The Impact of Municipal Airports on the Markey Value of Real Estate in the Adjacent Areas

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THE IMPACT OF MUNICIPAL AIRPORTS ON THE MARKET VALUE OF REAL ESTATE IN THE ADJACENT AREAS*

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TRANSPORTATION has played a very dominant role in the establishment and growth of our American cities. In the beginning it was boats and horses, then the railroads, then the automobiles and now in the past quarter century airplanes. Each form of transportation became popular because it gave travelers and shippers more speed, comfort or convenience. The ready acceptance and use of air transportation by the United States traveler and shipper is evidence that it is the latest to meet the test of speedy, comfortable and convenient transportation. In less than twenty-five years the gross annual dollar volume of passenger transportation of some of the individual airlines has exceeded that of some of our principal railroads.

All of our principal communities have long recognized the need for adequate transportation facilities for their areas. Earlier this took the form of making sure that the community “got on the railroad.” In more modern form the same basic urge for economic welfare dictates that the community must have reasonable access to principal highways and it must have air transportation in suitable form if it is to remain competitive with other communities. No Chamber of Commerce of a principal city can make an effective bid for business and industry unless it is able to prove that adequate air transportation is available.

The basic requirement for air transportation is the provision of an adequate airport. There must not only be an airport, but the airport must be accepted as a necessary and ordinary part of municipal responsibility.

The airport must have a large enough area to provide for the runways and operating sites and to make sure that unobstructed approach lanes will provide the best opportunity for safe operation. But it is not sufficient that the airport be adequate in size. It must be located at a point convenient to the homes and business establishments of the pop-

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tential user of air transportation. A large part of the potential time saving appeal of air transportation is lost if long or inconvenient journeys are required before the airport is reached and the flight is available.

The consensus is that travel to and from the airport must depend principally on the surface travel vehicle. While there is but little doubt that the helicopter will one day have an important place in inter-city transportation, the majority of the passengers will continue for a long time to go to the airport in an automobile, limousine or taxicab. Planning for the location of the airport must be on the basis that highway travel will permit ready convenient access. Other things being equal the airport with the most convenient location and/or direct limited access highway transportation will be the airport with greatest utility to the users of air transportation.

When air transportation graduated from carrying mail and a few passengers to a gigantic business with thousands of flights daily and millions of passengers monthly some people began to wonder what effect this activity was having on the value of adjacent real estate; especially homes. Their first reaction tended naturally to be that the noise and fear of a crash would tend to depress the value of residential real estate. There were a few people who thought acreage property would be benefited by the presence of an airport, if for no other reason than to take care of expansion. There were others who thought that better transportation to the airport provided by the city would tend to give the area better acceptance. But these were in the minority and therefore it seemed that over the years more and more people were of the opinion that the presence of airports and their activities depressed the value of residential real estate. This opinion was accepted by some of the lenders of mortgage money and they tended to restrict the amount of money they would lend to be secured by property adjacent to the airport. The opinion became so strong, a few agencies of the Federal Government which have to do with the insurance and guarantee of home loans restricted insurance and guarantee of loans in certain areas adjacent to airports. There were some who wrote articles on the depressing effect of the presence of airports including tables which tended to show where the values were depressed most. In at least one community political campaigns were waged on how the candidate stood on the presence or absence of airport facilities. In recent years the indictment became stronger and more vocal; but nowhere was there any factual evidence that the airport did actually depress the value of residential real estate. As a matter of fact there was ample evidence of an enigma because if the airport did have such a damaging influence, how could the construction of so many residences be encroaching on the immediate adjacent vacant land.

