UNIVERSITY OF PITTSBURGH STUDIES

IN BUSINESS ADMINISTRATION

RESIDENCE CONSTRUCTION

AND

OTHER FACTORS WHICH HAVE DETERMINED RENT LEVELS

IN

PITTSBURGH, PENNSYLVANIA

BY

THE BUREAU OF BUSINESS RESEARCH

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INTRODUCTION

A part of the data contained in this Bulletin was used in a talk before the Pennsylvania Real Estate Association, last fall. The interest of the members showed the need for statistical studies of this nature. The Bulletin should prove of value to the men engaged in the real estate business in Pittsburgh as well as to the more numerous group of persons renting houses.

LOUIS K. MANLEY,

Dean of the School of Business Administration.

PREFACE

This bulletin is intended to serve as a companion to the one on *Housing Rents in Pittsburgh, Pa.*, which was recently published by the Bureau of Business Research of the University of Pittsburgh.

The two principal conclusions which were derived from that study and which are pertinent to the present inquiry were there summarized as follows:[1]

> Since 1920, rising rents in Pittsburgh have at times reached points nearly 250 per cent above their 1913 level. In the spring of 1925 they still stood at nearly 202 per cent above. By the autumn of 1925 they had come down somewhat, but they were still nearly 179 per cent above the 1913 level.
>
> During this period of advancing rents, rent increases started earlier in the poorer than in the richer sections of the city, rose relatively higher in the former than in the latter, and maintained that high level longer.

No attempt was made in the first study to assign either causes or motives for the rent situation which it disclosed. It is the purpose of the present study to evaluate certain assignable causes for the rent situation in Pittsburgh and to recommend methods of control.

The present study is limited to the analysis of the influences on rents in Pittsburgh of five such causes, namely: 1. The housing supply, (Chapter I); 2. The cost of building construction, (Chapter II); 3. Real estate speculation; 4. Inflation; and 5. The rent contract, (Chapter III). Other factors, such as the lack of rapid transit facilities and high interest charges on second mortgage money, have, no doubt, aggravated the situation. But, within the limits of the time and means at our disposal, our investigation concerned itself only with what were believed to be the most vital factors.

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[1]University of Pittsburgh Studies in Business Administration, Bulletin 2, by Joseph M. Gillman, p. 37.

A balancing of the influences of these factors on rents in Pittsburgh led to the conclusion that the inordinately high rent levels of Pittsburgh can be accounted for on the basis of the wave of real estate speculation which had its origin in the temporary housing shortage resulting from the war-time expansion of industry.

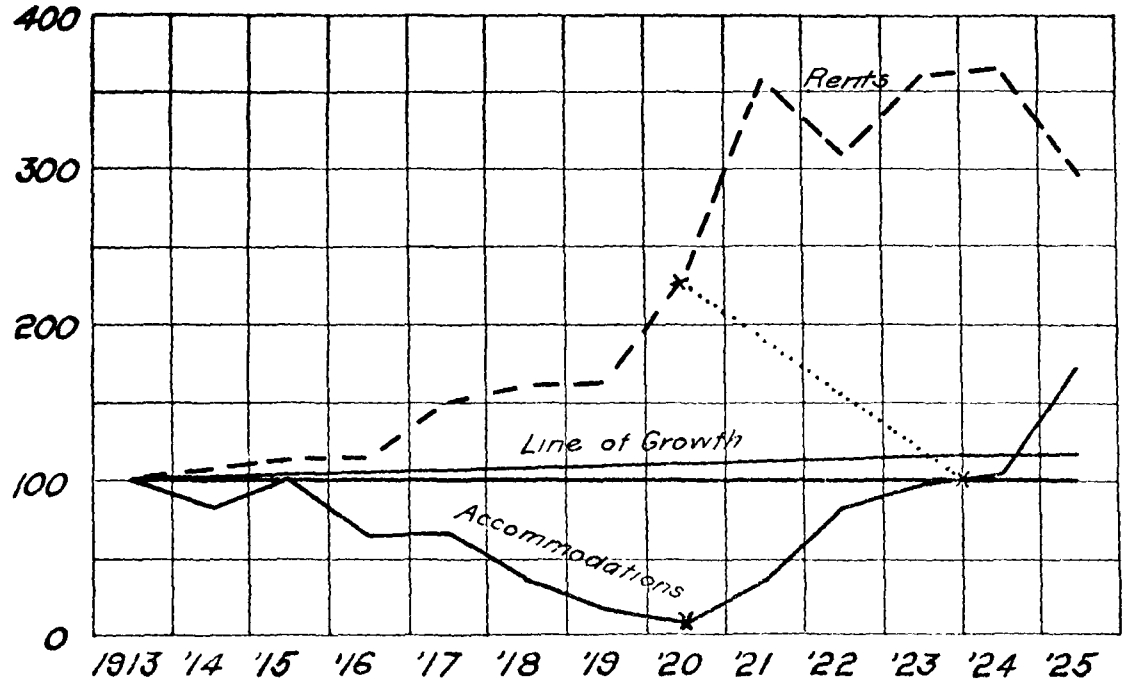
In the preparation of this bulletin, the writer benefited by the valuable suggestions of his colleague, Professor Howard C. Kidd, who read both the manuscript and the page proof. Thanks are due to the City Building Inspector, to the Chief Assessors of the City and County, and to the Register of Deeds for placing at the disposal of the Bureau's staff their office files from which most of the data for this study were compiled. Thanks are also due to the Bureau's staff, particularly to Miss Lillian C. Stein, for the painstaking way in which the collection, computation, tabulation, and charting of the tremendous amount of data involved were accomplished. The writer is especially grateful to a number of Pittsburgh real estate men who very kindly placed at his disposal information of a confidential nature without which an intelligent analysis of certain phases of this study would have been impossible.

J. M. GILLMAN.

Pittsburgh, Pennsylvania, April 30, 1926.

CONTENTS

DIAGRAM I. RENTS AND HOUSING ACCOMMODATIONS IN PITTSBURGH. 1913-1925



1. Advertised Accommodations.

It is clear from Table I and Diagram I that prior to 1920 rents consistently varied inversely with the available housing supply. That is, with a decreasing number of houses and apartments offered for rent, rents went up. On the other hand, after 1920, rents failed to show any appreciable sagging in the face of a continuous increase in the number of advertised accommodations. Had the relation between supply (accommodations) and demand (rent) alone been the determining influence on rents, the rent curve (in Diagram I) would have turned downward in 1920 or 1921, when the number of accommodations turned upward, and would have met the accommodations curve sometime between 1923 and 1924, when that curve reached normal. (The specific points of reference are indicated by crosses and the dotted line.) As it was, the rent line continued on its upward swing with only two minor breaks, one in 1922, the other in 1925[1], and has remained on a high level (at or above the index number 300) in spite of the fact that by 1925 the accommodations curve passed its own pre-war level as well as the line of growth[2] of the Pittsburgh population.

These curves, furthermore, suggest that the observed housing shortage was confined almost entirely to the period of the unusual influx of population into the city which must have taken place during the rapid war-time expansion of industry, and that it practically disappeared through the outflow of people from the city during the post-war deflation. This suggestion would seem to be corroborated by the fact that at the time the 1920 census was taken the number of persons per dwelling in Pittsburgh, 6.3, was practically the same as that of the preceding four census years. The number in 1910 amounted to 6.1, in 1900 to 6.3, in 1890 to 6.3 and in 1880 to 6.4[3]. If, at the time the 1920 census was taken, a shortage existed at all, it was apparently not a general shortage of housing accommodations, but one of new construction only.

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[1]Did these breaks reflect the depressions in the Iron and Steel Industry of 1921 and 1924 in Pittsburgh?

[2]This line represents the increase of 14.5% in the population between 1913 and 1925.

[3]U. S. Census, 1920, Vol. II, p. 1268, and U. S. Census, 1900, Vol. II, p. 106.

2. Residence Construction, *a*. Dwellings.

The commonly used measure of new construction is the number of new building permits which eventuate in construction.[4] This measure, however, is often misleading because of the varying number of rooms included in different permits. In the records of the City Building Inspector a 300-room apartment house is equally represented by one permit with a double-duplex and a five-room bungalow. Computations on this point were carried as far back as 1910 only, but within this period of sixteen years the number of rooms per permit has varied between 6.9 for 1916 and 9.2 for 1922. This increase has been especially noticeable in recent construction. The average number of rooms (including bath room) per permit for the five-year period, 1915-1919, was practically the same as for the five years preceding, 7.58 for the one and 7.57 for the period 1910-1914. But for the five-year period 1920-1924, the average amounted to 8.27, and for the year 1925, to 8.7. Accordingly, for the present purpose, the number of rooms, computed from the entries in the permit books in the Building Inspector's office and given below in Table III, are taken to represent new construction in Pittsburgh. They are compared with rents in Diagram III.

