had to spend. One focused on what he saw as the triviality of required changes: “It takes so much unnecessary time. Every year, even with the same application, IRB members come up with some bit of minutia they want me to change. Even though they have okayed it the year before, they come up with something like ‘define physical activity for us’. It is way beyond what is helpful. It is very frustrating and time-consuming.”

A researcher who does clinical trials with people with sleep disorders focused on the amount of paperwork: “The amount of paperwork that needs to be done for each review you go through is why I agreed to be interviewed. They want updated protocols on everything. They want additional documents put in lay terms. All of the pages and pages in just the application form itself that accompanies the protocol are terrible. My renewal of my last grant was a 16-hour ordeal. And this was for a renewal.”

Another, who conducts research on Hepatitis C, talked about the redundancy in the forms the RERB required: “The redundancy in the assurances are extremely time consuming... And we can't simply cut and paste the same answer over and over. Instead, we have to thoughtfully write out different answers to redundant questions. For example, first we are asked to describe assurances to safeguard human subjects. Then there is another statement telling us to describe assurances of colleagues and department chairmen about safeguarding human subjects. Then we are asked about how we are going to ensure integrity related to colleagues and our chairman. Then there is another question about all racial and ethnic groups. Then there is another question about what groups, but we have already answered that. Then there is a question about people unable to speak English being enrolled. If yes, you have to explain why people enrolled can't speak English, talk about translators, and explain how you will ensure that translators protects the integrity of human subjects. You keep having to write nonredundant answers to redundant questions even though they could put all this in one question (e.g., how will you assure integrity from everyone involved).”

Some respondents expressed another concern about time, reporting that, to varying degrees, and for varying reasons, the RERB process delayed the start of their research. One respondent, based at an institution connected with a highly publicized medical error related to human subjects research, explained, “We literally spend an average of 6 months just getting IRB clearance. Whether this is my fault, or the IRB’s fault, I don’t know. But we never used to spend this amount of time.”

A respondent who conducts research into parasitic diseases said that because his projects mostly take place in Africa, he is not on-site to monitor the RERB process. Thus, there are always delays, first because the RERB is understaffed, and second, because he is always told to make corrections: “It took seven months to get the thing approved. The people who handle this at the IRB are overworked. There is no funding for them. My application therefore fell through the cracks for two months while I was overseas. I came back and raised hell. Of course, they are understaffed. Therefore, it usually takes at least two or three months. But also, I’m always told to make corrections. The IRB, with all its work, dreams up corrections. I get ridiculous comments from reviewers which I have to address.”

Certain types of research may qualify for an exemption from the requirements of the Common Rule, or for expedited review. Many respondents had received exemptions or expedited reviews for at least some of their studies. However, most of these felt that they still had to spend an inordinate amount of time filling out the initial application to receive an exemption or qualify for an exemption or expedited review. Only one respondent noted the difference in time between an exemption or expedited review process, on the one hand, and a full board review, on the other hand. In his words, “The exemptions went fairly quickly. With regard to full board review, I think they are ridiculously long and almost all of issues they raise are ridiculous.”

Finally, there was a group of respondents who reported that they spent a moderate amount of time on RERB-related issues. A good relationship with RERB staff or members and guidelines issued by the RERB members was repeatedly mentioned as the reason why the time spent on RERB issues, while considerable, was not overwhelming.

Theme 5. Review of Potentially Harmful Research vs. Minimal Risk Research

Most respondents agreed that some type of structure for protecting human research subjects is necessary
with respect to research that has the potential to result in physical and psychological harm. Those who conduct research involving participants with cognitive impairments concurred that a structure is needed to protect these individuals from research not involving opportunities for truly informed consent. Some believed that the current RERB-dominated structure for protecting participants in research is extremely important, and that in its absence, there would be problems. Others reported that some type of protective structure is necessary but that it need not be the current RERB-dominated structure. Still others felt that some type of protective structure is necessary, but felt strongly that it should not be the current RERB-dominated structure. Of this latter group, none offered suggestions about what an alternative structure should look like.

There was a consensus among respondents that the review process for minimal-risk research should be streamlined considerably. Among those who conducted minimal or no risk research, the majority believed that the time they had to spend filling out forms and responding to questions was not commensurate with the risks of their research, and was actually destructive in terms of resources. In the words of one such respondent,

“It is fairly silly that we have to go through the IRB on doing secondary data analyses of census or other existing data sets, but we have to. While we are sometimes expedited or exempt, we still have to fill out the forms and their [the RERBs] only choice is to tell us we can’t do the research because we can’t change the data . . . . It is not worth the time of a committee to look at.”

