

## LONDON



## HOUSING ATLĀS

Published by Authority of the Hon. James A. MacKinnon,M.P.
Minister of Trade and Commerce Ottawa
1946

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## PREFATORY NOTE

> The Dominion Bureau of Statistics has based this
> statistical atlas upon 1941 housing census data. It is not. an official publication for general distribution but has
> been designed rather to summarize available census data
> for the local study of housing in the London area.

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## Int roductory:

The following paees include a brief commentary on London housinp, and a statistical summary of 1941 housing data for Greater London. There are also maps which present a praphic record of the housine conditione within the city bourdaries for ware-earner housetclds, i.e., those in which the household head is a weee-earrer.

Chanpes have taken place in London since 1941, ard Housing Cersus records do not provide a completely accurate picture of the exiatine situation. They do pive useful backpround material, however, to serve as a ealde to intensive studes of the housine problem. They also provide a besis of comparison with conditions in other cities; irdependent surveys seldom do this because of differert methods used, and differences in the kinde of data collected.

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\text { Comments or London Housing, } 1941
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Statistical tables on pares 4 to 6 provide a summary of data collected durine the 1941 Housine Census of every tenth occupled dwelling in the London metropolitan area. t Begides the city \%f London proper, this area included London and Westminster townships. Apart. from exceptions noted, the material in these tables covers all types of households, whereas the maps in the second section relate only to ware-egrner households within the city. Households with
 those in the city proper.

## Description of Dyeilings:

In the fringe area, 92.4 p. 2 . of dwellings were singie houses, but this percentare dropped to 71.5 w thin the city. Another $21.2 \mathrm{p} . \mathrm{c}$. of city dwellines vere flats or apartments compared with 6.2 p.c. in the frinee area. Semi-detached houses, and rows or terraces made up the remainder: There were few laree apartment blocks or similar bulldinps; and onif 8.7 p. $\varepsilon . \because$ of dwellineg. in tite city were in buildines containine 4 or more dwollines.. Brick was the usual exterior buildine:material in both city and frinee areas, with 62.3 p.c. and $45: 2 \mathrm{p} . \mathrm{c}$. respectively beine of brisk construction." Wood cpme second, beinp the surface material for 23.8 p. 2. and 35.7 p. c. of komes in the respective areas. Stucco buildines accounted for all but a small percentape of the remainder in both areas. Homes in the city area were eeneraily in a better. condition of external repair than those in the frinee. In the city $20.7 \mathrm{p} . \mathrm{c}$. and in the frinpe 27.2.p.c. were in need of external repair, i.e., one or more of tio following requirediattention: foundations;: outside walls, roof, chimneys, stairways, or steps approachine the entrance:
(.... Dwelilngs were comparatively laree, averaging 5.6 rooms in the fringe area and 5.7 : rooms in the city proper. Six rooms was the predominant size in both areas.

Desciption of Households:

The household, as defined for housine census purposes, is the complete group of persons occupylne a dwelling unit. Not infrequently the household inciudes lodelne families, and may also include two or more separate housekeepine units in the dwelline.

The gevare number of persons per houseculd in London was small compared with other metropolitan contres. The averaze number was 3.7 in the fringe area and 3.6 in the city. When compared with the averape number of rooms, 5.6 and 5.7 , an over-all averafe of more than one room per person is indicated. However, rooms are not evenly distributed, and actualiy 8.9 persons lived in dwellinps allowine less than one room per person.

In'London proper, 9.8 p.c. of householis kept lodeers and 7.6 p. 2. inciuded lodotne families; in the frinee area, proportiong werp 6.2 gnd 7.6. Although these proportions are below those for most metropolitan centres, they still suroest a need for extra housine.

## Dwellinf ${ }^{\text {Sinapment }}$ and Conveniences:

A consideration of dwelling equipment and conveniences is useful as a pulde to standards of existinp housing. It also provides a rouph basis for comparing the oulality of city and frinpe homes.

Plumbing facilities varied considerably: Al houet 99.3 p.c. of city dwellines had runing water, the frine proportion was only $660 \%$. This differerice naturaliy was reflected in bathine and toilet iactities. Whereas 96.3 pic. of ${ }^{\circ}$ ct ty households had either the exclusive or shared use of any inside toilet, the correspondno frinee area percentare was 58.1. Similarly 88.6.p. c. of city households compared with 53.1 p.c. of frinee area housoholds, had either a: private, bath, or shared one with other households.

