Special Masters

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Contents

I. Introduction

The federal judicial system relies on generalist judges and lay juries to make findings of fact and conclusions about liability. In the traditional model, the generalist judge is a neutral, passive judge who receives evidence and hears argument only from the parties, applies legal rules and principles, and awards victory to one side or the other. As a result of advances in science and technology, the number of cases in which judges and juries must understand scientific and technological issues to find facts responsibly has increased. Judges have sought to meet the need for greater understanding of scientific and technological issues in several ways, one of which is through the appointment of special masters.

Historically, special masters were appointed to assist chancery judges by reporting on matters of evidence and accounting before, during, and after trials.[1] While explicitly permitted by Federal Rule of Civil Procedure 53, which was modeled on the superseded equity rules, use of special masters in nonjury trials has been restricted by the rule's requirement that, except in matters of accounting and difficulty in computing damages, "a reference [to a special master] shall be made only upon a showing that some exceptional condition requires it," or in jury trials, "only when the issues are complicated."[2] Nevertheless, increases in the caseload of the federal courts,[3] in the scientific and technological complexity of the subject matters presented,[4] in the vast amounts of data available (often as a

1. Irving R. Kaufman, *Masters in the Federal Courts: Rule 53* , 58 Colum. L. Rev. 452 (1958); Linda J. Silberman, *Masters and Magistrates, Part I: The English Model,* 50 N.Y.U. L. Rev. 1070, 1075–79, 1321–32 (1975) [hereinafter Silberman, *The English Model*]; Linda J. Silberman, *Judicial Adjuncts Revisited: The Proliferation of Ad Hoc Procedure,* 137 U. Pa. L. Rev. 2131, 2134 (1989) [hereinafter Silberman, *Judicial Adjuncts*]; David I. Levine, *The Authority for the Appointment of Remedial Special Masters in Federal Institutional Reform Litigation: The History Reconsidered* , 17 U.C. Davis L. Rev. 753 (1984). Authority for the appointment of a special master dates from Parliament's passage of the Superior Courts Officer Act in 1837. 7 Will. 4 & 1 Vict., ch. 30; Silberman, *The English Model, supra,* at 1078. However, the appointment of persons acting as masters may go back to the time of Henry VIII. Kaufman, *supra,* at 452. Until 1983, Fed. R. Civ. P. 53 provided for the appointment of both standing and special masters. However, the creation of full-time magistrate judges was thought to eliminate the need for standing masters. *See* Fed. R. Civ. P. 53 advisory committee's note (relating to the 1983 amendment of subdivision (a)).

2. Fed. R. Civ. P. 53(b).

3. *See* Federal Courts Study Comm., Report of the Federal Courts Study Committee 4–10, 109–11 (1990).

4. Carnegie Comm'n on Science, Technology, and Gov't, Science and Technology in Judicial Decision Making: Creating Opportunities and Meeting Challenges 12–13 (1993). Federal Courts Study Comm., *supra* note 3, at 97 (citing economic, statistical, technological, and natural and social scientific data as becoming increasingly important in routine and complex litigation).

result of computer technology[5]), and in the numbers of claimants and corresponding amounts of money involved[6] have prompted judges to seek assistance through the appointment of special masters under Rule 53.[7]

It is unclear whether highly technical studies and controversial scientific expert testimony offered as evidence alone constitute an exceptional condition justifying appointment of a master under Rule 53.[8] However, the Notes of the Advisory Committee on Rules relating to the 1983 amendments to Rule 53 acknowledge that "masters may prove useful when some special expertise is desired or when a magistrate is unavailable for lengthy and detailed supervision of a case," and in many cases, the expectation or proffer of scientific or highly technical, but critical, evidence has been an important factor supporting such appointments.[9] Commentators generally approve of such use of special masters,[10] although some see potential for abuse in the flexibility permitted under the rule.[11]

As discussed in section III, critics of the liberal use of masters argue that delegation of adjudicatory authority to masters violates the constitutional requirement that civil cases brought in federal courts be tried and decided by Article III

5. *See* Silberman, *Judicial Adjuncts*, *supra* note 1, at 2144 (discussing computerized data-collection process used in Ohio asbestos litigation and case-management techniques used in AT&T antitrust litigation).

6. *See, e.g.,* Cimino v. Raymark Indus., Inc., 751 F. Supp. 649, 652–53 (E.D. Tex. 1990) (stating that the challenge presented to the court is to provide a fair and cost-effective means of trying large numbers of asbestos cases).

7. *E.g., In re* "Agent Orange" Prod. Liab. Litig., 94 F.R.D. 173, 174 (E.D.N.Y. 1982) (appointing master to rule on discovery motions involving production of 4 million documents and 2,000 privilege claims, discovery of expert testimony, and protective orders); Jenkins v. Raymark Indus., Inc., 109 F.R.D. 269, 289 (E.D. Tex. 1985) (appointing master to profile the characteristics of the claims of a 1,000-member class for the jury in asbestos litigation), *aff'd*, 782 F.2d 468 (5th Cir. 1986); McLendon v. Continental Group, Inc., 749 F. Supp. 582, 612 (D.N.J. 1989) (appointing master to assist the parties in post-liability settlement of damages due 5,600 ERISA claimants), *aff'd sub nom.* McLendon v. Continental Can Co., 908 F.2d 1171 (3d Cir. 1990). *See also* Managing Complex Litigation: A Practical Guide to the Use of Special Masters (Wayne D. Brazil et al. eds., 1983) [hereinafter Managing Complex Litigation]; Ronald E. McKinstry, *Use of Special Masters in Major Complex Cases, in* Federal Discovery in Complex Cases: Antitrust, Securities and Energy 213, 225 (1980).

8. Several commentators have supported the appointment of masters in cases presenting scientific or technical questions of unusual complexity. *See* Judicial Conference of the United States, Procedure in Anti-trust and Other Protracted Cases (Prettyman Committee Report) (1951), *reprinted in* "Short Cuts" in Long Cases, 13 F.R.D. 41, 79–81 (1951) [hereinafter Prettyman Comm. Report].

9. *See, e.g.,* United States v. Conservation Chem. Co., 106 F.R.D. 210, 216–17 (W.D. Mo. 1985) (appointing a master to conduct discovery and make findings on claims for inclusion in a request for injunctive relief in a chemical waste cleanup suit involving 250 parties; the court found exceptional circumstances in the imminent danger to public health presented, the analysis of voluminous scientific and technical data, the number of parties, and the vast amount of evidence necessary to litigate the case); Costello v. Wainwright, 387 F. Supp. 324, 325 (M.D. Fla. 1973) (prima facie showing of inadequate health care in state prison based on medical testimony was grounds for appointment of a physician as special master to survey conditions in the prison health system); Wayne D. Brazil, *Special Masters in Complex Cases: Extending the Judiciary or Reshaping Adjudication?,* 53 U. Chi. L. Rev. 394, 395 (1986).

10. *See, e.g.,* Prettyman Comm. Report, *supra* note 8; Silberman, *Judicial Adjuncts, supra* note 1. Judge Jack B. Weinstein has noted, "Use of technical masters to supervise discovery and preparation of expert testimony is also possible. We will, I believe, see an expansion of the use of special masters for this purpose as well as for settlement and control of general discovery." Jack B. Weinstein, *Improving Expert Testimony*, 20 U. Rich. L. Rev. 473, 490 (1986).

11. *See, e.g.,* James S. DeGraw, Note, *Rule 53, Inherent Powers, and Institutional Reform: The Lack of Limits on Special Masters,* 66 N.Y.U. L. Rev. 800, 803–04 (1991).

judges. Those who favor their use argue that the caseloads and expanded responsibilities of modern federal judges require the use of masters. They argue that Article III is not contravened so long as judges bind their masters' authority and supervise the performance of their duties—retaining final adjudicatory authority.

To the extent that such appointments fragment responsibility for fact finding and adjudication and permit judicial agents to take a more active, assertive role in seeking out and evaluating scientific and technical information, they depart from the traditional model. Yet, under Rule 53, generalist judges continue to exercise ultimate decision-making authority over the matters referred to masters. Moreover, the argument can be made that without masters' assistance in gaining access to specialized information, judges, because of their own lack of scientific knowledge and expertise, ultimately would have to abdicate their authority to partisan scientists and third-party experts.

How can the appointment of special masters ease the burden of judges when they confront complicated cases that involve scientific data, technological advances, and computerized data? What tasks do judges ask masters to perform? How do judges select masters to deal with scientific and technical evidence, and what authority do they give them? How do they communicate with their masters? What functions can masters perform effectively, and what obstacles inhibit their more effective use? How is the rate of compensation for masters set, and how are masters paid? How do courts limit the cost and delay occasioned by the appointment of masters?

To help answer these questions, the Research Division of the Federal Judicial Center (FJC) conducted a study on the use of special masters in 1992–1993. The study sought to identify special masters who had been appointed to deal with technically difficult matters or cases in which unusual scientific or technical expertise was required.[12] An effort was made to identify and interview masters who had participated at various stages of litigation and who had performed a variety of functions. Magistrate judges appointed as special masters were not included in the study. The issues arising from the appointment of full-time, government-paid U.S. magistrate judges under Rule 53 are not identical to those resulting from the appointment of part-time, party-paid, lay masters. However, where appropriate, some issues relating to the appointment of a magistrate judge as special master are discussed.

The FJC formulated a protocol of questions seeking information about the tasks assigned in specific cases and on several issues pertaining especially to the use of masters to deal with scientific evidence. After the masters were interviewed, the judges who appointed them were contacted and asked to identify ob-

12. An empirical study of the incidence and prevalence of Fed. R. Civ. P. 53 appointments as a whole, and appointments for these purposes in particular, was not possible because the district courts and the Administrative Office of the U.S. Courts do not collect data on such appointments uniformly. In the absence of such data, the FJC interviewed twelve masters who were identified in legal literature and by their colleagues as experienced and knowledgeable about the use of masters.

stacles to and benefits of their appointments. Although these participants do not constitute a representative sample of all masters, or the judges who appoint them, they did provide many valuable insights into the more effective use of masters under Federal Rule of Civil Procedure 53(b). This paper is based on information gained in the FJC's interviews, as well as on existing case law and law review commentary.

II. How Special Masters Can Serve Courts in Cases That Involve Scientific and Technical Evidence

A. Reasons for Appointing Special Masters

Judges have indicated that they need scientific or technical knowledge during litigation for at least four purposes:

1. to evaluate scientific and technical evidence presented by the parties[13] or by other experts[14] and to rule on objections to evidence;
2. to assess claims and facilitate settlement, such as claims of loss in product liability cases;
3. to educate the fact finder—judge or jury—in the subject matter of particular controversies, such as patent disputes;[15] and
4. to scientifically analyze and evaluate other evidence, such as evidence of discrimination.[16]

13. For instance, scientific evidence of injury and causation figured prominently in the litigation of pharmaceutical injuries, *e.g.,* Daubert v. Merrell Dow Pharmaceuticals, Inc., 113 S. Ct. 2786 (1993); DeLuca v. Merrell Dow Pharmaceuticals, Inc., 911 F.2d 941 (3d Cir. 1990); Brock v. Merrell Dow Pharmaceuticals, Inc., 874 F.2d 307 (5th Cir.), *modified* , 884 F.2d 166 (5th Cir. 1989), *cert. denied* , 494 U.S. 1046 (1990); product liability injuries, *e.g.* , *In re* A. H. Robins Co., 88 B.R. 742, 746 (Bankr. E.D. Va. 1988) (Dalkon Shield), *aff'd* , 880 F.2d 694 (4th Cir.), *cert. denied,* 493 U.S. 959 (1989); and toxic tort injury suits against both private entities, *e.g.,* Cimino v. Raymark Indus., Inc., 751 F. Supp. 649 (E.D. Tex. 1990), and the government, *e.g.* , *In re* "Agent Orange" Prod. Liab. Litig., 611 F. Supp. 1223 (E.D.N.Y. 1985) (veterans suit against the Defense Department as well as chemical manufacturers), *aff'd* , 818 F.2d 187 (2d Cir. 1987), *cert. denied,* 487 U.S. 1234 (1988).

14. *See, e.g.,* Brazil, *supra* note 9, at 410–12; Fox v. Bowen, 656 F. Supp. 1236, 1253–54 (D. Conn. 1986) (master would be appointed to hire experts and conduct studies necessary to the framing of a remedial order).

15. *See, e.g., In re* Newman, 763 F.2d 407, 409 (Fed. Cir. 1985). Courts also appoint expert witnesses for this purpose under Fed. R. Evid. 706. *See, e.g.,* Computer Assocs. Int'l, Inc. v. Altai, Inc., 982 F.2d 693, 712 (2d Cir. 1992) (court recognized the need for expert assistance but appointed an expert under Fed. R. Evid. 706 to hear testimony of parties' experts and to testify in court under cross-examination); Gates v. United States, 707 F.2d 1141, 1144 (10th Cir. 1983); *see generally* Joe S. Cecil & Thomas E. Willging, Court-Appointed Experts, in this manual.

