Exhibit 3

To the Declaration of Jason Clark

Filed Under Seal

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

BERNARD PAUL PARRISH, *et al.*, Plaintiffs, v. NATIONAL FOOTBALL LEAGUE PLAYERS ASSOCIATION, *et al.*, Defendants	Civil Action No. C07 0943 WHA

Expert Report of Roger G. Noll

My name is Roger G. Noll, and I reside in Palo Alto, California. My education includes a B. S. with honors in mathematics from the California Institute of Technology and a Ph. D. in economics from Harvard University. I am Professor *Emeritus* of Economics at Stanford University, a Senior Fellow in the Stanford Institute for Economic Policy Research (SIEPR), and Co-Director of the SIEPR Program in Regulatory Policy.

My primary area of scholarship is the field of industrial organization, which includes the economics of antitrust, regulation, and specific industries. I have taught these subjects at both the undergraduate and graduate level. I am the author, co-author or editor of thirteen books, and the author or co-author of over 300 articles. Much of my research for the past forty years has focused on the economics of sports. My *curriculum* *vitae* is attached as Appendix A.

I have served as a consultant to the Antitrust Division of the U.S. Department of Justice, the U. S. Federal Trade Commission, the U. S. Federal Communications Commission, and the Senate Subcommittee on Antitrust and Monopoly. I also have participated on committees of the National Research Council that investigated intellectual property and licensing issues associated with the digital revolution, including the Committee on Intellectual Property Rights and the Emerging Information Infrastructure and the Board on Science, Technology and Economic Policy. I have served as an economic expert in previous litigation, some of which involved the economics of sports and entertainment and the licensing of intellectual property. During the past five years I have testified at trial in the following cases:

Metropolitan Intercollegiate Basketball Association vs. National Collegiate Athletic Association (U.S. District Court, New York, New York);

Gordon, et al., vs. Microsoft (Superior Court, Hennepin County, Minneapolis, Minnesota);

Seven Network v. News Limited (Federal Court, District of New South Wales, Sydney, Australia);

In Re Tableware Antitrust Litigation (U. S. District Court, San Francisco); and

In the Matter of Adjustment of Rates and Terms for Pre-existing Subscription and Satellite Digital Audio Radio Service (Copyright Royalty Board, Washington, D. C.).

I also testified at an arbitration hearing in a process created by the Federal Communications Commission to resolve disputes over retransmission agreements between Fox television network and multi-channel video distribution systems:

Echostar Communications vs. News Corporation.

In addition, I have submitted expert reports and/or been deposed in the following other cases that are still pending or have reached conclusion within the last five years:

Coordination Proceedings Special Title, Microsoft Cases I - V (California Superior Court, San Francisco);

Gemstar Patent Litigation (U. S. District Court, Denver);

In Re Napster Copyright Litigation (U. S. District Court, San Francisco);

National Association of Optometrists and Opticians, et al., vs. Lockyer, et al., (U.S. District Court, Sacramento);

Fran Am Partnership vs. Sports Car Clubs of America (U. S. District Court, Denver);

Intertainer vs. Time-Warner, et al. (U.S. District Court, Los Angeles);

Joe Comes, et al., v. Microsoft (District Court for Polk County, Des Moines, Iowa);

In Re Dynamic Random Access Memory (DRAM) Antitrust Litigation (U. S. District Court, San Francisco);

Brian Bock, et al., vs. Honeywell International (Superior Court, San Francisco);

Vincent Fagan and Anthony Gianasca v. Honeywell International (Superior Court for Middlesex County, Boston, Massachusetts);

John McKinnon v. Honeywell International (Superior Court for York County, Alfred, Maine);

Fleury vs. Cartier International (U. S. District Court, San Francisco);

Eric Seiken vs. Pearle Vision (Superior Court for San Diego County, San Diego);

Jason White, et al., vs. National Collegiate Athletic Administration (U. S. District Court, Los Angeles); and

In Re Static Random Access Memory (SRAM) Antitrust Litigation (U. S. District Court, San Francisco).

I also was the co-author of an *amicus* submission that was filed within the last five years to the Federal Trade Commission on the FTC's strategic plan.

ASSIGNMENT

The defendants in this litigation have asked me to analyze the reports of the plaintiffs' experts, Daniel A. Rascher and Philip Y. Rowley. I have been asked to assess whether these reports contain a valid economic analysis of the market for licensing the names, histories and likenesses of active and retired National Football League players and a reasonable method for estimating the harm, if any, that retired players may have suffered from the alleged breaches of contract and fiduciary duty by the defendants.

To undertake this task I have read many documents that have been submitted to the court, including the *Third Amended Complaint for Breach of Contract, Breach of Fiduciary Duty, an Accounting, and Violation of California Business and Professional Code* (including appended declarations and exhibits); *Plaintiffs' Notice of Motion and Motion for Class Certification and Brief in Support Thereof* (including appended declarations and exhibits); the responses to interrogatories by both plaintiffs and defendants; *Plaintiffs' Motion for Leave to File a Third Amended Complaint; Defendants Memorandum and Points of Authorities in Opposition to Plaintiffs Motion for Leave to File a Third Amended Complaint* (including appended declarations and exhibits); *Order (1) Denying Defendant's Motion for Judgment on the Pleadings, etc.*; *Order Granting in Part and Denying in Part Motion for Leave to File an Amended Complaint*; *Order Granting in Part and Denying in Part Plaintiffs' Motion for Class Certification; Expert Report of Daniel A. Rascher;* and *Expert Report of Philip Rowley.* In addition, I have obtained from the defendants the names and royalty earnings of all retired players during the class period. I have also relied on numerous publications that are cited in footnotes in this report. Finally, in reaching my conclusions I have relied on my experience as an economist who studies the sports and entertainment industries. For my work on this matter I am being compensated at the rate of $700 per hour. I have also been asked to analyze and comment on any rebuttal reports submitted by Plaintiffs in this case.

SUMMARY AND CONCLUSIONS

Plaintiffs allege that retired players who signed a group licensing authorization or assignment (the GLA Class) were damaged because defendants withheld licensing income that is due to plaintiffs (breach of contract) and failed to exploit licensing opportunities for them (breach of fiduciary duty). In this report, I focus on the extent to which the expert reports of Dr. Rascher and Mr. Rowley contain economically valid analysis to support the conclusion that all members of the GLA class suffered harm for the reasons alleged in the complaint.

Rascher Report

My overall conclusion regarding the expert report of Daniel Rascher is that Dr.

Rascher does not apply accepted methods of analysis in economics and/or the closely related disciplines of finance and marketing to answer any of the questions that were put to him by the plaintiffs. Consequently, Dr. Rascher's expert report provides no valid basis for any of the assumptions that underpin the damage calculations of Mr. Rowley, thereby rendering Mr. Rowley's estimates of damages as meaningless mechanical calculations. My specific conclusions about Dr. Rascher's report are as follows.

1. Retired Players and Brand Value in the NFL

Dr. Rascher asserts that research and "common sense" indicate that the values of licenses for the likenesses of active players as well as the logos of the NFL and the defendants are derived from the brand value of these organizations, and that brand value was partly created by retired players. The support for these assertions is one paragraph that references three research papers in marketing, three popular publications, and facts about licensing agreements for retired players and so-called "retro" team jerseys. None of this material actually supports these assertions by Dr. Rascher.

The research papers cited by Dr. Rascher, and the other papers on this topic, do not even attempt to measure the relationship between *any* attribute or activity of a team (such as historical performance or past players) and the brand value (or brand equity) of a team. Instead, this research seeks to measure the emotional attachment and loyalty of fans to their favorite teams. This scholarly literature consistently states that research has not yet linked measures of fan attachment to brand value as measured by profits or revenues. Thus, there is no basis in research for the claim that retired players (or any other possible sources of brand value) have affected current licensing revenues for active players and logos (or any other measure of financial performance).

Other citations in this paragraph refer to the positive market values of licenses for some retired players and historical jerseys, and one citation is to a *Sports Illustrated* article expressing the author's opinion that two players from the 1950s and 1960s "invented" the modern NFL. None of this information is relevant to an economic analysis of whether retired players contribute to the market value of licenses for the likenesses of active players or logos. Moreover, none of this information is relevant to an economic analysis of the proposition that *all* retired players *contribute equally* to the creation of brand equity and/or the licensing value of active players and league logos.

Notwithstanding the lack of evidence about the contribution of retired players to the value of current licensing agreements, even if this assertion were true, economic analysis provides no basis for concluding that retired players would be compensated for this contribution at all in a properly functioning market for licenses for either the images of players or the logos of teams, leagues and player unions. Brand equity is an asset of a business, and as such the profits (or losses) from this asset accrue solely to the owners of the business, typically stockholders. For example, employees may be hired to create assets, but they are compensated for their asset-building activities at the time that their services are rendered (as retired players were compensated when they were employed as players). Employees who create a capital asset do not then share in the future income stream from that asset unless, at the time of employment, their employment contract explicitly gives them a share of their employer's equity so that they become both employees and owners.

Finally, research on brand loyalty provides no basis for believing that all retired players have made equal contributions to its creation. First, when retired players were active, their salaries varied enormously. Research on the economics of wage determination in sports concludes that these salary differences reflect the relative contributions of players to the success of the team. In addition, the outcomes of the licensing market consistently show that only a small fraction of retired players command significant licensing revenue. Consistent with this fact, the data reported by Dr. Rascher show that nearly all of the revenue of Players, Inc from licenses for retired players goes to a small fraction of the retired players. Even licensees who seek licenses for a relatively large number of retired players are interested only in the relatively small fraction who had distinguished playing careers.

Market outcomes indicate that the attachment of fans to retired players is focused on only a small fraction of the GLA Class. To the extent that team attachment is related to player attachment (a proposition that has not been established in research) and that team attachment creates brand equity (another unproved proposition), one would expect that retired players have made widely divergent contributions to brand equity and hence, if such an effect exists, to current income from licenses for active players and logos.

For these reasons, Dr. Rascher's answer to question #1 has no basis in the research on brand equity, and even if the answer were correct, the inference that all retired players can expect to receive an equal share of current licensing revenue as compensation for contributions to brand equity also has no basis in economic analysis.

2. Reported vs. Actual Licensing Revenues

Dr. Rascher was asked whether the NFLPA's Form LM-2 reports reflect the licensing revenues that have actually been paid to players. Dr. Rascher concludes that the Form LM-2 reports overstate the amount of licensing income that is paid to players. Dr. Rascher bases his analysis on a comparison of the LM-2 reports and spreadsheets that account for the management of the licensing revenues that are eligible for distribution through the active player pool. From these comparisons, Dr. Rascher seeks to estimate total licensing revenues and the share of licensing revenues going to players.

Dr. Rascher does not explain why he bases his estimates of both licensing income and disbursements on the spreadsheet data and the LM-2 report rather than the most obvious source, which is the audited consolidated financial reports of the NFLPA (which includes revenues and expenses of its subsidiaries, including NFLPI). In undertaking a financial analysis of an organization, standard practice among economists is to rely upon audited financial reports because they are the most reliable. I have calculated licensing revenues and disbursements to players for fiscal years 2003 through 2008 directly from the consolidated financial reports. These differ slightly from the LM-2 reports, but one would not expect them to be the same since Form LM-2 reflects cash flow accounting whereas the financial reports reflect accrual accounting.

Dr. Rascher's comparisons between Form LM-2 and the spreadsheets are meaningless for two reasons. First, the spreadsheets do not report all income and payments from licensing. Instead, they focus on licensing revenue and disbursements that go into the pool of revenues that is divided among NFLPI, NFLPA and active players. The spreadsheets ignore substantial portions of licensing revenues and disbursements. Form LM-2 is more comprehensive. Second, Dr. Rascher arbitrarily excludes both income and disbursements of licensing revenue that are reported on Form

LM-2. He excludes as revenue the line item for player appearances and autographs, but these revenues are part of the line item "Player Royalty and Appearances" in disbursements. In addition, Dr. Rascher excludes "dues rebates" from disbursements. In fact, the NFLPA and other players associations have long practiced granting dues rebates that are funded by licensing royalties. Third, the spreadsheets that Dr. Rascher used exclude all revenues and disbursements to players that are paid directly by Players Inc.

Thus, Dr. Rascher's conclusions regarding gross licensing revenues, total payments to players, and the fraction of the former that is accounted for by the latter are wildly incorrect.

In answering this question, Dr. Rascher discusses the change in allocating $8 million per year between the defendants and active players. Dr. Rascher compares the allocation of this $8 million with the disposition of the rights to its logo by the National Basketball Players Association. This comparison is meaningless because the NBA markets the logo of the NBPA, whereas Players Inc. markets the logos of the NFLPA and NFLPI. Because the NBPA does not bear the costs of licensing its logo, its decisions about how to allocate this revenue are not based on the same underlying economic circumstances. In addition, there is no basis in economic analysis to analyze the fraction of any particular source of revenue that is allocated to players. The relevant comparison for assessing the efficiency of the defendants' licensing operation is the fraction of licensing revenues from all sources that is disbursed to players. Thus, Dr. Rascher's discussion provides no basis for criticizing the reallocation of the $8 million dollars.

3. Group and Individual Licenses

Dr. Rascher was asked about the differences between individual and group licensing, including what the plaintiffs refer to as customary practice in dividing the revenues between the two. In answering this question, Dr. Rascher erroneously conflates two different aspects of licenses. The first is whether the licensee seeks the images of six or more players (a group license), and the second is whether players receive equal shares of licensing revenues. Dr. Rascher erroneously believes that all premium licensing agreements are "ad hoc" licenses that cover five or fewer players. Dr. Rascher then states that group licensing revenues are "commonly divided up on an equal share basis."

Dr. Rascher does not clearly state what he means by "commonly" or "equal share." Regardless of his meaning, the inference that revenues from group licenses are nearly always divided equally among all players is incorrect. Dr. Rascher cites, but does not actually use, the definition of a group license, which is that the licensee seeks to use the names, histories and likenesses of six or more players in the same product or promotion. Group licenses frequently cover only a subset of players. In these cases, license revenue is shared only among the players who are covered by the license, not all players, with the players not covered by the license receiving nothing. In addition, group licenses often divide revenue unequally among the players that they cover.

In practice, the primary licensing activity of the defendants on behalf both active and retired players is marketing group licenses. Players who can earn substantial revenues from individual licenses typically are represented by agents for that purpose. And, the payments to all players during the class period have been roughly equally divided between payments that represent equal shares versus payments that do not. This outcome is not significantly different than the practices of other entities or persons that engage in group licensing. Dr. Rascher's assertion that group licensing revenue customarily is divided equally is not correct.

4. *Licensing Revenues Retained by the Defendants and Other Players Unions*

Dr. Rascher answers this question by comparing the results of his answer to Question #2 with the licensing costs of some other sports organizations. These comparisons are meaningless because Dr. Rascher fails to take into account differences among these licensing activities.

First, Dr. Rascher finds that organizations that use outside entities to license their rights pay 10 to 40 percent of licensing revenue for these services. These entities do not run their own licensing organization. Even using Dr. Rascher's approach, the relevant comparison is with the costs of the NFLPI, which according to Dr. Rascher's own estimates is within the standard range. Even so, Dr. Rascher's estimates of the fraction of licensing revenues going to NFLPI are overstated because he does not consider all licensing revenues. Because NFLPI generally does not keep a share of the revenues from premium licenses or *any* material share of the revenues from licenses for retired players, the actual share of total revenues that is kept by NFLPI is at the low end of this range.

Second, Dr. Rascher calculates that other players associations pay out about 75 percent of their licensing revenues to their players. Dr. Rascher basis this conclusion on the data reported in Form LM-2 for the players unions in basketball and baseball.

Dr. Rascher notes that the NBA, not the NBPA, runs the licensing program for NBA players. He does not attempt to take into account the fact that the share of this revenue that is accounted for by the cost of the licensing program has already been deducted from the revenues received by the NBPA. Thus, to the extent that a comparison between the two unions is valid, the NBPA share should be compared only with the share retained by the NFLPA, not including the share retained by NFLPI.