But before the rooms data could be used it was necessary, in order to evaluate the extent of the slackened building activities of the war period, to select a previous normal period as a base. This proved to be a difficult task. The year 1913, which was used as a base for computing the rent index, was found to be unsuited for these computations. The number of permits recorded for that year was the lowest since the year 1900. (See Table II). It was quite clearly an off year, and computations from it as a base yielded distorted results. The average of the five pre-war years, 1910-1914, was then tried as a base and the resulting surpluses and deficiencies which were accumulated over the period 1913-1925 were balanced against each other.

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[4]Only permits for new construction are analyzed in this study. Permits for alterations, extensions, repairs, commercial hotels and for dwelling quarters above stores were omitted to facilitate the computations of the new accommodations in terms of rooms, square feet, etc.

TABLE II. SURPLUSES AND DEFICIENCIES IN RESIDENCE CONSTRUCTION IN PITTSBURGH. 1900-1925

(In terms of building permits per 100,000 of the estimated population)

Year	Number of Permits		Normal or Trend[1]	Surpluses and Deficiencies c-d
	Recorded	Per 100,000 Estimated Population		
a	b	c	d	e
1900	1946	430	409.0	+ 21.0
1901	2616	568	398.2	+169.8
1902	1794	383	387.4	— 4.4
1903	1877	393	376.6	+ 16.4
1904	2547	525	365.8	+159.2
1905	2295	465	355.0	+110.0
1906	1849	369	344.2	+ 24.8
1907	1815	356	333.4	+ 22.6
1908	955	185	322.6	—137.6
1909	1657	315	311.8	+ 3.2
1910	1380	258	301.0	— 43.0
1911	1099	204	290.2	— 86.2
1912	1010	185	279.4	— 94.4
1913	715	130	268.6	—138.6
1914	1196	215	257.8	— 42.8
1915	992	177	247.0	— 70.0
1916	1068	189	236.2	— 47.2
1917	594	104	225.4	—121.4
1918	233	40	214.6	—174.6
1919	760	130	203.8	— 73.8
1920	400	68	193.0	—125.0
1921	970	161	182.2	— 21.2
1922	1701	280	171.4	+108.6
1923	1904	310	160.6	+149.4
1924	2115	338	149.8	+188.2
1925	2211	350	139.0	+211.0

[1]Constructed by the method of "Least Squares." Y=274—10.8x; origin, 1912-1913.

DIAGRAM II. TREND OF RESIDENCE CONSTRUCTION IN PITTSBURGH. 1900-1925

permits granted during these six years (Table II) amount-to 9301, yielding a surplus of 838 to balance against the shortage of 1666 with which the period began.

But before balancing these last numbers a correction should be made in the permits granted since 1920. As pointed out a moment ago, the average number of rooms per permit granted since 1920 has been larger than the earlier averages. For the five-year period 1920-1924 the average number of rooms per permit was 10.9 per cent and that for the permits granted during the year 1925, 11.5 per cent larger than the average for the preceding decade. When in the recent permits allowances are made for this change, the 7090 permits granted during the five-year period 1920-1924 become equivalent to 7863, and the number granted during the year 1925 is raised from 2211 to 2465. Together these yield a total of 10,328. As the number of permits required to satisfy the normal demand since 1920 amounted to 8463, the number of permits granted, in terms of accommodations, indicates a surplus of 1865 permits. By the end of 1925, accordingly, the war-time shortage in new construction was definitely made up, and a surplus of 199 (1865—1666) dwellings accumulated.

2. Residence construction, *b*. Rooms.

The closeness of the results obtained from the use of the 1910-1914 average, of the 1900-1925 trend and of the census data, all pointing to the conclusion that by the end of 1925 construction had caught up with demand, justifies the use of either the 1900-1925 trend or the 1910-1914 average as a base for the computation of an index of room construction since 1910. In as much as our room data have been compiled for as far back only as 1910, the 1910-1914 average was used as a base. The computations are shown in Table III.

From this table it is seen that, in terms of rooms, recent construction not only wiped out the deficiencies accumulated between 1913 and 1921, but it actually supplied the city with a surplus of 632 rooms (42 per cent of the 1910-1914 average). This is most clearly presented in Diagram III.

TABLE III. AN INDEX OF ROOM CONSTRUCTION IN PITTSBURGH. 1910-1925

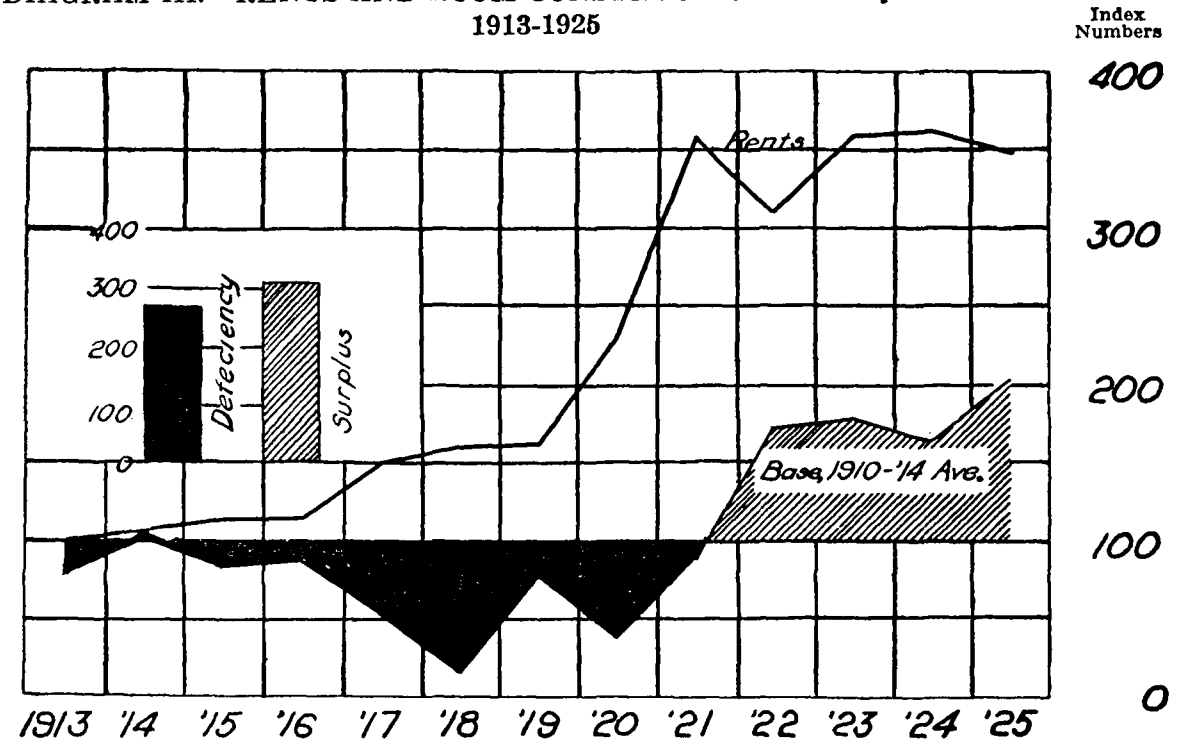
(In terms of 1910-1914 average)

Year	Number of Rooms		Index Numbers[1]	Surpluses and Deficiencies
	Actual	Per 100,000 Estimated Population		
	a	b	c	d
1910	10,297	1928	128.4	+ 28.4
1911	8,366	1552	103.4	+ 3.4
1912	7,379	1354	90.2	— 9.8
1913	6,379	1159	77.2	— 22.8
1914	8,410	1513	100.7	+ .7
1915	7,007	1249	83.2	— 16.8
1916	7,457	1317	87.7	— 12.3
1917	4,593	803	53.4	— 46.6
1918	1,786	309	20.5	— 79.5
1919	6,818	1169	77.8	— 22.2
1920	3,387	576	38.3	— 61.7
1921	7,938	1318	87.8	— 12.2
1922	15,705	2583	172.0	+ 72.0
1923	16,333	2660	177.2	+ 77.2
1924	15,678	2504	166.8	+ 66.8
1925	19,222	3041	202.5	+102.5

[1]Per cent of 1910-1914 average, which amounts to 1501 rooms.

The relation disclosed between rents and construction in Diagram III is almost identical with the one disclosed in Diagram I: The war-time housing shortage readily accounts for the rise in rents up to the years 1920-1921. But other factors must be found to account for the still greater rise in rents since then.

