DOT-P-30-92-1

U.S. Department of
Transportation

Office of the Secretary
of Transportation

MAY 1992

LABOR RELATIONS AND LABOR COSTS IN THE AIRLINE INDUSTRY:

CONTEMPORARY ISSUES

The contents of this report reflect the views of the Contractor, who is responsible for the facts and the accuracy of the data and judgements presented herein. The contents do not necessarily reflect the official views or policies of the Department of Transportation.

LABOR RELATIONS AND LABOR COSTS IN THE AIRLINE INDUSTRY:

CONTEMPORARY ISSUES

MAY 1992

INTENTIONALLY LEFT BLANK

PREFACE

At the request of the Office of the Secretary of Transportation, the Volpe National Transportation Systems Center (VNTSC) sponsored this study to address aviation labor relations.

Labor-management relations in the airline industry evolved largely in the context of government regulation up to 1978, driven heavily by the implications of the Railway Labor Act. The Airline Deregulation Act of 1978 brought in a new era in airline labor relations, the dimensions of which -- 13 years later -- are still in the process of being defined.

The purpose of this brief study was to assess the current state of labor-management relations in the airline industry. Specifically, the study reviewed recent settlements with airline unions and their cumulative effects on carrier costs. The aim was to provide the Department of Transportation with a concise understanding of the facts that bear on current collective bargaining in the airline industry, and a critique of the impediments that may affect collective bargaining.

The study was executed by Science Applications International Corporation (SAIC) under VNTSC contract DTRS-57-89-00090, Technical Task Directive RA 1029. The principal investigator was Dr. Peter Cappelli of the Wharton Center for Human Resources and a consultant to SAIC. He was assisted by Delwyn H. Kegley, also of Wharton, and Simat, Helliesen & Eichner, Inc. (SH&E), a subcontractor to SAIC.

SAIC and the authors extend their appreciation to Richard Horn of the Volpe National Transportation Systems Center and Keith Prouty of the Office of the Secretary of Transportation for their guidance and assistance throughout this effort.

INTENTIONALLY LEFT BLANK

Labor Relations and Labor Costs in the Airline Industry: Contemporary Issues

Executive Summary

Labor Relations During Regulation:

The regulation of the airline industry during the 1930s was driven by the belief that unfettered competition, sometimes termed "destructive competition," especially in the form of price cutting, was hindering the orderly development of the industry. The New Deal's emphasis on stability in economic relations also influenced labor relations, which became highly structured following inclusion of the airline industry under the Railway Labor Act.

Both unions and management adapted to the conditions of regulation and developed a system of industrial relations that proved relatively stable. With fares regulated and set on the basis of costs, the carriers had little incentive to resist union demands. Lower labor costs could not be used to lower fares or to expand market share. Any wage increases could be passed on to consumers. Unions pursued negotiations on a carrier-by-carrier basis and used comparisons with a target settlement as the basis for their contract demands. Carriers typically accepted the pattern of prior settlements. When strikes did occur, generally to establish a bargaining pattern, they were rarely bitter; struck carriers typically shut down operations immediately and began receiving funds from the industry strike insurance plan.

This system of "pattern bargaining" and the steady expansion of the industry contributed to substantial union gains.

Deregulation:

Initially, deregulation of fares and routes in 1978 appeared to give a substantial boost to labor's bargaining power by making the carriers much more vulnerable to strikes. Strike insurance was eliminated under the terms of the Deregulation Act, and competitors were now free to enter and to operate in a struck carrier's markets. While these factors gave the carriers a strong incentive to avoid strikes, the fact that labor costs now were also a potential source of competitive advantage (lower costs could mean lower fares and hence greater market share) gave a strong countervailing motivation to resist union demands.

The most important development in labor relations after deregulation, therefore, was an increase in the determination of management to operate through a strike. Although the trend actually began in 1980, even before the PATCO strike, Continental's subsequent experience in

breaking both strikes and unions in 1983 set a more aggressive example for the industry. The competitive pressures on the established "trunk" carriers of non-unionized new entrant carriers like People Express have probably been exaggerated, but their influence as a symbol and a model of lower wage structures and more flexible work rules appears to have had significant influence on the major carriers.

Bargaining power shifted sharply toward the carriers during the 1980s. Management itself began to engage in pattern bargaining as the strong carriers demanded a match of the concessions which the weak carriers needed in order to survive. 'B' tier wage plans, which set lower pay rates for employees hired after a given date, spread rapidly throughout the industry, resulting in reduced labor costs as the carriers expanded -- because a greater proportion of the workforce came under the 'B' tier pay scales.

On the current scene, entry level wages in the industry now appear to be at market levels. Overall average wages fell sharply in real terms between 1978 and 1990; the industry dropped from the third highest paid industry in 1979 to 17th at the end of the decade. Productivity increased sharply at the same time, in part because of union concessions on such work rules as hours of work, and in part because increasingly efficient aircraft began to come on stream. Labor costs declined from 43 percent of total costs in 1978 to 33 percent in 1990, a remarkable drop -- particularly in light of the fact that fuel costs as a proportion of total costs were also falling sharply over the same period. All in all, airline management made rather significant gains during the 1980s, attributable to increased productivity as well as to labor's declining strength at the bargaining table.

Current Situation -- Some Reversal:

Developments in the past year or so suggest that bargaining power may be shifting back somewhat to the union side. The fact that entry wages have been rising sharply substantiates reports of a skilled worker shortage, especially for mechanics. The same market pressures also contributed to the erosion of 'B' tier wage provisions. The fact that nonunion Continental has had the fastest growing labor costs suggests how market pressures are indeed pushing labor rates up. Further, the slowdown in carrier expansion -- in fact, a shrinkage at many carriers -- has reversed the 'B' tier advantage; layoffs eliminate the lowest cost (low seniority) workers, and shift a higher proportion of the workforce to the 'A' tier, thereby raising average labor costs.

Even more significant, however, are recent developments in collective bargaining. Most major carriers are now too big to rely on a strategy of permanent replacements during a strike, and must hope that striking employees can be induced to cross picket lines. Labor has become more adept at enforcing strikes, however, and cooperation among unions -- at Eastern, for example -- has made it even more difficult for management to break strikes. In this environment, the pilots in particular have been able to reintroduce pattern bargaining based on a target settlement. There is also some evidence of pattern bargaining by mechanics and flight attendants.

Recent union gains in fact represent a significant increase over past settlements. But labor continues to make exceptions for weak carriers, and the increases represent only moderate reversals of prior management gains. The carriers are more concerned with the trend. They fear the return of full-blown pattern bargaining, in part because it represents a loss of carrier initiative. Where demands are based on contracts at other carriers, it is more difficult to tailor bargaining to the specific needs of individual carriers. There is also a fear that pattern bargaining will lead to competition between unions (pilots and mechanics especially) in which demands will escalate within carriers as each skill group seeks the higher settlement.

Perhaps the main reason for carrier concern about a resurgence of labor's bargaining power relates to the sharp push by management during the 1980s in the direction of confrontation; for the most part, the carriers pursued a strategy of union give-backs both in wages and in work rules. In comparison to other industries, there are virtually no efforts by either side to improve labor-management cooperation, to reduce costs/improve quality through quality of work life programs, or even to pursue joint gains. Given relationships based on aggressive tactics like permanent strike replacements and litigation by unions of management decisions, carrier managements are apprehensive that revitalized labor unions may be more formidable at the bargaining table.

Problems for the Future:

Labor relations in the airlines have a direct impact on the viability of the industry; the important issues go well beyond any recent union wage gains. First, many carriers have become accustomed to a situation where declining labor costs, driven largely by union concessions, have combined with declining fuel costs to offset problems with other aspects of the business. The reductions in costs have largely been passed through to customers in the form of lower fares. However, labor costs are unlikely to keep falling, and empirical research suggests that recent increases in costs may not lend themselves to being passed on to consumers. Pattern bargaining has been used in other industries to impose common labor costs among competitors (which ultimately are paid for by consumers), but the unique competitive structure of air transport suggests that the carriers will have to absorb a good portion of any such cost increases.

Second, as the domestic airlines expand their reach abroad, competition with foreign carriers becomes increasingly important. Although U.S. carriers appear to have significant cost advantages over foreign competitors, costs may be less important than perceptions of service quality, to the extent that international routes and fares remain regulated. The available evidence suggests that U.S. carriers are judged to be substantially lower than their major foreign competitors in service quality; this will certainly hurt the competitive ability of U.S. carriers. Especially in the customer contact aspects of airline work, employee attitudes are an important part of service quality. Reports from U.S. carrier executives acknowledge that employee management is part of the explanation for lower levels of service, and that this is an important shortcoming of the industry.

The fact that future cost increases are likely to be more difficult to pass on to consumers

implies that the carriers will have to rely heavily on productivity increases to fund wage increases. Yet the extent to which the carriers can achieve productivity increases through union concessions has been largely exhausted for the immediate future. Airlines will need to find new ways to organize work and to innovate in order to improve productivity. This will be very difficult to achieve without the cooperation and involvement of employees.

The difficulty for the industry is that the mode of confrontational labor relations which characterized 1980s is not conducive to the efforts typically associated with improving productivity and service quality -- such as labor-management cooperative programs or quality of work life programs at the workplace level. Additionally, the carriers have little residual good will with labor to bank on in an effort to turn things around.

The most important goal for the industry in the employment area is somehow to make the leap from aggressive, confrontational labor relations to a consensus approach which will permit improvements both in productivity and in quality of service, while keeping wage costs at competitive levels -- with a view to restoring a concern for the consumer to every element of airline service.

TABLE OF CONTENTS

INTENTIONALLY LEFT BLANK

Labor Relations and Labor Costs in the Airline Industry: Contemporary Issues

Peter Cappelli

Public Policy Interests in Labor:

Historically, the government's interests in employment issues have taken varying forms. Interest in the outcomes of employment focused mainly on concerns about the well-being of workers; the public policy manifestations of that interest have generally been efforts to raise wages and improve working conditions, such as minimum wage and fair labor standards legislation. The public policy interest in the relations between labor and management has been broader, and stems from the need to protect the general public from the deleterious consequences of industrial action. This interest is manifested through union-management legislation which governs the relations between the two parties.

Aside from the interest in protecting workers and setting the rules for labor relations, public policy has generally left employment issues alone. In particular, the outcomes of private employment decisions -- either through market forces or collective bargaining (with the exception of nonagreements such as strikes) -- have not been a topic of public policy. There are some exceptions, however. Where the government is paying at least part of the bill, it has expressed explicit interest in the associated labor cost outcomes. Laws such as the Davis-Bacon and Walsh-Healey Acts seeks to prevent cuts in labor costs, while various regulations governing health care reimbursements seek to restrain labor costs in that industry.

Government has also shown a growing policy interest in the international competitiveness of U.S. industries that has focused attention on workforce issues. The public discussion of the role that labor costs play in industry competitiveness, such as the concern expressed in the late 1970s that high wages and salaries in the auto industry relative to foreign competitors were pricing U.S. cars out of their own domestic the market, or the recent concerns about the salaries of our top executives as compared to those of our competitors during the last decade, has been considerable. Government has also been active in efforts to influence private employment decisions that affect the quality of the workforce, such as programs to subsidize the amount of training that workers receive on the job. But little public policy action has been directed at labor costs per se. And public policy interest in

industry competitiveness has to be balanced with public policy interest in improving living standards; no one would suggest that we as a nation take a cut in real wages in order to improve our competitiveness, even though it would have that effect.

A similar balancing of interests takes place on the question of wages. While economic theory argues that efficiency and utility are optimized when all prices are set at market rates, it is important to remember that competition is rarely perfect -- and neither are markets, especially labor markets. The variability in wages produced in labor markets (wages for similar jobs, for example) is especially large and exists even where labor is not organized. Management may want to pay wage premiums above the market level to help improve employee attitudes and behavior. Employers often actively work to take wage determination out of the context of the market. Most managerial jobs, for example, operate in internal labor markets (i.e., systems of promotion-from-within) where wage decisions are only loosely coupled to external labor markets, and it is hard to argue that such systems run counter to the public interest.

Unions seek to influence wage determination (among other things) through collective bargaining. The process of wage determination that results does not necessarily rely on labor markets, and there is no guarantee that the wages that result will serve management's interests in the same way that management-initiated wage premiums do. Assuming that union-won wage premiums hurt the firm, it is nevertheless hard to argue that such premiums per se run counter to the interest of public policy, given that public policy permits unions and protects their right to bargain for higher wages.

This is not to suggest, however, that all outcomes produced by collective bargaining are neutral from the standpoint of public policy. For example, the government has established Presidential Commissions to investigate collectively bargained employment practices in the railroads that were thought to run counter to the interests of an efficient transportation system.

The framework for public policy interest in airline employment issues, therefore, is potentially complex. Clearly, air transport is an industry of strategic importance, although arguably no more so than industries like autos whose impact on the overall economy may be greater. Nor is the competitiveness of U.S. air transport threatened by international competition as it is in the case of manufacturing, where lower foreign labor rates provide foreign companies a competitive edge; foreign air carriers are, at least at present, kept out of domestic markets.

The strongest argument for public policy interest in air transport employment relations is that the factors governing employment are, perhaps more than in any other industry, the product of government action: laws governing union-management relations; regulations certifying employees and

mandating work rules; and -- perhaps most important -- actions that affect the characteristics of the product market which include the regulation of the industry, policies affecting mergers, and the physical characteristics of the air transport system, such as capacity constraints, that affect new entrants.

In other words, because the government is already extensively (although indirectly) involved in shaping employment outcomes, there may be no way to avoid a public policy interest in those outcomes. If it could be shown that government decisions have helped produce employment outcomes or procedures that are dysfunctional for the industry or the economy, then there would be a strong case for direct public policy actions. Key issues for consideration of policy, therefore, are first, whether there are aspects of the air transport employment system that run counter to a balanced interest in an effective air transport system, and second, to the extent that such aspects may have come about, whether they are the result of actions by the parties or by the government.

I. Early History: The Foundations of the Modern Employment System:[1]

The system of industrial relations and collective bargaining in the airline industry is unique, the result not only of the technology of the industry and the specialized skills of airline employees, but also of the elaborate set of regulations, especially product market regulations, placed on the industry by the government. A system of regulations that both restricted and protected the industry was initiated by the federal government at a time when the free market gave every sign of being incapable of developing a system for air transport.[2] The government, through the U.S. Post Office, saw the potential value of air transportation even before the industry existed, and it was the Post Office that began the first scheduled flights, which carried only mail. Private contractors eventually took over the routes, but they fared poorly and many went bankrupt. As a response to the pending collapse of the air transport system, the Hoover administration passed the Watres Act of 1930 which gave the Post Office the power to subsidize carriers and reduce what appeared to be ruinous price competition. Unfortunately, the contractors lost even more money through fare wars as the industry expanded.

Passenger traffic developed gradually and was becoming a more important source of revenue than mail for some carriers.[3] With passenger growth came greater concern for air safety, intensified by a series of spectacular crashes in the 1930s, one of which took the life of a U.S. Senator. The Roosevelt administration held that the concerns for safety and for economic health should be addressed together, in part because of the circumstantial evidence available at the time that poor economic performance created pressures to skimp on safety. The economic regulations proposed were guided by New Deal- and Depression-inspired views of competition: unbridled competition was harmful because it led to price cutting, bankruptcies, and unstable market structures.[4] And the carriers agreed. Col. Edgar Gorrell, President of the Air Transportation Association, argued that the poor cash position and accelerating costs in the industry made it difficult to obtain capital and that regulation would restore "the confidence of the investing public" (U.S. Congress 1938 p. 295). Gorrell had earlier argued that the possibility of destructive price wars was keeping possible entrants out of the industry and that passing the Civil Aeronautics Act which would regulate the industry "will bring in a number of new companies, and there will be additional airline service" (U.S. Congress 1937 p. 75).

The Civil Aeronautics Act of 1938 had many objectives. Among the most important, it set about establishing a market structure that would eliminate the problems perceived to be associated with unfettered competition and help stabilize the industry. Competitive bidding for routes was abolished. The Civil Aeronautics Board (CAB), which administered safety and economic regulations under the

Act, granted routes not on the basis of costs but on the basis of the Board's goal of integrating carrier networks. As Bailey, Graham, and Kaplan (1985) pointed out, the CAB never awarded a major route to a carrier that was not already established. The number of certificated carriers soon dropped to fifteen, four of which became the dominant long-distance carriers--Trans World (TWA), American, and United Airlines on the east-west routes, and Eastern Airlines on the north-south routes. Mail rates provided subsidies that would help carriers sustain service and stabilize their operations in hard times. To prevent price wars, the CAB also set uniform fares for carriers flying the same routes. At the same time, to prevent collusion, the CAB had the power to approve all mergers, changes in routes, and agreements between the carriers. In short, the New Deal architects of the air transport system created a regulatory environment designed to restrain the competitive forces that had appeared to be hindering the development of the air transport system. Fifty years later, that argument would be reversed by the proponents of deregulation.

Labor and Regulations: The development of a system of airline market regulation helped shape the major developments in labor relations. Pilots were the most important employee group in the industry, and their relations with management were generally peaceful until the late 1920s, when private contractors took over from the Post Office.[5] The hard times and price cutting facing carriers in those years coincided with a post-World War I pilot surplus. In a move that would be a harbinger of things to come, E.L. Cord, head of Century Airlines, took the company out of business, forced Century pilots to resign, and then reorganized the airline and rehired the pilots at half their previous pay. Cord's success in that action led other carriers almost simultaneously to cut their pilots' pay and, in turn, led to the creation of the Air Line Pilots Association (ALPA) in 1931. ALPA formed a temporary alliance with the other major carriers against Cord and drove him, also temporarily, out of the business.

The government took its first step in regulating airlines when the New Deal's National Labor Board agreed to arbitrate an industry-wide pilot pay dispute as part of the interest, as expressed in the National Industrial Recovery Act of 1933, in establishing wage rules. With the introduction of larger, faster planes such as the DC-3 on the horizon, the formula for determining pilot pay became a very important issue. Hourly wage rates would mean a drop in earnings if pilots flew faster planes over a given route (less time in the air), whereas mileage-based rates would give them substantial increases for the same amount of flight time. In its Decision Number 83, the Labor Board established a compromise formula basing pay on seniority, hours flown, and the average speed of the plane.

The pilots' union successfully lobbied Congress in 1934 to require compliance with Decision 83

as a condition of holding an airmail contract. ALPA also managed to secure similar language in the Civil Aeronautics Act of 1938. (Perhaps surprisingly, the carriers did not seriously object to this provision of the Act, although they did argue that it should be part of the RLA instead. See U.S. Congress 1938 p.363.) Decision 83 therefore not only established the formula by which pilot pay is determined but mandated its use with legislative protections; failure to abide by the pay formula would cause the rescinding of the carrier's certification. Although these protections ended with deregulation, the pay formula remains as the basis for pilot pay today.[6]

The Railway Labor Act. ALPA secured an impressive legislative victory in 1936 when Title II of the Railway Labor Act (RLA) was signed, bringing the airline industry under the coverage of that Act. And as with Decision 83, ALPA managed to secure language in the Civil Aeronautics Act of 1938 requiring airline compliance with the RLA as a condition of certification. The practical consequence of this decision was to involve the Civil Aeronautics Board directly in enforcing the RLA and in ruling on labor relations issues.[7]

The Railway Labor Act was, of course, designed for the railroads and in fact formalized the private agreement between rail unions and management about how their relations should be handled. How it came to be applied to airlines is an interesting story. As noted above, when ALPA was formed in 1931, it began lobbying for protection from wage cutting. Hearings in Congress in 1932 attempted to amend the RLA to include airlines. The argument for the amendment was that there was a need to protect the public from unqualified airline personnel, but when pressed, proponents of the bill had to agree that it in fact did not deal with safety. Sam Rayburn, Chair of the Committee on Interstate and Foreign Commerce, noted the fledgling nature of the airline industry and said that applying railroad industry rules to it "is like putting grandfather's clothes on a baby" (U.S. Congress 1932, p.12). The amendment did not pass, but airline employees were later covered by Section 7(a) of the National Industrial Recovery Act of 1933, which provided voluntary codes to maintain price levels. The codes were rarely effective in any industry, however, and on May 27, 1935 were declared unconstitutional by the U.S. Supreme Court.

On May 20, 1935, hearings to amend the RLA to include airlines began again. An important theme throughout the hearings was why airlines should be covered by the RLA and not by the Wagner Bill (National Labor Relations Act) which was working its way through the Congress. O.S. Beyer, Director of Labor Relations for the Federal Coordinator of Transportation, made the argument (repeated over and over at the hearings), that the Wagner bill did not provide the emphasis on settling disputes that the RLA did. It lacked the additional mechanisms of notice, mediation, arbitration, and

fact-finding. The Wagner bill was focused more narrowly on safeguarding the rights of employees to organize, and did not address bargaining in the same way. (U.S. Congress 1935, p.23). The RLA was seen as a great success in avoiding disputes, and both government and union officials argued that the avoidance of disputes was equally important for air transport. The other main argument for including airlines was to improve the coordination of government control over transportation. Government coordination of industry was a central theme of New Deal legislation, and the argument here was that, just as the I.C.C. coordinated the product markets of the railroad and trucking industries, so the National Mediation Board should coordinate and control labor issues for railroads and air carriers.

The air carriers did not testify at the hearings and did not offer opposition to the legislation, arguably because they believed that the New Deal Congress was in such a regulatory mood that legislation was inevitable. So the unions and the government dominated the discussion. The fact that the NIRA had just been declared unconstitutional no doubt made labor worry that the Wagner bill would also be declared unconstitutional. As Curtin (1969) noted, labor may have believed that the RLA might be their only opportunity to be covered by federal labor legislation.

But airlines also shared several characteristics with rail transport that made the application of the RLA reasonable. First, both operations are spread geographically over a widely-dispersed routing system. It made sense, therefore, that bargaining units and the bargaining process should be systemwide rather than restricted to a given geographic area. Second, employees in both industries tended in general to fall into readily distinguishable occupations, termed crafts or classes in the RLA. Because of this, the National Mediation Board (NMB), which enforces the RLA, has interpreted the Act to require that bargaining units be based on occupational crafts.[8]

Product Market Regulation: As noted above, CAB route and fare regulations established a product market free from many of the competitive pressures that helped shape collective bargaining in other industries. There was much less incentive in airlines to cut labor and other costs because cost reductions could not be turned into lower fares and a competitive advantage. Airlines, like Northwest, that did hold down costs certainly increased their profits, but they could not lower fares and take business away from their competitors, nor could they enter new markets. Fare structures could rise with cost increases, however, as they did automatically from 1973 to 1978.[9] This policy further decreased employer resistance to wage increases because they could easily be passed on to consumers. Unions faced no employment tradeoff for higher wages, first because there was no cost-revenue tradeoff in the product market; second, it is very difficult for the carriers to substitute capital

or lower-wage employees for skilled airline personnel because the Federal Aviation Administration (FAA) not only requires skilled employees to be certified but effectively establishes staffing levels through the use of elaborate safety regulations.

Moreover, carriers seldom faced the kind of financial trouble that would require layoffs. Because fares were set to maintain a "fair" rate of return, profit levels over the years under regulation were reasonably stable even if considerably below those in other industries.[10] This stability also meant relatively fewer business crises that would demand employee sacrifices to keep the carrier going. In the years before deregulation, if a financially ailing carrier was threatened with closure, the CAB typically stepped in to arrange a friendly merger with another carrier.[11] More important, when the CAB arranged friendly mergers, it issued labor protection provisions (LPPs), which preserved the seniority rights and other interests of the employees whose companies were merging (see below).[12]

In short, under regulation, employment levels did not vary along with employment costs. Unions had little to lose by pushing up labor costs, and the carriers had little reason to resist their doing so because industry average costs were passed on to consumers through fare increases. Although holding the line on labor costs would have improved profits, airline managers typically thought that the potential profit increases were not worth the risk of a strike and the costs it would entail. Because unused transport services cannot be stored for future use, all business lost during a strike is permanently lost and airlines typically find it difficult to rebuild traffic levels quickly after a strike is over. Further, because bargaining took place independently for each craft or class of workers, the proportion of labor costs to total costs in any given negotiation was very small.[13] Together these factors reduced management's costs of granting wage increases and, in turn, increased union bargaining power.

II. Labor Relations in the Period of Regulation, 1938-1978:

Pattern Bargaining: The economic environment under governmental regulation created incentives for a bargaining structure that was very decentralized, carrier-by-carrier. The Railway Labor Act established separate bargaining units for each craft or class of workers. Nothing in the Act, however, prevented bargaining units from negotiating together within the same airline or across airlines. But the unions did not need to coordinate their negotiating efforts because each bargaining unit individually could shut down an airline with a strike. Indeed, union efforts to coordinate bargaining would only increase management's resistance at the bargaining table by increasing the number of workers covered by each agreement and, hence, the costs of agreeing to contract improvements.

Within each airline, unions had everything to gain by fragmenting negotiations and strike liabilities. The traditional goal associated with negotiating across employers is to take wages out of competition by enforcing uniform terms and conditions of employment on all competitors (Commons 1909). But this goal was already met by the system of regulations outlined above: higher wage carriers were not at a competitive disadvantage because their prices could not be undercut, and low-cost carriers could not enter their markets.

Instead, unions negotiated with each carrier individually and took advantage of the airlines' vulnerability to strikes by engaging in "pattern bargaining" – where negotiations moved from carrier to carrier but were linked by similar union demands. A strike at a single carrier not only stopped its traffic but shifted its passengers to other carriers, possibly permanently. In thinly covered routes the CAB would even allow other carriers to move onto the route just for the duration of the strike. Moreover, the NMB prevented simultaneous strikes on the same route by holding some disputes in mediation until the strike at the other carrier was settled.[14] In addition, a strike at a single carrier posed no threat to the nation's air system and thus was unlikely to cause either a consumer backlash against the union or the appointment of a Presidential Emergency Board to settle the strike. All of these factors increased the penalties to carriers of being on strike by shifting business to competitors.

The international unions staggered their negotiations across the carriers and used the previous settlement with one airline as the starting point for negotiations with the next carrier. This method of bargaining was particularly important where several unions were competing to represent the bargaining units in the craft because, as Ross (1948) argued, their competition helped escalate their demands. Kahn (1971) noted that demands based on interfirm comparisons were encouraged by

governmental Emergency Board recommendations, which, although infrequent, nonetheless relied on the comparisons. In addition, given the relative uniformity in revenues across carriers, it was hard for carriers to argue against a settlement that their competitors had already accepted. A further consequence of this "whipsawing" was that the carriers tried hard to position themselves at the end of the bargaining round to delay the increases as long as possible and to avoid being the target of a strike.

The evidence is overwhelming that contract changes came about through this kind of "pattern bargaining." Virtually every important change in contract terms was secured first at one carrier and then spread one negotiation at a time across the industry. This was the case not only for union gains but also for contract changes benefiting management.[15] Although minor differences in contracts persisted, the extensive use of inter-company comparisons as criteria for bargaining goals resulted in virtual uniformity among agreements in any one bargaining round.

The Exception: Industry-Wide Bargaining: The Four-Engine and Six-Carrier Disputes: The carriers tentatively challenged the union practice of pattern bargaining in 1945 when they were collectively facing the introduction of faster four-engine planes and the possibility of massive pilot pay increases under the existing Decision 83 formula. They formed the Airline Negotiating Committee to negotiate this issue on behalf of the industry. ALPA refused to negotiate with the Committee and struck TWA over the pay issue. TWA eventually broke from the Committee to settle the dispute, and the Committee soon fell apart.[16] The IAM briefly negotiated with six carriers in 1953 and again in 1966. The 1966 negotiations resulted in the largest strike in industry history, when the union struck all six simultaneously. The strike stopped 60 percent of domestic traffic and led to an Emergency Board whose recommendations went all the way through the Senate before the strike ended after 43 days. President Johnson had called the parties together and pushed them to reach an agreement, but the union failed to ratify it. Eventually, the IAM agreed to a contract that broke the existing government wage norms (Cullen 1977). The failure to resolve the strike was an embarrassment to the Johnson Administration and, ultimately, to the labor movement. Thereafter, the union abandoned multiemployer bargaining. Only 6 of the 34 Emergency Boards appointed in air transport have addressed disputes involving more than one carrier or more than one union. (Emergency Boards are discussed at length in Section VI.)

Mutual Aid Plan: In response to the union successes with whipsawing tactics, the carriers established a new program--the Mutual Aid Plan, a strike insurance plan--in 1958. The plan was initiated to prop up Capital Airlines, which was engaged in a long strike with the IAM over issues of

industry-wide concern. (Because it is an inter-airline agreement, the MAP required approval by the CAB under the Civil Aeronautics Act of 1938.) Participating carriers agreed to compensate struck carriers in proportion to any increases in traffic that they experienced during strikes.

Unterberger and Koziara (1975; 1980) found evidence suggesting that as MAP coverage and benefits increased over time, strikes in the industry grew longer. As Northrup (1977) pointed out, however, strike duration is not the only relevant criterion for assessing the Plan's effects. The MAP did increase the bargaining power of management, but it also may have reduced the number of strikes, other things equal, by discouraging unions from undertaking them in the first place. At its most generous, the Plan compensated struck carriers for most of their lost revenues and, in turn, vastly increased the ability of carriers to resist strikes. Northwest made particularly extensive use of the Plan to help hold its labor costs down by bargaining hard and taking strikes. Indeed, the fact that Northwest was able to operate at healthy profit levels while using the Plan helped swing opinion against it and eventually brought about its downfall.

Labor Protection Provisions: Governmentally imposed provisions to protect airline jobs from the consequences of corporate reorganizations had their roots in the railroad experience. Efforts to consolidate the railroads, mainly after WWI, were complicated by union objections concerning job loss and the dislocation of employees, and Congress acted on several occasions to provide job protections legislatively in order to speed such consolidations. The Emergency Railroad Transportation Act of 1933 sought to prevent job losses as a result of mergers and related actions. When that Act was about to expire, the parties negotiated what became known as the "Washington Agreement" in 1936 which required that rail carriers provide protections for employees who might otherwise find their employment adversely affected by mergers, consolidation of operations between carriers, or the transfer of significant assets. The Interstate Commerce Commission subsequently institutionalized these protections by applying the terms of the Washington Agreement as conditions of mergers and related activities (Cappelli 1989). The Civil Aeronautics Act of 1938 required airline compliance with the Railway Labor Act as a condition of being a certificated carrier, and the Civil Aeronautics Board then adopted the ICC's practice of applying labor protections.

The argument for government involvement in this area was first, to reduce the threat of service disruptions because of labor's concerns about employment dislocations; second, given that the government shared in the management of the transportation system by virtue of its economic regulatory role, in many cases arranging mergers directly, it was at least indirectly responsible for many of the employment dislocations that followed. At the CAB, the provision of labor protections

gradually expanded on a case-by-case basis until the Allegheny-Mohawk Airlines merger in 1972, when they reached their so-called "standard" form. These labor protection provisions basically maintain current rates of pay and benefits, provide moving expenses for employees required to move, integrate seniority lists (by arbitration, if necessary), limit the ability of management to make employees work outside of their current job classification, and create an elaborate system of unemployment payments for employees who are let go (see Rosenfield 1981).

The Airline Deregulation Act provided some specific income and employment protections against potential structural changes caused by deregulation. By and large, implementation of these provisions is still in litigation. However, the fact that they are being contested reflects the government's desire to disengage substantially from labor management matters, once deregulation occurred.

Section 43 of the ADA provided income protection for laid-off airline workers in cases where deregulation was the major cause of the layoffs and where the carrier had furloughed at least 7.5 percent of its employees within a 12-month period. Although 13 carriers have met the latter criterion--*average* industry employment dropped 6.5 percent in 1982 alone (Clark 1985)--no worker has ever qualified for coverage because the CAB never found deregulation to be the "major" cause of any layoff.[17] Congress never appropriated money for these payments, and the government cited changing markets or competitive pressures as the major cause of employee layoffs, even though the proximate causes of these phenomena may well have been set in motion by deregulation.

Section 43(d) of the ADA also established preferential hiring rights at the trunk carriers for those employees who lost their jobs after deregulation. That coverage was to remain in effect for ten years, through 1988. But because the rules governing those rights were not issued until January 1986 (in part because of court challenges), the program operated for only a little more than two years (BNA 1986). Further, eligibility was limited to employees with at least four years' seniority at the time of deregulation. The Supreme Court upheld this provision of the ADA in 1987 (Alaska Airline v. Brock 1987). Given all these obstacles, few workers were ever eligible for coverage, and this provision had little effect in providing employment for displaced airline workers.

Decisions by the CAB, and later by the U.S. Department of Transportation, went further, making it reasonably clear that the government would no longer intervene in airline labor markets even if these markets continued to be influenced by its economic decisions. In the Texas International, Pan American, and National Airlines merger decisions (which approved the merger of the last two), the CAB said that labor should no longer expect any special labor protection provisions in the case of mergers. This general principle was reaffirmed when no LPPs were issued in the

transfer of Pan Am's Pacific routes to United. The CAB's retrospective rationale for this change was that the Board had been involved in labor matters in the past only if they had threatened to disrupt the "national" air transport system; because the CAB no longer managed that system, and because other airlines were free to fill any gaps in service without the need for government approval, it should no longer be concerned with such labor market dislocations.[18] When the Department of Transportation assumed the CAB's functions, it continued the CAB policy, but announced that it would consider issues on a case-by-case basis. No airline LPPs have been issued since deregulation (see Northrup 1987 for an endorsement of this approach to LPPs). Legislation was introduced in 1986 to require the Department of Transportation to impose LPPs in mergers and similar transactions (H.R. 4836 and H.R. 4838), but did not pass. ALPA sued the Labor Department in 1989 for failing to implement regulations governing Section 43 (BNA 1989), and arguments for mandating LPPs were introduced again at Congressional hearings in 1991 (BNA 1991).

III. Deregulation and Labor Relations:

The Airline Deregulation Act: Many observers believe that deregulation in the late 1970s marked the beginning of a realignment of airline labor relations. To see to what extent deregulation was the cause of that realignment, it is necessary to examine in some detail the changes introduced by deregulation. The impetus for deregulation came not from airline labor or management, neither of which had exhibited overt dissatisfaction with the existing system of regulation, but rather from government, including the industry's regulator, the CAB.[19] In 1977, the CAB under Alfred Kahn began using its administrative powers to approve a wide range of rate cuts and route expansions, increasing competition and effectively deregulating the industry.

Although deregulation focused on consumer issues, it did contain some specific provisions on labor relations. In fact, the Airline Deregulation Act of 1978 (ADA) yielded several important gains for airline unions. The Act abolished the carriers' Mutual Aid Plan and placed such severe restrictions on any such industry plans in the future as to preclude them for all practical purposes.[20]

On its face, deregulation should have contributed substantially to union bargaining power by raising the costs to carriers that chose to take a strike. Airlines are by definition unusually vulnerable to strikes because the service they provide cannot be inventoried; business lost during a strike is gone forever. With the elimination of the Mutual Aid Pact, carriers should have been much less able to hold out during strikes; with the elimination of protections against competition on routes, a carrier on strike could now expect competitors to move in quickly and take its business, possibly permanently. And with the elimination of guaranteed rates of return, carriers should have been much more vulnerable to the financial risks of strikes.