Another respondent, involved in nursing and health services research, characterized the situation as follows:

“There can be just as much danger in over-regulating research as in under-regulating it. When the most rigid rules are applied to minimal or no risk research, you slow down the research enterprise and that, in the long run, will reduce the number of results we can obtain and our contributions to science. Look, for instance, at the internet. There are many sources of data on the internet that are freely available to public to use. But for university faculty, before we can use information from the internet, we have to go through the IRB. This is an overreaction. In fact, over-control can backfire and result in less use of information that is available which, in turn, means that we cannot improve the health care system.”

Regulation of potentially higher risk research was also sometimes seen to have undesirable side effects. Several researchers mentioned that heightened protection for potentially vulnerable subjects, like prisoners and wards of the state, made it more difficult to study them and made the researchers less willing to undertake projects involving those populations. To a lesser degree, children were also cited as a population to be avoided because of the bureaucratic hassle involved.

In contrast, one investigator who conducts intervention projects with children, but whose studies are usually classified as minimal-risk projects, regards the RERB review process “as helpful and an integral part of research ethics and research design.” In the words of another researcher who primarily engages in observational, minimal-risk research with people with mental illness:

“I am not sympathetic to the notion that not protecting human subjects is academic freedom . . . A lot of researchers see the IRB process as degrading. But when I do a cost benefit analysis of the rights of vulnerable populations, compared to researchers, it is a hands-down issue. Researchers are privileged and respondents don’t owe researchers anything. Our primary obligation is to protect respondents. IRBs sometimes are a hassle and their questions are sometimes stupid, unnecessary and reflect a lack of understanding. But protection of human subjects is primary, notwithstanding academic freedom and the commonplace notion among researchers that the IRB is protecting the university.”

**Theme 6. Multi-Departmental or Multi-Institutional RERB Review**

A number of respondents reported having had to work with more than one RERB at a time with respect to one research project. These included investigators collaborating with colleagues at one or more other departments, collaborating with colleagues at one or more other universities or other organizations, conducting international research, or using secondary data sets. Having to work with more than one RERB at a time on one project seemed to considerably increase frustration with the RERB process on the part of investigators. They all complained about having to fill out different forms for the different RERBs, having to respond to conflicting concerns of the different RERBs, and then having to obtain approval from all of the RERBs, including those with conflicting concerns. They agreed that the need to obtain agreement from the different
RERBs leads to a process that is extremely time-consuming and burdensome. One respondent said,

“If I am doing a project that just involves [name of institution], the process takes a couple of months. If the project involves more than one institution and, consequently, more than one IRB, it can take a year. The last time the project involved four institutions and it took a year. The reason was that each IRB changed something, and even if it was trivial, then we had to go back and get the rest of the IRBs to agree.”

Another said,

“Research involving more than one institution and therefore more than one IRB is one of the biggest problems. If one IRB makes a change then the other has to make the same change and so you have to go through a revolving door and the process can take up to a year.”

In the words of another,

“Having served on the IRB, I am aware of the abuses that others have committed. I therefore feel that someone has to pay attention. I just think it could be done so that one IRB accepts what the other IRB has accepted. Instead of going through multiple IRBs, you should be able to go to one.”

As a result of the problems caused by working with more than one RERB, several investigators reported that they had stopped collaborating with colleagues at institutions other than their own. An investigator working in psychopharmacology and substance abuse has even stopped collaborating with colleagues at his own institution when more than one RERB is involved because “there is no harmonization” among the various RERBs.

**Theme 7. International Research**

Four of the respondents reported conducting international research. Three do mostly clinical research and one does mostly observational research. The three clinical researchers, all of whom study infectious diseases, mainly in Africa, reported enormous dissatisfaction with the RERB process. A primary reason for their dissatisfaction is similar to that of many of the other respondents who do not conduct international research. Namely, the length of consent forms, combined with having to tell potential research participants about every possible risk, frightens many potential respondents, makes it difficult for them to comprehend the possible benefits, and ultimately dissuades them from participating in the research. Once a potential research participant refuses to participate, he or she is not protected, but harmed, in the view of all three respondents who conduct research in Africa, because many such individuals are likely to have diseases that would have been identified and treated had they participated in the research project.