16. Knowledge of scientific methodology and statistical techniques is needed to manage scientific and nonscientific information relevant to evaluating and trying claims, facilitating negotiations, distributing judgments, and deciding appeals in complex litigation, as in a Texas asbestos case (Cimino v. Raymark Indus., Inc., 751 F. Supp. 649 (E.D. Tex. 1990)) and a Dalkon Shield bankruptcy proceeding (*In re* A.H. Robins Co., 88 B.R. 742, 746 (Bankr. E.D. Va. 1988)). *See generally* B. Thomas Florence & Judith Gurney, *The Computerization of Mass Tort Settlement Facilities* , Law & Contemp. Probs., Autumn 1990, at 189 (describing the computer systems necessary to process 60,000 asbestos claims and 200,000 Dalkon Shield claims); The Evolving Role of

In illustrating ways in which masters have helped meet judges' needs for special assistance, the following discussion characterizes masters according to their tasks and the stage of litigation at which they are appointed. Sometimes the tasks assigned and the purpose of the appointment are the same (e.g., settlement masters are appointed to facilitate settlement by the parties). Sometimes tasks are assigned for several purposes (e.g., masters are appointed to conduct case management, the purpose of which is to make preliminary findings of fact, facilitate settlements, and advise the court on technical matters).

B. Preliability-Stage Appointments

1. Assisting in pretrial proceedings

In complex cases, special masters sometimes are appointed during discovery to limit massive discovery requests, to rule on claims of privilege, and to make factual determinations necessary to rule on the admissibility of evidence.[17] Where information sought in discovery is scientific, highly technical, or complex in nature, even stronger reason exists to seek the appointment of a master under Rule 53.[18]

Discovery masters sometimes hold formal hearings on nondispositive motions and preliminary facts, but often they proceed more informally to make findings based on their own knowledge or on information received from the parties outside of evidentiary hearings. When discovery motions involve the production of technical information in trademark, patent, copyright, and product liability cases, courts often appoint special masters who have expertise in the subject matter of the case. These masters sometimes will examine scientific and technical evidence, assess the potential qualifications of expert witnesses, or determine the admissibility of scientific studies.[19] Discovery masters who do not have special knowledge often develop considerable expertise in the technical or scientific subject matter of the suit after devoting a large amount of their time to particularly complex cases.

Statistical Assessments as Evidence in the Courts (Stephen E. Fienberg ed., 1989); Richard Lempert, *Statistics in the Courtroom: Building on Rubinfeld* , 85 Colum. L. Rev. 1098 (1985).

17. *E.g.,* United States v. International Business Machs. Corp., 76 F.R.D. 97, 98 (S.D.N.Y. 1977); United States v. American Tel. & Tel. Co., 461 F. Supp. 1314, 1347–49 (D.D.C. 1978). For a discussion of the legal history of the authority to appoint masters to supervise discovery, see Wayne D. Brazil, *Authority to Refer Discovery Tasks to Special Masters: Limitations on Existing Sources and the Need for a New Federal Rule, in* Managing Complex Litigation, *supra* note 7, at 305.

18. *In re* "Agent Orange" Prod. Liab. Litig., 94 F.R.D. 173, 174–75 (E.D.N.Y. 1982). *But see, e.g.,* Cadwell Indus., Inc. v. New York Hospital-Cornell Medical Ctr., No. 88-C7307, 1993 U.S. Dist. LEXIS 2263, at *8 n.1 (S.D.N.Y. Feb. 26, 1993) (court denied motion for appointment of master where it found parties' counsel had demonstrated that they were quite capable of explaining difficult medical and scientific materials and theories to an audience unfamiliar with such subjects).

19. *See, e.g.* , Brazil, *supra* note 9, at 410–12; Report and Recommendation from George L. Priest, Special Master, regarding the Fairness of the Settlement and of the Proposed Plan of Distribution to The Honorable H. Lee Sarokin, *filed in* McLendon v. Continental Group, Inc., C.A. No. 83-1340 (SA), 5, 21 (D.N.J. July 13, 1992) [hereinafter Report of George L. Priest, Special Master].

Judges' need for assistance during pretrial proceedings to handle proffers of scientific expert testimony or rule on motions in limine may increase, given the Supreme Court's decision in *Daubert v. Merrell Dow Pharmaceuticals, Inc.* [20] In *Daubert*, the Court clarified the trial court's obligation under Rule 702 of the Federal Rules of Evidence to determine the reliability, as well as relevance, of scientific evidence upon which expert opinion is based. The Court held that "[i]n a case involving scientific evidence, evidentiary reliability will be based upon scientific validity."[21] To make these determinations, trial judges must determine whether the expert is proposing to testify to scientific knowledge that will assist the trier of fact. [22]

The determination of these factors in a Rule 104(a) hearing may take a substantial amount of a judge's already limited time[23] and may also require the judge to educate himself or herself in the science underlying the evidence offered. In a pre-*Daubert* product liability case, for example, scientific issues raised by a motion for summary judgment required a district court to hold five days of hearings and consider extensive post-hearing submissions in order to determine the validity of the epidemiological data and the methods an expert was willing to give his opinion on regarding causation.[24] Appointing special masters to conduct Rule 104(a) hearings may be one way for district courts to hold the type of hearing suggested by *Daubert* without burdening the courts' resources. A special master can devote more time to becoming familiar with the evidence submitted. Moreover, the court can select a master who has expertise in the science involved. Thus, Rule 53(b) may permit the appointment of a pretrial special master to hold Rule 104(a) hearings and make recommendations regarding the conditions necessary for the admissibility of expert testimony.

2. Providing case management

In some complex cases, judges have required assistance in addition to the supervision of discovery, especially when the claims of class action plaintiffs have had to be evaluated for the purpose of settlement negotiations and trial preparation. This more comprehensive assistance has been obtained by appointing masters to carry out overall management of the case in its pretrial stage and to advise judges on scientific and technical issues.[25]

20. 113 S. Ct. 2786 (1993).

21. *Id.* at 2795 n.9.

22. *See* Margaret A. Berger, Evidentiary Framework § III, in this manual.

23. McCormick on Evidence § 53, at 137 n.8 (Edward W. Cleary ed., 3d ed. 1984) (citing Fed. R. Evid. 104(c) advisory committee's note observing that hearing preliminary matters out of the hearing of the jury is a time-consuming procedure); Bourjaily v. United States, 483 U.S. 171 (1987) (offering party must prove preliminary facts necessary for admission of evidence).

24. DeLuca v. Merrell Dow Pharmaceuticals, Inc., 911 F.2d 941 (3d Cir. 1990) (hearings held on motion for summary judgment). At a Rule 104(a) hearing, rules of evidence need not apply, except those with respect to privileges, and therefore, such hearings may differ from those held by the district court in *DeLuca*.

25. *In re* Ohio Asbestos Litig., No. 83-06 (N.D. Ohio Dec. 16, 1983) (order incorporating by reference the case-management plan and evaluation and apportionment process developed by special masters Francis E.

In a case consolidating thousands of asbestos claims, the district court appointed two special masters to develop a case-management plan for resolving all pending cases (eventually numbering more than 9,000) within a two-year period.[26] In addition to supervising discovery, these masters devised a plan for obtaining information on the outcome of similar cases, gathering information about outcome-determinative variables among the members of the class, and developing a system of computerized case-matching that permitted the parties to bargain within estimated settlement ranges.[27] Rather than simply conducting discovery or making recommended findings of fact, these masters provided technical advice to the court, largely about techniques for gathering and analyzing empirical data.

Thus, in some complex suits, judges have needed expert and technical assistance not to understand the subject matter of the suit or issues of causation, but to handle massive amounts of nontechnical information.[28]

3. Facilitating settlement

Masters appointed to supervise discovery sometimes try to promote joint stipulations regarding undisputed scientific facts or techniques. In doing so, they become mediators of differences between or among the parties regarding either scientific information offered in evidence or scientific facts necessary to findings of liability.[29]

For example, in a suit involving multiple plaintiffs, defendants, and amici over fishing rights of Native Americans in Lake Michigan, a law school professor was appointed master both to provide case management and to facilitate settle-

McGovern and Eric D. Green); Jenkins v. Raymark Indus., Inc., 109 F.R.D. 269, 288 (E.D. Tex. 1985), *aff'd*, 782 F.2d 468 (5th Cir. 1986). *See also In re* United States Dep't of Defense, 848 F.2d 232 (D.C. Cir. 1988) (master appointed to evaluate classified nature of thousands of documents in freedom of information suit; rather than undertake in camera review, court charged expert master with selecting a scientifically sound representative sample of withheld documents and summarizing contentions regarding their privileged nature). *See generally* Francis E. McGovern, *Resolving Mature Mass Tort Litigation,* 69 B.U. L. Rev. 659 (1989).

26. *In re* Ohio Asbestos Litig., No. 83-03 (N.D. Ohio July 14, 1983) (order appointing special masters to develop a case-management plan for the pretrial and trial phases).

27. For a full discussion of the case-management plan, see Francis E. McGovern, *Toward a Functional Approach for Managing Complex Litigation* , 53 U. Chi. L. Rev. 440, 478–91 (1986).

28. *See, e.g.,* Burgess v. Williams, 302 F.2d 91, 93–94 (4th Cir. 1962) (denial of writ of mandamus to remove a master appointed to make factual findings regarding 1,500 individuals); Wattleton v. Ladish Co., 520 F. Supp. 1329, 1350 (E.D. Wis. 1981) (master appointed to determine damages owed to each class member in an employment discrimination suit), *aff'd sub nom.* Wattleton v. International Bhd. of Boiler Makers, Local 1509, 686 F.2d 586 (7th Cir. 1982), *cert. denied* , 459 U.S. 1208 (1983).

29. Comment, *A Federal Judge's ADR Techniques: Mini-Trials with Special Masters,* 5 Alternatives to High Cost Litig. 9 (1987) (discussing Judge Sherman G. Finesilver's use of masters in copyright, trademark, and other disputes requiring expertise). McGovern, *supra* note 27, at 456–68 (discussion of fishing rights cases in Michigan). *See generally* Troyen A. Brennan, *Helping Courts with Toxic Torts: Some Proposals Regarding Alternative Methods for Presenting and Assessing Scientific Evidence in Common Law Courts,* 51 U. Pitt. L. Rev. 1 (1989). In a recent case, Judge Jack B. Weinstein observed that where cases turning on medical and scientific evidence of causation are consolidated, a magistrate judge (or master) can be used to facilitate the sharing of data and experts, thereby reducing redundant discovery requests. *In re* Repetitive Stress Injury Cases, 142 F.R.D. 584, 586–87 (E.D.N.Y. 1992), *appeal dismissed, order vacated sub nom. In re* Repetitive Stress Injury Litig., 11 F.3d 368 (2d Cir. 1993).

ment.[30] The master was authorized to, among other things, receive, seek out, and consider scientific evidence about the distribution of different species of fish in the lake. The master facilitated a settlement on the merits through an integrative bargaining process that added resources to be distributed among the parties and sought to maximize the interests of all the parties.[31] The master obtained an agreement among the parties on important scientific facts about the spawning, environmental habitat, and migration of fish in the lakes and then facilitated an agreement among the parties to pool their scientific information and direct their experts to make consensus recommendations. Finally, the parties agreed to employ a neutral expert in decision modeling to assist their biologists and the special master in creating a computer model that would assess proposed settlement plans in terms of five critical variables.

Recently, courts have made this mediation function more explicit and have appointed special masters expressly to achieve settlements in complex litigation, especially mass tort cases.[32] The 1983 amendments to Federal Rule of Civil Procedure 16 permit federal judges to "take appropriate action, with respect to . . . settlement and the use of special procedures to assist in resolving the dispute."[33]

While courts can appoint masters to promote settlement at any stage of litigation, the appointment of masters at the pretrial stage permits judges to use firm, strict trial dates to remind the parties of the expense of litigation and create incentives to settle the case if possible. In addition, the appointment of pretrial settlement masters allows courts to delegate more assertive tasks to the master in order to minimize judicial contacts with the parties and eliminate the apparent bias and prejudgment these contacts suggest.

Some courts choose settlement masters for their particular scientific or technical expertise (usually at the remedial stage of litigation). However, other courts that have found such skills important to settlement negotiations appoint experts under Federal Rule of Evidence 706 to advise the parties and the court on settlements and the framing of consent decrees. Such appointments remain rare, however.[34]

30. Brazil, *supra* note 9, at 410–12 (discussing United States v. Michigan, 471 F. Supp. 192 (W.D. Mich. 1979), *remanded* , 623 F.2d 448 (6th Cir. 1980), *as modified* , 653 F.2d 277 (6th Cir.), *cert. denied,* 454 U.S. 1124 (1981)).

31. McGovern, *supra* note 27, at 459–64. *See also* Gates v. United States, 707 F.2d 1141, 1142 (10th Cir. 1983) (appointment of a panel of experts in a swine flu vaccine case); Joseph Sanders, *The Bendectin Litigation: A Case Study in the Life Cycle of Mass Torts,* 43 Hastings L.J. 301 (1992).

32. *See, e.g., In re* Joint E. & S. Dists. Asbestos Litig., 737 F. Supp. 735, 737 (E.D.N.Y. 1990); *In re* DES Cases, 789 F. Supp. 552, 558 (E.D.N.Y. 1992), *appeal dismissed* , 7 F.3d 20 (2d Cir. 1993).

