CONCLUSIONS AND IMPLICATIONS

Research results prior to this study had indicated that financial incentives in the form of tax credits were believed to be the most favored motivational force for encouraging the adoption of energy saving features. Findings from this study have indicated that tax credits may not be as strong an influencing variable as originally believed.

The respondents who have taken steps to reduce energy consumption since tax credits became available selected activities which usually did not qualify for federal and state tax credits. Furthermore, the results indicated that most respondents who had not adopted those energy saving features which qualified for tax credits exhibited little intention of doing so in the future. These results weaken the idea that tax credits serve as a strong motivational force, expecially since 70.8% of the respondents were aware that tax credits were available.

A closer look at the activities which have been adopted may indicate that the interruption of the household unit for even a short period of time to install energy saving features is not acceptable to many persons. The kind of information available regarding the amount of financial investment and risk involved when employing some energy saving features may also be a more powerful motivating factor than tax credits. This implication has still to be studied.

The outcome of this study indicated that tax credits may need to be reexamined and restructured if they are to continue to be used as a motivational force to encourage the adoption of energy saving features. If most people who are going to adopt energy saving features already have done so, and a large number of those who have not state that they may not, then the cost of offering a tax credit to the few late adopters may not be advisable. Considerations may be given to reducing or eliminating tax credits for less expensive items such as caulking and weatherstripping and increase those credits given for more expensive features such as solar water heaters and wall insulation.

The results indicated that the age of the house and the age of the occupants were factors in the adoption of energy-saving features and measures. This also indicated that older homes and older persons have already taken action to conserve energy and that future programs offering tax credits may need to be directed to specific target groups. More educational material may need to be developed to reach other specific target groups to encourage the adoption of the more costly energy saving features.

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OHIO EMPLOYMENT OPPORTUNITIES FOR CONSUMER SERVICE GRADUATES

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ABSTRACT

The purposes of this study were to identify Ohio organizations which do or would employ consumer service personnel and the professional and personal qualifications required or desired. Respondents stressed the importance of business, consumer economics, communications knowledge, and ability to work with people. The study also identified job responsibilities, titles, and entry level positions.

The consumer service major in the Department of Home Economics and Consumer Sciences at Miami University is an interdisciplinary program. Students take courses in business, communications, political sciences and social sciences as well as in home economics.

Individuals seek higher education for a variety of reasons. A major reason is to obtain the educational background required to enter a specific occupation or profession. A profession assumes responsibility for adequate preparation of its members [3]. Adequate preparation should include a program of study which is relevant to the current market situation and the specific positions which graduates hope to obtain. Studies of the effectiveness of education in relation to job responsibilities can help educators evaluate curricula [5].

The assessment of curriculum quality can take several forms. Conducting follow-up studies of graduates is one way to keep programs current with career needs of students [2]. This technique is necessarily limited to the past and current experiences of a limited number of graduates as perceived by the graduates themselves. This technique does not tap potential sources of employment nor does it provide the full range of information needed for curriculum review.

Another technique used in curriculum evaluation is to conduct studies of career opportunities for graduates by surveying current and prospective employers of the graduates. Studies by Burton [1] and Ristau [6] supported the need for consumer affairs professionals in business and suggested the use of interdisciplinary preparation programs. Ristau [6] relied heavily on information from firms which employed members of the Society of Consumer Affairs Professionals (SOCAP) but recommended that further information was needed from non-SOCAP firms.

Consumer affairs professionals are employed in a wide variety of positions in addition to traditional home economics business positions such as communication and journalism, extension education and in consumer protection and family services. Responses from government and business led Burton [1] to recommend that students desiring a career in consumer affairs should major in business, emphasize communications, and try for some field work in the consumer area during their undergraduate years. Study of the employment practices and needs of government agencies and organizations was recommended by Ristau [6].

The need for current comprehensive information about the employment of consumer affairs professionals is evident. Studies by Burton and Bowers [2] and Ristau [6] confirmed this need. A comprehensive study of Ohio employment opportunities for consumer affairs graduates is one step in meeting this need and assuring undergraduates a professionally relevant education.

PROCEDURE

Population and Sample Selection

The population for this study was companies which market consumer products and/or services throughout the state of Ohio (existing and prospective employers of consumer service graduates). From this population a sample of 255 companies and agencies was chosen to provide geographic and organizational diversity using various consumer, agency, and business directories. Organizations included those which (a) develop and market consumer products and/or services, such as food companies, household equipment manufacturers, utility companies, and banks (213 companies) and (b) assist consumers in understanding and interpreting information and legislation, such as government consumer protection agencies and the mass media (42 agencies and companies). Each of these organizations employed 25 or more persons. The sample was restricted to Ohio due to funding limitations.

Research Design

Data collection. Data was gathered by means of a mail questionnaire sent in the Spring of 1982. The questionnaire was modeled after the one used in the Ristau study [6]. A cover letter explaining the purpose of the study, a questionnaire, a consumer service curriculum guide, and a metered self-addressed envelope were sent to each of the participants. A follow-up mailing was sent to

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non-respondents to increase the participation rate. A final response rate of 36 percent (93 respondents) was achieved in the study.

Coding and analysis. The Statistical Package for Social Sciences (SPSS) was used to facilitate data analysis. Frequencies, percentages and means were computed for use in the analysis of the data.

RESULTS AND DISCUSSION

Ninety-three of the 255 organizations surveyed responded to the questionnaire (36%). The preliminary questions asked respondents if they do or would hire consumer service personnel. If respondents answered "no" to these questions, they did not finish the questionnaire. Therefore, the decision was made to not include those questionnaires in which the respondent had answered only the preliminary questions. As a result, 19 percent (48) of the questionnaires were used in the analysis.

Six types of organizations supplied the majority of responses. Half of the 48 organizations were food related (11), utility companies (7) or state agencies (6) (Table 1). Insurance companies, home equipment organizations and banks accounted for an additional one-fourth of the respondents. Other respondents included grocery and restaurant chains, retail department stores, toiletry producers, newspapers, and TV stations.

TABLE 1. Types of Organizations Responding and in Subset.

Type of Organization	Total Respondents		Respondents In Subset	
	No.	%	No.	%
Food Related	17	18.3	11	22.9
Insurance	12	12.9	4	8.3
Equipment	10	10.8	4	8.3
Utility Company	9	9.7	7	14.6
State Agency	9	9.7	6	12.5
Banks	7	7.5	4	8.3
Retail Dept. Store	5	5.4	2	4.2
Grocery Chain	4	4.3	3	6.3
Restaurant Chain	4	4.3	2	4.2
Newspaper	4	4.3	1	2.1
Toiletry Producer	3	3.2	2	4.2
Radio/TV	3	3.2	1	2.1
Miscellaneous	6	6.4	1	2.1
Total	93	100.0	48	100.0

Most of the respondents were either headquarters (33%) or branch offices (29%) (Table 2). Nine more (19%) were subsidiaries. These three structures of organizations accounted for four-fifths of the usable responses.

Most (68%) of the 48 responding companies and agencies currently hire persons with a consumer affairs background and another 10 (21%) would consider doing so. Among those who have such employees, most have fewer than five.

TABLE 2. Structure of Organizations Responding and in Subset.

Structure of Organization	Total Respondents		Respondents In Subset	
	No.	%	No.	%
Independent	10	10.8	2	4.2
Subsidiary	25	26.9	9	18.8
Headquarters	25	26.9	16	33.3
Branch	20	21.5	14	29.2
Other	10	10.8	7	14.6
Missing	3	3.2	0	-
Total	93	100.0	48	100.0

The question, "To what extent would study within the following areas be important?" was divided into four subject matter areas. These were home economics, business, mass communications, and political science. Specific courses within these four categories were listed. Responding to the home economics courses, nearly half of the respondents indicated food science was extremely or quite important (Table 3). Consumer economics was rated extremely or quite important by 42 percent of those responding. Over one-third (38%) said that food management was extremely or quite important. Among those responding, 79 percent indicated that clothing and textiles was of little or no importance and 75 percent stated that family studies and child development was of no importance.