In the early stages of this indictment I had no reason to disbelieve and consequently admitted it seemed to be true. Later I happened on two occasions to be a house guest of the Commandant of the Naval Air Station in San Juan, Puerto Rico. This air station as in many insular
possessions, was also the municipal airport. My room was within 200 feet of the runway and during the first night I watched every plane take off. The third night I did not even hear the planes. Not too long ago I was on the island of Guam and had to stay where the local government suggested, namely, an old officers' quarters on a hill. The wind blows in the same direction practically all the time in Guam and consequently all planes came within four or five hundred feet from my quarters. It seemed the first night or two the planes were going to get in bed with me but in about three days I rarely heard them. There is much evidence too about the noise from railroads in the suburbs. Those who live nearby get so used to the trains that they rarely hear them in spite of the fact that they make the pictures shake on the walls. It seems that our hearing sense is so constituted that it can very easily adapt itself to certain noises. So far as the fear is concerned it can be proved mathematically fairly easily that the chance of a plane crash at a particular spot is so remote that it is hardly worth considering. Those experiences and observations in the field motivated me to change my mind about the effect of airports on the value of vicinage real estate. There was no proof, however, and therefore the time seemed to be right for a factual study.

Ever since my first flight in 1933 I have been very much interested in air transportation. In addition to doing a lot of flying in commercial aircraft I have spent many hours at the airport on the observation deck just watching the planes. To this day whenever there is a waiting period in an airport I usually spend it on the observation deck. This interest coupled with my desire to be better informed in my appraisal business made an assignment to make a factual study of the Chicago Midway Airport a welcome one.

**Chicago**

The Chicago Midway Airport was considered an excellent one for study. First of all it is the busiest airport in the world with more than 800 movements a day and more than 5 million passengers a year. It employs nearly 7000 people. Second, in area it is comparatively small with only a section of land, one square mile, which means that most of the six runways are less than a mile in length. This condition means that planes must contact the runways as soon as possible after reaching the field and this in turn means either that the descent is precipitous or the plane flies lower over adjacent territory. Third, residential buildings are very close to the ends of the runways. In several areas houses are within three or four hundred feet and in no case are they more than about a quarter mile away. Fourth, a high percentage of the land within a mile of the airport is improved with residences.

It seemed therefore that if airports had an adverse effect on the value of vicinage real estate, it would tend to show up conspicuously in a study of the area adjacent to the Chicago Midway Airport.

One of the most important measures of the effect of the airport on
the adjacent residential real estate is a comparison of market behavior in the airport area with other similar areas far removed and not in an airport environment. Accordingly we chose an area which extended a mile in each direction from the airport, and three other areas, two of which were eleven miles away in opposite directions and one about five miles southeast which was improved with higher priced homes. The areas eleven miles removed were as similar to the airport area as could be found in the Chicago area.

In each of the selected areas efforts were made to find real estate which had sold in a five year period before the second World War and had sold again in the period from 1948 to 1952. The difference in selling price would measure the amount of increase or decrease for the period. Since this period was inflationary the differences obviously would be increases.

The principal question was, how much and whether there was a greater increase in one area than another, particularly the airport area. The county records were searched for double transfers; that is one before the war and another after. The records disclosed the names of the grantors and grantees, the dates, the amount of revenue stamps, the legal description and the address of the property. This information was recorded on a card which was taken into the field to check the type of property and wherever possible to confirm the selling price indicated by the revenue stamps. Efforts were made to ascertain whether it was an out and out voluntary market transaction. In addition investigators tried to ascertain whether there were any special improvements, additions or alterations made between the dates of the sales; and an experienced appraiser inspected the property to ascertain whether the indicated price fell within the zone of reasonableness.

Because of the ever changing price level during this period it was necessary to adjust the first sale prices to 1940 and the last sale prices to 1952; and also add to the first sale prices any substantial improvement to the property. The prices were adjusted according to market experience in Chicago as follows:

1—An increase of 5% each year from 1935 to 1940
2—A decrease of 5% each year for years after 1940
3—Sales in 1951 and 1952 no increase
4—Sales in 1950 add 10%
5—Sales in 1949 add 20%
6—Sales in 1948 add 25%
7—For each additional year an additional 5%.

Any increases for improvements were either indicated by the owner or appraised by the appraiser.