In fact, however, under deregulation bargaining power appeared to shift rather dramatically to management. Competitive product markets per se do not eliminate union power. Industries like rubber and meatpacking, for example, were ruthlessly competitive in their product markets and yet unions in these industries had great bargaining power and achieved substantial settlements. Unions in competitive industries have historically resisted the pressures for lower wages by organizing all competitors and covering them with similar contracts, "taking wages out of competition." When all competitors have the same labor costs, they have less incentive to resist wage increases because such common increases do not place them at a competitive cost disadvantage.

What deregulation did was to increase substantially the incentives for management to resist union demands. With deregulation, higher settlements not only hurt the rate of return but contributed to higher fares which led to lost markets; lower labor costs could now be turned into lower fares and an

increase in market share. After deregulation, the decentralized union bargaining structure in airlines prevented the unions from taking wages out of competition. The international unions could not prevent their locals from making concessions that, in turn, encouraged each carrier to try to cut labor costs. And airline unions were less able to maintain strikes in the face of management's new incentives to operate through them. These developments are examined in more detail below. The themes which follow appear to have dominated labor relations in the airline industry since deregulation.

Financial Crises: The era after adoption of the ADA in 1978 unleashed competitive pressures that led to widespread price competition and financial instability at some carriers. With deregulation and especially the end of regulated rates which had allowed major carriers to maintain service in non-compensatory smaller markets, the major carriers abandoned many short-haul routes to concentrate on what were thought to be the more profitable long-haul markets.[21] Once these markets were abandoned to the new entrant carriers, they served as one of the primary places for the smaller carriers' expansion.

By the end of 1979, fuel price increases had begun to hurt profits, and the deepening economic recession reduced demand for air travel. Indeed, the 1981 recession represented the first sustained absolute decline in the demand for air transport in the history of the industry. The trunk carriers had excess capacity, and they reacted individually with further fare cuts to fill the empty seats, cuts that were soon matched by their competitors.[22] The result was that the 1981 fiscal year was the worst the industry had yet seen, with almost every major carrier in the red.[23]

While some changes in labor relations had been under way even before the industry's financial crisis,[24] at most carriers bargaining went on more or less as usual through 1981 until Braniff, Western, and Pan Am came close to bankruptcy. In contrast to the usual practice under regulation, no friendly mergers were arranged that would protect the jobs and seniority of workers at the vulnerable carriers. All three carriers secured roughly 10 percent wage cuts in all their labor contracts negotiated that year, in an effort to help prevent bankruptcy. By the end of the year, unions at Continental, Eastern, and Republic had also granted wage concessions. By the standard measures of financial solvency, such as cash reserves or the ratio of current assets to current liabilities, all of these carriers were clearly in trouble; but by the same measures, the rest of the trunk carriers were relatively stable, and none managed to secure concessions during this period (Cappelli 1985b).

The financially weak carriers sought and secured twice as many wage concessions as they did

work rule changes.[25] Wage cuts generate immediate savings, which addressed the cash-flow problems at these carriers. Work rule changes, on the other hand, reduce costs on average only if there is business expansion, which was not the case, or if there are layoffs, in which case the unions are unlikely to agree to them. The wage cuts at the troubled airlines eventually forced the healthier carriers to seek comparable concessions from their unions. This gave rise to a new version of whipsawing -- now on the part of employers -- that sought to match or exceed the labor cost savings achieved by their competitors. In contrast to the six weakened carriers listed above, the six financially strongest carriers had to wait at least a year before securing concessions -- but they focused on work rule concessions over wage cuts by a margin of three to two.[26] Because the healthier carriers had better prospects for growth, their unions were more inclined to accept work rule changes. With growth it was less likely that any productivity gains resulting from the changes would be translated into layoffs.

Operating Through Strikes: Management generally received concessions without a fight at the struggling carriers. Labor could not strike because doing so would drive these carriers out of business. Management secured concessions because the unions were basically trying to save jobs. At the healthier carriers, in contrast, management generally won concessions through industrial action. Before deregulation, management routinely shut down operations in the face of strikes, in part because the Mutual Aid Plan meant that they had little to gain financially from trying to operate.[27] The third major strike following deregulation, a mechanic's strike at Southwest in January 1980, saw management operate through that strike. With the Continental flight attendants' strike in December 1980, management began a pattern of operating through strikes which remains unbroken. It has become common to argue that President Reagan's firing of the striking PATCO members in 1981 contributed to management efforts to operate during strikes, but this trend had begun before then in the airlines.

Management broke every strike in the airlines over the next five years, mainly by hiring permanent replacements (see Table 1). Part of the explanation for their success is that the industry downturn and the associated layoffs between 1980 and 1983 created a ready pool of replacement workers. But the main explanation is that the unions did not mount effective strikes. Airline unions had no experience dealing with managers who actually resisted strikes. Strikers crossed their own picket lines, and unions rarely ever supported each other's strikes. Where negotiations ended without strikes during this period, managements typically got their way because the union strike threat was not credible.[28]

Table 1

AIRLINE STRIKES SINCE DEREGULATION

Carrier	Union	Year	Sympathy	Management Action	Outcome
Wein Air Alaska	Pilots	5/77-3/79	--	Operated w/replacements	Moderate settlement (reduced manning for wages)*
United	Mechanics	3/79-5/79	--	Shutdown	Substantial gains
Ozark	Flight attendants	9/79-10/79	Pilots	Shutdown	Substantial gains
Southwest	Mechanics	1/24/80-1/27/80	--	70% operation	Moderate settlement
Pan Am	Mechanics	1/24/80-1/27/80	--	Partial operation	Injunction/illegal wildcat: no change
Ozark	Mechanics	5/6/80-6/2/80	--	Shutdown	Substantial gains
PSA	Pilots	9/25/80-11/12/80	--	Shutdown/Alter Ego Threatened	Substantial gains
Capital	Pilots	10/9/80	--	Shutdown	Substantial gains
Continental	Flight attendants	12/5/80-12/13/80	--	50% operating with permanent replacements	Concessions
Northwest	Mechanics	5/22/82-6/15/82	--	30% operating	Moderate gains
Continental	Mechanics	8/12/83-10/31/85	--	Rebuilt w/bankruptcy protection Permanent replacements of all 3 groups	Unilateral concessions
	Pilots Flight attendants	8/12/83-10/31/85 8/20/83-10/31/85	--	Permanent replacements of all 3 groups	Both struck in response to 50% cuts following bankruptcy
Pan Am	Mechanics	2/27/85-3/25/85	All others for 1 week	Partial operation	Mgmt. last offer after other unions returned -- concessions
Alaska	Mechanics	3/4/85-6/4/85	Flight attendants	50% operation then rising	Mgmt. last offer -- concessions
United	Pilots	5/17/85-6/15/85	Flight attendants	5% operated	Moderate gains
TWA	Flight attendants	3/7/86-5/20/86	--	100% operation Permanent replacements	Major concessions
Eastern	Mechanics	3/4/89-1/20/91	Pilots Flight attendants	Rebuilt smaller scale carrier Permanent replacements of all 3 groups Bankruptcy protections	Unilateral concessions -- carrier soon fails

*The result of an Emergency Board

By removing the regulatory supports that had previously prevented economic downturns from jeopardizing individual carriers, deregulation exposed airline labor to the threat of unemployment and so made it much more risky for unions to attempt to raise wages. Without the protections of regulation, the decentralized bargaining structure inherited from the period of regulation no longer produced the predictable outcomes that labor had come to expect. But the real reason for labor's concessions in the early deregulation period was probably the inability of unions to mount strikes in the face of management opposition.

New Entrants: Other factors also played a role in the decline of union power and success. Beginning around 1979 the industry witnessed a wave of "new" entrants into the trunk markets. There were many misconceptions about these new entrants. Few were truly new carriers and even fewer of those have survived;[29] in the main, the new competition was made up of previously existing regional charter and intrastate carriers that had expanded their reach. Most of the new competitors were unionized. Piedmont and USAir, for example, were unionized and had among the highest labor costs in the industry, but they soon became the industry's fastest growing and most profitable carriers. The only nonunion carrier of any size was People Express, and measured by total revenue passenger miles (RPMs), it was roughly one-seventh the size of United. The entire nonunion sector of the industry's trunk markets accounted for only 4.3 percent of total U.S. RPMs in 1984.[30]

Another related misconception was that the new entrants were driving the established carriers out of their markets. Again, although the market share of the trunk carriers shrunk, from 87 percent to 73 percent of RPMs between 1978 and 1984 (GAO 1985), the largest component of that loss was to then established reguonal carriers like USAir and Piedmont. With the exception of New York Air, the nonunion carriers like People, Midway, and Muse[31] generally operated from secondary airports and tried to stay out of the large carriers' markets. Indeed, the new carriers appeared particularly vulnerable to the vagaries of competitive markets; of the 60 post-deregulation airline bankruptcies through 1986, only two, Braniff and Continental, were at major carriers (Duffy 1983), both of which kept flying. In the smallest two-thirds of the commuter market, where the new carriers predominated, 40 percent of the carriers were thought to go bankrupt *each year* (Molloy 1985). The only new carrier to have shown a profit on average in the early years of deregulation was People Express, which has since gone out of business.

The low-price carriers did, however, have an impact on the industry's price structure that is disproportionate to their size. Bailey, Graham, and Kaplan (1985) estimated that fares were significantly lower in markets where those carriers operated because the competitors matched their

fares. Those markets were also ones where many carriers operate, so the fare cuts spread quickly among the competitors.[32] The new, nonunion carriers also had a disproportionate effect on labor relations in the industry, largely because their pay scales and work rules served as a useful bargaining reference point for employers in the union sector.[33] Labor accounted for less than 20 percent of total costs at People Express, in contrast to more than 40 percent at the major carriers. Furthermore, the growth of some of the nonunion carriers helped support management demands for concessions at the unionized operations. People Express provided the most important comparisons, not so much because of its lower salaries but because of its innovative work arrangements and compensation plans and the attention it received in the press.

The new, low-cost carriers did not displace the higher-cost trunk carriers in part because they did not have certain scale advantages which appear to be associated with large networks. As a result, airline labor costs--indeed all costs--may be less important than other factors in determining the competitive position of a carrier. Furthermore, the threat of new entrants has not forced the major carriers to cut fares and costs to the extent that the proponents of deregulation had expected.[34] Instead, the pressures to cut costs and reshape labor relations have been specific to the varying circumstances across individual firms.

New York Air: One new entrant that has had a lasting impact on the industry is New York Air. Taking a page from Century Air's corporate reshufflings in 1931, the firm was the result of a new idea in air transport: the nonunion subsidiary. Texas International (TI) had made a decision to enter the competitive East Coast shuttle market and to do so as a low-cost, low-fare carrier. But because collective bargaining coverage under the Railway Labor Act is company-wide, TI would have had to operate in that market under its existing union contracts, even though the new routes were geographically isolated from its Texas route system. Therefore, in 1980 TI created New York Air (originally called Big Apple Airways) as a subsidiary to operate in the shuttle markets, with Texas Air as a holding company owning New York Air and TI. The subsidiary operated without TI's unions or their contracts, its managers arguing that it was a separate company and not bound by TI's agreements. ALPA and other unions argued that New York Air was not in fact operated independent from TI and that the corporate restructuring -- including shifting TI's assets through the holding company to New York Air -- was done simply to avoid dealing with the TI's unions. The courts refused to rule on these issues and turned them back to the NMB, where they were never resolved.[35]

A large number of carriers soon followed the first step of TI's strategy and established holding companies, and three went on to establish separate, nonunion airlines.[36] These alter ego or double-

breasted operations are the equivalent of nonunion "greenfield" sites in manufacturing, with the holding companies providing the means to shift airline company assets to nonunion operations (they may serve other purposes as well). It is not surprising, therefore, to find unions responding to this strategy by securing restrictions on its use through collective bargaining agreements.

Continental: The period of concessionary bargaining produced another distinct approach to reducing labor costs at Continental, borrowing yet another tactic from Century Air's earlier experience.[37] It used bankruptcy proceedings to cut labor contracts unilaterally. Texas Air Corporation (the holding company behind the doublebreasted strategy with New York Air and Texas International) acquired Continental in 1981 over the vociferous objections of Continental's employees, who were leery of TI's previous policies toward unions. The employees had attempted--but failed--to obtain a controlling interest in the company through an employee stock ownership plan and thus prevent the takeover.[38] Despite wage concessions from its unions and loan guarantees from Texas Air, Continental veered closer to bankruptcy after the takeover. In its August 1983 negotiations with the IAM, management withdrew an earlier offer, citing worsening financial circumstances, and the union then struck the carrier at the end of the 30-day cooling-off period. Continental continued to operate, however. Other unions--and many Machinists as well--crossed the picket lines, and management permanently contracted out many of the nonmechanic jobs held by IAM members.

Continental then attempted to open pilot and flight attendant contracts early and to win concessions from the two groups in return for a stock ownership and profit sharing plan. Meanwhile, the carrier continued to lose money, and management threatened both unions that it might pursue bankruptcy if they did not make concessions. The unions refused to reopen negotiations, and in September 1983 Continental filed for Chapter 11 protection. Unlike at Braniff, which had petitioned for Chapter 11 status in 1982, the cash crisis at Continental was not as immediate, and observers still speculate whether the bankruptcy at Continental was the result of circumstances beyond management's control or the result of its deliberate strategy to cut labor costs. Also unlike Braniff, Continental unilaterally imposed new wage rates and work rules after filing for bankruptcy, which cut labor costs by about 50 percent.[39] Reduced fares and an expanded schedule followed immediately.

On October 1, 1983 pilots and flight attendants both struck the carrier to protest the unilateral wage cuts and work rule changes. Continental continued operating, however, with workers who crossed the picket lines[40] and replacements for those who refused to return to work. The various issues behind the disputes have produced a mass of lawsuits.[41] Although no airline has used Chapter 11 protections to alter labor contracts since the Continental example, a great many have threatened to

do so. As former ALPA President Henry Duffy noted, since the Continental episode management demands at the struggling carriers closely follow this pattern: protestations of an inability to pay eventually yield to threats to pursue Chapter 11 protections, which in turn are followed by a visit from the carriers' bankers who assure the union negotiators of the financial necessity of concessions (Duffy 1983, 513). The Continental example no doubt contributed to management bargaining power in the deregulation period by offering management another weapon for battling the unions. The bankruptcy laws were amended (by the Bankruptcy Amendments and Judgeship Act of 1984), to require employers to make more thorough attempts to revise labor contracts through negotiation before doing so unilaterally, effectively eliminating this unilateral mechanism for cutting labor costs.

American: An entirely different approach to cutting labor costs also made its appearance in 1983 at American Airlines.[42] American had begun to pursue union concessions after its competitors had secured them--especially after the pilot work rule changes at United in 1979 and Continental's wage cuts in 1982 and 1983. Perhaps because American was one of the strongest carriers financially, its unions rejected the company's demands for concessions in both 1981 and 1982. In negotiations beginning in 1983, American essentially tailored its business strategy to help achieve concessions. Management threatened to shrink the airline if costs could not be cut, and to make that threat credible it made arrangements to sell some of its aircraft. More important, management negotiators offered lifetime job security to current union members and the promise of an immediate expansion of bargaining units and membership, if costs were cut. The concessions proposed by management were entirely in work rules, with the exception of a reduced pay scale for new hires. The unions eventually ratified these changes without a strike.

American's approach is worthy of note because it succeeded in achieving very substantial labor-cost concessions at a time when it was neither under threat of bankruptcy nor in financial difficulty. And it did so through collective bargaining without the serious confrontation experienced at Continental.

The Rise of 'B' Scales: What became the most copied part of American's approach, however, was the creation of a two-tier wage agreement, which retains the prevailing pay schedule for current employees while establishing a lower one for workers hired after a certain date. These agreements come in two forms: Permanent two-tier plans, where the new hires are on a lower salary scale that never achieves parity with the pay scale for those hired before the two-tier agreement; and temporary two-tier plans, where the lower salary scale for new hires merges with the pay scale for those already on the payroll, generally (now) in five years.

Robert Crandall, Chief Executive Officer of American, described that carrier's motivation for achieving two-tier pay scales by noting that they lower labor costs "without having a significant adverse effect on existing employees" (Crandall 1984, p.2). Because current employees did not take a pay cut, their attitudes and performance were not affected. Such contracts were also easy to ratify, given that only current union members voted; the new hires who would be taking the lower pay scales were not yet union members. There was concern that the new hires would feel aggrieved working beside more senior workers earning more, but Cappelli and Sherer (1989) found that the attitudes of new hires on an airline 'B' pay scale that emerged eventually were in fact more positive than their 'A' tier counterparts, in part because the 'B' tier new hires were still drawing comparisons with jobs they had held previously; they had not been there long enough to shift their comparisons to their situation within the carrier; by the time that they did, their pay would be rising to merge them onto the 'A' tier. Permanent 'B' tiers, however, can produce negative attitudes, as Martin and Peterson (1987) found, because workers know that they will always be paid less than those hired earlier.

Two-tier pay schemes work where employers can hire new workers at substantially lower rates -- in other words, where current wages are above the true market level. They also create substantial incentives for growth. Average labor costs fall as more workers are hired onto the lower 'B' tier. On the other hand, if growth stops, the proportion of workers on the higher-cost tier begins to grow, and labor costs rise. (Costs are still lower than they would have been in the absence of the 'B' tier, however, even though costs still are rising relative to where they were when employment levels were growing.)

The other airlines were quick to follow American's lead. Virtually every major carrier secured two-tier plans in the ensuing round of negotiations. The Bureau of National Affairs (1991) calculates that by 1986, 70 percent of all airline contracts had two-tier agreements. In part because two-tier agreements help cut costs only where carriers are growing, the financially-vulnerable carriers were not necessarily the ones seeking these plans. Walsh's (1988) interviews with management and analysis of financial data suggest that financially strong carriers were most likely to secure two-tier agreements. Continental and Braniff, arguably the two weakest carriers at this point (both were in bankruptcy), did not have two-tier agreements because their new pay scales were effectively at the market rate, comparable to the bottom tier of a two-tier schedule. As noted earlier, the stronger carriers secured these concessions because growth was a real prospect for them, which made two-tier plans attractive. In other words, two-tier plans helped facilitate their business goals. Many carriers introduced early retirement programs to encourage turnover and to allow the hiring of new workers at

the lower pay scale.

There is not much difference in the incidence of two-tier agreements across crafts, but the terms of the agreements differ substantially. Flight attendants appear to have the most severe arrangements -- the most permanent two-tier plans, for example -- perhaps because they have less bargaining power than other crafts; perhaps also because the turnover in flight attendant jobs made them more attractive to management. Walsh (1988) argues that carriers sought two-tier plans in part as a way of encouraging turnover among flight attendants where job-specific skills are less important than in other crafts. 'B' tier pay differentials for mechanics have been the smallest because the outside labor market for them is reasonably tight. Pilot pay scales were already reasonably steep, and the introduction of 'B' scales, virtually all of which merged in five years, steepened the pay progression further. Pilots were the craft least covered by two-tier programs, in part because the entry-level rates were already reasonably close to "market" rates. Although it is difficult to judge, the pilots may also have resisted them more for fear that they might cause divisions that would surface in the closely coordinated work of flight deck crews.

Two-tier agreements have been in decline recently. The Bureau of National Affairs (1991) reports that while airlines have made the greatest overall use of two-tier plans, they were part of only 30 percent of agreements by 1990. Part of this decline may be attributable to the fact that some agreements that lengthen the pay progression may be described with language other than "two-tier" -- but certainly some of the decline is real. Particularly for pilots, management efforts to raise entry-level pay in the late 1980s (e.g., United and American in 1988) reflected competition for hiring. Union demands also played an important role. Where the 'B' tiers were permanent or even long in length, 'B' tier employees began to constitute a significant interest group in their unions, who lobbied for changes in these arrangements. Newly-hired pilots at American, for example, formed an association to press for an increase in the lower 'B' pay scale shortly after it was introduced. Perhaps partly in response to this (although no doubt also in response to a relative shortage of entry-level pilots), American raised the 'B' scale and abandoned the permanent aspect of the plan, having it merge with the original scale after 15 years. By the time of its 1991 pilot agreement, American had cut back on the two-tier plan to a five-year merge.

Eastern Strike of 1989: Perhaps the most dramatic incident that signals an important change in airline labor relations was the 1989 strike between Eastern Airlines and its machinists, joined by Eastern's pilots and flight attendants. This dispute appears in retrospect to have had the inevitability of a Greek tragedy -- with a similarly painful outcome. While labor relations at Eastern had been

stormy almost continuously since 1973, the recent drama began with acquisition of Eastern by Texas Air in 1986. The unions argue that Frank Lorenzo, CEO of Texas Air, was determined to bust Eastern's unions and, if that could not be accomplished, to strip the company's assets by transferring them to Continental. Management argued that the only way to save the debt-ridden carrier was for labor to agree to substantial contract concessions.

The claims of the parties, their motives, and the steps involved in this conflict are incredibly complex and require a book-length discussion to describe (see Bernstein 1990 for such elaboration). For purposes of understanding its main lessons for the future, however, the issues are reasonably straightforward. Labor saw this as a fight with Lorenzo and as an effort finally to curb Texas Air's continuing attack on the prevailing structure of labor relations that began with the creation of non-union New York Air and continued with the Continental strike. Eastern management, in a similar vein, appears to have seen this dispute as a kind of culmination of its previous strategies for wresting control from unions.

The fact that Eastern management tried desperately to initiate self-help through industrial conflict, as noted below, was a relatively new phenomenon; management's strategy appeared to be to try to get the unions to strike so that it could attempt to secure fundamental change through a permanent replacement strategy. Labor, in turn, mounted a kind of corporate campaign against Eastern, alleging (among other things) problems with safety as a way of hurting the company economically without going on strike. Efforts to shift assets to Texas Air led to an almost continuous court battle with labor, a battle that the unions increasingly won. The lesson from the early period of this conflict is quite clear: Union-management disputes spilled over from the arena of collective bargaining, and were now played out in virtually every available forum.

When the machinists finally struck, the refusal of pilots and flight attendants to cross the picket line came as a considerable surprise to management, and represented a major new development in union management relations. The carriers had been able to break strikes throughout the 1980s largely because unions (especially pilots and mechanics) would cross each other's picket lines. The solidarity at Eastern may have signaled the potential for a significant shift in bargaining power toward labor.

After it became clear that Eastern could not operate its way through this strike, it filed for bankruptcy protection and then sought to rebuild, using permanent replacements for the strikers. Eastern gained largely what it wanted from the bankruptcy court in terms of freedom to rebuild; the carrier found little difficulty in hiring new workers, and after nine months, the pilots and the flight attendants abandoned their sympathy strikes. But that effort had cost Eastern roughly $1 billion in

new debt; less than a year after a trustee was named to supplant Eastern management, the company was liquidated.

Dispersion of Bargaining: Although all the airlines faced the same competitive environment after deregulation, their individual responses to that new environment--including their business strategy decisions--differed widely.[43] Early on, the business strategies of such carriers as Northwest, Piedmont, and USAir avoided the severe competition faced elsewhere. As a result, labor relations at these airlines have been reasonably stable, following the patterns of the years immediately before deregulation. On the other hand, carriers such as Braniff, Continental, and Eastern plunged headlong into very competitive markets, suffered large losses, and thus had to cut their labor costs. These carriers secured extensive concessions from their unions. Yet the explanation is not as simple as "hard times lead to changes." American, for example, was one of the healthiest airlines, and yet managed to achieve some of the most extensive concessions in the industry, while TWA and Pan Am have faced several financial crises but secured almost no concessions until much more recently.

The explanation for the differences in labor relations appears to lie largely with the product market strategies pursued by each airline. American, United, and some other healthy airlines were able to confront their unions with immediate job losses unless the unions made concessions (that is, the carriers threatened to sell off planes), while promising on the other hand at least some effort to maintain job security, contingent on agreement on those concessions. Other carriers, such as TWA and Pan Am, threatened job loss only in the longer run (bankruptcy) and could not offer job security. Only those like American, Delta, and United that offered job security were able to secure extensive work rule changes. Financially troubled carriers, such as Braniff, Eastern, Frontier, and Western, negotiated wage cuts instead, to ease their immediate cash-flow problems. Johnson et al. (1989) found that the various business strategies pursued by the carriers in their product markets were a significant factor in explaining their wage levels. Carriers that were able to differentiate their product, largely through superior service, thereby creating a brand image, paid higher wages; this approach not only generated the revenues from which to fund higher wages, but also relied on higher wages to attract and to retain workers who could provide more customer-oriented levels of service.

Unions were able to secure significant quid pro quos--such as membership on boards of directors-- but only in cases where the carrier was faced with collapse. In such cases, unions have some power over management, because their approval of concessions is critical to the future of the firm (Cappelli 1984).

The pace of concessionary bargaining in airlines has slowed in recent years as entry wages have

come closer to market rates, especially at the carriers with two-tier plans. Bargaining has therefore shifted from addressing wage issues to addressing work rules, especially at those carriers with good prospects for growth. Between 1981 and 1983 almost every labor contract in the industry called for some kind of a wage reduction; in 1984, 19 of the 35 agreements at the major and national carriers specified a wage cut. But by 1985 only one of the 20 contracts signed that year had a cut.[44] Work rule changes for each of the main airline crafts fell into three general areas, incorporating management's rights to subcontract union work, to employ part-time workers, and to cross-assign employees among different jobs.

Overall Effect of Deregulation on Employment: Wages and non-wage compensation constitute the unit costs of using labor. Labor productivity, in turn, represents the product output that can be achieved per unit of labor and is a measure of efficiency. Together, compensation rates and productivity determine labor costs per unit of output. Changes in either will influence an organization's labor costs. Contract settlements determine compensation levels and, to a lesser extent, the work rules in contracts shape productivity. Many of the critical factors which enter into wage determination have changed between 1978 and 1991; it is difficult to assess which, if any, of the changes in these factors can be attributed to deregulation per se.

Role of the Market: When economists talk about markets, they often have in mind an ideal type of market, perhaps best represented by auction markets like the stock market. Here the product (a share of stock) is known with perfect certainty, the uses of it (as a stock of value) are perfectly uniform, and the market is said to be efficient because information about the product is both consistent and widely available. A unique market price emerges from these markets which equates relative supply and demand.

Labor markets represent the other extreme, where important characteristics of potential employees, such as motivation levels, cannot be easily ascertained; in most cases, an assessment of motivation can only be obtained after the job has been performed. Similarly, apparently identical jobs often differ in important ways that matter to employees, such as characteristics of the community (e.g., cost of living or recreation facilities) or of the type of supervision practiced on the job. Wages for otherwise identical jobs differ to compensate for even subtle differences in things that matter to employees and/or to employers.

Further, wages may differ from market rates for reasons that are important specifically to the organization in question. Wage premiums above the market rate, for example, make it possible to hire better workers, to reduce turnover and absenteeism, and also to reduce discipline problems.[45]

Compensation managers have long been aware of these effects; the most fundamental decision that they make is where to position their wages relative to the competition in given labor markets. There is substantial evidence that significant wage differences exist within the same occupational labor markets, even after differences in employees and jobs -- compensating differentials -- are accounted for (e.g., Krueger and Summers 1987).

Even in the absence of unions, it is typically the case, for all but the most simple and casual jobs, that an organization sets its pay rates based at least in part on factors particular to itself. For these internal labor markets, the outside labor market is the dominant factor in setting pay only for entry-level jobs where applicants come from the outside labor market. This helps to explain the considerable variation in rates of pay across employers for otherwise identical jobs. The point, therefore, is that for perhaps a substantial majority of jobs, there is no such thing as a clear and unambiguous market wage; average wages paid in occupations can in no way be interpreted as market-clearing wages. Even compensation consultants like the Hay Group use average wages in a labor market as only one factor in tailoring unique rates of pay for each client. Further, given the variability in wage scales across employers, it is always possible to find some that pay well below the average rate, but this in no way argues that other employers could pay that lower rate as well. The low-wage employer may get lower quality employees, may have jobs that are less demanding, may have poorer work performance, etc.[46]

There is no doubt, however, that external labor markets do ultimately affect wages in internal labor markets, if for no other reason than their influence on the pay level for entry-level jobs. And it is also the case that not all wage levels are functional for the organization. Unions may create wage scales higher than those which employers would desire and the resultant costs of the wage premium more than offset any functional benefits to the organization. Critics also suggest that executive compensation systems, where executives often effectively set their own compensation, may also lead to levels of pay that are not functional.[47]

Finally, product markets play a role in compensation because the demand for labor is derived from the demand for the final product being produced. If the demand for air travel falls sharply, then the demand for airline employees falls, creating a surplus of employees that might exert downward pressure on wages. The story is more complicated when only an individual firm is suffering, however. In a more perfect market, represented perhaps by the market for airline fuel, the situation of any given firm is largely irrelevant; if the firm cannot afford the current market price of fuel, it simply does not get any fuel, and it goes out of business.[48] And if the labor market were a perfect

market, a struggling firm would lose all its employees if it could not pay the market wage. Because the labor market is not perfect, employees may be willing to take less in the short run in order to stay in their current job. What they will accept in the short run, however, may not be what they would accept in the long run when they have more time and can prepare to find jobs elsewhere. Nor does it imply that there are no costs to getting employees to accept lower wages even in the short run, costs associated with less desirable workplace behaviors and attitudes, for example.

Union Wage Determination: Markets play even less of a role in wage determination where workers are represented by unions. The main issue determining wages under collective bargaining is the power exercised through industrial action. Strikes and lockouts impose significant costs on both unions and management -- workers lose wages and management loses revenue -- and whichever side can more easily bear those costs has the greater bargaining power. As noted above, management in the 1980s tried to operate during strikes and hired permanent replacements as the means for doing so. The success of this strategy has significantly shifted bargaining power to management; it has also made the outside labor market a much more important factor because of the need to restaff entire workforces quickly with permanent replacement workers.

Airline Wages Overall: Airline industry contracts prior to the ADA were, by all standards, very beneficial to union members. Any such judgment is typically made relative to a comparable group, such as the benefits received by comparable workers in similar, but nonunion, jobs and industries.

Hendricks, Feuille, and Szerszen's (1980) study of compensation in airlines, mainly focusing on ground personnel where equivalent jobs in other industries can in principle be found, concluded that airline wages and contract terms were superior to those for similar jobs in other industries and were superior in the more regulated sector of the airline industry than in the less regulated sector.[49] Their study also suggested that contract language in the airline industry was more favorable to unions than to management, again especially in the more regulated sector of the industry, than the language found in the union contracts of other industries.

Table 2 presents simple compensation trends in the industry. Wages are often compared to manufacturing not only because it represents a large and important sector of the economy but also because the jobs in that sector remain an acceptable base measure. Railroads are included as a comparison because there are important similarities in industrial structure (route systems, etc.), in product market regulation -- including a more limited deregulation around the same time as airlines' -- and in union structure and labor laws. "Transportation and Public Utilities" is the classification in which the Bureau of Labor Statistics usually includes airline wages, and the "Transportation by Air" category consists of data that the BLS does not publish separately because the sample size is too small

Table 2

Average Hourly Wage Rates

	All Manufacturing	Transportation & Public Utilities	Transportation by Air	Class 1 Railroads
1977	$5.68	$6.94	$7.74	$7.39
1978	6.17	7.55	8.22	7.87
1979	6.70	8.18	8.54	8.94
1980	7.27	8.89	9.25	9.92
1981	7.99	9.72	10.25	10.65
1982	8.49	10.10	10.99	11.50
1983	8.83	10.79	11.12	12.84
1984	9.19	11.12	11.00	13.33
1985	9.54	11.40	10.97	13.64
1986	9.73	11.70	11.33	13.89
1987	9.91	12.03	12.58	14.29
1988	10.18	12.32	12.47	15.00
1989	10.47	12.57	12.52	15.68
1990	10.84	12.95	12.74	16.08

Source: U.S. Department of Labor, Bureau of Labor Statistics, Employment and Earnings (various numbers)

(N.B.: Data for "Transporation by Air" is unpublished but was supplied by BLS)

to meet BLS's high standards for reliability. The long-term time trend of this data seems reliable, however. It shows that air transport wage rates before deregulation were by far the highest of the groups reported here. By 1990, however, they were far below railroads, were below "Transportation and Public Utilities" (the other sectors of transportation and the public utilities must pay more than air transport now to make this trend happen), and the gap with manufacturing, a sector that suffered enormously in the 1980s, has nevertheless narrowed considerably.

Table 3 examines average compensation per employee for the largest airlines -- majors and nationals combined. The point to notice here is the very slow growth in the mid-1980s relative to other sectors; average compensation levels in 1986 and 1987, for example, were actually *below* the 1985 level in nominal terms, unadjusted for inflation. Overall airline costs in 1990 were 261 percent above the 1972 level while airline labor costs were only 203 percent above their 1972 level. It is important to note that average compensation figures are driven in part by changes in the composition of employees. Some considerable part of the low level of average compensation growth during the 1980s can be attributed to the expansion of employment and the growth in the proportion of low seniority/lower paid workers. Tables 4 and 5 present average compensation and employment growth, respectively, and illustrate the relationship between expanding employment and reduced average compensation.

Card (1989) and Hendricks (1990) have examined employee earnings in airlines before and after deregulation using several different data sources in ways that get at some of these compositional effects. Using wage rates from collective bargaining contracts, Card finds that airline employees as a group saw their real (adjusted for inflation) *wage rates* decline by 12 percent from 1980 to 1987; real *earnings* remained roughly constant from deregulation through 1984 and then declined marginally through 1987. Hendricks finds that airline workers earned roughly 37 percent more than manufacturing production workers and that the ratio of airline wages to manufacturing production wages was basically unchanged at the end of the period studied; Card finds that a similar index (using nonsupervisory workers as a base) increased between 1976/78 and 1983 and then declined somewhat from 1985-1987.