Several business courses were highly valued by respondents. A majority of the respondents rated management (71%) and marketing (66%) as extremely or quite important. Both economics and finance were rated extremely or quite important by more than half (56%) and accounting was rated extremely or quite important by one-half of the respondents.

Among the communication courses, two-thirds of the respondents rated public speaking as extremely or quite important. Technical writing was rated extremely or quite important by nearly one-half (48%) of the respondents. One-half indicated that radio and television production was of little or no importance.

All three political science courses were considered to be of at least some importance to all respondents. Of the three, legislative process was considered to be extremely or quite important by the highest proportion (42%).

Respondents were asked to rate the importance of selected personal and academic characteristics when considering applicants for consumer service positions. Ten personal and academic characteristics were listed, along with an open-ended "other" category. Those personal and academic characteristics which were considered extremely or quite important by a majority of respondents were ability to work with people (98%), leadership ability (87%), speaking ability (85%), writing ability (78%) and above

average grade achievement (54%) (Table 4). Two characteristics, experience in government affairs and willingness to relocate, were considered to be of little or no importance by the respondents.

TABLE 3. Importance of Courses to Employment.

	Importance						
	Extremely or Quite		Some		Little or No		
Courses	No.	%	No.	%	No.	%	Mean
Home Economics Courses							
Consumer Economics	20	41.7	12	25.0	16	33.3	3.08
Food Science	23	47.9	4	8.3	21	43.8	2.88
Food Management	18	37.5	7	14.6	23	48.0	2.78
Personal and Family Management	15	31.2	6	12.5	27	56.3	2.44
Household Equipment	10	20.8	7	14.6	31	64.6	2.27
Family Studies, Child Development	3	6.3	9	18.8	36	75.1	1.77
Clothing and Textiles	4	8.3	6	12.5	38	79.2	1.67
Business Courses							
Management	34	70.8	9	18.8	5	10.4	3.94
Marketing	32	66.7	9	18.8	7	24.6	3.88
Economics	27	56.3	10	20.8	11	23.0	3.58
Finance	27	56.3	12	25.0	9	18.7	3.54
Advertising	22	45.8	15	31.3	11	22.9	3.46
Accounting	24	50.0	12	25.0	12	25.0	3.38
Communications Courses							
Public Speaking	32	66.7	8	16.7	8	16.7	3.77
Technical Writing	23	47.9	12	25.0	13	27.1	3.25
News and Feature Writing	18	37.5	11	22.9	19	39.6	2.83
Radio and T.V. Production	10	20.9	14	29.2	24	50.0	2.42
Political Science Courses							
Legislative Process	20	41.7	12	25.0	16	32.4	3.10
Public Policy	19	39.6	15	31.3	14	29.2	3.10
Law	17	35.4	16	33.3	15	31.3	2.98

TABLE 4. Characteristics Important to Employment (Note: N varies).

	Importance							
	Extremely or Quite		Some		Little or No			
Characteristics	No.	%	No.	%	No.	%	N	Mean
Ability to Work With People	45	97.8	0	-	1	2.2	46	4.83
Speaking Ability	39	84.8	5	10.9	2	4.3	46	4.39
Leadership Ability	39	86.7	3	6.7	3	6.7	45	4.20
Writing Ability	36	78.3	3	17.4	2	4.3	46	4.15
Above Average Grades	25	54.4	18	39.1	3	6.5	46	3.57
Business Experience	19	41.3	19	41.3	8	17.3	46	3.33
Willing to Travel	17	37.0	17	37.0	12	26.0	46	3.17
Consumer Affairs Experience	15	33.3	17	37.8	13	28.9	45	3.11
Willing to Relocate	13	28.9	13	28.9	19	42.2	45	2.80
Government Affairs Experience	8	18.6	13	30.2	22	51.2	43	2.47

Job responsibilities of consumer service personnel varied widely according to the 30 organizations who responded to this question. The responsibilities most frequently mentioned were: liaison with the public or with teacher groups, marketing, preparing promotional materials, customer service, complaint mediation, sales, and purchasing or buying (Table 5). Respondents listed as many as five different job responsibilities. The responsibility most frequently listed first was customer service, followed by investigating complaints, marketing, and sales.

TABLE 5. Job Responsibilities.

Job Responsibilities	Total No.	No. of Respondents in Order of Response				
		1st	2nd	3rd	4th	5th
Customer Service	5	4	1	0	0	0
Investigate Complaints	3	3	0	0	0	0
Sales	5	3	2	0	0	0
Marketing	6	3	2	1	0	0
Public Liaison--Teacher Groups	7	2	2	1	1	1
Complaint Mediation	5	2	3	0	0	0
Preparing Promotional Materials	6	0	2	4	0	0
Purchasing or Buying	4	1	1	2	0	0

Consumer service personnel are given widely varying titles in the organizations surveyed. The most frequently given title was that of "consumer affairs," although only seven respondents reported use of this title. Other fairly popular titles were "customer relations," "manager," "sales representative," "home economist," "consumer service specialist," and "management assistant." At least eight other titles were used by one or more of the organizations responding.

Twenty respondents named an entry level position for consumer service personnel in their organization. Thirteen different positions were identified. Most frequently mentioned were "consumer service representative" and "sales trainee" followed by "energy specialist" or "utility representative," "investigator," and "supervisor" or "director." All other entry positions were identified by only one of the respondents.

When asked what suggestions they would offer to make the consumer service curriculum more responsive to the needs of their organization, the majority of those responding (74%) suggested more business courses. One-fourth suggested more mass communications courses. The home economics courses most often recommended were foods courses (18%).

One-third of the respondents (16) indicated a willingness to work with undergraduate students in either a summer work experience or field experience during the school year. Several noted conditions but all sixteen gave contact names.

CONCLUSIONS AND IMPLICATIONS

The area of consumer service or consumer affairs continues to offer opportunities for home economics graduates. A large proportion of the organizations responding currently employ persons with a consumer service background and more than half of those who do not would consider doing so. These organizations are varied in terms of the products they sell or the services they offer.

Ohio businesses offer a wide range of employment opportunities for consumer service graduates. Advisors should continue to point out that the business concentration is a sound choice for specialization within the major and encourage those interested in business employment to take as many business courses as possible. Because many businesses which employ consumer service personnel are food industries, the importance of foods courses also may need to be emphasized.

Communication skills, particularly writing and public speaking, were highly valued by the respondents. Such skills are developed through academic courses currently required in the consumer service curriculum or elected by students at this institution. Required courses include Essentials of Public Speaking, Technical Writing, and a choice of Interpersonal Communications, Radio and T.V. Writing, Public Relations, News Writing or Feature Writing. This study indicates that radio and television production courses may not be as important to our students as additional business courses.

Several personal characteristics were important to the respondents, such as the ability to work with people and leadership ability. Advisors may need to work with students to be sure the students are developing these characteristics through course work or extra-curricular activities.

To acquire consumer service positions, students need to have a broad definition of the roles consumer service specialists have in organizations and contact a diversity of organizations. In some cases graduates should be prepared to approach organizations who do not currently hire consumer service personnel and convince them that their abilities and skills would be valuable to the organization. Since job responsibilities and job titles are quite varied among organizations, students need to consider a wide variety of positions with diverse job titles. Matching skills and abilities to position requirements rather than to position titles should be of foremost concern.

