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THE BASEBALL PLAYERS' LABOR MARKET¹

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SINCE its inception in the 1870's, organized baseball has developed a market for baseball players and their services in which there is less than perfect freedom to buy and sell. In this paper I shall discuss analytically a number of market problems which are interesting because of some unusual characteristics of the baseball labor market and the organization of the baseball industry.

In the labor market, monopsony is more frank and explicit and less imperfect than in the more common case, in other industries, of covert antipirating agreements. The nature of the industry is such that competitors must be of approximately equal "size" if any are to be

successful; this seems to be a unique attribute of professional competitive sports.

Before passing to the analytical questions, however, I must describe the structure of the industry and the rules of the market. The structure and the rules of the market for baseball players and their services are defined in seven documents which constitute the constitutional papers of the baseball industry. These documents are the Constitution of the National League of Professional Baseball Clubs, the Constitution of the American League of Professional Baseball Clubs, the Major League Agreement, the Major League Rules, the Major-Minor League Agreement, the Major-Minor League Rules, and the Agreement of the National Association of Professional Baseball Leagues (the minor leagues).²

¹ Am indebted to my colleagues and the students of the Department of Economics at the University of Chicago for challenging discussions of this topic which I have had with them. I must lay claim, however, to any errors the paper still contains.

Although I have referred to a large number of different sources in the considerable literature on baseball, I have found no document so valuable by far as the *Hearings before the Subcommittee on Study of Monopoly Power of the Committee on the Judiciary of the House of Representatives* (82d Cong., 1st sess.), Serial No. 1, Part 6: *Organized Baseball* (Washington, D.C.: Government Printing Office, 1952). The materials collected in this volume are massive and are indispensable for the understanding of the economics of this market. The volume will be cited henceforth, for brevity, as "*Celler Hearings*," after Congressman Emanuel Celler, the committee chairman.

The companion piece to the hearings of the subcommittee is its report, *Organized Baseball: Report of the Subcommittee on Study of Monopoly Power of the Committee on the Judiciary, Pursuant to H. Res. 95, House of Representatives* (82d Cong., 2d sess. [Washington, D.C.: Government Printing Office, 1952]). This document will be referred to henceforth as "*Celler Report*."

The documents specify the procedures for their own amendment, and they are amended from time to time. They are enormously complex. This complexity arises, in part, from the ingenuity of club owners and business managers in doing violence to the purposes of the rules while obeying their letter. Let a rule be established proscribing a practice and inhibiting gainful action, and teams find some substitute for it, and an amended rule emerges. Complexity also arises from the effort to compromise inconsistent interests within baseball.

Taken all together, the documents

² *The Baseball Blue Book, 1955* (Fort Wayne, Ind.: Bureau of the Blue Book, 1955).

constitute baseball as a collusive combination. The parties to this combination have agreed to be bound by rules that inhibit competition and to enforce these rules by extralegal sanctions.

The organized baseball industry³ consists of two major leagues and a number of minor leagues. The number of minor leagues varies from time to time in response to changes in product-market conditions. In 1955 there were thirty-three minor leagues operating.⁴

Most leagues are composed of eight teams, but leagues of other sizes, for example, of six teams, are not uncommon. Sometimes a league begins a season with eight teams and will lose a team or two that do not prosper and are abandoned in midseason.

The major-league season provides for a schedule of 154 games played by each team; 77 games are played at its own home ball park and 77 in those of its opponents. Thus each team plays 22 games with each of the other seven teams in its league, 11 at home and 11 away.

The minor leagues are classified into categories defined by the sum of the populations of the cities of which each is composed. These categories are called Open Classification, AAA, AA, A1, A, B, C, D, and E.⁵

The minor leagues are made up of teams that are either "independent" or

are "farm" teams of a major-league team. Farm teams are either owned outright by a major-league team or controlled by "working agreements" which give the major-league club, in return for financial or other assistance, the right to acquire the services of a specified number of players of the minor-league teams. A farm system makes it possible for a major-league team to accumulate a pool of players from which it can make replacements on its own team, and it provides a place where promising players can be "seasoned" for major-league play.

Of approximately 260 minor-league teams operating in 1955, 155 were farms of the major-league teams, 40 owned outright and 115 controlled by working agreements. Farm teams are not equally distributed among the major-league teams. In 1955, for example, the St. Louis National League team controlled eighteen farm teams, while the Boston and the Chicago American League teams controlled only six farm teams each.⁶

Every team admitted to organized baseball has "*territorial rights*" in the city in which it is located. No team in organized baseball may play in the territory of any other team without the latter's consent.⁷ Each team, therefore, monopolizes its own territory within organized baseball, and this monopoly right is a marketable commodity.

³ This paper is almost exclusively concerned with *organized* baseball. "Organized" baseball refers to the combination bound together by the constitutional documents I have enumerated. Baseball, outside of organized baseball, consists of amateur baseball, in which players receive no compensation for their play; semiprofessional baseball and the industrial leagues (composed of teams representing firms), in both of which a few players are paid for their playing services, but others are not; and a few fully professional leagues and clubs which are independent of organized baseball.

⁴ For a record of the number of minor leagues from 1905 to 1951 see *Celler Hearings*, p. 992.

⁵ The number of leagues in each category in 1955 was as follows:

Classification	Aggregate Population Requirement	No. of Leagues
Open Classification.....	10,000,000	1
AAA.....	3,000,000	2
AA.....	1,750,000	3
A1.....	1,450,000	0
A.....	1,000,000	3
B.....	250,000	7
C.....	150,000	8
D.....	Up to 150,000	9
E.....	Up to 150,000	0

⁶ *Baseball Official Guide*, 1955 (St. Louis, Mo.: C. C. Spink & Sons, 1955), p. 162.

⁷ *Baseball Blue Book*, 1955, p. 712.

An elaborate system of rules has been devised to govern the contractual relationships between players and teams and among teams in the disposition of players' services. This system of rules structures the labor market and imposes restraints upon freedom in the market.