DIAGRAM III. RENTS AND ROOM CONSTRUCTION IN PITTSBURGH.
1913-1925



While it is quite clear from the preceding that the shortage factor alone does not account for the high rents in the city at large, it may have been the outstanding factor in the determination of rents in the Soho-Hill and in the Lawrenceville-Bloomfield districts,—typical of the lower income classes of Pittsburgh. These districts roughly coincide with wards three, five, six and nine, and as may be seen from Table IV, residence construction in these wards is practically a thing of the past. Squirrel Hill, Ward 14, (a district of the well-to-do in which much construction has taken place recently) and Shadyside (one of the upper middle class) are the districts in which rents increased only two-thirds as high as in Soho-Hill and in Lawrenceville-Bloomfield[9]. It is in such sections of the city as Soho-Hill and Lawrenceville-Bloomfield that rapid transit facilities might alleviate the pressure on the available housing supply.

[9]See Bulletin No. 2, these Studies, page 25.

TABLE IV. NUMBER OF PERMITS ISSUED IN SPECIFIED WARDS OF PITTSBURGH. 1920-1925

Year	Soho-Hill		Lawrenceville-Bloomfield		Shadyside	Squirrel Hill
	3	5	6	9	7	14
1920	0	7	2	1	4	154
1921	3	18	1	11	5	288
1922	4	46	4	8	15	512
1923	11	39	6	1	9	614
1924	4	48	5	13	32	448
1925	3	90	5	19	37	361

II. THE COST OF BUILDING CONSTRUCTION

As a factor in the determination of rents, the cost of building construction may be thought of as the obverse side of the supply factor. When the cost of construction rises so high that the current income from rents does not yield a fair return on the investment, building operations are curtailed, a housing shortage ensues, and rents rise.

1. Building Permits.

A common test of the changing costs of building construction may be readily found in the changing values of permits as recorded in the office of the City Building Inspector[1]. These values for the city of Pittsburgh are given in Table V in terms of the estimated cost per permit, per room and per square foot.

[1]These are estimated values which, according to a number of Pittsburgh builders and contractors interviewed by the writer, represent about 70 per cent of the actual, or final cost of construction.

TABLE V. AREA AND COST OF RESIDENCE CONSTRUCTION IN PITTSBURGH. 1910-1925

Year	Cost in Dollars Per						Area, Square Foot per Room	
	Permit		Room		Square Foot			
	Cost	Index Nos.[1]	Cost	Index Nos.[1]	Cost	Index Nos.[1]	Number	Index Nos.[1]
1910	3,842.41	86.3	514.96	103.2	2.20	104.2	234	98.7
1911	4,378.51	98.3	575.18	115.2	2.19	103.7	263	110.9
1912	4,009.86	90.8	548.84	110.0	2.24	106.1	245	103.3
1913	4,451.31	100.0	498.93	100.0	2.11	100.0	237	100.0
1914	3,585.32	80.5	509.87	102.1	2.10	99.5	243	102.5
1915	3,745.99	84.1	530.33	106.2	2.20	104.2	241	101.6
1916	4,374.91	98.2	626.58	125.6	2.24	106.1	279	117.7
1917	4,879.40	109.6	631.04	126.4	2.53	119.9	249	105.0
1918	5,894.40	132.4	768.99	154.1	3.12	147.8	252	106.3
1919	8,374.10	188.1	933.46	186.9	4.13	195.7	226	95.3
1920	9,183.77	206.3	1084.59	217.4	4.60	218.0	236	99.5
1921	8,202.47	184.2	1002.31	200.8	4.31	204.2	233	98.3
1922	9,311.37	209.1	1008.51	202.1	4.63	219.4	218	91.9
1923	8,068.10	181.2	940.53	188.4	4.31	204.2	218	91.9
1924	8,457.71	190.0	1140.96	228.7	4.58	217.1	249	105.1
1925	8,840.11	198.5	1016.83	203.7	4.64	220.0	219	92.4

[1]1913=100.

In Diagram IV (p. 27 below) the changing cost per room is compared with the changing monthly median rents. The cost per room rather than the cost per permit was used for this comparison because the cost per permit may not always be taken as strictly measuring the changing cost of average accommodations. The number of rooms per permit, as indicated above, is too varied.

The situation revealed in Table V and in Diagram IV is quite similar to that revealed in Diagrams I and III. Prior to 1921, rents increased normally in proportion to costs. Beginning with 1921, rents increased so much faster than cost that in the five years ending with 1925 they had climbed to an average of 239 per cent above their 1913 base as compared with an average climb of not quite 105 per cent for the cost per room. And this occurred in the face of a decrease of ten per cent in the area per room, (See last column, Table V.) Because of this decreased area, the cost per square foot increased relatively higher than the cost per room. But even with respect to the average rise of the cost per square foot, rents are found to have increased twice as fast. That is, during this period of five years, for every one dollar rise in the cost per square foot there was a rise of more than two dollars in rents (113 and 239 points respectively).

2. Materials and Labor.

Lest the validity of these cost figures, based as they are on estimates, be doubted, the changing cost of building construction in Pittsburgh has been examined also in terms of the changing rates of wages in the Pittsburgh building trades and in terms of the price changes of building materials. (Table VI.) These were combined into an "index of cost" (column 4) and the latter was compared with the estimated cost per square foot as computed from the permit values. If the permit estimates had always perfectly reflected changing wages and material prices, the ratio between the cost per square foot and the "index of cost" would have equalled 100 each year. This was not the case. But the closeness to the perfect ratio that was obtained (the estimates averaged 9 per cent above the actual cost) gives the necessary assurance that the estimates in the books of the City Building Inspector may be used for purposes of comparison with rents.

TABLE VI. AN INDEX OF CHANGING COSTS OF BUILDING CONSTRUCTION IN PITTSBURGH. 1913-1925

(*In terms of hourly rates of wages and material prices*)

Year	Wages[1]	Material[2]	Cost Index[3]	Ratio of Cost per sq. ft. to Cost Index
1913	100.0	100.0	100.0	1.00
1914	99.6	92.0	95.0	1.05
1915	102.5	94.0	97.4	1.07
1916	107.0	120.0	114.8	.92
1917	136.5	157.0	148.8	.81
1918	129.0	172.0	154.8	.95
1919	147.1	201.0	179.4	1.09
1920	187.1	264.0	233.2	.93
1921	225.1	165.0	189.0	1.08
1922	187.7	168.0	175.8	1.25
1923	221.4	189.0	202.0	1.01
1924	236.6	176.0	200.2	1.08
1925	245.1	176.0	203.6	1.14

[1]Weighted averages of hourly wages paid in the Pittsburgh building trades. Data taken from the Sept., 1925, *Mo. Lab. Rev.*, pp. 55-76. Weights: Artisans 2; Laborers 1.

[2]Group Index of Building Material, from Standard Daily Trade Service, January 20, 1926, p. 43.

[3]Weights: Material 3, Wages 2. Weights used by Standard Daily Trade; also independently estimated by Pittsburgh builders.

3. Land and Taxes.

It will be admitted at once that although wages and materials are the most important items of cost, they may not satisfactorily represent construction values under all circumstances. It is conceivable, though not very probable, that violent changes in land values and in tax rates might seriously affect ultimate costs even though wages and materials change but little. Accordingly, before pronouncing final judgment on the relation between building costs and rents in Pittsburgh, the influence of changing land values and taxes was brought to bear on costs. Interest charges were not included in the calculations because no significant change in the interest rate on building loans has taken place in Pittsburgh in recent years. Nor has allowance been made for upkeep and depreciation, because our data concern new construction only.

TABLE VII. CHANGING LAND VALUES IN PITTSBURGH. 1918-1925

(Assessments in thousands of dollars)

Year	City
1918	482,133
1919	480,131
1920	479,851
1921	480,435
1922	487,939
1923	532,688
1924	530,731
1925	548,475
Per cent increase[1]	13.7

[1]1925 over 1918.

As it was not feasible at this time to make a comprehensive investigation of changing land values in Pittsburgh, it was thought sufficient, for the present purpose, to examine the changes in land assessments, assuming that they have fairly reflected changes in land values. Unfortunately, land assessment figures are available in Pittsburgh as far back as the year 1918 only. Prior to that time assessments were recorded for land and building values combined. But this period, 1918-1925, coincides with the period of the greatest rise in rents, and changing land values, if affecting rents at all, should have contributed greatly to the cost of building construction. But the assessment figures, which are given in Table VII, show only a moderate rise, 13.7 per cent, between 1918 and 1925,—a period which saw rents doubling.