In the case of baseball, Dr. Rascher counts as payments to players a 2007 disbursement to players from a "strike fund" that the Major League Baseball Players had accumulated in case the last round of collective bargaining failed, leading to a strike or a lockout. Dr. Rascher apparently did not examine whether the defendants have a similar strike fund, or whether MLBPA's disbursement from its strike fund rendered the comparison between the two unions meaningless. In fact, the NFL has exercised its option to terminate the current collective bargaining agreement at the end of the 2010 season. The NFLPA is accumulating funds for the possibility that 2011 will witness a strike or a lockout, or that the union will need to decertify as a collective bargaining unit in order to challenge whatever new player market rules NFL management might seek to impose unilaterally. Thus, it is meaningless to compare the revenues retained by a union that faces uncertainty and potentially large expenses regarding collective bargaining with a union that has just amicably resolved its collective bargaining issues.

5. The Bargaining Position of the Defendants

Dr. Rascher begins his answer to this question by stating that a licensing entity derives benefits from "exclusivity over the assets being licensed." He then states that "exclusivity" gives the defendants other benefits: "one-stop shopping," "market power" with respect to licensees, and "market power" with respect to players.

Dr. Rascher makes several fundamental errors in answering this question. First, the defendants do not have an exclusive right to group licensing for retired players. The defendants are the exclusive agents in group licensing only for active players. Second, the ability to offer bundles of licenses in a single agreement does not hinge on exclusivity. Nothing prevents another organization from signing a large group of retired players to an agreement that is essentially the same as the defendants' GLA for retired players and offering a bundle of retired players to a licensee. Third, the notion that the defendants enjoy market power over active players is ludicrous because the NFLPA is governed by active players. Control of the NFLPA (including its divisions such as NFLPI) is exclusively in the hands of a group of elected player representatives and an Executive Committee consisting of players who are selected by the player representatives. Dr. Rascher's argument amounts to the claim that active players are exercising market power over themselves, which is economic nonsense.

6. Executive Director Salaries

Dr. Rascher was asked to compare the salaries of the executive directors of the NFLPA, the NBPA and the MLBPA. Dr. Rascher concluded that the executive director of the NFLPA is paid more than the executive directors of the other two organizations.

Dr. Rascher's discussion of the relative earnings of the executive directors does not deal appropriately with the following facts. First, the earnings of the executive director of the NFLPA include earnings as chairman of NFLPI. The other executive directors derive all of their compensation from their position as executive director of the union. Second, Donald Fehr, the executive director of MLBPA, is paid much less than either of the other two, having received $1,000,000 per year for many years. Billy Hunter's compensation is substantially above the salary of Donald Fehr, and has been rising steadily. In FY2006, Mr. Hunter's compensation was more than that of the executive director of the NFLPA, Eugene Upshaw. Third, Dr. Rascher compares average earnings from FY 2003 to FY2007 and total earnings in FY2007. In FY2007, Mr. Upshaw received one-time bonuses from both NFLPI and NFLPA. Standard practice is to amortize one-time payments over the life of the contract. By failing to do so, Dr. Rascher erroneously makes it appear that Mr. Upshaw had a huge increase in one-year earnings in FY2007.

Dr. Rascher's ultimate conclusion is: "I know of no reason why it should be in excess of the other unions' executive directors." Dr. Rascher's did not perform an actual analysis of the sources of pay differentials among executive directors of players unions. Without undertaking the analysis, he can not know why executive directors have different salaries, and his lack of knowledge does not mean that no explanation exists.

In practice, the heads of seemingly similar organizations often are paid very different salaries. For example, the compensation of the CEOs of the 500 largest companies ranges from $193 million for Larry Ellison of Oracle to $100,000 for Warren Buffett of Berkshire Hathaway. And Larry Ellison is paid more than the CEOs of the world's most successful software companies, Steve Ballmer of Microsoft ($1.28 million) and Eric Schmidt of Google ($.48 million).

A first principle of economic analysis is that wages are determined by the productivity of the worker. Thus, to conclude that the executive directors of players associations should be paid the same requires demonstrating that their jobs are roughly the same and that the incumbents have roughly the same performance and experience. In fact, neither of these is true. One difference is tenure in office. Another is the size of the union. Still another is the complexity of the job and the accomplishments of the employee. Eugene Upshaw has served the longest, the NFLPA is by far the largest player union, the NFLPA has substantially more licensing income than the other associations, and Mr. Upshaw also oversees the NFLPI. Moreover, during Mr. Upshaw's tenure NFL players gained true free agency for the first time, and in 2006 successfully negotiated substantial additional gains for NFL players. Thus, without taking all of these factors into account, there is no basis to conclude that raw salary differences among executive directors can be the basis for the conclusion that Mr. Upshaw is overpaid.

Rowley Report

The *Rowley Report* contains five measures of damages arising from the alleged breaches by the defendants. All calculations assume that each member of the GLA Class and each active player should receive an equal payment from the distribution of a designated amount of licensing revenues. These calculations differ only with respect to the fraction of gross licensing revenues (GLR) that is awarded to the GLA Class.

The first three methods divide GLR into three categories: income from license agreements that contain language about retired players; payments from the NFL's sponsorship and Internet licensing program; and all other GLR income that is distributed to active players according to current allocation procedures. The other two methods increase the fraction of GLR that is allocated to players. One method undoes the reallocation in 2006 of $8 million between the defendants and active players, and the other increases the share of GLR that is allocated to players in accordance with what Dr. Rascher claims is a "customary percentage" rather than current sharing methods.

These calculations are based on several assumptions that Mr. Rowley does not defend. The first assumption is that all members of the GLA class suffered injury, and that, for all class members, this damage equals the same payment that active players who qualified for the highest pool share either did or should have received. The second assumption, which applies to all but the first method, is that retired players are entitled to a share of licensing revenues from contracts that do not mention them. The third assumption is that the defendants distribute too little licensing revenue to players and too much to themselves.

The assumptions that underpin the estimates of damages are linked to the answers to the six questions that were provided by Dr. Rascher. To the extent that there is any basis in the reports of plaintiffs' experts for the assumption of equal damage, it is Dr. Rascher's answer to Question #3 about "traditional" and "customary" ways for sharing licensing income. To the extent that there is any basis in the reports of the plaintiffs' experts for the assumption that retired players are entitled to equal shares of licensing income that is derived from agreements that do not even mention them, it is Dr. Rascher's answer to Question #1 regarding whether retired players helped "to make the game what it is today." To the extent that there is any basis in the reports submitted by plaintiffs' experts for the assumption that all players collectively should have been paid a higher share of gross licensing revenues, it is in the answers of Dr. Rascher to Questions #2, #4, #5 and #6 regarding, respectively, the accuracy of the defendants' reports on the receipt and distribution of licensing revenues, the fractions of licensing income kept by the defendants and by other organizations, the claimed monopoly power of the defendants with respect to by active and retired players, and the comparisons of the salaries of the Executive Directors of players associations in professional sports.

My review of Dr. Rascher's report shows that it contains no accurate facts and valid economic analysis that support any of the assumptions that underpin the damage estimates of Mr. Rowley. Consequently, the damage calculations have no basis in economic analysis and, from an economic standpoint, are arbitrary.

The remainder of this report provides the basis for these conclusions.

RASCHER QUESTION #1: BRAND VALUE

The first question that Dr. Rascher answered is: "Did the retired NFL players help to make the game what it is today?" The first puzzle for an economist is to ascertain the economic content of this question. Asking an economist to answer this question makes sense only if its proper interpretation is to determine the contribution of past players to the current popularity and financial performance of the NFL.

Dr. Rascher devotes only one paragraph of his analysis to this question. Although Dr. Rascher does not state his interpretation of the question's economic content, his answer is about the contribution of retired players to brand value and, via brand value, to licensing revenues. Dr. Rascher states: "Research shows, and common sense suggests, that the development of customer loyalty and brand value is partially based on historical teams and players." Dr. Rascher connects this statement to licensing by asserting that "[a]s a matter of economics" the value of licenses to use "the names and likenesses of players" and "the logos of the NFL and the NFLPA/NFLPI is based, in part, on the brand value of those organizations and logos."

Most of the rest of Dr. Rascher's answer is about the positive market value of licenses for retired players and historical team jerseys. The final sentence references an article in *Sports Illustrated* about how Johnny Unitas and Raymond Berry, two star players for the Baltimore Colts during the late 1950s and 1960s, changed the way football is played in the NFL.

This section examines whether Dr. Rascher accurately characterizes the sources that he cites and whether the inferences that he draws are based on valid economic analysis. My overall assessment is that Dr. Rascher's answer to Question #1 does not apply accepted methods of economic analysis and therefore has no valid implications regarding whether members of the GLA Class were paid less revenue from licensing income than they otherwise would have received.

Relevance to Injury to the GLA Class

Dr. Rascher was not asked to draw any economic implications from his answer to Question #1 about the connection between the contribution of retired players to the economic success of the NFL and whether retired players have suffered injury. I conclude there is no such connection, and that, as a result, Dr. Rascher's answer to Question #1 has no relevance to the issue of whether members of the GLA Class suffered harm or to the calculation of the damages, if any, to which they are entitled.

Dr. Rascher cites documents containing the undisputed fact that *some* retired players have received licensing income from the defendants. But Dr. Rascher provides no information about what market rates for these players would have been, whether other licenses for these and other retired players were at or below market rates, or whether the market values for licenses for all retired players have any positive market value. Thus, Dr. Rascher's answer does not include any kind of economic analysis

Dr. Rascher interprets an e-mail message from Andy Feffer as indicating that the charge for a particular license was "below market rates." The cited document is an e-mail string concerning an attempt by EA Sports to convince Players, Inc that it should pay $100,000 of the $400,000 annual fee for rights to the Pro Football Hall of Fame for its electronic game featuring Hall of Fame players. The cited e-mail is the final refusal by Players Inc. to pay the $100,000 that was in dispute. The basis for the statement that the rights fees were below the market rate apparently is the sentence stating that without the assistance of Players Inc. in obtaining the Hall of Fame license for EA Sports, "you might have paid in excess of $1M for these rights."

This statement is not a valid estimate of the market value of the rights to the names and likenesses of the retired players that were included in the license. To begin, the context of the statement is a message meant to convey to EA that it was going to have to pay $100,000 more than it claims it had agreed to pay. The sentence in question is stating that at $400,000 the licensee is getting a good value. Plainly the sentence does not state that $1 million is an estimate of the true market value of the license. In addition, the license in question[1] is not just for retired players, but also includes rights to several retired coaches and the logos of the Pro Football Hall of Fame. There is nothing in the e-mail string that supports the inference that $1 million refers only to the retired players included in the license. Thus, there is no valid basis in economic analysis for Dr.

[1] Bates Nos. PI000100-110.

Rascher's claim that the money received for the rights to these retired players in the license was below market rates.

In discussing the EA Sports license, Dr. Rascher states that "it is possible to use retired players" in the Madden NFL game, "which indicates that there is value to EA in having retired players in the game." These statements do not mention that the license in question includes *only* retired players and coaches who have been elected to the Pro-Football Hall of Fame. According to the license agreement, the license fee is increased by $2000 for each new player and coach that is elected. Thus, the EA license provides no support for the proposition that licenses for all retired players have positive market value.

Instead, the licensing data show that the demand for licenses for retired players is concentrated among the stars of the past, and for the vast majority of retired players the market value of their names and licenses is zero. Using the defendants' records of licensing payments to retired players, I calculated the distribution of license payments to class members for the period from fiscal year 2003 through fiscal year 2008. Table 1 shows the distribution of payments to members of the GLA Class according to the amount paid, and Table 2 shows the distribution of licensing revenues among these same players when ranked by payments.

An exhibit to Mr. Rowley's report lists 2,109 players who signed GLAs for at least part of this period. This list includes fourteen players who are listed twice, so that the list now contains 2,095 players. The records of the defendants indicate that 1,716 received no licensing income. Of the 379 players who received payments, 32 received $25 or less, and another 33 received between $25.01 and $500. Ten players accounted for approximately 44 percent of the total payments to all retired players during this

Table 1: Distribution of Licensing Payments among

Members of the GLA Class, 2003-early 2008

Range of Payments ($)	Number of Players
None	1,716
.01 – 25.00	32
25.01 – 250.00	15
250.01 – 500.00	18
500.01 – 1000.00	54
1000.01 – 10000.00	154
10000.01 – 50000.00	69
50000.01+	33
Total	2,095

Table 2: Distribution of Licensing Revenues among

Members of the GLA Class

Revenue Rank Range	Amount Paid ($1000)	Fraction of Total
Top Ten	3,437	.44
11- 20	1,164	.15
21- 50	1,595	.20
51-100	944	.12
101-200	541	.07
201-379	163	.02
All	7,844	1.00

period. The top hundred retired players received over 90 percent of payments, while 179 of the 379 players received only two percent.

I have also examined the distribution of licensing income among retired players according to the player's years of service in the NFL. I have found that 94 percent of all royalty income is accounted for by players with careers of seven or more years. The median career length in the NFL is about three years. Thus, for players to have significant market value, they must have long, successful NFL careers that cause them to be known and recognized by fans. The notion that all of these players contributed equally to building the value of the NFL has no basis in economic reality.

These findings are not surprising. The salaries of active players also vary widely. In 2007, the minimum salary for a rookie was $225,000, while several star players earned salaries over $10 million. These salary differences reflect the differential productivity of players in playing skills and hence their ability to attract fans. Economics research confirms this expectation, finding that salaries in all professional sports, including the NFL, are strongly correlated with a player's performance, years of service, and position as well as the rules governing the player market.[2] The data on licensing income for

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[2] For a survey of the research on salaries in sports, see Lawrence M. Kahn, "The Sports Business as a Labor Market Laboratory," *Journal of Economic Perspectives* Vol. 14, No. 3 (2000), pp. 75-94. For research on NFL salaries, see Sandra Kowalewski and Michael A. Leeds, "The Impact of Free Agency and the Salary Cap on the Distribution and Structure of Salaries in the National Football League," in *Sports Economics: Current Research*, John Fizel, Elizabeth Gustafson and Lawrence Hadley, eds., Preager, 1999, and Micheel A. Leeds and Sandra Kowalewski, "Winner Take All in the NFL: The

retired players shows that the differential interest of fans in players according to the players' attributes during their active career carries over into retirement.

Plaintiffs allege that the defendants have not exercised good faith effort to maximize licensing revenues for retired players. One plausible interpretation of the harm that retired players allegedly have suffered is that the players who receive little or no licensing income from the defendants would have received significant income but for the defendants' behavior. The evidence indicates that the cause of little or no licensing income for the vast majority of retired players is a lack of demand for their services. The GLA for retired players is a non-exclusive license, so that others are free to exploit any opportunities to license the names and images of the vast majority of retired players who receive little or no income from the defendants' licensing program. I have not been able to locate in publicly available sources any examples of group licenses for retired players other than former stars. For example, the exclusive license between NFLPI and EA for computer games created the opportunity for another entity to assemble licenses for retired players for a competing game. In fact, All-Pro Football 2k8 was released by Take-Two Interactive Software in July 2007. This game features 240 retired NFL players that game players can organize into fictional pro teams that can then play against each other.[3] Thus, while star players have been licensed outside of the context of the defendants' licensing program, the vast majority of retired players have not.

Effect of the Salary Cap and Free Agency on the Compensation of Skill Position Players," *Journal of Sports Economics* Vol. 2, No. 3 (2001), pp. 244-56.

[3] Jane L. Levere, "Wary of Infringing Rival Games, Take-Two Calls Up Football's Golden Oldies," *New York Times,* July 23, 2007.

The fact that there is no demand for licensing rights to most retired players is explained by the diversity in playing careers among them. Roughly half of all players who ever appear on an active NFL team roster have careers that last three or fewer years. These players typically do not play regularly, and so do not develop substantial name recognition as professional football players. When these players retire, they have no value to licensees because their anonymity among sports fans makes their images of no value to potential licensees.