The first refinement on the above wage analyses is to control for potential differences in worker characteristics so that, for example, declines in wages that are the result of a shift toward a workforce with less experience are eliminated from the analysis. Controlling for worker characteristics, Card finds that real wages actually declined by 10 percent between 1976/79 and 1987; using similar controls, Hendricks finds that the ratio of airline to manufacturing production wages declines (from

Table 3

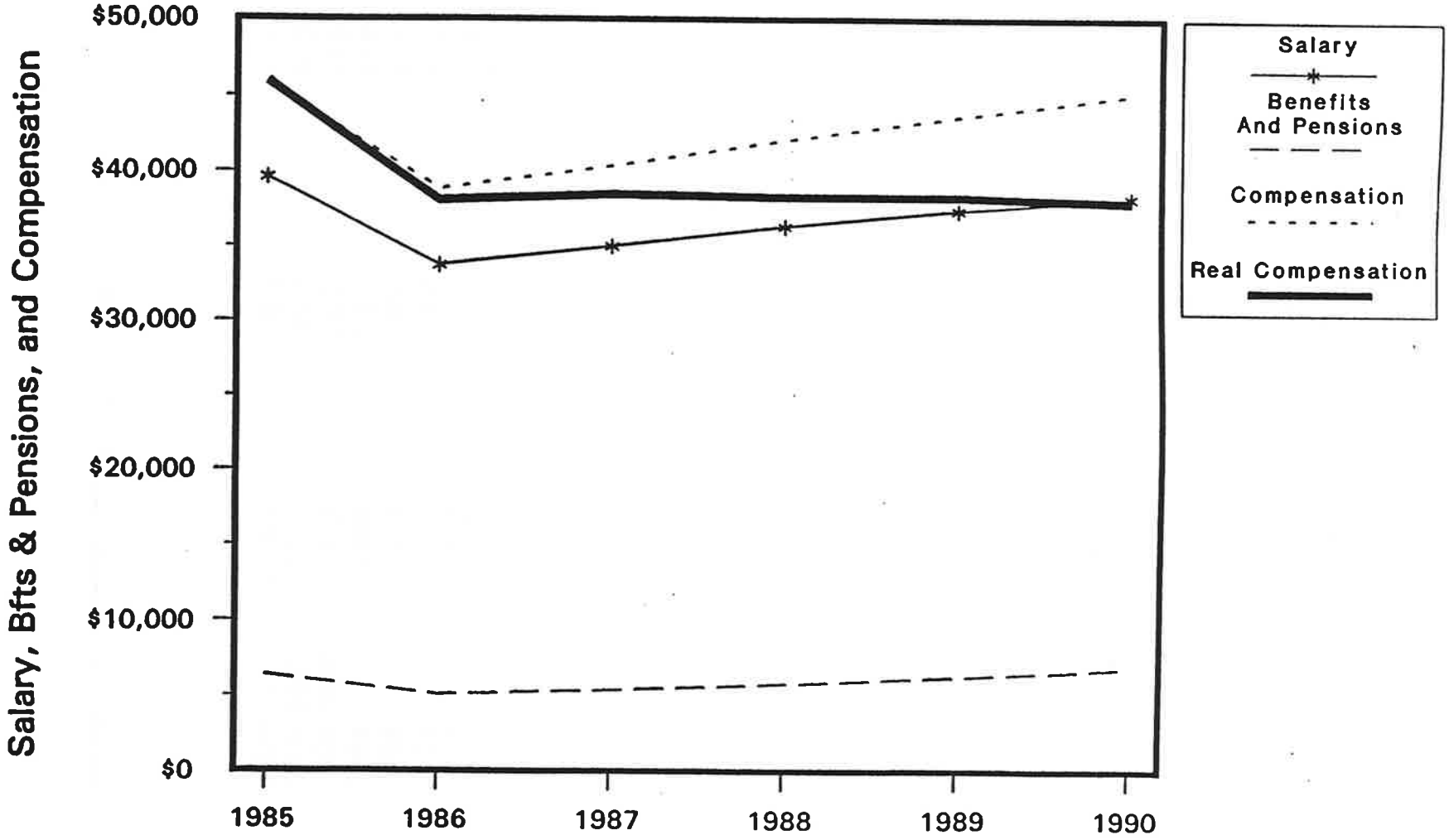
AIRLINE LABOR COST INDEX
Majors and Nationals

	Average Compensation Per Employee (Annualized)	*Cost Index (1972=100)*	*Percent of Total Cash Operating Expenses*
1970	$12,915	82.9	45.8
1971	14,161	90.0	45.9
1972	15,578	100.0	46.6
1973	16,655	106.9	45.6
1974	18,486	118.7	41.4
1975	20,213	129.8	40.7
1976	22,194	142.5	41.1
1977	25,228	161.9	41.3
1978	27,928	179.3	41.5
1979	29,946	192.2	38.7
1980	32,928	211.4	35.1
1981	36,153	232.1	34.5
1982	38,821	249.2	34.9
1983	41,833	268.5	35.9
1984	41,928	269.1	34.6
1985	43,147	277.0	34.8
1986	42,222	271.0	35.9
1987	42,770	274.6	34.8
1988	44,643	286.6	34.1
1989	46,010	295.4	33.8
1 Qtr 1990	46,658	299.5	33.7
2 Qtr 1990	45,073	289.3	34.0
3 Qtr 1990	47,314	303.7	32.4

Source: Air Transport Association of America

Table 4

Average Compensation Per Employee

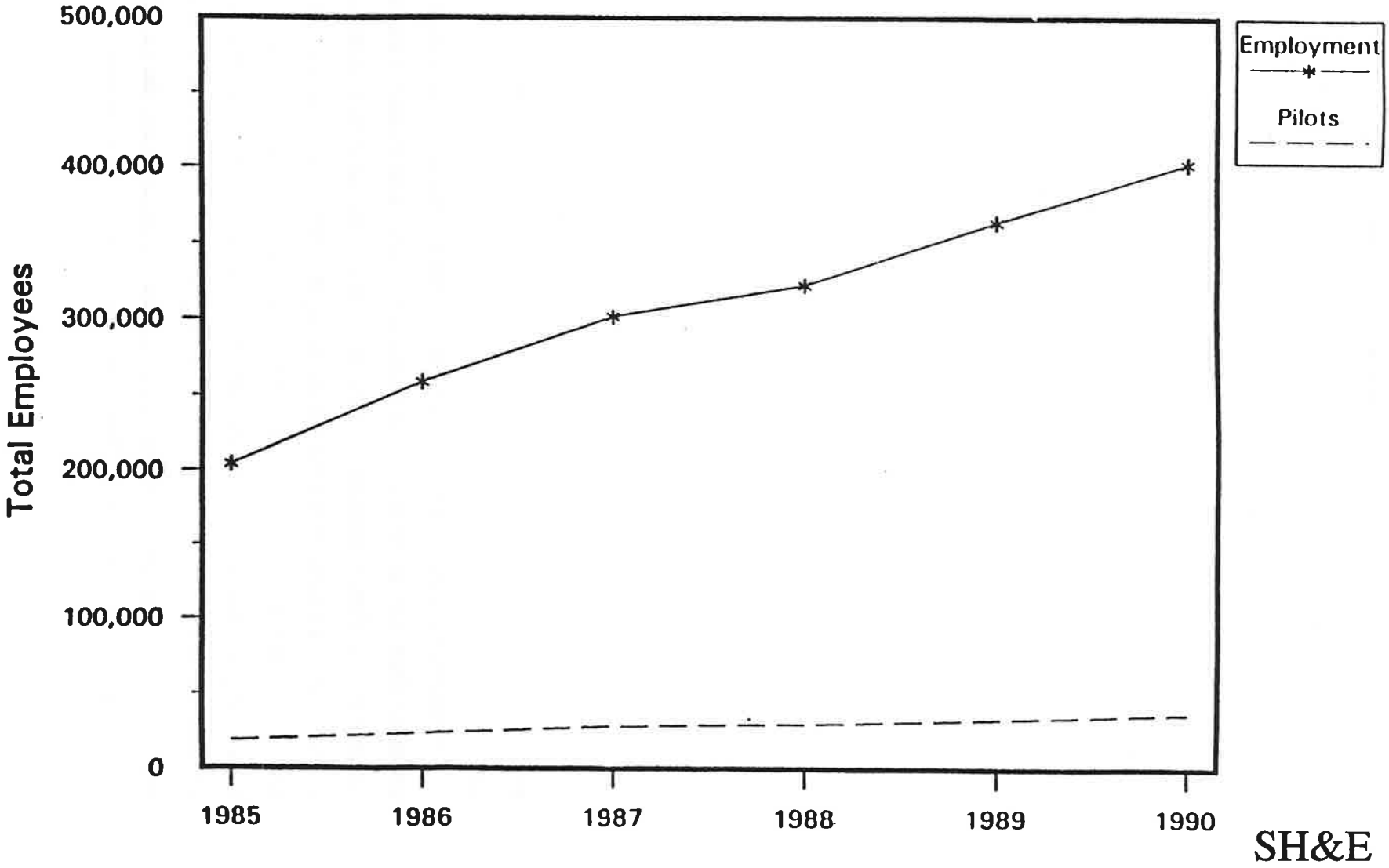


Source: Form 41, Data Base Products, Inc.

SH&E

Table 5

Employment



Source: Form 41, Data Base Products, Inc.

37 to between 20 and 28 percent) once differences in worker characteristics are eliminated. This suggests that at least some of the premium that airline employees earn over workers in other industries is attributable to their different, possibly higher abilities and characteristics. After controlling for worker characteristics, this ratio appears roughly unchanged over deregulation (an increase using one data set, no change using another). Hendricks also finds that the union differential in airlines (the difference between union and nonunion wages for equivalent jobs in the industry), which averaged about 35-39 percent, declined dramatically between 1978 and 1983, then rose somewhat, ending in 1988 about six percent below the level in 1978. Hendricks finds that the union differential falls to 19 percent once union density and concentration are accounted for. In other words, about 20 percentage points (or two-thirds) of the overall union wage differential in airlines can be attributed to the fact that the industry is relatively concentrated and that union coverage is high, both factors that increase union power.

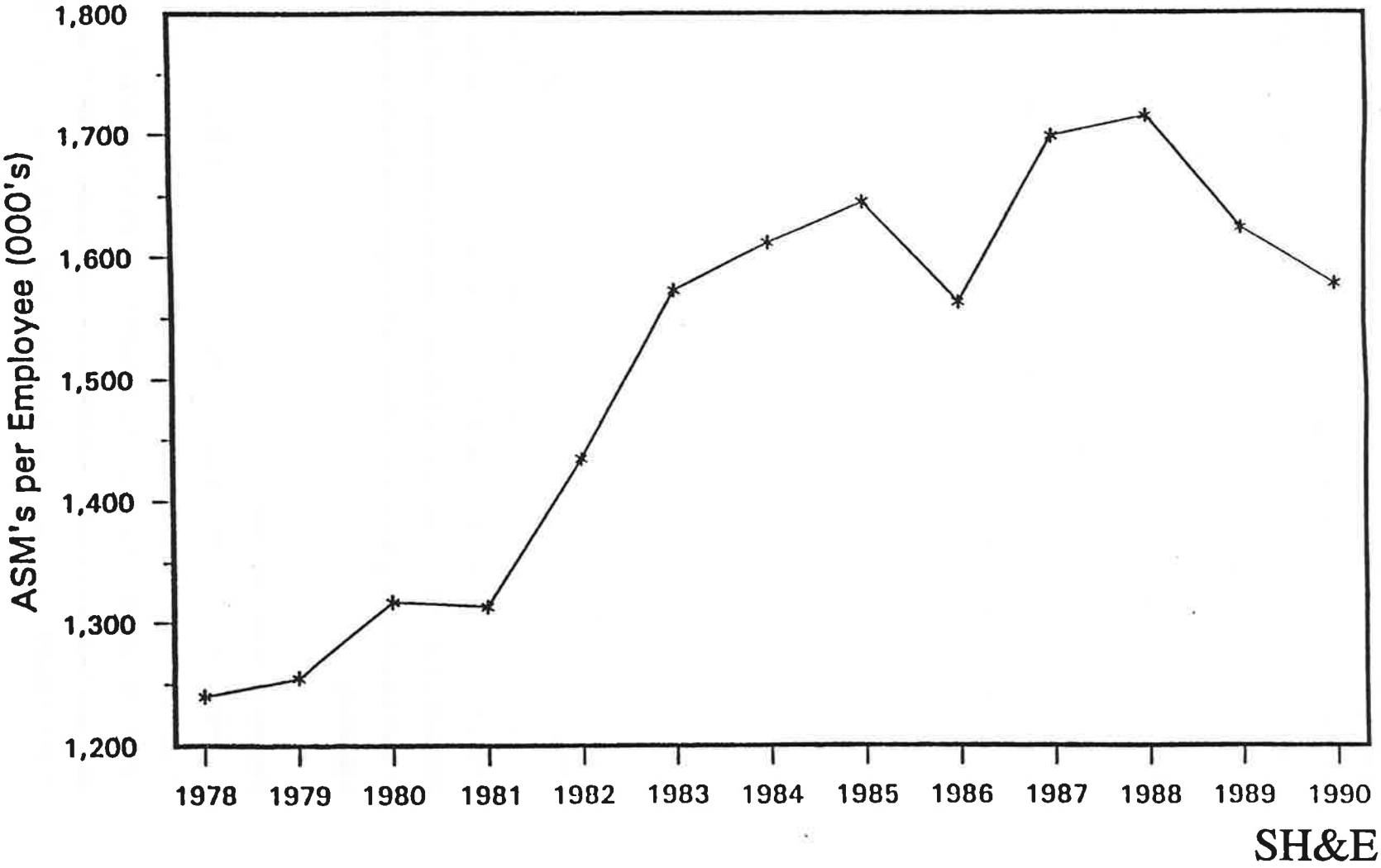
A summary of the above results suggests the following. Airline employees as a group have lost ground relative to inflation since deregulation, but the average worker throughout the economy also saw his/her real wages decline over the same period. Airline employees appear to have lost about as much as employees in most industries. Whether this is a good or a bad performance depends on what was going on in the rest of the economy. Manufacturing, for example, experienced low-wage, foreign competition, growing domestic nonunion competition, a prolonged recession, declining profitability, and significant job loss. In contrast, airlines saw little foreign competition, experienced substantial expansion in terms of employment and revenues, remain largely unionized, and, at least during the mid-1980s, experienced improved profitability. In that context, the fact that airline wages have suffered as much as those in manufacturing over the same period would seem to call for an explanation.

Productivity and Labor Costs: As noted above, many of the concessions secured by management during the 1980s were in the area of work rules, and some of these translated directly into productivity. As Table 6 indicates, overall productivity, as measured by available seat miles (ASMs) per employee in the industry, jumped sharply during the 1980s, rising from around 1.3 million ASMs/employee to roughly 1.7 million by 1988 (the proportionate increase in revenue ton miles/employee is even greater). Productivity fell to 1.6 million ASMs by 1990, as the industry was suffering a serious slump in revenue-generating passengers. This movement appears to be not the result of any new restrictive work practices or changes but rather reflects the typical experience of industries going through recession. Productivity declines when recessions begin, because firms delay

Table 6

Labor Productivity

ASM's per Employee



Source: Form 41, on I.P. Sharp

layoffs/postpone new hires until business has fallen off sharply; measures of productivity based on output per employee always decline as a result. Once layoffs occur, productivity tends to return to previous levels. And when business picks up, productivity appears to jump up because there are delays before furloughed employees are rehired.

Overall labor costs are the result of both compensation and productivity trends. Perhaps the single most striking result in the labor cost area is the sharp decline in the proportion of total operating expenses accounted for by labor. In the early 1970s, labor accounted for as much as 46 percent of total costs (the figures are included in Table 3). That number declined through the 1970s mainly because the spectacular increases in fuel costs took a larger share of costs. However, fuel costs declined sharply and steadily from 1981 to 1988 (indeed, below their pre 1979 level) which should have sharply increased the proportion of costs accountable to other factors such as labor. And yet the proportion of costs attributable to labor was remarkably stable throughout this period. (The decline from 1988 to 1990 is probably the result of the rise in the proportion of costs attributable to fuel.) The fact that labor costs declined substantially as a proportion of operating costs from 1970 to 1990 is accounted for at least in part by the increases in productivity noted earlier. Table 7 charts the steady decline of labor costs as a percentage of total operating costs.

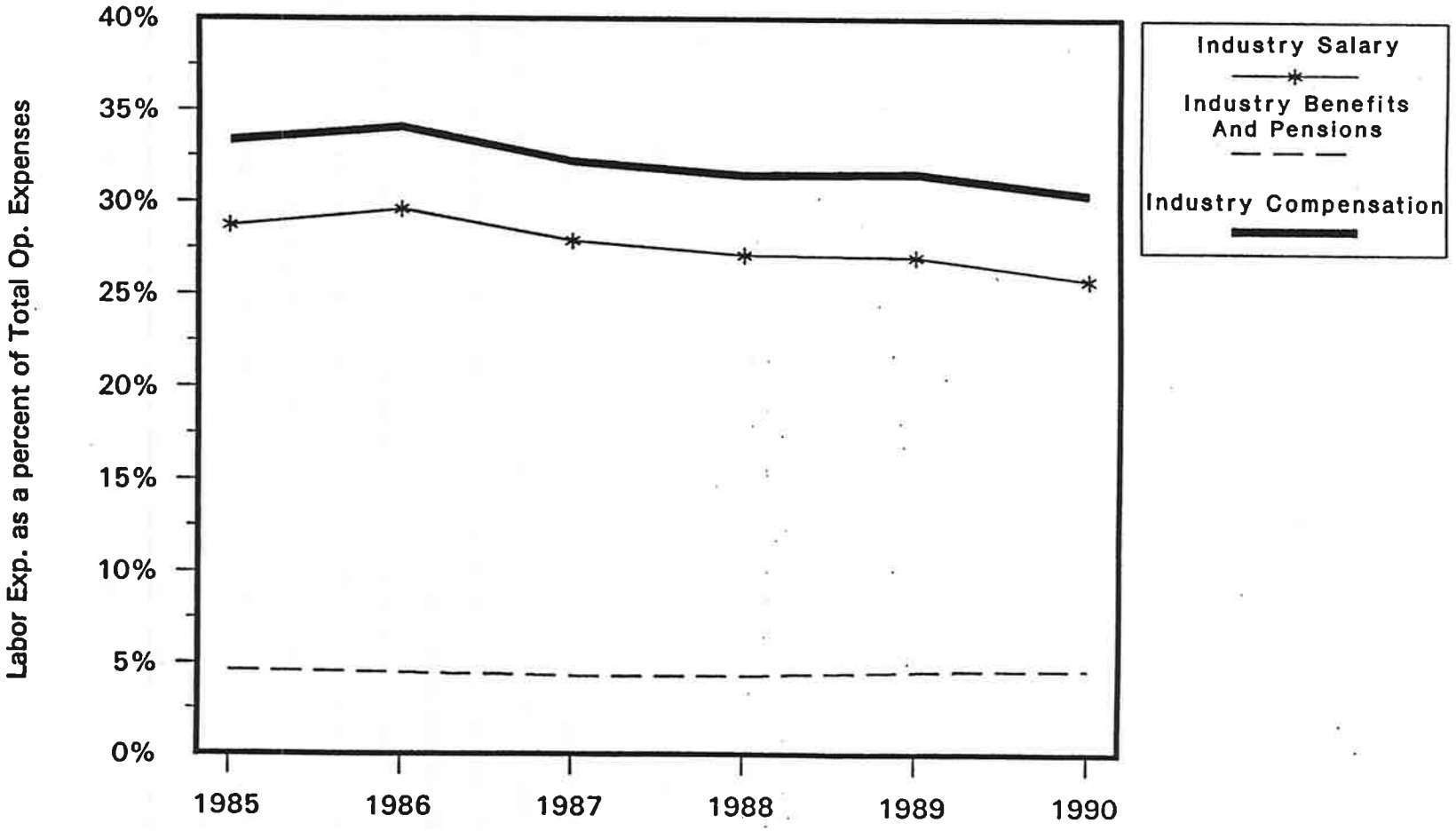
Airlines appear to have accrued very substantial savings in the area of labor costs during the 1980s. In a service industry such as airlines, however, the trend toward lower proportional labor costs cannot continue indefinitely. Productivity growth through technological innovation, achieved in the past through larger planes and reductions in crew size, which sharply reduced employees per passenger, appears to have reached a plateau for the immediate future. Productivity growth in the service sector is notoriously slower than in other sectors of the economy because of the difficulty in substituting capital for people, who are the providers of the services. And gains achieved by changes in work rules (working harder) or via lower real compensation levels cannot be expected to go on indefinitely.

Bargaining at the Craft Level:

Pilots. Pilots are highly trained for their jobs, and their skills are almost completely specific to the airline industry. The pilot labor market is equally unique. Airlines hire trainees who already have commercial pilot licenses and ideally have further credentials as well. Most in demand are pilots with military experience, which offers the best available training.[50] As a result, the hiring of pilots traditionally followed a cycle that corresponded with the retirements of military pilots after

Table 7

Labor Expense as a Percent of Total Operating Expense



Source: Form 41, Data Base Products, Inc.

SH&E

World War II, the Korean War, and finally the Vietnam War. In fact, pilots trained by the military historically accounted for as much as 75 percent of the cockpit crews at the trunk carriers; recently, that figure has declined to below 40 percent, as military pilot training, and subsequent "retirements" to the carriers declined.[51]

With this decline in the supply of military pilots, the major carriers turned to the smaller commuter airlines for their pilot trainees. Because the World War II generation of pilots began to retire from the airlines at the same time as the industry began expanding, pilots have been in relatively short supply. As a result, the commuter airlines have had serious difficulty retaining their pilots, with some reporting pilot turnover rates as high as 100 percent per year *(New York Times* 1986). The commuter carriers serve as the initial training ground for commercial pilot licenses and, in turn, as the stepping stone to a job at a major carrier. Because the larger trunk carriers offer a salary structure loaded at the top end, they have been able to lure already qualified pilots away from employers with a limited salary range, thereby shifting the cost of acquiring the necessary qualifications to the initial employers -- first the military and now the commuter carriers.[52]

The particular characteristics of the pilot labor market are well reflected in the pilot seniority system which has evolved over the years. Like many other occupations, it is useful to think of the pilot career as something like a ladder or an escalator, where steps up in terms of length of service or promotion to a new grade (Second Officer to First Officer to Captain) are accompanied by wage increases. Individual employees move up this salary structure over their lifetime and find that their earnings increase substantially over time. But because employees who retire at the top of the ladder are replaced by new hires at the bottom, this process does not necessarily lead to higher labor costs. If the distribution of employees along this ladder remains constant, there is no growth in labor costs even though every current employee finds his own compensation rising. Again, this can be so because in a stable situation the highest-cost employees retire and are constantly replaced by the lowest-cost employees.

Average labor costs may rise under this job ladder system for three reasons. First, there are wage increases that shift wages up for the entire job ladder; for example, a three percent across-the-board increase in 1991 means that all jobs, including entry-level, pay three percent more than they did in 1990. These are the kind of wage increases typically associated with collective bargaining settlements. Second, labor costs can also rise when there is a change in the distribution of employees over the job ladder. As noted earlier, an increase in the proportion of lower-wage new hires lowers average wages, equivalent to adding a second person on each step at the bottom of the escalator.

Third, adding a 'B' tier is the equivalent of lengthening the bottom section of the escalator. The compensation growth experienced by any individual employee must be distinguished from the labor cost growth of the entire job ladder.

On the other hand, it would also be misleading to ignore the substantial wage improvements which individual pilots do in fact achieve under this system, especially in recent years when rapid expansion has meant accelerated growth and movement up the job ladder. Management projections suggest that individual pilots may indeed see their annual wages rise by as much as 15 percent per year as a result of the combination of promotions, shortening of the 'B' scale, and across-the-board wage increases negotiated at Northwest, Delta, United, and American -- even though overall pilot labor costs are not rising nearly that fast.

The job ladder for pilots is arguably the steepest of any occupation because of seniority and promotion increases. The Future Airline Professionals of America (FAPA) wage survey reports that a new hire pilot at a major carrier will make roughly $25,000, while the average top pay for captains is $158,639, roughly a six-fold increase. The average captain in the industry as a whole (not just the major carriers) in 1988 earned $110,656, but had 20 years of seniority and was 48 years old. The highest pilot pay in the industry in 1991, according to the FAPA survey, is $189,696, the maximum captain pay at Northwest for flying B-747-400s, the largest plane in the industry, on overseas routes. While that figure certainly looks extraordinary, it goes to only a handful of pilots at each carrier and can be thought of as the carrot at the end of a long road of service, a carrot that in part is compensation for relatively low wages early on. This is much the same argument that is made to justify the extremely high salaries of top executive officers, that such compensation represents a prize which motivates lower-level executives to enter and to stay in the race for promotions.

It was typically the case during the 1980s, for example, that the major carriers actually paid entry-level pilots less than the smaller national carriers, or even the very small turbo-jet carriers like Aspen Airways. It is still the case in 1991 that turbo-prop carriers have higher starting pilot salaries than do the major carriers. Indeed, it is only in the 10th year that pilot salaries at the major carriers really pull away from the smaller carriers. At the captain maximum rate, the majors pay roughly twice the level of the national and turbo-prop carriers. Given the description of the labor market noted above, this wage structure is functional for the majors; hiring salaries can remain below what appears to be the industry rate because the long-term rewards of working for the major carriers are so great. This pattern of salaries is at least in part the result of market forces.

There is accumulating evidence that current entry-level salaries are close to the market level.

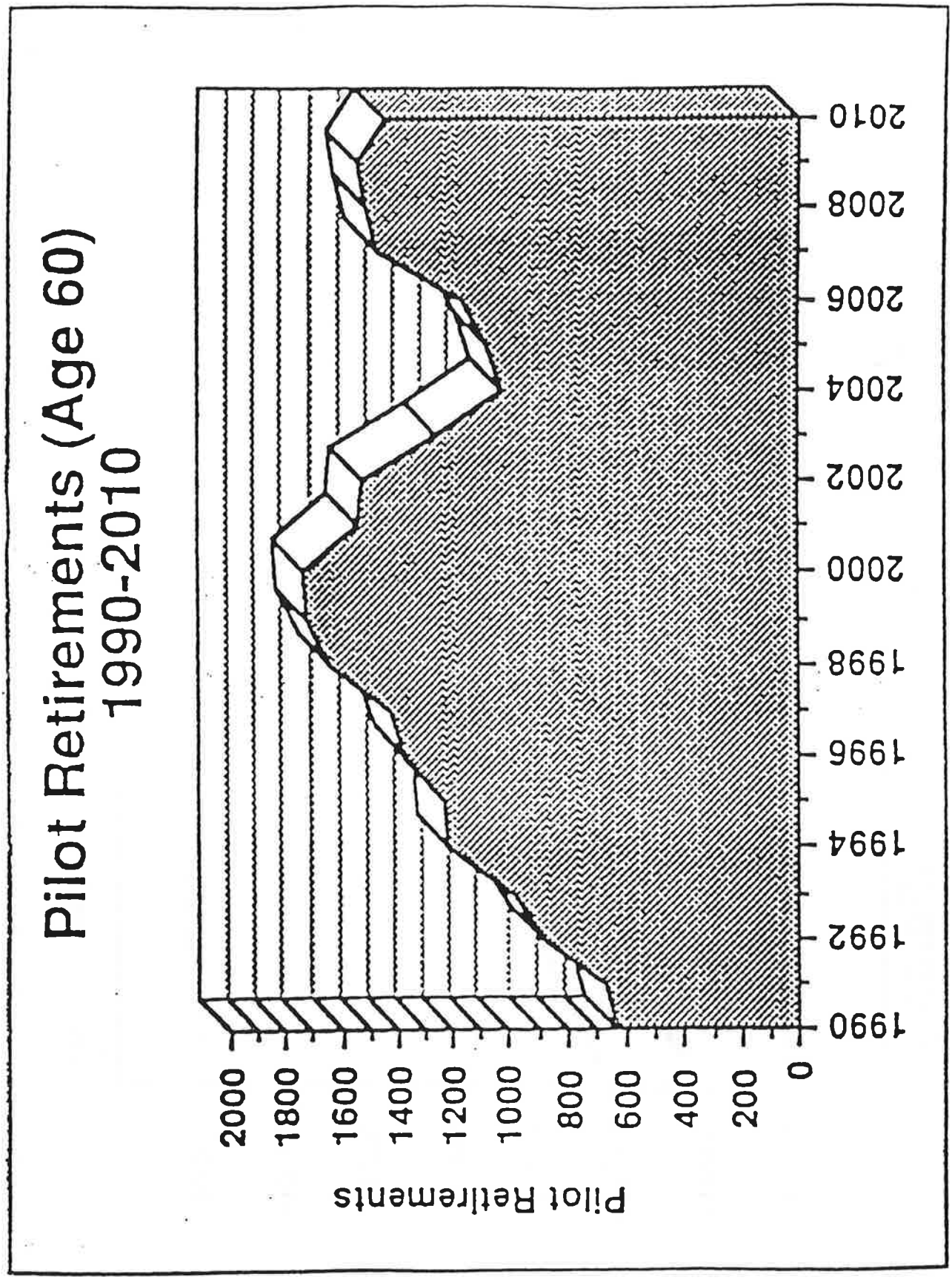
Most carriers have kept their entry rates at the level of Continental's nonunion and Braniff's bankruptcy-protected salaries. Several carriers argued during the mid-1980s that they voluntarily raised their 'B' tier pilot salaries because of competition for hiring. Especially in the late 1980s, when hiring was racing ahead, it was common to hear about the possibility of pilot shortages. The retirement of the WWII/Korean War-trained generation of pilots was seen to cause a large part of the problem. FAPA estimated that in 1990, 42 percent of ALPA's membership would reach the mandatory retirement age of 60 by the year 2000 (FAPA 1990). Retirements should decline after that, however, as Table 8 indicates. And in 1991, there suddenly appeared to be a surplus of trained pilots. The fact that Eastern Airlines was able to recruit a new pilot labor force to replace its striking pilots without great difficulty supports this view.[53] Layoffs at carriers like USAir and decreased hiring in general have surely added to that surplus.

It is important to note, however, that the supply of pilots is, to a large extent, within the control of the carriers -- because they can provide the training to qualify new hires for pilot positions. The carriers have adjusted their less critical hiring standards to offset shortfalls in supply, as many did during the rapid expansion of the mid-to-late 1980s (for example, restrictions that kept out pilots over age 30 and under 5 foot 6 inches tall were abandoned). The carriers can compete for new hires not only with higher salaries, but also by hiring those with less experience or skill by providing more training; training may thus become a substitute for higher wages. The average pilot hired by a major carrier in 1989 -- still a big year for hiring -- had more than 3,000 hours of flight time, which suggests that the carriers have not needed to erode the more important qualifications of new hires in order to fill pilot jobs (Weiner 1989).

Because the majors fly a variety of craft, each of which requires pilots with specific certification, because experience and seniority are a condition of filling higher-level positions (captain in particular), and because airlines may desire experienced crews for marketing purposes, this seniority-based compensation system serves the majors' interests in that it ties pilots to the individual carrier. Pilot seniority -- hence seniority-based pay -- is not transferable among carriers, so that a senior pilot will lose more than $100,000 in annual salary by moving from one carrier to another. Whether the absolute level of these top payments is higher than need be in order to achieve these desired results is another question.

Table 9 presents average pilot compensation at the major carriers since 1985 and illustrates the sharp decline through 1986, which then continues to decline in real terms; even *nominal* compensation per pilot in 1990 is actually below the 1985 level. As noted earlier, much of this decline is

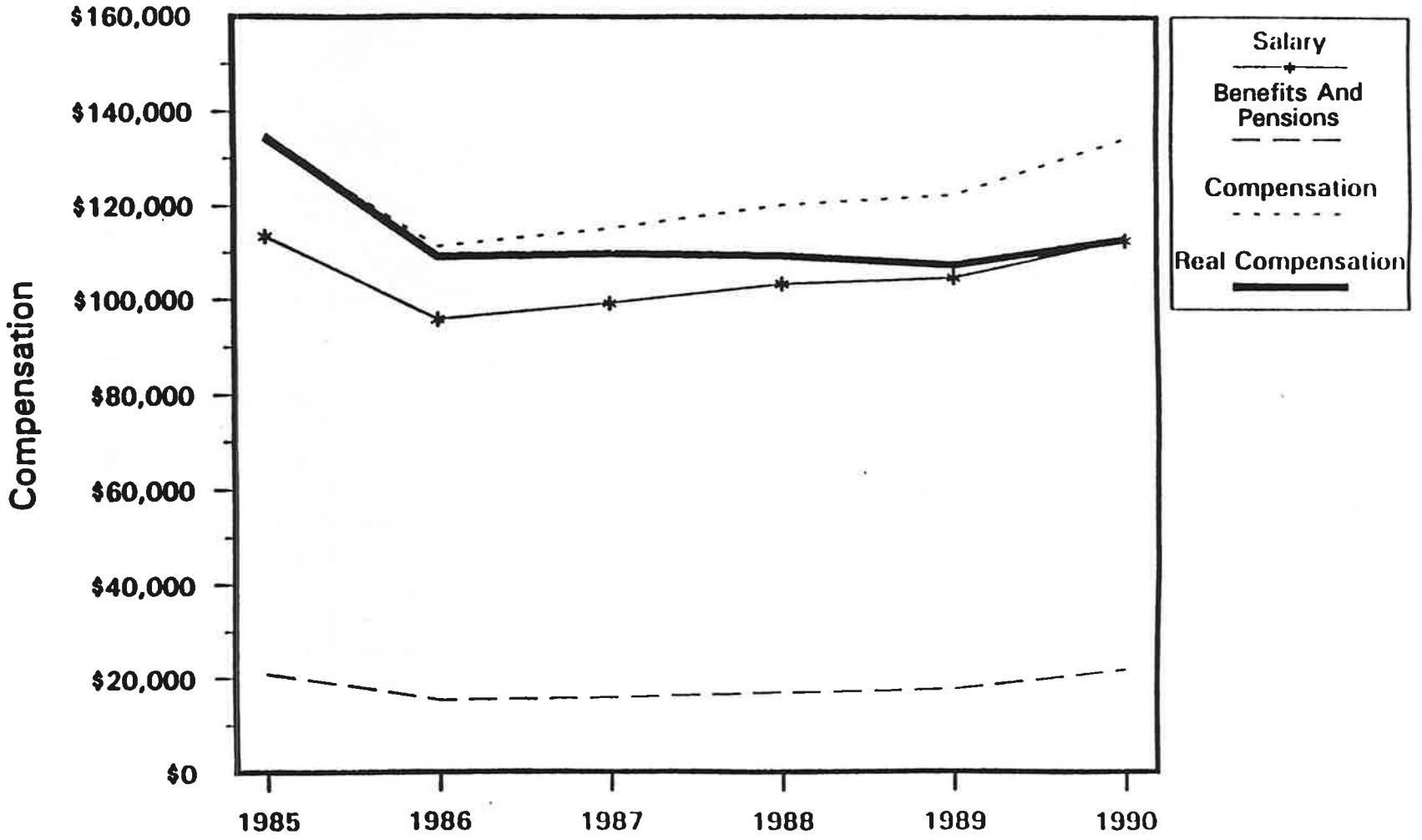
Table 8



Source: FAPA

Table 9

Average Compensation Per Pilot



Source: Form 41, Data Base Products, Inc.