Another concern of the respondents who conducted research in Africa pertains to the resources that third world countries have to expend complying with the United States’ RERB-dominated process. As one of them put it,

“You need to take into consideration that people in the third world have to expend a lot of resources to get signed documents and fax them back and forward . . . the cost of running an IRB overseas is very high. [Name of U.S. university mentioned] can pick up the phone and have a meeting. In [name of African country mentioned], this isn't done. Everyone has to get together in person. Otherwise, people won't collaborate. Travel expenses are very high. Also, there is a need for continual back translations. So the Common Rule and NIH are being unfair in demanding acquiescence of third world countries and institutions. It is not right. Why should people in [name of African country mentioned] have to follow our laws!”

Another concern of all of the researchers who conducted international research was the lack of allowance of our RERB-dominated system for the different laws, cultures and practices of other countries. One of them, speaking of an HIV/AIDS study he conducted in a western European country, reported that it took two years to get RERB approval to conduct the study. He said,

“The issue came down to the fact that in the [name of country mentioned] system, if you are admitted to a hospital, you give permission for a post mortem. In other words, you can opt out, as opposed to our system where you have to opt in. The IRB wanted people to sign something saying it was okay to send tissue to the US. It was outrageous. That is only one of many examples. All they [the RERB] wanted to do was to change an entire country’s system.”

Another of the researchers who has conducted international research agreed:

“We are presently doing a [study] in 15 countries. Although the U.S. standard is to have signed informed consent, the history in other countries is that if you sign a piece of paper, you could be
signing a death warrant. It took lots of education and time on the part of researchers to get the IRB to not require signed informed consent forms in some countries, but rather to allow us to ask appropriate people in each country to provide us with a statement about ethical safeguards and typical procedures that are used in such research.”

Finally, a concern of one of the respondents who conducted international research was one she has talked about to her RERB and, in her view, about which her RERB was very reasonable. That concern is whether one should identify and use the local standard of care in research, even if that standard of care is not the best standard of care internationally. In her words:

“There is a broader issue here. In international research, the great challenge which was very useful to talk to my IRB about, is determining what is the local standard of care and then determining whether you should use that standard of care or the best standard of care internationally. If you do the latter, you basically squelch research that is relevant to that part of the world and introduce research that is not relevant for that part of the world. That is a huge challenge to doing research overseas and especially when you do research on something that is changing as fast as AIDS and HIV. My IRB is very approachable and, so far, I haven’t scared people away from participating in my research. But that is the big danger, especially in many communities where word travels very quickly.”

One of the international researchers had a suggestion to deal with RERB review and approvals of research conducted in other countries. She said “it is incredibly important for members of the IRB to go overseas and get a better sense of reality on the ground and what the real world process is of getting informed consent.”

Theme 8. The Impact of RERBs on Researchers’ Ethics

Respondents were asked whether their experiences with RERBs affected their research ethics. There was a good deal of variation in their answers. Some responded positively. One, who conducts intervention research with at-risk children and families, said, “I think that the consent procedures and training that [name of university mentioned] has instituted requiring all PIs and co-PIs to have completed an online course is a helpful and integral part of research ethics and research design.” An investigator who primarily conducts experimental research with people with dementia noted, “It [the RERB] has enhanced my ability to understand history in terms of things that other investigators think are obstructionist; when I am able to look at the bigger perspective and factor in past events that I have learned because of the IRB, it has been helpful.” Another stated “[it] has raised my consciousness.” A mental health researcher observed,

“IRBs have generally forced people to do things they wouldn’t do otherwise. I think there are things we do now as a result of the IRB process that we didn’t use to think about, for example, ethical instruction of our staff. All research staff are getting much better ethical training. Also we are thinking about the ethics of interviewing—the ethics of what we ask an interviewer to do and not to do, how much we have to train them in understanding issues in confidentiality. Everyone associated with research is getting more introduction to ethics [as a result of the RERB process].”

More frequently, respondents reported not being affected by the RERB process with respect to their ethical behavior. Instead, they gave credit to their training, experience, colleagues, societal mores, or simply their own ethical sense.

“The kind of research I do, working with drug addicts, pregnant women, children and alcoholics, we all have to be careful anyway. We always have to report people who are abusing children. We have to reveal to the person who is signing the consent form that if we observe abuse, we are obliged to report it. We do this because it is the law and also because it is ethical. We don’t need an IRB to tell us this.”

Another respondent, one of the clinical researchers working in Africa, noted, “I’ve always dealt with ethics. I’ve always sat and explained what I’m doing. If the people didn’t want to participate, I went on to someone else. The IRB hasn’t altered my ethics at all. It is just a frustrating time-eater.” A hospital based geneticist said, “Ethics is in the fabric of what I do. It is constantly a topic of discussion. The IRB doesn’t change that.”