To summarize, no objective information is consistent with the conclusion that the market value of licenses is positive for all members of the GLA Class. While Dr. Rascher's answer to Question #1 refers generally to retired players as a group, all of the evidence he cites and that is otherwise available from public sources or discovery of the defendants' records is inconsistent with the idea that the market value of licenses is positive for all or even most retired players.

Research on Brand Equity

As support for his assertions that retired players contributed to brand equity and that brand equity produces licensing income for active players, Dr. Rascher cites three studies. In fact, the studies he cites and other studies on brand equity in sports do not support either assertion. Because my claim about the complete irrelevance of these papers is strong, I provide a detailed description and assessment of these articles. Before doing so, however, a useful place to begin is to describe the nature and purpose of the research literature on brand equity in professional sports.

Scholars in marketing use the terms brand value, brand equity and brand asset interchangeably in reference to a particular intangible asset of a firm. The value of this asset is the present value of expected future profits that are not attributable to the pure functionality of the product, but instead reflect a demand on behalf of consumers for the brand itself. The marketing literature contains theoretical and empirical research about how firms can create and exploit brand equity to maximal advantage.

A great deal of research on building brand equity focuses on creating brand loyalty or brand association. The underlying idea is that consumers who express loyalty to a brand or who have positive emotional associations with the brand are likely to have a higher willingness to pay for the product and to be willing to buy other products with the same brand. Thus, management strategies that cause consumers to have positive associations with a brand plausibly could build brand loyalty and hence brand equity.

Research on brand management and brand equity is new. Research on brands as a corporate asset dates from the 1980s,[4] and to my knowledge the first publication that contains "brand equity" in the title is a 1989 article by Peter Farquhar.[5] The most cited publications on the topic are by David Aaker and Kevin Lane Keller, both published in the early 1990s.[6] Both are extensively cited in articles on brand management in sports.

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4 The oldest reference I have found is John Philip Jones, *What's in a Name? Advertising and the Concept of Brands*, Lexington Books, 1986.

5 Peter H. Farquhar, "Managing Brand Equity," *Marketing Research* Vol. 1, No. 3 (1989), pp. 24-33.

6 David A. Aaker, *Managing Brand Equity: Capitalizing on the Value of a Brand Name*, Free Press, 1991, and Kevin Lane Keller, "Conceptualizing, Measuring, and Managing Customer-Based Brand Equity," *Journal of Marketing* Vol. 57, No. 1 (1993), pp. 1-22.

The application of the brand equity concept to sports is even more recent. In a series of articles beginning in 1998 with a study of college sports, James Gladden with various co-authors was the first to examine brand equity in sport.[7] The research on brand in sports has focused on attempting to develop reliable empirical measures of brand association and loyalty. To date, no published empirical research quantifies the effect of brand association and brand loyalty on brand equity or any other measure of the financial performance of sports enterprises. As I demonstrate below, there is no basis in empirical research for the claim that current licensing revenues for active players and the logos of the NFL, its teams, the defendants and the Pro Football Hall of Fame are in any way

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[7] James M. Gladden, George R. Milne and William A. Sutton, "A Conceptual Framework for Evaluating Brand Equity in Division I College Athletics," *Journal of Sport Management* Vol. 12, No. 1 (1998), pp. 1-19; James M. Gladden and George R. Milne, "Examining the Importance of Brand Equity in Professional Sports," *Sport Marketing Quarterly*, Vol. 8, No. 1 (1999), pp. 21-29; James M. Gladden, Richard L. Irwin, and William A. Sutton, "Managing North American Major Professional Sports Teams in the New Millennium: A Focus on Building Brand Equity," *Journal of Sport* Management Vol. 15, No. 4 (2001), pp. 297-317; James M. Gladden and Daniel C. Funk, "Understanding Brand Loyalty in Professional Sport: Examining the Link between Brand Association and Brand Loyalty," *International Journal of Sports Marketing and Sponsorship* Vol. 3, N0. 1 (2001), pp. 67-94; and same authors, "Developing an Understanding of Brand Associations in Team Sport: Empirical Evidence from Consumers of Professional Sport," *Journal of Sport Management* Vol. 16, No. 1 (2002), pp. 54-81.

traceable to brand equity that was created by retired players.

Beverland Study

Dr. Rascher cites a two-page article by Michael Beverland[8] that deals with the specific issue of the "challenge" to a firm in trying to use authenticity to build brand value. Authenticity is not defined in this article, but the paper refers to some attributes of authenticity: timeless values, moral authority, links to the past, hand-crafted methods, respect for traditions, and cultural links. The conflict that the author identifies in the attempt to build brand equity by making use of authenticity is that brand management has a commercial purpose but authenticity is undermined if consumers perceive a commercial motive behind its use.

This paper presents brief synopses of how authenticity plays into brand equity for the following products: Levi's, Gucci, the Volkswagen Beetle, the Depot (an Australian department store), Harley Davidson, Dunlop, theme parks, surf boards, and country music. The only mention of sports is with respect to Dunlop, which sponsors "local sporting events rather than high profile sports." There is no mention of the role of retired players, or indeed of any present or former employees, in creating brand equity through authenticity. Moreover, the author states: "We lack empirical studies of pragmatic insight of how brands have maintained images of authenticity over time…"

The Beverland article provides absolutely no basis for the assertions that retired players created brand equity for the NFL and the defendants, or that retired players affect

[8] Michael Beverland, "Brand Management and the Challenge of Authenticity," *Journal of Product and Brand Management,* Vol. 14, No. 7 (2005), pp. 460-1.

the current licensing revenues for active NFL players, the NFL, and the defendants. Notwithstanding the fact that the NFL, other sports leagues, and retired athletes are not mentioned, the article also contains no empirical information about the effect of authenticity on any dimension of financial performance.

Ross, James and Vargas Study

Another article that is cited by Dr. Rascher is a study of how to measure brand associations in professional sports by Stephen Ross, Jeffrey James and Patrick Vargas.[9] The purpose of this paper is to present an empirical method – the Team Brand Association Scale – to measure the brand associations of professional sports teams. The authors state: "Brand associations are the thoughts and ideas than an individual holds in his or her memory for a particular good or service."

The authors emphasize the primitive state of knowledge about how brand associations are developed. "Although sport managers have begun to realize the importance of investing in brands and the creation of favorable associations in regard to attracting customers, the process by which brand associations are identified and measured is still in the development stage." The object of their research on brand associations is to assist sport managers in developing brand equity. According to the authors, "if the sport marketer understands what association(s) spectators and fans hold, then marketing activities could be controlled more efficiently to create favorable brand images and to

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[9] Stephen D. Ross, Jeffrey D. James and Patrick Vargas, "Development of a Scale to Measure Team Brand Associations in Professional Sport," *Journal of Sport Management* Vol. 20, No. 3 (2006), pp. 260-79.

reinforce the positive brand images that already exist. For example, various forms of advertising that promote specific attributes of the sport product might influence an individual's support of a favorite sport or team."

The study than goes on to use a survey of over 900 students to construct a list of specific measures that are components of brand association. The last stage of the analysis was to ask students to name their favorite sports team and then to rank on a scale of one (never) to seven (always) the extent to which they thought of each of 41 specific possible associations with their favorite team. From the responses, factor analysis was used to group these associations into eleven independent dimensions of brand association and to measure their statistical importance. The results are reported in Table 4 of the paper.

Not one of the 41 items refers explicitly to retired players. One of the eleven dimensions is "Team History," which is below average in importance. In a statistical sense, Team History is more important in explaining attachment than Social Interaction [measures of identity with other fans], Commitment [measures of duration of attachment], and Team Play [measures of the style of play] and equivalent to Stadium Community [measures of the area around the stadium]. Team History was less important than Brand Mark [symbols and colors], Rivalry [other teams played, league], Concessions, Organizational Attributes [relation of team organization to fans and community], Non-player Personnel [coaches, management], and Team Success [current and recent performance].

Five of the 41 associations are included in the Team History dimension: a past era in the team's history, game winning plays in the team's history, past championships, the most recent championship, and the general past success of the team. The two championship measures were the most important elements of this dimension.

The Team Success dimension includes the attribute "quality players," but without the historical context associated with retired players. This dimension has five elements. "Quality players" is the second most important, but all are similar in both the weight accorded them and their statistical significance.

These results provide no information that reasonably could be interpreted as support for the idea that retired players are an important source of brand association. Moreover, the paper does not claim to relate its purpose, which is to measure brand association, to the financial performance of a firm, although the authors believe that their work may contribute to the development of such a measure in the future.

Underwood Study

Dr. Rascher cites an article by Robert Underwood on the role of social identify in creating brand equity in sports.[10] The theme of the article is how social identity is "a mechanism for tapping the emotional connection between the consumer and the service brand." As used here, social identity is defined as the element of self-identity that is derived from a person's membership in a social group. Sports are used as an example because "fans derive strength and a sense of identity from their affiliation with a team." The article advances the idea that by using social identity to build "awareness, image and loyalty, sports franchises may be able to achieve attendance levels and financial goals

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[10] Robert Underwood, "Building Service Brands via Social Identify: Lessons from the Sports Marketplace," *Journal of Marketing Theory and Practice* Vol. 9, No. 1 (2001), pp. 1-13.

that are not simply dictated by win-loss records alone."

The goal of the paper is to identify characteristics of sports that "1) have reasonable potential to strengthen fan identification with a team and 2) are to some degree controllable by the sports organization." To gather information about such characteristics, the author posted questions on the Internet chat rooms of eleven professional and college teams "famous for strong fan loyalty and support." The author concluded from the responses to these postings that four characteristics of sports teams promote social identity: group experience, history and tradition, the physical facility, and ritual. The physical facility is obvious, but the others require some explanation.

Group experience refers to the affinity fans of a team feel for each other as well as "the inherent bias against out-of-group members." For example, both fans and the owner of the Pittsburgh Steelers of the NFL referred to fans as family. The author cites some examples of how teams can construct events and environments that plausibly could create a greater sense of fan community.

History and tradition refers to references to a team's past. The author states: "Marketing strategies that incorporate a strong sense of history (e.g., appreciation/ recognition of former teams/players, traditional uniforms) serve not only to differentiate a team brand, but may also elevate fans' sense of obligation to the team." The author offers six examples for successful exploitation of history and tradition: the Master's golf tournament, the Kentucky Derby, the Chicago Cubs, the Green Bay Packers, the Arizona Diamondbacks, and the University of Alabama football team. The author provides no information about the extent to which respondents mentioned former players in discussing a team's past, or whether promotions based on the connection to past players played any role in the successful marketing strategies of the four teams on this list.

Rituals are defined by the author as "patterns of human behavior that are social in nature." Rituals are associated by a particular event, are repetitive, are undertaken "almost automatically" but with awareness that the ritual has meaning, and reflect continuity as part of self-identity. Examples are standing through Texas A&M football games and singing "My Old Kentucky Home" at the Kentucky Derby. The author offers no examples from the NFL.

The Underwood article makes no attempt to quantify any of these four factors or to relate any of them to the financial performance of the team. Indeed, the research is unsuited for this purpose because of two features of the study design.

First, the sample of fans is based on the variable that the study seeks to explain, namely fan loyalty. The only subjects that were surveyed are fans of teams that have the reputation of having high fan loyalty. This procedure makes estimation of the causes of brand loyalty impossible because it prevents the researcher from knowing which attributes are associated with teams that have loyal followings versus teams that do not.

Second, the subjects are not a random sample of the fans of those teams. Instead, they are self-selected fans who responded to postings on the web sites of the teams. The behavioral characteristics that are measured are associated with the propensity to join chat rooms rather than the attachment of a fan to a team.

In summary, the Underwood article mentions former players as one source of tradition building, but makes no attempt to quantify the relationship between past players and the tradition dimension of brand identification, let alone to quantify the effect of tradition on brand equity and measures of financial performance. The reason that it could not be used to quantify these relationships is that the survey instrument is inappropriate for that task. Thus, this article provides no basis for the conclusion that retired players are responsible for the licensing revenues of either active players or organizations associated with the NFL.

Other Articles

The research papers that Dr. Rascher cites, and others that he does not cite, define brand value (or the more common term, brand equity) as the incremental market value of a sports *franchise* – a team, not a league – that is *not* due to the quality of the team but that potentially can be created by good team management. The ultimate purpose of this research is to help team owners and managers identify strategies to build greater attachments of fans to their team other than by procuring the services of expensive star players, thereby increasing the revenues of a team of given playing quality and partly insulating the team from financial losses in the inevitable years when the team is weak. Prominent examples are training in-stadium staff to treat customers well and organizing events outside the context of games that create a sense of community among fans.

One author who is cited by Dr. Rascher – Stephen D. Ross – has several other publications on brand management in professional sport. One of his articles contains a clear definition of brand equity.[11] "From a firm's financial perspective, brand equity has been defined as the incremental cash flow resulting from a product with a brand name versus the cash flow that would result without the brand name. Additionally, it has been

[11] Stephen D. Ross, "A Conceptual Framework for Understanding Spectator-Based Brand Equity," *Journal of Sport Management* Vol. 20, No. 1 (2006), pp. 22-38.

consistently argued that favorable brand equity increases the probability of brand choice, customer (and retailer) retention, profit margins, willingness to pay premium prices, consumer search, marketing communication effectiveness, positive word-of-mouth, brand licensing opportunities, and brand extensions. It decreases vulnerability to competitive market actions and elastic responses to price increases" *(references deleted).*

In this article, Ross proposes a framework for finding measures of "subjective attitudes, individual perspectives, feelings, values and past personal experiences" to brand equity, thereby providing "a conceptual paradigm for understanding how brand equity can be managed in spectator sports." The author then states that this framework has not been implemented empirically. A "fruitful line of future research would be to determine methods for assessing the strength of spectator-based brand equity. Although the framework presented here is useful for illustrating how equity can be developed and managed, it does not provide a method for assigning a specific value to that equity. Sport brand equity research would benefit significantly if an indexing system were formulated to assign a specific value to organizations' equity strength… [A] conceptual framework such as the one proposed here is certainly the first phase in generating a greater understanding of spectator-based brand equity."

Ross is the co-author of another article that was published in May, 2008, about the sources of brand equity for a team in the National Basketball Association.[12] This study applies the methods developed in the article cited by Dr. Rascher to study brand

[12] Stephen D. Ross, Keith C. Russell and Hyejin Bang, "An Empirical Assessment of Spectator-Based Brand Equity," *Journal of Sport Management* Vol. 22, No. 3 (2008), pp. 322-37.

associations by season-ticket holders of an unrevealed NBA team in the Midwest. The focus on the NBA makes the empirical content of this paper of dubious applicability to the NFL, but the authors' discussion of the relationship of the model that was estimated in this work (and in the paper cited by Dr. Rascher) does shed light on the state of empirical analysis about brand equity in sport.

According to the authors (writing in May, 2008), "unlike the developments at the conceptual level, the literature does not provide a satisfactory method for measuring the sources of brand equity." The authors identify two approaches to the measurement of brand equity: "economic or finance-based and consumer-based. The financial approach focuses on absolute values of a brand name from a firm's economic perspective… The consumer-based approach focuses on relative psychological and behavioral values of a brand name from a consumer's perspective…" (*references deleted*). The latter approach, they observe, is typically associated with service products such as sports.

The articles places its methods in the category of psychology-based, consumer-oriented approaches to measure brand equity. Specifically, this means that the method is not geared to measure the effects of the variables on financial performance. In their concluding paragraph, the authors state that their work "does not attempt to show any impact on outcome variables such as media contracts, media consumption, and merchandise purchase behavior. While the focus of the current study was to establish empirical support for the SBBE [spectator-based brand equity] model, future research could investigate the relationship between brand equity and desired outcome variables. For example, future research could examine the impact of spectator-based brand equity on the actual number of games attended during a sport season." In short, as of May 2008, research has not yet attempted to link measures of brand associations with measures with any measure of financial performance, including licensing revenues.[13]

In short, Dr. Rascher is wildly incorrect in asserting that "[r]esearch shows… that the development of customer loyalty and brand value is partially based on historical teams and players." Published research contains no evidence that this statement is true.