Similar results are obtained in Table VIII, in which is given the revenue derived from real estate taxes by the city and the county during the period 1913-1925. These figures show that the city's revenue, averaged for the last five years of the period under consideration, was not quite 80 per cent above the average of the first five years, and that the county's revenue was increased by 115.6 per cent. The total real estate tax burden was thus increased by a little over 84 per cent. This burden on real estate was accordingly added, in Table IX, to the prime, estimated, cost of building construction in Pittsburgh.

TABLE VIII. THE TAX BURDEN ON RESIDENCE PROPERTY IN PITTSBURGH, Less Wards 1 and 2[1]. 1913-1925
(In millions of dollars)

Year	City Revenue	County Revenue	Total Revenue
1913	9,461	1,331	10,792
1914	9,374	1,348	10,722
1915	10,206	1,315	11,521
1916	10,112	1,621	11,733
1917	9,549	1,766	11,315
1918	11,317	2,061	13,378
1919	11,475	2,117	13,592
1920	13,652	2,819	16,471
1921	15,664	2,902	18,566
1922	16,864	3,005	19,869
1923	17,913	2,815	20,728
1924	18,459	2,969	21,428
1925	18,440	4,221	22,661
Percent Increase[2]	79.5	115.6	84.1

[1]These two wards were eliminated because they comprise the chief business and commercial districts of the city, and can accordingly have no bearing on the tax burden on residence property.

[2]1921-1925 average over 1913-1917 average.

TABLE IX. THE CHANGING COST OF A SIX-ROOM DWELLING IN PITTSBURGH. 1913-1925
(In dollars)

Year	Estimated Cost of Six Room Dwelling and Lot	Tax on Six Room Dwelling and Lot	All Costs	
			Estimated Costs	Index Numbers[1]
1913	3741.97	66.05	3808.02	100.0
1914	3824.02	69.44	3893.46	102.3
1915	3977.47	73.39	4050.86	106.4
1916	4699.35	102.68	4802.03	126.1
1917	4732.80	99.38	4832.18	126.9
1918	5767.43	130.80	5898.23	154.9
1919	7000.95	157.04	7157.99	188.0
1920	8134.43	221.17	8355.60	219.4
1921	7517.32	217.63	7734.95	203.1
1922	7563.82	229.56	7793.38	204.7
1923	7053.97	210.55	7264.52	190.8
1924	8557.20	256.50	8813.70	231.4
1925	7626.22	225.54	7851.76	206.2
Per cent Increase[2]	82.7	177.4	84.5	84.5

[1]1913=100.

[2]1921-1925 average over 1913-1917 average.

The construction of Table IX requires an explanation. It was necessary, in order to allocate these taxes properly, to determine units of building and land values. In as much as the rent averages (medians) are for houses and apartments of four, five, and six rooms, besides bath rooms, the estimated cost of a six room dwelling was taken as the unit of building values, and one-quarter of the value of the building was added as the unit value of the corresponding lot[2]. To the combined cost of lot and building the allocated taxes were added. The total as an "all costs" index number is compared graphically with rents in Diagram IV. In these figures and graphs the familiar results reappear:

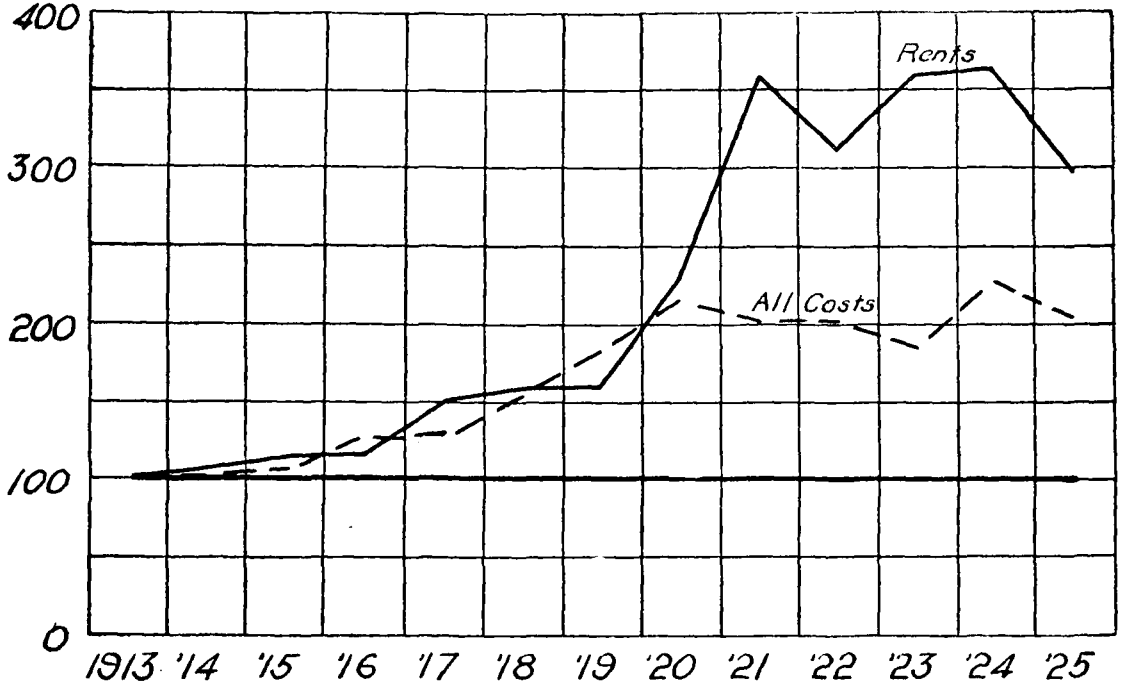
Prior to 1921 rents fairly closely follow costs. Beginning with 1921 rents rise to heights away beyond costs, and leave us as baffled for an explanation as did our supply analysis.

A warning is called for here against indiscriminately using the "all costs" figures as a basis for the computation of the rate of return of real estate investments in Pittsburgh. The rent figures used in this study are averages for both old and new dwellings; the cost data are for new dwellings only. It is true that in recent years a relatively larger proportion than formerly of the dwellings offered for rent must have been of new construction, but at most these represent but a small proportion of all the dwellings advertised for rent. Nor of course is all new construction built for renting purposes. At least 30 per cent of the people of Pittsburgh own their homes. (This has been the proportion since 1900.) But above all, it should be noted, the present rent levels were established in 1920 and 1921, *before* the spurt in construction, which occurred in 1923.

With these conditions before us we may now examine Table IX-A in which the pre-war rates of return on Pittsburgh real estate are compared with the rates of recent years. The figures in this table show that after allowing for all possible increases

[2]This ratio of 4 to 1 was accepted after a very careful balancing of estimates of a number of real estate men, contractors, builders, tax assessors, and mortgage holders, in addition to a series of actual calculatios from confidential cost data of several builders. The estimate was further checked through a calculation of the average ratio between the assessment values of buildings and lots in one of the settled wards of medium price real estate.

DIAGRAM IV. RENTS AND COSTS OF BUILDING CONSTRUCTION IN PITTSBURGH. 1913-1925



in cost the average *rate* of return of the past five years has been 57 per cent higher than the 1913-1917 average.

TABLE IX-A. THE RENT RETURN ON REAL ESTATE IN PITTSBURGH. 1913-1925

Year	Annual Rent	All Costs	Rate of Return (Rent÷Cost×100)
1913	276.84	3808.02	7.3
1914	296.16	3893.46	7.6
1915	318.60	4050.86	7.9
1916	321.00	4802.03	6.7
1917	415.56	4832.18	8.6
1918	444.00	5898.23	7.5
1919	448.92	7157.99	6.3
1920	635.16	8355.60	7.6
1921	993.00	7734.95	12.8
1922	864.12	7793.38	11.1
1923	998.28	7264.52	13.7
1924	1009.20	8813.70	11.5
1925	825.60	7851.76	10.5

4. Changing Type of Construction.

There is one aspect of building construction which may have had something to do with increasing rents and which may be considered under the general discussion of cost; namely, the changing type of dwelling. The study of specific elements of cost may have failed to disclose the "improvements" in recent construction. Such improvements are rather difficult to measure statistically. But one or two measures suggest themselves as appropriate for analysis. For one, we have in Table VII the ratios of the estimated values of building permits to the cost of construction as measured in terms of wages and prices of materials. The permit values on the average, it will be recalled, ran somewhat, (about 9 per cent), above that of wages and materials. This difference may indicate the presence of other elements of cost, whatever they may be. But the chances are ninety-one to nine that it merely reflects the contractors' overestimates. At any rate, the average difference is a summation of differences scattered throughout the thirteen years above and below the average and cannot therefore account for the inordinate rise in rents since 1921.

a. Material.