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AIRLINE DEREGULATION: A POLICY FIASCO

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We meet at a location which tragically symbolizes one of the arguments I make today. From my perspective, the pressure to cut costs to the bone, perhaps as part of a larger effort to finish the job within the funds allocated through a competitive bidding process, contributed to the accident that occurred in this building not long ago. I am just as convinced that some truckers, who had mortgaged their lives to buy second-hand rigs, believing that rosy predictions of huge profits were correct, felt pushed against the proverbial wall by the latest round of "user fees" recently enacted in Washington. Similarly, I can understand why a despondent Californian, denied unemployment benefits, would walk into the public agency's office in Sacramento, shooting the first employee he saw. In a sense, the last two cases may be said to represent intentional behavior, while the manager who diligently cuts costs to the bone does not expect the outcome to be literal as well as figurative. Pressure, or stress, distorts judgment, and it is well to recognize as much.

My current position is slightly different than it has been over most of the past two decades. I had adopted the view that the transportation industries had some unique characteristics which called for a different public policy than generally applicable elsewhere. I now conclude that the need for economic regulation is not unique to transportation industries, but is a requirement for the sustained viability of <u>any</u> industry. Economic regulation is not an exception to the norm of unrestricted competition, but is itself the norm. In so stating, I do not suggest that the precise form and method of regulation need be identical for all industries, only that some form of regulation is inevitable and necessary. If it is not legislated or otherwise authorized, producers are left with little choice but to resort to illegal collusion.

Economists argue that economic regulation should be used only in extremely rare circumstances. All forms of transportation are not proper subjects of regulation, so they say, and neither is our communications system. While I once agreed that economists generally were correct about many industries, but not about transportation, I now suggest that they are <u>wholly incorrect</u> with respect to <u>all</u> industries. As I shall argue, we can no longer afford to permit economics to destroy economies. Where the airline industry is concerned, my position differs not only from that of the economists, but also from those in industry and elsewhere who might retain a longing nostalgia for the 40-year regulatory regime of the Civil Aeronautics Board (CAB).

The basic case is easily made for price and capacity regulation of public transportation systems. Suppose, for example, I wish to fly from New York to Los Angeles. Traditionally, three airlines offered me seats on flights scheduled in close proximity to meet peak travel demand, In Milton Friedman's already classic phrase, I was "free to choose" one of the three, leaving the other two with empty seats. The 1978 U.S. policy of deregulation encouraged four additional airlines to offer service on the same route. I now have greater "freedom to choose" (seven alternatives), but the result is six empty seats. This problem is inherent to any transportation system organized to provide "head to head" competition, because the service being offered cannot be held in inventory awaiting other customers; service is destroyed by competition itself. It follows that the greater the direct airline competition, the greater the number of empty seats, the more fuel wasted in moving them about, and the higher the cost per passenger actually moved.

There is no way to deal with the empty seat problem except by limiting the flight frequency. In principle, the problem can be minimized only by eliminating direct competition. If a transportation system is to be so operated, a case can be made for public supervision of safety and prices. This is the classic outline of any industry defined as a public utility; if it is in the public interest to permit a monopoly operation, the monopolist cannot be permitted complete control. The corollary question is whether the public interest demands that such a system be kept in operation even if this requires cash subsidy. While all industries are subsidized in some way, only cash subsidies seem to be a major policy issue.

This position has not seriously been considered since the Hoover Administration set up a regulatory regime, a piece of history seldom explored. Any who suggest that the two standard alternatives of "regulated competition" and "unregulated competition" should be broadened to include consideration of such a third alternative are, as a matter of routine, not invited to appear before legislative committees. I am hardly alone in this category, since all such hearings and policy explorations are limited to those who espouse one of the two conventional alternatives. This is especially helpful to those holding hearings, who usually proclaim that <u>all</u> academics who study such matters are advocates of deregulation.

The brief statement of my position has been labeled inaccurate by two ardent deregulators who wrote to <u>Regulation</u>, the magazine published by the American Enterprise Institute. Every traveler between New York and Los Angeles does not leave six empty seats, because every airline does not operate enough flights to satisfy the entire demand. While this is technically correct, the fundamental purpose of deregulation was to provide

more alternatives for each traveler. This is why airlines began invading each other's route structures. If there are to be more alternatives available for each passenger, an increase in empty seats is inevitable, but this is not the only example of waste. As more and more carriers fly the same routes, the scheduling of pilots and mechanics also becomes more wasteful. If, e.g., United flies less frequently than it used to, because Pan American has entered the transcontinental war, there is considerable associated waste.

The result of deregulation is typical and easily described. As more and more flights are scheduled, price cutting wars take hold. These dominate the 75 percent or so of tickets now sold on some discount or another, usually below cost. In order to recover some of these losses, airlines then soak the standard business traveler. Just before the air controllers' strike in 1981, the transcontinental coach fare had risen to $956 roundtrip. When flights then were restricted, things became a bit more efficient, fares dropping. Now that many of the restrictions have been removed, standard coach fares once again stand at the $1000 mark. If you travel as a tourist, you may benefit, but is it reasonable to have coach travelers provide so much financial support to tourists? The larger issue, however, lies in the economic theology itself, because price-cutting wars and bankruptcies are not the unalloyed successes the theology makes them out to be.

THE FALLACIES OF THEOLOGY

In taking on the conventional wisdom, I raise questions central to activities of groups such as this. Consumer-oriented groups are among the primary victims of the theology, because they have been encouraged to adopt the seductive belief that more competition always benefits the consumer. Such groups also have been in the forefront among those who have neglected what I take to the crucial connection of economic regulation and social regulation of health and safety standards. While this connection is important in virtually all industries, it is especially crucial in the airline industry. As supporters of the conventional wisdom, groups such as this perform, in my view, a great disservice to consumers. This is a fitting place to discuss the fallacies in the theology, because "applied economics", or "home economics," stands at the very center of that theology.

Classical economics is attractive now, as it was in Adam Smith's time, because it promises escape from the repressive authority of the monopolist, socialist or capitalist. The market often is pictured as a system of "mutual exchange" or "voluntary agreement", but this is a gross misrepresentation. This mythical form of "voluntary association," in principle a form of anarchism, deals only with the buyer-seller agreement that is the final step of a longer process. If one understands that process, one understands economics which, at root, really is quite simple. In principle, economics strives to reverse the authority relationship by enabling the consumer to dominate sellers.

The purpose of a market is to make each consumer a "sovereign" who "votes" for one supplier while rejecting others. If this is the analogy of Keynesian Nobel winner Paul Samuelson, the monetarist Nobel winner Milton Friedman insists that unless the consumer is "free to choose" among competing producers, there can be no market in shirts, shoes, or steel. On this most fundamental matter, schools of economic thought disagree not at all. Unfortunately, this duplication of output can become so excessive that much of it cannot be sold for the costs of production. If this is how markets work, and the evidence and the theory are clear enough, then our thinking is upside down. Economic problems and slumps are not traceable to the insiders (managers and workers) or outsiders (policy-makers) often accused of subverting economic principles. Some blame managers who seek short-term profits but ignore long-term planning, while others criticize overpaid and unproductive workers. Still others aim at the Federal Reserve for being either "too tight" or "too loose" with money supply, or at politicians callous toward unemployment or casual about runaway deficit spending. Suppose, however, that the problem lies in the basic design of markets themselves which, no matter how cherished, make redundant capacity inevitably lead to depression? Are Keynesians, who would stimulate demand, and supply-siders, who would take the opposite tack, as far off the mark as other schools of economic thought which ignore this problem?

If in principle the consumer is the boss, producers are employees who respond to the boss's demands, a word with an involuntary connotation. When a dozen shirt manufacturers each offer a customer a shirt when only one is sought, the customer "maximizes efficiency" by rejecting eleven shirts in favor of the "one best buy." The greater the number of competing firms, the greater the number of shirts rejected at the time of each purchase, and, on this matter, economic and management theories have a curiously symbiotic relationship. If economic theory holds that competition improves efficiency, management theory holds that duplication is inefficient. If the single buyer and many sellers constitute a temporary social organization, "efficient" competition becomes "inefficient" duplication. The buyer uses a management principle (eliminate duplication) to turn away all sellers but one. The problem is not overcome by shifting attention to "aggregate" demand and supply. Taking all purchases together, supply always must greatly exceed demand if consumers are to make choices among as many alternatives as possible. Economics, then, begins with the consumer, and "applied economics" seeks to make the consumer as competent as possible at making choices. Given the traditional role of the wife as manager of the home, this is the origin of "home economics."