Over 100 double transactions were tabulated. The tabulations showed the address of the property, the type of building, the date of the first sale and the amount, a correction for date, an addition for alterations or additions, the total consideration, the date of the last sale, the amount of correction for date and the total 1952 adjusted
price. The ratio of the last sale to the first sale was tabulated and also the percentage increase. All properties in all the areas were treated in exactly the same way. By using the three commonly accepted statistical devices known as the arithmetic average the median and mode on these tabulations it was apparent that the ratio of the last sale to the first sale tended to be between 2.55 and 2.60 or to take the exact median figure 2.56. The mode was 2.60. There was a strong tendency indicating a ratio of the adjusted sales price in 1952 to the adjusted sales prices in 1940 of 2.56 or a percentage increase of 156%. In other words if a residence sold in 1940 for $6,000 the owner could expect to receive in 1952 2.56 times as much or about $15,360; in round numbers he could expect to sell from between $15,000 and $16,000 in 1952.

The same treatment was given the transactions in the other three areas. The ratios of increase were almost identical. In the northwest section, eleven miles northwest of the airport, by coincidence the median figure was 2.56. In the southeast section the ratio took a slightly different pattern because of the different types of property but when these different types of property were compared to the airport the results were almost identical. The Beverly Hills section five miles southeast which is a very fine residential neighborhood also indicated the same market behavior as the airport neighborhood and the two areas, eleven miles in opposite directions from the airport.

We were also interested in the distribution of the double transactions in the airport neighborhood. Because there were many who thought that the influence was greater in the path of flight than elsewhere in the general area we broke down the transactions. We plotted the location of the transactions to see if the ratios of increase were any different under the runways from elsewhere. It was interesting to note that the ratios were no lower in the path of the runways than they were in other sections of the airport area.

Another test of the effect of the airport on residential real estate is the number of improved residential properties for sale as compared with residential properties for sale in the other selected areas. A careful canvass by the president of one of the local real estate boards indicated that there were fifty-two properties for sale. Of these, twenty-five were offered by real estate offices and twenty-seven by individual owners. These offerings were distributed on a map which disclosed that they fell in all parts of the area. It was estimated that there were about 6500 residential structures in the defined neighborhood area. The offerings therefore represented less than 1% of the properties in the area. It was also noted that when properties in the area were placed on the market they were sold within a very short period of time.

The number of properties for sale in the airport section was conspicuously low. The northwest section which covers an area of one square mile had an estimated seventy-five properties for sale. Allowing for industrial, business and vacant property, the airport area is still much larger than the northwest area but has a little more than two-thirds as many improved residential properties for sale. The southeast
section also had an estimated seventy-five properties for sale. The relationship between the airport area and this section was even more pronounced as far as size is concerned. The estimates of the number of improved properties for sale in the northwest and southeast sections were made by real estate offices active in these areas. It appeared therefore that improved residential property in the airport area was not for sale in any great quantity and that the comparative demand was strong.

Another indication of the effect of the airport on the adjacent area is the amount of new construction in the defined neighborhood. Out of approximately 6500 homes within a mile of the airport about two-thirds of them or 4300 had been built since 1940. Most of this building took place after World War II. There were conspicuous indications that many more buildings would be built in the immediate future. One builder who had built 100 buildings a year for many years planned to build 100 more in 1953.

Industrial property had an unusual growth during this period in the vicinity of the airport. Fifteen new industrial plants were built within a half mile northwest of the airport and about fifty more were either built or expanded within about a half mile southwest. Industrial vacant land tended to more than double in value during this period. There were many indications that the expansion of industrial property would continue in the airport area. As this original report was being made an industrial tract was sold for 25c a square foot. The purchasers it was reported intended to divide and offer it for sale at prices ranging from 50c to 60c a square foot. This development is less than 200 feet from the airport.

The value of vacant residential lots during the twelve year period had increased from practically nothing, that is to say the cost of paying back taxes and so forth, to as much as $50 a front foot. This condition is, of course, the result of building activity which in turn could never have transpired had there been a conspicuous negative effect motivated by the airport.