Until he signs his first contract with a team in organized baseball, a player is a *free agent* who may dispose of his services as he wishes, and teams may compete in bidding for him with relative freedom. In the market for free agents, competition is very intense. A star high-school player may have a large number of representatives of different teams prepared to negotiate with him the day after his graduation from school.⁸

When bidding is heavy for the services of a particular free agent, the player is paid a *bonus* for signing a contract with one team rather than another. Bonuses of \$100,000 or more to secure a player's signature are not unknown, although they have usually been much smaller.⁹ The bonus can be thought of as part of the player's first year's salary or as an income supplement which is distributed over the length of his playing life. The

⁸ The rules do not permit negotiation with a high-school student until the day following his graduation.

⁹ In an attempt to reduce the size of bonuses paid to free agents, baseball's rules have recently been changed to impose real costs upon teams contracting bonus players. A bonus player signed to a major-league team, for example, must be kept on the team roster for two years; normally a young player contracted by a major-league team would be sent to the minor leagues for several years of "seasoning." Bonus players, for this purpose, are defined as those who are paid in excess of a stipulated amount for their first year plus an extra sum in compensation for signing their first contracts. To skirt the rule, some teams are said to have paid the player less than this amount but to have employed his father in some nominal capacity at a high salary, although the rules include in their definition of a bonus player payments made to other persons "for the use or benefit" of the player (*Baseball Blue Book*, 1955, pp. 513-14, 613-14, 729).

size of the bonus is not the only dimension of bidders' offers. A free agent will also choose among alternative bidders on the basis of his estimates of his lifetime baseball earnings with each bidder, and these estimates are compounded of his estimates of his length of playing life (which may be longer with one team than with another) and his estimates of his average annual earnings.¹⁰

When a player signs a contract, it must be a *uniform contract*, the terms of which are specified in detail by organized baseball. There is one uniform contract for the major leagues and another for the minors; the two are very similar. No deviation from the terms of the uniform contract is permitted without the approval of the appropriate executive officer of organized baseball, and deviation is rarely permitted.¹¹

The uniform contract provides that, in consideration of the payment of the compensation provided for in the contract, the player "agrees to render skilled services as a baseball player." The team may terminate the player's contract if the player should "fail, in the opinion of the Club's management, to exhibit sufficient skill or competitive ability to . . . continue as a member of the Club's team."

Almost all contracts run for a one-year

¹⁰ Players under contract to Team A or its farm system are a non-competing group vis-a-vis players under contract to Team B or its farm system, because of the operation of the "reserve rule" to be discussed below. Average salaries may therefore vary among teams. On July 1, 1950, the mean salaries of the major-league teams ranged from \$18,788 for the New York Yankees to \$8,031 for the St. Louis Browns (*Celler Hearings*, p. 965). The range of salaries paid by different teams is also different, and a free agent, in computing his prospective earnings with different clubs, can be expected to consider the salary range of each of the bidders for his services and to estimate where, in the whole course of his playing career, he is likely to fall within it.

¹¹ *Baseball Blue Book*, 1955, pp. 509, 609.

term. However, the uniform player contract contains a renewal clause, conventionally called the *reserve clause*, which permits the team to renew the contract for the following year at a price which the team may fix—subject, in the major leagues only, to the constraint that the salary in the following year shall not be less than 75 per cent of the salary in the current year. In the minor-league uniform contract there is no constraint at all on the price which the team may fix for the next season's services.

The team with which the player is contracted has exclusive right to the use of his playing services; he may not play baseball elsewhere without its consent. His contract may be assigned by this team to another team, and he is bound to report for play with the assignee team. No other team in organized baseball may employ him.

No team may negotiate with a player already under contract to another team. This is called *tampering* and is prohibited by the rules.¹² If any team wants to secure the services of a player contracted by another, it may negotiate with the team that owns the rights to his services for a purchase, but it may not bid the player away directly by contracting him.

Once a player has signed his first contract in organized baseball, therefore, he is no longer free to dispose of his services. He may withdraw from organized baseball and follow some other calling, but he may not choose freely among bidders for him within baseball.

The market for baseball players has really divided into three markets. One is the market for free agents, in which the player is the seller; another is the market for players who have already signed their first contracts, in which teams are both the sellers and the buyers; the third is the

market for current services of contracted players, in which the player is the seller and the team that holds his contract is the buyer.

Some attempts have been made to enforce in the courts the exclusive right to contracted players' services which is conveyed by the uniform contract. On the principle that involuntary servitude is contrary to public policy, the courts have been reluctant to compel players to fulfil their contracts, to restrain them from performing for others, or to restrain others from employing them, and these attempts have met with little success.¹³ Baseball has therefore resorted to extra-legal sanctions to enforce exclusive rights. A player who refuses to play for a team by which he is contracted, or refuses to play for a team to which his contract has been assigned, is suspended; he may not be employed by another team in organized baseball.¹⁴ If he finds employment in baseball outside of organized baseball, he is declared "ineligible" and may not play in organized baseball again until he is restored to eligibility; the length of time after his petition for reinstatement before he will be permitted to resume play will depend upon the evaluation of the gravity of his offense.¹⁵ A team in organized baseball that employs a suspended or ineligible player will find that other teams will refuse to meet it on the field of play; a team outside of organized baseball that employs him will

¹³ On the principle of a case decided in 1852 (*Lumley v. Wagner*) a contracted player may be restrained by a court of equity from making his services available to a third party if (1) the player is unique; (2) the contract is definite; (3) there is mutuality; and (4) the contract is not an unreasonable restraint of trade. There is some question whether players' contracts fulfil these conditions (Peter S. Craig, "Monopsony in Manpower," *Yale Law Journal*, March, 1953, p. 590).

¹⁴ *Baseball Blue Book*, 1955, pp. 538, 636.

¹⁵ *Ibid.*, pp. 540, 637.

¹² *Ibid.*, pp. 511, 611.

not be permitted to hire the ball park of a team in organized baseball; players who participate in contests in which an ineligible player takes part themselves become ineligible.¹⁶

The reserve rule is the heart of the limitation on freedom in the baseball labor market. A number of different defenses have been offered for it, some specious and others somewhat stronger.