Locked into a desperate struggle, each shirtmaker must offer the customer lower and lower prices in an attempt to underbid competitors and get at least some return on the money spent to make

shirts. This compels shirtmakers to search for ways to cut costs, and wages come quickly to mind. Managers lay off some workers (the basic function of any manager is to increase unemployment), asking those remaining to turn out more shirts for lower wages. The next step is to close down plants where labor costs are high, then make shirts in other parts of the country (perhaps with illegal aliens), or overseas. The search for "efficiency," "productivity," and "lower prices" becomes paradoxically self-destructive. Unless those laid off quickly find new jobs, they become unable to buy any shirts at all. The highest management efficiency is achieved when industries churn out maximum production, but few can afford to buy it. Without much in the way of conscious thought, managers and consumers actively seek to make slaves of workers. How does the paradox hide this from us?

Economic principles seek to maximize consumer efficiency by minimizing consumer spending. Management principles seek to maximize producer efficiency by minimizing producer spending. Stripped to essentials, economic theory ignores the role of the consumer as a worker, and management theory ignores the role of the worker as a consumer. Because each theory focuses only upon one-half of the individual, neither considers social efficiency. And, in the classical theory, the unarticulated assumption is that consumers, whose interests are uppermost in the minds of members of this group, are persons of independent wealth. In economics, they are "givens."

In theory, supply "responds" to demand, although some argue (John Kenneth Galbraith and conservative supply-side economists agree on this) that supply can "create" demand through advertising or innovation. But with many suppliers responding to, ot seeking to create, the same demand, supply inevitably must exceed demand. Indeed, this is an explicit objective of public policy; antitrust laws encourage as much redundance of output (competition) as possible, because only as supply goes up will prices come down. The faith remains unchanged that with all-out competition, the "invisible hand" will improve overall efficiency by driving inefficient producers into bankruptcy. Failures are now higher than at any time since the Great Depression, but economists hesitate to proclaim what their theories hold, i.e., the greater the number of failures, the more efficient the market.

Despite vague caveats, economists remain generally committed to "Say's Law" (1803) that any market system will provide enough demand to buy its output, at least in the sense that anything produced can be sold if prices fall low enough. From a hidebound conservative perspective, this becomes the operational explanation for "trickle-down" concepts; after the rich have made their choices, the poor will buy the leftovers at bargain prices. To the Keynesian, it may be necessary to "stimulate" demand enough to make sure this happens. Both assume, unfortunately, that overproduction is impossible when, indeed, overproduction is the fundamental purpose of a market. Say's Law, ignoring the basic relationship of one buyer to many sellers, cannot hold.

When American air traffic controllers were fired for striking in 1981, substantial reductions in the number of flights at major airports did not hinder air travel at all, and airlines still had to offer discount fares to fill many of their seats. When the tragedy of the "tainted Tylenol capsules" occurred in the fall of 1982, the removal of that product from the market did not leave buyers without pain-killers. Economists who favor all-out competition, of course, would not sympathize with airline managers forced to sell at ever-declining prices, because the economists believe this compels firms to become more efficient. If, however, redundant production, not lack of demand, is the cause, and perhaps the only cause, of depressions, recent history appears in a different light.

THE UBIQUITY OF REGULATION

If regulation is necessary for stability of some sort, the evidence should easily be available, and it is. Agriculture is only the most obvious example, even if we hesitate to use the word "regulation." We have used price supports, plowing crops under, government purchases of surpluses, paying farmers to keep land idle and, this year, the "crop-swap" program of giving farmers surpluses to sell. In other industries, duties, tariffs, quotas, cartel agreements and the like, all labeled as cynical "protectionism", have been widely used because they are necessary. Even World War II was a form of regulation, and in two ways. This was the first war to regulate excessive competition by bombing it out of existence, an action which led to the long period of postwar American prosperity. Things got better during the war, not solely because of full employment and Keynesian demand stimulation, but because home-front supply was limited by the need for military production.

In the United States, the biggest firms have been able to engage in a form of unacknowledged self-regulation, with the unwitting help of the Justice Department. In the American pattern of oligopoly, large firms have been strong enough to "administer" prices, a necessity for long-term contracts with suppliers and workers. This form of stability was also useful to consumers who would prefer to see companies stay in business long enough to honor warranties and make repairs. The biggest firms, such as General Motors and General Electric, could have become larger than they did, but the largest firm in any industry must be wary of antitrust intervention if its market share becomes too large. Thus, fear of divestiture acted to restrain competition to some extent until revitalized European and Japanese industry (together with new industry in developing countries) gave us the huge overcapacity we have around the world today. Not all of these more or less legal forms of regulation are equally desirable, nor are the illegal forms which producers often feel compelled to use.

When there is no other way to achieve some form of industrial stability, producers illegally plan

(or collude) to bring this about. Often, the collusion supports important public policy objectives. In the famous electrical manufacturers' conspiracy of the 1950s and 1960s, the biggest firms, GE and Westinghouse, jointly planned with smaller firms to make sure the Justice Department would not intervene. The basic purpose of the conspiracy was to keep some business away from GE and Westinghouse who, left on their own, could have driven smaller competitors to the wall. Today, the Justice Department actively pursues price-fixing and bid-rigging violations in the highway construction industry, but firms really have little choice. Five or ten construction firms cannot afford to assemble the people, equipment, and materials for a contract, knowing that only one will get the job. They have been dividing the business for years, a process that should be legalized, done openly, and with contracting agencies fully participating. Competitive bidding leads to prices that are too low which, in turn, cause widespread cheating, corner cutting, and risks to public safety.

Industries forced into a completely unregulated environment wander into collapse, and the results are not always lower prices, at least not to all those involved. Deregulated bank interest rates mean profits for rich depositors, but high prices for borrowers of modest means. Deregulated rates, moreover, have more to do with keeping interest rates high than any actions by the Federal Reserve. Deregulated professional sports mean astronomical salaries for some players, but also huge tax subsidies from cities to keep teams from moving. The deregulated telephone system will produce higher rates for local telephones. And the list could go on, and on. The deregulated transportation industries are in sorry shape now, of course, because already difficult problems were made much worse by deregulation. The problems all along were those of too much competition, not too much regulation, so that adding more competition simply turned difficulty into disaster.

The historical record is clear enough, provided one is prepared to see it. While economists tend to assume that the transportation industries have been economically regulated (the railroads from 1887, the trucks from 1935, the airlines from 1938), the industries never have been regulated in the classic mode usually associated with regulation, i.e., the "natural monopoly" design historically accepted for public utilities. Regulation was established in the transportation industries only after widespread acceptance of the notion that "excessive competition" already had run amok, and that competition must therefore be "limited" in some way. The method chosen was to "grandfather in" all existing carriers, but without asking if the existing number of carriers already was too many for efficient operations. Had the question been asked, the outcome might have been a reduction in the number of railroads, truckers, and airlines, but the regulatory bodies never had that option. Instead, they were left to suffer the slings and arrows of those who, dedicated to classical theology, persistently shouted, "Why don't you let still more companies enter the business?" I suppose that many believe even today that we need more airlines, more trucking companies and, perhaps above all, more cheese factories.