It is important to note that many of the respondents responded to the question about ethics in terms of institutions “covering themselves.” This was the case with respect to RERBs as well as other institutions. As one respondent observed, “Even journal editors want you to give the details of the IRB review process . . . . Everybody is covering themselves.”
Sample Members from the Same Institution

We compared the experiences and views of the four researchers from the same institution with respect to the eight themes discussed above. We found considerable consistency in their responses. They felt that a monitoring system to protect individuals who participate in research is essential, especially for high-risk research projects. They were largely satisfied with the RERBs at their institution, though they reported that the RERB process took a great deal of time, especially in the case of multi-RERB review processes. They had all, at one time or another, had to make changes in their consent forms and protocols. They felt that the regulatory process, in the main, had contributed to their own ethical consciousness and to that of their colleagues. None had engaged in international research. All had developed strategies for coping with the regulatory regime psychologically (e.g., accepting that the benefits of the process outweighed the costs, appreciating the influence of the review process on their own or other researchers’ ethical determinations) and/or pragmatically (e.g., hiring or using others to fill out RERB forms).

Discussion and Summary

These interviews produce a mixed assessment of the workings of the regulatory system protecting human research subjects. Researchers individually, and as a group, are ambivalent: they seem strongly to share the goals of the regulations, but are not convinced that the regulations, as implemented by RERBs, promote these goals in an efficient way. As formative data, our findings do not purport to describe the opinions of U.S. researchers generally, but the views of the researchers we spoke to are useful in identifying important issues worthy of further discussion and research.

Most researchers we talked to were frustrated with the way RERB’s handle informed consent. The empirical data over many years confirm both that RERBs frequently require (and suggest) wording changes in consent forms (Bell et al., 1998), and that these changes are as likely to make them less, rather than more, understandable (Burman et al., 2003; Goldstein, Frasier, Curtis, Reid, & Kreher, 1996; Paasche-Orlow, Taylor, & Brancati, 2003). Social and behavioral scientists complain that signed consent forms are sometimes required in situations where they would not only interfere with research but actually create confidentiality or other risks for subjects (Israel, 2004). Many of those we interviewed, like researchers in similar studies, felt that the precise wording of an informed consent document is not the main determinant of whether the subject’s decision to participate will be truly free and knowing (Dawson & Kass, 2005; Katz & Fox, 2004; Roberts, Warner, Anderson, Smithpeter, & Rogers, 2004). In part, the problem lies in the tension between understandability (which tends to suggest a focus on fewer points more simply explained), regulatory compliance (which tends to promote the use of boilerplate provisions covering the points explicitly required by the Common Rule), and risk aversion or ethical zeal on the part of the RERB (which tends to promote the inclusion of more risks, qualifications and nuances). The problem also arises in part because the federal rules on consent use risk and benefit criteria that have proven difficult to apply in a consistent manner (Silverman, Hull, & Sugarman, 2001; Whittle, Shah, Wilfond, Gensler, & Wendler, 2004). Whatever the causes, the contrast between the reality and the idea of informed consent seems to be a major point of dissatisfaction for researchers.

Respondents’ opinions about multi-institutional reviews of the same protocol were largely negative, a complaint that has been raised before in the non-empirical literature (Gilman, Anderton, Kosek, Garcia, & Evans, 2002; Wichman, Smith, Mills, & Sandler, 1997) and has begun to be studied empirically (Greene et al., 2006; Newgard et al., 2005). Such complaints resonate with findings from recent research on variability in processes and outcomes of decentralized review of multi-center studies (Dziak et al., 2005; Hannigan & Allen, 2003; Larson, Bratts, Swanziger, & Stone, 2004; Newgard et al., 2005; Vick, Finan, Kiefe, Neumayer, & Hawn, 2005). These studies point to the need to establish workable means of consolidating RERB review in studies involving multiple institutions or departments (Emmanuel et al., 2004; Gold & Dewa, 2005). Unlike our respondents, researchers at institutions that use central RERBs have generally been satisfied (Loh & Meyer, 2004). Multi-site study approval had previously been a matter of extensive research and reform in the United Kingdom (Ahmed & Nicholson, 1996; Crooks, Colman, & Campbell, 1996; Foster & Holley, 1998; Garfield, 1995; Gilbert, Fulford, & Parker, 1989; Harries, Fentem, Tuxworth, & Hoinville, 1994; Tully et al., 2000; Watling & Dewhurst, 1993). Though models exist, adopting such a major change in review, like altering informed consent practices, is easier said than done in a substantially decentralized system such as ours in the U.S.