We may attempt an analysis of these improvements in another way. In the books of the City Building Inspector the permits are recorded by several types of construction,—brick, brick veneer, frame, stone, stucco, etc. In Table X the proportions of the principal types of building,—brick, brick veneer and

TABLE X. PITTSBURGH BUILDING PERMITS CLASSIFIED BY PRINCIPAL MATERIALS OF CONSTRUCTION. 1920-1925
(In percentages)

Year	Brick	Brick Veneer	Frame	Others	Total
1920	37.2	37.7	11.8	13.3	100.0
1921	27.0	38.8	25.1	9.1	100.0
1922	32.9	46.8	10.4	9.9	100.0
1923	31.6	47.2	11.3	9.9	100.0
1924	25.1	51.3	14.3	9.3	100.0
1925	21.3	62.4	12.5	3.8	100.0

TABLE XI. THE CHANGING COST OF BUILDING CONSTRUCTION IN PITTSBURGH CLASSIFIED BY TYPES OF BUILDING MATERIAL. 1920-1925
(In dollars)

Year	Brick			Brick Veneer		
	Cost Per Room	Area Per Room	Cost Per Sq. Foot	Cost Per Room	Area Per Room	Cost Per Sq. Foot
1920	1165	250	4.65	998	228	4.38
1921	1337	303	4.41	828	190	4.37
1922	1324	269	4.91	780	184	4.24
1923	995	229	4.33	917	196	4.68
1924	1275	288	4.43	1132	245	4.62
1925	955	209	4.58	1094	228	4.79
Average	1175	258	4.55	958	212	4.51

frame, are given for each of the past six years. Table XI gives the cost per room of the brick and brick veneer types. From the latter table it is seen that the brick veneer type of building has, on the average, cost 23 per cent less than the brick type. This, it is true, was due entirely to the lesser area (by 22 per cent) of the brick veneer room, (see columns 3 to 6, Table XI). But the fact remains that in terms of rooms the change of construction in recent years has been toward the less costly, the brick veneer type, rather than toward the more costly, the brick type. (See Table X.) The changing type of construction in terms of building material cannot explain the inordinate rise in rents since 1921.

b. Multi-family Dwellings.

TABLE XII. COST OF BUILDING CONSTRUCTION IN PITTSBURGH, PER ROOM AND PER FAMILY, CLASSIFIED BY NUMBER OF FAMILIES PER DWELLING. 1925

Number of Families Per Dwelling	Cost Per Family	Rooms Per Family	Cost Per Room
1	7378.75	7.1	1039.26
2	6506.31	6.5	1000.79
3+	3785.90	4.1	923.39

Thirdly, the changing type of construction as relates to cost may be measured in terms of the changing number of rooms per dwelling of recent construction. The larger the number of rooms per dwelling the less, it can be shown, is the cost of construction per room. This should not be confused with the common method of comparing construction costs in terms of per family accommodations[3]. The latter comparison is entirely misleading. We have in Table XII the analysis, for the year 1925, of the cost per room and per family classified by single, double and multiple-family dwellings. It would appear from this table that the per family cost of the multi-family dwelling is only 51 per cent of the per family cost of the single family

[3]As is done, for example, by the United States *Bureau of Labor Statistics*.

dwelling. But the per family accommodations of the multi-family dwellings, in terms of rooms, are only four-sevenths as large as of single dwellings. The lower per family cost of the multi-family dwelling is thus very largely due to the fact that in such dwellings families occupy fewer rooms. In the per room cost there is a difference of about 10 per cent in favor of the multi-family dwelling.

c. Multi-room Dwellings.

In an earlier connection (p. 12) it was shown that there has been an increase in the average number of rooms per permit in Pittsburgh in recent years. This means of course that there has been an increase in the construction of multi-room dwellings. And this means that, in terms of the number of rooms per dwelling, there has actually been a decrease in the per-room cost of construction. Changing cost of construction, as measured in terms of the number of rooms per building, cannot account for the inordinate rise in rents since 1921.

d. Cost Classes.

Finally, an explanation of the inordinate rise in rents in recent years may be sought in the shift in the cost classes of construction. That a decided shift in the cost classes of construction has taken place in recent years is quite evident from Table XIII and Diagram V. Of the buildings erected between 1910 and 1914 over seventy-five per cent cost less than four thousand dollars each. Less than fifteen per cent of the buildings erected between 1920 and 1924 belonged to that class. Compare this fact with the finding in our rent study[4] that ". . . . in 1913 over seventy-five per cent of the houses and apartments . . . rented for less than thirty dollars per month. In 1925 not quite 2.5 per cent" belonged to that rent class. The shift of this cost class of construction *may quite readily explain the relatively higher rent paid by the lower income classes.* Furthermore, unless wages had been raised in proportion to this shift, it is quite obvious that the new construction lies beyond the reach of most of the working class people of Pittsburgh. A com-

[4] *Bulletin No. 2,* these Studies, p. 16.

parison between rents paid in workingmen's sections of the city and wages paid to employees of the United States Steel Corporation in Pittsburgh disclosed just such lag of wages beheind rents[5].