SH&E

attributable to the rapid expansion in new hire/lower wage pilots. Carrier-specific events cause average compensation to vary over time, such as United's move toward longer, overseas flights where pilot costs are a smaller percentage of revenue; Pan Am's abandonment of several such routes (the Pacific routes sold to United) which had the opposite effect; and USAir's decision to bring Piedmont pilots up to the USAir rate. Pilot compensation per block hour follows a virtually identical pattern. Changes in the distribution of earnings across flight crew positions are illustrated in Table 10. While median earnings for most jobs roughly doubled between 1975 and 1989, second officers saw only a small increase in nominal wages. As the last column indicates, only captains saw any real wage increase (1.3 percent) while the real wages of the average second officer fell by half, by and large a reflection of the rise of 'B' tier wage plans. Card (1989) calculates that real earnings across all flight crew positions have declined about 11 percent from 1976/79 to 1986/87, a decline that may not be statistically significant given sampling errors in his data.

Pilot Collective Bargaining: The steep seniority wage scale for pilots plays perhaps the single most important role in collective bargaining – because it ties pilots to their carrier. Pilots have an overriding interest in protecting their current slot within the seniority system, which was (and is) best served by the ability to negotiate airline by airline. The decentralized structure of the principal pilot union, ALPA, derives from this fact. ALPA leaders traditionally gave advice and direction, but the bargaining units were free to ignore them. ALPA's decentralized structure had resulted in part from a membership backlash against the authoritarian style of the union's first president, David Behncke (see Hopkins 1971), and in part from the early regulatory environment. Normally unions need centralized control to enforce uniform contracts whose purpose is to take wages out of competition; their locals must be prevented from making concessions that can erode the industry pattern. But because government regulations were doing this for the unions in air transport, ALPA had no real need for centralized authority. Instead, the international directed most of its efforts toward lobbying, at which it became highly effective.

When the carriers began to threaten layoffs after deregulation, it was not surprising to find that pilots, who had the most to lose, not only were the first to make concessions to protect their seniority, but gave up the most of any craft group. The international union could not prevent concessions by locals at the struggling carriers, and pilot concessions soon became the norm across the industry. Table 11 shows the percentage wage increases for a 727 captain with 12 years' service across carriers for each year from 1975 through 1994 (based on current contracts). Increases drop off quickly around 1980, but take their biggest declines in the mid-1980s, lagging behind the financial

Table 10

Median Gross Monthly Earnings and Average Hourly Earnings, Airlines

	1975	1989	Real 1989	Real Percent Change
All Captains	$4,277	$9,987	$4,333	1.3
All First Officers	2,808	5,224	2,267	(19.3)
All Second Officers	2,460	2,729	1,184	(51.8)
All Flight Attendants	936	2,133	925	(1.2)
All Aircraft Mechanics	8.24*	16.40*	7.12	(13.6)

*Straight-time average hourly rates.

Source: United States Department of Labor, Bureau of Labor Statistics, Industry Wage Survey: Scheduled Airlines, August-November 1975, Bulletin 1951 (Washington, D.C.: Government Printing Office, 1977), pp. 6-9; -- Industry Wage Survey: Certificated Air Carriers, January 1990, Bulletin 2356 (Washington, D.C.: GPO, 1990), pp. 4-10.

Table 11

(Page 1 of 2)

Boeing 727 12 Year Captain Airline/Year	Year-Over-Year Percentage Change in Average Wage for a 727 Captain with 12 Years of Service						
	American	Braniff	Continental	Delta	Eastern	Northwest	Pan Am
CY 75 vs CY 76	16.02%	9.00%	1.93%	3.09%	-5.76%	9.87%	14.38%
CY 76 vs CY 77	8.45%	7.41%	24.45%	13.90%	17.46%	9.85%	8.94%
CY 77 vs CY 78	9.15%	6.22%	7.36%	8.67%	9.21%	8.11%	7.76%
CY 78 vs CY 79	4.88%	14.33%	11.17%	10.62%	9.74%	7.36%	8.83%
CY 79 vs CY 80	18.74%	17.06%	13.38%	10.10%	16.59%	11.33%	5.23%
CY 80 vs CY 81	10.65%	-2.63%	7.09%	8.62%	7.54%	13.38%	22.93%
CY 81 vs CY 82	8.34%	Ceased Ops	-2.79%	11.03%	5.21%	9.88%	-7.16%
CY 82 vs CY 83	7.01%	Jun-82	-14.26%	8.52%	-0.82%	9.68%	2.83%
CY 83 vs CY 84	2.86%	Resume Ops	-42.81%	4.79%	-6.11%	7.52%	0.00%
CY 84 vs CY 85	1.13%	Mar-84	12.95%	7.49%	27.52%	6.50%	11.43%
CY 85 vs CY 86	1.68%	7.16%	20.47%	0.00%	-17.80%	3.00%	2.77%
CY 86 vs CY 87	2.55%	1.25%	7.94%	0.00%	-4.48%	0.00%	4.43%
CY 87 vs CY 88	1.99%	15.69%	8.27%	1.00%	0.00%	0.00%	6.18%
CY 88 vs CY 89	2.00%	Ceased Ops	22.04%	2.00%	0.00%	0.78%	0.00%
CY 89 vs CY 90	0.00%	Nov-89	15.96%	2.38%	0.00%	2.91%	0.00%
CY 90 vs CY 91	10.85%		6.17%	4.65%	Ceased Ops	4.00%	0.00%
CY 91 vs CY 92	5.92%		5.71%	1.67%	Jan-91	4.00%	0.00%
CY 92 vs CY 93	3.99%		1.01%	3.28%		2.63%	0.00%
CY 93 vs CY 94	2.63%		0.00%	0.00%		0.00%	0.00%

Table 11

(Page 2 of 2)

Boeing 727 12 Year Captain Airline/Year	Year-Over-Year Percentage Change in Average Wage for a 727 Captain with 12 Years of Service					
	Republic	Trans World	United	Western	USAir	Piedmont
CY 75 vs CY 76	14.75%	2.30%	9.82%	12.32%	5.53%	11.30%
CY 76 vs CY 77	16.05%	18.18%	8.77%	7.98%	5.83%	12.82%
CY 77 vs CY 78	11.08%	7.10%	8.86%	10.72%	6.92%	7.35%
CY 78 vs CY 79	8.18%	10.87%	10.92%	10.53%	12.03%	7.95%
CY 79 vs CY 80	3.77%	10.63%	12.49%	11.11%	8.97%	15.68%
CY 80 vs CY 81	8.94%	12.69%	5.64%	9.54%	18.73%	9.30%
CY 81 vs CY 82	-5.57%	-4.01%	13.76%	-9.21%	11.14%	16.64%
CY 82 vs CY 83	13.49%	10.94%	9.99%	0.00%	6.19%	8.43%
CY 83 vs CY 84	-15.26%	-5.32%	1.44%	-3.49%	5.14%	3.60%
CY 84 vs CY 85	-3.08%	1.70%	0.46%	-7.23%	4.44%	3.86%
CY 85 vs CY 86	0.00%	-11.23%	2.71%	0.00%	2.19%	4.06%
CY 86 vs CY 87	5.41%	2.57%	3.38%	32.86%	1.66%	3.23%
CY 87 vs CY 88	11.19%	2.49%	0.85%	30.50%	1.33%	1.26%
CY 88 vs CY 89	Merged	5.00%	0.67%	Merged	2.17%	Merged
CY 89 vs CY 90	w/ Northwest	5.00%	3.31%	w/ Delta	2.33%	w/USAir
CY 90 vs CY 91		5.00%	7.54%		1.33%	
CY 91 vs CY 92		0.00%	6.98%		0.00%	
CY 92 vs CY 93		0.00%	4.87%		0.00%	
CY 93 vs CY 94		0.00%	3.41%		0.00%	

decline of the industry in the early 1980s. Indeed, increases remained down even in the late 1980s, when both hiring and profitability for the majors were reaching peak levels. Pilot concessions therefore seem to have been driven more by the breakup of pattern bargaining, and by the airlines' bargaining tactics, than by hard times in the industry.

In addition to wage and benefit cuts, pilots have been pressed to make concessions in the elaborate system of work rules that was established during the period of regulation. Perhaps the most vulnerable of these have been the rules that restrict work schedules. Pilot contracts traditionally placed limits on total hours flown, as well as on how those hours could be scheduled, such as requiring specified numbers of days off between flights, and counting travel to the airport or "deadheading" back to the home station as paid work time. Those scheduling rules together represented the equivalent of a 10 percent increase in staffing requirements for cockpit crews (Kahn 1971). Before pilots began making work rule concessions, airlines were thought to have done well when their pilots flew at least 60 percent of their credited monthly maximum hours. Five major carriers had no contractual restraints on pilot scheduling; their work rules simply duplicate the FAA maximum schedule limits.[54] Management reports suggest that pilots at the remaining major carriers now fly about 90 percent of their maximum hours. In addition, almost all the major carriers now have the freedom to schedule beyond the 75-hour monthly maximum for flight time under certain circumstances (sometimes with premium pay). Tables 12 and 13 indicate that there has been a shift in the distribution of credited hours for flight crews; the most dramatic shift is in the 80-85 hour category which shows a three-fold increase and indicates a substantial expansion of flight crew hours. One reason for the average figures showing a shift of only about two hours (1975 vs. 1989) is that concessions during the 1980s meant that some of the hours that used to count toward "credited flight hours" (such as travel time or preparation for flights) no longer are included for such calculation.

Another important pilot work rule which underwent change is the seniority bidding procedure for the larger aircraft. Because most pilot pay formulas specify higher compensation for flying larger and faster planes, the positions on those planes are more desirable and are allocated by seniority. When a pilot retires and leaves a seat on a large plane, a replacement moves up from a smaller plane, creating an upward bumping process throughout the carrier. This process has been a problem for management, which has to train, certify, and maintain the skills of pilots for each different type of plane which the airline flies--an expensive and time-consuming process. Each upward move typically generates a series of retraining needs, as pilots change planes while moving up through the seniority hierarchy. (This explains why carriers that fly only one or two types of planes have a cost advantage

Table 12

Credited Flight Hours for Captains, All Carriers, 1975 and 1989

Credited Flight Hours	Number of Workers 1975		1989	
70-75	3,274	(29%)	1,591	(8.9%)
75-80	5,624	(50%)	8,505	(47.5%)
80-85	744	(6.6%)	3,881	(21.7%)
85-90	144		--	
90-95	--		137	
Average Credited Flight Hours	76.4		78.5	

Source: USDL, BLS Industry Wage Survey: Scheduled Airlines, August-November, 1975, Bull. 1951 (1977), p. 6; USDL, BLS Industry Wage Survey: Certificated Air Carriers, January 1989, Bull. 2356 (1990), p. 4.

Table 13

Credited Flight Hours for First Officers, All Carriers, 1975 and 1989

Credited Flight Hours	Number of Workers 1975		1989	
50-55	57	(0.6%)	150	(0.8%)
55-60	55	(0.6%)	215	(1.1%)
70-75	3,108	(31.2%)	1,610	(8.4%)
75-80	4,628	(46.5%)	9,442	(49%)
80-85	655	(6.6%)	4,129	(21.4%)
90-95	--		82	
Average Credited Flight Hours	75.8		77.9	

Source: USDL, BLS Industry Wage Survey: Scheduled Airlines, August-November, 1975, Bull. 1951 (1977), p. 7; USDL, BLS Industry Wage Survey: Certificated Air Carriers, January 1989, Bull. 2356 (1990), p. 5.

over other carriers, and it also helps to account for carriers' agonizing over the purchase of any new type of plane.) The airlines have long sought to solve this training problem by, for example, restricting pilots to one type of plane for a fixed period, and by limiting seniority moves (Kahn 1971). They have intensified this effort in recent years. Before merging with Delta, Western Airlines eliminated most pay differences between different airplanes, thereby eliminating both the incentive to change jobs as well as the retraining problem.

One historically divisive issue between pilots and management that no longer appears troublesome is technological change. As Kahn (1971) thoroughly documented, the development of aircraft technology initially created new tasks and positions (such as flight engineer, radio operator, and navigator) -- and then eliminated them as newer equipment automated many of these cockpit functions. The jurisdictional disputes and other problems associated with creating and then eliminating these positions appear to be over, at least for the near term. Cockpit crews have gradually shrunk, and all new aircraft, including the new Boeing 747-400 series, are certified for a cockpit crew of two pilots.[55] The replacement of older, three-crew member aircraft with new two-crew planes continues to generate labor cost savings for the industry and has helped to offset any increased demand for pilots. This process will soon have run its course, however, as will the productivity gains associated with it.

Flight Attendants. Flight attendants are similar to pilots in that their occupation is specific to air transport. Like pilots' pay, flight attendants' pay is determined by carrier-specific seniority-based schedules, although they are less steep than pilots' schedules. Flight attendant bargaining has consequently also been inextricably linked to the individual airline. One important difference, however, is that cabin crews are much more easily replaced than cockpit crews -- because the amount of training required for the job is substantially less. FAA regulations require flight attendants as a condition of passenger service (indeed, the staffing level required is a function of the number of seats, whether they are occupied or not); but unlike pilots or mechanics, flight attendants do not have to be certified by the FAA. And although their job is often demanding, especially of interpersonal skills,[56] flight attendants have never been difficult for the airlines to find, and the necessary training for the job can be done relatively inexpensively and quickly. TWA's success in replacing striking attendants in 1986 made it clear that even a carrier with a large number of flight attendants can break an attendants' strike.

This weakness in attendants' bargaining power was exacerbated by the particular interests and characteristics of the attendants themselves and their unions. Until recently, flight attendants typically

did not view their jobs as a career; most left the industry after a short period, averaging less than two years at many carriers. Because of this high turnover, unions of flight attendants faced special difficulties in building strong organizations. The first flight attendant union, the Air Line Stewardesses Association (ALSA), formed in 1945 at United, was eventually usurped by the Air Line Steward and Stewardesses Association (ALSSA), which later affiliated with ALPA but was dominated by it. The ALSSA went on to represent most of the flight attendants at the trunk carriers. The union left ALPA in 1960 and merged with the Transport Workers Union.[57] Flight attendants made few contract gains -- relative to those won by the other airline crafts -- over the 1950-70 period.[58]

But since the 1970s, the pattern of union organization and the bargaining position of flight attendants have changed dramatically. In the late 1970s, many flight attendant groups sought independence from the two dominant internationals: the Association of Flight Attendants, which was created under ALPA in 1960, and especially the Transport Workers Union (TWU). Attendants from Pan Am, TWA, and American all broke away from TWU in the late 1970s and formed independent unions. As Ross (1948) has argued, representational rivalry contributes to an increase in bargaining demands and usually to an improvement in contract outcomes. This seems to have been true for the attendants during the 1970s. Contracts improved substantially, in large part because the carriers abandoned what would now be considered as discriminatory practices against the all-women cabin crews. At the same time that the job became better paid and less restrictive in its work rules, women were beginning to seek careers in greater numbers. As a result, this job became more attractive as a long-term commitment.[59]

Throughout the concessionary period of the mid-1980s, attendants made relatively few concessions (especially as compared to the pilots), given their relative lack of economic bargaining power. Several factors may be responsible for the ability of flight attendants to hold the line.

First, airline management may not have pursued its demands for concessions as aggressively with flight attendants as with the pilots, because attendants' labor costs account for a relatively small percentage of total costs, and, in turn, any concession by them would not generate a significant potential saving. Second, because flight attendants still have relatively high rates of turnover, as well as lower pay and more gradual seniority progressions than do pilots -- in short, less to lose--they may be less inclined to make sacrifices to reduce potential layoffs; their potential costs of job loss (measured by comparable opportunities elsewhere) are obviously far below those of pilots. Finally, the interunion rivalry and the general move to independence may have made flight attendant unions relatively more militant than their counterparts in the other crafts.

Annual pay increases for flight attendants nonetheless show the same general decline as do pilots' increases, and they also lagged the industry's financial downturn in the early 1980s. The decline in attendants' wage increases is more consistent since 1979 than that for any other airline craft. Card (1989) finds that wage *rates* for flight attendants declined slowly from 1980 to 1984 and then sharply through 1987; real *earnings* have declined 8 to 12 percent since deregulation. What is most striking about the attendants' agreements is the sharp increase in their variability across carriers. Early into deregulation, the largest increases in a given year were less than 20 percent larger than the smallest; by 1984 the largest increase was over 100 percent larger than the smallest rise. As among pilots, the work rule concessions made by flight attendants have primarily concerned scheduling, i.e., increasing monthly hours and expanding management's rights to assign hours. Table 14 suggests that average credited flight hours for flight attendants have gone up by six hours between 1975 and 1989. As with pilots, concessions have translated into fewer hours now being counted as credited, so that this number substantially understates the true increase. Ending affiliations with powerful international unions meant that many flight attendant unions lacked both the finances and, in some cases, the expertise to fight management head-on. Nay's (1991) analysis found that carrier-specific unions were significantly more likely to make wage concessions than were affiliated unions.

Flight attendant positions are not particularly remunerative. FAPA's wage survey suggests that starting salaries are around $1100 per month (equal to a 40 hour per week job that pays seven dollars per hour). Delta's nonunion attendants have the highest starting rate and Continental, also nonunion, is among the highest; starting pay at the smaller national carriers is about the same, and only falls by about 12 percent at turbo-prop carriers, where the job may be substantially different (e.g., smaller planes and shorter flights). This suggests that entry-level wages at the major carriers must be near some general market rate. Perhaps more important, top pay for attendants is only about double the starting rate, about $2200 per month. With the rise of 'B' tiers, which lengthen the salary progression, coupled with high levels of turnover, not that many attendants survive to receive the top rate. There are many things other than pay, however, which make flight attendant jobs attractive, such as flexible work schedules and free travel, and which might make it possible to lower wages even further without affecting the quality of personnel and their performance. Flight attendant pay levels do not appear to be significantly out of line with the market, or a major problem for the carriers.

Mechanics and Related Ground Personnel. Mechanics and airline employees in related ground occupations have arguably the most bargaining power of any airline craft or class. Aircraft

Table 14

Credited Flight Hours for Flight Attendants, All Carriers, 1975 and 1989

Credited Flight Hours	Number of Workers 1975		1989	
Under 50	1,229	(3.6%)	570	(0.8%)
50-55	556	(1.6%)	411	(0.6%)
55-60	689	(2.0%)	362	(0.5%)
60-65	1,032	(3.1%)	1,212	(1.8%)
65-70	5,689	(16.9%)	2,645	(3.9%)
70-75	7,487	(22.2%)	6,536	(9.5%)
75-80	9,480	(28.1%)	16,086	(23.5%)
80-85	5,192	(15.4%)	29,767	(43.5%)
85-90	1,491	(4.4%)	7,521	(11.0%)
Average Credited Flight Hours	73.5		79.2	

Source: USDL, BLS Industry Wage Survey: Scheduled Airlines, August-November, 1975, Bull. 1951 (1977), p. 9; USDL, BLS Industry Wage Survey: Certificated Air Carriers, January 1989, Bull. 2356 (1990), p. 7.

mechanics are highly skilled and must be certified by the FAA, making them difficult to replace. Moreover, mechanics lack the steep seniority schedules that discourage moving to another carrier within the industry. Further, the demand for mechanics is rising sharply, in part because aging fleets are requiring more maintenance per plane (see Table 15). The importance difference from pilots, where there is also increasing demand, is that most carriers hire fully-trained mechanics, as opposed to hiring trainee pilots. Therefore, the carriers are dependent on a supply of mechanics which they cannot shape in the same way that they can pilots or flight attendants – that is, carriers choose not to hire from the very large pool of workers with mechanical aptitude and then train the workers themselves. At present, the majority of new hire mechanics pay for their own training through proprietary schools. An ATA survey found some 4,000 standing vacancies for mechanics among the largest carriers in 1989 (Weiner 1989), and while the recent industry slowdown has undoubtedly reduced that backlog, another expansion will probably bring it back up. Although some carriers are now talking about opening schools to train mechanics, it is more than a little surprising that so little progress has been made in this area.

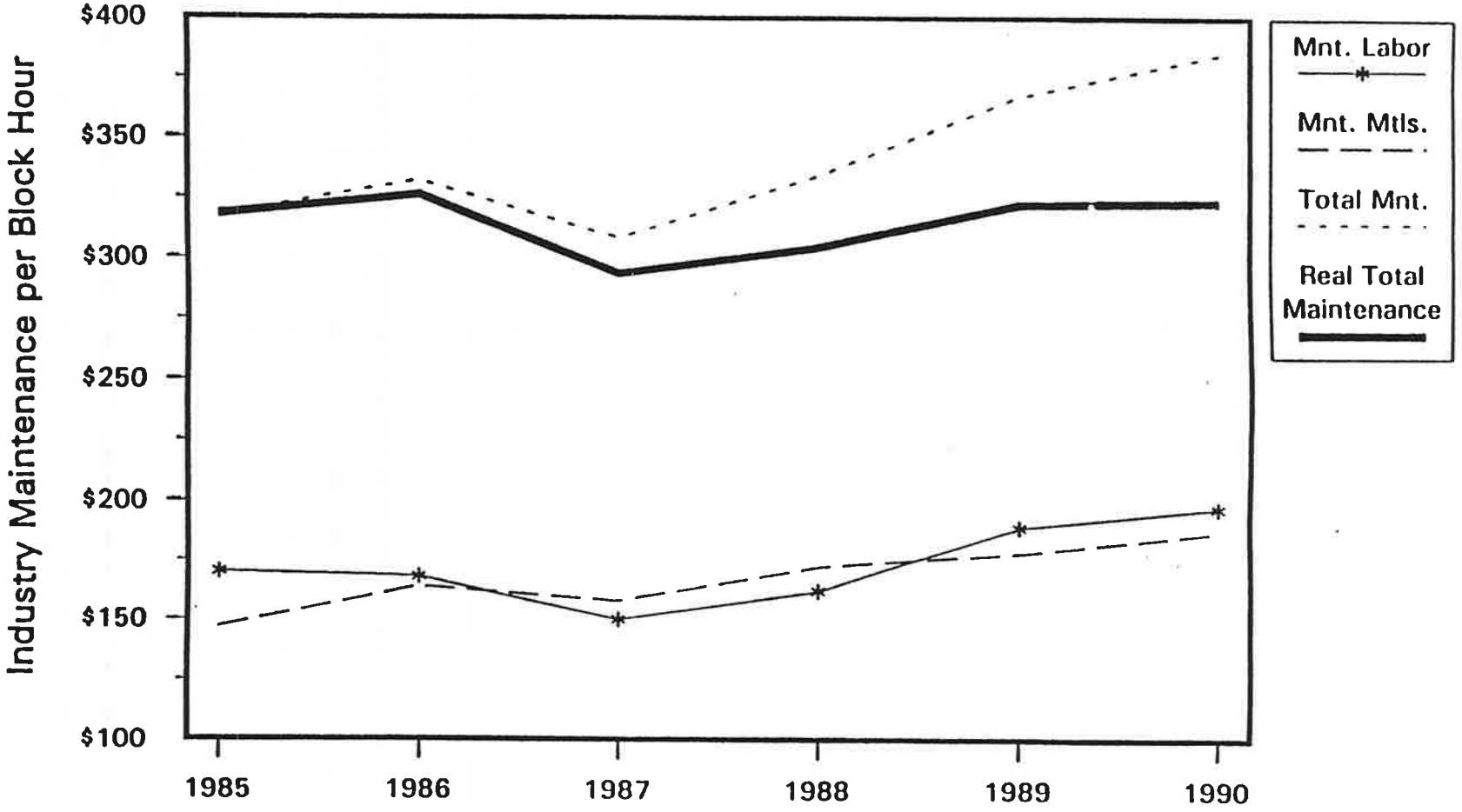
The demand for mechanic skills is also great outside of the major carriers and the airline industry. Some estimates suggest that pay for similar work beyond air transport is only about 15 percent below the airline rate. Furthermore, mechanics' unions represent workers at virtually all competitors within the industry, including the specialized, subcontracting maintenance firms. Even the new entrant carriers typically had their aircraft maintenance done by union employees at union rates, because their maintenance was subcontracted to the major carriers and to specialized maintenance firms.

There is, indeed, very little variability in wages for mechanics across the major carriers. According to the FAPA wage survey, Continental and Delta, the majors with nonunion mechanic workforces, have wages almost identical to the industry average (marginally above for Delta, marginally below for Continental).[60] Wages at the smaller national carriers are only about one dollar per hour less than the majors (roughly seven percent); it is not until one gets to the regional carriers that wages are substantially lower, and here the work is significantly different (i.e., smaller propeller craft v. large jets at the majors).

Because airline mechanics have attractive job opportunities elsewhere, they have less interest in making sacrifices at the bargaining table to reduce their chances of layoff; carriers may also be less interested in securing concessions from them because the costs of mechanics' labor are standard across the industry, placing no single carrier at a competitive disadvantage. While there may be less

Table 15

Maintenance Labor per Block Hour
Maintenance Materials per Block Hour
Total Maintenance



Source: Form 41, Data Base Products, Inc.

SH&E

interest on either side in granting/securing concessions, the bargaining power of mechanics, once confrontations develop, may be somewhat weaker than the pilots'. Partly because maintenance work can be subcontracted, it appears easier for carriers to break a mechanic strike than for a pilot strike. Also, the fact that mechanics are not certificated for as many skills unique to each model of aircraft as are pilots makes it easier to hire a replacement workforce. Continental's ability to break its mechanic strike in 1983, and Eastern's ability to hire a replacement mechanic workforce in 1989, testify to this potential. On the other hand, several factors have helped mechanics to counter this apparent bargaining weakness.

Perhaps the first element is that the mechanic unions, including the IAM, TWU, and the Teamsters, had extensive experience with negotiations in other industries, where the conflicts were more rough-and-tumble than in the regulated airlines. They may have been better prepared than the pilots, for example, to deal with the more aggressive airline collective bargaining practices following deregulation. The mechanics' union structure under the IAM, the dominant union in the industry, also contributes to this craft's bargaining power. First, the IAM has a highly centralized structure; the international has the power of approval over local contracts. Since deregulation, leaders of the Machinists have taken a strong position against concessions, and have used the international's internal power to restrain locals from making concessionary agreements.[61] Second, the international has a special reason to want to prevent concessions: its labor contracts outside the airline industry are akin to its airline contracts, making it important to prevent concessions in airlines which could potentially spill over to those other contracts. Nay (1991) finds that the unions in airlines which also had large memberships outside of the industry made fewer concessions than those that only represented airline employees.[62] Further adding to the pressures to keep contract settlements favorable is the sharp rivalry among the IAM, the Transport Workers, and the Teamsters for representation of airline mechanics.

Overall, Card (1986) calculated that real wages for mechanics at the trunk carriers declined only slightly from deregulation to the early post-deregulation era (1984). The real change, however, was the shift in employment of five to seven thousand jobs from the trunk carriers to other carriers in the industry. The concentration of the industry away from the regionals and back toward the majors has occurred since Card completed that study, however, so that the latter result probably no longer holds. Card (1989) subsequently found that while real wage rates for mechanics decreased slightly between 1980 and 1984, they went unchanged through 1987; real *earnings* rose about 10 percent between 1970 and 1975 and declined by 5-10 percent from 1979 to 1987. This decline appears to be less

severe than that for other airline occupations.

By and large, mechanics have made the fewest and least significant concessions of any craft; typically any concessions that were granted have been at those carriers threatened with bankruptcy. The uniformity of mechanics' pattern agreements nevertheless did begin breaking up. Table 16 plots the maximum rate for each mechanic settlement since 1975, and illustrates clearly the sharp increase in the variance among these settlements in the 1980s, although the variance seems to be dampening now. The decline in mechanics' increases is less severe than in other crafts, however, and has rebounded since 1984. The mechanics' concessions may therefore be viewed as more the result of hard times in the industry, and less the result of permanent changes in bargaining power, than were the concessions made by the other crafts.

Partly because of the strong demand for mechanics, management proposals to this craft group have recently shifted away from wage cuts toward work rule concessions. There appears to be more room for variation in mechanics' work practices, and therefore more potential savings from work rule changes and job classification combinations, than is the case for cockpit and cabin crews (many of whose work rules are set by the FAA) or for agent and clerical employees, whose jobs are also more sharply defined.

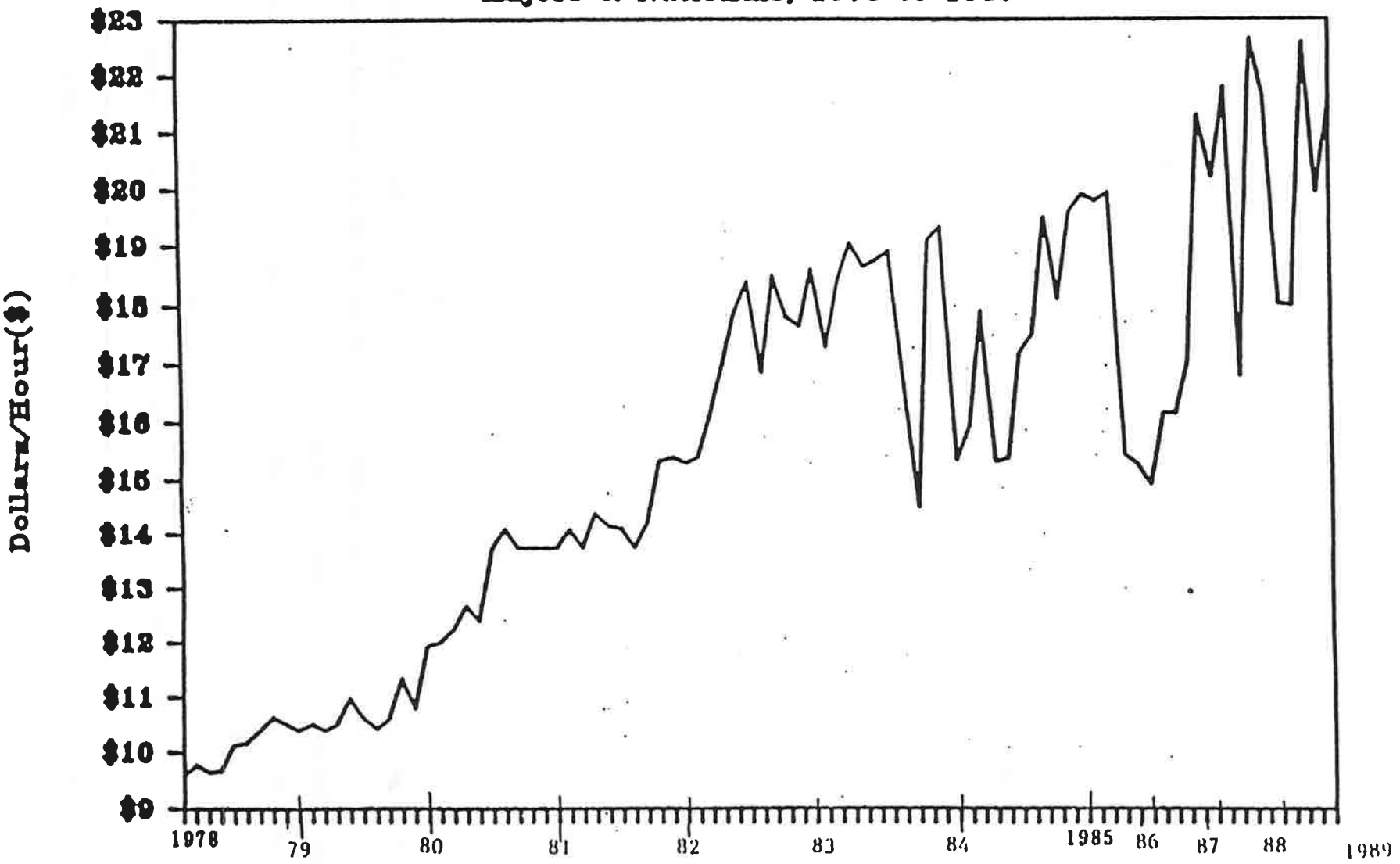
The jobs of mechanics and ground crews are typically to service arrivals and departures that are not evenly spaced throughout the day. Airline management has therefore increasingly relied on part-time scheduling of ground crews as a way to meet the uneven work load. With the exception of TWA, all of the major carriers won contract language which allows them to use part-time employees in these positions. One of the most important single work rules pertinent to mechanics' scheduling is that governing the "pushback" of the plane from the gate. In years past, mechanics not only were present during this procedure but in some cases were stationed one by each wing to walk with the plane out of the gate, possibly doing some informal inspection as they went. American, Continental, and Pan Am have cut back on this staffing requirement to a minimum of one mechanic, and in some cases lesser skilled employees are assigned exclusively.

The job in the general maintenance area which has received perhaps the most negative attention is that of "aircraft cleaner," a low-skill task which falls under the general heading of maintenance work. Efforts to reduce cleaner wages were a preoccupation of Eastern's management through much of the late 1980s, for example. The U.S. Bureau of Labor Statistics (1989) calculates that the average wage received by aircraft cleaners at the major carriers is $10.83 per hour, a relatively high wage for such low skilled work. Unlike pilots, mechanics, and flight attendants, wages for aircraft cleaners

Table 16

TOP MECHANIC RATE ON AMENDABLE DATE

Majors & Nationals, 1978 to 1989



NOTE: This graph depicts the chronology of mechanic wage settlements from 1978 to 1989. These rates include Cost-of-living, license premium and line differential.

AIR Conference
September, 1989

drop substantially when one moves to the smaller airlines -- to below seven dollars per hour.

Closer inspection of this wage data reveals that the high average wage for cleaners at the major carriers is the result of a skew in the distribution; almost a quarter of cleaners at the major carriers are paid less than seven dollars per hour, but 26 percent are paid between $13 and $14 dollars per hour, and 10 percent receive more than $14 per hour. In other words, the fact that a small number of cleaners receive very high wages is pulling up the average. Further, the same phenomenon applies to airline janitors and cleaners, in areas other than aircraft; their average wage is $9.52, and while 27 percent earn less than six dollars per hour, more than one-third earn above $13 per hour.

The explanation for this variability appears straightforward. Where cleaners constitute a significant constituency within a bargaining unit which also includes high-skilled mechanic positions, the union leadership may make a political decision to negotiate for substantial wage premiums for long service cleaners -- by applying some of its bargaining power on their behalf -- in order to assure ratification of the settlement. At carriers where this is not the case, wages are much lower and closer to outside market rates.

While such premium wages for long-time cleaners may well be above the market average, this does not appear to be an important issue with respect to airline costs. First, cleaners are a very small percentage of airline workforces -- only about five percent of those employees in the general "maintenance and related occupation" category, for example. Second, if unions that have chosen for political reasons to seek boosts in cleaners' wages were to redirect that power, conceivably the result might be a standstill in cleaner wages -- but undoubtedly would result in an increase in the wages for other jobs. (Indeed, the logical extreme of this deal was offered by Eastern's management to its IAM union: cut back the long-service premium levels of cleaner wages, in return for higher premiums on mechanic wages.)