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[13] See also Erdener Kaynak, Gulberk Gultekin Salman and Ekrem Tatoglu, "An Integrative Framework Linking Brand Associations and Brand Loyalty in Professional Sports," *Journal of Brand Management* Vol. 15, No. 5 (2008), pp. 1479-1803. This recent article also states that there is no empirical evidence about the effect of brand association on financial performance. According to these authors, "brand associations … are predictive of brand … loyalty in professional sports" and "brand loyalty is a crucial outcome of building brand equity." Brand loyalty is important to sports teams for two reasons. First, "brand loyalty guarantees a steadier following even when the performance of the core product stumbles, especially when the team has a losing season. Hence, such loyalty helps the team or club to charge a price premium." Second, "brand loyalty enables companies to extend beyond their core product… such as team-related merchandise stores and restaurants… Similarly, admissions may be charged to practice facilities of professional teams."

The authors observe that research has yet to provide empirical information about the quantitative significance of brand management strategies. "The validity of the proposed relationships in this work should be empirically tested." "This study needs to be backed up by an empirically tested research in order to validate the underlying constructs of the framework."

Equity Building and Employee Compensation

In discerning the proper interpretation of Question #1 within the framework of economic analysis, an obvious issue is the relationship between the contribution that retired players made to current brand equity during their playing careers and the current compensation that they can expect to receive as a result of that contribution. Even if retired players were responsible for part of current brand equity, the economics of labor markets provides no support for the idea that they reasonably can expect to be compensated for that contribution after their employment ends.

Brand equity is a capital asset of a firm, much as buildings, equipment, inventories, patents and copyrights are capital assets. Firms typically employ workers to create their capital assets. For example, employees in labs perform the research that leads to patents, and set designers assist in creating a motion picture or a television program. These products then become an asset that is owned by the firm and can then earn income for the firm for many years into the future.

The employees who create these assets are paid salaries for their work in asset building. Typically the employee's compensation is co-terminus with the period of employment with the firm, and the employee does not continue to be paid as the asset the employee helped to create continues to earn revenues. In some cases, part of an employee's current compensation takes the form of a share of equity or a promise to provide income after retirement. In these cases the employee's stake in the employer's future asset value, revenues and profits is explicitly a part of the employment relationship at the time of employment.

As an example, the Empire State Building is an iconic asset with brand-name value, as revealed in the fact that consumers can buy clothing and jewelry that shows the likeness of the structure. The construction workers who built the Empire State Building do not receive a share of today's rents for space in the building, elevator rides to the top, or revenues from Empire State Building t-shirts and pendants. For the same reason, economic analysis provides no basis for believing that past participants in professional sports have a valid claim to a share of current brand equity and, as a result, can expect to be compensated from today's licensing activities.

One interesting feature of the way labor markets compensate workers who create assets is that the expected value of the income that an asset generates will increase the demand for workers who can provide the asset, and thereby raise current wages. In prior work I developed this relationship for the case of a soccer league that practices "promotion and relegation," whereby bad teams are demoted to lower leagues while good teams are promoted from lesser leagues at the end of each season.[14] In considering the maximum salary that a team should pay for a player, the team takes into account that a player will add to team revenues this year and will increase the probability that the team will either be promoted or avoid relegation for the next season. The league identity of the team in the following season is an intangible asset that each player this year helps to create. Even if players do not play the next season, their efforts this year cause the team to expect higher revenues next season. Hence, all else equal, players will be paid more if

[14] Roger G. Noll, "The Economics of Promotion and Relegation in Sports Leagues: The Case of English Football," *Journal of Sports Economics* Vol. 3, No. 2 (2002), pp. 169-203.

leagues adopt promotion and relegation.

Brand equity also is an intangible asset (like current league membership). If past players contributed to it, teams have greater demand for their services than otherwise would have been the case. As a result, teams would be willing to pay more for players than had these players created no brand equity. The effect of more intense demand is to increase the compensation of players at the time they are employed. Hence, retired players have already been compensated for their expected contributions to brand equity.

To summarize this discussion, even if one could show that retired players contributed to current brand equity in the NFL, there is no basis in economics to believe that retired players could expect to be compensated for this contribution unless such an arrangement was part of their original employment contract. The only compensation that retired players can expect to receive from licensing is from revenue that is generated in the market from the sale of their own rights.

RASCHER QUESTION #2: LICENSE REVENUES AND PAYOUTS

The second question that was put to Dr. Rascher was as follows. "Do the NFLPA/NFLPI's LM-2 documents submitted annually to the United States Department of Labor accurately reflect the licensing revenues that have actually been paid to players?" Dr. Rascher claims that the Form LM-2 submissions by the NFLPA are not accurate, and he basis this conclusion on the fact that these reports differe from spreadsheets that were produced by the defendants concerning revenues and disbursements from licensing. Dr. Rascher is correct to say that the LM-2 reports differ from the spreadsheets, but he is incorrect to say that, as a result, either set of documents is in error. The reason is basically that he has not interpreted either document correctly.

Form LM-2 is similar to an annual consolidated financial report in that it reports all of the income and expenditures of the NFLPA. But it differs from a financial report in that Form LM-2 uses cash flow as the basis for reporting income and expenditures, whereas the financial report uses the accrual method of accounting. The difference is that accrual accounting does not report cash received or expended based on commitments that were made in prior years, but does report commitments that will become cash revenues or expenditures in future years. In any given year, these two methods will produce different results because some payments this year reflect commitments from prior years, and some commitments this year will not be paid until future years. In the long run, these two methods produce roughly the same numbers, although they can differ if some commitments do not match eventual cash flows. Such a difference can arise if a licensing agreement is renegotiated, if the players decide to change the method of allocating revenues, or if a licensee goes bankrupt before paying the license fees that are called for in its contract.

Dr. Rascher claims that the spreadsheets he used report lower disbursements from licensing revenues and a lower share of payments to players from total revenues than is reported on Form LM-2. This statement is correct, but the reason is not that either document is incorrect. In fact, the documents do not report the same revenues and disbursements. Moreover, Dr. Rascher arbitrarily excludes some licensing income and disbursements that are included in Form LM-2. Consequently, the comparisons that he makes are not meaningful.

The spreadsheets do not cover the same licensing revenue that is reported on

Form LM-2. The spreadsheets include only that portion of licensing revenues that is subject to the three-way split among NFLPI, NFLPA and the pool for disbursement to the active players by NFLPI. The spreadsheets represent the internal accounting by the NFLPI and NFLPA of the revenue streams that they share, but not the total revenues collected from licensing or the total payments to players from these revenues.

The amount of gross licensing revenue that Dr. Rascher reports from the spreadsheets corresponds to the combination of three items in the consolidated financial report: Licensing Royalties plus NFLP Sponsorship Fees minus Cost of Sponsorship. The number that Dr. Rascher calculates understates total licensing revenues because it excludes Premium Royalties and Promotions and Appearances. In addition, Dr. Rascher should not have excluded Cost of Sponsorships, as this is revenue that is paid to the players, not a cost of the deal. As a result, the revenue estimates by Dr. Rascher that are derived from the spreadsheets understate actual gross revenues by about fifty percent.

For fiscal years 2003, 2004 and 2005 the gross revenue from licensing that Dr. Rascher extracts from Form LM-2 is the sum of two items: Licensing Fees and Premium Royalties. This sum understates gross licensing income because it excludes Player Appearance/Autograph Fees. For fiscal years 2006 and 2007, I have not been able to reproduce Dr. Rascher's estimates; however, for reasons given below they are gross underestimates of actual licensing income.

Dr. Rascher's estimates of payments to players are also incorrect. The estimates from the spreadsheet correspond to the entry on the consolidated financial statement for Royalty Expenses, which means disbursements by the NFLPA from the active player pool. This number does not include the players' shares of the revenues from NFL

Properties and the line item on the consolidated financial statements for Fees for Premium Royalties and Promotions and Appearances. In addition, the spreadsheet does not include rebates of dues. The practice of all players associations is to use some of the income from licensing to fund some form of rebates of union dues and to fund a labor contingent fund. In the case of the NFLPA, nearly half of dues are rebated with support of licensing fees.

Dr. Rascher's estimate of payments to players from Form LM-2 for the first three fiscal years are one line item in that report: Player Royalties and Appearances. This line item excludes dues rebates. For the remaining two years, I have not been able to reproduce Dr. Rascher's results, but the numbers he reports are far too low.

I have summarized all of this information in Table 3, which compares Dr. Rascher's calculations of revenues and disbursements to players from the spreadsheets and Form LM-2 with the data from the consolidated financial report. The consolidated financial report provides the most accurate data for estimating gross licensing revenues, total payments to players, and the share of revenue that players receive because it is both inclusive and audited. The inferences to be drawn from this table are as follows.

First, Dr. Rascher massively underestimates both revenues and disbursements, and the magnitude of the error is much larger toward the end of the period than at the beginning. Dr. Rascher's estimates for revenues from Form LM-2 in FY2007 are especially puzzling in that they are less than the single line item Licensing Royalties in the consolidated financial report. I can not find his number anywhere in Form LM-2.

Second, Dr. Rascher underestimates the share of licensing revenues that go to players, and the error is larger for more recent years. The reason for this error is that

Table 3: Estimates of Licensing Revenues, Disbursements to Players, and Share of Gross Revenues Paid to Players
($ in millions)

	Year				
Item	**2003**	**2004**	**2005**	**2006**	**2007**
Gross Revenue:					
Rascher from Spreadsheet	35.2	42.8	50.8	61.8	75.4
Rascher from LM-2	42.4	57.6	67.6	62.1	49.8
Consolidated Financial Statement	54.3	68.0	82.1	96.4	117.7
Paid to Players:					
Rascher from Spreadsheet	12.7	15.4	18.3	19.4	24.3
Rascher from LM-2	29.1	38.8	46.6	26.6	26.9
Consolidated Financial Statement	40.1	49.2	58.5	62.9	74.9
Share to Players:					
Rascher from Spreadsheet	36.0	36.0	36.0	31.3	32.2
Rascher from LM-2	68.6	67.5	68.9	42.8	54.0
Consolidated Financial Statement	73.9	72.4	71.3	65.3	63.7

Sources for consolidated financial statement data: Bates Nos. PI096010, PI096071, PI096135, PI096199, PI096261.

NFLPI keeps a much smaller share of the revenues that he excludes than its share of revenues that enter the player pool and that are divided among players, NFLPA, and NFLPI. One component of this revenue is the payments to retired players, for which the NFLPI and NFLPA keep virtually none of the revenues.

To produce a more accurate comparison of payouts to players, I have used the calculations for MLBPA and NBPA found in Exhibit 3 to Dr. Rascher's report and the data on licensing revenues and disbursements from the Consolidated Financial Statement of the NFLPA and NFLPI. The resulting comparison of the shares of revenues paid to players is shown in Table 4.

Table 4: Percentage of Licensing Income Paid to Players

	2003	**2004**	**2005**	**2006**	**2007**	**Average**
MLBPA	130.6	53.0	15.5	0.4	165.2	74.9
NBPA	58.6	27.4	25.0	205.5	65.3	76.4
NFLPA/NFLPI	73.9	72.4	71.3	65.3	63.7	69.3

Due to the high variability in the payout rates from year to year for both the MLBPA and the NBPA, the differences among the players associations are not statistically significant. This conclusion is apparent from the fact that in three of the five years the defendants disbursed a larger fraction of licensing revenues to players than did the other associations. Moreover, due to the differences in the activities and services of the different unions, the comparisons are meaningless unless these differences are taken into account.

In answering this question, Dr. Rascher also discusses the reallocation of $8 million so that all of this revenue now is split between the NFLPI and NFLPA. His analysis consists of a comparison between the logo rights of the NBPA from the NBA and of the defendants from the NFL. He observes that when the NBPA received an additional $3 million for its logo rights, it withheld this money from distribution to the players for only one year. He goes on to state: "I see no evidence that the NFLPA/NFLPI received any additional monies from the NFL for its logo rights in connection with the $8 million reallocation."

The manner in which he compares the NBPA and NFLPA/NFLPI is inappropriate. The NBPA receives money from the NBA for its licensing rights, and does not have any other sources of licensing income. By contrast, payments from the NFL accounted for less than 25 percent of licensing income of NFLPA/NFLPI throughout the class period. Moreover, with respect to "no evidence" of a change in revenues from the NFL, between FY2003 and FY2007, gross revenues from the NFL to NFLPA rose from $10 million to $28.8 million.[15]

Notwithstanding that Dr. Rascher's comparison between the NFLPA and NBPA is meaningless and incorrect, he also does not adopt the appropriate standard for evaluating whether the NFLPI and NFLPA are efficient agents for players in generating licensing income. The $8 million amounted to less than 8 percent of licensing income in FY 2006 and FY 2007, and the $2.88 million that Dr. Rascher thinks should have gone to players represents less than 3 percent of the payments to them. The appropriate standard for evaluating the efficiency of the NFLPA/NFLPI is whether the total fraction of

[15] Bates Nos. PI096010 and PI096261.

licensing revenues that was paid to players represents a reasonable fraction of total revenues. I address this issue in discussing Question #4.

RASCHER QUESTION #3: GROUP VERSUS "AD HOC" LICENSES

The third question that Dr. Rascher was asked is as follows. "Is there a difference between group licensing and individual (or 'ad hoc') licensing? What has been the traditional way of distributing group licensing revenues? In group licensing agreements in sports, what is the customary method of dividing up revenues among members of the group whose rights are licensed?" Dr. Rascher answers this question by stating that group licenses (six or more individuals) are "commonly" divided on an "equal share basis" while he equates "ad hoc" and "premium" licensing with individual licenses or group licenses for fewer than six players.

Dr. Rascher does not define "commonly" or "equal share" in his statement. If by "commonly" Dr. Rascher means that nearly all group licensing arrangements are shared equally among all active players who have signed a licensing agreement or who are actually covered by the license, then his statement is incorrect. Likewise, if his statement means that nearly all premium licenses in which different players are paid different amounts involve five or fewer players, than he is also incorrect.

Dr. Rascher cites the appropriate language from the definition of group license, but he does not apply it. Group licensing refers to arrangements whereby the licensee obtains the rights to the names, images and histories of six or more players for use in connection with the same product. The confusion apparently arises because provisions in the standard group license give the NFLPI the right to review the proposed uses of the players whose rights have been licensed and if a player has been singled out in some way to insist that that player be paid an additional fee. For example, in the board game Miami Dolphins Monopoly, Dan Marino received an additional payment of $1500 because his image appeared on the box in which the game was packaged.[16]

Some group licenses pay all players whose images are licensed the same fee, but the payments are restricted to the list of named players. The Hall of Fame license with EA Sports is such an example. One of the disputed licenses in this case involves the general licensing agreement with EA, which the defendants contend licenses only the rights to active players. In addition, EA has separately licensed the rights to retired players and coaches who have been elected to the Pro Football Hall of Fame. The Hall of Fame license calls for a fee of $400,000 per year, plus $2,000 for each new player or coach who is elected during the term of the license. The actual way this license works is that NFLPI collects the revenue for retired players from EA and then pays the Hall of Fame the entire amount. The Hall of Fame then pays each licensed player $2,000. In 2006, a total of 168 players and coaches were licensed, which means that the Hall of Fame owed $336,000 to players and kept the remaining $64,000 as a fee for the use of its name and logos in the Madden NFL game. The defendants kept none of this revenue.

Other group licenses pay different fees to the players who are assigning rights for the same use. For example, licenses for clothing and souvenirs typically call for a fixed payment plus either a fraction of revenues or a fixed fee per item sold. The licensee then reports separately the sales of items bearing the likenesses of each player, and the portion of the licensing revenues that is based on sales is divided among the players according to

[16] The Dan Marino documents are Bates Nos. PI020982 and PI056601-2.

the sales of their own items.