The defense most commonly heard is that the reserve rule is necessary to assure an equal distribution of playing talent among opposing teams; that a more or less equal distribution of talent is necessary if there is to be uncertainty of outcome; and that uncertainty of outcome is necessary if the consumer is to be willing to pay admission to the game. This defense is founded on the premise that there are rich baseball clubs and poor ones and that, if the players' market were free, the rich clubs would outbid the poor for talent, taking all the competent players for themselves and leaving only the incompetent for the other teams. It will be seen later that the premise is false.

Most of the revenue of baseball clubs comes from admission receipts.¹⁷ A rich club, therefore, is one located in an area where attendance at baseball games is high; a poor club is one whose attendance is low.

Attendance at baseball games, as a

¹⁶ *Ibid.*

¹⁷ Combined major-league teams' revenue in 1950 was distributed by source as follows:

	Per Cent
Home-game admissions.....	57.2
Road-game admissions.....	14.1
Exhibition games.....	2.8
Radio and television rights.....	10.5
Concessions (net).....	9.2
Other.....	6.2

Approximately twenty-five cents of each admission price is paid to the visiting team; the remaining admission revenue is kept by the home team (*Celler Report*, p. 6).

whole, is a function of the general level of income, the price of admission to baseball games relative to the prices of recreational substitutes, and the goodness of substitutes.¹⁸ Attendance at the games of any given team is a positive function of the size of the population of the territory in which the team has the monopoly right to play;¹⁹ the size and convenience of location of the ball park;²⁰ and the average rank standing of the team during the season in the competition of its league. It is a negative function of the goodness of leisure-time substitutes for baseball in the area and of the dispersion of percentages of games won by the teams in the league.²¹

There is, in fact, a wide variation in

¹⁸ The following estimates show some trends related to baseball attendance:

	1929	1954
Expenditures for recreation as a percentage of total personal consumption expenditures....	5.5	5.2
Admissions to specified spectator amusements* as a percentage of expenditures for recreation	21.1	14.0
Spectator sports† as a percentage of admissions to specified spectator amusements.....	7.2	13.0
Professional baseball as a percentage of spectator sports.....	25.8	25.1‡

* "Specified spectator amusements" are motion-picture theaters; legitimate theaters, opera, and entertainments of non-profit institutions (except athletics); and spectator sports.

† "Spectator sports" are professional baseball, football, and hockey; horse- and dog-race tracks; college football; and "others."

‡ 1950; information not available for 1954.

(Source: U.S. Department of Commerce, *National Income, 1954 Edition: Supplement to the Survey of Current Business* [Washington, D.C.: Government Printing Office, 1954], Table 30, pp. 206 ff.; *Survey of Current Business*, July, 1955, Table 30, p. 19; *Celler Report*, p. 12.)

¹⁹ Metropolitan area population per major-league team in 1950 ranged from 4,277,000 for each of the three teams in the New York area to 898,000 for Cincinnati and 857,000 for each of the two teams in St. Louis (*Celler Report*, p. 99).

²⁰ Major-league ball parks ranged in seating capacity in 1955 from 27,523 for Washington to 73,811 for Cleveland (*Baseball Blue Book, 1955*, pp. 18 ff.).

²¹ That is to say, the "tighter" the competition, the larger the attendance. A pennant-winning team that wins 80 per cent of its games will attract fewer patrons than a pennant-winning team that wins 55 per cent of them.

attendance among teams. In the period 1931–50 the New York Yankees' aggregate paid attendance was 24,270,000, while that of the St. Louis Browns was 4,160,000.²²

If, it is argued, other things being equal, a team in an area with a large population has larger revenues than teams in less populous areas, then, in a free players' labor market, the former will get the most capable players, there will be wide variation among teams in the quality of play, contests will become certain, and attendance will decline.

The history of baseball seems, at least superficially, to support the position that the purpose of the reserve rule was to achieve balance of playing strength among teams. The first professional baseball league was the National Association of Professional Baseball Players, organized in 1870. It did not survive five seasons of play, and A. G. Mills, who first proposed the reserve rule, is reported to have said of its experience:

This condition was greatly aggravated by the general practice on the part of the richer clubs of stripping the weaker ones of their best playing talent. Then would follow the collapse of a number of these clubs in mid-season, leaving their players unpaid, while the winning clubs, owing to the disbandment of the weaker ones, would also frequently fall from inability to arrange a paying number of games.²³

The National Association was succeeded by the National League, which was formed in 1876.

To bring the process of unequal distribution of talent to a halt, it was thought necessary to devise the reserve rule to permit the poorer teams to retain the services of players whom they would otherwise lose to teams prepared to pay

higher salaries. If this was the purpose of the reserve rule, there seems to be some question whether it has been successful. A number of different measures suggest themselves for testing the equality of distribution of player ability among teams. A simple test is one which counts the number of times each team has won its league pennant. In the period 1920–51 the New York Yankees led the American League in eighteen years, and the Chicago White Sox in none. In the National League, in the same period, the St. Louis Cardinals won in nine years, the New York Giants in eight, and the Philadelphia Phillies and Boston Braves in one year each.²⁴

Clearly, there has been unequal distribution of talent. The Yankees have had better fortune than the others. By offering higher prices for the purchase of players' contracts from other teams, they have acquired players already under contract; by offering higher first-year salaries and prospects for higher professional lifetime earnings, they have induced the better free agents to sign with them; and by investing heavily in a farm system in the minor leagues, they have had access to a large pool of players from which the most capable could be drawn to the Yankees themselves.

By this simple empirical test, it can be seen that the reserve rule has not distributed players among teams perfectly equally; the teams that were prepared to outbid others for players have not been frustrated by the rule. The reason for this result will be shown later. It will also be shown that a market in which freedom is limited by the reserve rule

²⁴ *Celler Report*, p. 102. Operationally, perfect equality of distribution of players among teams may be made manifest in the following ways: every game ends in a tie; every team wins exactly half of the games it plays; every team, in an eight-team league, wins the pennant every eighth year.

²² *Ibid.*, p. 100.

²³ *Celler Report*, p. 18, quoting *Spalding's Official Baseball Record*, 1915, p. 47.

cannot be expected to equalize the distribution of players among teams more than a market in which there is perfect freedom.

If the reserve rule does not, in fact, equalize the distribution of players, can it have some other result? By confronting each contracted player with an exclusive bidder, the rule can have the effect of depressing salaries, at least for some players. The relevance of salary levels to the rule was clearly seen in an official release of the National League on September 29, 1879, shortly after the adoption of the reserve rule for the first time.