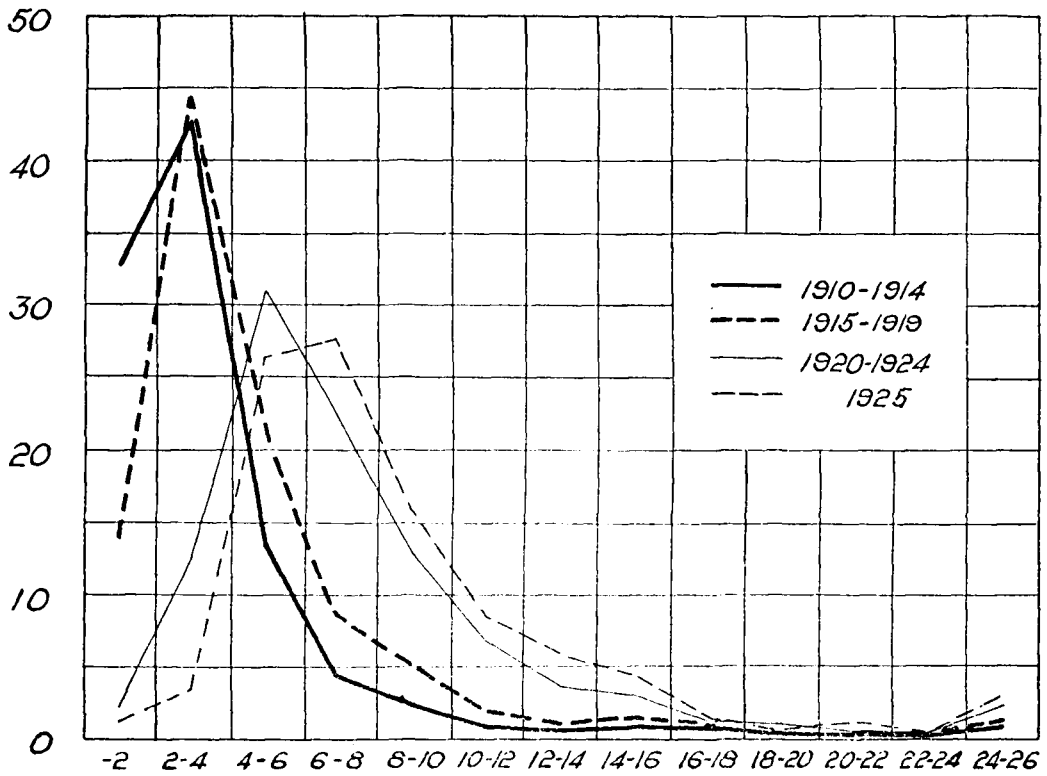
TABLE XIII. PITTSBURGH BUILDING PERMITS DISTRIBUTED BY COSTS CLASSES. 1910-1925

Cost Class (Dollars)	1910–1914		1915–1919		1920–1924		1925	
	Actual	Per cent of Total	Actual	Per cent of Total	Actual	Per cent of Total	Actual	Per cent of Total
Less than 2,000	1768	32.7	511	14.0	153	2.2	29	1.3
2,000 to 4,000	2318	42.9	1619	44.4	891	12.6	79	3.6
4,000 " 6,000	732	13.6	747	20.5	2197	30.9	581	26.3
6,000 " 8,000	233	4.3	314	8.6	1559	22.0	610	27.6
8,000 " 10,000	124	2.3	188	5.1	924	13.0	350	15.8
10,000 " 12,000	45	.8	72	2.0	480	6.8	189	8.5
12,000 " 14,000	35	.6	38	1.0	277	3.9	125	5.7
14,000 " 16,000	42	.8	55	1.5	227	3.2	96	4.3
16,000 " 18,000	28	.5	31	.9	91	1.3	33	1.5
18,000 " 20,000	16	.3	14	.4	83	1.2	16	.7
20,000 " 22,000	8	.1	8	.2	24	.3	28	1.3
22,000 " 24,000	4	.05	10	.3	23	.3	6	.3
24,000 " 26,000	6	.1	10	.3	42	.6	14	.6
26,000 " 28,000	6	.1	3	.08	15	.2	1	.05
28,000 " 30,000	7	.1	3	.08	21	.3	7	.3
30,000 " 32,000	0	0.	4	.1	6	.08	4	.2
32,000 " 34,000	1	.02	2	.05	3	.04	3	.1
34,000 " 36,000	1	.02	3	.08	3	.04	2	.09
36,000 " 38,000	0	0.	1	.02	8	.1	3	.1
38,000 " 40,000	1	.02	0	0.	4	.06	1	.05
40,000 " 42,000	0	0.	0	0.	5	.07	0	0.
42,000 " 44,000	1	.02	3	.08	3	.04	0	0.
44,000 " 46,000	0	0.	0	0.	7	.1	1	.05
46,000 " 48,000	0	0.	2	.05	5	.07	0	0.
48,000 " 50,000	5	.1	0	0.	6	.08	0	0.
50,000 and Over	19	.4	9	.2	39	.6	33	1.5
Total	5400	100.0	3647	100.0	7096	100.0	2211	100.0

However, from the point of view of rents in general this shift is nothing more than a reflection of the change in the cost of construction which has already been observed in several other connections. (See especially Tables V-IX.) As noted, during the 1910-1914 period over seventy-five per cent of the new

[5]Ibid. p. 29.

DIAGRAM V. DISTRIBUTION OF RESIDENCE CONSTRUCTION IN PITTSBURGH BY COST CLASSES. 1910-1925
(In Thousands of Dollars).



buildings cost less than four thousand dollars each. During the 1915-1919 period one must go into the 4,000-6,000 dollar class, and during the 1920-1924 period one must go into the 8,000-10,000 dollar class, perhaps past nine thousand dollars to reach seventy-five per cent of the new construction. But this shift almost completely parallels the increase in costs indicated in Table VI. The common complaint one currently hears that "The building of houses, with selling prices in excess of $6,000, has been pushed to such an extent that the market for high-priced houses is approximating a point of saturation, and, on the other hand, the erection of cheaper houses, for which there is a great demand, has been largely ignored"[6] misses the whole point of the changing *cost* of construction. What used to be a four-thousand dollar dwelling before the war is an eight or nine-thousand dollar dwelling now because of an increase in wages and prices. This does not mean an over-production of the more expensive buildings. If at all, current construction is relatively cheaper, as witness the recent increase in the proportion of brick veneer and of the multi-room dwellings. In 1925 the multi-family dwellings had accounted for 13.4 per cent of the rooms and for 20.6 per cent of the family accommodations of the new construction in Pittsburgh. In 1920 the corresponding proportions were 7.7 and 11.7 per cent. The duplex dwellings in 1925 accounted for 17.9 per cent of the rooms and for 17.6 per cent of the family accommodations. In a table of figures the greater cost of these larger dwellings makes it look as if recent construction has been of the more expensive type.

The inordinate rise in rents in Pittsburgh since 1920 cannot therefore be explained on the basis of the war-time housing shortage, which was of a temporary nature, or on the basis of increased construction costs, which never rose to more than one-half of the rise in rents, or on the basis of the shift in the type of construction, whether measured in terms of materials, the size of dwellings or of cost classes.

The causes of high rents in Pittsburgh must be sought elsewhere.

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[6] In the report of the Philadelphia Housing Ass'n. abstracted in U. S. *Mo. Lab. Rev.*, Nov. 1925, p. 218.

III. SPECULATION, INFLATION AND THE PITTSBURGH RENT CONTRACT

From the same newspaper from which the rent data were gathered for our earlier study, the prices were gathered for the houses advertised for sale. Only houses located within the city limits were considered in this investigation. With the price of each house the number of rooms involved was listed, counting garages accommodating one automobile as one-half room each, garages accommodating two automobiles as three-quarter room each and garages accommodating four automobiles as one room each. The data were gathered from the Sunday editions nearest the 15th of the months of March, April, August and September for the years 1910-1925. The four months selected were assumed to represent the spring and autumn Pittsburgh real estate markets, the most important markets of the year.[1]

1. Volume of Sales.
2. Value of Sales.

The original findings of this investigation are summarized in Table XIV. No attempt was made to classify either the price or the number of sales by the age or construction of the advertised dwellings. The figures are therefore averages, combining the prices of new and old dwellings of all sorts of construction.

In Table XIV both the average price and the number of sales have been put in the form of index numbers. In the same table the index numbers of new construction in terms of rooms, of the cost per room and of median rents are given. These five sets of index numbers are presented for comparison in Diagram VI.

The first thing to note in Diagram VI is the close proximity which the two price curves maintained up to the year 1921. After that year the cost curve becomes more or less stabilized at about the index number 200, while the price curve continues upward. This divergence becomes especially striking beginning in 1923.

[1]Advertisements of these four Sundays amounted to 42 per cent of all of the twelve corresponding Sundays of the year 1913.

The second thing to note is that this rise of the price curve above the cost curve becomes pronounced (in 1923) two years *after* the steepest rise in rents, (1921). The rise in rents may therefore be said to have caused the increase in real estate values, not *vice versa*[2]. High rents came first, high real estate values followed.

Now note the accelerated divergence between the sales curve and the construction (permit) curve beginning with the year 1917. This spurt in real estate transactions turned into a "boom" by the year 1919, thereby *preceding* by two years the rent rise of 1921. *Speculation* may therefore be said to have caused that inordinate rise of rents. The mere transfer of ownership would seem to have sufficed to raise rents.

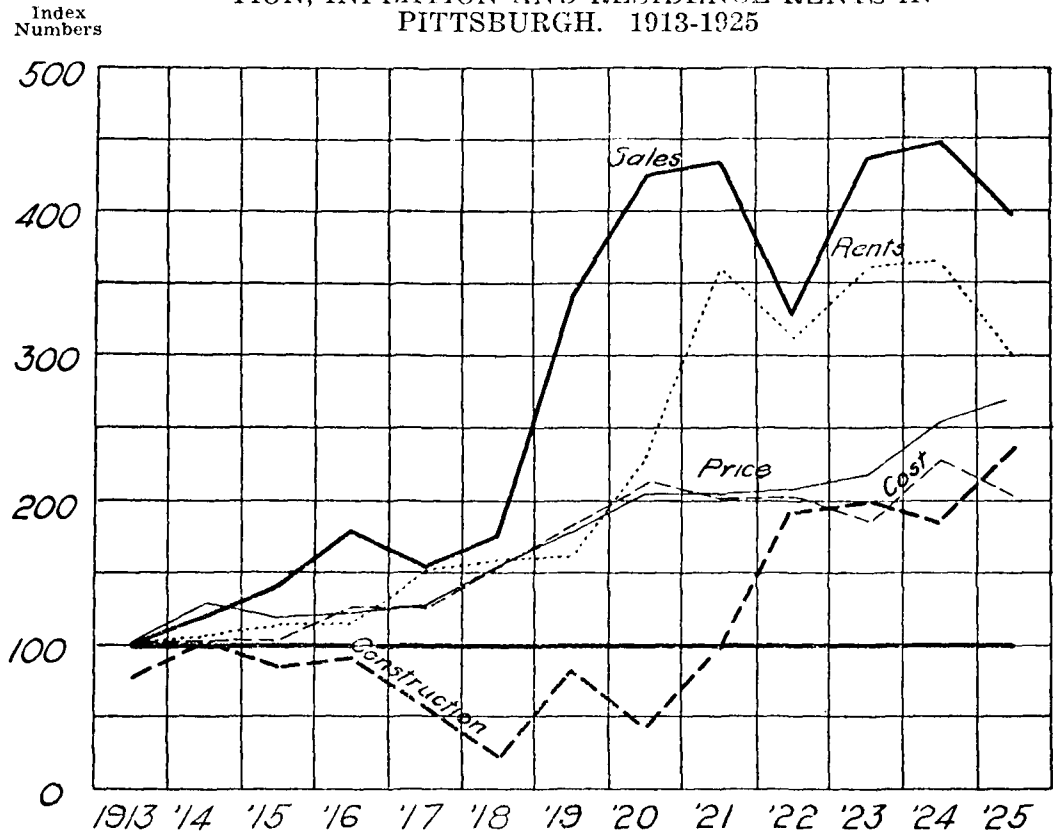
[2]A striking instance of the capitalization of rents into higher real estate prices.