An illustration is the general license with TMP[17] to manufacture NFL action figures. This license contains the same language about NFLPI holding rights to active and retired players, and so is among the licenses that plaintiffs claim should be shared with retired players but defendants claim covers only active players. This license calls for payments equal to eight percent of sales revenues (with a minimum guarantee of $200,000 per year), and the licensee is required to report sales revenues for each player. According to information I received from NFLPI, this revenue is not shared equally by all active players, even though it conveys the rights to use the images of all active players. Instead, each player receives a share of the revenue from this license in proportion to the sales of that player's action figures.

Another set of licenses with TMP permits the licensee to manufacture figurines in the likenesses of certain retired players. In this case, separate license agreements were written for each player, but three groups consisting of six, six and eleven players each were negotiated together and so are considered three separate group licensing deals. For example, in early August 2007, six retired players signed agreements for figurines.[18] Each license agrees to pay the player $2,000 for every 5,000 figurines with that player's likeness; however, players were given guarantees of different amounts, ranging from $8,000 for Warren Moon, John Riggins and Fran Tarkenton, to $16,000 for Jack Lambert, to $32,000 for Howie Long and Steve Young.

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[17] Bates Nos. PI006932-46.

[18] Bates Nos. PI032952, PI032953, PI032957, PI032959, PI032962, PI032967, PI032971-2, PI032974-5, PI032977-8. PI032980-1, PI032983-4, and PI032986-7.

These examples illustrate that group licenses are not always or nearly always shared equally. That is, a group license can be a so-called premium license in which different players are paid different amounts, even if it conveys the rights to all players. Moreover, the fraction of the licensing income of the NFLPI that is accounted for by revenues that are not shared equally is large and growing. In FY2007, the revenues that were shared equally by active players who met the criteria were the dues rebates, part of the revenues from NFL Properties, and the distributions from the royalty pool. These total about $38.8 million. Disbursements that were not based on equal sharing totaled $36.1 million.[19] In FY2003, the equally shared disbursements totaled $23.1 million, while unequal payments accounted for $17.0 million.[20] Although the NFLPI/NFLPA apparently does not keep its records in a manner that enables separation of revenues from group (six or more) and individual (five or less) licenses, it is likely that the latter category accounts for a small fraction of total licensing revenues. The reason is that the defendants generally do not seek individual licenses, but leave that to the players' agents.

Finally, even the revenues that are placed in the active player royalty pool are not shared equally by all active players. Practice squad players get a smaller share, and non-qualifying active players receive nothing.

RASCHER QUESTION #4: REVENUE SHARE KEPT BY NFLPA/NFLPI

Dr. Rascher was asked the following question. "What is the percentage of

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[19] Data from consolidated financial statements, Bates No. PI096010, which also is consistent with the spreadsheets analyzed by Dr. Rascher.

[20] Data from Bates No. PI096261, which also is consistent with the spreadsheets.

licensing monies kept by the NFLPA/NFLPI? How does it compare with other professional sports unions or third-party licensing entities? How does the percentage kept by the NFLPA/NFLPI compare to what is customary in sports licensing?"

Dr. Rascher's answer begins by referencing his estimate in response to Question #2 that the players receive only between 31 and 36 percent of revenues. As shown above, this estimate is incorrect, under-estimating the fraction of licensing revenues that are disbursed to players by roughly half.

Dr. Rascher then presents several examples of licensing activities by organizations that use outside licensing agencies. According to Dr. Rascher, outside entities receive between 10 to 40 percent of gross licensing revenues. If this were a relevant measure, then the NFLPA/NFLPI would fall within the normal range as cited by Dr. Rascher. The answer then cites examples of organizations that use outside licensing: colleges and smaller leagues. Of course, these entities do not share revenues with players, and they are not unions. Dr. Rascher also reports that the U. S. Olympic Committee puts back 82.7 percent of its licensing income into training programs, grants, and other services. Again, this comparison attributes expenditures on behalf of athletes (training and services) as equivalent to direct payments (in the case of the USOC, grants); however, Dr. Rascher makes no similar provision for the NFLPA/NFLPI, which uses part of its share of the licensing revenues to deliver services to its members. Dr. Rascher errs by comparing only NFLPA/NFLPI disbursements to USOC disbursements plus services.

Dr. Rascher then offers an economic analysis of licensing. Dr. Rascher asserts that the cost of licensing agreements has strong economies of scale because the cost of negotiating a group license does not depend on the size of the group. Dr. Rascher does not cite any source for this opinion, and he does not report the results of an analysis of the relationship between licensing costs and group size. Indeed, the sources he cites about conventional fees for licensing make no distinctions among individuals, small groups, and large groups. Thus, his assertion is not derived from research on the economics of licensing, but is another manifestation of Dr. Rascher's incorrect belief that all group licenses convey the same rights at the same price for all players.

Dr. Rascher then discusses the players associations in basketball. Dr. Rascher notes that the NBPA distributes about three-quarters of its licensing revenue to the players. He also notes that the NBPA has delegated its licensing activity to the NBA, for which it receives a fixed fee of $25 million. Dr. Rascher does not analyze the revenues and costs of the NBA licensing program to compare these with the revenues that the NBA passes on to the players. Because the NBA's revenues and costs are not included in the analysis, the comparison between the NBPA and NFLPSA/NFLPI is meaningless.

Next, Dr. Rascher compares the NFLPA/NFLPI to the players association in baseball. Dr. Rascher reports that the MLBPA returns about three-quarters of its revenues to the players, but to obtain this figure he has to include rebates to the players from the MLBPA's strike fund. Dr. Rascher excluded the rebates to the NFL players from his estimates of the payments to players, so once again his comparisons are rendered meaningless. But in this case, his error is compounded by his failure to consider the NFLPA's collective bargaining status. The MLBPA redistributed money from licensing revenues that it had placed in a strike fund after it successfully completed its recent collective bargaining round in December 2006.

By comparison, the NFL has exercised its option to terminate the current collective bargaining agreement after the 2010 season, at which time a failure to execute a new agreement could lead to a strike or a lockout. In addition, should NFL management declare that bargaining has reached an impasse and seek to impose new player market rules unilaterally, one option available to the players association is to decertify as a union and for players to file an antitrust complaint against the league, as they did in *McNeil v. NFL.* Pursuing litigation also is costly.

The financial statements of the NFLPA report that the union has created a large fund to deal with the possibility of a breakdown in collective bargaining. Fund A contains $18.6 million dollars, and is designated for future expenses of the organization. Its value has remained constant for several years. Fund B contains over $100 million, and grows each year by the difference between revenues from dues and rebates of dues. The accounting for this fund reveals that the costs of the union are being financed completely out of the revenues from licensing.

The practice of the NFLPA in creating funds to cushion the effect of a breakdown in collective bargaining is the same as the practices of other players associations. The difference between the NFLPA and the MLBPA is that the latter completed a collective bargaining negotiation in the very fiscal year in which Dr. Rascher concluded his analysis, whereas the NFLPA is facing the possibility of a collective bargaining breakdown. Not surprisingly, the NFLPA did not pay down its strike fund in FY2007 as did the MLBPA. By failing to take the different circumstances of the two unions into account, Dr. Rascher has provided a meaningless comparison between them. Indeed, had the NFLPA not allowed Fund B to grow by over $10 million in FY2007 but instead had increased the amount of licensing revenue or dues rebates that was distributed to the players by that amount, that share of licensing income that was paid to players would have risen from 63.7 percent to 72.2 percent, compared to baseball's average of 74.9 percent. Moreover, from Table 4, the average for MLBPA was strongly influenced by the fact that MLBPA's rebate of its strike fund in 2006 caused its payout to be more than twice its total licensing revenue. Thus, the difference between these two associations is accounted for by differences in their collective bargaining status.

RASCHER QUESTION #5: BARGAINING POSITION OF THE NFLPA/NFLPI

The fifth question that was put to Dr. Rascher is the following. "What effect does the fact that the NFLPA/NFLPI represents both the active and the retired players for group licensing have on the bargaining position of the NFLPA/NFLPI with respect to retired players and licensees?" Dr. Rascher answers this question with a series of arguments.

Dr. Rascher states that "there is a benefit to a licensing entity of having some measure of exclusivity over the assets being licensed." He then states that exclusive rights give the NFLPA certain benefits.

The first such benefit is derived from the efficiency of "one-stop" shopping. That is, by offering the rights to many players, the NFL allows a licensee to reduce the effort required to assemble a group of licenses. According to Dr. Rascher, the NFLPA can capture some of these efficiency benefits in the royalties it negotiates. As a matter of economic analysis, this argument is false. The benefits of one-stop shopping do not depend on whether the NFLPA has exclusive rights to players. If the NFLPA has non-exclusive rights, as it does for retired players, another organization is free to duplicate the package of rights that the NFLPA/NFLPI can offer by signing the same group of retired players to exactly the same GLAs that these players have signed with the NFLPI. Such an organization can offer the same one-stop shopping.

The second benefit from exclusivity, according to Dr. Rascher, arises from the market power that is conferred by exclusivity. In reality, this market power also is necessary to extract some of the efficiency benefits of group licensing. The point is that a monopolist in group licenses can charge more than a competitor. Again, the practical significance of this argument is that the NFLPA/NFLPI may or may not enjoy market power in the rights for active NFL players. But because the rights to retired players are not exclusive, others can compete with the defendants in packaging these rights.

The example of Take-Two, presented in the discussion of Question #1, shows that, indeed, others can assemble a valuable package of rights to a large number of retired players. Likewise, the Pro-Football Hall of Fame assembled licensing rights to all retired players and coaches who had been elected to membership. Although the NFLPI acted as a go-between to facilitate EA's licensing of the Hall of Fame rights, NFLPI did not profit from this effort. All of the licensing revenue from EA for the Hall of Fame rights was paid to the Hall of Fame. Thus, the facts are not consistent with the claim that the NFLPI/NFLPA has exclusivity and market power in the rights for retired players.

Dr. Rascher then goes on to state that the NFLPA/NFLPI has market power over its own members, thereby causing a lower share of licensing revenue to be paid to players. For active players, this claim is facetious because the NFLPA is wholly owned by the active players. The NFLPA Constitution spells out the governance of the organization. The primary governing body is the Board of Representatives, which includes a player representative from each NFL team who is elected by the members who are players on that team, the President and the Executive Director. Article V of the Constitution places the authority for interpreting and executing the Constitution, making policies, and the general conduct of collective bargaining in the hands of the Board of Representatives.

The other main governing body is the Executive Committee, which is described in Article IV. The Executive Committee consists of the President, ten vice presidents and the executive director, all of whom are elected by the Board of Representatives. The president – not the executive director – is the chief executive of the organization. The executive director is the chief operating office.

In short, the Constitution gives these two bodies the authority to decide the major policy issues of the union, including how the licensing program will be conducted. The exclusive rights of the union in group licensing for active players were not imposed on the members by the organization, but instead were adopted by the representatives of the members to pursue the members' interests. Likewise, the decisions about how to divide licensing income among payouts to players, operating support for the NFLPA and NFLPI, and funds for future emergencies are made by the elected representatives of the players. Thus, it makes no economic sense to assert that the NFLPA/NFLPI exercises market power over its members.

The organization of players unions also has implications for Dr. Rascher's attempts to show that the NFLPA/NFLPI keeps too large a fraction of licensing revenues. The decisions about how to divide these revenues are made by the representatives of the players. There is simply no reason to believe that two groups of players – say football players and basketball players – will have the same preferences concerning the services that they want their union to perform other than to engage in collective bargaining. A good example is the decision by basketball players not to try to manage their own licensing operation. In the end, comparisons of the allocation of licensing revenues are similar to comparisons among families about the fraction of their income that they spend on housing, or that they give to charity. These decisions reflect differences in the preferences of families, not differences in the efficiency of family units.

RASCHER QUESTION #6: EXECUTIVE DIRECTOR SALARIES

Dr. Rascher's sixth question was the following. "Can you compare the salary of the Executive Director of the NFLPA/NFLPI with that of the salaries of other professional sports unions? What conclusions do you reach about how the NFLPA/NFLPI compares with what is customary?" Once again, Dr. Rascher compares the NFLPA with MLBPA and NBPA, and concludes that the NFLPA pays the most.

Dr. Rascher does not explain how one can determine a "customary" salary for an executive director from a sample of two. The executive directors of MLBPA and NBPA receive very different compensation. Donald Fehr of MLBPA has been paid $1 million per year for many years. Billy Hunter of the NBPA has had a steady increase in his compensation during the class period, with his compensation rising from $1.6 million in FY2003 to $2.3 million in FY 2007. If Mr. Hunter has made roughly twice as much as Mr. Fehr during this period, which one is "customary?"

The comparison between Mr. Hunter and Eugene Upshaw, the executive director of the NFLPA, is far more complicated that the discussion by Dr. Rascher reveals. To begin, Mr. Upshaw is not the executive director of NFLPI – he is the chairman. His salary for being executive director of the NFLPA is shown on the first line of Dr. Rascher's Exhibit 5A for all years except FY2007. In FY2007, Mr. Upshaw signed a new contract as executive director, with a bonus of $3.6 million.[21] The source document says that the bonus was paid in 2007 and reported on Schedule 11 of Form LM-2, which shows total payments of $4,264,577. For the previous four years, Mr. Upshaw's compensation declined every year. By FY2006, his compensation was $250,000 below that of Mr. Hunter.

The earnings of Mr. Upshaw from NFLPI show a payment of $2,400,000 that is added to the entry on Form LM-2, Schedule 11, which contains all disbursements to officers. Adding this figure to Mr. Upshaw's salary as executive director in FY2007 is misleading. Mr. Hunter does not hold similar responsibility for running a licensing program. Indeed, the NBPA has no licensing program – it has sold its licensing program to the NBA in return for a minimum payment of $25 million a year. If Mr. Upshaw is being compensated for duties that Mr. Hunter does not perform, it is not appropriate to include his compensation for those duties is comparing him with Mr. Hunter.

Finally, Dr. Rascher's numbers for FY2007 are misleading in another way. The standard practice in accounting for bonuses is to amortize them over the duration of the contract. Dr. Rascher did not make any such allocation for Mr. Upshaw's bonuses of $3.6 million and $2.4 million. Had Dr. Rascher used the correct procedure, he would have allocated $1.2 million, not $6.0 million, of the bonuses to FY2007.

Dr. Rascher is wrong to conclude that the data show that Mr. Upshaw is paid

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[21] From Form LM-2 for FY2007, Bates No. PI027293.

more than is customary for executive directors of players associations. But even if his calculations were accurate, there is no basis for concluding that Mr. Upshaw is overpaid because he is paid more than someone else. In reality, people with similar job titles often are paid vastly different amounts. Recently, Forbes Magazine reported the compensation of the CEOs of the 500 leading publicly traded corporations in the U. S.[22] The highest paid CEO was Larry Ellison of Oracle, whose compensation was $193 million. Oracle is a leading software firm, but it is not as successful as either Google or Microsoft. The CEOs of these latter companies, Eric Schmidt and Steve Ballmer, received $1.7 and $1.3 million, respectively. And Jerry Yang of Yahoo received no compensation at all.

In manufacturing, the CEO of John Deere received $47.2 million, while the CEO of General Motors received $2.1 million. In oil, the CEOs of Ultra and Occidental received $40.6 and $54.4 million, respectively, while the CEO of ConocoPhillips received $6.6 million. The CEO of profitable Southwest Airlines received $1.2 million, while the CEO of struggling US Airways received $11.3 million. All of these differences are much greater than the differences in pay among the players associations.

Dr. Rascher concludes his analysis of the salaries of executive directors by stating: "I know of no reason why [his pay] should be so far in excess of the other unions' executive directors." Dr. Rascher did not actually conduct an analysis of whether the standard economic explanations for pay differentials explain the differences in pay among executive directors. If he does not know of any reasons, a plausible explanation is that he did not attempt to determine if there were any.

[22] Compilation available at http://www.forbes.com/lists/2008/12/lead_bestbosses08_CEO-Compensation_Rank.html.