Agents and Clerical Employees. Reservation and ticket agents and clerical employees are the least unionized of any group in the airline industry; in fact, only six of the thirteen major carriers during the 1980s had unions representing agents and clerical employees. These workers have diverse skills and job duties, and sometimes have little in common other than being in the same bargaining unit. This lack of a craft identification has no doubt hindered organizing, even by aggressive unions, among these occupations. But these positions and clerical jobs in general are not unionized to any great degree outside the industry either; hence it is not surprising to find that they are also relatively unorganized in air transport.

Agent and other clerical positions are very similar to their counterparts outside the industry, as

are the terms and conditions of their employment. The primary reason for the lack of a substantial union impact on the wages and working conditions of this class of airline employees is simply that the group is sparsely unionized; unions therefore were never able to take these labor costs out of competition or to engage in the kind of pattern bargaining that took place in the other crafts. Nevertheless, some observers have argued that the unions representing these workers have been less combative not merely because their members lack bargaining power but also because the unions themselves lack resources, many of them being independent of any large, national union.

Airline bargaining with agents and other clerical employees has received relatively little attention in the period since deregulation in part because there is so little of it. Labor costs even for the unionized clerical employees have been closer to market levels than the costs for the other crafts, and so there has been less room to cut costs. Nevertheless, clerical unions at those of the struggling carriers which were organized have made concessions, and typically made concessions similar to those made by the other crafts. The most significant work rule change which they have conceded is that allowing for part-time employees, and every carrier has now secured this concession. Some carriers are even using split shifts of clerical workers.

Increases in hourly earnings have declined among agents and other clerical employees. Again the decline in earnings lagged deregulation and the industry's financial nadir of the early 1980s. Nominal wage increases actually turned negative in 1983-84, primarily because five carriers succeeded in cutting pay. The largest pay cuts were at Continental and Eastern, both of which had no clerical union. TWA also cut the pay of its clerical employees, who also were nonunion; partly in response to that action, TWA's agents and clerical employees petitioned for a representation election by the IAM.

In sum, nonunion agent and clerical employees have given up at least as much as have the other crafts, and they may in general have been worse off because without a union they had little, if any, say in the give backs. As a group, but especially among those with no union representation, these employees took greater cuts than did the other airline crafts in the hard times following deregulation; conversely, they seem to have done much better than the other crafts when business improved. (The fact that rates of pay for these occupations were near the market rate, and that employees could easily go elsewhere, meant that the carriers had to respond quickly to market changes or risk losing employees quickly.) The lack of union protection has obviously made pay for this class much more sensitive to the demands of the individual carriers. One additional development, among both the agent and clerical group and the mechanic group, has been the employers' use of lump-sum payments

as a partial substitute for annual pay increases. This practice, borrowed from labor settlements in manufacturing, restrains the growth of the base pay upon which benefits are calculated, and the next round of pay increases are based. Lump-sum payments were most prevalent at Northwest, Pan Am, and Piedmont.

The differences in bargaining experience among work groups are most obvious in the cases where concession bargaining takes place across crafts at the same carrier. For example, the various unions at Western agreed in 1983 to a 12 percent reduction in labor costs, but the mechanics achieved that cut entirely through work rule changes that led to layoffs, whereas the pilots achieved it entirely through pay cuts that preserved existing employment. Western's flight attendants and agents and clerical employees chose some combination of the two. The experience at Eastern, where the mechanics came up with productivity concessions while the other crafts took more pay cuts, was similar. It is the bargaining power associated with the labor market circumstance of each craft that best seems to explain these different choices.

A special set of problems worthy of consideration occurs where the particular labor market and bargaining circumstances of each craft come into conflict with the pressure for consistent treatment within and across unions. A long-running problem at many financially pressed carriers (perhaps most notably at Eastern) was the fact that different unions gave up very different amounts of concessions in the effort to keep the carrier going over time. This led to serious conflicts between the unions, typically between pilots and mechanics.

The Teamsters represented all the major crafts at World Airways in what was no doubt the most extreme example of this conflict. In bargaining with World over the concessions demanded from each craft, the union had to struggle with the tension between the principle of equal sacrifice across employees -- and the fact that some crafts, notably the mechanics, were much better able to resist concessions than were others.

IV. Factors Affecting Current Labor Relations:

Consolidation: Deregulation spawned an initial surge of new carriers and of competition, but all of the recent evidence suggests growing concentration in the industry.[63] There were 11 mergers and 16 acquisitions in the airline industry between 1986 and 1988; 90 percent of revenue passenger miles were provided by eight carriers in 1988, versus 15 in 1984. More important, the market share held by the five largest carriers rose from 58 percent in 1986 to 74 percent one year later. The rise of hub-and-spoke route systems has had this most important effect on the nature of airline competition. These systems feed passengers from regional areas into a central hub, where they are consolidated onto larger planes for long-haul flights. In order for these systems to be most effective carriers need to have a large number of flights with frequent service to many points. The result is that certain hub airports become dominated by one or two carriers. By 1988, 17 of the 27 largest hubs had two or fewer dominant carriers, up from only three hubs with that few competitors in 1979. (Concentration at smaller hubs declined slightly over the same period.)

On the other hand, this smaller group of dominant carriers have expanded their networks significantly in recent years, so that even though individual carriers may be more dominant in their major hubs, each carrier is also now present in many more hubs. The number of competitors in the top 1,000 city-pair markets (the best measure of competition) has increased between 1979 and 1988. One area where competition appears to have decreased is between major hub markets -- because small, non-hub carriers that offer point-to-point service have left these markets.

Unions are especially concerned about mergers, because the loss of labor protection provisions (noted above) may well lead to a loss of seniority and other rights when mergers occur. Airline unions have also learned that the choice of a merger partner is crucial for their interests, and that they may be able to influence that choice by selectively manipulating labor cost prospects for different buyers. To the extent that unions can tailor the prospects of future labor costs for different acquirers, they will affect the relative value of the carrier to those purchasers, the price which they are willing to pay, and, in turn, which candidate will make the winning bid. Unions at TWA followed this pattern, negotiating directly with Carl Icahn, offering 25 percent wage concessions (in return for his promise not to sell the carrier), and in turn threatened that if Texas Air bought the airline, there would be no concessions and possibly labor trouble as well. Of course, unions can use this tactic only if there is more than one suitor. Upon learning of Texas Air's intention to buy out their employer, Frontier's unions met this hurdle by actively seeking out a second buyer. They found one in People Express. Using an offer of future concessions as an enticement to People, they received in

return the promise that Frontier would continue to operate independent of People for four years. (Ironically, of course, People Express was soon sold to Texas Air, and this promise became null.)

The unions at TWA and Frontier not only determined the merger partner, but also secured some future labor protections in the process. Unions sought similar protections against the possible adverse consequences of future mergers, through collective bargaining agreements with their current employers. The Teamsters secured seniority protections and other rights at Western and at PSA, although the Teamsters ultimately lost those rights at Western when it merged with Delta.

New Entrants: The new interstate carriers that came on the scene immediately after deregulation, such as People Express et al., have largely disappeared during the 1980s. Even though their costs were lower than the major carriers, they could not compete with the economies generated by the majors' hub and spoke route systems. The fact that Wall Street bankers report that there is no investment money interested in funding new airlines helps make the point that new entrants are unlikely to succeed in the current national airline market.

There are, however, a large number of short-haul carriers which compete effectively in regional markets. Could they provide competition for the major carriers? Carriers like Southwest provide stiff competition for the majors in short-haul markets, especially intra-state. The thrust of the argument on the increasing dominance of hubs suggests that even the major carriers are competing by expanding existing hubs and by creating new ones, not by attacking competitors' existing hubs; thus it is difficult to imagine that any smaller carriers will be able to crack the major carrier segment of the market. The smaller carriers compete effectively principally in markets that the major carriers have ignored -- regional point-to-point service. The arguments that the major carriers have and will continue to expand their networks may nevertheless put further competitive pressure on the smaller regional carriers.

These observations about industry concentration have several implications for labor relations. First, it is unlikely that the major carriers will face the potential of low-wage, nonunion competition from new carriers or expanding regional carriers. The kinds of arguments about the need for union concessions to compete with low-cost carriers like People Express that were heard in the early 1980s are unlikely to reappear.[64] Second, the major carriers are increasingly in competition with each other, often over their entire route systems, and that has important implications for industrial action. A struck carrier is now extremely vulnerable in that competing carriers can easily pick up the closed airline's passengers; further, a carrier's dominance of a hub, which may take years to develop, may be eroded quickly by competitors with similar route systems, especially where competitors have a

presence at that hub.

Overall, however, the influence of new entrants on labor relations at the major carriers has probably been overplayed. With deregulation and stiff competition from each other, the major carriers already had plenty of incentive to cut their labor costs. A new wave of low-cost, low-fare new entrants might create even more incentive for the major carriers to cut costs, but lack of incentive is not what is holding them back. It is understandable resistance from unions.

Ability to Take Strikes: As noted above, management successfully operated through strikes during much of the 1980s -- until ALPA's strike at United in 1985. The dispute was over two-tier wage agreements which had been accepted by mechanics and flight attendants. Earlier in 1985, United had taken on 500 pilot trainees to help staff an immediate expansion, but management had refused to put the trainees on the payroll--and hence into the union and the bargaining unit--until ALPA signed a contract. The trainees therefore served as an important management bargaining chip: 500 new members for ALPA if agreement was reached, but 500 potential strike breakers if ALPA went on strike.

On May 17 ALPA struck United.[65] The carrier's flight attendants and some of its mechanics supported the strike, although the IAM as an organization did not. What was unusual about the strike was the success of ALPA's measures to ensure solidarity, not only among its members but also with the trainees and flight attendants. United, which normally carried 15 percent of all domestic passengers, was reduced to operating at from 5 to 14 percent of its normal capacity (the figure depending on the source of the estimate). ALPA asserted that only one percent of United's pilots, two percent of its flight attendants, and 2 of the 500 trainees crossed the picket lines and reported for work *(Philadelphia Inquirer* 1985b). Although the trainees were not yet ALPA members, the strike issue--two-tier pay rates--was essentially *their* problem, giving them a good reason to heed ALPA's request that they support the strike.

ALPA's strike campaign was significant in large measure because of the new techniques which the union employed in waging the strike: multimedia, videotaped presentations to members on specific issues (which apparently were packaged very similarly to the presentations previously used in negotiations by management); national teleconferences to link geographically separate pilot groups and to establish solidarity; a toll-free national hotline for information on the strike; family and financial support programs during the strike; and systems of peer support that some have likened to Alcoholics Anonymous groups.[66]

In the final agreement, ALPA accepted a modification of the two-tier wage scheme, but the

strike was important for ALPA for several reasons: because it was the first successful effort by a union to shut down a carrier determined to fly since deregulation, it introduced new techniques for running a strike. ALPA managed to achieve some solidarity among other unions at United, and successfully protected employees outside of its own bargaining unit in the process. United's strategy was ultimately to hope that the strike would crumble and that pilots would cross the picket line; this was unlike the Continental or the later Eastern strike, where these carriers were in so much trouble that significant downsizing and restructuring was in order, reflecting a strategy of starting up again with a much smaller workforce which could be hired from the outside. United could not expect to replace its 5,000 pilots with new hires, especially given that pilots must be certificated for specific aircraft; it is not enough simply to recruit 5,000 new pilots. They must be in exactly the right combination of experience and certification to meet the carrier's fleet configuration.

As the carriers have gotten bigger, the ability to make use of permanent replacements has been eroded. If United could not restaff 5,000 pilots in 1985, it is totally unfeasible that it could do so for its 9,000 pilot fleet in 1991. United reportedly lost $10 million per day during its strike, and took 13 months to regain its market share. As noted earlier, even with the protections of a sympathetic bankruptcy court, Eastern ran up $1 billion in debt while replacing its unionized mechanic and pilot crews and still failed to rebuild even a significantly smaller airline.

In addition to the problem of size, it can be argued that the increased concentration of the industry has made it more difficult for the carriers to take strikes. The larger carriers often find that they have complicated, nation-wide route systems which compete with each other, and customers (especially business travelers) choose carriers at least in part based on perceptions of service quality. Even a minor strike now disrupts the feed on complicated hub-and-spoke route systems and, more importantly, shifts bookings to competitors.

A recent study by Gellman Associates (1991) suggests that even healthy carriers might find it hard to survive a long strike by an essential occupation such as pilots. While the study was designed to argue about pending legislation to prohibit the use of permanent replacements, the arguments above suggest that the use of permanent replacements may now be largely irrelevant, at least for the larger carriers. As the United experience indicates, it does not seem possible for large carriers to mount enough of a schedule using permanent replacements to bother trying -- as long as the unions keep their members from crossing the picket lines. It is also doubtful that investors would rally around a proposal to take the tremendous short-term losses necessary to downsize a major carrier and to rebuild it with permanent replacements. Eastern's recent efforts to reconstitute itself using striker

replacements got as far as they did, not because investors thought it was a great idea and were willing to fund it, but because Eastern was under bankruptcy court protection.

Characteristics of Leaders: Academic research continues to find that the characteristics of leaders are an important factor in shaping the way their organizations are run. There is some evidence that the changing persona of industry leaders -- especially after deregulation -- may have contributed to changes in labor relations. Cappelli (1985b) argues that deregulation required a different set of management skills that may not have been readily available within the regulated industry. Cappelli (1983) notes, for example, that five of the Vice-Presidents of Industrial Relations at the 23 largest airlines were dismissed in a six-month period in 1982, in part because they were associated with traditional, status-quo labor relations that had fallen out of favor.

Although it is difficult to measure, anecdotal evidence suggests that there was a move toward hiring executives from outside the industry in the mid-1980s, especially at the director and vice-president level. The rapid turnover of executives in the labor relations area may have had some adverse effect on labor relations, first by eliminating long-term personal relationships between union and management negotiators which are often thought to be central to good labor relations; second, especially where the new executives come from outside the industry, the turnover created a new "learning curve" of industry and carrier-specific practices that the new executives had to come to understand. (Whether new and arguably more aggressive management views on labor relations from outside the industry were good or bad depends on what one thinks about the outcomes which they produced.) At the CEO level, the public perception was certainly that there was a move toward finance-oriented, as opposed to operations-oriented, management. Carl Icahn at TWA, who came from the financial community and from outside the industry, is a good example; Frank Lorenzo is often thought to have a similar orientation, and although his career had been entirely in airlines, it was not with traditional carriers or with operations.

We conducted an analysis of the biographies of the CEOs at the major carriers. Historically, the most important CEO transition was from the charismatic founding generation -- Trippe at Pan Am, Rickenbacker at Eastern, Smith at American, Patterson at United -- whose tenure spanned decades, to what Davies (1987 p.151) describes as "administrative machines, presided over by men whose names mean little to the public at large and not a great deal more to the employees themselves...." This transition took place largely by the end of the 1960s.

If it existed at all, the generation of bureaucratic CEOs did not last very long; 11 of the 13 major carriers replaced their CEOs in the first seven years after deregulation (1978 to 1985). It would be

difficult to describe the current generation of executives as administrative machines; executives like Lorenzo at Continental, Icahn at TWA, and Crandall at American are well-known public figures with strong views and personalities. While each has no doubt placed his stamp on the carriers' management practices, the important issue is whether there is some trend across CEOs. With the exception of Icahn at TWA and Dasburg at Northwest, all of the major carriers' CEOs have come from within the industry. There does, however, appear to be a much greater orientation to the financial aspects of the business (Icahn, and Dasburg in particular; Checci at Northwest is co-chairman).

Problems Facing Unions. The sea changes in airline labor relations which have occurred since deregulation have created a series of problems for labor that go beyond concessionary bargaining. First, the pressure to accept wage cuts increased tensions between the union locals, whose members' jobs are at stake, and the internationals, whose leaders are concerned with protecting the pattern of compensation across the industry. In the beginning of this concessionary period, the IAM pursued one extreme--preventing local concessions--while ALPA pursued the other--letting locals operate with almost complete independence. Since then, both unions have moderated their positions.[67]

Recent developments have also led to the forging of new alliances between unions and among crafts. Unions in air transport have historically offered each other little cooperation, in particular by routinely crossing one another's picket lines. Before deregulation, the AFL-CIO had established a coordinating committee for airline unions which mainly dealt with lobbying efforts, but deregulation has since rallied support for cooperation in bargaining itself. Cooperation has been most evident at carriers facing bankruptcy, where the unions typically have been pressed to work together, often with banks and other outside parties, to reach agreements that will keep the airline in business. Collaborative efforts had been strongest at beleaguered Eastern, where the IAM initially took the lead in representing a coalition of union interests.[68]

More urgent pressures for interunion cooperation have arisen at those carriers which try to operate during strikes by using other carrier or outside personnel. Before this change unions could cross one another's picket lines without much effect; now such actions break strikes (as in the ALPA and IAM strikes at Continental in 1983 and in the flight attendants' strike at TWA in 1986). The unions have therefore pursued various strategies to encourage the honoring of picket lines (see the discussion of the United and Eastern strikes), but airline labor still has a long way to go to claim a truly coordinated effort.

Attempts by unions to influence mergers, as well as the contract restrictions on doublebreasted

operations, demonstrate how the bargaining demands of the airline unions have changed to protect their interests against the new set of problems unleashed since deregulation. As such examples illustrate, many of these threats were posed outside of collective bargaining through management's business decisions, but the unions have nonetheless secured some protections against them through collective bargaining. One obvious and accepted union gain among the struggling carriers has been the employee stock ownership plan, which offers airlines an expeditious means to generate capital through wage cuts. In return, unions received company shares, albeit usually nonvoting shares. As noted below, quality of work life (QWL) and other participative programs were not established or even proposed in this period. Part of the explanation may be that airline employees are dispersed geographically, rarely working together in stable groups, but also because traditional rule-based management styles are reinforced by FAA regulations. Only American, Pan Am, Republic, and Western had anything like genuine QWL programs, and evidence from those programs is too sparse to know how extensive or successful such efforts have been.

V. Implications of Recent Airline Settlements:

Constraints on Flexibility. The most important recent development in airline labor relations has been what appears to be the return of pattern bargaining to the industry. The pilots, for example, have secured settlements successively at Northwest, Delta, American, and United which will result in essentially identical pay scales by 1993. The fact that these major carriers effectively cannot take strikes has given labor considerable bargaining power. Although Northwest settled in 1989, the Delta settlement (12.5 percent over the term of the contract) in the summer of 1990 became the bargaining target for pilots at American and at United. The fact that Delta, United, and Northwest are all ALPA carriers (American has the independent Allied Pilots Association) no doubt contributed to the coordination of demands. At American, the goal of the Allied Pilots Association was to reach parity with Delta by 1993 (DLR, 2-28-91). With a lump sum increase in 1991 and 4 percent increases in 1991, 1992, and 1993 at American, many of the new rates will achieve "parity" with Delta in 1992. At United, ALPA clearly pursued the "established" pattern in May 1991, bringing pay scales in line with American in 1991 and to the Delta level by 1993.[69]

ALPA has quite clearly differentiated its bargaining demands according to the ability of carriers to pay. The fact that the level of settlements was parallel for this group of financially-strong carriers (with the possible exception of Northwest, which recently proposed pay cuts) no doubt reflects traditional union goals: the desire to take wages out of competition across competitors, and the desire for equity (defined as comparable treatment) across employers for workers doing the same job. That these efforts at pattern bargaining did not meet more resistance from management suggests that they may not run entirely counter to the interests of the carriers. It is important to remember that US carriers are at present not facing significant low-wage, foreign competition; if the major US carriers all have the same labor contracts, then labor costs are simply one less issue on which they need to compete. It was easier for ALPA to secure its recent settlement at United, for example, because the Allied Pilots had just previously secured a similar contract at United's main competitor, American.

There is evidence that mechanic negotiations are also being driven by comparisons, evidence of a return to pattern bargaining. Flight attendant bargaining as well now shows elements of pattern bargaining (see, e.g., United's recent offer to accept Delta's terms and conditions for flight attendants). The carriers may well, however, have some serious concerns about the return of pattern bargaining:

> Escalating demands: There may well be a fear of 1970s-style pattern bargaining, where the comparisons ratcheted ever upward. The fact that ALPA argued that Delta's wages, which are the

highest in the industry, should be the target for bargaining at the other healthy carriers illustrates how pattern bargaining works (note that Delta's work rules, which are among the industry's more restrictive, were not part of the demands). It is not the comparisons per se that are the issue here; the carriers were happy to participate in pattern bargaining when it came to introducing concessions, for example. It is the escalation of costs that may be associated with them. This is especially a concern if foreign competition becomes more important. The issue of escalating costs and who pays is discussed at length below.

>Loss of initiative: Carriers like American adapted to being able to tailor contracts to their specific needs. But in pattern bargaining, negotiations are driven by settlements elsewhere, whether or not they meet the needs of individual carriers.

>Loss of labor as a bail-out: Related to the above, many carriers have survived deregulation only by securing concessions which put their labor costs well below those of competitors, in effect creating a competitive advantage in labor costs that offset competitive disadvantages in other areas. A return to stricter pattern bargaining may make it more difficult for carriers to secure these special deals. If so, even more of these marginal carriers may fail in the short-run.

>Bargaining spillovers: Not only is there a concern that contract patterns will escalate settlements across carriers, but that they may also escalate demands across crafts within the same carrier. If the pilots secure a five percent increase because of their new-found bargaining power, won't other crafts demand the same thing? ("If you can afford to give it to the pilots, why can't you give it to us?") Even where other crafts lack the power to secure parity settlements, it may take strikes to convince their members of that fact.

While these concerns are important, it is worth pointing out again that they are at this point based on speculation about what could happen if current events evolve into long-term trends.

VI. Alternatives to the Current System:

While it is easy to see why Congress at the time applied the Railway Labor Act to airlines, does it still make sense now that there are other successful labor law models? For example, would a separate labor law for airlines make sense? No doubt the circumstances in many industries are somewhat unique, and might be served by a labor law fitted uniquely to them, but the unwieldiness of having a separate law for one industry (then why should other industries not have their own laws?) is a monumental problem.

More to the point, there is an alternative model currently in existence, the National Labor Relations Act, which covers most of the economy, including other transport industries such as trucking, water, and bus transport. The existence of this other model makes it easier to ask some pointed questions about the RLA: does it serve the interests of the parties and of the public, and might some alternative model do a better job?

The RLA serves the same basic policy purposes as does the NLRA or other labor legislation (e.g., collective bargaining statutes in the public sector). It establishes procedures for governing union representation and union security issues, contract application and administration, and collective bargaining. Perhaps the main difference between the two is not the amount of regulation -- both acts provide for substantial intervention in labor relations -- but the form of the intervention: through the National Labor Relations Board, the NLRA promulgates administrative rules to govern behavior across situations, while under the RLA, the National Mediation Board allows for more ad hoc intervention.

The notion that the RLA provides more extensive regulation of overall labor relations is a fallacy. A recent study prepared for airline management contrasts the NLRA and RLA, and concludes that neither Act necessarily offers an advantage to one side. For example, the NLRA may secure more rights for employers in representational procedures leading up to unionization than does the RLA, but it also benefits unions by placing more explicit restrictions on management actions in representation matters once a union is certified (unfair labor practices), and by allowing unions to organize smaller units where majorities can more easily be found. The more important differences center on collective bargaining. Both Acts permit hiring permanent replacements (indeed, the Supreme Court has found the two acts similar enough to apply precedents across them in this area), but the NLRA with its formal unfair labor practices regulates bargaining behavior in other areas to a much greater extent. The NLRA provides stronger protection for the right to strike (injunctions are easier to secure under the RLA, and strikes over existing contract issues are prohibited); on the other

hand, the RLA permits secondary boycotts under a 1988 Supreme Court decision.

Within the period covered by an agreement, the RLA seems to function well. As Stone (1990) observes, the continuous nature of contracts helps create the sense of a long-term relationship among the parties, and the fact that there are fewer ways to litigate aspects of the relationship than under the NLRA (e.g., few formal unfair labor practices) forces the parties to solve problems themselves. Further, it is easier to reopen agreements if circumstances change, because there are no expiration dates in the nominal sense. Strikes are not permitted over issues of contract interpretation, and while the system for resolving grievances arising under contracts has been criticized in railroads, in part because the costs are subsidized by the government, the airline grievance system operates independently through system boards, and appears to function well.

The main criticisms of the RLA historically and at present focus on the National Mediation Board (NMB) and the role it plays in controlling collective bargaining -- specifically in determining the timing of strikes and lock-outs. The Act established that the parties have a virtual duty to settle differences peacefully. The National Mediation Board, which combines rulemaking and mediation functions, requires mediation in contract disputes, and may require the continuance of mediation efforts until the Board is convinced that an impasse has been reached. Once the Board releases the parties from mediation, they must observe a 30-day "cooling off" period before they can strike. If such a strike would disrupt essential transport services for at least a region of the country, the President may appoint an emergency board to examine the facts of the case and to issue recommendations. Although the recommendations are not binding on the parties, the force of public opinion (broadly defined) is thought to create pressures for acceptance. If there is still no settlement, the parties must again wait 30 days before engaging in a strike or lockout. The recommendations can be turned over to Congress, which may create legislation to settle the dispute, but this has never happened in the airline industry.

The first and arguably most important objection to NMB intervention is that it slows down the process of change. This objection is certainly correct. Because it relies on custom and practice, as opposed to the mandated rights and obligations of the NLRA, the RLA tends to reinforce the status quo. The fact that agreements have no expiration date, and that the only aspects of contracts that can be changed are those for which the parties declare in advance their intention to negotiate (Section 6 notices), also helps preserve the status quo. With no "end" to a contract, management is not able to impose unilateral terms and conditions of employment as it can when contracts governed by the NLRA expire. And the extensive use of mediation and voluntary arbitration, which typically rely on

comparisons to shape settlements, also works against significant change.

The NMB's ability to hold the parties in mediation and to prevent the use of "self-help" (strikes or lockouts) is the focus for most of the criticism, especially among the railroads. Risher (1976) concluded that the *average* rail dispute he examined during the 1970s lasted 451 days; the national rail dispute finally resolved in 1991 began in 1988, for example. The reason, of course, is because an explicit mission of the RLA is to protect the public interest by reducing strikes and lockouts; the NMB traditionally goes to great lengths to ensure that all efforts to settle differences peacefully have been exhausted, before the parties can resort to economic action. Because the RLA procedures delay the use of economic costs, they also delay the pressures to compromise, and probably increase the time before settlements are reached.

This description suggests a criticism of the NMB and the RLA process, that it is biased toward labor or management, although which side perceives the bias depends largely on whom one asks. Clearly, by delaying or even preventing the use of economic power, the RLA procedures do lead to outcomes that are different from those that would have prevailed in their absence; the side with the greater economic power is the one that would have prevailed in the absence of these procedures -- and therefore believes that the process is biased against it. Concerning the NMB's delay of self-help, Northrup (1990 p.455) notes that "Prior to 1980, employers tended to applaud this policy while the union officials generally deplored it." (Rehmus [1971] and Kaufman [1981] draw the same conclusion.) The reason, of course, is that unions had more economic power before 1980 than after.

As long as there is some rate of inflation, management gains from actions that delay new settlements because during the delays, the old contract remains in effect, and there are no wage increases; wages decline in real terms by the rate of inflation. But as noted above, bargaining power shifted dramatically to management in the 1980s, and management in many cases appeared able to secure concessions substantially greater than simply the freezing of wages and contracts which prevails until the NMB releases the parties from mediation. Delays in such cases might benefit unions.

There is nothing new about NMB-imposed delays. What is new is the need for change. Given that both rail and airlines are now deregulated in their product markets and are free -- indeed, may be compelled -- to respond quickly to changing market conditions, there is an argument that management also should be able to make adjustments more quickly in their employee relations, in order to make those product market changes happen. Of course, nothing prevents management from securing such changes quickly, as long as they are achieved voluntarily; the issue is whether management will be

allowed to secure the changes through economic power -- if voluntary agreements cannot be reached. And simply being able to exercise economic power does not necessarily imply that management will win. Thus these concerns about NMB-imposed delays really come down to those situations where management needs changes quickly, can only get them from labor by force, and is in a position to win if economic power becomes the test. Historically, these situations have rarely occurred simultaneously, but, as noted above, they occurred for about five years in the airline industry in the mid-1980s.

Recently, criticism that the NMB used its powers in ways that hurt management has surfaced as a result of the Eastern Airlines dispute with its machinists' (IAM) union, which began in 1987 and 1988. Eastern's management demanded substantial concessions from the IAM, which it argued were necessary to keep the carrier going. After little progress was made in negotiations, management asked the NMB to release the parties from mediation, and to allow management to implement new terms and conditions of employment. The NMB refused, arguing that the parties had not yet bargained to an impasse. During the period of mediation, Eastern began to sell off some of its assets. An impasse was declared in February 1989, after which the union struck (the pilots and flight attendants honored the picket lines). Management filed for Chapter 11 bankruptcy protection and attempted to reorganize itself in 1990, but was eventually liquidated in 1991.

Some believe that the decision by the NMB not to release the carrier more quickly from mediation contributed to its downfall. If it is true that management had the power to win this dispute, then the NMB delays did work against management -- just as they historically have worked against unions. Such situations can be of great significance, if they in fact contribute to the demise of a carrier. To make that argument in the Eastern case requires believing not only that Eastern could not have survived without the new employment terms which management sought to impose -- and that these terms could only be achieved by force -- but that management would have been able to restructure the carrier -- basically rebuild it without its unions -- if only the strike/new terms had begun earlier. The validity of these assumptions is not obvious. (The fact that a downsized Eastern with cash from its sales took on a strike soon after, and nevertheless went out of business suggests, for example, that the successful restructuring assumption might be suspect.) Certainly other carriers (e.g., Braniff, Western, and Eastern previously) have achieved labor agreements that staved off financial collapse voluntarily through collective bargaining. But it is possible, at least in theory, to imagine a situation -- perhaps because of prior mistakes in labor relations -- where the only option for the survival of a carrier is self-help and the unilateral imposition of new terms. It is also possible to

imagine situations where unions can survive only by achieving the kind of victory that self-help would make possible (e.g., a union facing decertification/change of certification because of poor prior performance in bargaining). In these cases, the NMB's interest in encouraging voluntary settlements might conflict with fundamental interests of the parties. The possible demise of a carrier is arguably an important public policy issue that the NMB might want to consider, although it is indeed difficult to suggest how this could be put forward as a general principle. How could the NMB, for example, be asked to tell when a carrier will fail if it cannot exercise self-help: It might be in management's interests to make this claim even if it were not true. If the need is so obvious, why can labor not be persuaded to accept changes, as they have in other situations? And how can the NMB judge the probable outcome of a strike?

Chilling: Perhaps the most important criticism of the RLA process is that it may work to "chill" efforts by the parties to negotiate their differences. If the parties believe that the government will ultimately step in and settle the dispute for them, they may have no incentive to make the concessions necessary to reach a voluntary agreement. Concessions may be politically costly to make, and the parties may believe that concessions simply weaken their position in arbitration, especially if they believe that arbitration will split the difference between the offers on the table. Because the RLA has extensive procedures for third party intervention, it has often been criticized for its potentially chilling effect (e.g., Northrup 1971, 1990; Cullen 1976; Rehmus 1984).

It can be argued that Presidential Emergency Boards chill bargaining. Because Emergency Boards start from scratch, and may reach compromises based on the parties' last positions, the parties may believe that it is in their interest to be as extreme in their bargaining postures as possible. Even though the recommendations are not binding, the Emergency Board recommendations often influence the final settlement. When Congress dictates the settlement through legislation, the recommendations typically form the basis of the settlement. And the possibility that Congress will legislate a settlement provides perhaps the most important chilling of the bargaining process.

Certainly there is anecdotal evidence in railroads that the parties do not make much progress in negotiating their differences when they believe that the government will intervene (cf. the recent rail dispute). But as Rehmus (1989) points out, there has been a sharp decline in the number of Emergency Boards in rail -- falling by half since the 1960s. And these arguments about chilling do not apply to airlines -- where there has been only one Emergency Board since 1966, and that a special case negotiated as part of the Airline Deregulation Act. (President Carter agreed to empanel an Emergency Board to settle the Wein Air Alaska strike, as part of the agreement for passing the

Airline Deregulation Act.) Labor Secretary George Shultz is alleged to have told the NMB in 1969 that the Administration would not appoint Emergency Boards in airlines (see Cullen 1976), a practice that subsequent administrations have followed. (This was followed by President Nixon's proposal in 1970 to subject all disputes in transportation to an amended version of the Taft-Hartley Act, abandoning the RLA's emergency dispute procedures. The proposal received little Congressional or public support. See Cullen 1976 p.151.) The decision in 1989 not to follow the NMB's recommendation to appoint an Emergency Board in the Eastern strike sends a further signal to the parties that the government will not intervene in airline disputes.

The concern that excessive use of emergency dispute procedures chills bargaining peaked in the 1940s, receded in the 1950s, peaked again in the 1960s, and since then has declined without resurfacing. Northrup (1971) argues that the periods of concern coincided with Democratic administrations because unions felt that they had a sympathetic ear in the White House, and could do better from Emergency Boards than from negotiating with management. But then this argument should also be symmetric, as management might feel that they had sympathetic audiences during Republican administrations where they might get more from Emergency Boards than from unions. A more neutral observation is that the use of Emergency Boards peaked during periods of sharply rising union wage demands in general (1940s through early 1950s, and then again in the 1960s), but underwent a structural decline beginning in 1970. Fewer and fewer Boards were established, in part because there were fewer strikes in railroads (due to union mergers and a consolidation of bargaining structures) and as the parties learned that airline strikes -- even the five carrier strike of 1966 -- did not create genuine national emergencies (even though an Emergency Board was invoked); the Democratic Carter administration in 1976-1980 produced no sharp upturn in Emergency Boards, for example. As a result, the major concern about the RLA, that it has the potential to chill bargaining, does not at present appear to be an important issue for air transport.

Management Prerogatives: Another concern about the RLA is that it applies a stricter test than does the NLRA for determining whether management business decisions can be taken unilaterally, or must be negotiated with the unions. Basically, the RLA allows employers to go out of business without negotiating but, unlike the NLRA, does not necessarily permit employers to close facilities, sell assets, or unilaterally to take other business decisions that have important consequences for union employees. (Indeed, NLRA employers are permitted to make such decisions unilaterally even where anti-union animus is shown, provided that the decisions can be justified on economic terms.) Coleman (1990) argues that the limits on management prerogatives in business decisions place an

unfair burden on airlines and railroads, given that they are deregulated now and must respond to competitive pressures. The burden of negotiations is interpreted largely as the time delay in RLA processes, although management may in fact be prohibited by the unions from taking some business decisions altogether (or at substantial cost), because of the adverse employment consequences.