33. Fed. R. Civ. P. 16(c)(9). *See generally* D. Marie Provine, Settlement Strategies for Federal District Judges (Federal Judicial Center 1986). *See also* Silberman, *Judicial Adjuncts, supra* note 1, at 2158–59 (discussing use of masters for settlement purposes).

34. *See, e.g.,* San Francisco NAACP v. San Francisco Unified Sch. Dist., 576 F. Supp. 34, 39 (N.D. Cal. 1983) (appointment of a "settlement team" of experts pursuant to Rule 706, nominated by the parties and the court to draft consent decree); *cf. Gates*, 707 F.2d at 1142 (appointment of a panel of experts under Rule 706

The master may be instructed to effect settlements on both evidentiary matters and liability issues (as in the Michigan fishing rights case discussed earlier). In product liability cases, special masters have been appointed to provide case management and expertise in evaluating thousands of claims before trial in an effort to facilitate settlement negotiations. For instance, a law professor was appointed master in several asbestos and toxic tort cases to profile the claims characteristic of class representatives based on evaluation of medical evidence provided by expert consultants, sound questionnaire methodologies, sampling techniques, and statistical analysis.[35] Evaluation of pretrial claims often involves making factual determinations regarding elements of the plaintiffs' case, such as the cause of plaintiffs' losses.

Although most settlement masters fulfill their function through informal procedures, some hold formal evidentiary hearings in the form of mini-trials to evaluate claims for purposes of negotiation.[36] Factual findings of specific causation based on scientific evidence must be made when a master is appointed to evaluate individual claims for purposes of negotiating settlements and distributing awards.[37] The evaluation of scientific evidence and expert witnesses to make findings of causation as a matter of fact occurs at the liability stage as well as the pretrial stage of litigation.

C. Liability-Stage Appointments

Rule 53(b) anticipates the appointment of masters to make recommended factual findings going to the merits of the dispute before the court.[38] As provided in Rule 53(c), in actions involving complicated issues tried before a jury or exceptional conditions in bench trials, masters may require the production of evidence, hold formal hearings in which the rules of evidence apply, administer oaths, and create a record for review. Although courts use special masters more frequently in the pretrial and remedial stages of litigation, special masters are also appointed to make recommendations with regard to facts that are necessary to determine liability.[39]

to assist the trial court in understanding complex neurological and epidemiological issues in a swine flu vaccine case).

35. Jenkins v. Raymark Indus., Inc., 109 F.R.D. 269, 289 (E.D. Tex. 1985) (Francis E. McGovern appointed special master to assess asbestos injury claims), *aff'd*, 782 F.2d 468 (5th Cir. 1986); Brazil, *supra* note 9, at 399–402, 404–06 (account of McGovern's collection and computerization of information on about 9,000 claimants in a toxic tort case involving DDT through negotiated/mediated survey questionnaire to be used in evaluating claims before liability determination and a description of Masters McGovern and Eric Green's use of collected data and computer models in Ohio asbestos cases).

36. For a discussion of this technique, see Michael J. Saks & Peter David Blanck, *Justice Improved: The Unrecognized Benefits of Aggregation and Sampling in the Trial of Mass Torts,* 44 Stan. L. Rev. 815 (1992).

37. Kenneth R. Feinberg, *The Dalkon Shield Claimants Trust,* Law & Contemp. Probs., Autumn 1990, at 79.

38. Brazil, *supra* note 17, at 332–44.

39. These recommendations are subject to Fed. R. Civ. P. 53(e). See *infra* § V.D for further discussion of the weight given to a special master's report.

In a large, complex class action suit claiming that defendants' layoffs and plant closings violated the Employee Retirement Income Security Act (ERISA), for example, an economics expert knowledgeable about computers was appointed special master to determine factual issues of causation necessary to make findings of liability.[40] Similarly, where scientific medical evidence was anticipated in a trial on the merits of an injunctive action against a prison, the court appointed a special master to aid it in evaluating the quality of medical services and to conduct a medical survey of all correctional institutions.[41] In many instances, masters appointed to try issues of fact find themselves becoming mediators of the dispute, facilitating settlements, as well as finding facts. The parties in the ERISA case ultimately agreed to a settlement facilitated by the master's shuttle diplomacy.[42]

Nevertheless, courts may be more reluctant to recognize exceptional circumstances supporting an appointment under Rule 53 when the master will be recommending findings of fact and conclusions of law on dispositive liability issues, rather than ruling on nondispositive, pretrial motions or monitoring post-decree compliance.[43] Moreover, some courts have found constitutional limitations bounding Rule 53 that would prohibit the appointment of a master to hear the merits, even where exceptional conditions seem to be present.

Rule 53 authority was also used by judges to appoint masters who were experts in the subject matter of litigation to act as neutral advisers to the court during the liability stage of litigation.[44] Rather than acting as fact finders or mediators between the parties, evaluating the parties' scientific evidence, or facilitating

40. McLendon v. Continental Group, Inc., 749 F. Supp. 582, 612 (D.N.J. 1989), *aff'd sub nom.* McLendon v. Continental Can Co., 908 F.2d 1171 (3d Cir. 1990).

41. Costello v. Wainwright, 387 F. Supp. 324, 325 (M.D. Fla. 1973).

42. Report of George L. Priest, Special Master, *supra* note 19.

43. *See* Silberman, *Judicial Adjuncts, supra* note 1, at 1151–53, 2174. *See* discussion *infra* § III and, *e.g., In re* Bituminous Coal Operators' Ass'n, 949 F.2d 1165, 1166 (D.C. Cir. 1991) (writ of mandamus granted voiding reference to master in nonjury trial "virtually for all purposes," including "trial of the issues of liability"); Stauble v. Warrob, Inc., 977 F.2d 690, 695–97 (1st Cir. 1992) (holding that referring fundamental issues of liability to special master for adjudication over objection is impermissible); Prudential Ins. Co. of Am. v. United States Gypsum Co., 991 F.2d 1080 (3d Cir. 1993) (writ of mandamus issued overturning appointment of master to hear merits of a claim for cost of testing, monitoring, and removing asbestos-containing products at thirty-nine Prudential properties); Cadwell Indus., Inc. v. New York Hospital-Cornell Medical Ctr., No. 88-C7307, 1993 U.S. Dist. LEXIS 2263, at *8 n.1 (S.D.N.Y. Feb. 26, 1993) (motion for appointment of master to hear merits of a claim for damages resulting from destruction of two prototype brain-wave monitors denied where court found complicated questions were insufficient to justify master making preliminary examination of the dispositive issues). *See also In re* United States, 816 F.2d 1083, 1090–91 (6th Cir. 1987); Manual for Complex Litigation, Third, § 21.52 (forthcoming 1995) [hereinafter MCL 3d].

44. United States v. Conservation Chem. Co., 106 F.R.D. 210, 220 (W.D. Mo. 1985) (expert on environmental law appointed master to prepare case for trial of liability issues in suit to enforce mandatory cleanup of chemical waste disposal site, finding "[R]ule [53] is broad enough to allow appointment of expert advisors."); *In re* United States Dep't of Defense, 848 F.2d 232, 234–36 (D.C. Cir. 1988) (affirming appointment of a security-cleared intelligence expert in national security matters to advise the court on the sensitive nature of 2,000 Defense Department documents sought in a freedom of information suit, but not to make recommendations); Patricia M. Wald, *"Some Exceptional Condition"—The Anatomy of a Decision Under Federal Rule of Civil Procedure 53(b),* 62 St. John's L. Rev. 405 (1988); Danville Tobacco Ass'n v. Bryant-Buckner Assocs., 333 F.2d 202 (4th Cir. 1964) (expert in tobacco marketing appointed special master to provide guidance to the court).

their agreement about scientific facts, these masters functioned more as court-appointed experts than as traditional masters.[45] However, unlike court-appointed experts, these masters were not subject to cross-examination by the parties and could be granted more case-management authority.

D. Remedial-Stage Appointments

1. Framing remedial decrees

Masters are often appointed to help formulate remedial decrees and supervise compliance with institutional reform orders because courts need assistance in evaluating technical and scientific evidence submitted by the parties regarding the treatment of prisoners, mentally retarded persons, and mentally ill persons.[46] Persons with specialized knowledge are more likely to be appointed masters at the remedial stage than at other stages of litigation.[47]

Expert masters appointed after a finding of liability in environmental and institutional reform litigation often advise the court by making recommendations for detailed remedial orders or amendments to such orders in periodic reports based on their own expertise.[48] For example, in a New York desegregation suit, a special master who was an expert in government-housing law and educational administration was appointed to develop an integration plan for a particular school area.[49] The master was authorized to solicit the views of community groups, receive evidence, consult with the parties, engage experts, and gather relevant data from the parties.

Although federal judges may appoint expert masters to recommend remedial orders, in some cases studied, the judges instead appointed special masters with the authority to employ experts.[50] In a suit in which the Department of Health and Human Services was found to violate due process in making eligibility de-

45. Commentators have noted that such "experts" who do not resolve factual disputes, take evidence, or make rulings of law, but are appointed to provide guidance to the court under Fed. R. Civ. P. 53, are not true masters. 9 Charles A. Wright & Arthur R. Miller, Federal Practice and Procedure § 2602, at 779 n.16 (1971).

46. Reed v. Cleveland Bd. of Educ., 607 F.2d 737, 741–44 (6th Cir. 1979); Halderman v. Pennhurst State Sch. & Hosp., 446 F. Supp. 1295, 1326 (E.D. Pa. 1977), *aff'd in part*, *rev'd in part*, 612 F.2d 84 (3d Cir. 1979), *cert. granted*, 447 U.S. 904, *and stay granted in part*, 448 U.S. 905 (1980), *and rev'd*, 451 U.S. 1 (1981); Ruiz v. Estelle, 679 F.2d 1115, 1159, 1172 (5th Cir.), *amended in part, vacated in part*, 688 F.2d 266 (5th Cir. 1982), *cert. denied*, 460 U.S. 1042 (1983). For further description of remedial masters, see Silberman, *Judicial Adjuncts*, *supra* note 1, at 2161–68.

47. *See, e.g.*, Final Report of the Special Master *filed in* Fox v. Sullivan, No. H-78-541 (JAC) at 7–8 (D. Conn. Aug. 20, 1992) (special master appointed in Fox v. Bowen, 656 F. Supp. 1236 (D. Conn. 1986), gives final report on the outcome of defendant's implementation of the relief ordered) [hereinafter Final Report].

48. *See generally* Timothy G. Little, *Court-Appointed Special Masters in Complex Environmental Litigation: City of Quincy v. Metropolitan District Commission*, 8 Harv. Envtl. L. Rev. 435 (1984); Alberti v. Klevenhagen, 660 F. Supp. 605, 607–09 (S.D. Tex. 1987) (three expert prison masters appointed to monitor compliance in prison reform suit).

49. Hart v. Community Sch. Bd., 383 F. Supp. 699, 758 (E.D.N.Y.), *appeal dismissed*, 497 F.2d 1027 (2d Cir. 1974), *and aff'd*, 512 F.2d 37 (2d Cir. 1975).

50. *See, e.g.*, Puerto Rican Legal Defense & Educ. Fund, Inc. v. Gantt, 796 F. Supp. 681, 684–85 (E.D.N.Y. 1992) (retired judge appointed special master and had authority under Fed. R. Civ. P. 53 to hire experts familiar with redistricting to advise him on creating a new districting plan).

terminations under the Medicare statute, the judge appointed a law professor to assess medical, epidemiological, and other technical information submitted by the parties concerning appropriate procedures for determining when beneficiaries were entitled to care in nursing home facilities.[51] Confronted with the task of framing a remedial decree that would mandate constitutional procedures for determining Medicare benefit coverage, the master also was authorized to identify and consult with expert physical therapists, epidemiologists, and physicians regarding the appropriate procedures for assessing the nursing home needs of elderly patients.[52] In another case, a special master hired an independent expert to review proposed mental health service plans to be ordered by the court.[53] In their capacity as remedial masters, these special masters were engaged in fact finding, facilitating settlement around remedial issues, providing expert advice to the court, and in the Medicare suit, aggregating and analyzing empirical data for the court.

2. Monitoring remedial decrees

Masters are appointed to monitor compliance with remedial decrees when the defendant has been unwilling or unable to comply with the decree. The defendant often opposes such an appointment. In these instances, some judges select special masters on the basis of their specific knowledge of the subject matter of the suit and often without the approval of both parties.[54]

In institutional reform and other reform litigation, such as suits involving school systems, prisons, nursing homes, and mental hospitals, remedial masters often must make findings of fact based on expert testimony about medical, mental health, and penal practices of defendants.[55] As court monitors, these masters are required to find facts regarding defendant compliance, settle disputes over refinement and amendment of remedial orders, and advise the court through periodic reports and accountings.

In addition, some remedial masters are authorized to seek out scientific and technical experts and make findings of fact based on their personal observations of facilities and on ex parte interviews. These masters function more as investigators than as experts or judges.[56] Masters who are appointed to monitor compli-

51. Fox v. Bowen, 656 F. Supp. 1236, 1253–54 (D. Conn. 1986); Final Report, *supra* note 47.

52. Final Report, *supra* note 47. The master was authorized to commission a two-year study of defendants' practice regarding the diagnosis and prescription of physical therapy as an element in Medicare eligibility determinations. *Id.* at 6.