Those few of our respondents who carried out research abroad were unanimous in their complaints about the current system. This has in part to do with
the additional time and effort required for multiple RERB review. It also had to do with misgivings about applying U.S. standards in other cultures and legal systems. There is a debate about whether and how to export both ethical standards generally and their U.S. regulatory instantiation in particular (Ahmad, 2003; Hyder et al., 2004; London, 2002). Commentators from a developing country perspective have suggested that U.S. regulators may underestimate local problems ranging from corruption (Luna, 1999) and people’s fear of signing forms (Upvall & Hashwani, 2001) to the cost of photocopying (Macpherson, 1999). There is a limited amount of empirical literature on the topic, which only begins to flesh out the issues (Coker & McKee, 2001; Dawson & Kass, 2005; Hyder et al., 2004; Rivera & Ezcurra, 2001; Wichman et al., 1997). This is an issue that needs to be addressed from a practical implementation perspective as well as a principled one (White, 1999). Given the serious nature of the complaints, normative responses about the universality of ethics are not sufficient.

It also is important to note another obvious flaw in the RERB review system flagged by our results: RERBs lack a feedback mechanism on the impact of their stipulations on research costs (McDonald, 2000a). RERBs have no reliable way of knowing whether changes that appear sensible within the members’ frame of reference are feasible or reasonable to implement. Our respondents told us that the “small” changes or “simple” reporting requirements imposed by the RERB may actually entail a great deal of time and trouble, retooling or invention by investigators to deal with a very minor risk. “All they [the RERB] wanted to do was to change an entire country’s system [for post-mortems].” Complying with requirements for consent-form boilerplate provisions, or particular disclosures, may make consent forms harder to understand or make participants harder to recruit. Sometimes changes are necessary, but there is no threshold of importance specified for RERB intervention, and no ready means for researchers to contest problematic requirements. Whether or not the required change concerns a research topic, consent forms, or something else, consideration should be given to the question of whether RERBs could more frequently distinguish between desirable or advisable changes and those that are truly indispensable.

On the positive side, these interviews suggest for further consideration the nature and causes of the “success” of ethics, both in its legal and cultural forms. Our respondents almost uniformly expressed an understanding of and an appreciation for human subject protection that seemed to be genuine, and appeared to indicate the internalization of a strong social ethical norm. Regulators of research may be dealing with a particularly favorable set of regulated parties: investigators seem to accept the validity of the underlying principles, are generally familiar with the rules, are averse to the risks of non-compliance, and are disposed to comply.

It is interesting to compare these findings with the steady drum-beat of criticism of RERBs and the claim that they are failing to properly oversee research (Emmanuel et al., 2004). There can be little doubt that the development and refinement of the Common Rule system has been strongly influenced by periodic scandals and anecdotes of research subject abuse (Petit, 2002). This has led to a repeated ratcheting-up of oversight requirements and “mission creep” for RERBs. Findings like ours raise the question of whether reformers have focused too little on the success of ethics in changing the very culture of research.

Our findings do more than suggest the cultural success of ethics. They also indicate that an increasingly bureaucratic and intrusive regulatory role for RERBs could backfire by fostering cynicism. People subject to requirements they regard as silly or counterproductive may respond with forms of resistance like working to the letter of the rules while ignoring the spirit (Moreno, 2001a). A large body of empirical research on why people obey the law supports the concern that researchers who sense that the RERB process is not fair may become less compliant with the rules (Keith-Spiegel & Koocher, 2006; MacCoun, 2005; Martinson, Anderson, Crain, & De Vries, 2006).

Our study, while exploratory and not based on a representative sample, points to a range of serious issues and unanswered questions in the design and implementation of the Common Rule. Twenty years on, researchers subject to federal regulations continue to complain about unreasonable or silly requirements, and regulatory reforms designed to reduce unnecessary review have failed in the implementation. Meanwhile, critics complain that subjects are still not properly protected against a growing range of physical, psychosocial and moral harms, even as more resources are directed into compliance and oversight (National Bioethics Advisory Commission, 2001a). Fortunately, our study also supports a sense of accomplishment in the cultural change among researchers that is apparent if one compares the sorts of abuses identified by Beecher (1966) and Pappworth (1967), and the underlying attitudes about subjects in earlier times, with conditions today. At least some of the regulatory problems we face currently stem from an imbalance in attention paid to elaborating versus implementing abstract principles:
no matter how philosophically sound the Belmont Principles may be, the acid test for a regulatory system is whether the rules can be effectively, efficiently and fairly put into practice. Research aimed at better defining the problem to be solved by the regulatory system, and at assessing the effectiveness of various regulatory tools for solving properly defined problems, could guide a more productive debate about the future of human subject protection. Ethical investigators can reasonably complain about aspects of the Common Rule and its implementation, and suggestions for significant change should be taken as constructive contributions to the evolution of a system that provides useful protection to subjects without impeding socially beneficial research.