Presumably, the argument that RLA limits on management decisions cause a competitive disadvantage applies only where RLA employers are in competition with NLRA employers; if all competitors face the same restrictions, such restrictions cannot by definition be a competitive disadvantage. While all forms of legislation and, indeed, the very existence of unions place limits on management decision making, the important question is whether the RLA limits on management prerogatives impinge in some fundamental way on the ability of the employer to survive and to prosper. Critics will point to the many injunctions which the courts placed on Eastern's attempts to sell various assets in 1988-1989, before and during its Machinist strike as evidence of the RLA burden in this area. Others have argued, however, that Eastern's actions were driven largely by anti-union animus and were not obviously dictated by the competitive environment (see Bernstein 1990, e.g.). Certainly most carriers do not experience as many fundamental business changes over an entire lifetime as Eastern experienced in one year.

Further, there are important differences in the markets covered by RLA and NLRA employers in the nature of their business decisions. The most important short term decisions that RLA employers make in order to respond to competitive pressures are rearranging routes, and such decisions -- including the employment consequences that flow from them -- are within the management prerogatives of the RLA. In contrast, when NLRA employers rearrange their product markets, it may often require closing facilities, actions that are not in all circumstances within management prerogatives. In other words, RLA employers can more easily achieve even fundamental restructuring of their product markets without affecting the status of union employees, because those employees are governed by system-wide labor contracts which allow them to be redistributed even in fundamental ways. NLRA employers, in contrast, typically can achieve the same degree of product market change only through plant shutdowns which terminate employment.

Stone (1990) argues persuasively that recent Supreme Court decisions in RLA cases have so thoroughly expanded the ability of management to act unilaterally -- by classifying conflicts over management actions as "minor" disputes (which are not subject to bargaining), by asserting that unions have waived their rights to bargain if they have not addressed issues previously, by introducing explicit notions of management prerogatives -- that the ability of unions to restrain these

strategic-level business decisions has effectively been eliminated. Stone argues that such restrictions on management action have effectively been eliminated from the RLA.

The Future: Have things so changed in airlines as to suggest overall that the RLA procedures should be amended or even abolished? The fact that airlines have become competitive industries suggests that they may need to change more rapidly than in the past. The NMB, of course, can always allow change to occur more rapidly by allowing self-help. But as the carriers become more vulnerable to strikes, it is not at all obvious that self-help is in their interest. It also may not be in the public's interest.

Secretary Shultz's decision in 1969 to end Emergency Boards is sometimes explained by saying that airline strikes in fact no longer create national emergencies. In fact, they may never have; even the five-carrier strike of 1966, the last airline Emergency Board and the worst strike in the industry's history, did not create insurmountable problems. But as the industry becomes more concentrated, strikes at individual carriers may now create regional emergencies -- at cities like Pittsburgh, for example, where USAir controls over 80 percent of departures. With this concentration, it is clearly the case that simultaneous strikes at major carriers might create a national emergency. During the Eastern strike in 1989, for example, the NMB used its powers to delay self-help in negotiations at Northwest and American in order to prevent the possibility of three carriers being on strike at the same time.

Further, as noted above, in the absence of strike insurance and regulations protecting routes, carriers are now much more vulnerable to strikes. Given the difficulty of entering the industry, it may not be in the public interest to allow strikes that can threaten the survival of existing carriers. While management in the 1980s often argued against NMB delays in exercising self-help, they may find themselves demanding intervention to prevent self-help in the 1990s.

Indeed, if airline strikes really do create economic emergencies, it will be impossible for the government not to get involved; Congress can pass legislation, even in the absence of Presidential Emergency Boards. And once the possibility exists that the government will settle disputes for the parties, then it is likely that bargaining will be chilled. One alternative which would permit the inevitable intervention of the government where emergencies would result, and would avoid the risk of chilling bargaining, is to make use of final offer arbitration. The belief, for which there is now some reliable empirical evidence from its use in the public sector, is that because neutrals will choose the final offer that is in an objective sense the most "fair," both parties have an incentive to avoid making extreme final offers; the pressure to compromise in order to avoid appearing less fair than

their opponents pushes the parties toward a settlement.

Section 9A of the RLA currently requires that Emergency Boards appointed in conjunction with disputes on publicly owned commuter railroads recommend either the final offer from labor or from management. The fact that the recommendations are not binding defeats some of the incentive to compromise. It would not be difficult, however, to announce in advance of an emergency dispute that failure to agree would lead to the creation of an Emergency Board which would be directed to recommend the final offer from one of the parties, and that draft legislation to end the dispute would be based on such recommendation should the parties fail to reach an agreement themselves. Such actions might significantly reduce the chilling effect and the politics, if settlements eventually need to be imposed.

The most important and fundamental problem with RLA procedures is ultimately a political issue. Union-management relations rarely produce the kind of "win-win", joint-gain solutions that make everyone happy. No one should want to be in the position of attempting to settle such disputes, because there will always be complaints about the outcome. Because the NMB is in the position to influence outcomes, it gets blamed for the outcome, no matter what it is. A Presidential Emergency Board by its very name seems to involve the administration and the President himself in a dispute which will invariably lead to criticism by one or both parties. In the 1988-89 Eastern dispute, for example, the government was blamed by management for not allowing self-help early on, and then blamed by the unions for not ending self-help later on. Another interpretation of Secretary Shultz's decision, therefore, is the recognition that labor disputes are no-win situations into which administrations should avoid getting involved.

Indeed, the most common objection to RLA processes centers on the discretion that the NMB has in administering the Act, and the inevitable sense from one party that the discretion was not exercised wisely. (Some observers contend that these objections are especially concentrated among those new to the industry, especially those with an NLRA background, who are unfamiliar with amount of NMB discretion involved.) Discretion implies that there is a greater potential for sharp changes in practices -- deviations from previous principles or outright mistakes -- which could seriously destabilize labor relations. And this suggests that pains should be taken to keep the Board staffed with real experts in RLA proceedings, and to keep its composition stable over time to help ensure consistency.

The option of moving airlines to the NLRA seems to have only one important potential advantage. The NLRA keeps the government from direct intervention in individual disputes, unless the national health and welfare is involved. Even this benefit is a minor one, however, given that the

NLRA has emergency dispute procedures which can be used to involve the government. And the costs would be overwhelming. Converting an industry with 50 years of labor relations precedents to an entirely new labor law would provide a full employment plan for labor lawyers for decades. Existing NLRA precedents would not create clear guidelines for the idiosyncratic airline (or railroad) experience; it could take a generation before even basic issues such as bargaining unit determination are settled. Anyone who doubts these difficulties need only look at the experience of the NLRA with health care. It was brought under the Act 17 years ago, and clear rules for basic issues like bargaining units are still being contested, even after a Supreme Court decision on bargaining unit definition. And health care was a clean slate compared to airlines, in that there were no prior practices and precedents for management and labor to unlearn.

One general conclusion which can be drawn from the airlines' experience since deregulation is that competitive markets do not necessarily have a uniform influence on collective bargaining. The market's influence is tempered not only by the business response of each individual firm, but also by the existing collective bargaining structure and the various labor market circumstances operating at the time. In this industry the rapid spread of concessionary bargaining seems the result not simply of competitive market pressures, but also of the particular response to those pressures made by a decentralized system of collective bargaining which offers no protection against them. The decentralized collective bargaining structure that worked to the unions' advantage when the market was protected turned on them completely when the market became competitive. The sensitivity of union wages to market forces therefore seems greatly dependent on the bargaining structure.[70] In other words, the bargaining experience across the airline crafts suggests that different types of union organization and labor market circumstances can influence the extent to which competitive pressures from the product market may make themselves felt in labor relations.

In addition to the economic and financial pressures facing airline unions, it is important to note how many of the new challenges to unions since deregulation have been the result of new corporate strategies. In labor's view, virtually all of those strategies can be traced to Texas Air: alter ego operations, Chapter 11 maneuvers, and, in particular, mergers. It would be a mistake, therefore, to focus exclusively on deregulation and the resulting market pressures in any attempt to understand recent changes in airline labor relations.

Conclusions:

Labor and the Current Financial Crisis:

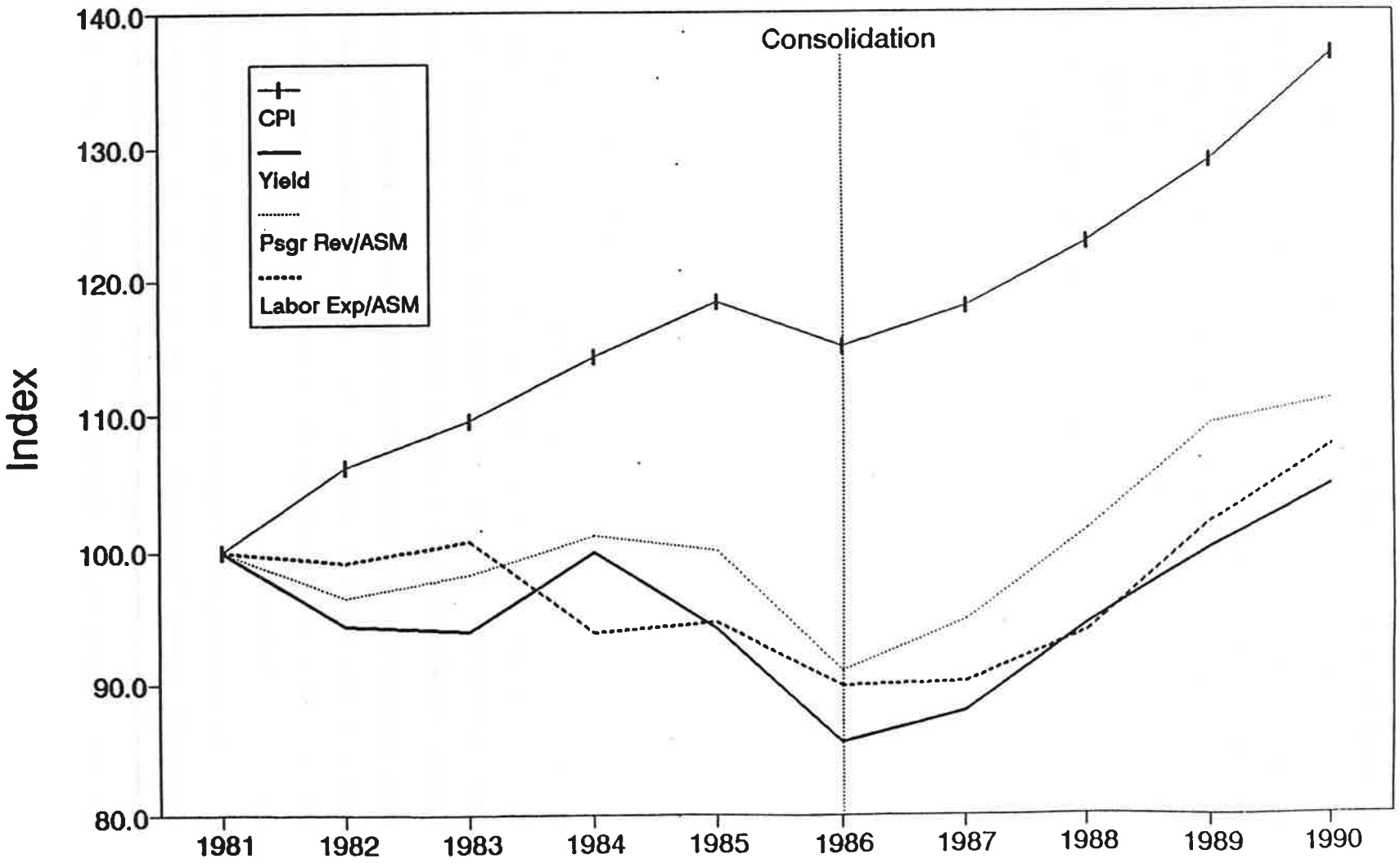
One reason that there has been concern, especially from management, about the possibility that labor costs could rise in the future may be because the carriers have grown accustomed to success in scaling back and then in holding down those costs. The data above demonstrate clearly that labor costs have been restrained; the relative declines in labor and fuel costs helped keep many carriers going in the 1980s, especially those with older fleets which would have otherwise been uncompetitive. Wages for some jobs at a struggling carrier like Pan Am were as much as 100 percent below those at a healthy carrier like Delta, and this is certainly one reason that these struggling carriers could compete at all. Indeed, labor cost concessions have played a key role at one time or another in preventing the collapse of every major carrier except the big four (American, Delta, Northwest, and United).

Ultimately, however, it was the flying public rather than the carriers as a whole who benefitted from the low labor costs. This is reflected in the fact that industry yields rose very little during this period (13.05 cents per RPM in 1989 versus 12.8 cents in 1981) and declined in real terms (see Table 17). The lower fares created a market for discretionary passengers who accounted for a growing share of seats, but whose travel may also be more sensitive to changes in the economy.

The industry's financial crisis in the early 1990s, therefore, stems in part from problems postponed during the 1980s. It began in 1989 with Eastern's desperate effort to rebuild itself through fare cuts that other carriers matched. The recession in 1990/91 hit traffic especially hard, in part because discretionary travellers made up a larger share of the market than during regulation. Even as Eastern was folding its tent and taking its fare cuts with it, the remaining carriers found themselves needing to make new fare cuts to stimulate traffic in the face of the recession-based decline in business. When the fuel price increases hit, business was too soft to pass those costs on to ticket prices. Carriers with older, less fuel-efficient fleets found their costs going up especially rapidly. Other costs were rising at the same time. For example, maintenance costs rose 84 percent between 1981 and 1989 as fleets began to age, and commissions for travel agents doubled as a percentage of expenses over the decade.

At the same time, some components of labor costs began to rise, in part because of changes in carrier business plans. For example, mergers at carriers like USAir/Piedmont and Northwest/Republic raised the wages of the acquired carrier's employees to the acquiring carrier's level; the adjustment processes also led to coordination problems and inefficiencies. As noted above,

Domestic Yield, Unit Pass. Rev. & Unit Labor Exp. Versus Consumer Price Index (CPI) (1981 - 1990)



the decline in hiring along with the scaling back of 'B' tiers meant that fewer employees were on the low end of pay scales, and this raised average labor costs. Layoffs at carriers like USAir also raised average labor costs by eliminating the least senior/lowest cost employees. At the same time, flight crew productivity had begun to decline because of system capacity constraints, which reduced flight time as a percentage of block time. Sharp changes in route systems by carriers like TWA and the subsequent rearranging of fleets and employees also hurt productivity.

Many things were going wrong for the carriers, and it was becoming more difficult to get cost-cutting help from labor. The combination of higher profits and continuing concessions in the mid-1980s had built up a large backlog of union resentment. The carriers had developed little good will with labor. Many in the labor movement felt that all the labor cost concessions had simply gone into fare cuts which ultimately did the carriers little good, an argument that has some apparent validity. The prospects for convincing unions to accept voluntary concessions of the kind that had sustained many carriers during the early 1980s -- the first wave of concessions -- were very poor. And it was also becoming more difficult to force concessions from labor because of the increasing difficulty of breaking strikes. For the carriers, labor costs had gone from a bright spot that helped offset dark clouds in other areas to yet another dark cloud.

The Implications of Poor Union-Management Relationships:

It seems fair to say that airline management during the 1980s devoted most of its time and energy to obtaining union concessions, as the means for increasing labor productivity/reducing labor costs. As the experience of the 1980s illustrates, managements' tactics became more and more aggressive over time. Efforts to develop relationships not based on confrontation were few and far between. Labor-management cooperative arrangements flourished very briefly and only at the struggling carriers like Eastern and Western, where the need to survive temporarily overcame the lure of confrontation. Even though there is convincing evidence that these programs led to some significant improvements in costs and operations,[71] they were never attempted at the stronger carriers, and have since completely vanished from the industry. This development is so unusual that it bears restating: At a time when a good proportion of the rest of the economy has moved to embrace or at least to consider cooperative programs between unions and management, and quality of worklife and other participatory programs on the shop floor, the air transportation industry has moved in exactly the opposite direction. While management scholars, industry associations, the business press, and even policy makers argue for the need to develop high performance work systems which virtually

eliminate the differences between management and workers, the airline industry has moved toward greater and more dangerous conflict -- and offers little more innovative in employee relations than suggestion programs.

Now that bargaining power has shifted somewhat toward the unions, it would be very surprising, given their collective experience during most of the 1980s, if unions were not inclined to pursue a more forceful approach and to regain the ground they believe was lost in the 1980s. The carriers certainly will be concerned about this, because of the increased likelihood that strikes could bring down weaker carriers and seriously cripple strong ones.

Aside from strikes, rising union wage demands associated with pattern bargaining may have a negative effect on the carriers, and the size of that effect depends in part on what is happening to the price elasticity of fares: Who will pay for cost increases, consumers or the carriers?. A recent study of airline market share and pricing by the Government Accounting Office (GAO 1991) suggests that fares in a given market tend to be related to the cost structure of the lowest-cost carrier operating in that market; the lower these costs are, the lower average fares in that market are. If fares are related to costs, as they are for at least some carriers like Southwest and in the long run for all carriers, then there is pressure on all fares in that market to come down to the level of the cheapest (and presumably lowest-cost) competitor. The results also suggest that market share is greater where a carrier's costs are lower than the average of competitors in that market; presumably the relationship is among costs, fares, and market share.

This argument suggests that the higher-cost carriers might actually like pattern bargaining. Consider, for example, United's statements about its recent pilot settlement, that what mattered most was the fact that the contracts in this bargaining round eliminated the cost advantages that its major competitors previously had enjoyed. But this is not to suggest that the industry will be able to return to the wage setting practices of regulation, where increases were passed on to consumers in the form of higher prices. The GAO study indicates, for example, that cost increases of 15 percent at the lowest cost carrier were associated with only three percent higher fares. This implies that the majority of higher costs, including costs from labor, are not passed on to the consumers but must be absorbed by the carriers. The ability of pattern bargaining to standardize labor costs across the carriers will not mean that the airlines will be able to pass those costs on to consumers. Prices are too elastic with respect to costs. Efforts to reduce entry barriers which otherwise allow carriers to sustain higher prices in some markets should make it even more difficult to pass cost increases on to consumers.

The relationship between the future financial performance of the industry and overall employment relations now becomes even more intertwined: If labor pushes for higher wages and the carriers must fund wage increases, where will they get the money? Productivity growth is ultimately the means for funding increases in real wages. The opportunity for a strategy of seeking union concessions in contractual wages and work rules appears to have passed. Unions are now able to resist concessions, because in some areas (notably entry-level pay) wages have been cut to the market level, and because concessions rarely provided any carrier with a competitive advantage for very long, as concessions quickly spread to competitors. Further, as noted earlier, the kind of technological improvements which drive labor productivity in other industries are simply more limited in a service industry like airlines.

Future Competition:

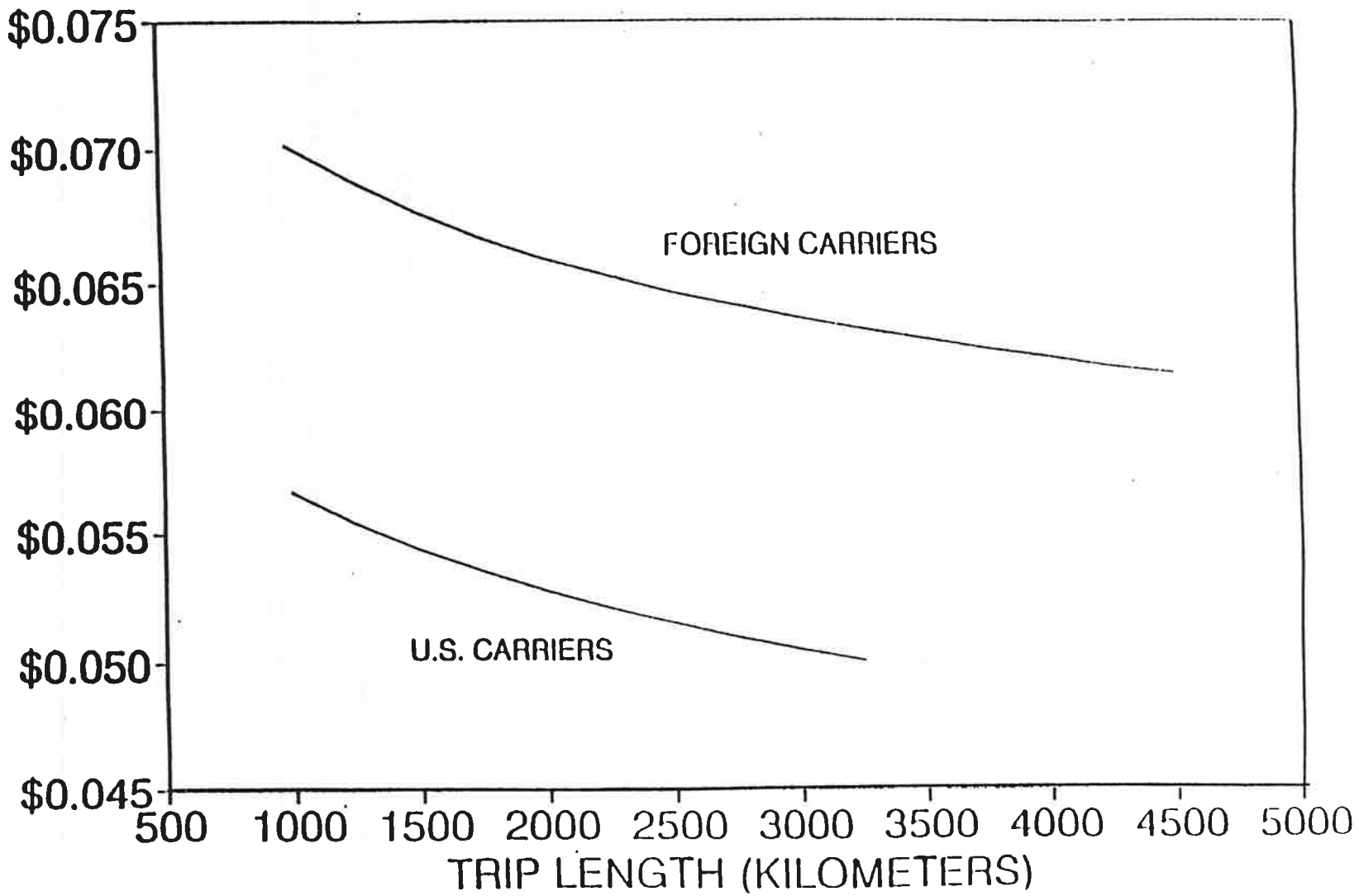
An additional concern for the future is the growth of international competition. The strongest U.S. carriers are increasingly investing in overseas routes and working to develop international network systems. While it is difficult to compare the performance of U.S. with foreign carriers (because of different route systems, ownership patterns, etc.), Table 18 suggests that U.S. carriers do at present have significantly lower costs than their foreign competitors. This cost advantage should become important if the foreign markets deregulate, making it possible for U.S. carriers to cut international fares and thereby gain market share.

Until costs and fares become more important, however, the competitiveness of U.S. carriers in these markets will remain at risk largely because of the perception that American carriers have lower service quality than some of their foreign competitors. Given regulated fares, quality drives consumer choice. A recent survey of 230 airline executives by Towers Perrin (1991) found only two U.S. carriers in the top ten ranking of carriers according to customer service, a remarkable finding given that a plurality of the respondents were from U.S. carriers. A 1991 survey of business travelers by Euromoney found only one U.S. carrier in the top ten in customer service ranking. Perhaps most significant, a 1991 Zagat survey of *U.S.* customers found not a single U.S. carrier in that top ten service ranking.

Ninety percent of the airline executives in the Towers Perrin survey responded that establishing their airline as a leader in service quality was a top priority. When carriers match each others' fares, service becomes the only factor differentiating them -- obviously then the main source of competitive advantage. Many of the important aspects of service identified by the respondents were directly

Table 18

OPERATING COST PER ASK ADJUSTED FOR TRIP LENGTH -- 1989



SH&E

traceable to employees, such as courteous, flexible personnel at all points of customer contact. Every other component of service is at least indirectly traceable to the performance of employees: accurate and efficient services, clean facilities, etc. British Airways is one of the carriers consistently at the top of quality of service surveys, an interesting result because it had been a carrier with a poor service reputation which turned itself around largely by focusing on the performance of its employees.

The respondents in the Towers Perrin survey gave their own carriers the worst ratings in indicating how well they managed their employees, yet they also indicated that the required standards in this area were substantially above current performance.

The aggressive tactics of many U.S. airlines toward their unionized workforces in the 1980s may have long-term, negative effects on the performance of individual employees. Cappelli and Sherer (1988) found, for example, that job satisfaction was significantly and negatively affected where wages were below those prevailing at other carriers -- that is, where concessions were greatest. Industry sources suggest that virtually all of the flight attendants hired as permanent replacements during the TWA flight attendant strike in 1986 have left the carrier, creating expensive turnover; harassment from attendants who honored the strike appears to have played a role.[72] Sources also suggest that virtually none of the permanent replacements hired by Eastern during its 1989 strike -- and now presumably looking for work -- have been hired by any other carriers. The risk of conflict between these workers and union members is at least part of the explanation. While many factors affect service quality, it should be no surprise that rankings of the quality of customer service have correlated highly with the quality of employee relations: strife-torn carriers like Eastern, Continental, and TWA continually at the bottom and American and Delta toward the top.

The Way Forward:

U.S. carriers need to improve labor productivity and service quality. The overwhelming experience from other industries is that both goals can be met only by focusing on the management of employees. To pursue these goals, management must somehow convince labor that both sides will lose from conflict, that using the strike/permanent replacement threat is ultimately destructive, and that the two sides have important, common goals which cannot be achieved through economic warfare. (The example of Eastern should be instructive for both sides in this regard.) This does not require that the parties abandon their different goals, but simply that they manage their relations in the more constructive manner that unions and managements in other industries have learned to do.

In the context of a less confrontational relationship, it is easier to address the workplace changes which can improve productivity and service quality. It is widely acknowledged that the greatest competitive advantage that American achieved from its landmark 1983 settlements was not the contractual changes, which were easily copied by competitors, but from new ways of organizing work which were facilitated by employment security agreements.

Specific techniques for achieving productivity and quality of service improvements are often situation-specific and are beyond the scope of this analysis. Yet it is hard not to notice the relative absence of employee involvement and participative programs, as compared to the rest of the economy where they are now widely viewed as a positive in developing employee commitment, in reductions in supervisory costs, and in enhancing overall service quality. Cappelli and Sherer (1989) found that participation in workplace issues actually served as a substitute for higher wages for airline employees. That is, employees who felt a sense of participation in the workplace actually exhibited as great job satisfaction, in spite of lower wages, as did better paid employees who did not have that sense of participation. While air transportation has some unique problems in implementing traditional quality of worklife programs (mainly difficulties in getting cabin and flight crews physically together), it is extraordinary how little effort -- by either unions or management -- has been made to try them.

References

Alaska Airlines v. Brock; US SupCt, No. 85-920, March 25, 1987.

ATA. 1985. *Air Transport 1985: The Annual Report of the Scheduled Airline Industry*. Washington, D.C.: ATA.

Aviation Daily. 1985. Status of Airline Labor Contracts. October 10, p. 220.

Bailey, Elizabeth, David R. Graham, and David P. Kaplan. 1985. *Airline Deregulation*. Cambridge, Mass.: MIT Press.

Bailey, Elizabeth, and John C. Panzar. 1981. The Contestability of Airline Markets During the Transition to Deregulation. *Law and Contemporary Problems* 44 (Winter): 125–47.

Baitsell, John M. 1966. *Airline Industrial Relations: Pilots and Flight Engineers*. Boston: Graduate School of Business Administration, Harvard University.

Baumol, William J. 1982. Contestable Markets: An Uprising in the Theory of Industrial Structure. *American Economic Review* 72 (March): 1-15.

BNA (Bureau of National Affairs). 1981. PATCO Strike Hits Pilots. *Daily Labor Report* 160 (September 11): A-6.

_____. 1984. Machinists' Concessions at Braniff Held Binding. *Daily Labor Report* 176 (September 30): A-9.

_____. 1986. Displaced Workers Hiring Priority Rights, Regulations Issued by DOL. *Daily Labor Report* 251 (December 31): A-7.

_____. 1989. Pilots' Union Sues Government for Failing to Implement Benefit Rules Under Deregulation. *Daily Labor Report* 206 (October 26): A-6.

_____. 1991. Union Leaders Urge Congressional Panel to Take Steps to Protect Airline Workers. *Daily Labor Report* 44 (March 6): A-8.

Business Week. 1981. United Takes on the Upstarts. October 4, p. 94.

_____. 1982. Six Airlines: Gaining a Bit of Altitude. November 15, p. 68.

Bernstein, Aaron. 1990. *Grounded: Frank Lorenzo and the Destruction of Eastern Airlines*. New York: Simon and Schuster.

Cappelli, Peter. 1983. Concession Bargaining and the National Economy. In *Proceedings of the Thirty-Fifth Annual Meeting, December 28-30, 1982, New York,* ed. Barbara Dennis, 362-71. Madison, Wis.: Industrial Relations Research Association.

_____. 1984. Union Gains under Concession Bargaining. In *Proceedings of the Thirty-Sixth Annual Meeting, December 28-30, 1983, San Francisco,* ed. Barbara Dennis, 297-305. Madison, Wis.: Industrial Relations Research Association.

_____. 1985a. Airline Industrial Relations in Transition. In *Proceedings of the Thirty-Seventh Annual Meeting, December 28-30, 1984, Dallas,* ed. Barbara Dennis, 437-46. Madison, Wis.: Industrial Relations Research Association.

_____. 1985b. Competitive Pressures and Labor Relations in the Airline Industry. *Industrial Relations* 24 (Fall): 316-38.

_____. 1985c. Plant-Level Concession Bargaining. *Industrial and Labor Relations Review* 39 (October): 90-104.

_____. 1987. Airlines. In David B. Lipsky and Clifford B. Dunn (eds.). *Collective Bargaining in American Industry*. Lexington, MA: Lexington Books, pp.135-186.

_____. 1989. Still Working on the Railroad: An Exception to the Transformation of Industrial Relations in the U.S. Report to the U.S. Department of Labor's Bureau of Labor Management Relations and Cooperative Programs. Washington, D.C.: U.S. Department of Labor.

_____ and Peter D. Sherer. 1990. Assessing Worker Attitudes Under Two-tier Wage Plans. *Industrial and Labor Relations Review* 43 (January): 225-244.

_____ and Keith Chauvin. 1991. An Interplant Test of the Efficiency Wage Hypothesis. Quarterly Journal of Economics. 105 (August): 769-787.

Card, David. 1986. The Impact of Deregulation on the Employment and Wages of Airline Mechanics. *Industrial and Labor Relations Review.* 39 (July): 527-538.

_____. 1989. *Deregulation and Labor Earnings in the Airline Industry.* Princeton: Industrial Relations Section, Princeton University.

Caves, Richard E. 1962. *Air Transport and Its Regulators.* Cambridge, Mass.: Harvard University Press.

Clark, John O'Brien, Jr. 1985. Testimony. In *Airline Mergers and Acquisitions: The Question of Labor Protection,* Hearings of the Subcommittee on Aviation, U.S. Senate, 99th Cong. 1st sess. Washington, D.C.: GPO, p. 52.

Cohen, Isaac. 1990. Political Climate and Two Airline Strikes: Century Air in 1932 and Continental

Airlines in 1983-85. *Industrial and Labor Relations Review* 43 (January): 308-323.

Coleman, Jonathan M. 1990. Settling Airline Labor-Management Disputes: Has the Railway Labor Act Become Obsolete? *The George Washington Law Review*. 58 (June): 1073-1099.

Commons, John R. 1909. American Shoemakers, 1648-1895: A Sketch of Industrial Evolution. *Quarterly Journal of Economics* 24 (November): 39-84.

Cotter, Francis J. 1967. Civil Aeronautics Board and Labor Jurisdiction. *Journal of Air Law and Commerce* 33 (Spring): 335-50.

Crandall, Robert. The Six Major Issues. *Air Transport World*. 21 (February) 2.

Cullen, Donald E. 1977. Strike Experience under the Railway Labor Act. In *The Railway Labor Act at Fifty: Collective Bargaining in the Railroad and Airline Industries*, ed. Charles M. Rehmus, 187-208. Washington, D.C.: National Mediation Board.

Curtin, William J. "The Representation Rights of Employees and Carriers: A Neglected Area Under the Railway Labor Act," *Journal of Air Law and Commerce*, Vol. 35 No. 3 Summer 1969, p.471.

_____, Harry A. Rissetto, and Thomas E. Reinert (eds.). *The Railway Labor Act and the National Labor Relations Act: A Comparative Appraisal for the Airline Industry*. Washington, D.C.: Morgan, Lewis, and Bockius, March 1991.

Davies, R.E.G. 1987. *Rebels and Reformers of the Airways*. Washington, D.C.: Smithsonian Institution Press.

Duffy, Capt. Henry A. 1983. Testimony. In *Review of Airline Deregulation and the Sunset of the CAB*, Hearings of the Subcommittee on Aviation, U.S. House of Representatives, 98th Cong., 2d sess., p. 528. Washington, D.C.: GPO, p. 528.

_____. 1985. Testimony. In *Airline Mergers and Acquisitions: The Question of Labor Protection*, Hearings of the Subcommittee on Aviation, U.S. Senate, 99th Cong. 1st sess., pp. 22-32. Washington, D.C.: GPO.

Dunlop, John T. 1985. Trends and Issues in Labor Relations in the Transport Sector. *Transport Research News* (May-June): 1-8.

Future Airline Professionals Association (FAPA). 1990. Overview of the Pilot Job Market. Atlanta, GA: FAPA.

_____. 1991. 1991-92 Pilot Salary Survey. Atlanta, GA: FAPA.

_____. 1991. 1990-91 Maintenance Salary Survey. Atlanta, GA: FAPA.

_____. 1991. 1990-91 Flight Attendant Directory of Employers and Salary Survey. Atlanta, GA:

FAPA.

GAO (General Accounting Office). 1985. *Increased Competition Is Making Airlines More Efficient and Responsive to Consumers.* Washington, D.C.: GPO.

_____. 1986. *Airline Competition: Impact of Computerized Reservation Systems.* Washington, D.C.: GPO.

_____. 1991. *Airline Competition: Effects of Airline Market Concentration and Barriers to Entry on Airfares.* Washington, D.C.: GPO.

Gelman Research Associates, Inc. 1991. *An Economic and Financial Analysis of Airlines' Ability to Withstand Strikes by Labor.* Jenkintown, PA:

Graham, David R., Daniel P. Kaplan, and David S. Sibley. 1983. Efficiency and Competition in the Airline Industry. *Bell Journal of Economics 14* (Spring): 118-38.

Hendricks, Wallace E., Peter Feuille, and Carol Szerszen. 1980. Regulation, Deregulation, and Collective Bargaining in the Airlines. *Industrial and Labor Relations Review* 34 (October): 67-81.

_____., and Lawrence M. Kahn. 1982. The Determinants of Bargaining Structure in U.S. Manufacturing Industries. *Industrial and Labor Relations Review* 35 (January): 181-95.