The financial results of the past season prove that salaries must come down. We believe that players in insisting on exorbitant prices are injuring their own interests by forcing out of existence clubs which cannot be run and pay large salaries except at a large personal loss. . . . In view of these facts, measures have been taken by this league to remedy the evil to some extent in 1880.²⁵

The "measures" taken were a secret agreement among the members of the league that each might reserve five players who could not be contracted by other teams. Over the years the number of players who might be reserved has been revised upward from time to time until now the major-league teams are permitted to reserve forty players and minor-league teams a smaller number, depending on their league classification.²⁶

Two other rules affecting the disposition of players should be mentioned. The *draft* or *selection* rule prevents a player from being held indefinitely in a lower classification league if his services are wanted by a team of a higher classification. After a player in the minor leagues

has served a stipulated number of years in the minor leagues,²⁷ he becomes eligible to be drafted (selected) by teams of higher classifications.²⁸ A player who is drafted has his contract taken up by the team that drafts him. The team that loses him is paid according to a schedule which appears in the constitutional documents; the price depends upon the league classification of the team from which the player is drafted and the classification of the team that drafts him.²⁹ Thus the draft is a forced sale at a previously stipulated price. A team of classification A or higher may lose only one player in each season by the draft, irrespective of the number of draft-eligible players it has under reserve; in leagues of lower classification than A any number of eligibles may be drafted from any team. Thus only as many players may be drafted from the higher minor-league teams as there are teams.³⁰

An elaborate system of rules has been worked out for determining the priority of selecting teams in the draft process. First choice is given to teams of high league classification and last choice to low-classification teams; for teams of any given league classification, first choice is given to those that stood lowest at the

²⁷ For example, this number is five years in the Pacific Coast League (players in this league, and *only* in this league, may opt to sign a contract which exempts them from the draft; in November, 1955, there were only twenty-seven players in this league who had chosen to sign such a contract); four years in AAA leagues; and two years in D leagues (*Baseball Blue Book*, 1955, pp. 521-22).

²⁸ In November, 1955, 3,184 players were eligible to be drafted, of a total of about 6,900 players reserved by minor-league teams (*Sporting News*, November 23, 1955, p. 5).

²⁹ If a major-league team drafts a Pacific Coast League player, it must pay the team losing the player \$15,000; if a major-league team drafts a class E player, it must pay the team that loses him \$1,500; etc. (*Baseball Blue Book*, 1955, p. 521).

³⁰ *Ibid.*, pp. 768-69.

²⁵ *Celler Hearings*, p. 139, quoting a release published in the *New York Clipper*, October 11, 1879.

²⁶ A class AAA team, for example, may reserve thirty-eight players, and a class D team, only twenty-one.

end of the previous season, and last choice is given to those that stood highest. The system appears to give the advantage of first choice to the teams of any classification which need talented players most. The advantage, however, is largely illusory. A minor-league team that holds the contracts of, say, three players, each of whom, if sold, would be worth \$40,000, will not be prepared to lose any of them for the substantially lower draft price. Since it does not know which of the three will be drafted, it will sell them all before the draft dates.³¹ It sells, of course, to the highest bidder, without regard to the previous season's rank position of the bidding teams. In the end, therefore, it seems to be true that the players who are left to be drafted are those who are worth about the draft price. If there are bargains to be had, it is because someone miscalculated the market. As a result, few players are actually drafted.³²

³¹ Usually some days are set aside in November of each year for drafting; as soon as drafting by the major leagues is done, the minor leagues begin their own draft, in which teams in each league classification draft from teams in lower classifications.

³² In November, 1954, of the several thousand eligibles, thirteen players were drafted by major-league teams and forty-four by minor-league teams. Of the thirteen, only seven spent the full following season in the major leagues, none with distinction.

The rule that only one player may be drafted in each year from the higher-classification minor-league teams has permitted the major-league teams with farm systems to protect their reservoir of players by moving draft eligibles among their teams. For example, in November, 1955, the Montreal Royals, an AAA team which is the property of the Brooklyn Dodgers, had a roster of thirty-three players, of whom thirty-two were draft-eligible. By moving its promising draft-eligible players from its other farm teams to Montreal just before the draft dates, Brooklyn was assured that it would lose only one of them. The others, who were being protected so that Brooklyn would have a pool of talent from which to get replacements for its players in the future, were reshuffled among the Brooklyn farm teams when the period for drafting had expired. This process is repeated each year.

The *waiver*³³ rule limits the freedom of higher-classification teams to dispose of their players to lower-classification teams. A major-league team may freely sell a player's contract to another major-league team of its own league. However, it may not sell the contract to a team of the other major league or to a minor-league team without first asking the other teams of its own league in the first case, and the other teams of both major leagues in the second, to "waive" the player. If one or more of these teams refuses to waive, they say, in effect, that they are prepared to take over the player's contract at a waiver price specified in the rules (currently \$10,000).³⁴

A major-league player may not have his salary reduced during the season for which he is contracted and may not have it reduced for the following season, if he should stay in the major leagues, to less than 75 per cent of its current season level. A team that claims a player for whom waivers have been requested, therefore, says that the exclusive right to the use and disposition of the player's services is worth \$10,000, given the salary costs which his contract attaches to him.

A team that has asked other major-league teams for waivers on a player so that it may assign his contract to a minor-league team may, if it wishes, withdraw its request for waivers if any of the

³³ *Baseball Blue Book*, 1955, pp. 529 ff., 749 ff.

³⁴ A major-league team may "optionally assign" a player whose contract it holds to a minor-league team within three years of the time it has contracted him without asking waivers. An optional assignment is one which gives the assignor team the right to recall the optioned player into its own service. It differs from an "outright" assignment, which transfers, for a consideration, the right to use or dispose of the player's services. The optional assignment is an exception to the waiver rule.