TABLE XIV. THE INFLUENCE OF SPECULATION AND INFLATION IN REAL ESTATE ON RENTS IN PITTSBURGH. 1910-1925

Year	Index Numbers of		Index Numbers of		Median Rents[5]
	Rooms Advertised for Sale[1]	Construction[2]	Advertised Price Per Room[3]	Cost Per Room[4]	
1910	122	126	133	103	.....
1911	81	102	128	115	.....
1912	78	90	131	110	.....
1913	99	78	100	100	100.0
1914	121	103	131	102	106.9
1915	142	86	120	106	115.1
1916	178	91	123	126	115.9
1917	154	56	128	126	150.1
1918	176	22	153	154	160.4
1919	337	83	178	187	162.2
1920	424	41	205	217	229.4
1921	434	97	204	201	358.7
1922	327	192	208	202	312.1
1923	437	200	219	188	360.6
1924	447	187	253	229	364.5
1925	398	235	271	204	298.2

[1]Based on 1910-1914 average=1789 rooms=100.
[2]In terms of rooms, taken from Table III above. Average 1910—1914=8166=100.
[3]Based on the 1913 average=$467.39=100.
[4]Taken from Table V above; 1913 average=$498.93=100.
[5]Taken from Table I above; 1913 average=$23.07=100.

DIAGRAM VI. THE RELATION BETWEEN SPECULATION, INFLATION AND RESIDENCE RENTS IN PITTSBURGH. 1913-1925



3. Number of Deeds.

Table XV gives supporting evidence to the conclusions reached in the last paragraph. The table shows the relation between the number of deeds recorded in the office of the City Register of Deeds and the number of permits recorded in the office of the City Building Inspector. The average ratio of deeds to permits of roughly seven to one of the first several years of the period is suddenly doubled in 1917, is increased nearly five times in 1918, and six times in 1920. It then as suddenly declines in 1922 to approximately its pre-war average, at which level it has remained since. These ratios, as index numbers, are shown along with the rent curve, in Diagram VII.

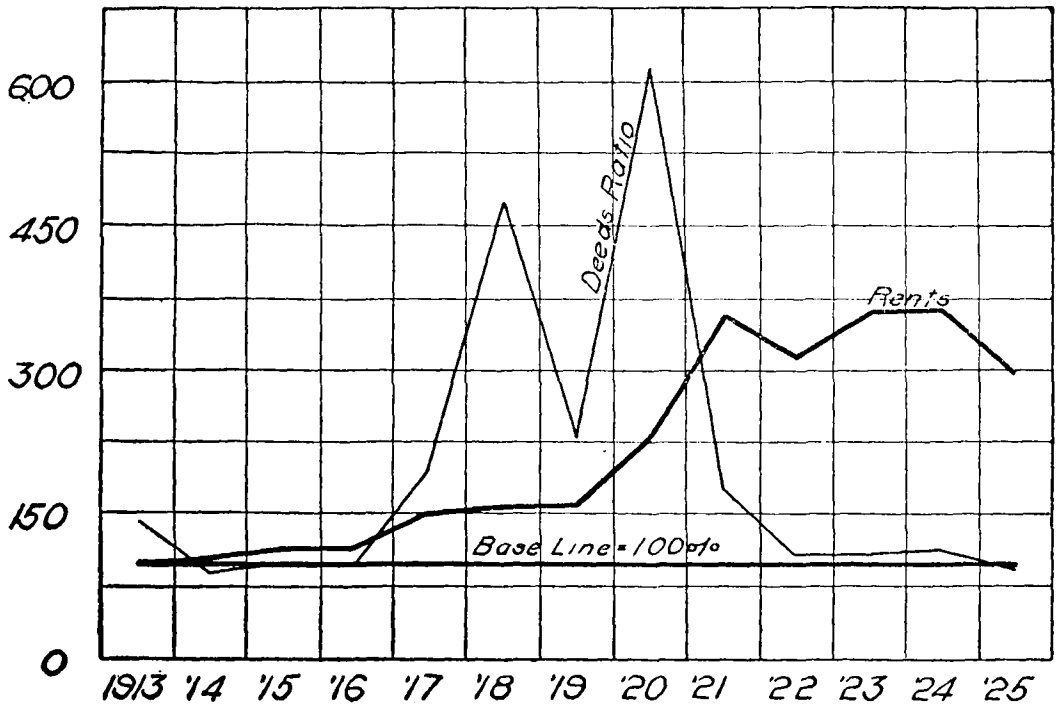
TABLE XV. REAL ESTATE SPECULATION IN PITTSBURGH. 1910-1925

Year	Deeds	Permits	Ratio	
			Actual	Index[1]
1910	7231	1380	5.2	76
1911	6915	1099	6.3	93
1912	7194	1010	7.1	104
1913	6796	715	9.5	140
1914	7307	1196	6.1	90
1915	6717	992	6.8	100
1916	7191	1068	6.7	99
1917	8145	594	13.7	201
1918	7554	233	32.5	478
1919	11860	760	15.6	229
1920	17043	406	41.9	616
1921	11958	970	12.3	181
1922	12497	1676	7.4	109
1923	14072	1904	7.4	109
1924	16593	2115	7.8	115
1925	14398	2211	6.5	96

[1]Based on the 1910-1914 average=6.8.

Thus it is apparent that the speculative activity in Pittsburgh real estate which had its origin in the war-time housing shortage, in 1917, resulted in a rapid rise in rents which reached a peak in 1921. These high rents gave rise to inflation in real estate values which began mounting after the speculation wave had subsided, (in 1923). This inflationary movement raised rents to a new high point in 1924, and must be held responsible for the maintenance of these high rent levels in the face of a near over-supply and in the face of a much lower level of stabilized costs of construction.

DIAGRAM VII. RENTS AND SPECULATION IN PITTSBURGH REAL ESTATE. 1913-1925
(Ratio of deeds to permits compared with rents)



Against this sequence of speculation, rent raising, inflation and further rent raising Pittsburgh tenants seem to have been completely helpless.

4. Fall and Spring Rents.

5. The May 1st Contract.

TABLE XVI. AVERAGE MONTHLY RENTS IN PITTSBURGH IN SPECIFIED MONTHS. 1919-1925.
(In dollars)

Years	March – April Average	August – September Average
1919	$41.25	$37.71
1920	55.07	79.33
1921	99.30	66.40
1922	78.49	68.62
1923	86.87	85.46
1924	87.54	73.59
1925	74.71	64.29

Early in our study of rents it was discovered that, with the exception of the autumn of the year 1920, rents have been higher in the spring than in the autumn months every year since 1919. (See Table XVI.) There would seem to be no explanation for this curious phenomenon, excepting for the Pittsburgh practice of dating annual real estate leases from one day of the year only, namely, from May first. This practice places the Pittsburgh tenant under a double handicap. He must seek and find his new quarters in competition with all other tenants who seek to change quarters within a relatively short period. He must do his moving at a time when everybody else is moving and when moving charges are, accordingly, at their highest. Under the first handicap the Pittsburgher must rent his accommodations in, what is commonly known as, a sellers' market. Under the second handicap moving in Pittsburgh becomes a rather expensive proposition. Inquiries on this point warrant the assertion that the cost of moving at about May first, including the cost of packing, clceaning, and unpacking is probably twice as high as during other seasons of the year, and amounts to over a full month's

rent[3]. Under the circumstances Pittsburgh landlords may with impunity at any May first increase the rent by an amount equal at least to one-twelfth of the annual rent bill. In a situation such as Pittsburgh tenants faced during the war-time housing shortage, the limits of rent increases seem to have been conditioned almost entirely by the temerity of the owner-speculator. In the autumn months the tenant enjoys a brief reprieve. In the spring he is hemmed in between the speculator and the monopoly contract.

6. Scarcity of Second Mortgage Money.

An aggravating circumstance in the Pittsburgh situation is, as some of the more reliable real estate men put it to the writer, the avowed inability of the average Pittsburgher to finance his own building construction because of the scarcity of second mortgage money. There exists, these men maintain, sufficient land in Pittsburgh within reasonable distance from business and industrial sections of the city on which substantial dwellings could be built that would rent for one-half to two-thirds of the present rent averages, if only second mortgage money could be obtained at reasonable rates of interest. The legal maximum for second mortgages is 6 per cent. But a 5 to 7 per cent "service charge" is added to most loans and what with "bonuses," "commissions" and certain conditions of retiring the principle, twenty per cent interest charges on second mortgage money, these men aver, is not uncommon in Pittsburgh[4].