_____. 1990. Deregulation and Labor Earnings. Urbana-Champaign, IL: Bureau of Economic and Business Research, University of Illinois.

Hopkins, George E. 1971. *The Airline Pilots: A Study in Elite Unionization.* Cambridge, Mass: Harvard University Press.

_____. 1982. *Flying the Line: The First Half Century of the Air Line Pilots Association.* Washington, D.C.: ALPA.

Hochschild, Arlie Russell. 1983. *The Managed Heart: Commercialization of Human Feeling.* Berkeley: University of California Press.

Johnson, Nancy Brown, Rakesh B. Sambharya, and Philip Bobko. 1989. Deregulation, Business Strategy, and Wages in the Airline Industry. *Industrial Relations.* 28 (Fall): 419-430.

Johnson, Hugh. 1935. *The Blue Eagle from Egg to Earth.* New York: Garden City Press.

Kahn, Mark L. 1953. Wage Determination for Airline Pilots. *Industrial and Labor Relations Review* 6 (April): 317-36.

_____. 1971. Collective Bargaining on the Flight Deck. In *Collective Bargaining and Technological Change in American Transportation,* ed. Harold M. Levinson,

Charles M. Rehmus, Joseph P. Goldberg, and Mark L. Kahn, 423-605. Evanston, IL.: Transportation Center, Northwestern University.

Krueger, Alan and Lawrence H. Summers. 1987. Reflections on the Inter-Industry Wage Structure. In Kevin Lang and Jonathan Leonard (eds.). *Unemployment and the Structure of Labor Markets*. Oxford: Blackwell.

Kyle, Reuben, III, and Lawrence T. Phillips. 1985. Airline Deregulation: Did Economists Promise Too Much or Too Little? *Logistics and Transportation Review* 21 (March): 3-25.

Labor Research Review. 1984. Up Against the Gloom and Doom. Vol. 4 (Winter): special issue.

Mahoney, William G. 1983. Testimony. In *Review of Airline Deregulation and the Sunset of the CAB,* Hearings of the Subcommittee on Aviation, U.S. House of Representatives, 98th Cong., 2d sess., p. 528. Washington, D.C.: GPO.

Martin, James E. and Melanie M. Peterson. 1986. Two-tier Structures and Attitude Differences. Proceedings of the 37th Annual Meeting of the Industrial Relations Research Association. Madison, WI: IRRA, pp.72-79.

May, Daniel F. 1983. Testimony. In *Review of Airline Deregulation and the Sunset of the CAB,* Hearings of the Subcommittee on Aviation, U.S. House of Representatives, 98th Cong., 2d sess., p. 528. Washington, D.C.: GPO.

McKinnon, Dan. 1983. Testimony. In *Review of Airline Deregulation and the Sunset of the CAB,* Hearings of the Subcommittee on Aviation, U.S. House of Representatives, 98th Cong., 2d sess., p. 528. Washington, D.C.: GPO.

Molloy, 1985. *The U.S. Commuter Airline Industry: Policy of Alternatives.* Lexington, Mass.: Lexington Books. Sunset of the CAB, Hearings of the Subcommittee on Aviation, U.S. House of Representatives, 98th Cong. 2d sess. p. 27. Washington, D.C.: GPO.

National Mediation Board. 1983. *Determinations of the National Mediation Board.* Washington, D.C.: GPO.

Nance, John J. 1985. *Blind Trust.* New York: William Morrow.

Nay, Leslie. 1991. The Determinants of Concession Bargaining in the Airline Industry. *Industrial and Labor Relations Review.* 44 (January): 307-323.

New York Times. 1986. Pilot Hirings Surge at Airlines. January 1, p. 1.

Nielsen, Georgia Panter. 1982. *From Sky Girl to Flight Attendant: Women and the Making of a Union.* Ithaca, N.Y.: ILR Press, Cornell University.

Norington, Brad. 1990. Sky Pirates: The Pilots' Strike that Grounded Australia. Crows Nest, NSW: Australian Broadcasting Corporation.

Northrup, Herbert R. 1947. Collective Bargaining by Airline Pilots. *Quarterly Journal of Economics* 21 (August): 533-76.

_____. 1971. The Railway Labor Act: A Critical Reappraisal. *Industrial and Labor Relations Review* 25 (October): 3-31.

_____. 1977. Airline Strike Insurance: A Study in Escalation; Comment. *Industrial and Labor Relations Review* 30 (April): 364-72.

_____. 1984. The Rise and Demise of PATCO. *Industrial and Labor Relations Review* 37 (January): 167-85.

_____. 1987. Airline Protection Provisions: An Economic Analysis. *Journal of Air Law and Commerce* 53 (No. 2): 401-465.

_____. 1990. The Railway Labor Act - Time for Repeal? *Harvard Journal of Law and Public 13 Policy.* 13 (Spring): 441-515.

Panzar, John C. 1980. Regulation, Deregulation, and Economic Efficiency: The Case of the CAB. *American Economic Review* 70 (May): 311-15.

Parenti, Harold. 1983. Testimony. In *Review of Airline Deregulation and the Sunset of the CAB,* Hearings of the Subcommittee on Aviation, U.S. House of Representatives, 98th Cong. 2d sess., p. 61. Washington, D.C.: GPO.

Philadelphia Inquirer. 1985a. UA and Pilots Are Stalled in Efforts to Avoid Strikes. May 17, p. 17-A.

_____. 1985b. UA, Pilots to Meet with Mediator. May 20, p. 7-A.

Rehmus, Charles M. 1985. *The National Mediation Board at Fifty: Its Impact on Railroad and Airline Labor Disputes.* Washington, D.C.: National Mediation Board.

_____. ed. 1976. *The Railway Labor Act at Fifty: Collective Bargaining in the Railroad and Airline Industries.* Washington, D.C.: National Mediation Board.

_____. 1984. *The National Mediation Board at Fifty.* Washington, D.C.: National Mediation Board.

_____. 1990. Emergency Strikes Revisited. *Industrial and Labor Relations Review.* 43 (October): 175-190.

Risher, Howard W. 1976. The Crisis in Railroad Collective Bargaining: A Study of the Institutional Impediments to Change in the Industrial Relations System. Philadelphia, PA: The Wharton School of the University of Pennsylvania unpublished PH.D thesis.

Ross, Arthur M. 1948. *Trade Union Wage Policy.* Berkeley: University of California Press.

Rosenfield, S.B. 1981. Labor Protection Provisions in Airline Mergers.

Schlesinger, Leonard. 1983. *People Express,* case study. Boston: Harvard Business School.

_____. 1985. *People Express: Update,* case study. Boston: Harvard Business School.

Smaby, Beverly, Christopher Meek, Catherine Barnes, Joseph Blasi, and Preeta Bansal. Labor Management Cooperation at Eastern Airlines: Final Report to the U.S. Department of Labor's Bureau of Labor-Management Relations and Cooperative Programs. Washington, D.C.: U.S. Department of Labor.

Spencer, Francis. 1941. *Airmail Payment and the Government.* Washington, D.C.: Brookings Institution.

Stone, Katherine Van Wezel. 1990. Labor Relations on the Airlines: The Railway Labor Act in the Era of Deregulation. *Stanford Law Review.* 42 (July): 1485-1547.

Taneja, Nawal K. 1976. *The Commercial Airline Industry.* Lexington, Mass: Lexington Books.

Towers Perrin. 1991. *Competing in a New Market: Is Airline Management Prepared?* San Francisco, CA.

"Union Leaders Ratify New Pact for Pilots at American Airlines." *Daily Labor Report* 40, February 28, 1991, A-9.

Unterberger, S. Herbert, and Edward C. Koziara. 1975. Airline Strike Insurance: A Study in Escalation. *Industrial and Labor Relations Review* 29 (October): 26-45.

_____. 1980. The Demise of Airline Strike Insurance. *Industrial and Labor Relations Review* 34 (October): 82-90.

U.S. Congress, Hearings Before the Committee on Interstate and Foreign Commerce, House of Representatives on HR 11867, May 12 1932 (Washington, D.C. GPO).

_____, Hearings Before the a Subcommittee of the Committee on Interstate and Foreign Commerce, U.S. Senate on S.2496, May 20th and June 4th 1935 (Washington, D.C. GPO).

_____, Hearings Before a Subcommittee of the Committee on Interstate Commerce, U.S. Senate on S.2 and S.1760, March 8th and 11th 1937 (Washington, D.C. GPO).

_____, Hearings Before the Committee on Interstate and Foreign Commerce, U.S. House of Representatives on HR.5234 and HR.4652, March and April 1938 (Washington, D.C. GPO).

U.S. Department of Labor, Bureau of Labor Statistics. 1985. *Handbook of Labor Statistics*. Washington, D.C.: GPO.

U.S. Department of Transportation. 1990. Secretary's Task Force on Competition in the U.S. Domestic Airline Industry. Washington, D.C.: Office of the Secretary.

U.S. Senate. 1975. *Oversight of CAB*, Hearings of Committee on Judiciary Oversight

Wall Street Journal. 1985. Pilots' Bitter Strike Against Continental Changed Their Union. March 17, p. 1.

Walsh, David J. 1988. Accounting for the Proliferation of Two-Tier Wage Settlements in the U.S. Airline Industry. *Industrial and Labor Relations Review* 42: (October) 50-62.

Warner, Edward. 1983. *The Early History of Air Transportation.* Northfield, Vt.: Norwich University.

Weinberg, Martha. 1985. *Continental Airlines*, case study. Boston: Harvard Business School.

Weirner, Eric. 1989. *New York Times*. The Airlines Industry Is a High Flyer. October 1, pp.21-22.

Wever, Kirsten R. 1989. Toward a Structural Account of Union Participation in Management: The Case of Western Airlines. *Industrial and Labor Relations Review*. 42 (July): 600-609.

ENDNOTES

1. Much of the material throughout this report that reviews past practices is drawn from Cappelli (1987).

2. For a history of the fledgling air transport industry, see Spencer (1941) Warner (1938), and Kahn (1971).

3. As Panzar (1980) argued, routes offered carriers joint-product monopolies (mail and passengers), and some carriers were submitting ridiculously low mail bids to secure the route and then exploit the monopoly it gave on passenger traffic. Eastern Airlines, for example, bid zero on some routes for that reason.

4. For a firsthand account of New Deal Arguments and the rule-setting that followed under the National Industrial Recovery Act of 1933, see Johnson (1935).

5. Pilot associations did exist at the time, and there were occasional job actions mainly over the issue of flying in bad weather. For historical accounts of pilot labor relations, see Northrup (1947), Kahn (1953), Hopkins (1971; 1982), Baitsells (1966), and Kahn (1971).

6. See Kahn (1953) and Caves (1962) for an account of the early system of airline regulations.

7. For a thorough analysis of the act, see Rehmus (1977); see Rehmus (1985) for a short history of the act and the NMB.

8. As Northrup (1971) noted, the occupational basis for bargaining units does not always fit well with the industry's occupational structure. Ground crews, for example, comprise a wide range of jobs and are linked by no common craft or skills, and yet they have been lumped together in the same bargaining units under RLA. Moreover, craft-based unions in the industry are particularly threatened by technological change, as the elimination of some jobs as the result of an innovation often meant the elimination of entire unions (see Kahn 1971 for examples).

9. The Domestic Passenger Fare Investigation by the CAB in 1973 created a formula that based fares on average costs and distance. See Taneja (1976) on the development of CAB fare regulations.

10. During the two decades before deregulation the rate of return on investment averaged around 2 to 3 percent, roughly half of what it was in manufacturing. As a result of this stability, it was easy for carriers to secure debt financing; the high level of debt many had established would create problems in the 1980s when interest rates climbed.

11. Airline mergers were easier to arrange in those years because even debt-ridden carriers "owned" their routes, which were desirable assets for other carriers.

12. Among all of the LPPs those that became known as the Allegheny-Mohawk provisions (resulting from that merger) are generally viewed as providing the most complete protection for employees and the greatest burden for carriers seeking to merge. See Cotter (1967) for an analysis of the LPPs.

13. The figure for flight attendants, for example, is about 4 percent (calculated from CAB Form 41 data).

14. The CAB subsidy formula provided financial support to hard-pressed carriers even when the cause of the trouble was a strike. The CAB tried to prevent paying subsidies for strike losses, but the courts held for the carriers in 1949 during the American Overseas Airline strike (Kahn 1971).

15. For example, the decision to eliminate flight engineers beginning in 1961 and the decision to allow management greater latitude to increase pilot hours in 1965 also followed this pattern. See Kahn (1971) for details.

16. The committee later evolved into the Airline Industrial Relations Conference (AIRCon), an industry clearinghouse for labor information.

17. For a case-by-case rundown of these CAB decisions, see Mahoney (1983).

18. See Duffy (1985) for a description of these cases.

19. The main exception to these generalizations was criticism from small carriers and those wishing to start airlines who were excluded from the trunk markets and wanted in. See U.S. Senate (1975) for the legislative debate that preceded deregulation.

20. For example, such plans would require carriers to arbitrate any outstanding issues at the request of the unions. See Unterberger and Koziara (1980) for details. The MAP was already showing signs of trouble as both Pan Am (in 1974) and Eastern (1975) had withdrawn as a quid pro quo for union concessions.

21. American Airlines, for example, pulled 45 planes out of its northeast regional markets--the equivalent of a good-sized airline. American did so at least partly because of equipment mismatches: Because fares had been fixed, the trunk carriers had competed during the regulated years by attracting passengers with their biggest and most comfortable planes--not necessarily those best suited to the market in question. Once subsidies ended and fares could fall, it no longer was cost-effective to fly those planes, typically jets, in the smaller markets.

22. Industry calculations suggest, for example, that the ubiquitous $99 transcontinental fare during this period could make money only if the planes flew at 150 percent of capacity. Cutting prices to fill empty seats draws passengers away from competitors, forces them in turn to cut fares, and in this manner has been the start of every major fare war in the industry. There have always been route-specific fare wars when new competitors enter markets, but the first systemwide fare war was that in 1979, when United cut fares to fill empty seats after its 59-day mechanic's strike. Eastern started the second system-wide war on transcontinental routes in 1981 when the company sought summer markets for the L10-11s it flew for winter traffic to Florida. TWA, American, and United (the transcontinental carriers) started the next war, this time in the Florida routes, when they sought winter markets for their planes used for transcontinental summer vacationers. Finally, American initiated the 1985 fare war in an effort to fill empty seats during the slack periods between the winter holidays.

23. The 1981 Professional Air Traffic Controllers Organization (PATCO) strike and the subsequent dismissal of the strikers probably prevented even worse bloodletting in the industry by artificially

restricting capacity for two years until the government could train and hire new controllers. During that time the CAB imposed a cap on the volume of airline operations, deterring some amount of new entry and curbing the schedules of established carriers. See Northrup (1984) for an account of the PATCO strike and BNA (1981) for an assessment of the impact on individual carriers.

24. For example, hard times at Eastern in 1975 convinced the union to accept a variable earnings plan according to which pay would decline with a decline in net earnings below a specified figure. In 1979 United had secured a reduction from three to two-member crews on its Boeing-737s in return for a no-layoff guarantee for pilots during the two-year agreement. (With the decline in business United paid an estimated $20 million in salary to pilots it would otherwise have laid off over those two years; *Business Week* 1981).

25. All information on airline contracts cited here and elsewhere comes from AIRCon files that summarize contract changes. Concessionary bargaining may best be thought of as a process (Cappelli 1983). The analysis here focuses on concessionary outcomes, however, which are defined as a cut in pay or benefits or a management work rule gain without an offsetting gain to the union.

26. The six healthiest airlines were American, Delta, Frontier, Northwest, TWA, and United.

27. Few firms in any industries tried to break strikes in this period -- perhaps because it was seen as violating the norms of collective bargaining, perhaps because public reaction might have been negative. The airlines at that time also expressed concerns about safe operations during strikes that were centered on worries about sabotage and operating with potentially inexperienced help.

28. Formal cooperative arrangements between management and labor that became popular in other industries were relatively rare in airlines. Only Eastern and Western pursued formal arrangements for cooperative problem solving of basic conflicts, and relationships at Eastern changed at least yearly. Most carriers achieved at best only temporary rapprochements with their unions during deregulation.

29. Midway was the first of the major new carriers in 1979, followed by New York Air and then Muse and People Express in 1980. World and Capital Airlines were formerly charter carriers; and PSA, Southwest, and Air Florida were intrastate carriers; Piedmont and USAir were local service carriers.

30. This calculation excludes Delta from the nonunion group, for the reasons noted above, and also excludes commuter markets.

31. Southwest, the original nonunion, low-cost carrier, is now unionized and purchased Muse in 1985. Midway also unionized.

32. In some cases, the fare cuts have generated so much additional demand that the established carriers gain some business (albeit at a lower fare). Some markets entered by People Express, for example, showed traffic increases of 200 percent or more (McKinnon 1983).

33. The new, nonunion carriers' low-cost structures were the result of lower labor costs and more uniform fleets--generally B-737s, which are fuel efficient, operate with two-person crews, and were often purchased at a discount from distressed trunk carriers. These carriers also subcontracted many operations-- maintenance, almost without exception, and often ground support and reservation services as well.

34. Both Graham, Kaplan, and Sibley (1983) and Bailey, Graham, and Kaplan (1985) found, for example, that fares were not reduced by potential entry. This is not to suggest that the theory is wrong but rather that the assumptions necessary for it are not met in the airline case. For example, the theory requires that entry into and exit from markets be costless and that prices cannot be set below marginal costs (Baumol 1982), neither of which holds for airlines.

35. ALPA v. Texas International Airlines, Inc., 850 U.S. Court of Appeals, (2d Cir. 1981).

36. Eight carriers had formed holding companies previously for reasons other than double-breasted strategies. Transamerica did form an international subsidiary but it was unionized.

37. Cohen (1990) draws out the many parallels between Century Air and Texas Air.

38. The takeover process involved decisions by several courts, the California legislature (where Continental was incorporated), the CAB, and President Reagan, as well as much political intrigue, and one suicide (among management). See Weinberg (1985) for an account of the decision making at Continental.

39. Braniff achieved roughly the same reductions, but through negotiations with its unions.

40. The unions had trouble maintaining solidarity among the strikers in part because in the merger of Texas International and Continental employees were assigned to new locations and union representation changed. Continental's flight attendants switched unions and its clerks and agents lost representation.

41. In June 1984 the U.S. Bankruptcy Court upheld Continental's unilateral alteration of its agreement with ALPA (U.S. Bankruptcy Court for Southern District of Texas, Houston Division, 1985: Continental Airlines, Inc., 83-04019-H2-5, Continental Airlines, Inc., 83-04020-H1-5; Texas International Airlines, Inc. 83-04020-H1-5; Texas International Airlines Holdings Corp., 83-04022-H3-5). Other issues--such as whether actions by Continental or by its unions violated the RLA and which union (if any) should represent some of the bargaining units--remain unresolved.

42. I am indebted to Charles Pasciutto, then Vice President of Industrial Relations at American, for the material from which this account was drawn. The fact that pilots at American are not part of ALPA no doubt made it easier to secure these changes.

43. A more complete discussion of the relationships between airline responses and diversity in labor relations practice appears in Cappelli (1985b).

44. Three carriers--Eastern, Pan Am, and Hawaiian--restored previous wage cuts in 1985. These data are from the AIRCon contract file.

45. This literature is sometimes called "efficiency wages." See Cappelli and Chauvin (1991) for a survey.

46. Where mobility between firms is limited, as in some airline jobs, it may be possible for an employer to find employees who are willing to work for much less than the wages prevailing elsewhere by tapping the limited pool of candidates who so value airline working characteristics and benefits that wages are less important for them. This does not suggest that all other airlines could fill their jobs at the same low wage rates; the pool of workers willing to work at those low rates may not be big enough to

staff an entire industry.

47. Executive compensation is thought to be contingent on performance, and the criticisms here are not only that the levels of compensation are too high but also that they are in practice not linked to performance. See the cover story, *Business Week*, May 9, 1991 for the most recent of such criticisms.

48. The exceptions occur only when the market for fuel is imperfect, where the suppliers cannot take the fuel elsewhere.

49. The comparison was mainly of trunk carriers to commuter, intrastate, and supplemental carriers. One of the important aspects of this study is that it considers the range of avenues through which regulations can increase union gains.

50. The typical military applicant came to the industry after retiring from the military with 20 years' service (when military pensions are vested). The ideal candidate is not a fighter pilot but a military transport flyer.

51. Unpublished figures from the Air Transport Association.

52. Some of this training can be done using flight simulators, but small carriers often do not have simulators and must tie up their planes to provide all of flight training--clearly an expensive process. Of course, the attraction of eventually getting a position at a major carrier does help create the supply of trainees for both the military air forces and the commuter airlines.

53. At the same time, however, many of the original group of Eastern pilots had left to fill vacancies at other carriers. ALPA reports, for example, that United alone had hired 400 Eastern pilots since the strike began.

54. These are the work rules at Braniff, Continental, Midway, and the former New York Air and People Express.

55. Boeing 727s, DC-1Os, and L1011s require three-member crews; the third officer, the most junior position, is a flight engineer.

56. For a description of the demands of the occupation, see Hochschild (1984).

57. Some observers believe that ALSSA was forced to split from ALPA largely because the growth of planes -- and cabin crews -- would have made the pilots a minority within the ALPA organization. ALPA created instead the separate Association of Flight Attendants, which still retains some informal affiliations with ALPA.

58. For an interesting history of flight attendant labor relations, see Nielsen (1982).

59. One obvious reason for this is that under the previous work rules, attendants (all of whom at the time were women) had to resign if they married or when they reached the job's restrictive age standard. Recent reports suggest that early retirement programs and the numbers of new hires now possible under the two-tier pay plans are temporarily reducing average seniority levels among flight attendants.

60. Eastern and Pan Am in 1991 were the carriers with the lowest mechanic wages, which resulted from substantial concessions necessary to keep those carriers in business.

61. A prime example was the international's decision to take Braniff to court to prevent Braniff's local from making concessions.

62. What Nay's (1991) analysis essentially does here is to compare pilots (and to a lesser extent flight attendants), whose unions represent only pilots, to mechanics, whose unions also have members in other industries.

63. The statistics in this section are drawn from U.S. Department of Transportation (1990).

64. Even in the early 1980s, such arguments were often not based on fact, as the major carriers were typically not competing with the upstarts; the important fare wars were all started by the major carriers. See Cappelli (1986) for details.

65. Before the actual date of the strike, 155 flights were canceled because of pilot "sick outs" *(Philadelphia Inquirer* 1985a).

66. For an account of these techniques, see *Wall Street Journal* (1985).

67. For example, the IAM has since approved some concessions, and ALPA has taken steps to limit the spread of concessions across carriers; ALPA's constitution was amended in 1985 to give the president approval power over all contracts (the same arrangement as historically at the IAM); and ALPA's development of a substantial strike fund combined with its new tactics at United signal a harder position in bargaining.

68. For a discussion of the coalition, see *Labor Research Review* (1984).

69. A comparison of the major elements of the Northwest, American, Delta and United pilot settlements and the current USAir contract was prepared by Northwest Airlines in June 1991, shortly after the United settlement. With the kind permission of Northwest Airlines, this side-by-side comparison of pilot pay, benefits and significant work rules is attached as an Appendix. These charts were prepared by the Labor Relations and Benefits Department of Northwest; while we have no reason to doubt their accuracy, neither the author nor the Government has attempted to verify their content.

It should be observed that comparisons of the effective *cost impact* of labor settlements among carriers are difficult for an outside investigator. One would need detailed demographic data on the distribution and assignment of the workforce in question (e.g., pilots) at each carrier, as well as a breakout of the utilization of each carrier's fleet, in the context of that carrier's route structure and operations. Even if all of this data were available for the carriers in question, one might nevertheless conclude that each carrier's settlement was indeed appropriate for that particular carrier – given the trade-offs which that carrier achieved in work rule accommodations or other economic ingredients of its contract, as well as the "fit" of the terms of the contract to the objectives of the airline in question.

70. The choice of bargaining structures may in some cases be a function of market forces, as Hendricks and Kahn (1982) have noted.

71. See Wever (1989) and Smaby (1987) for details of the Western and Eastern experiences, respectively.

72. One observer told me of seeing a list identifying the "scab" flight attendants working that flight taped to the inside of a washroom cabinet on a TWA flight in 1990, four years after the strike.

INTENTIONALLY LEFT BLANK

APPENDIX

PILOT PAY, BENEFIT AND SIGNIFICANT WORK RULE COMPARISON FOR MAJOR AIRLINES

The charts included in the Appendix are a side-by-side comparison of pilot pay, benefits and significant work rules, as contained in the 1990-91 union settlements with Northwest, American, Delta and United Airlines, along with the USAIR contract which was in effect at the time that the charts were prepared. The comparison was compiled by the Labor Relations and Benefits Department of Northwest Airlines, and is included with this study with the kind permission of Northwest.

Neither the author nor the Government have any reason to doubt the accuracy of these charts; no attempt has been made, however, to verify their content.

Measurement of the effective cost impact of the 1990-91 settlements is difficult for the outside investigator. One would need access to detailed demographic data on the makeup of the workforce in question (i.e., pilots) at each carrier, as well as a breakout of the utilization of each carrier's fleet, in the context of that carrier's route structure and operations. Even were all of this data available for the carriers in question, one might nevertheless conclude that each carrier's settlement was indeed appropriate for that particular carrier -- given the trade-offs which that carrier achieved in work rule accommodations or in other economic ingredients of its contract, as well as the "fit" of the terms of the contract to the objectives of the airline involved.

May, 1992

INTENTIONALLY LEFT BLANK

NORTHWEST AIRLINES, INC. June 12, 1991

PILOT PAY, BENEFIT AND SIGNIFICANT WORK RULE COMPARISON FOR MAJOR AIRLINES

	NORTHWEST	AMERICAN	DELTA	UNITED	USAIR
UNION	ALPA	APA	ALPA	ALPA	ALPA
AMENDABLE DATE	3/1/94	8/31/94	9/1/93	11/30/94	8/31/91
NUMBER OF PILOTS EMPLOYED	5411	8513	7597	7228	6045
AIRCRAFT TYPE					
•NARROW BODY	757 33 727 71 A320 11 MD80 8 DC9 139	757 26 A300 25 727 164 MD80 213 737 18 BA146 6	757 61 727 129 MD88 67 DC9 36 737 72	757 24 DC8 19 727 128 737 179	727 28 MD80 31 DC9 74 737 227 F100 20 BA146 18 F28 45
•WIDE BODY	747400 10 747 40 DC10 20	747SP 2 DC10 59 767 45	MD11 2 L-1011 40 767 37	747400 8 747 20 747SP 11 DC10 54 767 19	767 9
•TOTAL	332	558	444	462	452

June 12, 1991

	NORTHWEST	AMERICAN	DELTA	UNITED	USAIR
SCOPE					
•COVERAGE	ALL REVENUE FLYING RESERVED FOR EXCLUSIVE PERFORMANCE BY SENIORITY LIST PILOTS UNDER THE TERMS OF THE COLLECTIVE BARGAINING AGREEMENT.	ALL REVENUE FLYING RESERVED FOR EXCLUSIVE PERFORMANCE BY SENIORITY LIST PILOTS UNDER THE TERMS OF THE COLLECTIVE BARGAINING AGREEMENT.	ALL REVENUE FLYING RESERVED FOR EXCLUSIVE PERFORMANCE BY SENIORITY LIST PILOTS UNDER THE TERMS OF THE COLLECTIVE BARGAINING AGREEMENT.	ALL REVENUE FLYING RESERVED FOR EXCLUSIVE PERFORMANCE BY SENIORITY LIST PILOTS UNDER THE TERMS OF THE COLLECTIVE BARGAINING AGREEMENT.	ALL REVENUE FLYING RESERVED FOR EXCLUSIVE PERFORMANCE BY SENIORITY LIST PILOTS UNDER THE TERMS OF THE COLLECTIVE BARGAINING AGREEMENT.
•EXCEPTIONS	•NON DC9 REVENUE FLYING AIRCRAFT WITH LESS THAN 70 SEATS. •CHARTER FLYING FOR MLT VACATIONS. •MARKETING AGREEMENTS. •JOINT VENTURES.	•MAY CREATE A COMMUTER AIR CARRIER, ACQUIRE, MAINTAIN AN EQUITY INTEREST OR ENTER INTO A FRANCHISE TYPE AGREEMENT IF INDEPENDENTLY OWNED COMMUTER AIR CARRIER. •FIXED BASE OPERATIONS.	•REVENUE FLYING AIRCRAFT WITH LESS THAN 70 SEATS.	•IF A NON-RESTRICTED ROUTE, THEN REVENUE FLYING AIRCRAFT WITH LESS THAN 75 SEATS AND 75,000 LBS G.W.	•IF NO PILOTS ARE ON FURLOUGH PROVISIONS OF SCOPE CLAUSE DO NOT APPLY.

	NORTHWEST	AMERICAN	DELTA	UNITED	USAIR
JOB SECURITY PROTECTION					
•GUARANTEED POSITIONS	Wide Body / Narrow Body 12/31/90-12/30/91 674 / 1589 CAPTAIN 584 / 1541 F/O 12/31/91-12/30/92 749 / 1667 CAPTAIN 654 / 1627 F/O 12/31/92-3/1/95 784 / 1757 CAPTAIN 681 / 1703 F/O	1/1/84 1394 CAPTAIN 1375 CO-PILOTS GUARANTEE ONLY APPLIES TO PILOTS HIRED PRIOR TO 11/1/83.	NO PROVISION.	SPECIFIC CONTRACTUAL LANGUAGE IS NOT YET AVAILABLE. GUARANTEED LEVEL OF EMPLOYMENT.	NO PROVISION.
•LAYOFF PROTECTION	ALL PILOTS ON SENIORITY LIST AS OF 8/28/89.	ALL PILOTS ON SENIORITY LIST AS OF 11/1/83.	NO PROVISION.	NO FURLOUGH CLAUSE.	NO PROVISION.
BASE PAY					
•TOP WIDE BODY CAPTAIN RATE (INCLUDES INT'L AND INS. PREMIUM)	(747-400)	(747-SP)	(MD-11)	(747-400)	(767-ER)
1991	$213.50	$200.41	$205.41	$197.60	$160.52
1992	$221.72	$208.18	$215.68	$205.50	
1993	$221.72	$216.27	$215.68	$222.27	
•TOP NARROW BODY CAPTAIN RATE	(757)	(757)	(757)	(757)	(727)
1991	$165.48	$165.48	$170.85	$160.78	$150.10
1992	$172.10	$172.10	$179.39	$168.12	
1993	$172.10	$178.99	$179.39	$182.80	
•SEE ATTACHED PAY RATE CHARTS FOR DETAILS					
LENGTH OF SCALE	12 YEARS	12 YEARS	12 YEARS	12 YEARS	12 YEARS

	NORTHWEST	AMERICAN	DELTA	UNITED	USAIR
B-SCALE PAY					
•DATE INTRODUCED	8/31/89	11/1/83	9/1/85	5/17/85	11/14/85
•LENGTH	5 YEARS	5 YEARS	5 YEARS, REDUCED TO 3 YEARS 9/1/92.	5 YRS. REDUCED TO 3 YRS 10/1/93.	5 YEARS
•5TH YEAR WIDE BODY FIRST OFFICER	(747-400)	(747-SP)	(MD-11)	(747-400)	(767)
1991	$90.51	$94.40	$110.92	$101.75	$72.26
1992	$93.89	$98.01	$130.98	$111.84	
1993	$93.89	$101.77	$130.98	$131.99	
•5TH YEAR NARROW BODY FIRST OFFICER	(757)	(757)	(757)	(757)	(727)
1991	$68.05	$76.83	$91.23	$83.60	$66.21
1992	$70.77	$79.91	$107.73	$92.54	
1993	$70.77	$83.10	$107.73	$110.43	
•5TH YEAR WIDE BODY SECOND OFFICER	(747-200)	(747-SP)	(L1011-500)	(747-200)	
1991	$75.32	$81.10	$76.56	$82.36	
1992	$78.17	$84.19	$106.71	$89.89	
1993	$78.17	$87.41	$106.71	$104.94	
INTERNATIONAL HOURLY PAY					
•CAPTAIN	$8.00	$6.00	$6.50	NO PROVISION.	$6.50
•FIRST OFFICER	$6.00	$4.14	$4.40		$4.30
•SECOND OFFICER	$4.00	$3.73	$3.56		$1.90
		RATES REFLECT 12-YEAR RATE.	RATES INCLUDE INS. PREMIUM.		

	NORTHWEST	AMERICAN	DELTA	UNITED	USAIR
ADDITIONAL PAY	NONE.	•NIGHT PAY - $2.50 PER HOUR FOR CAPTAINS, OTHER SEATS PAID A %. •VARIABLE COMPENSATION: FOLLOWING EACH YEAR IN WHICH THE COMPANY ACHIEVES AN ADJUSTED RETURN ON INVESTMENT BETWEEN 8% AND 16.6% EACH PILOT WILL RECEIVE A PENSIONABLE LUMP SUM PAYMENT OF UP TO 8% OF BASE PAY.	•NIGHT PAY - $3.00 PER HOUR FOR CAPTAINS, OTHER SEATS PAID A %.	$52 MILLION RETRO ACTIVE PAYMENT.	•NIGHT PAY - $3.50 PER HOUR FOR CAPTAINS, OTHER SEATS PAID A %.
SCHEDULE HOLDER GUARANTEE	68 HOURS	64 HOURS	10 HOURS LESS THAN THE DESIGNATED MONTHLY MAXIMUM (65 TO 70 HOURS).	78 HOURS	61 75 HOUR MAXIMUM 71 85 HOUR MAXIMUM
RESERVE GUARANTEE	75 HOURS	68 HOURS	5 HOURS LESS THAN THE DESIGNATED MONTHLY MAXIMUM (70 TO 75 HOURS).	78 HOURS	61 75 HOUR MAXIMUM 71 85 HOUR MAXIMUM
TRIP GUARANTEE	YES.	YES, GENERALLY ONLY THE LAST 7 DAYS OF THE MONTH.	YES.	YES, ONLY LAST TRIP OF THE MONTH.	YES, ONLY LAST TRIP OF THE MONTH OR EQUIPMENT SUBSTITUTION.