There is also a waiver rule affecting the assignment of minor-league players between minor-league teams of different classifications.

major-league teams express an interest in having the player by filing a claim for him. Negotiations then often ensue, in which the team that owns the player tries to get from the team that wants him a price higher than the waiver price. If the negotiations are successfully consummated, the player's contract is assigned outright between the major-league teams; he does not transfer on waivers. The rationale of the waiver rule is that it seeks to keep a player in the highest league classification for which his

Very little information is available on player salaries. All contracts are registered with the relevant executive offices of major- and minor-league baseball, but salary information is not made public. The reports of player salaries which appear in the public press are said not to be reliable. Some salary data were divulged, however, by the congressional committee hearings of 1951.

The rules impose a minimum salary in the major leagues of \$6,000 per year.³⁶ No other league has a minimum-salary rule. Neither does any league have a maximum individual player salary rule. All leagues except the two major leagues and the only Open Classification league—the Pacific Coast League—have *team* maximum salary limits.³⁷

On July 1, 1950, the range of major-league salaries was from \$5,000³⁸ to \$90,000 per year. The mean was \$13,288, and the median \$11,000.³⁹ In the minor leagues salaries were very much lower. Average salaries per player-month and monthly salary ranges in that year were reported to be as shown in Table 1.

The large variation in players' salaries can be expected to attract many players who are hopeful that they will finally fall in the upper levels of the salary distribution. This will cause the average salary of baseball players to be below the level at which it would lie if the dispersion of salaries were smaller.

TABLE 1*
AVERAGE SALARIES PER PLAYER-
MONTH AND MONTHLY
SALARY RANGES

League Classification	Mean	Median	Range
AAA.....	\$876	\$850	\$200-\$4,000
AA.....	639	600	300- 4,200
A.....	391	350	100- 1,555
D.....	192	165	80- 1,000

* Source: *Celler Hearings*, p. 965.

services are acceptable, if he is worth the waiver price, and despite the fact that he is worth more than this to a lower-classification team.³⁵

Only the bare bones of the market rules of the industry have been described in this paper. Their full texts and the exceptions which the rules permit can be found in the constitutional documents themselves. For our purposes the skeletal description given here suffices.

³⁵ That this is a "fact" may be demonstrated as follows: any major-league team can purchase a player of whom another major-league team wishes to dispose by offering a higher price for his contract than any minor-league bidder and by offering a price which is high enough so that it pays the team owning the player's contract to sell him to the bidding team rather than to employ him on one of its farm teams. The major-league team could do this if there were no waiver rule. If the waiver rule gives it a claim upon a player superior to that of a minor-league team, it is because the former can claim the player at a lower price than the latter is willing to pay for him.

³⁶ *Baseball Blue Book*, 1955, p. 543.

³⁷ For example, \$7,000 per month per team in A1 leagues; \$750 per month per team in E leagues. Each AAA and AA league may set its own team maximum; they were, for example, in 1951, American Association (AAA), \$13,800 per team-month; International League (AAA), 14,000 per team-month (*Celler Hearings*, p. 189; *Baseball Blue Book*, 1955, p. 739).

³⁸ \$5,000 was the minimum established by the rules for major-league players at that time.

³⁹ *Celler Hearings*, p. 965.

Baseball-playing skills, at some level of proficiency, are, of course, widely distributed among the young male population of the United States and some other countries of the Western Hemisphere, and the supply of baseball-playing labor must be very elastic to price. In the lower minor leagues players make themselves available at prices which seem to be less than they could earn in some other employment. A congressional committee heard testimony from one former minor-league player that he accepted his first contract with a class D team in 1941 for a salary of \$60 a month and that this was the common beginning wage in that classification at the time.⁴⁰ The worth of these earnings must surely have been reduced by some of the real costs which baseball players incurred. The same witness, for example, told the committee:

We used to finish a game in the evening, get on our bus, known as Stucker's Steamer. . . . The man who owned the club was named Rex Stucker. And this was an old, beat-up Ford, a bus, in which we had bunks in the back of the bus, and we used to pile all our suitcases, baseball bats and other things in this bus and then leave Sioux City about midnight and travel to Cheyenne, Wyoming. It is about 600 miles away. We were to get there at 4:30 the following afternoon and play a game in Cheyenne, Wyoming, that night. . . . That is a common practice in all minor leagues. . . . That is the common practice to save hotel bills.⁴¹

There are other disadvantages of life in the minor leagues. A player under contract may have his salary reduced in midseason if he is assigned outright to another team of a lower classification, and he may have his contract terminated without notice.⁴² Earnings in the lower

minor leagues are so low that, at the end of each season, it is a common practice for class D teams to have a "players' night" to raise money that can be given to the players to permit them to pay the expenses of their transportation to their homes.

If players are willing to sell their services for such a wage and under such circumstances, it is perhaps because they derive very large psychic income from playing the game and because, on the average, the players in the lower leagues overestimate the probability that they will excel in play and be chosen to receive a higher salary with a team of a higher-classification league.

Experience diminishes uncertainty and increases knowledge, however, and players recalculate the probabilities which they assign to the occurrence of events. As they find that they have miscalculated, they withdraw from the market. The president of the association of minor leagues testified:

The turnover in B, C, and D (leagues) is terrific. . . . Boys may be in there a week or maybe 30 days. The turnover in the lower classifications is awfully heavy. . . . I suppose that a good many class D clubs have a turnover maybe five or six times during the season of almost their complete roster.⁴³

Especially in the major leagues players have opportunities for earning supplementary income which would not be available to them if they were not baseball players. They may be paid for speaking engagements or for product indorsements; between seasons, if they are employed as salesmen, say, of insurance or automobiles, they will be more successful because they are players; if they invest in retail or service establishments, they are more likely to prosper; if they play well, they may receive gifts from grateful fans;

⁴³ *Ibid.*, pp. 206, 213.

⁴⁰ *Ibid.*, p. 349.

⁴¹ *Ibid.*

⁴² The president of the association of minor leagues told the Celler Committee of the no-notice rule: "That inspires the player to hustle a little all the time" (*ibid.*, p. 205).

when they retire from baseball, they may teach at baseball schools; if they are engaged in business ventures, they will be rewarded in proportion to the favor in which they were held by the fans during their baseball careers.