Gas or electilcity was the principal cooking fuel in $85.0^{\circ}$ poc. of frineo area homes and in 96.6 p.e. of those in the city Wood was usea by 9.7 p.c. of households in the frinee. area, "and 2.4.p.c. in the city:

Hot air furnaces were the chfef source of heat for homes in both the fringe and city areas, composinp $42.5 \mathrm{p} . \mathrm{c}$. and $61: 0$ p. c. respectively of the total in both areas. Stoves supplied heat to 48.5 p. cand 24.3 p.c. of households in the respective areas, while steam or hot water came third in prominance. The availability of natural pas in London was responsible for the hieh proportion of householders using pas as a heatine fuel-in 36.2 p.c. in the frinee area and 42.4 p.c. In the city: proper. Practically all homes in the metropolitan area, were 1iehted by electricity. Refriegration facilities were absent in $29.7 \mathrm{p} . \mathrm{c}$. of frinee area homes, and 19.7 p.c. of efty homes.

Se. A further indication of economic status is provided by percentares of homes with Vacum cieaner, automobile, radio and telephone. London stood hiph in this respect, 28:9.p.c. of frlme area families, and 24.0 of city families havine all these conveniences, while 4.3 p.c: and 4.1 p.c. in the respective areas had none. The city led in percentages of homes with. telephone; vacuun cleaner and radio, but a higher percentare of householders in the fringe area had motor cars.

## Owner-Occupied - Homes- - Value, Mortpape Outstanding, Tezes:

Theraveraee value of owned homes was $\$ 3,346$ inttie Lordon frinse area and $\$ 3,550$ in : the city. sthe percentaee of households livine In dwellinps valued by the owners at less than \$3,000: was, 60.0 in the fringe and, 48.3 in the citys. More dwellines were mortgagedin the firinge area than insthe icity, correspondine percentases abeing 49.5 and 41.3. Interestrates on morts-2. aces fere low, averaeine 5.4 p.c. In the frinpe area and 5.5 p.c. in the city proper. Al though fromemes andectormos were almost equal in values, average yearly taxes ont the former were. ony one thilid of those on the latter, respective amounts being $\$ 42$ and $\$ 124$.
Bents:
In the city, monthly rents averaeed $\$ 29$, as compared with $\$ 24$ in the frinee. In the city rents centred between $\$ 20$ and. $\$ 25$, and in the, frinee, hetween $\$ 15$ and $\$ 20$. However, in the former area 16.4 .. c. paid over $\$ 35$ per month rent, while the correspondine frinee figurer, wes; $21 \% \mathrm{pec}$

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Earnines of Ware-Farner Families:
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Wace-eerner families comprised 66.5 p.c. of households in the metropolitan frinee and 62.1 p.c. of those in the city. Since this eroup forms such a laree proportion of all households, the earninips of vase-earner families provide a pood indication of the earnines of the city as a whole: darninge of vage-garner family heads averared $\$ 1,386$ in the frinee area and $\$ 1.489$ in the city. These fipures are somethat below the averare for the 12 Canadian metropolitan centres. Ofer 60 p.c. of waee-earner femily heads, in both the city and fringe areas, earned $2 e 8 s$ then $\$ 1: 500$ in 1941.

## Tenant Rent-Raringes Relationshipg:

Reosedless of whether homes are to be built for rentine or for sale, relationships betwen rent, and earnines are an important consideration. One-fifth of income is a rcasonable maximum for shelter costs for families with incomes under $\$ 2,000$, without risk of skimping on food or other living regulrements. Any considerable proportion of households payino more than this fraction provides evidence of inancial strain and may be accompanied by malnutrition or crowing.

[^0]Wape-earner sinfle family tenant households in the London metropolitan area numbered approximately 9,000 out of a total of 11,700 tenant houreholds of all kinds. The over-all total included at lasat 800 tenant households composed of two or more families, a proup in which rent earnings ralationships are typically less satisfactory than for the single family type.