The economic theory of wages is that workers are paid their marginal revenue product – that is, their contribution to the revenues of the organization, holding constant the utilization of all other productive resources. This suggests looking at the actual duties of the executive directors and the performance of the union in terms of the salaries and benefits of the players and the other services that the union provides. One obvious example that Dr. Rascher did not attempt to take into account is the differences among the associations in the responsibilities of the executive director with respect to licensing. In the case or Mr. Upshaw, Dr. Rascher simply added the compensation for serving as executive director to the compensation for serving as chairman of the licensing arm without taking into account whether Mr. Hunter and Mr. Fehr were being compensated for the same services.

Dr. Rascher also did not attempt to relate salaries to the magnitude of the responsibility of serving as executive director. One obvious difference between the NFLPA and the other unions is that the NFLPA is much larger. Another potential source of differences relates to the number of new players who enter the sport each year, and who must be educated about their rights and responsibilities as union members. Still others are in connection with enforcing elements of the collective bargaining agreement that relate to drug use, player behavior, and the mechanics of the salary cap.

Dr. Rascher also does not discuss, let alone attempt to take into account, the fact that, during Mr. Upshaw's tenure, the NFLPA achieved free agency for the first time, a performance distinguishing himself from the executive directors in baseball and the NBA, where free agency was achieved under prior executive directors. Dr. Rascher also notes a relative increase in Mr. Upshaw's salary in 2007, but ignores the 2006 extension of the collective bargaining agreement with the NFL, which greatly benefited players, as a possible reason for this event. Paul Tagliabue, the Commissioner for the NFL, who negotiated opposite Mr. Upshaw, was paid more than Mr. Upshaw, with compensation reported as $10.3 million in fiscal year 2006.[23]

I do not believe that Dr. Rascher provides any basis in economic analysis for believing that Mr. Upshaw is overpaid. Dr. Rascher did not attempt to apply economic analysis to derive accurate and meaningful comparisons of the salaries of the executive directors, let alone to examine whether the differences that do exist can be explained by differences in responsibilities and performance.

ROWLEY REPORT

Mr. Rowley was asked to calculate damages under several different assumptions about the amount of licensing revenue that should have been paid to members of the GLA Class. The base amount of damages is derived from revenues from licensing agreements that mention the retired players. Among the licenses that are included in this subset is the aforementioned license with TMP for action figures, the revenues from which are divided among active players according to the sales of the action figure that bears their likeness.

Mr. Rowley's assignment did not include explaining why a share of the revenue from a license that is not now divided equally among active players, and from which some active players receive nothing, should be divided equally among retired players. Even if the license included the right to manufacture figures that have the likenesses of

[23] Daniel Kaplan, *Tagliabue's pay topped $10M in his final year*, Street & Smith's Sports Business Journal, February 26, 2007, at 4.

retired players, the licensee did not manufacture such figures, so no payments are due according to the procedures for distributing these revenues. Thus, even if it were determined that retired players were entitled to a share of licensing revenues that were shared equally by all active players, this subset overstates the amount of damages unless plaintiffs provide a basis for believing that revenues should be divided among retired and active players in proportion to their numbers, even though the share that then goes to the active players is not shared equally. There is no basis in economic analysis for adopting such a procedure. In fact, the market values of licenses for retired players vary substantially, many retired player rights having no market value. Dr. Rascher's incorrect assertion that revenues from group licenses commonly are divided equally is not a valid basis for calculating injury or damages. He also offers no valid explanation why retired players should share at all in revenues generated from active player licensing.

The second category of revenues that Mr. Rowley examines pertains to payments from the NFL. These revenues are included despite the absence of any language in any agreement that mentions the retired players. Again, Mr. Rowley was not asked to explain the basis for including these revenues in the damages calculation. Dr. Rascher's report provides no basis for allocating any of these revenues to retired players. In particular, Dr. Rascher's answer to Question #1 about the contribution of retired players to licensing income is incorrect in that it mischaracterizes the research on the sources of brand equity. In addition, Dr. Rascher provides no reason to believe that all retired players contributed equally to creating brand equity, and that retired players were not compensated adequately for this contribution during the time of their employment.

The third source of revenues that are part of Mr. Rowley's damages consist of licensing income from contracts that do not mention retired players but that is paid to active players. Once again, Mr. Rowley was not asked to explain why retired players have a valid claim to these revenues. Dr. Rascher's report provides no justification for allocating revenues from a license to a player who is not mentioned by that license. Nor does Dr. Rascher provide a basis for the conclusion that these revenues should be equally shared among retired players. Dr. Rascher's claims regarding the commonality of equal sharing in all group licenses is not true, and there is no basis for believing that retired players have not been compensated for their "contribution to the game" in the form of brand equity.

The next revenue that is assigned to the retired players is a share of the $8 million reallocation away from distribution to players. Like Dr. Rascher, Mr. Rowley states: "I have no way to determine why the valuation 'changed' in 2006 over prior years, or was repeated in 2007." Like Dr. Rascher, Mr. Rowley assumes that if he does not know why the change occurred, it must not have been valid, so the $8 million should be divided as it was before. This argument is nonsense. There is no basis in either report to believe that the prior allocation was superior to the allocation after the change, and that players somehow were wronged by transferring a small fraction of disbursements back to the NFLPI/NFLPA. In any case, the appropriate standard regarding the efficiency of the operation of the defendants is the overall cost of running the organization in relation to its income. Separating out one small part of revenues and disbursements makes no economic sense.

Finally, Mr. Rowley adds back a portion of licensing revenues to correspond to Dr. Rascher's analysis that between 10 and 40 percent of licensing revenues is "commonly" retained by the licensing entity. Dr. Rascher's report does not correctly calculate either licensing revenues or disbursements to players. As a result, his estimates of the share of income that is disbursed to players is roughly half of the true share. Not only does the share of revenues disbursed by the NFLPI to players fall within the 10 to 40 percent range found to be "common" by Dr. Rascher, the methods used by Dr. Rascher take into account the disbursement of a strike fund by the Major League Baseball Players Association, but make no parallel accounting for the creation of a strike fund by the NFLPA. Moreover, Dr. Rascher erroneously claims that the NBPA pays out 75 percent of its licensing revenue without taking into account the fact that the NBA bears the cost of the players' licensing program. In short, Dr. Rascher's report provides no basis for calculating damages or for allocating any additional revenues to players in general or to retired players in particular.

I reserve the right to modify my opinion based upon additional evidence or information, including any rebuttal expert reports submitted by Plaintiffs.

I declare that the foregoing is true to the best of my knowledge and belief.

Executed on June 12, 2008, in Palo Alto, California.

Roger G. Noll

Roger G. Noll

Appendix A

CURRICULUM VITAE
ROGER G. NOLL

PERSONAL

Date and Place of Birth: March 13, 1940; Monterey Park, California

EDUCATION

East High School, Salt Lake City, Utah, 1958
B.S. (Math, Honor), California Institute of Technology, 1962
A.M., Ph.D. (Economics), Harvard University, 1965, 1967

SCHOLARSHIPS, FELLOWSHIPS AND AWARDS

National Merit Scholarship 1958-62
National Defense Education Act Fellowship 1962-66 (declined)
Harvard Prize Fellowship 1962-63
National Science Foundation Fellowship 1963-64
Guggenheim Fellow 1983-84
Rhodes Prize for Undergraduate Teaching, Stanford University, 1994

POSITIONS HELD

Teaching Fellow, Harvard University, 1964-65
Instructor, California Institute of Technology, 1965-67
Assistant Professor, California Institute of Technology, 1967-69
Senior Staff Economist, Council of Economic Advisers, 1967-68
Associate Professor, California Institute of Technology, 1969-71
Senior Fellow and Co-director of Brookings Studies in the Regulation of Economic Activity, Brookings Institution, 1970-73
Professor, California Institute of Technology, 1973-82
Visiting Professor, Graduate School of Business, Stanford University, 1976-77
Chairman, Division of the Humanities and Social Sciences, California Institute of Technology, 1978-82
Reuben Gustavson Lecturer, University of Chicago, April 1981
Institute Professor of Social Sciences, California Institute of Technology, 1982-84
Donald Gilbert Memorial Lecturer, University of Rochester, December 1982
Fellow, Center for Advanced Study in the Behavioral Sciences, 1983-84
Professor of Economics, Stanford University, 1984-2006 (*Emeritus* 2006-)
Visiting Scholar, Hoover Institution, 1984-85
Professor by Courtesy, Department of Political Science, Stanford University, 1985-2006
Professor by Courtesy, Graduate School of Business, Stanford University, 1986-2006
Veblen-Clark Lecturer, Carleton College, May 1986
Director, Public Policy Program, Stanford University, 1986-2002
David Kinley Lecturer, University of Illinois, May 1987
Sunderland Fellow, Law School, University of Michigan, Fall 1988
Morris M. Doyle Centennial Professor in Public Policy, Stanford University, 1990-2002
Jean Monnet Professor, European University Institute, Spring 1991
Associate Dean, Humanities and Sciences, Stanford University, 1991-92
Visiting Professor, University of California, San Diego, 1993
Visiting Fellow, Brookings Institution, 1995-96
Nonresident Senior Fellow, Brookings Institution, 1996-99
Director, American Studies Program, Stanford University, 2001-02
Visiting Scholar, London School of Economics, Spring 2001 and Spring 2002.

Director, Stanford Center for International Development, 2002-06

TEACHING EXPERIENCE

Undergraduate: Introductory Economics, Intermediate Microeconomic Theory, Introduction to Econometrics, Antitrust and Regulation, Economic History of Medieval Europe, History of Economic Thought, Economic Policy Analysis, Politics of Economic Policy, Economics of Sports, Political Economy of the West

Graduate: Antitrust and Regulation, Economic Policy Analysis, Applied Microeconomic Theory, Experimental Economics

RESEARCH INTERESTS

Antitrust and Regulation, Technology Policy, Political Economics, Political Economy of Law

MEMBERSHIP ON BOARDS AND COMMITTEES

President's Task Force on Communications Policy (CEA Staff Representative and Alternate Member), 1967-68
President's Task Force on Suburban Problems, 1968
President's Committee on Urban Housing, 1968
Department of Commerce Technical Advisory Board Panel on Venture Capital, 1968-69
Committee on the Multiple Uses of the Coastal Zone, National Council on Marine Resources and Engineering, 1968
Secretary, President's Interagency Task Force on Income Maintenance, 1968
Task Force on Application of Economic Analysis of Transportation Problems, National Research Council, 1970-73
Committee on Technological Forecasting on Behalf of the Environment, Office of Science and Technology, 1970-71
Board of Economic Advisers, Public Interest Economics Foundation, 1974-84
Executive Committee, Caltech Environmental Quality Laboratory, 1970-71
Faculty Board, Caltech, 1974-76
Advisory Commission on Regulatory Reform, Senate Committee on Government Operations, 1975-77
Chair, Fourth Annual Telecommunications Policy Research Conference, 1975-76
Committee on Satellite Communications, National Academy of Sciences, 1975-76
Advisory Council, Jet Propulsion Laboratory, 1976-82
Chair, Committee to Monitor the Desegregation Plan of the Los Angeles Unified School District, Los Angeles Superior Court, 1978-79
Advisory Council, National Aeronautics and Space Administration, 1978-81
Advisory Council, National Science Foundation, 1978-89
Board of Advisers, National Institute of Economics and Law, 1978-84
Research Advisory Board, Committee for Economic Development, 1979-82
President's Commission for a National Agenda for the Eighties, 1980
Board of Directors, Economists, Inc., 1981-
Review Panel, NSF Regulation and Public Policy Program, 1981-84
Board of Editors, Journal of Economic Literature, 1981-90
Advisory Board, Solar Energy Research Institute, 1982-91
Board of Directors, Cornell Pelcovits and Brenner, Inc., 1982-1988
Chair, Advisory Panel on Information Technology R&D, Office of Technology Assessment, 1983-84
Supervisory Board of Editors, Information Economics and Policy, 1982-88
Advisory Committee on Integrated Environmental Management Program, Environmental Protection Agency, 1983-85

Boards and Committees, cont'd

Commission on Behavioral and Social Sciences and Education, National Research Council, 1984-90
Advisory Panel, NSF Policy Research and Analysis Division, 1984
Director, Program on Regulatory Policy, Stanford Institute for Economic Policy Research, 1984-
Panel on Clean Air, Science Advisory Board, Environmental Protection Agency, 1985-86
Board of Editors, Review of Economics and Statistics, 1985-2002
Contributing Editor, Regulation, 1986-93
Energy Research Advisory Board, Department of Energy, 1986-89
President & Chairman of the Board, Telecommunications Policy Research Foundation, 1986-87
Coordinating Editor, Information Economics and Policy, 1988-92
Board of Directors, International Telecommunications Society, 1988-92
Advisory Board of Editors, Journal of Risk and Uncertainty, 1988-
Acid Rain Advisory Committee, Environmental Protection Agency, 1990-91
Secretary of Energy Advisory Board, 1990-95
International Board of Editors, International Journal of the Economics of Business, 1993-
Faculty Senate, Stanford University, 1993-95, 98-02, 04-06
California Council on Science and Technology, 1995-2001
Panel on Universities, President's Committee of Advisors on Science and Technology, 1996
Committee on Intellectual Property and the Information Infrastructure, National Research Council, 1997-9
Board of Editors, Journal of Sports Economics, 1999-
Board of Associate Editors, Economics of Governance, 1999-
Board of Advisors, American Antitrust Institute, 2000-
Board on Science, Technology and Economic Policy, National Research Council, 2000-2006

SPONSORED RESEARCH

"Opinions of Policemen." International Association of Chiefs of Police, 1969
"Studies in the Regulation of Economic Activity." Brookings Institution and Ford Foundation, 1970- 3
"Government Policies and Technological Innovation." National Science Foundation National R&D Assessment Program, 1973-4
"The Social Consequences of Earthquake Prediction," National Aeronautics and Space Administration, 1974-6
"Nuclear Safety Regulation." National Science Foundation RANN Program, 1975-7
"The Public Television Station Program Cooperative." National Science Foundation RANN Program, 1975-7
"The Station Allocation Game." Federal Communications Commission, 1977
"Energy Policy Studies." Various donors, 1978-84
"Economics of Oil Leasing" and "Issues in Utility Pricing." Department of Energy, 1978-9
"The Economics of Boxing, Wrestling and Karate." California Athletic Commission, 1978
"Implementing Tradable Emissions Permits." California Air Resources Board, 1979-82
"Social Science and Regulatory Policy." National Science Foundation, 1980-2
"The Political Economy of Public Policy." National Science Foundation and Center for Economic Policy Research, Stanford University, 1983-4
"SIEPR Program on Regulatory Policy." various donors, 1987-
"The Economics of Research Universities and Scholarly Communication." Brown Center for Education Policy, Brookings Institution, 1995-6
"Coordination of Regulatory Reform," Organization for Economic Cooperation and Development, 1996
"The Future of the Research University," Carnegie Foundation, 1996
"SCID Program in Economic Policy Reform," Various donors, 2002-06