53. United States v. Michigan, 680 F. Supp. 928, 956–57 (W.D. Mich. 1987).

54. Where parties do agree on the need for a monitor, provision for a monitor usually is included in a consent decree and thus is not made pursuant to Fed. R. Civ. P. 53.

55. *See generally* Susan P. Sturm, *A Normative Theory of Public Law Remedies,* 79 Geo. L.J. 1355 (1991); DeGraw, *supra* note 11, at 803 nn.23–25.

56. Judge Jack B. Weinstein has observed, "An important distinction exists in the relative ability of trial and appellate courts to induce the production of technical evidence superior to that provided by the parties. Trial courts are able, through the means just discussed [the use of 'technical masters'], to develop new evidence." Weinstein, *supra* note 10, at 490.

ance with remedial decrees in institutional reform suits, although often experts themselves, commonly employ other experts to evaluate the defendants' performance of remedial obligations in specialized areas. For instance, in a suit brought to reform the Puerto Rican prison system, the master hired experts, with court approval, to evaluate compliance with constitutionally required safe and sanitary physical conditions, medical treatment, and protection.[57] In this role, the master employed experts to advise both him and ultimately the court.[58] Similarly, in a celebrated case involving pollution of the Boston harbor, the court appointed a law professor as a master to investigate the history and functions of the city's sewage system, consult experts, and propose remedial plans.[59]

Some expert masters, like some lay masters, see themselves as knowledgeable facilitators, not decision makers, who move the parties to find areas of agreement about scientific and technical facts and to develop agreed upon procedures for settling their factual disputes. Generally worded orders of reference give such masters authority to devise creative approaches to these tasks.

Masters sometimes are appointed because they have expertise stemming from prior experience with a particular case or similar cases.[60] Thus, some masters were expert witnesses in the same litigation,[61] and some were institutional administrators. These appointments raised questions about potential conflicts of interest but were sustained where the parties agreed to the appointment. In some instances, these conflicts were placed on the record and expressly waived by the parties. In other cases, a waiver was implied by the parties' agreeing to the appointment of the master or to a subsequently negotiated settlement.[62] See the discussion in sections IV.A and IV.D on the mechanisms used to deal with conflict-of-interest issues.

57. Morales Feliciano v. Romero Barcelo, 672 F. Supp. 591, 623–24 (D.P.R. 1986).

58. Judge Jack B. Weinstein observed in a repetitive stress injury case that courts required to be proactive should consider the appointment of panels of experts to establish protocols for future safe action by defendants. *In re* Repetitive Stress Injury Cases, 142 F.R.D 589, 587 (E.D.N.Y. 1992), *appeal dismissed, order vacated sub. nom. In re* Repetitive Stress Injury Litig., 11 F.3d 368 (2d Cir. 1993).

59. *See* Brazil, *supra* note 9, at 414–17; Little, *supra* note 48, at 473–75 (discussing Quincy v. Metropolitan Dist. Comm'n, Civ. No. 138,477 (Mass. Super. Ct., Norfolk County filed Dec. 17, 1982)).

60. United States v. Conservation Chem. Co., 106 F.R.D. 210 (W.D. Mo. 1985) (in a chemical waste cleanup case, motion denied to revoke the appointment of a master appointed to conduct discovery and prepare a report and recommendations on the issues presented in a suit involving more than 250 parties, including 154 third-party defendants, 14 government defendants, and 16 insurance companies, where master had already served in the pretrial stage, and judge reserved authority to make the ultimate determination on all issues); United States v. Suquamish Indian Tribe, 901 F.2d 772 (9th Cir. 1990) (upholding appointment of a master who was a former magistrate judge and had previously served as a master in several subproceedings of the litigation begun more than fifteen years earlier to determine the fishing rights of certain Native American tribes).

61. *See, e.g.,* Costello v. Wainwright, 387 F. Supp. 324, 325 (M.D. Fla. 1973) (physician who had testified as expert witness appointed special master).

62. In one case, a party that subsequently objected to a conflict known at the time of the appointment was estopped from doing so. *In re* Joint E. & S. Dists. Asbestos Litig., 737 F. Supp. 735, 742–44 (E.D.N.Y. 1990).

3. Assessing damages

At the post-liability stage, masters are also appointed to develop statistically sound, technically complex means of evaluating the damages of thousands of claimants from a limited pool of funds, such as the funding established in the Dalkon Shield and Manville asbestos cases.[63] Similar techniques were used by the special master in a suit brought by 5,600 terminated employees claiming damages from firings and plant closings in violation of ERISA. The special master in that case described in his report to the court the necessity for a sophisticated statistical multiple regression analysis in developing a plan to distribute a settlement fund to 5,600 class members who fell into four complicated vesting categories and five award categories, and had wide-ranging individual earning capacities and consequential losses.[64]

Similar needs arose in other cases after a finding of liability when the damages of thousands of successful claimants had to be determined.[65] Knowledge of sound empirical methods, statistical techniques, and computer technology was needed to perform these tasks.[66] Most often such expertise was provided by independent experts hired by the master.[67]

Thus, each appointment should be examined to determine its underlying purpose and the functions to be performed by the master in order to resolve issues concerning selection, ethics, ex parte communication, liability, compensation, and efficiency, which are discussed in section IV. Nevertheless, the generic issues raised in section IV should be resolved in light of the purposes of the appointments rather than the stage of litigation in which appointments are made or the tasks that have been assigned to special masters.

63. Kane v. Johns-Manville Corp., 843 F.2d 636 (2d Cir. 1988). A. H. Robins Co. v. Piccinin, 788 F.2d 994 (4th Cir. 1986), *cert. denied,* 479 U.S. 876 (1986). A. H. Robins Co. v. Mabey, 880 F.2d 694 (4th Cir.), *later proceeding,* 880 F.2d 769 (4th Cir.), *cert. denied,* 493 U.S. 959 (1989). *See generally* Symposium, *Claims Resolution Facilities and the Mass Settlement of Mass Torts,* Law & Contemp. Probs., Autumn 1990, at 1; Saks & Blanck, *supra* note 36; The Evolving Role of Statistical Assessments as Evidence in the Courts, *supra* note 16.

64. Report of George L. Priest, Special Master, *supra* note 19, at 32–40. McLendon v. Continental Group, Inc., 749 F. Supp. 582 (D.N.J. 1989), *aff'd sub nom.* McLendon v. Continental Can Co., 908 F.2d 1171 (3d Cir. 1990). *See also* Gavalik v. Continental Can Co., 812 F.2d 834, 865–66 (3d Cir.), *cert. denied,* 484 U.S. 979 (1987).

65. *In re* DES Cases, 789 F. Supp. 552, 558 (E.D.N.Y. 1992), *appeal dismissed, motion denied,* 7 F.3d 20 (2d Cir. 1993).

66. *E.g., McLendon,* 749 F. Supp. at 612.

67. *E.g.,* Final Report, *supra* note 47, at 9–10 (epidemiological study regarding hundreds of applicants for Medicare benefits).

III. Legal Authority for the Appointment of a Special Master

There are at least four sources of legal authority for the appointment of special masters by federal district court judges—the consent of the parties,[68] the court's inherent powers,[69] legislation providing for the appointment of magistrate judges as masters,[70] and Rule 53(b) of the Federal Rules of Civil Procedure. Rule 53(b) provides:

> A reference to a master shall be the exception and not the rule. In actions to be tried by a jury, a reference shall be made only when the issues are complicated; in actions to be tried without a jury, save in matters of account and of difficult computation of damages, a reference shall be made only upon a showing that some exceptional condition requires it. Upon the consent of the parties, a magistrate may be designated to serve as a special master without regard to the provisions of this subdivision.

Title 28 § 636(b)(2) of the United States Code governs the use of U.S. magistrate judges as special masters. It provides:

68. Heckers v. Fowler, 69 U.S. (2 Wall.) 123, 126 (1864); Kimberly v. Arms, 129 U.S. 512, 524 (1889); Peretz v. United States, 111 S. Ct. 2661, 2668–69 (1991). *See also* Mobil Oil Corp. v. Altrech Indus., Inc., 117 F.R.D. 650 (C.D. Cal. 1987). Commentators seem to agree that references based on the consent of the litigants should not be subject to the same requirements that apply to references made without their consent, although they may not contravene applicable legislation or public policy. *See, e.g.,* Peter G. McCabe, *The Federal Magistrate Act of 1979,* 16 Harv. J. on Legis. 343, 374–75 (1979); Linda J. Silberman, *Masters and Magistrates, Part II: The American Analog,* 50 N.Y.U. L. Rev. 1297, 1354 (1975); Brazil, *supra* note 17, at 312–14. To the extent that Article III and the doctrine of separation of powers limits references under Fed. R. Civ. P. 53(b), the parties cannot consent to measures that violate the separation of powers, though they may waive fairness objections. Commodity Futures Trading Comm'n v. Schor, 478 U.S. 833, 850–55 (1986). *See also* Erwin Chemerinsky, Federal Jurisdiction § 4.5 (1989).

69. Courts have inherent power to provide themselves with appropriate instruments for the performance of their duties; this power includes the authority to appoint persons unconnected with the court, such as special masters, auditors, examiners, and commissioners, with or without consent of the parties, to simplify and clarify issues and to make tentative findings. *In re* Peterson, 253 U.S. 300, 312–14 (1920). Reilly v. United States, 863 F.2d 149, 154–55 n.4 (1st Cir. 1988) (medical malpractice case). The court's inherent authority to appoint nonjudicial personnel to assist it in discharging its judicial responsibilities is limited, of course, by the boundaries of Article III. *See also* Burlington N.R.R. v. Department of Revenue, 934 F.2d 1064, 1073 (9th Cir. 1991); *In re* United States, 816 F.2d 1083, 1092 (6th Cir. 1987); *In re* Bituminous Coal Operators' Ass'n, 949 F.2d 1165, 1168 (D.C. Cir. 1991); *Kimberly,* 129 U.S. at 524. *But see In re* Armco, Inc., 770 F.2d 103, 105 (8th Cir. 1985) (dictum).

70. *See also* MCL 3d, *supra* note 43, §§ 21.52, 21.53. The Civil Rights Act of 1964 also provides that the court may use a magistrate judge as a master whenever a district court judge cannot schedule a case for trial within 120 days after issue has been joined. 42 U.S.C. § 2000e-5(f)(5) (1992).

> A judge may designate a magistrate to serve as a special master pursuant to the applicable provisions of this title and the Federal Rules of Civil Procedure for the United States district courts. A judge may designate a magistrate to serve as a special master in any civil case, upon consent of the parties, without regard to the provisions of rule 53(b) of the Federal Rules of Civil Procedure for the United States district courts.

The following discussion is primarily confined to the appointment of nonmagistrate masters under Rule 53.

A. Appointments Under Federal Rule of Civil Procedure 53(b)

Enacted as part of the Federal Rules of Civil Procedure in 1938, Rule 53(b) authorizes the appointment of special masters in jury cases only when the issues are complicated and in nonjury cases only when the matter is one of accounting or difficulty in computing damages, or one in which some exceptional condition requires it.[71] Therefore, the appointment of a special master should be the exception and not the rule. In *La Buy v. Howes Leather Co.*,[72] the Supreme Court held that the assignment of a complex antitrust case to a special master was improper under Rule 53 because the complicated legal issues, the complex nature of the proof, a congested court docket, and the possibility of a lengthy trial did not amount to exceptional conditions within the meaning of the rule.[73] However, it should be noted that in that case, the special master was assigned the full fact-finding function on the merits.[74] A more limited reference of nondispositive, pretrial, or remedial matters to the master might have been justified under the rule in those circumstances.[75]

B. Limits on Broad-Scale Delegation

The decision in *La Buy* did not hold that a reference to the master under the circumstances of that case violated Article III of the Constitution, only that it was not warranted under the provision of Rule 53. Nevertheless, the Court has indicated that the delegation of essential judicial functions to personnel who are not judges appointed under Article III, with life tenure and protected salaries, violates the separation of powers doctrine and perhaps the due process clause unless the benefits of such delegation—efficiency and expertise—outweigh the diminution of Article III values—neutrality, independence, and adjudication.[76]

71. Fed. R. Civ. P. 53(b).
72. 352 U.S. 249 (1957).
73. *Id.* at 259–60.
74. *See* Silberman, *Judicial Adjuncts*, *supra* note 1, at 2135.
75. *In re* United States, 816 F.2d 1083, 1091 (6th Cir. 1987).
76. Commodity Futures Trading Comm'n v. Schor, 478 U.S. 833, 850–51 (1986); Thomas v. Union Carbide Agric. Prods. Co., 473 U.S. 568, 584 (1985); Northern Pipeline Constr. Co. v. Marathon Pipe Line Co., 458 U.S. 50, 84 (1982).

Thus, the boundaries within which Rule 53 authority must be contained are established by Article III and the due process clause of the Constitution.

Special master appointments can be compared to the appointment of magistrate judges. Magistrate judges decide pretrial, nondispositive motions,[77] try civil cases with the consent of the parties,[78] and recommend decisions on dispositive motions. Nonconsensual references to magistrate judges have been sustained against constitutional attack where they were performed under a "district court's total control and jurisdiction."[79] Such references are adjunct in the sense that the magistrate judge has no independent authority to enforce orders, and dispositive decisions on the law and the facts are reviewed de novo. Special masters may perform some of these same functions.