The reserve rule, which binds a player to the team that contracts him, gives a *prima facie* appearance of monopsony to the market. Once having signed a first contract, a player is confronted by a single buyer who may unilaterally specify the price to be paid for his services. Each team and the players under contract to it appear in a labor market specific to them.⁴⁴ This market is distinct from those of other teams. No movement among markets, either of buyers or sellers, is permitted. In each market the team operates as buyer; the players, as sellers. While there is no competition on the buying side, there is intense competition on the sellers' side.

In such a market rational maximizing teams⁴⁵ might be expected to behave like discriminating monopsonists. Each player will have his supply price; if he is offered less than this, he will prefer to work at some other occupation. The supply price will vary among individuals. For each of them it ought to be related to how much he can earn in the next best employment outside of baseball, with the appropriate adjustments made for the plaudits of the crowd, for the supplementary income opportunities baseball provides, for the convenience of seasonal employment and the inconvenience of constant travel, and so on. A maximizing team would be expected to pay different salaries to different players, even though they are of the same quality, but only just about the salaries that are necessary

⁴⁴ In the case of farm systems, the system defines the limits of the market; all the teams in the system coalesce into a single buyer for market purposes.

to prevent them from withdrawing their services.

Actually, however, teams seem to pay, in the major leagues, much more than this. Here a paradox emerges. If baseball players have, on the average, no skills other than those necessary to play baseball proficiently, then their next best wage would be relatively low. Why are they paid so much more?

To begin with, it is undoubtedly correct that the player will not be paid more than he is worth to the team, his worth being determined by that part of the team's revenue which is attributable to his capacity to attract patrons to the ball park, net of the price paid for his contract to another team or the cost of his development. Nor will he receive less than his reservation price. The salary he receives, therefore, must fall somewhere between these limits; the question is: Why does it not fall at the bottom of the range?

⁴⁵ The question may be asked whether it is sensible to assume that baseball-team owners are rational maximizers of money quantities. Representatives of organized baseball often say that the owners are interested more in providing opportunities for wholesome sport than they are in turning a profit. It was said in 1951 that ten of the sixteen major-league primary owners had their main business interests outside of baseball, and the Celler Committee heard testimony that, as of July, 1951, of 2,287 officers and directors of minor-league teams, only 291 made their living primarily from baseball. If baseball entrepreneurs get large psychic income from their association with the game, they will be willing to pay a price for engaging in the baseball business. This does not mean necessarily that they will be prepared to take a loss on their baseball operations but only that they are prepared to take a smaller return from baseball investment than their capital would earn in some other use. Still, one major-league property is reported to have sold in recent years for three and a half million dollars and another is said to be up for sale, at this writing, for four million dollars. The most expensive major-league property has been estimated to be worth fifteen million dollars and the average six million dollars. It seems unlikely that people will subject capital of this magnitude to large risk of loss for the pure joy of association with the game.

The answer must be that the player is not without his defenses, even if he is in a monopsonistic market. He may withhold his services, and, in fact, each year there are a few holdouts who refuse to sign contracts providing for salaries that are unacceptable to them. In the end they usually sign, either because they become convinced, after a time, that the team will not offer more or because the team raises its offer. But sometimes players hold out for the full season. These may simply be cases of irrational behavior on the part of the player; though he is able to earn only \$5,000 in another employment, he may sometimes refuse to accept \$15,000 for playing baseball if he believes he is worth \$20,000. But, if, in truth, he is worth \$20,000, then it pays the team to offer \$16,000. Thus the process by which the salary is fixed assumes the characteristics of bargaining, and the level at which it falls is a function of the shrewdness and guile of the parties in devising their bargaining strategies. Moreover, the teams cannot push the salary "too low" even for those who do sign, because it does not pay to have discontented players. Player performance is determined in part by natural abilities like sharpness of eye, perception of space, and muscular co-ordination but also in part by the effort the player exerts. A player who is unhappy about his salary will perhaps not play as well as one who is not.

The solution to the problem of individual salary levels is not, however, completely indeterminate within the limits of the range which has been specified, as it would be in a classic duopoly case. This is so because, while each player has a monopoly of his own services, he is not truly unique, and there are more or less good substitutes for him. His salary is therefore partially determined by the

difference between the value productivities and costs of other players by whom he may be replaced.

A rational team will seek to maximize the rent it derives from each player. It will be indifferent between two short-stops, one of whom is worth \$30,000 and costs \$20,000, and the other of whom is worth \$20,000 and costs \$10,000. It will prefer the first if it can have him for \$19,000; but it will prefer the second if it must pay the first \$21,000 to induce him to play. It will be prepared to pay a Babe Ruth a fabulous salary, simply because there are no very good substitutes for him, and he is worth so much more to the team than any other player. But if a Ruth insisted upon receiving his full worth, it would pay to employ in his stead some other person of less skill on whom some positive rent would be earned. The team would keep a Ruth even if he insisted upon receiving his full value only if all other players also insisted upon receiving theirs and if rents were therefore zero for all of them. Since it is incredible that all players should, in fact, exact their full worth, it follows from this analysis that at least some players are exploited.⁴⁶

It has been suggested,⁴⁷ however, that, while major-league players, and especially the star players of the major leagues, may be exploited, it does not follow that all players taken together are. The process by which players are brought to the

⁴⁶ Representatives of organized baseball testified before the Celler Committee that players receive their full value. "If the players are dissatisfied, they are traded to other teams which will pay them more." This belief is, of course, not consistent with the other, also held by baseball representatives, that the reserve rule has the effect of balancing team strength by permitting poorer clubs, which pay less than the richer clubs, to retain players to whom the latter are prepared to pay a higher wage.

⁴⁷ I am indebted for the immediately following idea to Professor Gary S. Becker.

major leagues can be likened to that by which paying oil wells are brought in or patentable inventions discovered. In all these cases there is heavy investment in the discovery of knowledge. When it is discovered, the returns on it are high, but these returns must compensate for the losses incurred on the attempts which failed. In this schematic conception minor-league players who do not qualify for major-league play are like dry wells and research which does not yield a patent. They are paid more than they are worth because they may turn out to be of major-league caliber. To their cost must be added the cost of scouts and try-out camps and other costs of finding players and assessing their capacities. The monopsony gains in the major leagues are merely compensation for investment losses in scouting and in the operation of farm teams, and returns to investment in baseball, like returns to investment in oil and in research, should be no higher than returns to capital used in other ventures. If they were higher, capital would flow from other uses to investment in baseball.