Today, the deregulated industries are much worse off financially than before deregulation. To the advocates of deregulation, of course, deregulation, deregulation cannot be a problem at all because, in their eyes, deregulation is always a solution. There is no way to answer such questions factually, because it is technically impossible to empirically validate any propositions about public policy. One can only collect data associated with a real situation, then compare it against the imaginary data of a hypothetical situation. Many arguments begin, e.g., with such assertions as "If standard fares have risen since airline deregulation, they have risen less than would have been the case with continued CAB regulation." The only fact is that fares have fluctuated, mostly upward for standard fares, and predictions of what would have happened under CAB regulation, or without the air controllers' strike, depend solely upon any observer's judgment. All arguments are based upon the plausibility of competing theories, not proven cause-effect relationships. What I argue next, then, depends upon plausibility, not proof.

ECONOMIC REGULATION AS A PREREQUISITE FOR SAFETY

In a great many industries, greater competition increases the danger to the health and safety of workers, consumers, and third parties. Among industries I have looked at, this is the case for airlines, trucking, and coal mines. This can be discounted by arguing that the data show only "coincidences," not "correlations," but when a pattern repeats itself so often, we are entitled to ask if any discipline can amount to much when it ignores the subject. Admittedly, it is tempting to confine research to what can be easily researched; price trends are easily followed, but it is more difficult to relate price data to the additional costs imposed by accidents and expanded safety enforcement. This poses two policy dilemmas seldom addressed. Strong unions, including the troubled Teamsters, contribute mightily to high safety standards, and small business contributes just as mightily to tragedy.

Airline accidents are relatively few in number, so that one cannot rely wholly upon statistical data, but must instead undertake to study and evaluate the policy environment in which firms operate, for the sake of understanding how and why the environment contributes to tragedy. The terrible accident in Washington slightly over a year ago can, I believe, be traced to the environment of deregulation. To cite the findings of the National Transportation Safety Board:
- the pilots had little experience in winter flying conditions
- the airline which de-iced the airplane before takeoff did not operate the type of airplane in use, and had no operating manual for that airplane

- there was poor coordination between the ground crew (from one airline) and the flight crew (from another)
- as with a number of airlines, the crew had been urged again and again to avoid the use of full engine power, because this increases maintenance costs and can have an adverse influence upon warranty conditions

When a small airline is encouraged to begin operating on different routes, it has no institutional memory to bring to bear on its training programs. Nobody can legislate in detail the solution to such problems, but there is a great advantage to having airlines fly on fixed routes for long periods, so that at least the senior members of each crew are used to dealing with critical combinations of weather and local flight rules. From my perspective, the current trend toward more airline accidents, while not immediately significant in statistical terms, is wholly traceable to deregulation.

Historically, unregulated airlines always have had poorer safety records than regulated ones and, in recent years, the Federal Aviation Administration (FAA) has had to give close attention to commuter airlines and other small carriers, such as the one suspended only a few weeks ago for unsafe operations between New York and Guyana. The greater the number of firms in an industry, the greater the number of inspectors required to search them out and supervise them. Simply put, deregulation leads inevitably to one of only two possible outcomes: (1) if the agency responsible for safety does not increase its budget, safety declines; or (2) safety is maintained only by huge increases in enforcement budgets. With budgets being pared everywhere now, who can doubt what is happening?

On these matters, Alfred E. Kahn, who spearheaded deregulation as CAB chairman, once branded me "irresponsible" for daring to suggest that deregulation adversely affected safety. Yet Kahn himself has testified to the connection. In advocating that the CAB continue the rule he enacted about the handling of "bumped" airline passengers, he wrote as follows to The Washington Post:

> When customers are inadequately informed, competition may take the form of providing adulterated or unsafe products, with the least scrupulous among the competitors forcing the more scrupulous to cut corners as well. It shouldn't be surprising that many ethical business people themselves are eager to have the government set limits on this kind of competition. The Washington Post, June 19, 1982 (letter).

If all competitors are compelled to lower standards, it is of little significance to buyers which competitor first began cheating, or which competitor may be more genetically dishonest than others. The more logical conclusion is that if everybody must cheat, the fault is in the system, not the individuals. Further, an important aspect of regulation is that it accomplishes the needed function of "fully informing" consumers. A moment's reflection should indicate, moreover, that the airline problem of "overbooking" is itself a by-product of head-to-head competition.

It is worth noting in addition that the "upstart" airlines, those newcomers to the business who have featured very low fares (Kahn is a director of one such firm), are the targets of many more passenger complaints than are the established carriers. I do not allege that the complaints are safety-oriented, but passengers apparently believe that the quality of service is less than they had expected. This merely follows a pattern that has recurred many times in the past. In the years following World War II, when the "unscheduled" carriers were struggling to survive, Better Business Bureaus around the country submitted innumerable complaints of shabby service and operations.

Generally, the deregulation champions rely largely upon insurance to solve such problems. If safety suffers enough, of course, firms will be unable to get insurance. Unfortunately, this withdrawal of insurance coverage occurs only after tragedy strikes. We are dealing here, as in many industries which affect health and safety, with the necessity of assuring consumers that what they buy is safe. I urge upon you the notion, perhaps a new one to you, that economic regulation is a prerequisite to safety regulation, and that safety regulation is virtually impossible in a highly competitive market. This connection of economic and safety regulation, of course, is applicable, as I see it, across the board, not a connection unique to the transportation industries.

The greater the competitive pressures, the more the firms in any industry are tempted to become careless about the health and safety of workers and customers. When consumer-oriented groups, therefore, diligently seek to combine all-out competition with effective regulation of safety standards, they work at cross-purpose with themselves. When such groups fail to press legislators to pay attention to the evidence about safety, they commit the intellectual crime of permitting their theories to smother the search for correlations. As I put it in one article, we are entitled to ask if Ralph Nader and Milton Friedman are not thoroughly confused when they agree with each other on a major issue. And, if producers were assured that prices would include the costs of meeting safety standards, they would complain less about the alleged "burdens" of such standards. We need, then, more economic regulation in many industries, and forms of regulation not confined within national borders. As it stands now, we are on the threshold of repeating the experience of the 1930's. The sequence of overbuilding, trade wars, and military conflict looms immediately ahead.

We are out of step with the world, most countries having learned long ago that transportation is a public utility. The best transportation systems in the world are government operated, but I do not see the question of ownership as crucial. It is

clear, however, that airline regulation is a matter of global concern. Whatever the situation now, we cannot forever afford to fly untold numbers of empty seats back and forth across the oceans. This is wasteful on a scale that regulators could not approach, even if they earnestly attempted to be as wasteful as possible. As was the case within the U.S. from 1938 to 1978, the problems of international aviation are not too much regulation and too little competition, as the long-term critics of the International Air Transport Association (IATA) would have it, but precisely the opposite.

The CAB and ICC never really had a chance; they were required, of all things, to subsidize head-to-head competition, about the silliest and most inefficient form of regulation imaginable. These regulatory regimes were also wasteful in spending enormous sums trying to decide how many firms should be licensed to operate on given routes. The only rational standard then and now is one firm per route, no more. It is time to read what historians have long told us about the causes of depressions, and time to remove economics from its leading position. With three economic advisers in the White House, it is small wonder we are in trouble.

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ADDENDUM

After this article was written, but before it was sent off for printing, an incident occurred which demands at least some attention. American Airlines and Braniff International had conducted vigorous head-to-head competition at the Dallas Airport which served as a "hub" for both, Braniff ultimately declaring bankruptcy. At the time it shut down, Braniff executives charged that American had indulged in "unfair competition," the first accusation involving computer reservation systems. Now, the Justice Department has stepped in with evidence which allegedly shows that the president of American, in a telephone conversation with his Braniff counterpart, had suggested that the two firms agree to a 20 percent rise in fares so as to offset the huge losses both were experiencing in price-cutting wars. A New York Times report then indicated (Feb. 26) that American had succeeded beyond measure in dominating the market share war at Dallas, carrying more than 60 percent of the passengers at that airport.