However, several circuit courts of appeals have reversed appointments of special masters who were assigned to conduct formal evidentiary hearings on the merits of a case, finding that the appointments violated Article III. These courts found that at the stage of litigation, that is, the liability stage, Article III limitations controlled the scope of Rule 53, regardless of whether exceptional circumstances pertained.[80]

In *Stauble v. Warrob*,[81] the U.S. Court of Appeals for the First Circuit reversed a judgment rendered on the basis of a report by a special master. Mandamus had previously been denied. The First Circuit found that it could not "forge an 'exceptional condition' test for cases of blended liability and damages . . . . [T]he Constitution prohibits us from allowing the nonconsensual reference of a fundamental issue of liability to an adjudicator who does not possess the attributes that Article III demands."[82] Distinguishing the delegation of authority over remedy-related issues, the First Circuit held that where the fundamental determinations of liability are not heard and determined by the district court, the appointment is not within the constitutional limitations that bind Rule 53. The appeals court held that the district court lacked authority to refer the case without a provision for de novo review of the master's report.[83]

Other courts seem to require a greater showing of exceptional conditions to satisfy the requirements of Rule 53 where the appointment is made at the liability stage.[84] Thus, perhaps where liability is at issue, the need for expert assistance

77. Nondispositive motions decided by magistrate judges are reviewed on a "clearly erroneous" standard in accordance with the terms of 28 U.S.C. § 636(b)(1)(A).

78. Geras v. Lafayette Display Fixtures, 742 F.2d 1037, 1044–45 (7th Cir. 1984); Pacemaker Diagnostic Clinic v. Instromedix, Inc., 725 F.2d 537, 544 (9th Cir.), *cert. denied*, 469 U.S. 824 (1984); Caprera v. Jacobs, 790 F.2d 442, 444 (5th Cir. 1986), *cert. denied,* 484 U.S. 944 (1987).

79. United States v. Raddatz, 447 U.S. 667, 681 (1980) (reference of suppression motion in a criminal case to a magistrate judge did not violate Article III so long as the "ultimate decision is made by the district court"). *Id.* at 683.

80. *E.g., In re* Bituminous Coal Operators' Ass'n, 949 F.2d 1165, 1168–69 (D.C. Cir. 1991).

81. 977 F.2d 690 (1st Cir. 1992).

82. *Id.* at 695.

83. *Id.* at 696.

84. *E.g.,* Burlington N.R.R. v. Department of Revenue, 934 F.2d 1064, 1070–73 (9th Cir. 1991) (no exceptional circumstances to support Fed. R. Civ. P. 53 reference of the entire case where reference was made

in dealing with complex evidence must be more clearly demonstrated. For example, in *Prudential Insurance Co. of America v. United States Gypsum Co.*,[85] the U.S. Court of Appeals for the Third Circuit granted mandamus withdrawing the appointment of a master who was to rule on nondispositive discovery motions but also hear dispositive legal motions (motions to dismiss and summary judgment motions) and report to the court "all relevant facts and conclusions of law." The Third Circuit found that the district court had not cited any exceptional conditions in the case or specific reasons for the appointment of a master beyond the district court's statement that the volume and breadth of documents and the inherent complexity of an asbestos litigation case merited the appointment. The court of appeals relied strongly on *La Buy* for its holding that neither the volume of work generated by the case nor the complexity of that work sufficed to meet the exceptional condition standards promulgated by Rule 53. The court also observed that a magistrate judge was available at no cost to the parties.

C. Powers of Masters Under Federal Rule of Civil Procedure 53

Special masters appointed under Rule 53 have many of the same powers that a district court judge has to receive and evaluate scientific and technical evidence submitted by the parties. Unless the order of reference specifies otherwise, a special master has broad powers under Rule 53(c) "to regulate all proceedings in every hearing before the master and to do all acts and take all measures necessary or proper for the efficient performance of the master's duties under the order."[86] The master may require the production of documents and other evidence, rule on the admissibility of evidence, subpoena witnesses, place them under oath, and examine them.[87]

It is unclear what other powers, not enumerated in the rule, can be given to masters expressly or are assumed to be given if they are not limited by the order. For instance, it is unclear whether the powers granted remedial masters to gain access to documents and other information held by defendants can be exercised by a master appointed under Rule 53 if the order of reference does not permit or prohibit it.

D. Appealing Appointments Under Federal Rule of Civil Procedure 53

The appointment of special masters under Rule 53(b) may be appealed through the extraordinary writ of mandamus brought immediately upon appointment in

"in the interest of judicial economy" and the master's reported recommendations were affirmed in a one-sentence order); *In re* Armco, Inc., 770 F.2d 103 (8th Cir. 1985) (in an environmental suit, circumstances sufficient to support a Fed. R. Civ. P. 53 appointment for pretrial duties, including disposition of summary judgment and dismissal motions, were held insufficient to support master's authority to preside at trial).

85. 991 F.2d 1080 (3d Cir. 1993).

86. Fed. R. Civ. P. 53(c).

87. *Id*.

the court of appeals[88] or through objection to and a general appeal of the district court's final judgment.[89] When the appointment is challenged by way of mandamus, the appellant must establish that the district court abused its discretion in making the appointment and that challenging it in an appeal will not adequately protect the interests at risk.[90]

After judgment, an appeal of reference to a master is treated as presenting a question of law, and plenary review will be exercised.[91] Because the standards of review are different, denial of a motion for mandamus setting aside a reference does not preclude a subsequent appeal which raises the issue again.[92]

88. La Buy v. Howes Leather Co., 352 U.S. 249 (1957). *See, e.g., In re* Bituminous Coal Operators' Ass'n, 949 F.2d 1165 (D.C. Cir. 1991) (reversing reference to special master of nonjury trial of civil case involving multiemployer trust fund where district court failed to reserve decision-making authority over motions dispositive of the merits of the case). A district court's refusal to appoint a master is not a final order and is not appealable until after final judgment. *See* 5A James W. Moore et al., Moore's Federal Practice ¶ 53.05[3], at 53-69, 53-71 to 53-73 & nn.7–11 (2d ed. 1992).

89. *E.g.,* Stauble v. Warrob, 977 F.2d 690 (1st Cir. 1992) (special master appointment reversed on an appeal of the judgment on grounds that trial court exercised insufficient review over the master's findings in a commercial case); Liptak v. United States, 748 F.2d 1254, 1257 (8th Cir. 1984) (found reference to special master not supported by exceptional circumstances upon review of appeal from summary judgment). The party objecting to the appointment of a master must usually make a timely objection either at the time of appointment or promptly thereafter to preserve the assignment of error. *See, e.g.,* Martin Oil Serv., Inc. v. Koch Refining Co., 718 F. Supp. 1334, 1337 (N.D. Ill. 1989); First Iowa Hydro Elec. Coop. v. Iowa-Illinois Gas & Elec. Co., 245 F.2d 613, 628 (8th Cir.), *cert. denied,* 355 U.S. 871 (1957); United States v. Conservation Chem. Co., 106 F.R.D. 210, 216 (W.D. Mo. 1985). *See* 5A Moore et al., *supra* note 88, ¶ 53.05[3], at 53-69 to 53-71 & nn.1–6.

90. *Stauble,* 977 F.2d at 693. *See In re* Fibreboard Corp., 893 F.2d 706, 707 (5th Cir. 1990) ("We are to issue the writ of mandamus only 'to remedy a clear usurpation of power or abuse of discretion' when 'no other adequate means of obtaining relief is available.'" (citations omitted)).

91. *Stauble,* 977 F.2d at 693.

92. *Id. See also* United States v. Shirley, 884 F.2d 1130, 1135 (9th Cir. 1989); Key v. Wise, 629 F.2d 1049, 1054–55 (5th Cir. 1980), *cert. denied,* 454 U.S. 1103 (1981).

IV. Issues to Consider When Appointing a Special Master

The FJC's interviews with special masters and the judges who appointed them identified the following important issues to be considered when a judge contemplates the appointment of a master to deal with scientific or technical evidence:

- selection and qualification;
- avoiding conflict-of-interest and ethical problems;
- orders of reference—length and specificity;
- ex parte communications;
- potential liability for malfeasance;
- type of hearings;
- payment; and
- avoiding delay and inertia.

A. Selection and Qualification

Judges seem to use three patterns of selection. In the first, judges simply select a master from among professional acquaintances, persons whose professional skills they admire and whose integrity and loyalty they trust. Most judges and special masters interviewed agreed that the most important qualification for a special master is the complete trust of the judge. Thus, where masters were expected to rule on scientific evidence presented by the parties in formal hearings and make recommended findings of fact at any stage of litigation, judge-like qualifications were sought and usually found in retired judges, former magistrate judges, or experienced hearing masters with whom the judge was acquainted. While seeking these qualifications opens judges to criticisms of favoritism, it may be difficult for judges to ensure the integrity and trustworthiness of masters by other means.

In the second pattern of selection, particularly when making pretrial appointments where settlement seemed possible, judges selected one or more candidates and sought the parties' approval. Although most of the masters interviewed were satisfied with the judicial nomination of master candidates, several settlement masters felt they could not be effective mediators unless the parties, at

least, had agreed to their selection.[93] Even when making post-trial appointments, some judges hoped that the remedial master would be able to effect a settlement on outstanding damage and compliance issues, and they sought the parties' approval of the masters they selected. Although a hearing is not a prerequisite to appointing a master, judges will often ask the parties to interview several candidates for master or comment on the judge's proposed appointment of a nominee for master.[94] As will be discussed later, these interviews provide a useful forum in which to explore conflict-of-interest questions.

In the third pattern of selection, where scientific or technical expert assistance was needed to provide case management, investigate facts, hire experts, evaluate claims, and help the parties arrive at settlement, judges were more likely to permit parties to participate in the selection of a master by nominating candidates with particular skills.[95] These nominations were not treated as restricting the judge's discretion, but were respected, and judges were satisfied to select a candidate named by both sides.

Finally, where courts have sought recognized experts in their fields to observe and make findings regarding scientific facts, judges have relied less on their personal acquaintances and nominations from the parties, and more on referrals from other judges or the scientific community. In institutional reform litigation, judges sometimes sought experts through informal networks of judges and other experts and, at other times, through referrals from recognized professional societies.[96]

Judges seemed as satisfied with these selections as those of nonexperts with whom they were previously acquainted, usually because trust and respect between the judge and the expert quickly developed as the case progressed. Parties involved in the selection process felt invested in the choice and perhaps more willing to cooperate. Special masters interviewed who were selected through professional referrals or party nomination said they established good relations with the judge and did not believe that a lack of prior acquaintance was a disadvantage.

93. Some states require the consent of the parties to a master appointed to determine a controversy, but not one appointed to assist the parties in settlement. *In re* Joint E. & S. Dists. Asbestos Litig., 737 F. Supp. 735, 741 (E.D.N.Y. 1990).

94. Gary W. v. Louisiana, 601 F.2d 240, 244 (5th Cir. 1979).

95. *E.g.,* BIEC Int'l, Inc. v. Global Steel Servs., Ltd., 791 F. Supp. 489, 542 (E.D. Pa. 1992) (trade-secrets determinations referred to a Fed. R. Civ. P. 53 master). Each party proposed ten names of qualified persons to the court for selection.

96. There has been some interest in maintaining lists of persons qualified and interested in serving as masters in cases requiring scientific, technical, and other kinds of expertise. For example, the U.S. District Court for the District of Columbia has amended a provision to its local rules which directs the clerk of court to maintain "a list of special masters with experience in this Court and in other courts as a reference source." See Order of November 30, 1993 adopting Civil Justice Expense and Delay Reduction Plan and incorporating plan into the local rules of the court.

B. Avoiding Conflict-of-Interest and Ethical Problems

U.S. judges are constrained by standards collectively known as judicial ethics,[97] which have a number of legal sources, including the *Code of Conduct for United States Judges*,[98] federal disqualification statutes,[99] financial disclosure requirements,[100] and the judicial oath of office. It is unclear which of these restrictions apply or should apply to special masters.[101] Although it is appropriate to disqualify candidates from serving as masters where they cannot provide neutral, objective determinations, it may be inappropriate to apply all judicial canons of ethics to special masters.

Some courts have reasoned that since masters are subject to control by the court and are needed for their expertise in particular subject matters, they should not be held to the strict standards of impartiality that apply to judges.[102] Other courts have concluded that because the "clearly erroneous" standard of review required by Rule 53 does not provide the district court with plenary control over a special master, the master's conduct must be held to the same high standards applicable to the conduct of judges.[103]

Several of the judges interviewed believed that masters are subject to the same ethical constraints as judges and entitled to the same judicial immunity, without qualification.[104] In the final analysis, the applicability of judicial ethical proscriptions to special masters may depend on what specific functions the masters perform.[105] Indeed, it has been proposed that a special code of ethics for special masters be developed to govern the particular relationships between judges, parties, and masters.[106]

The fact that appointment of special masters under Rule 53 assigns judicial tasks to people who are not full-time judges raises particular conflict-of-interest

97. *See generally* Beth Nolan, *The Role of Judicial Ethics in the Discipline and Removal of Federal Judges*, *in* 1 Research Papers of the National Commission on Judicial Discipline & Removal 867 (1993).