Best Practices

Though prescribing specific regulatory changes is beyond the scope of this paper, priorities for regulatory redesign do emerge. Our findings suggest exploring policy changes to increase researcher voice and decrease RERB review of low risk research. The latter is a common suggestion, and frustratingly hard to accomplish. The 1981 revision of the regulations was designed to take a substantial proportion of low risk social and behavioral research out of the jurisdiction of the rules—that is what exemption means—but universities, with the support or acquiescence of federal regulators, have persisted in requiring a paradoxical review of the need for review. OHRP could actively discourage this form of zealous compliance, and could work with universities and other regulated institutions to develop alternative mechanisms to insure that exemption is not improperly claimed. Exemption determinations could be made by department chairs, or even by investigators themselves with a mechanism for notice to the research administrator and/or audit. Recent research also suggests that “expedited” review may actually be slower than standard review (Larson et al., 2004), which is plainly ridiculous.

The notion of increasing researcher “voice” addresses at least two of the concerns of our respondents. RERBs will be more responsive to legitimate criticism of their requirements if there is a means through which that criticism can reach the RERB (McDonald, 2000a). Likewise, RERBs may be more judicious in requiring “small” changes in protocols if there is some means through which the costs imposed can be internalized in the RERB. Increasing researcher voice may also be a way to reduce the potential for cynicism and practices of resistance among researchers (Keith-Spiegel & Koocher, 2006; Martinson et al., 2006). Voice can be enabled by measures such as allowing investigators to attend RERB meetings more regularly, or by regularly seeking investigator feedback on the review experience, practices that would become more feasible if RERBs spent less time reviewing minimal risk research. One commentator has even suggested that RERB review should be retooled to operate more like litigation, including features such as a written record and appellate review (Coleman, 2004). Unfortunately, steps to make RERB procedures more transparent to researchers, especially if these steps entail more procedures (such as formal appeal), will only increase the costs of operating the system. As we discuss further below, assessing the full range of monetary and other costs of RERB review is an urgent research priority, but what we already know suggests that further expansion of the research oversight system should be viewed with skepticism. Hence there is a strong link between reducing the burden of review and increasing the procedural fairness of the review that does occur.

There continues to be near unanimous dissatisfaction with how RERBs deal with consent forms. IRB line-editing of consent documents does not make them more readable, and there is little or no evidence that fine-tuning forms in terms of required content contributes in an important way to subjects’ ability to actually exercise their autonomy. Informed consent has been ritualized, in the sense that those involved in the production of research, from investigators to federal oversight agencies, meticulously pursue outstanding paper compliance with little more than faith to support a belief that what they are doing really supports subject autonomy. Yet the very fact that everyone acknowledges the problem suggests how difficult it may be to solve under the current regulations. The required elements of informed consent, a fountainhead of boilerplate, are specified in the Common Rule. OHRP enforcement personnel routinely look for these elements when reviewing files in audits or complaint investigations (Burris & Welsh, in press).

Research Agenda

Despite our limited knowledge of the costs and benefits of the present regulatory model, leading commentators continue to conceptualize reform in terms of more oversight, resources and procedures (Emmanuel et al., 2004). Our results point to several areas of research that would illuminate the important policy decisions ahead. One concerns the “costs of the benefits.” There has been some research on the monetary cost of operating RERBs (Brown, Schoenfeld, & Allan, 1979; Cohen,
required for securing RERB approval (Burman et al., 2003; Wagner et al., 2003; Wagner, Cruz, & Chadwick, 2004), and the time required for securing RERB approval (Burman et al., 2003; Greene et al., 2006; Hirshon et al., 2002; Larson et al., 2004; Stair, Reed, Radeos, Koski, & Camargo, 2001; Vick et al., 2005), but there has been no serious investigation into other kinds of costs (Newgard et al., 2005). Our findings suggest that RERB review is no regulatory free lunch. Our respondents identified “costs” of the system, not just in terms of time spent preparing protocols or complying with requirements related to continuing review, but also in terms of research not done or collaborations not formed. Research has a social value, and we cannot assume that society pays no price for the current regulatory structure in the coin of lost knowledge and the benefits that might have derived from it. Given our respondents’ suggestions that at least some of the benefits conferred by RERB review are trivial, the possibility that they are more than offset by significant costs should be more fully investigated. The same must be said of HIPAA, whose requirements have to some extent been absorbed into RERB review (Newgard et al., 2005; O’Herrin et al., 2004).