Financial analysts noted, however, that despite the cost-saving concentration of its operations at Dallas, American continued to suffer losses. These were attributed to a general decline in travel, very heavy use of discount fares, and the high operating costs associated with the company's five unions. I suggest that such analyses typify the manner in which modes of economic thinking hide from view other evidence which, if examined at length, would lead to considerably different conclusions. Some of the advocates of deregulation repeatedly have suggested that the current emphasis upon "hub-spoke" operations is a prime example of the efficiencies introduced by deregulation. Yet "hub-spoke" operations are anything but efficient when viewed in overall perspective, and some attending this conference may be examples of what I now argue.

From the perspective of any one airline, concentration of operations at a single large airport does indeed promise great efficiencies. Many, perhaps most, flights can be operated in an "out and back" routing system which permits substantial savings on maintenance and training costs. When many airlines follow this pattern in a highly competitive market, however, efficiency quickly shifts to inefficiency. To cite just a single comparison, I use the concentration of American's flights at Dallas and that of United's flights at Chicago. The passenger traveling to New York from Dallas can get frequent and efficient nonstop service from American, but the same traveler also can fly via United through Chicago. In trying to fill empty seats, United offers a lower regular coach fare, and perhaps it also makes available a higher number of discount seats. Passengers willing to exchange a few hours in time for a lower fare then fly via United which, if enough passengers fly this circuitous route, may add extra flights. As more and more passengers do this, however, costs go up and losses mount even more. More circuitous travel means more total landings than required in an efficient system, and more landings ultimately increase maintenance costs. Nor are increased costs limited to airplanes and wasted fuel. More baggage handlers are needed because there is an ever increasing amount of baggage to be transferred at every "hub." At first, the hordes of connecting passengers are a boon for airport concessionaires, but the crowds give a very misleading picture of what is needed in the way of gates and terminal facilities. Airports are encouraged to expand in ways that actually would be unneeded in a system that was efficient from an overall perspective. In the case at hand, of course, American loses out on some nonstop passengers in and out of Dallas, and must seek to expand (at great cost) its search for "spoke-hub-spoke" passengers. As each carrier improves its operating efficiency, the system as a whole becomes less and less efficient. Are there solutions?

Of course there are, but deregulators would not approve. One such solution is a "natural monopoly" on all nonstop routes in and out of a "hub." So long as Federal Express has little head-to-head competition, for example, its use of Memphis as a "hub" makes considerable sense. The second solution is the one we abandoned. "Fixed prices" (regulated fares) would remove the encouragement to passengers to fly via circuitous routes. If any of you arrived via such routing, your travel was, in the sense of saving money, "efficient" from your point of view, but was it socially efficient? After all, you are paying less as your mileage increases. I suggest it is time to stop blaming everything on a decline in travel (in principle, supply should adjust to demand, but it does not), heavy use of discounts (deregulation compels price-cutting wars), and unions seeking to protect members from the ravages turned loose when policy-makers read economics textbooks.

THE COST REDUCTION IMPERATIVE OF DEREGULATION

Marvin S. Cohen, Stroock & Stroock & Lavan[1]

ABSTRACT

The combined pressures of the deep recession and continuing competition are forcing major airlines to reduce costs and hold fares down. Carriers are restructuring toward strong hub and spoke systems, renegotiating work rules and salaries, and generally increasing efficiency. Since deregulation, the public has gained increased convenience and a diversity of price/service options.

The combined pressures of the deep recession and continuing competition are forcing the major airlines to confront the realities of deregulation--they are finally beginning to reduce costs per seat mile and to hold fares down. The fundamental premise of deregulation--that competition would compel efficiency--is being substantiated as major carriers restructure toward strong hub and spoke systems, renegotiate work rules and salaries, and reduce overhead.

During the deregulation debate of the middle 1970's, supporters had stated that competition would force productivity improvements and increased efficiency--resulting in lower costs, lower fares and a diversity of price-service options for the public. Opponents had contended that labor costs would not diminish, and that capital costs would increase because of the higher risks in an unregulated environment. They had claimed that open price competition and route freedom would allow large airlines to drive out small ones, then when only a few large airlines were left they could raise fares and gouge the public. Some had even warned that price wars would destroy the national air transportation system.

Proponents of deregulation had pointed to the success of relatively unregulated intrastate airlines such as Southwest and PSA in offering low cost, low fare service at a profit. They had said that, since absent regulation it would be relatively easy to start an airline or to enter a new market, large carrier monopoly power would not be a problem. With low entry barriers, destructive competition would be senseless; a carrier which used below cost pricing to drive out a competitor could not sustain high fares long enough to recoup losses.

The experience of the past four years has been somewhat equivocal. Strikes, high oil prices and the long, deep recession have had a significant negative impact on the industry. Fare wars in leisure markets have contributed to trunk carrier losses. But, on the whole, the benefits of deregulation are vindicating the arguments of its supporters. The cost reduction imperative of deregulation is now forcing major airlines to seek profits by decreasing costs rather than increasing fares.

Small airlines are growing, and in many cases prospering. The industry is becoming less, rather than more, concentrated under the new competitive system. Because competition is forcing significant productivity improvements, and consequent cost reductions, fares have not kept pace with skyrocketing fuel costs. Service convenience in general has improved and small communities are receiving better service than before deregulation. But industry problems are causing some new talk of re-regulation. Large airline losses are blamed by some on the new competitive environment. However, for the most part, the people who run the airlines don't blame deregulation. They say that without the freedom and flexibility which deregulation allows them, the losses would be worse. Some medium sized cities complain of reduced air service. However, much of this has resulted from a market-caused restructuring of service by individual carriers--to provide direct service from small cities to large cities, without the stops at medium sized cities which regulatory control of route structures required.

Price wars have occurred, but most of them appear not to be destructive or predatory efforts by large airlines to drive small ones out of business. They are of two types:

1. Low fares offered by a new entrant which can make a profit at those fares, matched by an incumbent which consequently loses money and is forced to cut costs; and

2. Low fares offered during periods of slack traffic and excess capacity in an effort to fill empty seats.

While price wars may be contributing to industry losses, they are not destroying the system. One carrier has gone into bankruptcy and a few others face the possibility of a similar fate. But there are identifiable invididual reasons for the problems of each of these carriers, such as ill-advised mergers, or rapid expansion. The former local service airlines are thriving, and it is becoming apparent that most carriers will survive this difficult period. Last year, as the U.S. economy continued to stagnate and competition grew stronger, some major airlines began to reduce costs and hold fares down in order to retain passenger traffic. While last year's industry losses were high, if the economy recovers this year, many airlines are positioned to earn healthy profits.

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Airline Profitability

Recent experience demonstrates that in periods of moderately good national economic health, the airline industry can engage in price competition and still be profitable. But when the economy is poor the airline industry also does poorly. In the current worst recession in forty years, this industry, hampered also by the shortage of air traffic controllers, has suffered record losses.

1977-1978 was a period of moderate economic health for the country. Relaxation of price regulation in 1978 allowed real air fare competition for the first time. New discount fares attracted passengers, raising load factors to record levels. Although yields and average fares declined, record profits were achieved.

Just as route regulation was being relaxed in the middle of 1979, the price of oil began to skyrocket. The price rose quickly from $13.80 per barrel at the beginning of the year to over $30.00 in 1980. The effect on jet fuel cost was to increase the price per gallon from $.39 in 1978 to $.89 in 1980 and $1.04 in 1981. Such a drastic change had drastic effects. The United States and the other industrialized nations of the world have since 1979 been suffering the most serious recession since World War II. While various economists and politicians blame economic and political decisions, many are beginning to realize that the enormity of the oil price increase was the most significant factor contributing to the economic ills we now share with our global economic partners.