98. Code of Conduct for United States Judges (November 1993) [hereinafter 1993 Code of Conduct].

99. 28 U.S.C. §§ 144, 455 (1988).

100. 5 U.S.C. app. 6 §§ 101–112 (1992).

101. The Code of Conduct applies in part to special masters and commissioners, as indicated in the section titled "Compliance with the Code of Conduct." 1993 Code of Conduct, *supra* note 98.

102. Morgan v. Kerrigan, 530 F.2d 401, 426 (1st Cir.), *cert. denied*, 426 U.S. 935 (1976).

103. Jenkins v. Sterlacci, 849 F.2d 627, 630 (D.C. Cir. 1988); Belfiore v. New York Times Co., 826 F.2d 177, 185 (2d Cir. 1987), *cert. denied*, 484 U.S. 1067 (1988). *See also In re* Joint E. & S. Dists. Asbestos Litig., 737 F. Supp. 735, 739 (E.D.N.Y. 1990) ("In general a special master or referee should be considered a judge for purposes of judicial ethics rules.") (citing Code of Judicial Conduct for United States Judges, 69 F.R.D. 273, 286 (1975)).

104. *See also In re* Gilbert, 276 U.S. 6, 9 (1928) (special masters assume the duties and obligations of a judicial officer); *Jenkins*, 849 F.2d at 630–31 (Code of Conduct for United States Judges applied to special master).

105. *Jenkins*, 849 F.2d at 630 n.1 ("[I]nsofar as special masters perform duties functionally equivalent to those performed by a judge, they must be held to the same standards as judges for purposes of disqualification.").

106. Jack B. Weinstein, *Ethical Dilemmas in Mass Tort Litigation*, 88 Nw. U. L. Rev. 469, 558 & n.352 (1994).

issues.[107] Practicing attorneys (and their firms) who are appointed masters have an interest in maintaining their professional reputations, sometimes as members of a plaintiffs' or defendants' bar, and in obtaining future employment. Such attorneys may have represented one of the parties in the past[108] or have litigated against lawyers who appear before them as masters.[109] Retired judges have an interest in being appointed to future cases; some also maintain private law practices. Law professors may have ideological positions and academic credentials that can affect, or be affected by, their performance as masters.[110] Nonlegal experts, such as prison experts, sometimes have been hired as expert witnesses in previous litigation involving the parties whom they monitor as special masters,[111] or they hope to be hired by such parties in the future. Finally, a small group of "repeat players" has developed—masters who have served in many cases[112] and are invested in their reputations as successful settlement masters.

What steps can be taken to ensure that conflicts of interest do not affect the performance of the master? Courts have dealt with conflict-of-interest issues in several ways. First, most of the judges interviewed indicated that they provide some opportunity, either at a formal hearing on a motion to appoint a master or at a more informal conference with attorneys, for the parties to question the master about possible conflicts of interest and to raise any objections they might have before the appointment is made.

Some judges and masters want any suggestion of conflicts fully disclosed on the record so that parties who do not object will be estopped from complaining later.[113] In some cases, waiver is implied by the parties' agreeing to the appointment or to a subsequent party settlement with knowledge of the alleged conflict. In one case, a party that subsequently objected was estopped from doing so.

107. *See, e.g.,* United States v. Lewis, 308 F.2d 453, 457 (9th Cir. 1962) ("[T]hose qualified to act as . . . [masters] in a particular area are likely to have had prior association with those qualified . . . as expert witnesses from that area . . . . [T]he test should be whether [actual] abuse appears."). *See generally* Silberman, *Judicial Adjuncts, supra* note 1, at 2159–61.

108. In *In re* Joint E. & S. Dists. Asbestos Litig., 737 F. Supp. 735 (E.D.N.Y. 1990), a motion to disqualify a special master was denied where the master was appointed to act as a settlement master in cases involving asbestos exposure, and where the master and his firm had acted on behalf of the moving defendant in connection with legislative efforts in the past. The court observed, "As an officer of the court the special master remains bound to respect the confidentiality of and refrain from using to [defendant's] disadvantage any information imparted to him under seal of confidentiality by that company in the course of his legislative or mediation efforts." *Id.* at 742.

109. *Cf. Id.;* Mister v. Illinois Cent. Gulf R.R., 790 F. Supp. 1411, 1417 (S.D. Ill. 1992) (special master in this case was plaintiff's attorney in another case in which the same expert appeared for the defense as appeared before him in this case).

110. *E.g.,* Prudential Ins. Co. of Am. v. United States Gypsum Co., 991 F.2d 1080, 1088 n.13 (3d Cir. 1993) (court noted allegations of bias based on law school dean's academic writings).

111. *E.g.,* Lister v. Commissioners Court, Navarro County, 566 F.2d 490, 493 (5th Cir. 1978) (appointment of a special master, who had testified as an expert witness for the plaintiffs in the same suit, to devise a reapportionment plan held improper) (citing *In re* Gilbert, 276 U.S. 6 (1928)).

112. Weinstein, *supra* note 106, at 558.

113. Where a master is appointed to facilitate a settlement, parties who object to a conflict of interest after appointment of the master may withhold their agreement to a settlement by way of objection. Continued participation is seen as a continuing waiver of any objection.

Some courts take steps to eliminate conflicts by restricting the master's subsequent employment by either party or the master's concurrent representation (or that of the master's firm) of other parties with conflicting interests. Addressing conflict-of-interest matters expressly at the time of appointment avoids later controversy.

C. Orders of Reference

Orders of reference to the master reviewed in the FJC study varied from very short orders that made general assignments to lengthy, detailed orders. A correlation did not seem to exist between the length and specificity of the order and the complexity of the tasks assigned. In fact, some of the most complex tasks (e.g., those involving case management of a mass tort case) were assigned in short, general orders.

Some of the issues that are addressed in orders of reference are the following:

- scope and limitations on authority (i.e., functions assigned and specific authority to carry them out);[114]
- scope of the master's investigative authority;[115]
- discovery rights to evidence supporting the master's findings;
- disclosure of conflicts of interest;
- scope of review;
- periodic reporting requirements;
- duration of the appointment;
- standards of performance;
- periodic accountings—approval by the court;
- compensation—rate and manner of payment;
- ex parte communications with the judge;
- ex parte communications with the parties;
- ex parte communications with the experts and third parties;
- liability and immunity of the master (insurance and bonds); and
- expiration of the appointment.

Sometimes the parties negotiate the terms of orders of reference and propose them to the court by motion or in conference. The court must consider whether

114. Fed. R. Civ. P. 53(c) provides:

> The order of reference to the master may specify or limit the master's powers and may direct the master to report only upon particular issues or to do or perform particular acts or to receive and report evidence only and may fix the time and place for beginning and closing the hearings and for the filing of the master's report.

When a U.S. magistrate judge is appointed to be a special master, the order of reference should refer to Fed. R. Civ. P. 53.

115. Particularly in the remedial stage of litigation, some courts have granted masters broad access to information held by the parties, whereas others have disapproved of such grants. *Compare* United States v. Parma, 504 F. Supp. 913, 925 (N.D. Ohio 1980), *aff'd in part, rev'd in part,* 661 F.2d 562 (6th Cir. 1981), *cert. denied* , 456 U.S. 926 (1982) *with* Reed v. Cleveland Bd. of Educ., 607 F.2d 737, 741, 743–44 (6th Cir. 1979).

the parties will be allowed to determine the extent of the master's authority and the procedures to be used, or whether the court and the master will determine those matters initially or as litigation progresses.

Some judges believed that detailed orders worked well where the case was especially contentious and disputes over particular issues could be anticipated and resolved in advance, or where the case involved basic issues of fairness, such as ex parte communications. Many masters, however, felt that, where possible, it was wise to give the master flexibility in resolving disputes as they arise. One discovery master attributed his success in avoiding disputes in a large, complex case to the fact that he engaged the parties in negotiating informal procedures, which reduced the need for paper exchanges and motions. Such procedures included involving the master in depositions—either by attending particularly difficult ones or being available to settle disputes by phone. It might have been difficult to include such detailed, but successful, techniques in an order of reference.

Thus, issues which go to the propriety of the appointment itself—conflicts of interest, ex parte communications, scope of authority—might well be addressed expressly in the order of reference, whereas procedural issues—the discovery process, the appointment of experts, formal hearing procedures—might be left to negotiation between the master and the parties after the appointment. Express terms in the order of reference place the parties on notice with regard to essential characteristics of the appointment and permit them to object and seek mandamus if they choose. Procedural matters determined by the master can be appealed to the judge after the appointment.

D. Ex Parte Communications

The question whether ex parte communications between a special master and the parties and between the special master and the judge should be permitted under Rule 53 is highly debatable.[116] The issue may be important, especially in cases involving sophisticated scientific and technical evidence, because masters, as well as judges, are more likely to seek education from experts outside the adversary process. Nevertheless, the positions with regard to these issues are the same, whether raised in a scientifically complex case or otherwise.

Rule 53 expressly permits a master to proceed ex parte when a party fails to appear for certain meetings. Such explicit permission may be interpreted to prohibit other ex parte proceedings.[117] Thus, some judges hold that ex parte com-

116. *See* DeGraw, *supra* note 11, at 816–20 & nn.95–124.

117. Fed. R. Civ. P. 53(d)(1) provides:

> If a party fails to appear at the time and place appointed [for meeting with the parties], the master may proceed ex parte or, in the master's discretion, adjourn the proceedings to a future day, giving notice to the absent party of the adjournment.

munications are improper for both the master and the judge[118] and must be prohibited whether or not the parties consent to them.[119] Others maintain that masters may communicate ex parte with the parties and the judge if the order of reference expressly permits it.[120] Still others hold such communication proper only if expressly consented to by the parties.

1. With the parties

Those who find ex parte communication between the master and the parties improper under any circumstances adhere to a traditional, adversary justice model in which a judge passively receives information solely from the parties and decides the dispute on the basis of that information.[121] To the extent that special masters function as judges, some judges interviewed felt it was improper for masters to consult the parties separately and to communicate the information thus gained to the judge outside the presence of the parties because to do so deprives them of the opportunity to raise challenges. Thus, it was understood that in many cases the judge did not want to hear information the master obtained from the parties ex parte.

The proponents of ex parte communication argue that many judicial functions, such as case management and settlement facilitation, require a judge to play a more active, nontraditional litigation role in which ex parte communication is appropriate.[122] Therefore, when mediating disputes before trial or facilitating the settlement of damage issues after determinations of liability, judges often individually consult the lawyers, parties, insurance companies, and others to gain information necessary to their task.[123] When masters perform these same functions, it is believed they, too, may engage properly in ex parte communications.[124]

118. Model Code of Judicial Conduct Canon 3B(7) (1990) provides: "A judge shall not initiate, permit, or consider ex parte communications, or consider other communications made to the judge outside the presence of the parties concerning a pending or impending proceeding . . . ."

119. *See, e.g.,* D'Acquisto v. Washington, 640 F. Supp. 594, 621–22 (N.D. Ill. 1986) ("[A]n ex parte communication is a communication about a case which an adversary makes to the decision maker without notice to an affected party.").

120. *See, e.g.,* Alberti v. Klevenhagen, 660 F. Supp. 605, 610 (S.D. Tex. 1987); Ruiz v. Estelle, 679 F.2d 1115, 1170 (5th Cir.), *amended in part, vacated in part*, 688 F.2d 266 (5th Cir. 1982), *cert. denied,* 460 U.S. 1042 (1983); Thompson v. Enomoto, 815 F.2d 1323, 1326 n.7 (9th Cir. 1987).

121. Fleming James, Jr., & Geoffrey C. Hazard, Jr., Civil Procedure § 1.2 (3d ed. 1985); Judith Resnik, *Managerial Judges,* 96 Harv. L. Rev. 374 (1982); Peter H. Schuck, *The Role of Judges in Settling Complex Cases: The Agent Orange Example,* 53 U. Chi. L. Rev. 337 (1986).

122. For example, Fed. R. Civ. P. 16(a) permits judges to discuss settlement at pretrial conferences.

123. In *In re* Joint E. & S. Dists. Asbestos Litig., 737 F. Supp. 735, 739 (E.D.N.Y. 1990), Judge Jack B. Weinstein wrote that "[i]t is standard practice for the presiding judge or magistrate to meet separately with each of the parties for a candid discussion of strategy and the needs of the party." He also stated that "[i]nformation revealed to the mediator should include—absent a confidential communication privilege—relationships to insurers, overall strategy, corporate politics and the like . . . . The role of the mediator is often that of the honest broker . . . ."

124. United States v. Conservation Chem. Co., 106 F.R.D. 210, 234–35 (W.D. Mo. 1985) (master appointment was not revoked where master engaged in settlement negotiations ex parte with the parties and the record was void of any evidence suggesting that the master's impartiality might reasonably be questioned).

In fact, some masters interviewed stated that assignment of settlement and mediation to a master insulates the judge from ex parte discussions and permits the judge to subsequently try the case without prejudgment based on those communications. However, these masters indicated that they mitigated the effect of ex parte communications in several ways. First, they notified other parties when important information was imparted ex parte by one party. Furthermore, they circulated their findings of fact based on informal, ex parte information in draft to the parties before they reported them to the judge. Thus, if a party wanted to challenge ex parte facts, it could do so, usually in writing, before the master reported to the court. In addition, parties who renewed their objections to the master's report when it was submitted to the court were given a de novo hearing on the disputed facts, rather than the court applying the "clearly erroneous" test.[125] At these hearings, parties were permitted to cross-examine witnesses relied on by the master in making his or her findings and present their own witnesses. Thus, the prejudice that might result from ex parte communication was eliminated.[126] Finally, some judges stated in the order of reference that ex parte communications between the master and the parties would be permitted.[127] When no objections were made in these cases, the parties arguably had agreed to such procedures.