We should also be concerned that both the costs and benefits of RERB review may not be fairly distributed. Heightened protection of “vulnerable populations,” for example, could in practice be in tension with the goal of understanding the nature of vulnerability or of equalizing access to the fruits of scientific discovery. In some instances, “protection” of vulnerable populations could, by preventing or limiting research, act as insulation for institutions whose activities are insensitive or even harmful to the vulnerable. RERBs may in some instances be over-estimating the social risks of research to groups like drug abusers, ethnic minorities or prisoners. Even if research may expose participants to heightened social risk, in a longer view such research is one of the few means available to illuminate the causes and effects of social marginalization, or to develop specialized medical or other interventions to ameliorate concentrated health inequalities. (Many of these concerns were raised in a study of Australian criminologists’ experiences with RERBs (Israel, 2004). Although some commentators have recently argued that RERBs may be violating the researcher’s right of free expression (Hamburger, 2005), there is limited evidence that socially controversial research may be censored by RERBs (Ceci et al., 1985). Nevertheless, such behavior would be highly problematic. Research should be undertaken to determine whether and how RERB review influences decisions about what research topics to pursue.

Another area of needed research pertains to the perception of some of our respondents of an undercurrent of institutional self-protection in the operation of their RERBs. Instead of being concerned solely with research subjects’ welfare, these respondents thought that RERBs were too often influenced by concerns (presumably of university administrators or lawyers) about avoiding exposure to liability. This could just be a misperception, but if so it is not confined to our respondents (Dawson & Kass, 2005). Given the frequency with which alleged ethics breaches appear on the evening news and the front page, the growing specter of civil liability (Anderlink & Elster, 2001; Powell, 2002), and national commission findings about the increasing focus on paperwork and documentation in the RERB system (National Bioethics Advisory Commission, 2001a), we should be concerned about a problem referred to as “overdeterrence” or “overenforcement” (Bierschbach & Stein, 2005). Regulatory systems can misfire by failing to prevent bad conduct. This is the sort of regulatory problem that tends to make news. But regulation can also fail by so frightening regulated parties that they forego socially desirable behavior. Research is needed to determine whether researchers are responding to regulation by avoiding certain populations, particular designs, or desirable collaborations.

Although the Common Rule does contain a very powerful sanction—the institution-wide suspension of federally funded research—one should not jump to the conclusion that over-deterrence (if it is occurring) is the result of heavy-handed enforcement of human subject regulations by the federal government. The “death penalty”—the institution-wide suspension of funding—is very rarely deployed, and OHRP as far as present research can tell is acting in a judicious, restrained and responsive manner (Burris & Welsh, in press). The problem may rather be that the official sanctions are not the only sanctions. Researchers and institutions accused of ethical violations face potentially large sanctions imposed by the market in the form of lost opportunities for funding or collaboration, and serious harm to reputation. Of course, the possibility of civil liability also can have a deterrent influence (“Grimes v. Kennedy Krieger Institute,” 2001; Powell, 2002). Finally, cultural factors could be at work: as we discuss further below, researchers may, as a group, be highly disposed to follow the rules and very unwilling to do anything that might be called unethical. More research is needed both to define the total regulatory system for research ethics (as opposed to the formal Common Rule system) and to understand its effects on institution, RERB and researcher behavior (Benson, 1989).
Thinking of the human subject protection regime in the U.S. as a success would suggest room for regulatory de-escalation and RERB mission contraction. The RERB system began as a form of low-intensity regulation, close to existing models of peer review. The U.S. has gone farther than other countries in creating a set of generally applicable legal rules and a regulatory bureaucracy (Coker & McKee, 2001; Kim, Park, Sohn, Lee, & Shin, 2003; McNeill, 2001; Meuberg, 1994; National Council on Bioethics in Human Research (Canada). Working Group on Evaluation, 1995). Our respondents repeatedly mentioned how much they had learned from working with IRB and participating in ethics training, but education and other non-legal strategies to promote ethical conduct can seem like mere gestures compared to “hard” legal rules and oversight mechanisms, especially in response to a scandal. It is time to question the assumption that expanding the present system of RERB-directed oversight is the most sensible response to the implementation problems so widely recognized. Are U.S. researchers any more ethical (and their subjects any better protected) than those in Britain or Australia or Spain? A comparative dimension to the implementation research agenda described above would be quite useful in identifying models of effective but lower-intensity oversight.