Business property for the most part did not enjoy any material increase in value. There is a good reason for this condition, namely that the supply is many times greater than the demand can ever hope to use. This is not only true in the airport area but in practically every part of Chicago. Obviously the neighborhood shopping centers in the airport area got the benefit of the business contributed by 4300 new homes and of course some of the business property near the airport terminal increased materially in value because of the more than five million passengers and spectators which use the airport terminal annually.

Based upon the nature of the market behavior in the area surrounding Chicago Midway Airport as compared to other areas outside of the airport environment, one can come to no other conclusion than that the airport did not affect the value of vicinage real estate adversely. To summarize:
1. Approximately 4300 homes were built and sold since 1940.
2. Builders have plans to build many more homes in 1953.
3. The ratio of 1952 sale prices to 1940 sale prices tends to be about 2.56 which is practically the same as in other selected sections of the city.
4. Properties offered for sale are proportionately fewer than in other sections of the city.
5. Industrial real estate has increased materially in volume and value.
6. Residential vacant land which has been in ample supply in the airport area as well as in many other sections of the city is gradually being utilized.

This is the result of a factual study. It is also confirmed by realtors and builders who operate in the neighborhood. If the activities of the airport tended to cause some inconvenience in the nature of noise, interference with television, et cetera, such inconveniences appeared to have been completely offset by the amenities which the airport had brought to the neighborhood.

Los Angeles

The results of the Chicago study motivated other studies in different parts of the country. One of these was made in Los Angeles. Both the Los Angeles International Airport and the Lockheed Air Terminal were included. Studies followed the same general outline as that employed in Chicago.

The International Airport is located about fourteen miles southwest of the center of downtown Los Angeles. It now contains about 1091 acres but ultimately will utilize nearly 2600 acres. In 1952 there were more than 218 thousand movements and nearly 2 1/4 million passengers. In addition there were nearly 30 million pounds of airmail, over 13 million pounds of air express, and over 42 million pounds of air freight.

Three sides of the airport (a mile in depth) namely, North, South and East were selected as the airport area. Since the airport land runs almost to the Pacific Ocean it did not seem practicable to try to find sales to the West. In this selected area were found more than a hundred properties that sold in 1942 and 1943 and sold again from 1951 to 1953. The ratios of the last sale to the first sale were recorded and compared with the sales of twenty-five properties in North Hollywood, which is approximately fourteen miles north of the International Airport. In addition to making comparisons with this area the ratios of increase were compared with the index of market prices of single family dwellings in Los Angeles county as published in the Residential Research Report. This index is prepared by FHA appraisers and appraisers of three large banks. The appraisers make independent appraisals based upon recent sales in each area, current construction costs and the opinion of well-informed reputable real estate brokers with offices in the
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respective districts. The appraisals are submitted to a committee composed of FHA and bank officials which arrives at a final valuation used in the index. The ratios in the airport area tended to average 2.78 and those in the comparable area in North Hollywood tended to average 2.85. The ratios indicated by the Residential Research Committee Index was 2.60. We, therefore had the area adjacent to the International Airport higher than the Residential Research Committee Index and a few points lower than the North Hollywood area. Generally speaking, however, they tended to be about the same.

The area around the Lockheed Air Terminal which is located about fourteen miles northwesterly of the center of downtown Los Angeles on a tract of 510 acres was also studied. Lockheed Air Terminal had about 125,000 movements in 1952 and handled approximately 761,000 passengers. Due to the nature of the surrounding area only the district lying southerly of the airport was found suitable for double transactions. This area was extremely well-suited for the purpose of this study, since it lies only one-half mile south of the end of the main runways directly below the take-off zone. Twenty-five double transactions in this area indicated a median average of 2.79 which is almost identical with the International Airport’s double transactions, slightly higher than the Research Committee’s Index of 2.60 and very slightly lower than the North Hollywood area.