To avoid the appearance of impropriety and subsequent objections of the parties to informal fact-finding procedures, the judge should address ex parte communications between the master and the parties directly in the order of reference. Where objections are made to the order of reference, limitations on ex parte communications may be necessary to avoid charges that the order violates due process and the guarantees of Article III of the Constitution.

2. With the judge

Most masters stated that they believed they could not perform their assigned duties effectively if they were prohibited from discussing scheduling, strategies, and procedures with the judge outside the presence of the parties. Yet, several judges indicated that they felt uncomfortable meeting with masters without the parties being present. Most judges met with their appointed master less than once a

125. *See* Alberti v. Klevenhagen, 660 F. Supp. 605, 611 (S.D. Tex. 1987); Ruiz v. Estelle, 679 F.2d 1115, 1163 (5th Cir.), *amended in part, vacated in part*, 688 F.2d 266 (5th Cir. 1982), *cert. denied,* 460 U.S. 1042 (1983); Special Project, *The Remedial Process in Institutional Reform Litigation,* 78 Colum. L. Rev. 784, 829–30 (1978) [hereinafter *The Remedial Process*].

126. For example, in Morales Feliciano v. Romero Barcelo, 672 F. Supp. 591, 626 (D.P.R. 1986), the master and experts toured the prison, spoke to inmates and staff, and made findings of fact about the adequacy of the medical care inmates received. Often, ex parte communication between the defendants and the master was the basis for the findings. Only if the plaintiffs objected to the findings, recounted in the master's report to the judge, were the findings reviewed by the court in any formal way. In those instances where a party objected to informal fact finding, though in a nonjury case, the court did not use a "clearly erroneous" standard of review. Instead, the court held hearings de novo on the factual finding contested. *But see* Gary W. v. Louisiana Dep't of Health & Human Resources, 861 F.2d 1366, 1368–69 (5th Cir. 1988).

127. *See supra* note 120 and accompanying text.

month and conveyed to the master that they were not interested in hearing any ex parte information from the parties. One judge allowed the master to communicate with him only through monthly reports, written as letters, which were also provided to the parties.

The propriety of ex parte communication can depend on whether the master is characterized as a judicial agent or as an outside adjunct. If the master is viewed as an agent of the court, it is proper for the judge, as principal, to discuss with the master, as agent, the performance of his or her duties. If the master is viewed as an adjunct, it is improper for the judge, as ultimate decision maker, to receive from the master, a non-party, evidence and information that could influence the judge's decisions, or that reasonably might be thought to do so.

It may be more useful, however, to consider the purposes for which the appointment was made to determine whether ex parte communication is consistent with, or will further, the execution of the master's functions. Where, for example, the purpose of the appointment is to obtain the master's recommended findings of fact, ex parte communication with the judge seems inappropriate because the judge will review those findings and the record upon which they are based to determine whether they are clearly erroneous. Information received off the record could prejudice that review. Similarly, most of the masters and judges interviewed indicated that where the master's role is one of mediator and facilitator, information relating to the substance of proposed settlements and the facts of the case should not be communicated to the judge ex parte during the settlement process.

However, a master appointed as an expert to advise the court might appropriately communicate with the judge privately in order to provide the one-on-one education some judges desire, so long as the master does not provide the judge with personal opinions on facts and evidence upon which the judge will rule. Masters who bring their expertise in quantitative analysis to bear on the presentation of data seem to serve a similar role; a judge's private discussions with a master regarding quantitative analyses do not seem to prejudice the judge's independence or the parties' abilities to present their case, so long as the judge permits the parties an opportunity to contest his or her acceptance of rejection of the data.

E. Potential Liability for Malfeasance

Most of the masters and judges interviewed believed that by being appointed under Rule 53, masters acquired judicial immunity and were not exposed to much, if any, legal liability for dereliction of duty. [128] Some masters appointed to deal with complex scientific and technical issues were involved in cases in

128. One judge interviewed for the FJC's study appointed a person under Fed. R. Civ. P. 53 to execute a contract necessary to carry out the court's remedial decree solely to provide that person with judicial immunity.

which large sums of money were at stake, and they did not believe they could obtain enough insurance coverage for all of the potential liability.[129] Others worried about the expense of defending such suits, even if they thought they could not be found personally liable.[130]

Again, the question of a master's liability may hinge on the nature of the functions the master performs. To the extent that masters perform functions that are essentially juridical, they may enjoy judicial immunity. Yet, absolute judicial immunity does not extend to all the functions performed by judges. In suits against judges for personal liability, courts have taken a functional approach, distinguishing the judges' adjudicatory functions from their administrative, managerial, and executive functions.[131] Although judges have qualified, good-faith immunity for actions that do not violate clearly established statutory or constitutional rights a reasonable person would have known of,[132] they may be held liable for administrative actions that do not meet that standard. Presumably, the court cannot provide a master with more immunity than a judge would have in performing the same tasks.

Special masters appointed to deal with scientific and technical issues, particularly in suits involving many claimants and large sums of money, may want to investigate their potential liability and explore the possibility of purchasing malpractice insurance to cover it. The cost of such insurance is a legitimate cost of the appointment and possibly could be included in the expenses for which parties are liable under the rules. Where special masters administer large settlement funds, fiduciary bonding requirements may apply.

F. Type of Hearings

While Rule 53 anticipates the appointment of a master to hear evidence and make factual findings, many masters are appointed to perform other tasks that require informal fact finding. Thus, although masters usually are not authorized to conduct private investigations into the matters referred, they often are expected to use their personal expertise and knowledge and obtain other expert opinion in evaluating evidence outside of formal proceedings.[133]

Almost all of the masters interviewed engaged in informal fact finding of one kind or another and conducted no formal hearings at all. Most felt that formal

129. *See* discussion in Brazil, *supra* note 9, at 409.

130. 1C Guide to Judiciary Policies and Procedures, ch. XI, pt. E, § 2.1, at 31 (1991), provides that a judge who desires legal representation in a suit for personal liability for official acts performed within the scope of his or her employment may request Department of Justice representation or reimbursement for private representation. However, it does not provide the same for masters.

131. Forrester v. White, 484 U.S. 219, 223–24 (1988). The appointment of a special master pursuant to Fed. R. Civ. P. 53 seems to be a judicial function, not an administrative one.

132. Harlow v. Fitzgerald, 457 U.S. 800, 818 (1982).

133. *See* Ruiz v. Estelle, 679 F.2d 1115, 1162 (5th Cir.) (master is not precluded from conducting a viewing such as that permitted for judges and juries), *amended in part, vacated in part*, 688 F.2d 266 (5th Cir. 1982), *cert. denied,* 460 U.S. 1042 (1983).

hearings were expensive and time-consuming and reduced the collegial relationships they often wanted to develop with the parties. Retired judges serving as masters were more likely to hold formal hearings than law professors or practitioners. Hearings apparently were held more often to try scientific facts going to the merits of a case than to resolve factual issues that arose in connection with discovery or the monitoring of compliance with court orders. Some masters used the possibility of formal hearings as an incentive for the parties to cooperate and make more informal procedures work efficiently. Others let the parties decide whether they wanted particular issues tried in formal proceedings.

Masters are more likely to use informal fact finding in the remedial stages of litigation than in discovery.[134] This may be due to the need at the remedial stage for expert evaluation of the ongoing performance of defendants, which can be perceived best as it occurs, rather than as it is related in a courtroom after the fact. As mentioned earlier, when informal fact-finding procedures (i.e., reports from experts, viewings, and ex parte information from parties and other witnesses) were used as the basis for the findings the master reported to the court, parties were permitted to challenge those findings in de novo hearings before the judge.[135]

Particularly with the consent of parties, such informal proceedings, along with an opportunity for later de novo review of findings of scientific fact, seem to provide an efficient and fair means of assisting courts in processing scientific and technical information. The order of reference could address explicitly the weight to be accorded recommended findings of scientific fact based on informal fact-finding procedures. Furthermore, the order could expressly grant the master authority to either hold formal hearings or proceed informally, with or without the consent of the parties.

G. Payment

Besides delay, the reason most often given for limiting the appointment of masters is the added expense for the litigants.[136] Rule 53 provides that "compensation to be allowed to a master shall be fixed by the court, and shall be charged upon such of the parties or paid out of any fund or subject matter of the action, which is in the custody and control of the court as the court may di-

134. Stephen E. Taylor & Howard A. Herman, *Using Special Masters in Complex Civil Litigation,* 4 Fed. Litig. Guide Rep. (MB) No. 1, at 3 (Jan. 1992).

135. *See* discussion *infra* § V.D.1.

136. *E.g.,* Fraver v. Studebaker Corp., 11 F.R.D. 94, 95 (W.D. Pa. 1950) (motion for appointment of master in patent suit denied because of burdensome cost to plaintiff). In reviewing challenges to appointments of a special master, appellate courts are much influenced by the fact that similar services may be available from a magistrate judge at no cost to the parties. Particularly in the context of scientific and technical evidence, therefore, justification for the appointment of a lay special master may need to be based on the special expertise the lay master alone can supply.

rect."[137] One master interviewed suggested that reference to a master sometimes is regarded as punishment for parties who are uncooperative: The parties must now pay for what they could have received free.

The master's compensation is set by the court, and the judge allocates it to the parties as a cost. In some suits, where one party was impecunious or the other was blameworthy, judges allocated the entire cost to one party or divided it among several defendants[138] or amici.[139] Considerable variation exists in the standards judges use to determine the rate of the master's compensation. The Supreme Court has adopted a "liberal but not exorbitant" standard for compensation of masters,[140] which leaves room for interpretation.

Most often, the master's rate is set in relation to the market in which the master—as a private practitioner, retired judge, academic, or scientific or technical expert consultant—could otherwise sell his or her services.[141] Where the master to be appointed was a private attorney, some judges have considered the specialized area in which the master had a private practice. Others have considered the usual hourly rate for private practitioners in the area of specialty at issue in the suit and in the locality where the suit is brought, regardless of whether the practitioner was practicing there. Still others have discounted such commercial rates for the "public service" nature of the case.

Where a master has skills as a legal practitioner and a technical expert, as do some of the expert prison masters, the court must decide which of the two markets to use as a basis for the master's fee. If the master will use both sets of skills and they can only be procured by others at the higher rate, the master should be paid the higher rate. Although academics sometimes were given their usual consulting rate or the prevailing practice rate, more often they were given a rate reflecting the fact that they did not regularly sell their services in a private market and that they enjoyed the low- or no-risk position of full-time, tenured professors whose law schools paid their overhead. Some judges interviewed said that they asked masters to discount their fees to "subsidize" justice in the public interest.

137. Fed. R. Civ. P. 53(a). *See generally* David I. Levine, *Calculating Fees of Special Masters,* 37 Hastings L.J. 141 (1985).

138. *See, e.g.,* Hart v. Community Sch. Bd., 383 F. Supp. 699, 767 (E.D.N.Y. 1974) (holding that court had broad discretion to allocate to the defendant whose action necessitated the school desegregation suit the costs of the master and his required supportive services), *aff'd,* 512 F.2d 37 (2d Cir. 1975).

139. Nebraska v. Wyoming, 112 S. Ct. 2267 (1992) (Supreme Court approved the one-time assessment of special master costs to intervenors/amici where no party or intervenor/amici objected to the propriety of including nonobjecting amici in the assessment, and the proceedings were longer and more costly because of their participation. Justice Stevens dissented, finding nonobjection problematic because it was an interim payment and citing judicial code sections limiting circumstances in which parties may waive judicial disqualification.).

140. Newton v. Consolidated Gas Co., 259 U.S. 101, 105 (1922). The Court recognized that "while salaries prescribed by law for judicial officers performing similar duties are valuable guides, a higher rate of compensation is generally necessary in order to secure ability and experience in an exacting and temporary employment which often seriously interferes with other undertakings."

141. *See* Reed v. Cleveland Bd. of Educ., 607 F.2d 737, 746 (6th Cir. 1979) (considerations applicable to awarding attorneys' fees apply to setting fees for masters: rate set at the outset at one-half the highest rate of local law firms and two-thirds the average rate of experienced local trial attorneys). *See also* General Motors Corp. v. Circulators & Devices Mfg. Corp., 67 F. Supp. 745, 747–48 (S.D.N.Y. 1946).

A few judges stated that they did not determine the rate, but allowed the parties and the master to negotiate a rate and report back to the court.[142] Both the masters and parties in those cases apparently were satisfied with that process, although it would raise questions about possible bias of the master in cases in which only one party compensated the master.

Apart from the master's rate, expenses usually are billed separately. The law professors interviewed tended to use paid assistants and billed their services separately as well. Some professors hired small support staffs housed in quarters outside the law school to help them carry out their duties, for which they billed separately. Other professors seemed to manage huge cases with little or no assistance or special space. Nevertheless, the separate expenses of these masters (particularly masters who compiled empirical, statistical data themselves in an effort to evaluate and settle claims) were significant and need to be considered in determining whether the aggregate expenses of the master's efforts are cost-effective.