This suggestion has a great deal of analytical merit. Its power is reduced somewhat, however, by the restraints on freedom of entry in the baseball industry. If the returns on oil investments or on investment in research are very much larger than returns on other investment, new entrants are free to search for oil and knowledge. But the rule of "territorial rights," which gives monopoly rights to desirable locations in the product market to teams currently in organized baseball and the system of private sanctions for the enforcement of the rule put serious disabilities upon prospective new entrants into the baseball industry. If, therefore, there are monopoly gains arising from the characteristics of the base-

ball labor market, they are reinforced by restraints on competition in the product market.

Is it clear that the reserve rule is necessary to achieve more or less equal quality of play among teams? Assume that teams are distributed among locations, as they are in fact, so that the revenues of some are very much larger than those of others. Assume a free players' labor market, in which players may accept the offer of the highest bidder and teams may make offers without restraint.

At first sight, it may appear that the high-revenue teams will contract all the stars, leaving the others only the dregs of the supply; that the distribution of players among teams will become very unequal; that contests will become less uncertain; and that consumer interest will flag and attendance fall off. On closer examination, however, it can be seen that this process will be checked by the law of diminishing returns, operating concurrently with each team's strategic avoidance of diseconomies of scale.

Professional team competitions are different from other kinds of business ventures. If a seller of shoes is able to capture the market and to cause other sellers of shoes to suffer losses and withdraw, the surviving competitor is a clear gainer. But in baseball no team can be successful unless its competitors also survive and prosper sufficiently so that the differences in the quality of play among teams are not "too great."

If the size of a baseball team is thought of as the number of players under contract to it, each player being weighted by some index of his quality, then diseconomies of scale set in at some point when a team too far outstrips its competitors, and they become larger in proportion to the size of the differences.

Two teams opposed to each other in

play are like two firms producing a single product. The product is the game, weighted by the revenues derived from its play. With game admission prices given, the product is the game, weighted by the number of paying customers who attend. When 30,000 attend, the output is twice as large as when 15,000 attend. In one sense, the teams compete; in another, they combine in a single firm in which the success of each branch requires that it be not "too much" more efficient than the other. If it is, output falls.

A baseball team, like any other firm, produces its product by combining factors of production. Consider the two teams engaged in a contest to be collapsed into a single firm, producing as output games, weighted by the revenue derived from admission fees. Let the players of *one team* be one factor and all others (management, transportation, ball parks, and the players of the other team), another. The quantity of the factor—players—is measured by making the appropriate adjustment for differential qualities among players, so that a man who hits safely in 35 per cent of his times at bat counts as more than one who hits safely only 20 per cent of the time. Given the quantity of the other factors, the total product curve of the factor—players of one team—will have the conventional shape; it will slope upward as the "quantity" of this factor is increased, reach a peak, and then fall. It will not pay to increase this factor without limit. Beyond some point—say, when a team already has three .350 hitters—it will not pay to employ another .350 hitter. If a team goes on increasing the quantity of the factor, players, by hiring additional stars, it will find that the total output—that is, admission receipts—of the combined firms (and, therefore, of its own)

will rise at a less rapid rate and finally will fall absolutely. At some point, therefore, a first star player is worth more to poor Team B than, say, a third star to rich Team A. At this point, B is in a position to bid players away from A in the market. A's behavior is not a function of its bank balance. It does what it calculates it is worthwhile to do; and the time comes when, in pursuing the strategy of its *own* gains, it is worthwhile, whatever the size of its cash balance, to forego the services of an expert player and see him employed by another team.

The wealthy teams will usually prefer winning to losing.⁴⁸ If they do, they will prefer winning by close margins to winning by wide ones. If their market behavior is consistent with this objective—that is, if they behave like rational maximizers—playing talent will be more or less equally distributed among teams.

It does not require collusion to bring about this result. It is not senseless to expect it to be produced by a free labor market in which each team is separately engaged in gainful behavior. The position of organized baseball that a free market, given the unequal distribution of revenue, will result in the engrossment of the most competent players by the wealthy teams is open to some question. It seems, indeed, to be true that a market in which freedom is limited by a reserve rule such as that which now governs the baseball labor market distributes players among teams about as a free market would.

Players under contract to a team may be used by that team itself, or they may

⁴⁸ It should not be thought that wealthy teams will invariably want to assemble winning combination of players, either in a free market or in a market governed by the reserve rule. A team will seek to maximize the difference between its revenue and its costs. If this quantity is maximized, for any given club, by assembling a team of players who are of lower quality than those of another club in its league, it will pay the former to run behind.

be sold to another team. Each team determines whether to use a player's services itself or to sell him, according to the relative returns on him in the two uses. If the return will be higher from sale, he will be sold, and vice versa. Now, if he can be sold to another team for a price higher than his worth to his present team, it is because he is worth more to the team that buys him than to the team that sells him. It follows that players will be distributed among teams so that they are put to their most "productive" use; each will play for the team that is able to get the highest return from his services.⁴⁹ But this is exactly the result which would be yielded by a free market. The difference is only that in a market subject to the reserve rule part of the price for the player's services is paid to the team that sells his contract, and part of his value is kept by the team that holds his contract; in the free market the player gets his full value.

If players were not indentured to teams but were free to accept the offers of the highest bidders, would the amount of investment in the training of players and the quality of play fall? In such a market, players will bear a larger proportion of the cost of training, and the wages they receive will have to compensate for this cost. If it pays now, in a monopsonistic market, to invest in training and development, it will also pay to

do so in a free market. There will be cases in which players will reject a higher salary in the major leagues in order to remain longer in the minors and acquire skills that will assure even larger earnings in the future, just as medical students, receiving a negative income, now reject factory work at some positive wage.

Are there other alternatives to the reserve rule? Are there some other rules which would tend to produce a more or less equal distribution of playing talent among teams and which would not be defective on some other criterion?