The data gathered on both airport areas indicated the following conclusions:

1. That the impact of the Los Angeles International Airport and the Lockheed Air Terminal on the value of vicinage real estate was not unfavorable.
2. The unprecedented building activity in residential and industrial real estate during the past ten or twelve years in the airport areas could not have transpired if the airport influence was conspicuously detrimental.
3. Factual information disclosed that within a mile of both airports, almost 17,000 residences were built since about 1940. Nearly 700 commercial and industrial buildings were built during the same period.
4. Proportionately fewer properties were offered for sale in the airport areas than in other parts of the community.
5. The rise in value of residential real estate in the airport areas was practically the same as in one comparable section, and more than the average in the metropolitan area of Los Angeles as evidenced by the Index of Market Prices of Single Family Dwellings compiled by the Residential Research Committee.
6. The increase in price of industrial property was greater in the airport areas than in other industrial sections.
7. Commercial developments had been restricted to main intersection corners to serve the needs of new residents. Prices rose materially but no actual comparisons were made. In
1941 many of the existing commercial areas were undeveloped acreage valued at $1,000 to $1,500 an acre. At the time of the report, Sepulveda Boulevard frontage in strong locations in the Westchester shopping center near the International Airport was valued at from $1,250 to $1,500 per front foot for vacant lots 150 feet in depth.

8. Practically all residential areas near the airports were well maintained and presented a better than average appearance.

**DENVER**

In Denver a study was made of Stapleton Field which is located in the northeast part of the city of Denver about five miles northeast of the central downtown business district. It comprises 1,889 acres of land. It employs about 2,250 people, and has about 360,000 movements. The scheduled airlines carried about 727,000 passengers in 1952.

The study was made along the same lines as the studies in Chicago and Los Angeles. The conclusions were as follows:

1. A factual and statistical study of the ratio or price increases on residential dwellings located in the airport area and in areas not environed by airport influence shows that there is no difference in the amount of increase in price of these properties regardless of the area in which they are located, between the years 1940 and 1952. As a matter of fact the ratios of increase in the airport area tended to be very slightly higher than in the comparable areas. The ratio in the airport area tended to be slightly over 3.00 whereas the ratio in the comparable areas tended to be slightly less than 3.00.

2. The phase of the study devoted to residential land prices in the airport area, as contrasted with prices in areas not environed by airport influence, showed conclusively that the prices paid by subdividers and builders for residential subdivision land near the airport are approximately the same as the prices paid for residential subdivision land in areas far removed from the airport.

3. The portion of the study devoted to relative building activity in the airport area, as contrasted with other areas, shows that there was considerably higher volume of residential construction in the airport area than in areas not environed by the airport, between the years 1944 and 1952. A total of about 4138 new homes were completed and sold.

4. The number of homes for sale in the airport area was 212 out of a total of 6,326 for a percentage of 3.35. The percentage in the comparable areas was 2.67 per cent and 3.10 per cent respectively which is fractionally lower than the airport section.
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5. That portion of the study predicated on opinions and judgments of qualified persons in real estate and related fields tends to confirm the conclusions set forth in the report.

6. On account of adequate shopping outlets which adequately serve the residential area around the airport there appeared to be no demand for any retail shopping center in the immediate vicinity.

7. There had been no industrial construction to speak of close to the airport. The availability of many acres of industrial zoned land west of the airport area and closer to centers of population and downtown area of Denver had made unnecessary the development of land in closer proximity to the airport for this purpose.

DALLAS

In Dallas the study included Love Field. Love Field is located about 5.8 miles northwest of the center of the business section of the city. It has three runways and within its borders 5,200 persons were employed. In area it has 640 acres. An aerial photo disclosed a large number of homes and manufacturing plants within a mile of the airport. On three sides there were modest homes, for the most part on 50 foot lots—on the east and northeast they were better than average in modern subdivisions with curvilinear streets et cetera.

The study made along the same lines as the others suggests the following conclusions:

1. That the ratio of 1952 adjusted sales prices to 1940 sales prices was about 2.75 which is fractionally lower than the other selected areas of the city, but for all practical purposes the same.