Most judges interviewed kept a watchful eye on the compensation paid to masters, but others felt the costs were a matter between the master and the parties. Masters varied in the timing, detail, and frequency of their statements of fees and expenses. Some provided extremely detailed descriptions of meetings, telephone calls, research, and reading; others provided a summary statement of hours, rates, and expenses only. Most masters submitted accounts monthly or quarterly. Some courts required that payments be approved before they were incurred or before they were disbursed, eliminating the possibility of later objections to the amount or purpose of particular expenses. Because of the large amount of money often paid to masters in some complex cases, a detailed breakdown of a master's expenses on the record provides assurance that the expenses are justified in the view of the court.

Masters were paid in several ways. In some cases, payment was made to masters through the court registry (i.e., after submission of the accounting, the charged party paid the approved amount into the court registry, whose clerk made out a check to the master). This procedure makes payment part of the court record and may promote a perception that the master is the court's agent and not the agent of one of the parties.

In other cases, the court ordered the creation of a pool, funded by the parties charged, from which the master's compensation and expenses were paid upon approval by the court. The location of such funds, whether in a court account or outside of the court, may have a bearing on whether the interest on the fund is taxed. Some masters maintained that the pool tied up the parties' funds unnecessarily; others felt that it removed any leverage that responsibility for payment might give the parties.

142. This approach has been disapproved by at least one court. Finance Comm. v. Warren, 82 F. 525, 528 (7th Cir. 1897).

Some masters were paid directly by the charged party upon submission of accountings for the court's approval. In one case, an institutional defendant who was paying the full cost of the master simply put the master on the institution's regular payroll. Such an arrangement, however, may present questions of bias by the master and an appearance of partiality.

It is difficult to determine the total cost of many references to masters or whether the use of masters is cost-effective. The expenses of some expert masters in institutional reform litigation have amounted to more than $1 million a year,[143] whereas some masters have agreed to cap their fees at a nominal amount to make it clear that their work was done in the public interest.[144]

Although there are no costs imposed on the parties directly when discovery, settlement, matters of account, remedial decrees, and the monitoring of orders are not assigned to a master, much higher costs may be incurred by taxpayers when these functions are performed by judges. Furthermore, greater costs may be imposed on the parties indirectly through protracted litigation and unrealized settlements that masters might have effected.[145] Nevertheless, some judges viewed the use of masters as a mechanism that puts a price on justice—a price too high for some litigants to bear. Thus, they were reluctant to appoint masters except where the magnitude of the litigation, the amount at issue, and the financial position of the parties warranted it. Some attorneys privately objected to the fees and expenses charged by masters but were reluctant to voice their objections for fear of alienating an important decision maker in their case and possibly the judge who appointed him or her.

H. Avoiding Delay and Inertia

Along with costs, delay is cited most often as a reason why masters should not be appointed except in extraordinary circumstances. Particularly in institutional reform litigation and desegregation suits, masters have been known to serve for decades. Some masters interviewed believed that all the parties—masters, attorneys, and judges—become invested in the arrangement and consciously or unconsciously perpetuate their employment. However, examples can be found of some institutional reform masters who have dispatched their responsibilities quickly and efficiently.

One method of avoiding delay is to specify a termination date in the order of reference. Some masters and judges interviewed felt that time-limited appoint-

143. *See* Levine, *supra* note 137, at 143 n.8; Reed v. Rhodes, 691 F.2d 266 (6th Cir. 1982) (interim attorneys' fees of $511,261.98 charged by special masters).

144. Fox v. Bowen, 656 F. Supp. 1236, 1254 (D. Conn. 1987) (The special master's fees were capped at $5,000.) Professor Robert A. Burt served as master for five years. *See* Final Report, *supra* note 47.

145. Judge Jack B. Weinstein noted that failure to consolidate cases and take other steps to control litigation leads to increased transaction costs. *In re* Repetitive Stress Injury Cases, 142 F.R.D. 584, 586–87 (E.D.N.Y. 1992), *appeal dismissed, order vacated sub nom. In re* Repetitive Stress Injury Litig., 11 F.3d 368 (2d Cir. 1993).

ments, particularly before liability is determined, help promote early negotiations and settlement, since the parties are aware that failure to settle will result in the expense of a trial. Other judges felt that keeping abreast of a case through frequent reports and occasional hearings, and imposing pretrial discovery deadlines help move a case along, without limiting the tenure of the master.

When the appointment is made at the remedial stage, some masters feared that imposing a termination date would promote intentional delay on the part of recalcitrant defendants, who would wait for the master's appointment to end. Furthermore, a deadline in the order usually places the burden of justifying an extension of the master's tenure on the successful party in the litigation to ensure that recalcitrant defendants are monitored. Nevertheless, remedial masters' tenures last for years. The establishment of time-limited goals in the order of reference, and the consequences of not meeting those goals, may be a more fruitful means of securing compliance with court-ordered remedial action than the open-ended appointment of a master. Where masters are appointed to provide scientific expertise, their function may be performed earlier than the conclusion of the entire matter, and their tenure can be limited accordingly.

V. Use of Special Master's Report and Review Given

Special masters appointed under Federal Rule of Civil Procedure 53 are required by the rule to file with the clerk of court a report setting forth findings of fact and conclusions of law as required by the order of reference.[146] The weight given to a master's report depends on whether it is rendered in a jury proceeding or a nonjury proceeding. In a trial before a jury, the master is treated as a source of evidence, and the master's report is to be considered by the jury in its deliberations. In a nonjury trial, the master is treated as a preliminary decision maker, whose recommended findings of fact and conclusions of law are accepted unless they are clearly erroneous.

A. Jury Trials

Where masters make findings of fact based on scientific and technical evidence in a jury case, the master's report is admitted for the jury's consideration much like the testimony of an expert witness who has heard evidence bearing on the matter, but much of the scientific evidence upon which the report is based will be excluded from the record unless the parties introduce it independently at trial.[147] Thus, in a jury trial, the master's findings, but not the scientific evidence on which they are based, are admissible as evidence and may be read to the jury, subject to objections.[148] Having participated in the evidentiary hearing before the master, parties objecting to the master's report in a jury trial are not entitled to discover the evidence on which it is based.[149] Evidence at variance with the report may be introduced at trial for the jury's consideration, at least if the offering party can show good cause why it was not presented to the master.[150]

146. Fed. R. Civ. P. 53(e)(1). Effective December 1991, the master must file the report with the clerk of court and serve a copy on all parties. Fed. R. Civ. P. 53 advisory committee's note relating to 1991 amendment.

147. 5 Moore et al., *supra* note 88, ¶ 53.14[4], at 53-136.

148. Burgess v. Williams, 302 F.2d 91, 94 (4th Cir. 1962) (master's report given prima facie effect). *See generally* 5A Moore et al., *supra* note 88, ¶ 53.10[1], at 53-90 & ¶ 53.14[4], at 53-136.

149. The master's findings "are to be received in evidence at the trial by means of a written report. The parties have access to the master's report prior to the trial and limited rights to present objections to the court; they may not, however, conduct other pretrial discovery with respect to the master's findings or examine the master at the trial." MCL 3d, *supra* note 43, § 21.52. *Cf.* United States v. Cline, 388 F.2d 294 (4th Cir. 1968) (master selected for his expertise as a surveyor to conduct a boundary survey functioned as an expert rather than a common-law master and was subject to questioning by both parties regarding his reported findings).

150. *Cf.* Gay v. United States, 118 F.2d 160, 162 (7th Cir. 1941).

Thus, an objecting party may introduce expert scientific testimony from a witness who has testified before the master. Unlike a court-appointed expert, a special master may not be cross-examined on his or her report. Yet, unlike other testimonial evidence which a jury may find incredible, the findings of a master constitute prima facie evidence which, standing alone, is sufficient to sustain a directed verdict.[151]

B. Nonjury Trials

In nonjury trials, masters' findings must be accepted by district courts unless they are clearly erroneous,[152] whether the master made the findings in the course of settling a discovery dispute,[153] recommending action on a motion for injunctive relief,[154] or supervising implementation of court-ordered relief.[155]

When a master's report is submitted in a nonjury trial, the master must file a transcript of the proceedings and of the evidence as well as the original exhibits on which the report is based, so that the court can review the evidence and decide whether the master's findings are not clearly erroneous and, therefore, must be sustained.[156] In a recent case, failure to provide this kind of review of the written record provided by the master, who held thirty-nine days of hearings on the issue of liability, was the basis for the reversal of a district court judgment and a remand for retrial.[157]

C. On Appeal

In appealing a district court's ruling adopting, modifying, or rejecting a master's recommended findings of fact, the appellant has the usual burden of persuading the court of appeals that the district court erred. Where the objection is to a factual finding by the district court in a jury trial, the appellant must show that the finding was not supported by a preponderance of the evidence. In a nonjury trial, a district court's finding based on recommendations by the master will be sustained if the district court did not abuse its discretion in determining that the master's report was not clearly erroneous.[158] If the district court rejected the mas-

151. Fed. R. Civ. P. 53(e)(4). *See also* 5A Moore et al., *supra* note 88, ¶ 53.15. The weight given to the master's findings are the same regardless of whether the parties have consented to the appointment of the master. However, if the parties have agreed to accept the master's findings as final, only questions of law raised by the report may be considered by the court.

152. Fed. R. Civ. P. 53(e)(2).

153. American Honda Motor Co. v. Vickers Motors, Inc., 64 F.R.D. 118 (W.D. Tenn. 1974).

154. United States v. Conservation Chem. Co., 106 F.R.D. 210 (W.D. Mo. 1985).

155. Chicago Hous. Auth. v. Austin, 511 F.2d 82 (7th Cir. 1975).

156. Within ten days of being served with notice of the filing, any party in a nonjury trial may file objections to the report or may, by motion, request that the court adopt, modify, or reject the report. Fed. R. Civ. P. 53(e)(2).

157. Stauble v. Warrob, 977 F.2d 690, 696 (1st Cir. 1992).

158. Williams v. Lane, 851 F.2d 867, 884–85 (7th Cir. 1988).

ter's report as clearly erroneous, an appellant seeking review of that ruling must show that it was an unreasonable exercise of discretion.

D. Standards for Determining Weight

In practice, the weight accorded masters' findings based on scientific and technical evidence is less formally defined than it is in theory. In many cases, expert masters, or masters advised by scientific and technical experts, made findings of fact through informal procedures.[159] Courts that receive such scientific and technical findings have little basis for determining whether they are "clearly erroneous." Because of the informality of the fact-finding procedures used by these expert masters, a slim evidentiary record usually exists for the court to scrutinize, although the reports of experts hired by masters are sometimes appended to the master's report. Perhaps for this reason, some courts treat such findings as advisory.[160]

Nevertheless, there would be little evidentiary support for judicial notice of these same facts based on treatises and other public documents. In effect, the opinion of the special master expressed in his or her fact finding is the evidentiary basis for the findings. Where parties object to such facts, fairness may dictate that the parties be afforded an opportunity to present their own experts at a formal hearing.

159. *See, e.g.,* Little, *supra* note 48.
160. Chicago Housing Auth. v. Austin, 511 F.2d 82, 83 (7th Cir. 1975).

VI. Conclusion

The appointment of special masters to handle complex scientific and technical issues and voluminous information has several advantages and disadvantages. The advantages of the use of masters include that masters

- may be able to bring special expertise to bear on the issues referred that would be difficult to secure by other means;
- can spend more time on a case and become better acquainted with the technical facts and the parties than a judge can with a full caseload;
- when permitted, may engage in ex parte discussions with the parties and facilitate settlement without prejudging the merits;
- can provide immediate resolution of technical, pretrial discovery issues through informal conferences;
- can conduct efficient, informal, as well as formal, hearings;
- can engage in intensive, sometimes round-the-clock, efforts to bring about settlement or ready a case for trial; and
- may be able to save the parties time and expense in the long run by developing efficient informal procedures and promoting settlements.

The disadvantages of the use of masters include that the use of masters

- adds immediate litigation expense for the parties;
- can cause delay, particularly when the judge must conduct reviews of voluminous masters' reports; and
- can distance the court from the case before trial. [161]

More fundamentally, the appointment may represent a deviation from the traditional adversary model of justice by interjecting a neutral, but not passive, specialized decision maker into the judicial system, which otherwise depends on more passive, generalist judges. Unlike court-appointed experts, masters are not witnesses to be examined and cross-examined by the parties, nor are they full-time, government-paid jurists, like magistrate judges. Regardless of the judicial model envisaged, the appointment of masters in some circumstances is viewed as an improper delegation of judicial authority, violating Article III, the due process clause, or the authority granted in Rule 53(b).

161. *See also* MCL 3d, *supra* note 43, § 20.14.

To date, Rule 53 has provided a flexible, if not unbounded, mechanism through which courts can fashion procedures for dealing with scientific and technical information that are suited to the special needs of an individual case. The decision whether to appoint a special master to assist the court in handling scientific evidence requires consideration of the kind of expertise needed, the purposes to be served, and the relative ability of court-appointed experts, masters, and magistrate judges to further those purposes fairly and efficiently.