Let there be a free players' market and let the total revenues of all teams in the major leagues be pooled and shared equally by all teams, perhaps after adjusting for differences in operating costs associated with differences in the size of franchise cities. All teams will then be equal in capacity to bid for talent. There will be no incentive, however, for any single team to win or to assemble a winning combination. Win or lose, play badly or well, it will receive its equal slice of pie. It will pay for all teams, taken together, to play well enough, on the average, so that revenue will not fall off faster than costs. But any individual team, by employing only men whose supply prices are low, whatever their quality, can then take advantage of the gains yielded by the expenditures of the others. No team will be willing to spend if it cannot be assured that others will also do so. Each team will therefore tend to buy the cheapest playing services in the market. A rule of equal sharing of revenue leads to the equal distribution of mediocre players among teams and to consumer preference for recreational substitutes.

As another possibility, let teams bid for players and players accept offers, subject only to the constraint that a ceiling is imposed on the salaries that may be

⁴⁹ The sale of a player's contract occurs in a market in which the seller is a monopolist and the buyer an oligopsonist. The selling price will be not less than the player's capitalized value to the team that owns his contract (the difference between his average yearly product to it and his average yearly salary, multiplied by the estimated number of remaining years of his playing life and appropriately discounted). It will not be more than his capitalized value to the team for which his product would be higher than for any other team. The price will fall between these limits, at a point determined by bargaining strategies and the player's capitalized value to other would-be buyers.

paid to individual players. The allocational effects of this rule would appear to depend upon the level of the ceiling. If the maximum salary permitted by the rule is higher than the highest wage paid to any player in a free market, the effect can be nothing but zero. It may appear that if the ceiling is sufficiently lower than this, so that more than one team is prepared to pay the specified maximum price to the highest-salaried player, the rule will begin to have some positive effects, and that, the lower the maximum salary, the larger will be the effects. On closer view, this is seen to be not true. Suppose the maximum is placed at some level, x . Players who would be worth more than x in a free market will then distribute themselves among teams on other criteria than the yearly salary, and teams will bid for players by offering other quantities than price; for example, perquisites or the security of long-term contracts.⁵⁰ Teams which, in the absence of a maximum salary rule, would have outbid other would-be buyers of a player's services with cash will outbid them

⁵⁰ An interesting subsidiary question is: What effect will long-term contracts, rather than one-year contracts, have on player salaries if the market is free and the contracts are enforceable? Players will accept a lower annual salary if they have the security of a long contract, but they will demand a higher annual salary because it will then be impossible for them to accept a higher offer from another team during the life of the contract. Assuming that players estimate their future prospects correctly, those who expect to do well will take only a one-year contract. Teams will be prepared to pay a higher annual salary because they have the security of having a player's services for a long period; but they will pay a lower annual salary because they run the risk that the quality of his play will decline during the life of the contract. If they estimate a player's future correctly, they will sign a long-term contract with those who will do well in the future and a one-year contract with those who will not. On the assumption of correct estimation of the future on both sides of the market, the outcome seems to be that there will be no difference in the annual salary whatever the length of the contract.

with non-money offers, and the distribution of players among teams will be left unaffected. If complementary rules are devised and successfully enforced (such as rules forbidding the payment of perquisites, contracts for longer than one year, secret understandings, and employment of players' relatives), so that the cash price is the whole price received by the player, those who receive the maximum will tend to accept, among competing bids, those from the teams which paid the highest average salary, for they will then be combined with higher-priced (and better) players, and the probability that they will share in World Series bonus earnings will be higher.⁵¹ Even if players worth the maximum wage or more are distributed randomly (thus, in the long run, equally) among teams, they will be exploited; the market will not be free for them.

As still another possibility, let there be a free players' labor market and let franchises be distributed so that the size of the product market is equal for all teams. Suppose, for example, that all teams are located in markets whose population is two million. Thus, in the New York area there will be six teams rather than three; in the Chicago area, three rather than two; and so on. If attendance is a unique function of the size of the market, such a distribution of teams may equalize revenues among teams. But, as has already been shown,⁵² attendance is a function of several variables. If psychic income is not zero for all team owners, or if it is larger for some than others, and if consumer income levels, the convenience of reaching the ball park, the taste for recre-

⁵¹ Part of the revenues of each annual World Series is distributed to players of the teams which are in the upper half of the major leagues' rank standings at the season's end.

⁵² Above, p. 246.

ation relative to other objects of expenditure, or the taste for baseball (within recreational expenditures) is not equal among cities, differences in revenues will occur. When they do, a self-generating process begins to operate to increase the magnitude of the differences. If the revenues of Team A are larger than those of Team B for any of the foregoing reasons, despite the equality of market size, Team A is in a position to contract the better players by offering a higher price;⁵³ Team A then wins more games than B, and its relative attendance and revenues increase. Now it is in a still better position to outbid B for players. Equal division of markets may, however, tend to result in a somewhat more equal distribution of players among teams than unequal division of markets.

Finally, let teams bid for players and let players accept offers, subject to the constraints that a low ceiling is imposed on the number of players that may be under contract to any team and that the control of players in the minor leagues is prohibited. Suppose no team is permitted to contract, directly or indirectly, more than, say, fifteen players.⁵⁴ The smaller the number of players each team is permitted to contract, the more equally will talent be distributed among teams. But it must be kept in mind that player

limits are inhibitions on freedom to contract and, therefore, inconsistent with market freedom. Like other rules which have been discussed, they lead to exploitation by preventing some players from contracting with a team prepared to pay a higher price for their services; they receive less than they would be worth in a free market uninhibited by rules.

Markets in which the freedom to buy and sell is constrained by the reserve rule or by the suggested alternatives to it do not promise better results than do markets constructed on the postulate of freedom. It appears that free markets would give as good aggregate results as any other kind of market for industries, like the baseball industry, in which all firms must be nearly equal if each is to prosper. On welfare criteria, of course, the free market is superior to the others, for in such a market each worker receives the full value of his services, and exploitation does not occur.

⁵⁴ The reader is reminded that major-league teams are now permitted by the rules to have an active roster of twenty-five players during the playing season (and, for one year from the date of their discharge from military service, up to five more who have returned from the service); that they may have an additional fifteen players under contract who are out on option to play with minor-league teams, subject to recall; and that they may hold several hundred players indirectly by contracting them to minor-league teams which they own or with which they have working agreements.

⁵³ It may, of course, not do so (see p. 255, n. 48).