2. That approximately 3,800 homes were built and sold since about 1940.

3. That builders were programming further construction in the immediate vicinity of the field.

4. Property listings for sale were proportionately higher than in the other selected areas in the city. There could have been several reasons for this condition other than airport influence.
   a—There were many G.I. owners whose financing privileges offered opportunity for speculative profit.
   b—In a new area populated by younger people there may have been many job transfers et cetera, which motivated the listing of property for sale.
   c—More than two-thirds of the homes in the airport area had been built in the last ten or twelve years. Many of them were no doubt people who bought homes because they could find nothing for rent. Some of them
may not have been assimilated to home ownership and consequently wanted to sell.

5. Industrial real estate in the airport area had increased materially in volume and in value. Nearly all of the industry in the airport area and in the Airlawn Industrial District had been built during the last twelve years. The value of industrial land had increased more in this area than in some of the other industrial districts in Dallas.

6. Residential vacant land had increased in value by a ratio which tended to be 4 to 1. This increase in value seemed to be even greater than in other sections of the city.

7. Business property, vacant, was not in great supply. Several large shopping centers in the area seemed to have met the needs of the many new home owners. Scattered business properties were few and not too much desired in any of the areas.

**Newark**

A study was made of the Newark, New Jersey Airport. The closest communities are Newark to the west and Elizabeth to the south. It is located about three miles southeast of the center of Newark on meadow land lying west of Port Newark and along the west side of the New Jersey Turnpike. The Newark Airport was originally selected after a study of 72 other sites, as best suited for serving the metropolitan area and Essex County. Observation discloses it to be almost like an island with a wide moat around it. Water and low meadow land extends in every direction for more than one and a half miles. The closest homes are at least one and a half miles away. Newark and Elizabeth are old communities and for the most part have been built up for many years. Because the meadow land requires piling and is zoned for industrial use, there were practically no homes built within one and a half miles from the airport.

The study in Newark therefore dealt with the closest homes in Elizabeth and Newark as compared with homes in other communities far removed. The communities selected were East Orange five miles northwest and Plainfield about fifteen miles southwest of the airport. Both communities are completely outside the airport environment.

The result of the study may be summarized as follows:

1. The ratio of 1952 sales prices to 1940 sales prices tended to be about 2.67 in all neighborhoods studied. The tendency was so strong that for practical purposes one might conclude they were identical.

2. Property listings for sale were comparatively few in number and showed very low percentages of the total number. Newark 1.18%; Elizabeth 1.58%; Plainfield 1.06%; and East Orange 2.52%. The two communities nearest the airport showed fewer than in East Orange and very slightly more than Plainfield.
3. Industrial property had not increased materially although when it sold it brought about twice as much as in 1940. There are at least two reasons for this situation;
   (1) high taxes in Newark
   (2) low land which involves great expense in utilization.
4. There was no new housing to speak of except a small development on marginal land at the extreme north end of Elizabeth closer to the airport than any other part of Elizabeth.
5. There was no new demand created for commercial property except for roadside stands and in the airport terminal; because there were few people close by to make use of it.
6. The surrounding area at Newark Airport was conspicuously different from other cities, especially in the west where thousands of homes and hundreds of factories were built within a mile of the airports. This condition is largely the result of the topography of the area and high taxes.
7. All data pointed to the fact that the Newark Airport had no unfavorable influence on vicinage real estate.

**New York — La Guardia Field**

The sixth airport study was made on La Guardia Field located on the Borough of Queens on Flushing Bay about five and one-half miles northeast from Times Square in Manhattan. It is a piece of filled land which juts out into Flushing Bay and the East River. It has three runways, two of which take planes over water and a third which takes off over water in one direction. La Guardia is the second busiest airport in the United States with about 186,000 movements and about 41/4 million passengers, 34 million pounds of mail and more than 100 million pounds of freight and express annually. It employs over 7,700 employees, a larger number than Chicago.

The study here was similar to all the others with comparable areas in Queens Village about six miles from La Guardia and an area in Brooklyn near the Holy Cross Cemetery about eleven miles from La Guardia Airport.