Most airlines attempted to pass the increased cost of fuel on to passengers--average fares increased 26.5 percent between 1979 and 1980. Since the cost of living increase during the same period was in the range of 10 percent, the hefty increase in the cost of air travel took its understandable toll in traffic losses. Scheduled airline traffic declined 2.7 percent.

As the economy continued to stagnate, traffic did not rebound in 1981. Although a brief economic upswing in early 1981 gave some hope of recovery, the economic doldrums resumed in the latter half of the year. Airlines continued to increase fares in early 1981, as fuel prices continued to increase. But as traffic declined another 2.4 percent in 1981, the industry was faced with significant excess capacity--too many seats, not enough passengers.

The illegal controller strike in August 1981 limited access to the nation's 22 major airports. Many analysts thought that this would significantly reduce capacity, allowing fares to rise. Unfortunately, the regulatory system devised by the FAA to apportion airport slots among the carriers induced airlines to maintain uneconomic high capacity levels.

As traffic declined, airlines maintained high service levels to avoid losing slots or giving up market share. This failure of airline managements to adjust capacity to the realities of declining traffic has been an unfortunate legacy of forty years of regulation. Since, under CAB regulation, fares were the same for all airlines in a market, each airline tried to compete by offering more and better service than its competitors. Managements focused particularly on market share--trying to capture the major portion of passengers in each market. After all, costs did not vary greatly among airlines and fares were identical, so the airlines with the most passengers made the most money. Now that pricing and entry are unregulated, costs and fares can differ greatly among carriers. Realizing the ramifications of this, some airline managers are shifting their focus from market share to profitability. It makes little sense to operate ten flights a day to preserve market share if three flights can operate profitably. Each airline must now control its costs and try to set fares at levels that achieve high load factors and still provide a reasonable return.

The most encouraging sign last year among major carriers was the increased ability of many of them to control costs. During the previous three years operating expenses per available ton mile (ATM) had been increasing at the average rate of 17 percent per year. Last year at many airlines expenses per ATM actually declined. Although fuel costs were somewhat lower in 1982 than their 1981 high, and leveled off last summer in the $.94-.97 range, carriers have been cutting other costs as well. Pan Am, American, Western, Republic, Continental and United each reduced operating expenses per ATM between four percent and six percent in the first three quarters of 1982; fuel price reductions can account for only 1.4 percent of these cost savings.

Airlines which suffered some of the most serious losses in 1981--Pan Am, Western, and Republic--have significantly improved their financial positions in 1982, despite reduced revenues, by this cost cutting. United Airlines, which incurred a 1981 loss of nearly $150 million, in 1982 increased its operating revenues more than 3 percent and reduced operating expenses per ATM nearly 4 percent. United's average fares were down 7 percent compared to its fares during 1981, and its traffic rose 11 percent. This combination of reduced costs, reduced fares and increased traffic resulted in a $82 million improvement in operating results in 1982.

In contract, Delta Airlines allowed operating expenses to increase in 1982 and until late in the year, kept fares at 1981 levels or higher while its traffic declined. Its operating results deteriorated $170 million in 1982 compared to 1981. Recently, Delta has lowered fares in an effort to regain lost traffic. But unless it reverses the upward trend of its seat mile expenses, Delta may not be able to maintain the lower fares which cost reductions have allowed other airlines to offer.

Commenters have expressed disappointment at the small growth in 1982 over 1981's depressed traffic levels. But there has been no economic reason for traffic to surge upward. The gross national product in the United States for the fourth quarter of 1982 was, in real terms, below its third quarter level in 1979. In no other three year

period since World War II has the economy shown no growth. In the worst recession since World War II, when bankruptcies and unemployment were at post World War II highs, and workers with jobs feared their imminent loss, the airline industry could not be expected to prosper.

The airlines have always made low profits compared to the other segments of American industry. In the long term, the cost trimming which the recession and new competition have forced upon the old large airlines should position them for new and solid profitability when our economy begins to grow again.

Structural Change

Within the airline industry, major structural change is occurring. As route freedom was quickly implemented in 1979, the local service carriers were the major beneficiaries. Trunk carriers abandoned many short haul routes to utilize their 727's and wide bodied aircraft in longer haul, thicker markets. The local service carriers added these former trunk routes to their systems, and expanded into the longer haul trunk routes from which they had formerly been excluded. The dramatic increase in fuel costs between 1979 and 1981 enhanced the cost advantages of their twin engine equipment on short and medium haul routes. At the same time, the relative cost of air travel on short haul trips increased at a lower rate than the cost of automobile travel, stimulating an increase in short haul air travel. The route strategies of many of the local service carriers have been particularly helpful. Piedmont has established linear routes which are allowing travelers in the Southeast to avoid flying through Atlanta; it is also gaining some hubbing benefits at Charlotte, Dayton and Baltimore. U.S. Air has expanded from the Northeast to Florida and from Pittsburgh to the Southwest to balance its summer peaking system with winter traffic and to extend its average length of haul. Both airlines are earning record profits.

The decline in air travel caused by higher fares and the long recession has particularly hurt the operators of large aircraft. Large aircraft require thick markets. Small, twin engine aircraft can serve medium and smaller cities to create efficient feed networks. The size of the three and four engine aircraft limits their economic use in feed networks to the relatively larger cities. The large aircraft operators have, to a significant degree, been developing strong hub and spoke systems to concentrate traffic and fill their larger aircraft while maintaining high frequency of service. Recent CAB studies show that in 1978 only one of ten trunk carriers had 20 percent or more of its departures out of its leading airport. In 1981, six of the ten did.

The success of new low cost airlines like Southwest and People Express presages significant change in the industry in the next decade. Both airlines offer regional service on short and medium length segments at such astonishingly low fares that substantial new traffic is generated when they enter markets. Their low costs have allowed them to earn healthy profits and grow rapidly.

Southwest began in the early 1970's as an intrastate Texas airline operating from Love Field in Dallas. Deregulation allowed it to expand its successful high frequency, no frill, low fare service into surrounding states. In 1980 when other airlines raised fares to cover escalating fuel costs, Southwest maintained its low fares--and ended the year with the highest profit margin in the industry (nearly 30 percent). The airline expanded in early 1982 into Arizona, Nevada and California despite the airport constraints caused by the controller shortage. Notwithstanding the start-up expenses associated with entering new stations, Southwest maintained impressive profitability in 1982. From the end of 1981 to late 1983 Southwest will have grown from a 25 plane to a 42 plane operation. Its new presence in California is sure to have significant long term competitive impact there.

People Express illustrates how low entry barriers have fallen since deregulation. In 1980 a few former officers of Texas International pooled their resources and, with the concept of a low cost airline operating out of Newark and less than $1 million, went to the capital market. Their public offering raised $26 million, enabling them to purchase used 737 aircraft from Lufthansa. In less than a year from its April 30, 1981 start-up, People Express began to earn operating profits. With the lowest seat mile costs in the industry the airline has offered startlingly low fares, filled its planes and earned $9.9 million operating profit in the first nine months of 1982.

The People Express experience on the Buffalo-Newark route demonstrates the dramatic effect low fare service can have on a medium haul market. In 1980 and through July 1981, U.S. Air served this 300 mile market--operating with load factors near 80 percent. Before People Express entered the unrestricted round trip fare was $123.

In August 1981, People began service with a round trip fare of $38.00. U.S. Air matched. Immediately traffic more than tripled! In the last five months of 1980, 82,000 passengers had flown Buffalo to Newark. In those same months of 1981, 270,000 passengers flew the route. In 1982, traffic has continued more than 300 percent above 1981 levels.

As profits allow People Express to buy additional aircraft, it is bound to affect the industry structure in the Northeast. Over time, U.S. Air, Piedmont and others will have to reduce costs or watch People Express become the dominant carrier in the region.