	NORTHWEST	AMERICAN	DELTA	UNITED	USAIR
TRAVELING EXPENSES					
•DOMESTIC HOURLY MEAL EXPENSES	9/1/89 $1.60 6/1/91 $1.70 1/1/93 $1.80	2/26/91 $1.60 1/1/92 $1.65 1/1/93 $1.70 1/1/94 $1.75	10/1/90 $1.65 9/1/92 $1.80	5/1/91 $1.60 3/1/92 $1.65 3/1/93 $1.70 10/2/93 $1.75	1/1/91 $1.60 7/1/91 $1.65
•INTERNATIONAL HOURLY MEAL EXPENSES	9/1/89 $1.80 6/1/91 $1.90 1/1/93 $2.00	2/26/91 $1.80 1/1/92 $1.85 1/1/93 $1.90 1/1/94 $1.95	10/1/90 $1.75 9/1/92 $2.00	$1.80 PILOTS FLYING INTERNATIONAL CHARTERS RECEIVE ADDITIONAL 25 CENTS/HR.	$1.75
INFLIGHT MEALS AT COMPANY EXPENSE	YES.	YES.	INTERNATIONAL FLIGHTS ONLY.	YES, IN MOST CASES.	NO PROVISION, BUT PER COMPANY POLICY PROVIDE COMPANY PAID MEALS.

	NORTHWEST	AMERICAN	DELTA	UNITED	USAIR
VACATION					
•ACCRUAL SCHEDULE COMPLETED YEARS OF SERVICE	DAYS	DAYS	DAYS	DAYS	DAYS
1	16	14	14	16	16
2	16	14	14	16	16
3	16	14	14	16	18
4	16	14	14	16	18
5	23	14	21	23	21
6	23	14	21	23	21
7	23	14	21	23	24
8	23	21	21	23	24
9	23	21	21	23	24
10	23	21	21	23	26
11	23	21	28	23	27
12	23	21	28	30	28
13	30	21	28	30	30
14	30	21	28	30	30
15	30	28	28	30	30
16	30	28	28	30	31
17	30	28	28	30	31
18	30	28	35	30	31
19	30	28	35	30	31
20	37	28	35	37	38
21	37	28	35	37	38
22	37	28	35	37	38
23	37	35	35	37	38
24	37	35	35	37	38
25	44	35	42	44	44
26	44	35	42	44	44
27	44	35	42	44	44
28	44	35	42	44	44
29	44	35	42	44	44
30 AND MORE	44	42	49	44	44
•TOTAL AT 15 YEARS	338	273	322	345	353
•TOTAL AT 30 YEARS	907	756	882	914	931
			EFFECTIVE 4/1/91, PILOTS WILL BANK AN ADDITIONAL AN ADDITIONAL 2 DAYS OF VACATION EACH YEAR.		

	NORTHWEST	AMERICAN	DELTA	UNITED	USAIR
VACATION METHOD OF PAY					
•SCHEDULE HOLDER	DAILY RATE (2.67 HOURS).	TRIPS MISSED.	TRIPS MISSED.	TRIPS MISSED.	DAILY RATE (4.5 HOURS; 3.97 IF PILOTS OPTS FOR 75 HOUR MAXIMUM). IF VACATION LESS THAN 7 DAYS THEN 2.83/DAY (2.5 IF OPT FOR 75 HOUR MAXIMUM).
•RESERVE	DAILY RATE (2.67 HOURS).	DAILY RATE (FORMULA BASED ON ACCRUALS AND LENGTH OF SERVICE).	DAILY RATE (2.33 HOURS). (2.25 IN 31 DAY MONTH.)	4.33 HOURS BASED ON EQUIPMENT AND STATUS FOR EACH DAY OF VACATION DUTY.	SEE ABOVE.
DEADHEAD					
•PAY AND CREDIT	100%	100%	100%	100%	100%
NORMAL MAXIMUM MONTHLY HOURS					
•SCHEDULED	80 HOURS	75 HOURS	75-80 HOURS	81 HOURS	85 HOURS. PILOT MAY OPT FOR A 75 HOUR MAXIMUM.
•ACTUAL	82.5 HOURS	75 HOURS	75-80 HOURS	83 HOURS	
FLEXIBLE MONTHLY HOURS					
•MAXIMUM	84 HOURS	78 HOURS, 80 HOURS IF PAY OVERTIME.	NO PROVISION.	83	NO PROVISION.
•REQUIRE UNION APPROVAL	YES.	NO.		NO.	
•PAY RATE	STRAIGHT TIME.	STRAIGHT TIME. HOURS OVER MAXIMUM PAID AT 1-1/2X.		STRAIGHT TIME.	
•RESTRICTIONS	•FLEX LIMITED TO 4 TIMES PER YEAR. •NO FLEX IF PILOTS FURLOUGHED.	•NO FLEX IF PILOTS FURLOUGHED. •NO FURLOUGHS FOR 3 MONTHS FOLLOWING FLEX.			

	NORTHWEST	AMERICAN	DELTA	UNITED	USAIR
DAILY ON-DUTY LIMITATIONS-DOMESTIC	12-14 HOURS DEPENDING ON TIME OF FLIGHT DEPARTURE AND LENGTH OF ENROUTE STOPS.	10-14 HOURS DEPENDING ON TIME OF FLIGHT DEPARTURE AND LENGTH OF ENROUTE STOPS.	8.5-15 HOURS DEPENDING ON TIME OF FLIGHT DEPARTURE AND LENGTH OF ENROUTE STOPS.	9.5-15 HOURS DEPENDING ON TIME OF FLIGHT DEPARTURE AND LENGTH OF ENROUTE STOPS.	12-15 HOURS DEPENDING ON TIME OF FLIGHT DEPARTURE AND LENGTH OF ENROUTE STOPS.
DAILY ON-DUTY LIMITATIONS - INTERNATIONAL	11-20 HOURS MAIN DETERMINANT IS CREW COMPLEMENT.	12.5-18 HOURS MAIN DETERMINANT IS CREW COMPLEMENT.	13-18 HOURS MAIN DETERMINANT IS CREW COMPLEMENT.	12-18 HOURS MAIN DETERMINANT IS CREW COMPLEMENT.	12-15 HOURS MAIN DETERMINANT IS CREW COMPLEMENT.
REQUIRED DAYS OFF					
•SCHEDULE HOLDER	NONE.	5-48 HOUR PERIODS	5-48 HOUR PERIODS	12 DAYS	11 DAYS
•RESERVE	11 DAYS	5-48 HOUR PERIODS	2-96 HOURS PERIODS AND 1-72 HOUR PERIOD	12 DAYS OF 4 PERIODS OF NOT LESS THAN 2 DAYS OFF.	11 DAYS
DUTY PERIOD CREDIT	1 FOR 2 (2200-0500: 1 FOR 1.75)	1 FOR 1.75	1 FOR 2 (2200-0600: 1 FOR 1.75)	1 FOR 2 (2200-0559: 1 FOR 1.75)	1 FOR 1.75 (2400-0459: 1 FOR 1.5)
MINIMUM DUTY PERIOD CREDIT	4.25 HOURS	4.25 HOURS AVERAGE WITH MINIMUM DAY OF 3. (ISSUE HAS BEEN PRESENTED TO BINDING ARBITRATION. UNION WANTS 5 HOUR AVERAGE WITH A 3.5 MINIMUM DAY.)	5 HOURS (AVERAGE)	5 HOURS (AVERAGE)	4.5 HOURS
TRIP HOUR CREDIT	1 FOR 3.45	1 FOR 3.5	1 FOR 3.5	1 FOR 3.5	1 FOR 3
TIME BANK					
•POSITIVE	YES. NO LIMIT.	YES. 15 HOUR LIMIT.	YES. 60 HOUR LIMIT.	YES. NO LIMIT.	YES. 27.5 HOUR LIMIT.
•NEGATIVE	YES. 10 HOUR LIMIT.	NO.	YES. 15 HOUR LIMIT.	NO.	YES. 15 HOUR LIMIT.

	NORTHWEST	AMERICAN	DELTA	UNITED	USAIR
SICK LEAVE ACCRUAL			SICK LEAVE CREDIT SYSTEM RANGING FROM 25 HOURS TO 290 HOURS PER YEAR DEPENDING UPON YEARS OF SERVICE. SICK LEAVE CREDIT IS NOT CUMULATIVE FROM YEAR TO YEAR.		
•NORMAL MONTHLY	5 HOURS	1-1/3 DAYS		5 HOURS	1 DAY
•RESERVE MONTHLY	7 HOURS	2 DAYS			3 DAYS
•MAXIMUM	850 HOURS	198 DAYS		1000 HOURS	180 DAYS
SICK LEAVE METHOD OF PAY					
•SCHEDULE HOLDER	TRIPS MISSED.	TRIPS MISSED.	TRIPS MISSED.	TRIPS MISSED.	TRIPS MISSED.
•RESERVE	DAILY RATE (2.5 HOURS).	DAILY RATE (BASED ON USAGE AND EARNED ACCRUALS).	(1/19) OF MONTHLY MAX IN A 30-DAY MONTH. (1/20) OF MONTHLY MAX IN A 31 DAY MONTH.	DAILY RATE (4.33 HOURS).	TRIPS MISSED OR PRORATED GUARANTEE WHICHEVER IS GREATER.
SICK LEAVE MAKE-UP	YES.	NO.	YES.	NO.	YES, IF ABSENT 4 OR MORE DAYS.
BEREAVEMENT LEAVE	UP TO 3 DAYS CHARGED TO NORMAL SICK LEAVE.	NO PROVISION, BUT AS A MATTER OF POLICY ALLOWED THREE DAYS.	UP TO 3 DAYS.	UP TO 3 DAYS.	NO PROVISION, BUT AS A MATTER OF POLICY ALLOWED THREE DAYS.
OCCUPATIONAL INJURY LEAVE ACCRUAL	NO SEPARATE ACCRUAL. SEE SICK LEAVE.	NO SEPARATE ACCRUAL. SEE SICK LEAVE.	90 DAYS INJURY LEAVE CREDIT PER YEAR.		NO SEPARATE ACCRUAL. SEE SICK LEAVE.
•NORMAL MONTHLY				5 HOURS	
•MAXIMUM				450 HOURS	

	NORTHWEST	AMERICAN	DELTA	UNITED	USAIR
OCCUPATIONAL INJURY LEAVE METHOD OF PAY					
•SCHEDULE HOLDER	TRIPS MISSED.	DAILY RATE (1 DAY SICK LEAVE).	TRIPS MISSED.	OCCUPATIONAL INJURY LEAVE PAID ON TRIPS MISSED BASIS.	TRIPS MISSED.
•RESERVE	DAILY RATE (2.5 HOURS).	DAILY RATE (1 DAY SICK LEAVE).	(1/19) OF MONTHLY MAX IN 30 DAY MONTH. (1/20) OF MONTHLY MAX IN 31 DAY MONTH.	OCCUPATIONAL INJURY LEAVE PAID AT RATE OF 4.33 HOURS PER DAY.	PAID ON BASIS OF MINIMUM MONTHLY GUARANTEE PRORATED TO A MAXIMUM OF 10 DAYS.
STAFFING FORMULA					
•% OF RESERVES	10%	18-24% OF LINES.	13%	VARIABLE	ADJUSTED ACCORDING TO EQUIPMENT, POSITION AND BASE.
POSITION FREEZES	•24 MONTHS INITIAL QUALIFICATION. •6 MONTHS REQUALIFICATION. •12 MONTHS PAID MOVE. •24 MONTHS FOREIGN BASE ASSIGNMENT.	•6 MONTHS INITIAL QUALIFICATION. •12 MONTHS PROMOTION. •8 MONTHS DOWNGRADE.	• MONTHS INITIAL QUALIFICATION. 9/1/91 12 MONTHS. • MONTHS PROMOTION. 9/1/91 12 MONTHS. •12 MONTHS DOWNGRADE.	•18 MONTHS INITIAL QUALIFICATION. •12 MONTHS REQUALIFICATION.	NO PROVISION.

	NORTHWEST AIRLINES	AMERICAN	DELTA	UNITED	USAIR
MEDICAL PLAN 1)					
UNDERWRITTEN	SELF-INSURED	SELF-INSURED	SELF-INSURED	SELF-INSURED	SELF-INSURED
INCLUDES MEDICAL SPENDING ACCOUNT	NO	NO	NO	YES	NO
EMPLOYEE MONTHLY PREMIUMS REQUIRED	NONE	YES-AMOUNT SUBJECT TO ARBITRATION	NONE	NONE	NONE
COVERAGE FOR PREEXISTING CONDITIONS	YES	NO	YES	YES	YES
ANNUAL DEDUCTIBLE (INDIVIDUAL/FAMILY MAXIMUM)	$100/200	$150/400	$100/300	$250/500	$100/200
ANNUAL OUT-OF-POCKET MAXIMUM (EXCLUDES DEDUCTIBLE)	$1600 INDIVIDUAL; $3200 FAMILY	$1000 INDIVIDUAL; NONE FOR FAMILY	$650 INDIVIDUAL; $1200 FAMILY	$1500 INDIVIDUAL; NONE FOR FAMILY	$1500 INDIVIDUAL; $1500 FAMILY
COINSURANCE BEFORE OUT-OF-POCKET MAXIMUM REACHED	80% (100% FOR INPATIENT ROOM AND BOARD; INPATIENT SERVICES AND SUPPLIES UP TO $7500; $7500 CAP REDUCED TO $5000 FOR PILOTS RESIDING IN PPO SERVICE AREA)	80% (100% FOR INPATIENT ROOM AND BOARD; INPATIENT SERVICES AND SUPPLIES; INPATIENT AND OUTPATIENT SUBSTANCE ABUSE; SELECTED OUTPATIENT SURGERY	80% (50% FOR OUTPATIENT SUBSTANCE ABUSE AND OUTPATIENT TREATMENT OF MENTAL/NERVOUS DISORDER)	80%	80% (100% FOR INPATIENT SUBSTANCE ABUSE)
LIFETIME PLAN MAXIMUM	$1,000,000	$500,000	$1,000,000	NONE	$1,000,000
MAXIMUM DAILY HOSPITAL ROOM RATE	FULL SEMIPRIVATE	SEMIPRIVATE PLUS $4.00	FULL SEMIPRIVATE	FULL SEMIPRIVATE	$173 MAXIMUM

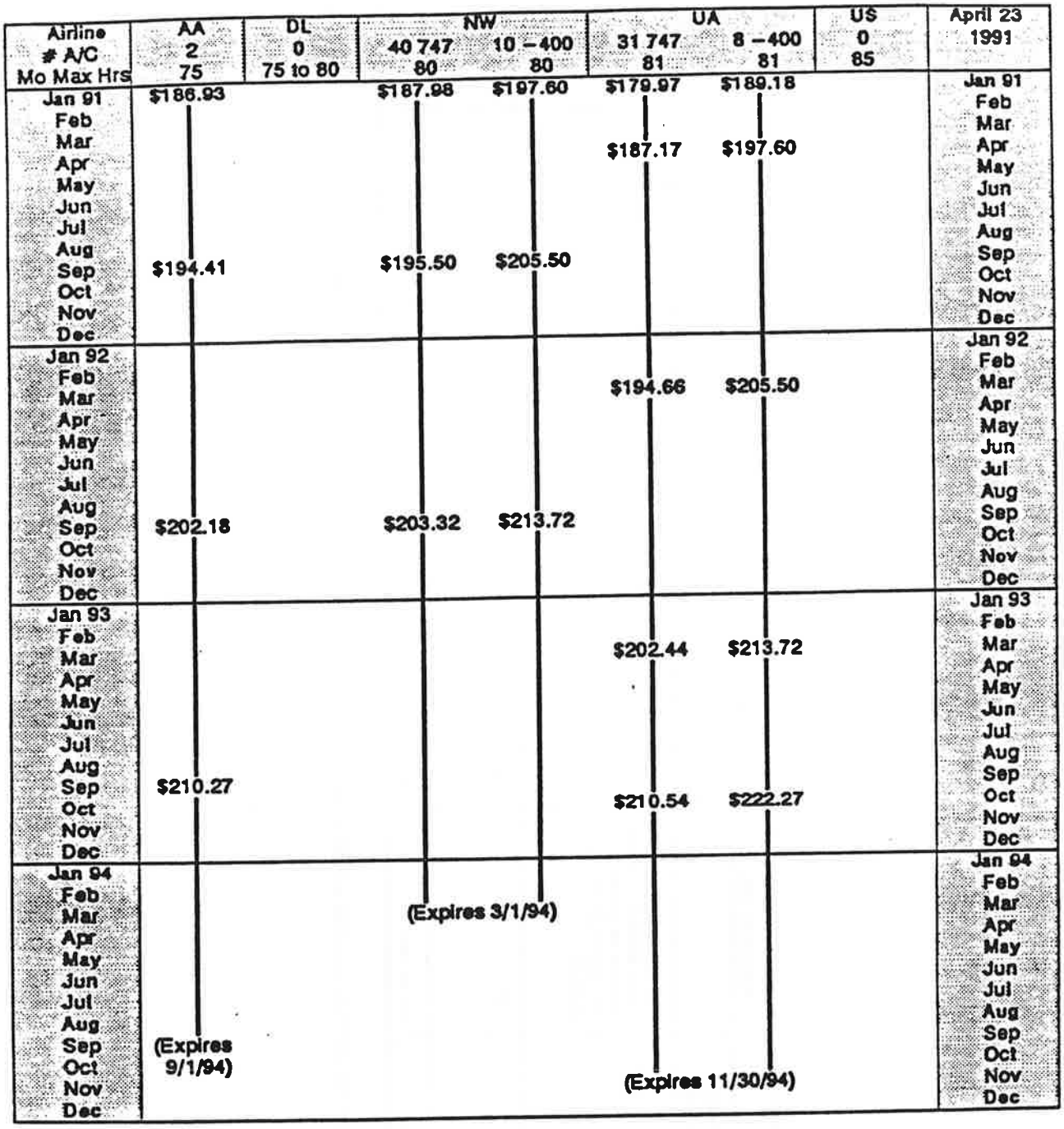
	NORTHWEST AIRLINES	AMERICAN	DELTA	UNITED	USAIR
DENTAL PLAN 1)					
UNDERWRITTEN	INCLUDED IN MEDICAL PLAN	SELF-INSURED	INCLUDED IN MEDICAL PLAN	SELF-INSURED	SELF-INSURED
EMPLOYEE PREMIUMS REQUIRED	NONE	NONE	NONE	NONE	NONE
ANNUAL DEDUCTIBLE	$25 INDIVIDUAL; $75 FAMILY (APPLIES TO RESTORATIVE, MAJOR SERVICES)	$50 INDIVIDUAL; NONE FOR FAMILY (APPLIED TO PREVENTIVE, RESTORATIVE, MAJOR SERVICES)	$50 INDIVIDUAL; $200 FAMILY MAXIMUM (APPLIED TO PREVENTIVE, RESTORATIVE, MAJOR SERVICES AND ORTHODONTIA)	$50 INDIVIDUAL; $100 FAMILY	NONE
COINSURANCE	90% PREVENTIVE 80% RESTORATIVE 60% MAJOR SERVICES 50% ORTHODONTIA	80% PREVENTIVE 80% RESTORATIVE 80% MAJOR SERVICES 50% ORTHODONTIA	80% PREVENTIVE 80% RESTORATIVE 80% MAJOR SERVICES 50% ORTHODONTIA	100% PREVENTIVE 80% RESTORATIVE 50% MAJOR SERVICES 50% ORTHODONTIA	100% PREVENTIVE FIXED DOLLAR SCHEDULE FOR OTHER SERVICES
SEPARATE ORTHODONTIA MAXIMUM LIFETIME	CHILD-$1500 ADULT-$1500	CHILD-$1000 ADULT-NONE	CHILD-$1500 ADULT-$1500	CHILD-$1300 ADULT-$1300	CHILD-$1250 ADULT-$1250
ANNUAL DENTAL MAXIMUM EXCLUDING ORTHODONTIA	$1500 EMPLOYEE/ $1500 FAMILY	$1000 INDIVIDUAL	$1500 INDIVIDUAL/ FAMILY MEMBER	$1500 EMPLOYEE/ $1500 FAMILY	$1500 EMPLOYEE/ $1500 FAMILY
DEFINED CONTRIBUTION PLANS-401(K)					
REQUIRED EMPLOYEE PRE-TAX CONTRIBUTIONS	3% OF PAY AND VOLUNTARY	NONE-VOLUNTARY	NONE-VOLUNTARY	TO BE DESIGNED	NONE-VOLUNTARY
EMPLOYEE AFTER-TAX CONTRIBUTIONS	VOLUNTARY AVAILABLE	VOLUNTARY AVAILABLE	VOLUNTARY AVAILABLE	TO BE DESIGNED	NONE
COMPANY MATCH	NONE	NONE	50% OF EMPLOYEE CONTRIBUTIONS UP TO 2%	TO BE DESIGNED	NONE

	NORTHWEST AIRLINES	AMERICAN	DELTA	UNITED	USAIR
IN-SERVICE WITHDRAWALS	LOANS	FINANCIAL HARDSHIP AND LOANS	FINANCIAL HARDSHIP AND LOANS	TO BE DESIGNED	FINANCIAL HARDSHIP AND LOANS
PAYMENT OF ADMINISTRATIVE FEES	PLAN	PLAN	COMPANY	TO BE DESIGNED	EMPLOYEE
DEFINED CONTRIBUTION PLANS-AFTER-TAX SAVINGS THRIFT					
EMPLOYEE AFTER-TAX CONTRIBUTIONS	NO PLAN	NO PLAN	AVAILABLE	NO PLAN	NO PLAN
COMPANY MATCH	NO PLAN	NO PLAN	50% OF EMPLOYEE CONTRIBUTIONS UP TO 2%	NO PLAN	NO PLAN
DEFINED CONTRIBUTION PLANS-VARIABLE ANNUITY					
COMPANY CONTRIBUTION	NO PLAN	11% OF PAY	NO PLAN	9% OF PAY	NO PLAN
DEFINED BENEFIT PLAN					
BASE PAY FOR CALCULATING BENEFITS	AVERAGE OF HIGHEST CONSECUTIVE 60 MONTHS OUT OF LAST 120 MONTHS	AVERAGE OF HIGHEST CONSECUTIVE 60 MONTHS OUT OF LAST 120 MONTHS	AVERAGE OF HIGHEST CONSECUTIVE 36 MONTHS OUT OF LAST 120 MONTHS	AVERAGE OF HIGHEST 36 MONTHS OUT OF LAST 120 MONTHS	AVERAGE OF HIGHEST 36 MONTHS OUT OF LAST 120 MONTHS
FORMULA FOR CALCULATING BENEFITS	60% OF FAE X YEARS OF CREDITED SERVICE OVER 25	GREATER OF: 1.25% OF FAE X YEARS OF CREDITED SERVICE OR $1500 X YEARS OF CREDITED SERVICE	2.4% OF FAE X YEARS OF CREDITED SERVICE (25 YEARS MAXIMUM), MINUS 2% OF SS BENEFIT X YEARS OF CREDITED SERVICE (MAXIMUM 50%)	1.41% OF FAE X YEARS OF CREDITED SERVICE	2.4% OF FAE X YEARS OF CREDITED SERVICE TO A MAXIMUM OF 25 YEARS OF SERVICE PLUS 1% FOR EACH OF THE NEXT 5 YEARS
SOCIAL SECURITY OFFSET	NONE	NONE	YES	NONE	NONE

	NORTHWEST AIRLINES	AMERICAN	DELTA	UNITED	USAIR
POST-RETIREMENT MEDICAL BENEFITS 1)					
EMPLOYEE CONTRIBUTIONS UNDER AGE 65	100% EXCEPT NONE IF 23 YEARS BENEFIT ACCRUAL SERVICE OR DISABLED AND RECEIVING SOCIAL SECURITY	NONE	100% FOR RETIREES UNDER AGE 60; AFTER AGE 60, PRORATA PREMIUMS FOR EARLY RETIREES WITH LESS THAN 25 YEARS OF SERVICE	YES-BASED ON YEARS OF SERVICE	NONE
EMPLOYEE CONTRIBUTIONS AGE 65 AND OVER	100%	NONE	PRORATA PREMIUMS FOR EARLY RETIREES WITH LESS THAN 25 YEARS OF SERVICE	15%	NONE
PLAN FUNDING	PAY AS YOU GO	PAY AS YOU GO	PAY AS YOU GO	PAY AS YOU GO	PAY AS YOU GO

1) PLAN FEATURES FOR AMERICAN AIRLINES ARE THOSE OF PRIOR CONTRACT. NEW MEDICAL/DENTAL PLAN FEATURES TO BE DETERMINED IN BINDING ARBITRATION.

COMPARISON OF TOP HOURLY CAPTAIN RATES
B–747–100/200 & B–747–400
Includes United/ALPA Tentative Agreement



All Rates Represent 12th Year Longevity.
All Rates Exclude INS, International Overrides, Profit Sharing And Other Premiums.

COMPARISON OF TOP HOURLY CAPTAIN RATES

DC-10 & L-1011

Includes United/ALPA Tentative Agreement

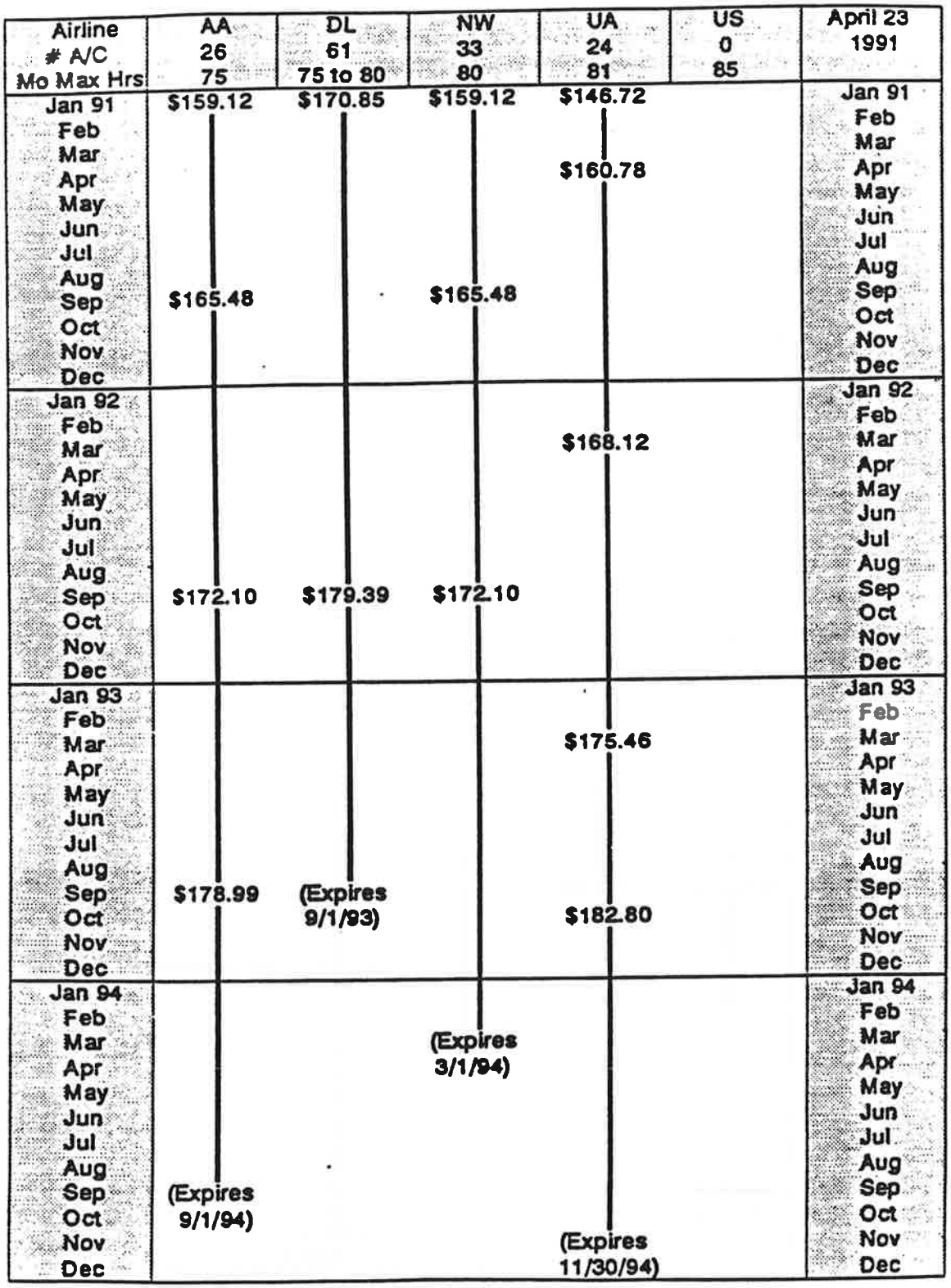
Airline	AA	DL	NW	UA	US	April 23 1991
# A/C	59	40 L-1011	20	54	0	
Mo Max Hrs	75	75 to 80	80	81	85	
Jan 91	$177.06	$188.03	$177.06	$158.77		Jan 91
Feb						Feb
Mar						Mar
Apr				$177.06		Apr
May						May
Jun						Jun
Jul						Jul
Aug						Aug
Sep	$184.14		$184.14			Sep
Oct						Oct
Nov						Nov
Dec						Dec
Jan 92						Jan 92
Feb						Feb
Mar				$183.85		Mar
Apr						Apr
May						May
Jun						Jun
Jul						Jul
Aug						Aug
Sep	$191.51	$197.43	$191.51			Sep
Oct						Oct
Nov						Nov
Dec						Dec
Jan 93						Jan 93
Feb						Feb
Mar				$190.64		Mar
Apr						Apr
May						May
Jun						Jun
Jul						Jul
Aug						Aug
Sep	$199.17	(Expires 9/1/93)				Sep
Oct				$197.43		Oct
Nov						Nov
Dec						Dec
Jan 94						Jan 94
Feb						Feb
Mar						Mar
Apr			(Expires 3/1/94)			Apr
May						May
Jun						Jun
Jul						Jul
Aug						Aug
Sep	(Expires 9/1/94)					Sep
Oct						Oct
Nov				(Expires 11/30/94)		Nov
Dec						Dec

All Rates Represent 12th Year Longevity.
All Rates Exclude INS, International Overrides, Profit Sharing And Other Premiums.

COMPARISON OF TOP HOURLY CAPTAIN RATES

B–757

Includes United/ALPA Tentative Agreement



All Rates Represent 12th Year Longevity.
All Rates Exclude INS, International Overrides, Profit Sharing And Other Premiums.

COMPARISON OF TOP HOURLY CAPTAIN RATES

B–727

Includes United/ALPA Tentative Agreement

Airline # A/C Mo Max Hrs	AA 164 75	DL 129 75 to 80	NW 71 80	UA 128 81	US 29 85	April 23 1991
Jan 91	$148.20	$158.19	$148.20	$133.15	$150.10	Jan 91
Feb						Feb
Mar						Mar
Apr				$148.20		Apr
May						May
Jun						Jun
Jul						Jul
Aug					(Expires 8/31/91)	Aug
Sep	$154.13		$154.13			Sep
Oct						Oct
Nov						Nov
Dec						Dec
Jan 92						Jan 92
Feb						Feb
Mar				$154.17		Mar
Apr						Apr
May						May
Jun						Jun
Jul						Jul
Aug						Aug
Sep	$160.29	$166.10	$160.29			Sep
Oct						Oct
Nov						Nov
Dec						Dec
Jan 93						Jan 93
Feb						Feb
Mar				$160.13		Mar
Apr						Apr
May						May
Jun						Jun
Jul						Jul
Aug						Aug
Sep	$166.70	(Expires 9/1/93)				Sep
Oct				$166.10		Oct
Nov						Nov
Dec						Dec
Jan 94						Jan 94
Feb						Feb
Mar			(Expires 3/1/94)			Mar
Apr						Apr
May						May
Jun						Jun
Jul						Jul
Aug						Aug
Sep	(Expires 9/1/94)					Sep
Oct						Oct
Nov				(Expires 11/30/94)		Nov
Dec						Dec

All Rates Represent 12th Year Longevity.
All Rates Exclude INS, International Overrides, Profit Sharing And Other Premiums.

COMPARISON OF TOP HOURLY CAPTAIN RATES

MD–80

Includes United/ALPA Tentative Agreement

Airline # A/C Mo Max Hrs	AA 213 75	DL 67 75 to 80	NW 8 80	UA 0 81	US 31 85	April 23 1991
Jan 91	$147.68	$151.06	$147.68		$146.96	Jan 91
Feb						Feb
Mar						Mar
Apr						Apr
May						May
Jun						Jun
Jul						Jul
Aug					(Expires	Aug
Sep	$153.59		$153.59		8/31/91)	Sep
Oct						Oct
Nov						Nov
Dec						Dec
Jan 92						Jan 92
Feb						Feb
Mar						Mar
Apr						Apr
May						May
Jun						Jun
Jul						Jul
Aug						Aug
Sep	$159.73	$158.61	$159.73			Sep
Oct						Oct
Nov						Nov
Dec						Dec
Jan 93						Jan 93
Feb						Feb
Mar						Mar
Apr						Apr
May						May
Jun						Jun
Jul						Jul
Aug						Aug
Sep	$166.12	(Expires				Sep
Oct		9/1/93)				Oct
Nov						Nov
Dec						Dec
Jan 94						Jan 94
Feb						Feb
Mar			(Expires			Mar
Apr			3/1/94)			Apr
May						May
Jun						Jun
Jul						Jul
Aug						Aug
Sep	(Expires					Sep
Oct	9/1/94)					Oct
Nov						Nov
Dec						Dec

All Rates Represent 12th Year Longevity.
All Rates Exclude INS, International Overrides, Profit Sharing And Other Premiums.

COMPARISON OF TOP HOURLY CAPTAIN RATES

DC-9 / B-737

Includes United/ALPA Tentative Agreement

Airline # A/C Mo Max Hrs	AA 18 (B) 75	DL 108 (B/D) 75 to 80	NW 147 (D) 80	UA 175 (B) 81	US 301 (B/D) 85	April 23 1991
Jan 91	$138.32	$148.20	$138.32	$124.29	$144.16	Jan 91
Feb						Feb
Mar						Mar
Apr				$138.32		Apr
May						May
Jun						Jun
Jul						Jul
Aug					(Expires	Aug
Sep	$143.85		$143.85		8/31/91)	Sep
Oct						Oct
Nov						Nov
Dec						Dec
Jan 92						Jan 92
Feb						Feb
Mar				$144.34		Mar
Apr						Apr
May						May
Jun						Jun
Jul						Jul
Aug						Aug
Sep	$149.61	$155.61	$149.61			Sep
Oct						Oct
Nov						Nov
Dec						Dec
Jan 93						Jan 93
Feb						Feb
Mar				$150.36		Mar
Apr						Apr
May						May
Jun						Jun
Jul						Jul
Aug						Aug
Sep	$155.59	(Expires				Sep
Oct		9/1/93)		$156.38		Oct
Nov						Nov
Dec						Dec
Jan 94						Jan 94
Feb						Feb
Mar			(Expires			Mar
Apr			3/1/94)			Apr
May						May
Jun						Jun
Jul						Jul
Aug						Aug
Sep	(Expires					Sep
Oct	9/1/94)					Oct
Nov				(Expires		Nov
Dec				11/30/94)		Dec

All Rates Represent 12th Year Longevity.
All Rates Exclude INS, International Overrides, Profit Sharing And Other Premiums.