CONSULTING

Special Assistant to the President, Ford Foundation, 1969
Space Technology Applications, Jet Propulsion Laboratory, 1969
Panel on the Abatement of Particulate Emissions, National Research Council, 1971
Sloan Commission on Cable Communications, 1971
President's Commission on Government Procurement, 1971
Senate Antitrust Subcommittee, 1971-72
MCI, Inc., 1972-73, 1983, 1986
National Science Foundation, 1973, 1975
Department of Justice, Antitrust Division, 1974-77, 1979-81, 1993-97
Internal Revenue Service, 1976-77
RAND Corporation, 1974-82
Los Angeles Lakers, 1974-75
National Football League Players Association, 1974-76, 1987-93.
Office of Telecommunications Policy, 1975-77
National Basketball Association Players Association, 1975-76, 1987-88, 1994
Naval Ordnance Test Station, 1975
Commission on Law and the Economy, American Bar Association, 1977-78
Aspen Institute Program on Communications and Society, 1977
National Commission on Electronic Funds Transfer, 1977
Business Round Table, 1978
Federal Communications Commission, 1977-81
Food and Drug Administration, 1978
Carnegie Commission on the Future of Public Broadcasting, 1978
Department of Energy, 1979
Office of Technology Assessment, 1980
Kerr-McGee Corporation, 1980
CBS, Inc. 1982-83
Environmental Protection Agency, 1982-83
Showtime/The Movie Channel, 1983, 1985
Harlequin Books, 1984
Lake Huron Broadcasting, 1984
National Collegiate Athletics Association, 1984
National Medical Enterprises, 1985, 1987-88
Camilla City Telecasters, 1985-86
Brown and Root, Inc., 1985-86
McDermott, Inc., 1985-86
Major League Baseball Players Association, 1985, 1994
United Cable Television and American Television and Communications, 1985
United States Football League, 1985-86
City of Anaheim, 1986
Technicolor, 1986
Metro-Mobile, 1986-89
Hewlett-Packard, 1986-1990, 1991
Echostar, 1987, 1994-95, 2002-03, 2004-05
Continental Airlines, 1987-88
Home Box Office, 1988-89
Bell South Cellular, 1989

Boards and Committees, cont'd

Western Union, 1989
Minnesota Twins, 1989
Northwest Airlines, 1989
Pepsico, 1989
Yellow Phone, 1989-91
Dialog, 1990-91
California Public Utilities Commission, 1989-90
American Newspaper Publishers Association, 1990
Humana, 1990-91
Powell, Goldstein, Frazer and Murphy, 1990-93
South Coast Air Quality Management District, 1990-91
Federal Trade Commission, 1990-91
Delta Airlines, 1991
California Cable Television Association, 1991
Bureau of Competition Policy, Government of Canada, 1991
R&D Business Systems, *et al.* 1991-95
International Entertainment Group, 1992-93
Nike, Inc., 1992
World Bank, 1992-
Gemini, Inc. 1992-94
Servicetrends, Inc., 1993-94
William Sullivan, 1993-95
Sure Safe Industries, 1993
Department of Justice, Civil Division 1994-95
Kopies, Inc., *et al.* 1995-1999
Telecom Technical Services, *et al.*, 1995-1999
Digital Distribution, Inc.. 1996-1999
Silvey, *et al.*, 1996-2000
Aguillar, *et al.* 1996-2000
Wadley Medical Center, 1997-2001
Oakland Raiders, 1997-2000
Major League Soccer Players Association, 1997-2000
Class Plaintiffs, Brand Name Prescription Drugs Litigation, 1998-9
Class Plaintiffs, Compact Disc Litigation, 1999-2005
Class Plaintiffs, State Microsoft Antitrust Litigation (California, Iowa, Minnesota, New York), 2000-2007
Kingray, 2000
Napster, 2000-1
Metropolitan Intercollegiate Basketball Association, 2002-5
Congressional Budget Office, 2002
Pioneer and Scientific Atlanta, 2002-3
Lenscrafters, 2003-4
Seven Network, 2003-7
City of San Diego, 2003
Sports Car Clubs of America, 2003-05
Intertainer, 2003-05
Class Plaintiffs, DRAM Antitrust Litigation 2005-7
Class Plaintiffs, Honeywell Antitrust Litigation, 2005-
Class Plaintiffs, Tableware Antitrust Litigation, 2005-7
Class Plaintiffs, *White, et al., v. NCAA*, 2006-8
Sirius Satellite Radio and XM Satellite Radio, 2006-7

Consultiing, cont'd

Class Plaintiffs, Cartier Antitrust Litigation, 2006-8
Monte Carlo Country Club and Sociètè Monègasque pour l'Exploitation du Tournai de Tennis, 2007
Pearle Vision, Inc., 2007-8

BOOKS AND MONOGRAPHS

Reforming Regulation: An Evaluation of the Ash Council Report Brookings Institution, 1971.

Economic Aspects of Television Regulation, co-authors Merton J. Peck and John J. McGowan. Brookings Institution, 1973. Winner, National Association of Educational Broadcasters Annual Book Award, 1974.

Government and the Sports Business, editor. Brookings Institution, 1974.

The Political Economy of Deregulation, co-author Bruce Owen. American Enterprise Institute, 1983.

Regulatory Policy and the Social Sciences, editor. University of California Press, 1985.

The Technology Pork Barrel, co-author Linda R. Cohen. Brookings Institution, 1991.

The Economics and Politics of Deregulation. European University Institute, 1991.

Constitutional Reform in California: Making State Government More Effective and Responsive co-editor Bruce E. Cain. University of California Institute of Governmental Studies, 1995.

Sports, Jobs, and Taxes, co-editor Andrew Zimbalist. Brookings Institution, 1997.

Challenges to Research Universities, editor. Brookings Institution, 1998

A Communications Cornucopia, co-editor Monroe E. Price. Brookings Institution, 1998.

The Economics and Politics of the Slowdown in Regulatory Reform AEI Press, 1999. Available at: www.aei.brookings.org/publications/index.php?tab=author&authorid=14.

The Digital Dilemma, co-authors 17 other members of Committee on Intellectual Property Rights and the Emerging Information Infrastructure. National Academy Press, 2000.

Bridging the Digital Divide, editor. California Council on Science and Technology, 2001. Available at: http://www.ccst.us/publications/2001/2001Digital.pdf.

ARTICLES IN SCHOLARLY PUBLICATIONS

"Urban Concentration: Prospects and Implications." In Increasing Understanding of Public Problems and Policies. Farm Foundation, 1969.

"Metropolitan Employment and Population Distribution and the Conditions of the Urban Poor." In Financing the Metropolis: Public Policy in Urban Economics The Urban Affairs Annual Reviews, IV, John P. Crecine, ed. Sage Publications, 1970. Brookings Reprint No. 184.

"National Communications Policy: Discussion--Spectrum Allocation Without Markets." American Economic Review 60(2) (May 1970).

"The Behavior of Regulatory Agencies." Review of Social Economics 24(1) (March 1971): 15-19. Brookings Reprint No. 219 (November 1971).

"Summary and Conclusions," co-author William Capron. In Technological Change in Regulated Industries, William Capron, ed. Brookings Institution, 1971.
"The Nature and Causes of Regulatory Failure." Administrative Law Review 23(4) (June 1971): 424-437.

Revised version published as "The Economics and Politics of Regulation." Virginia Law Review 57(6) (September 1971): 1016-1032.

"Mass Balance, General Equilibrium and Environmental Externalities," co-author, John Trijonis. American Economic Review 61(4) (September 1971): 730-735.

"Selling Research to Regulatory Agencies." In The Role of Analysis in Regulatory Decisionmaking: The Case of Cable Television, Rolla Edward Park, ed. Heath-Lexington, 1973.

"Relative Prices on Regulated Transactions of the Natural Gas Pipelines," co-author Paul W. MacAvoy. Bell Journal of Economics and Management Science 4(1) (Spring 1973): 212-234.

"Regulating Prices in Competitive Markets," co-author Lewis A. Rivlin. Yale Law Journal 82(7) (June 1973): 1426-1434.

"The U.S. Team Sports Industry." In Government and the Sports Business, Roger G. Noll, editor. Brookings Institution, 1974. Abridged version reprinted in Public Policies Toward Business: Reading and Cases, William G. Shephard, ed. Irwin, 1975.

"Attendance and Price Setting." In Government and the Sports Business, Roger G. Noll, ed. Brookings Institution, 1974. Reprinted in The Economics of Sport, Andrew Zimbalist, ed. Edward Elgar, 2001.

"Alternatives in Sports Policy." In Government and the Sports Business, Roger G. Noll, ed. Brookings Institution, 1974. Abridged version in Public Policies Toward Business: Readings and Cases, William G. Shephard, ed. Irwin 1975. Revised version in Handbook of Social Science of Sport, Gunther R. R. Luschen and George H. Sage, eds. Stripes Publishing Co., 1980.

"The Social Costs of Government Intervention." In The Business-Government Relationship in American Society: Reassessment, Neil H. Jacoby, editor. University of California Press, 1975.

"The Consequence of Public Utility Regulation of Hospitals." In Controls on Health Care. Washington, D.C.: National Academy of Sciences, 1975.

"Information, Decision-Making Procedures and Energy Policy." American Behavioral Scientists, Vol. 19, No. 3 (January/February 1976): 267-278. Reprinted in Current Issues in Social Policy, W. B. Littrell and G. Sjoberg, eds. Sage, 1976.

"Breaking Out of the Regulatory Dilemma: Alternatives to the Sterile Choice." Indiana Law Journal 51(3) (Spring 1976): 686-699. Reprinted in Corporate Practice Commentator 19(1) (Spring 1977): 99-114.

"Safety Regulation," co-authors Nina Cornell and Barry Weingast. In Setting National Priorities: The

Articles in Scholarly Publications, cont'd

Next Ten Years, Henry Owen and Charles L. Schultze, eds. Brookings Institution, 1976.

"Major League Team Sports." In The Structure of American Industry, Walter Adams, ed. 5th ed. Macmillan, 1977. 6th ed. Macmillan, 1981.

"An Experimental Market for Public Goods: The PBS Program Cooperative," co-author John A. Ferejohn. American Economic Review Papers and Proceedings 66(2) (May 1976): 267-273.

"Government Policy and Technological Innovation: Where Do We Stand and Where Do We Go?" In Innovation, Economic Change and Technology Policies, K.A. Stroetmann, ed. Birkauser-Verlag, 1977.

"Economic Policy Research on Cable Television: Assessing the Costs and Benefits of Cable Deregulation," co-authors S. M. Besen, B. M. Mitchell, B. M. Owen, R. E. Park, and J. N. Rosse. In Deregulation of Cable Television, Paul W. MacAvoy, ed. American Enterprise Institute, 1977.

"The Economic Implications of Regulation by Expertise: The Case of Recombinant DNA Research," co-author Paul A. Thomas. In Research with Recombinant DNA. National Academy of Sciences, 1977.

"The Dilemma of Consumer Advocacy." In Regulatory Reform, W.S. Moore, ed. American Enterprise Institute, 1978.

"Uncertainty and the Formal Theory of Political Campaigns," co-author John A. Ferejohn. American Political Science Review 72(2) (June 1978): 492-505.

"Voters, Bureaucrats and Legislators: A Rational Choice Perspective on the Growth of Bureaucracy," co-author Morris P. Fiorina. Journal of Public Economics 9(3) (May 1978): 239-254.

"Public Utilities and Solar Energy Development--Institutional Economic Considerations." In On the Economics of Solar Energy, Stephen L. Feldman and Robert M. Wirtshafter, eds. D.C. Heath, Lexington books, 1980. Extended version in The Solar Market: Proceedings of the Symposium on Competition in the Solar Industry. Federal Trade Commission, 1978.

"The Rationale for Mandated Cost Increases." In Economic Effects of Government-Mandated Costs, Robert F. Lanzillotti, ed. University Presses of Florida, 1978.

"An Experimental Analysis of Decisionmaking Procedures for Discrete Public Goods: A Case Study of a Problem in Institutional Design," co-authors John A. Ferejohn and Robert E. Forsythe. In Research in Experimental Economics, Vol. I, Vernon L. Smith, ed. JAI Press, 1979.

"Voters, Legislators and Bureaucracy: Institutional Design in the Public Sector," co-author Morris P. Fiorina. American Economic Review Papers and Proceedings 68(2) (May 1978): 256-260. Translated into Italian in Problemi Di Amministrazione Pubblica 4(2) (1979): 69-89.

"Regulation and Computer Services." In The Computer Age, Michael L. Dertouzos and Joel Moses, eds. MIT Press, 1979: 254-284.

"Practical Aspects of the Construction of Decentralized Decisionmaking Systems for Public Goods," co-authors John A. Ferejohn and Robert Forsythe. In Collective Decisionmaking, Clifford S. Russell, ed. Resources for the Future, 1979.

Articles in Scholarly Publications, cont'd

"Majority Rule Models and Legislative Elections," co-author Morris P. Fiorina. Journal of Politics, Vol. 41, No. 4 (November 1979): 1081-1104.

"Regulatory and Nonregulatory Strategies for Controlling Health Care Costs," co-author Alain Enthoven. In Medical Technology: The Culprit Behind Health Care Costs, Stuart H. Altman and Robert Blendon, eds.

Sun Valley Forum on National Health. U.S. Department of Health, Education and Welfare Publication No. (PHS) 79-3216, 1979.

"The Game of Health Care Regulation: Comments on Feldman/Roberts." In Issues in Health Care Regulation, Richard S. Gordon, ed. McGraw-Hill Book Co., 1980.

"Discussion: Regulatory Institutions in Historical Perspective." American Economic Review 70(2) (May 1980): 316-317.

"The Economics of Disaster Defense: The Case of Building Codes to Resist Seismic Shock," co-author Linda Cohen. Public Policy 29(1) (Winter 1981): 1-29. Reprinted in The Economics of Natural Disasters, Vol. I, Howard Kunruether and Adam Rose, eds. Edard Elgar, 2004.

"Regulation in Theory and Practice: An Overview," co-author Paul L. Joskow. In Studies in Public Regulation, Gary Fromm, ed. MIT Press, 1981.

"Designing a Market for Tradable Emissions Permits," co-author Robert W. Hahn. In Reform of Environmental Regulation, Wesley Magat, ed. Lexington Books, 1982.

"Implementing Marketable Emissions Permits." American Economic Review Papers and Proceedings 72(2) (May 1982): 120-124.

"An Experimental Examination of Auction Mechanisms for Discrete Public Goods," co-authors John A. Ferejohn, Robert Forsythe and Thomas R. Palfrey. In Research in Experimental Economics, Vol. II, Vernon L. Smith, ed. JAI Press, 1982. Reprinted in Experimental Foundations of Political Science, Donald R. Kinder and Thomas R. Palfrey, eds. University of Michigan Press, 1993.

"Implementing Tradable Emissions Permits," co-author Robert W. Hahn. In Reforming Social Regulation, Leroy Graymer and Frederick Thompson, eds. Sage Publications, 1982.

"The Feasibility of Marketable Emissions Permits in the U.S." In Public Sector Economics, Jorg Finsinger, ed. Macmillan Press, Ltd., 1983.

"Barriers to Implementing Tradable Air Pollution Permits: Problems of Regulatory Interactions," co-author Robert W. Hahn. Yale Journal of Regulation 1(1) (1983): 63-91.

"The Future of Telecommunication Regulation." In Telecommunications Today and Tomorrow, Eli Noam, ed. Harcourt Brace Jovanovich, 1983.

"The Case Against the Balanced Budget Amendment: Comments on Aranson and Rabushka." In The Economic Consequences of Government Deficits, Laurence H. Meyer, ed. Kluwer-Nyhoff Publishing, 1983.

"The Political Foundations of Regulatory Policy." Zeitschrift fur die gesamte Staatswissenschaft (Journal of Institutional and Theoretical Economics) 139(3) (1983): 377-404. Reprinted in Congress: Structure and Policy, Mathew McCubbins and Terry Sullivan, eds. Cambridge University Press, 1987.

"The Regulation of Surface Freight Transportation: The Welfare Effects Revisited," co-author Ronald R. Braeutigam. The Review of Economics and Statistics 66(1) (1984): 80-87.

"Prospective Payment: Will It Solve Medicare's Financial Problem," co-author Alain C. Enthoven. Issues in Science and Technology 1(1) (1984): 111-116. Reprinted in Health Industry Today 48(3) (1985): 16-24.

"The Preferences of Policy Makers for Alternative Allocations of the Broadcast Spectrum," co-author "Government Regulatory Behavior: A Multidisciplinary Survey and Synthesis." In Regulatory Policy and the Social Sciences, Roger G. Noll, ed. University of California Press, 1985.

"'Let Them Make Toll Calls': A State Regulator's Lament." American Economic Review Papers and Proceedings 75(2) (1985): 52-56.

Forrest Nelson. In Antitrust and Regulation: Essays in Memory of John J. McGowan, Franklin M. Fisher, ed. MIT Press, 1985.