The inordinately high rent levels which have been maintained in Pittsburgh since the year 1920 have been accounted for on the basis of a wave of real estate speculation which had its origin in the temporary housing shortage resulting from the war-time expansion of Pittsburgh industries. These high rents were reached through a series of sequential relationships between speculation, rent increases, and inflation. This was made

[3]This statement is based on information given to the writer by officers of ten of the most important moving and storage companies and of seven real estate and renting agencies of Pittsburgh.

[4]Several persons who have been in the second mortgage business have confirmed this estimate.

possible through the monoply which Pittsburgh landlords enjoy in the practice of dating annual leases from one day a year only[5]. *Exorbitant interest charges on second mortgage money have made it impossible for the average Pittsburgh tenant to seek redress through financing his own building operations.*

[5]It is significant that in recent years, as shown in Table XVI-A, below, March rents have been considerably higher than April rents. Apparently, rents put into the May 1st contract are determined as much by the shrewdness of the landlord as by the ignorance of the tenant.

TABLE XVI-A. MARCH AND APRIL RENTS IN PITTSBURGH IN SPECIFIED YEARS. (In dollars)

Year a.	March b.	April c.	b.-c. d.
1926	72.53	64.98	7.55
1925	77.10	71.41	5.69
1923	91.00	84.19	6.81
1914	27.61	26.86	0.75
1913	25.78	25.25	0.53

IV. SUMMARY AND RECOMMENDATIONS

A. SUMMARY.

The task of this study was to discover the factors which have combined to raise and maintain housing rents in Pittsburgh since the year 1920. Several such factors were examined, the chief among them being:

1. The Supply Factor.

Three series of data were used in the analysis of the supply factor, namely, the number of houses and apartments advertised for rent in a representative Pittsburgh newspaper, the records of the volume of new construction taken from the files in the office of the City Building Inspector, and the census data on dwellings and population.

2. The Cost Factor.

Several elements of cost were included in the analysis of the cost factor,—wages, prices of building materials, land values and taxes, as well as the less definite elements of cost which depend upon the change in the materials of construction, on the number of rooms and the number of families per building, on the number of rooms per family accommodations, the area per room, and the shift from the lower to the higher cost classes of construction.

The conclusions which were derived from the analysis of the relation between the supply and cost factors and rents, were summarized (on page 34) in substance as follows:

The rise in rents in Pittsburgh since 1920 cannot be explained on the basis either of a current housing shortage, or on the basis of increased construction costs, (costs never rose to more than one-half of the rise in rents), or on the basis of the shift in the type of construction, whether measured in terms of materials, the size of dwellings, or cost classes.

3. The Speculation Factor.

4. The Inflation Factor.

Attention was therefore turned to the analysis of such accidental influences on housing rents as speculation and inflation. For this purpose comparisons were made between the number of rooms advertised for sale, their sale prices, the number of

deeds, and the number of building permits, all in their relation to rents. This analysis led to the conclusion that:

The inordinately high rent levels of Pittsburgh can be accounted for on the basis of the wave of real estate speculation which had its origin in the temporary housing shortage resulting from the war-time expansion of industry.

The practice of dating annual leases from only one day a year and the exorbitant interest charges on second mortgage money[1] were pointed to as circumstances favoring speculation in Pittsburgh real estate.

B. RECOMMENDATIONS.

Two recommendations follow our analysis quite obviously:

1. Modify the May 1st annual lease contract practice.

There is nothing in the laws of the State of Pennsylvania to compel tenants to accept leases dated from any one day of the year, nor, for that mater for the duration of one year. Legitimate real estate business would suffer no handicap if annual leases were dated from other dates of the year than May first.

2. Provide community or cooperative financing.

Means should be devised to supply second mortgage money at moderate interest charges for a housing program that would meet the needs of the lower income classes of the city. Quite likely such a program can not be left to be carried out by private enterprise. Two years ago the United States Bureau of Labor Statistics reported the Cleveland, Ohio, Chamber of Commerce as believing "that the housing problem can not be solved by private building enterprises under existing financial circumstances. . . . If workmen are to be attracted to the city to man its industries, housing must be provided for them. . . . by new means." In the words of the Chamber of Commerce:

"Either the community or the government must come to the rescue and provide houses that are within the range of prices that the worker can rent or purchase, or through some control of resources make it possible to pro-

[1] "It is a striking fact that they [the other cost factors] do not influence housing cost to nearly the same extent as does the cost of finance." From Industrial Housing, by Andrew J. Thomas, a report made for the Bayonne, N. J., Housing Corporation, quoted in *Monthly Labor Review*, April, 1926, page 151.

vide comfortable living accommodations for himself and family[2]."

This has been the sense also of the New York State Commission of Housing and Regional Planning[3].

Without bringing to bear any further evidence at this time it would seem that some sort of cooperation between the community and the better intentioned real estate men is indispensable if a solution to the housing problem of Pittsburgh is to be undertaken. Perhaps the attempts of the State of New York[4] to solve the housing problem there in cooperation with such private enterprises as the Metropolitan Life Insurance Company might be adaptable to the needs of Pittsburgh.

3. Rapid Transit Facilities.

Finally, it would seem that the congestion in certain workingmen's wards might be relieved through the construction of facilities for rapid transit from work-shops to more distant sections of the city. But this point calls for much more study than can at present be given to it.

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[2]*Monthly Labor Review,* July, 1924, p. 185.
[3]*Monthly Labor Review,* June, 1925, pp. 161-165.
[4]See the *New York Times,* February 28, 1926, Sec. 9.

V. APPENDIX. RENTS IN THE SPRING OF 1926[1].

Average rents in Pittsburgh in the spring of 1926—$66.53—were $8.18, or 10.9 per cent, lower than in the spring of 1925. (See Table XVII.) This is the first instance in the past fourteen years when rents have declined two springs in succession. These facts seem to indicate that rents in Pittsburgh are now likely to continue their decline until their levels fall in line with other post-war price readjustments.

TABLE XVII. NUMBER OF HOUSES AND APARTMENTS ADVERTISED IN THE SUNDAY EDITIONS OF A REPRESENTATIVE PITTSBURGH NEWSPAPER IN MARCH AND APRIL OF SPECIFIED YEARS, BY RENT CLASSES

Rent Class (Dollars)	26	1925	1913
Less than 10	0	6	32
10 to 20	0	2	953
20 " 30	57	55	964
30 " 40	226	199	357
40 " 50	447	328	168
50 " 60	512	419	119
60 " 70	555	503	18
70 " 80	437	584	2
80 " 90	274	424	...
90 " 100	194	253	...
100 " 110	145	254	...
110 " 120	62	122	...
120 " 130	19	111	...
130 " 140	19	38	...
140 " 150	4	12	...
150+	3	35	...
Total	2954	3339	2613
Unclassified	725	662	386
Grand Total	3679	4001	2999
Average	$66.53	$74.71	$24.74

But rents were still high in Pittsburgh in the spring of 1926. They were 168.9 per cent above spring rents of the year 1913. Relatively to 1913, they were 65.3 per cent above con-

[1]Averages for four, five and six unfurnished rooms, with bath, advertised for rent in March and April in the Sunday editions of a representative Pittsburgh newspaper.

struction costs of 1925. Rents would have to decline more than 38 per cent from their present levels before they would be justified by costs.

Furthermore, the present decline in average rents, as that of the year before, was brought about more by the decline of the higher than of the lower rent classes. *Proportionately* the decline was nearly the same in all classes. But in dollars and cents, rents lying three-quarters up the rent ladder (the third quartile) declined $10.18; rents half-way up (the median) declined $8.56; rents one-quarter up (the first quartile) declined only $5.81. In the spring of 1925 as many as 17 per cent of the advertised accommodations rented for 100 dollars or more a month. In 1926 only 8.5 per cent belonged to that rent class. On the other hand, 18 per cent of the advertised accommodations in 1925 rented for less than 50 dollars a month. In 1926 nearly 25 per cent rented for less than 50 dollars a month. People of the lower middle class may now expect some relief from high rents.

Still, it should be noted, in the spring of 1926 third quartile rents were 163 per cent above third quartile rents of 1913; median rents in 1926 were 175 per cent above median rents of 1913.

In 1926 the rent burden was still relatively greater among the lower than among the higher income classes of Pittsburgh.