Of course, whether the ethics glass is half-full or half-empty depends to a considerable extent upon key facts about compliance and its determinants, facts on which we have too little evidence. Our respondents speak ethically, but do they behave ethically? Are subjects protected from harm by the regulations? How important is review? The research agenda here remains as clear, and apparently as neglected, as ever (Beagan & McDonald, 2005). First, there is very little evidence on the incidence of harm to subjects. Indeed, there is little consensus on what to count as harm. Injury and death caused by unethical behavior are clearly harms, but seem to be rare (Alcaraz, Klonoff, & Landrine, 1997; Cardon et al., 1976). Concern about psychosocial risk has driven increased review of social and behavioral research, but is difficult to quantify; in any case, data are lacking. Commentators continue to point to well-publicized deaths as evidence of regulatory failure (Emmanuel et al., 2004), but do not seriously engage doubts about whether RERB review can realistically be expected to prevent or detect the sort of conduct that led to these harms.

Much of the discussion of harm and abuse of research subjects is addressed to behavior that is deemed to be harmful only because the investigator has failed to comply with the requirements of the Common Rule. Thus, subjects are deemed to have suffered dignitary harm if they participate in research without informed consent, or with insufficient protection of their privacy, or in a context of conflict of interest, even if they are unaware of the events or suffer no other adverse consequences. A survey published in 2005 found that nearly 8% of researchers reported “circumventing certain minor aspects of human subjects requirements,” but only .03 % admitted to evading “major aspects,” figures that are likely conservative (Martinson, Anderson, & de Vries, 2005) When rules are perceived to require silly behavior, even well-intentioned regulated parties will often selectively comply. As we have seen in this study, researchers find many things they are required to do in areas like informed consent and privacy to be silly, even though they support the norms where they are perceived to be important. For purposes of analyzing regulatory investments and pay-offs, it will be useful to distinguish more assiduously between harms that entail tangible harm—physical injury, psychological distress, economic loss—and those that consist entirely in having experienced (consciously or unconsciously) a violation of federal rules or ethical norms. We may want to regulate to prevent both actual and dignitary harm, but should know the difference when we make that decision and develop strategies.

Likewise, the suggestion that researchers generally accept and internalize ethical norms does not sufficiently address the influence of socio-economic factors on conduct. Both early advocates of ethics limits, like Beecher, and the authors of the thorough studies of the 60s and 70s, emphasized the significance of professional pressures in mediating research behavior (Barber, Lally, Makarushka, & Sullivan, 1978; Beecher, 1966; Gray, 1975). Arguably, the Common Rule system and the research ethics movement have devoted too much attention to the researcher as the unit of ethical analysis and too little to structural factors that may drive even well-intentioned researchers to neglect the welfare and autonomy of their subjects. We need more research on the determinants of unethical conduct today (Martinson et al., 2006). The thorough studies of this are now decades old. The structural pressure Beecher complained of forty years ago shows no sign of lessening, and is almost certainly worse (De Vries, Anderson, & Martinson, 2006; Healy, 2002; Sleight, 2004; Walsh, McNeil, & Breen, 2005). Study of the determinants of misconduct could also shed light on the role of ethics training and the normative environment on researcher behavior.
Additional Educational Implications

Our discussions of best practices and needed research contain obvious educational implications. Regulators and other relevant audiences need to be aware of the various costs of the human research subject regulations as well as the distribution of costs and benefits; they also need to be concerned about the ramifications of “over-deterrence”. They, together with university and other institutional administrators, must acknowledge and build on investigators’ internalization of ethical norms and willingness to comply with what they think are reasonable oversight requirements. They should avoid behavior that promotes cynicism. At the same time, attention to researcher experience should not obscure the need for better information about how subjects feel about their experiences with research protection (Katz & Fox, 2004; Brody, 1997; Roberts et al., 2004).

Past studies have pointed to the problem of “tunnel vision” in RERB deliberations (McDonald, 2000a). Instead of a broad view of the important risks and benefits of a particular study, review reduces to editing of consent forms and pre-occupation with trivial risks. Workshops for RERB members typically use hypothetical cases to focus on discerning possible risks, but not on discerning or creating possible benefits or engaging in broad risk/benefit analysis. Periodic training may be a way to pull RERB members out of this particular rut. At least the results of such instruction are worth investigating.

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