"State Regulatory Responses to Competition and Divestiture in the Telecommunications Industry." In Antitrust and Regulation, Ronald E. Grieson, ed. Lexington Books, 1986.

"The Political and Institutional Context of Communications Policy." In Marketplace for Telecommunications, Marcellus S. Snow, ed. Longman, Inc., 1986.

"Government R&D Programs for Commercializing Space," co-author Linda R. Cohen. American Economic Review Papers and Proceedings 76(2) (1986): 269-73.

"Funding and Knowledge Growth: Comments." Social Studies of Science 16(1) (1986): 135-42.

"Communications." In The New Palgrave, John Eatwell, Murray Milgat, and Peter Newman, eds. MacMillan, 1987.

"Administrative Procedures as Instruments of Political Control," co-authors Mathew D. McCubbins and Barry R. Weingast. Journal of Law, Economics and Organization 3(2) (1987): 243-77. Abridged version in State and Federal Administrative Law, Arthur Earl Bonfield and Michael Asimow, eds. West Publishing, 1989. Reprinted in Economic Regulation, Paul Joskow, ed. Edward Elgar, 2000, and in Regulation and Regulatory Processes, Cary Coglianese and Robert Kagan, eds. Ashgate Publishing, 2007.

"Comment: Settlement Incentives and Follow-on Litigation." In Private Antitrust Litigation, Lawrence J. White, ed. MIT Press, 1988.

"Economics, Politics and Government Research and Development," co-author Linda Cohen. In Technology and Politics, Michael E. Kraft and Norman J. Vig, eds. Duke University Press, 1988.

"The Anticompetitive Uses of Regulation: United States v. AT&T (1982)," co-author Bruce M. Owen. In

The Antitrust Revolution, John E. Kwoka, Jr., and Lawrence J. White, eds. Scott, Foresman, 1988.

"The Political Economy of NASA's Applications Technology Satellite Program," co-author Linda R. Cohen. In Space Applications Board, Proceedings of a Symposium on Space Communications Research and Development. National Research Council, 1988.

"The Economics of Sports Leagues." In Law of Professional and Amateur Sports, Gary A. Uberstine, ed. Clark Boardman, 1988.

"Preface: Symposium on Telecommunications Demand." Information Economics and Policy 3(4) (1988): 275.

"Telecommunications Regulation in the 1990s." In New Directions in Telecommunications Policy, Vol. I, Paula R. Newberg, ed. Duke University Press, 1989.
"U.S. v. AT & T: An Interim Assessment," co-author Bruce M. Owen. In Future Competition in Telecommunications, Stephen P. Bradley and Jerry A. Hausman, eds. Harvard Business School Press, 1989.

"Structure and Process, Politics and Policy: Administrative Arrangements and the Political Control of Agencies," co-authors Mathew D. McCubbins and Barry R. Weingast. Virginia Law Review 75(2) (March 1989): 431-482. Reprinted in The Political Economy of Regulation, Thomas Lyon, ed. Edward Elgar, 2007.

"Economic Perspectives on the Politics of Regulation." In Handbook of Industrial Organization, Vol. II. Richard Schmalensee and Robert Willig, eds. North Holland Publishing Co., 1989. Reprinted in Regulation and the Law, Anthony I. Ogus, ed. Edward Elgar Publishing, 2001.

"Comment: Peltzman on Deregulation." Brookings Papers on Economic Activity: Microeconomics (1989): 48-58.

"Positive and Normative Models of Procedural Rights: An Integrative Approach to Administrative Procedures," co-authors Mathew D. McCubbins and Barry R. Weingast. Journal of Law, Economics and Organization 6 (1990): 307-332.

"Some Implications of Cognitive Psychology for Risk Regulation," co-author James Krier. Journal of Legal Studies 19 (June 1990): 747-779. Excerpts reprinted in Foundations of the Economic Approach to Law, Avery Weiner Katz, ed. Oxford University Press, 1998. Reprinted in Behavioral Law and Economics, Cass R. Sunstein, ed. Cambridge University Press, 2000.

"Environmental Markets in the Year 2000," co-author Robert Hahn. Journal of Risk and Uncertainty 3 (December, 1990): 347-363.

"Pricing of Telephone Services," co-author Susan Smart. In After the Breakup, Barry G. Cole, ed. Columbia University Press, 1990.

"Commentary: The Prospects for Using Market Incentives for Conservation of Biological Diversity." In The Preservation and Valuation of Biological Resources, Gordon H. Orians, Gardner M. Brown, Jr., William E. Kunin, and Joseph E. Swierzbinski, eds. University of Washington Press, 1990.

"Slack, Public Interest, and Structure-Induced Policy," co-authors Mathew D. McCubbins and Barry R.

Weingast. Journal of Law, Economics and Organization 6 (1990): 203-212.

"How to Vote, Whether to Vote: Strategies for Voting and Abstaining on Congressional Roll Calls," co-author Linda R. Cohen. Political Behavior 13(2) (1991): 97-127.

"Rational Actor Theory, Social Norms, and Policy Implementation: Applications to Administrative Processes and Bureaucratic Culture," co-author Barry R. Weingast. In The Economic Approach to Politics, Kristen Renwick Monroe, ed. Harper Collins, 1991.

"The National Aerospace Plane: An American Technological Long Shot, Japanese Style," co-authors Linda R. Cohen and Susan A. Edelman. American Economic Review Papers and Proceedings 81(2) (May 1991): 50-53.

"The Economics of Intercollegiate Sports." In Rethinking College Athletics, Judith Andre and David N. James, eds. Temple University Press, 1991.
"Comparative Structural Policies," co-author Haruo Shimada. In Parallel Politics, Samuel Kernell, ed. Brookings Institution, 1991.

"Structural Policies in the United States." In Parallel Politics, Samuel Kernell, ed. Brookings Institution, 1991.

"On Regulating Prices for Physicians." In Regulating Doctors' Fees, H.E. Frech III, ed. AEI Press, 1991.

"ISDN and the Small User: Regulatory Policy Issues," co-author William Lehr. In Integrated Broadband Networks, Martin C.J. Elton, ed. North-Holland, 1991.

"Computer Reservation Systems and Their Network Linkages to the Airline Industry," co-author Margaret E. Guerin-Calvert. In Electronic Services Networks, Margaret E. Guerin-Calvert and Steven S. Wildman, eds. Praeger, 1991.

"Professional Basketball: Economic and Business Perspectives." In The Business of Professional Sports, Paul D. Staudohar and James A. Mangan, eds. University of Illinois Press, 1991.

"An Economic Analysis of Scientific Journal Prices: Preliminary Results," co-author W. Edward Steinmueller. Serials Review 18 (1992): 32-37.

"Positive Canons: The Role of Legislative Bargains in Statutory Interpretation," co-authors Mathew McCubbins and Barry Weingast. Georgetown Law Journal 80 (February 1992): 705-742. Reprinted in Sutherland Statutory Construction, 4th, 5th and 6th editions, Norton J. Singer, ed. Clark Boardman Callaghan, 1993.

"The Theory of Interpretive Canon and Legislative Behavior," co-authors Mathew McCubbins and Barry Weingast. International Review of Law and Economics 12 (1992): 235-238.

"Comment: Judicial Review and the Power of the Purse." International Review of Law and Economics 12 (June 1992): 211-213.

"Comment: Standard Setting in High-Definition Television." Brookings Papers on Economic Activity: Microeconomics, 1992: 80-89.

Articles in Scholarly Publications, cont'd

"Research and Development," co-author Linda R. Cohen. In Setting Domestic Priorities: What Can Government Do? Henry J. Aaron and Charles L. Schultze, eds. Brookings Institution, 1992.

"The Economics of Information: A User's Guide." In The Knowledge Economy: Annual Review of the Institute for Information Studies. Aspen Institute, 1993.

"Downsian Thresholds and the Theory of Political Advertising." In Information, Participation, and Choice, Bernard Grofman, ed. University of Michigan Press, 1993.

"Economic Regulation," co-author Paul L. Joskow. In American Economic Policy in the 1980s, Martin Feldstein, ed. University of Chicago Press, 1994.

"Legislative Intent: The Use of Positive Political Theory in Statutory Interpretation," co-authors Mathew McCubbins and Barry Weingast. Law and Contemporary Problems 57 (Winter/Spring 1994): 3-37. Reprinted in Public Choice and Public Law, Daniel A. Farber, ed. Edward Elgar, 2006.

"Japanese and American Telecommunications Policy," co-author Frances M. Rosenbluth. Communications and Strategy 15 (3eme trimestre 1994): 13-46.

"The Origins of State Railroad Regulation: The Illinois State Constitution of 1870," co-author Mark T. Kanazawa. In The Regulated Economy, Claudia Goldin and Gary D. Libecap, eds. University of Chicago Press, 1994.

"Public Policy and the Admission of the Western States," co-author David W. Brady. In The Political Economy of the American West, Terry L. Anderson and Peter J. Hill, editors. Rowman and Littlefield, 1994.

"Introduction: Regulation and the New Telecommunications Infrastructure." The Changing Nature of Telecommunications/Information Infrastructure. National Academy Press, 1995.

"Telecommunications Policy: Structure, Process, Outcomes," co-author Frances M. Rosenbluth. In Structure and Policy in Japan and the United States, Mathew D. McCubbins and Peter Cowhey, eds. Cambridge University Press, 1995.

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Expert Report of Roger G. Noll
Appendix B
Documents Considered

Expert Report of Daniel A. Rascher
Backup to Expert Report of Daniel Rascher.pdf
Electronic Support to Dr. Rascher's work.zip
Revised Exhibits to Dr. Rascher's report

Expert Report of Philip Rowely

Documents submitted to the Court and discovery responses, including:
Third Amended Complaint
Plaintiffs' Motion for Leave to File a Third Amended Complaint
Defendants' Memorandum and Points of Authorities in Opposition to Plaintiffs' Motion for Leave to File a Third Amended Complaint
Plaintiffs' Reply Brief in Support of Plaintiffs' Motion for Leave to File Third Amended Complaint
Order Granting in Part and Denying in Part Motion for Leave to File an Amended Complaint
Plaintiffs' Notice of Motion and Motion for Class Certification and Brief in Support Thereof
Defendants' Opposition to Plaintiffs' Motion for Class Certification
Plaintiffs' Reply in Support of Their Motion for Class Certification
Order Granting in Part and Denying in Part Plaintiffs' Motion for Class Certification
Order (1) Denying Defendants' Motion for Judgment on the Pleadings; (2) Denying Defendants' Motion for Sanctions; (3) Denying Defendants' Motion for Transfer; and (4) Denying Plaintiffs' Motion to Appoint Interim Class Counsel
Affidavit of Andrew Feffer
Declaration of Gene Upshaw in Further Support of Defendant's Motion for Sanctions
Plaintiffs' Responses to Interrogatories
Defendants' Responses to Interrogatories

Deposition transcripts and exhibits, including:
Joe Nahra
Warren Friss
Adam Zucker
Howard Skall
Gene Upshaw
Glenny Eyrich
Joel Linzner

Reports and financial documents from Defendants' production, including:
PI140387-0443, PI095967-96276, PI141527-1893, PI140705-778, PI140583-0684, PI140504-568, PI141267-1518, PI135609-39710, PI139723-140368, PI091026-95073, PI051532-542, PI051545-550, PI095952-55, PI095963, PI140852-855.

NFLPA Form LM-2s from Defendants production, including:
PI025593-27294

Defendants' Constitutions, Bylaws and Articles of Incorporation, including:
PI000003-18, PI130970-31017, PI139711-9721.

Licensing agreements, letter agreements, GLAs and related documents from Defendants' production, including:
PI000001-02, PI000147-149, PI000022-0132, PI006218-258, PI006284-295, PI006758-769, PI006962-987, PI007368-396, PI007869-881, PI007340-354, PI126416-427, PI007801-822, PI004446-451, PI005285-87, PI008994-99, PI009774-78, PI013453-461, PI013491-95, PI053332-35, PI053376-77, PI060548-551, PI088509-513, PI009360-61, PI61566-68, PI61534-36, PI62635-37, PI062726-28, PI062738-740, PI062796-798, PI007490-02, PI007461-74, PI007514-26, PI008095-108, PI007561-74, PI007300-12, PI007549-60, PI007590-602, PI007575-89, PI007604-16, PI007313-26, PI007617-28, PI007653-78, PI007679-91, PI007692-704, PI007734-47, PI007720-33, PI007705-19, PI000072-86, PI000055-71, PI007063-76, PI007760-73, PI007424-36, PI008021-33, PI007823-34, PI007835-68, PI007869-81, PI007946-58, PI007996-008, PI007983-95, PI007970-82, PI008047-59, PI008060-73, PI008109-21, PI008122-34, PI007437-49, PI008135-47, PI008175-87, PI008188-200, PI007411-23, PI008201-14, PI008242-54, PI006036-48, PI006022-35, PI006073-86, PI005972-84, PI006087-99, PI006126-38, PI006139-51, PI006167-79, PI006205-17, PI006180-92, PI006246-58, PI006259-71, PI006272-83, PI006321-34, PI006307-20, PI006335-47, PI007475-89, PI006360-73, PI006386-99, PI006556-69, PI006570-82, PI006598-610, PI006611-23, PI006624-37, PI006650-62, PI006663-77, PI006781-93, PI006850-63, PI005985-97, PI006231-45, PI006919-31, PI006904-17, PI006932-46, PI006999-7011, PI007038-49, PI007024-37, PI007327-39, PI007397-410, PI007050-62, PI007159-73, PI007187-99, PI007174-86, PI007355-67, PI007200-12, PI006878-91, PI006865-77, PI006113-25, PI006100-12, PI007224-37, PI007251-64, PI007340-54, PI009360, PI009309, PI009317, PI009322, PI009364, PI009370, PI009275, PI009289, PI009375, PI009245-46, PI009248, PI009250, PI009252-53, PI009259, PI009261-62, PI009264, PI009266-67, PI009269-70, PI009273, PI009277, PI009279, PI009281, PI009283, PI009285, PI009287, PI009291, PI009293, PI009295, PI009297, PI009299, PI009301, PI009304-05, PI009307, PI009311, PI009313, PI009315, PI009319, PI009324-25, PI009327, PI009329-30, PI009332-33, PI009335-36, PI009338, PI009340, PI009342, PI009344, PI009346, PI009348, PI009356, PI009358, PI009362, PI009366, PI009368, PI009373, PI009229, PI009231, PI009240, PI009233, PI009235, PI009237-38, PI015492, PI015518, PI015576, PI015581, PI015590, PI015513, PI015556, PI015415, PI015417, PI015420, PI015423-24, PI015430, PI015432, PI015434, PI015437, PI015444, PI015439, PI015442, PI015446, PI015448, PI015455, PI015451, PI015453, PI015462, PI015465, PI015457, PI015460, PI015468, PI015471, PI015476, PI015474, PI015478, PI015480, PI015482, PI015485, PI015487, PI015490, PI015494, PI015497, PI015500, PI015502, PI015505, PI015414, PI015598, PI015508, PI015510, PI015515, PI015521, PI015526-27, PI015532, PI015534, PI015536, PI015538, PI015540, PI015543, PI015554, PI015559, PI015561, PI015564, PI015566, PI015568, PI015573, PI015579, PI015584,

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Credited Seasons Listing: Pension Credited Seasons as of March 31, 2008

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Major League Baseball Players Association Form LM-2s, File No. 064-727, 2000-2007
National Basketball Players Association Form LM-2s, File No. 068-015, 2000-2007
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Form 990 Return of Organization Exempt from Income Tax for Office of the Commissoner of Baseball for the period November 1, 2004 to October 31, 2005
Form 990 Return of Organization Exempt from Income Tax for National Football League for the period April 1, 2005 to March 31, 2006
Form 990 Return of Organization Exempt from Income Tax for National Football League for the period April 1, 2004 to March 31, 2005
Form 990 Return of Organization Exempt from Income Tax for National Hockey League for the period July 1, 2005 to June 30, 2006
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