The success of Southwest, People Express and Midway Airlines (operating out of Chicago to the East and Midwest) has spawned additional new entry efforts. Unfortunately the controller shortage and continuing recession have caused some to abort. But as the economy recovers and air traffic constraints are removed during the next 12 months, new low cost airlines will be formed and the pressures for industry efficiency will intensify.

Of course these changes will not occur quickly or easily. Airport congestion and the control of airport space and services by incumbent carriers could present serious problems for future new entrants, and the defensive practices of some large carriers may become sufficiently predatory in some markets to drive out recent entrants and discourage new entry. Control of computer reservation systems by United, American and TWA and the anti-competitive use of these systems could also be a serious problem. But to date these factors have not prevented entry or driven any new entrant out of business.

Service Convenience

Notwithstanding the effects of the recession on service levels, recent CAB studies show that, on average, convenience for air travellers has improved slightly since 1978, and for connecting passengers, it has improved significantly. The CAB economic staff has measured convenience in terms of departure times, flight en route time and connecting patterns as they relate to preferred arrival times. From June 1978 to June 1981 convenience improved for the large majority of airline passengers.

Passengers who have to change planes en route find it more convenient to remain with the same airline than to transfer to another. In the top 6,000 interstate markets, 11 percent of the passengers had to change airlines when they made connections in 1978. In 1981 only 6 percent had to make that change. At certain hubs, the increase in on-line connecting passengers has been quite dramatic. At St. Louis, only 36 percent of Ozark's connecting passengers could remain with Ozark in 1978. In 1981, 83 percent of such passengers stayed with Ozark. At Denver, Frontier's on-line connecting passengers went from 48 percent in 1978 to 89 percent in 1981. At Pittsburgh, U.S. Air went from 73 percent in 1978 to 89 percent in 1981. These figures show substantial improvements in passenger convenience--and help explain the increased profitability of these carriers under deregulation.

Concentration

During the deregulation debate, opponents predicted that large carriers would drive out small ones and that, after mergers and bankruptcies, market power would be concentrated in a few giant airlines. Since 1978, the market share of the trunks has fallen from about 87 percent of the domestic RPM's to under 80 percent in 1982. This deconcentration process was under way before deregulation but has accelerated rapidly in the past four years.

There is no reason to believe that the process will reverse itself. In fact, the strong trend is away from industry concentration.

"Public Utility" and Other Arguments for Re-regulation

Former CAB Chairman Secor Browne argues that the airlines are a public utility and as such should be regulated. He contends that destructive price competition and over-capacity will destroy the national air transportation system unless government regulators intervene. He suggests that the CAB should:

1. Subject route entry and exit to annual quotas to maintain stability;

2. Manage fares, discounts and capacity to improve yields, and set a pricing floor on fares to exclude predation;

3. Encourage the sharing of equipment and facilities so long as it does not create monopoly operations adverse to the public interest.

Such re-regulation is not only unnecessary--it could seriously harm the industry. In the first place, air transport is not a capital intensive public utility requiring economic regulation in the sense that gas and electric companies are. The distribution of gas and electricity to businesses and residences in a city involves expensive installation of lines and pipes that would be extremely wasteful to duplicate. Without competition to regulate price and service quality, government regulation is required. In contrast, airlines use highly mobile equipment and barriers to entry and exit are comparatively low. In short, air transport is a naturally competitive industry. If market forces can regulate price and service quality, government intervention is unnecessary.

Browne claims that price competition is destroying the industry. While there may be a few instances of predation in response to low cost new entrants, none have yet succeeded. As described above, such low fare carriers as Southwest, People Express and Midway are operating profitably and growing. Fare wars during slack traffic periods are the result of over-capacity during the extended deep national recession. When an airline has too many planes, it is not unreasonable to offer fares below fully allocated costs, particularly in price sensitive markets, so long as the variable costs are covered. As Alfred Kahn has pointed out, an industry that fails to cover fixed costs, including a return on investment, because it is burdened with excess capacity is increasingly unlikely to be able to finance orders for new planes. But that is how the market signals that new aircraft are not now needed.

Of course, planning horizons for new aircraft and our cyclical economy have often required that orders be placed during recessions to enable airlines to take delivery and serve increased traffic during periods of prosperity. But in the current long recession, aircraft manufacturers are developing new mechanisms to enable airlines to acquire the use of new aircraft without taking on the burdens of ownership. The American Airlines and TWA lease arrangements with McDonnell-Douglas for DC 9-80 aircraft may signal a new role for the aircraft manufacturer--the maintenance of an equipment inventory, available for short term use by airlines in exchange for higher rentals and/or participation in profits. Somehow individual ingenuity turned loose in a free market environment is able to develop diverse systems for solving

market problems.

A regulatory floor on fares would negate much of the thrust and purpose of deregulation. Carriers like People Express and Southwest, whose efficiency and cost structure enable them to charge fares 50 percent and more below standard levels, would be forced to conform to the higher fare practices of their competitors. The pressures on the old airlines for cost cutting and efficiency would be greatly diminished. Even these carriers would lose the flexibility to use price as a marketing tool the way other industries do--to attract passengers in slack periods and to promote new or different service. And the public would suffer from higher fares. To date, fares have been constrained under deregulation. Before 1978, the majority of travelers paid full coach fares. This year over 70 percent of airline passengers traveled on discount fares. Between the fourth quarter of 1976 and the second quarter of 1981, the cost of goods and services airlines must buy (fuel, labor, etc.) rose 101 percent, yet average fares increased only 56 percent.

Browne recommends constraints on entry and exit in order to maintain stability. One of the most dramatic structural developments since deregulation has been the spread of hub and spoke systems among the airlines. The efficiencies achieved by hubbing have helped the industry to survive the long national recession. Freedom of entry and exit has been the key to this restructuring. Constraints on entry and exit would mean that airlines which see profit opportunities in a particular market would be barred by the government from entering it; airlines which find a market unprofitable would be barred by the government from leaving it.

No airline management seeks such constraints. No city has experienced such drastic loss of service as to justify this form of re-regulation.

Nor do Browne's suggestions for sharing equipment among airlines and managing capacity (presumably by inter-carrier agreement or CAB regulation) offer public benefits that outweigh their detriments. Capacity management and the sharing of aircraft would, according to Browne, increase load factors and achieve higher efficiency and thus more profitability for the airlines. In the aftermath of the first oil crisis in the early 1970's the CAB allowed some airlines to enter into capacity control agreements. But the public reaction was so adverse that Congress, in the Airline Deregulation Act of 1978 prohibited such agreements in the future.

The European experience with capacity sharing gives no support to Browne's proposal. Despite pooling agreements, price coordination and tight government regulation, intra-European airline load factors have been lower on average than U.S. domestic load factors since deregulation, while European fares continue to be much higher than U.S. fares.

Summary

For forty years, the U.S. airlines developed their route systems, pricing practices and management styles under government regulation. The air transportation system has now had four years of transition to deregulation. Route structures have been adjusted to better fit the particular capacities of the aircraft operated by each airline and the transportation role devised by each carrier management. Despite the worst and longest recession since World War II and a drastic shortage of air traffic controllers, the American public has been well served and the air transportation system shows no signs of collapse or disintegration. The former local service carriers are prospering and expanding. New airlines are demonstrating that low fare service can be profitably supplied if costs are closely controlled. The older trunk airlines are beginning to lower costs and hold fares down to improve traffic and profitability.

Large trunk carrier losses during the past three years are causing some commentators to urge re-regulation. But most airline managements do not want to relinquish the flexibility and freedom that deregulation has accorded them. They have weathered the economic trauma of the past three years and now want the profit opportunities which recovery will bring.

The public has gained increased convenience and a diversity of price/service options. First class and business class provide comfort and high quality service at a price which reflects their cost. No frills transportation is becoming increasingly available at amazingly low fares. Over the next decade, as the low fare carriers grow, and increasing competition constrains large carrier costs, the public will benefit even more.