The results of the study suggested the following:

1. The ratio of 1952 sales prices to 1940 sales prices tended to fall between 2.30 and 2.70 in the three areas studied. The ratio in the airport area and in the Holy Cross (Brooklyn) area were practically the same and the ratio in the Queens Village area was very slightly higher. For all practical purposes then, one might expect to sell property in the La Guardia Airport area for approximately the same increase as in the other areas.
2. Property listings for sale were no greater in the airport area than they were in the two comparable areas far removed from the airport.
3. Between 600 and 700 new homes and about 95 multi-family
structures had been built in the airport area since 1940. This number, compared to the areas surrounding Los Angeles, Denver, Dallas and Chicago airports, was insignificant in number but this was accounted for by the fact that very little vacant land was available on the one hand and on the other by the fact that eastern cities are older for the most part and not growing as fast as the western communities. The fact remains that the presence of La Guardia Airport did not deter the building of many hundreds of new housing accommodations. It was indicated also that immediate future plans included the building up of a large segment of the airport area with multi-family 6-story apartment structures. They were to be built on the site of a large temporary housing project which was being removed. This site is under the path of the northeast-southwest runway of the airport. It was another strong evidence that the airport did not influence adversely the plans of builders. This construction was planned in spite of the fact that the land requires the sinking of piles.

4. Vacant land, when properly zoned for its highest and best use, tended to sell for about twice as much as it sold in 1940.

All data pointed to the fact that the activities of La Guardia Field did not affect the value of vicinage real estate adversely.

In all communities an effort was made to get trade opinion on the effect of airport activity. In every case real estate brokers who had operated in the neighborhoods adjacent to the airports said that the activities of the airport did not affect their business adversely and that they confirmed the findings of our research.

We did not have the same response from some appraisers and mortgage lenders. Some were doing business which confirmed the fact that airports did not adversely affect the value of real estate while others took an opposite view. Some appraisers and mortgage lenders were of the opinion that the noise, interference with television and anxiety about plane movements built up sales resistance which they took into consideration in their appraisals of the value and their lending policy. Those who had this point of view were in no general agreement, however, as to the extent of this economic obsolescence.

It was our opinion, without regard to our research, that since real estate brokers were very much closer to the overall problem than appraisers and mortgage loan institutions, their experience qualified them to have better opinions. It was apparent that some of these appraisers and lending institutions were not basing their appraisals and lending policies on market transactions. They must therefore have expressed a fear that sales resistance might develop, or that there is a chance that something might happen sometime during the life of a long term mortgage loan rather than an opinion of the market behavior to date.

These studies do not suggest that noise, interference with television,
anxiety about movements et cetera are non-existent in areas adjacent to airports. They most certainly are, as a canvass of the residents in the area will disclose. But they do suggest that either their effect is small or there are other amenities which offset the damage, if any, done by the presence of airplanes. In my opinion whatever damaging effect there is, is offset by the amenities which attach themselves to municipal airports. Some of these amenities may be:

1. Better transportation developed on account of the airport.
2. Thousands of new employees at the airport strengthens the demand for housing.
3. In many places new industry built near the airport brings more job opportunities.

**Summary**

The six factual studies which covered many parts of the United States left no doubt that generally speaking Municipal Airports do not affect the value of vicinage real estate adversely. Support of this generalization is found in the following:

1. Over 800 double transactions revealed that the market behavior is about the same in airport areas as in areas not in the airport environment and that the ratio of increase from 1940 to 1952 ran from about 2.35 to 3.00—with the strongest tendency between 2.50 and 2.75.
2. More than 30,000 buildings (nearly all homes) have been built within a mile of six airports in a twelve year period from 1940.
3. The number of properties for sale in the airport areas was in most cases less and in a few very slightly more than in comparable areas.
4. There appeared to be no appreciable difference in market behavior in areas in the path of flight from the other areas.
5. That airport areas which included homes were in good condition with better than average maintenance.
6. That trade opinion of real estate brokers active in the areas showed without exception that airports had not influenced the value of homes adversely. Trade opinion of appraisers and mortgage lenders was divided. Some thought that the noise, interference with television and anxiety, produced sales resistance; others did not.
7. If the noise, interference and anxiety did have any effect on the market behavior, it was offset by amenities which resulted from airports.