In the London metropolitan area, one-third of wafe-agrner families received $\$ 1.100$ or 1 ess in 1941, while another third received from $\$ 1,100$ to $\$ 1,700$. Family earnings averaeces in the lover- and middie-thirds of the wafe-earner groups amounted to $\$ 775$ and $\$ 1,359$ respectively. These fipures are of special sienificance in considering the distribution of rents in the lowerand middle-third earnines proups.

Proportions of Single Family Wege-Farner Householde in the Lover- and Middo-Third
Pamily Earnings Groupa Peylne Specified Rents, London, 1941.


Fanilies with an average annual income of $\$ 775$ cannot afford monthly. shelter coste Averaging more than $\$ 12.92$, if, one-fifth of income be accepted as the upper limit which may reasonably be devoted to, shelters likewise families with an average income of $\$ 1.359$ can afford monthly shelter costs averagire not more than $\$ 22.65$.
wine - $\because \cdots \cdots$
*s. Actually, hovever, only 13 p.c. of.tenants in the lower-third of the London family. earnings ranfe; 1, e.; $\$ 1,100$ a, year or less; paid rents they could afford. That 18, 87 p.c. of households expended more than 20 p.c. of their earnines on tenant shelter. Similarly 55 p. co of families in the middle carnings eroup: $\$ 1.100$ to $\$ 1,700$, paid more than $20 \mathrm{p} . \mathrm{c}$. of their earne inges on shelter:
$\because:$
Pamily incomes tend to averape slightly higher than actual earnines but the $:$ difference is cheracteristically sall. Allowine for this and also for possibleunderstatement of earninps to census emmerators, it is still clear that many tenent households in London were payinp hifher renta than a normal budpetary distribution of family income would dictate.
C. - City Proper
F. - Metropolitan Prinep.
M. A. - Metropolitän Area.

HOUSING DATA - GREATER LONDON, 1941



## STMAAR OF CONDITIOES AND CONFENI ENCESS

| 1. | Heedine exterasal repalr |
| :---: | :---: |
| 2. | With olectric liehting. |
| 3. | With runaing vatar.. |
| 4. | With mechanical rafriperstion |
| 5. | With ice reíriceration |
| 6. | With eas or eleotric cookinp |
| 7. | With private fush toilet ... |
| 8. | Mith shared Mugh tollet |
| 9. | With pripate bathtub or shover |
| 10. | With shared bathtub or shower: |
| 11. | With telephone ........ |
| 12. | With electirlc vacuma cleaner |
| 13. | With antomobile.. |
| 14. | $W_{1}$ th radio...... |
| 15. | Vith 11, 12, 13 and 14 abovo. |


| c. | 1. | M. A. |
| :---: | :---: | :---: |
| 20.7 | 27.2 | 21.3 |
| 99.5 | 96.7 | 99.2 |
| 99.3 | 66.0 | 96.1 |
| 47.2 | 45.4 | 47.1 |
| 32.4 | 24.4 | 31.7 |
| 96.6 | 85.0 | 95.5 |
| 89.5 | 57.1 | 86.4 |
| 6.8 | 1.0 | 6.3 |
| 82.0 | 51.7 | 79.2 |
| 6.6 | 1.4 | 6.1 |
| 59.6 | 51.0 | 58.8 |
| 53.5 | 42.4 | 52.5 |
| 41.4 | 64.3 | 43.6 |
| 93.4 | 92.0 | 93.2 |
| 24.0 | 28.9 | 24.5 |

6. 

C. - City Proper.
r. - Metropolitan Friné.
M.A. - Metropolitan Area.
gousigg data - GBrargr london, 1941

| $\because \quad$ OCCUPATIONAL STATUS OT HOUSMOLD GEADS <br> Staitus $\qquad$ Percentare of Households |  |
| :---: | :---: |
|  | Amount i . . Percentape of Pamilieo |
|  |  |
| Own Account .................... 9.7 15.5 10.2 | O- 499 ............. ${ }^{\text {P.5 }} 13.0$ 8.1 |
| Rmployer . . . . . . 2.5 . 3.4 . 2.6 .... 2.6 |  |
| Retired .......... 10.3 : 6.8 . 9.9 |  |
| $\mathrm{Ho}_{0} \mathrm{Pag}_{\text {el }} \ldots \mathrm{O}$ |  |
|  |  |
|  |  |
| Total Mumber of Eouseholds .....20,2x2 . $2.142,22,364$, |  |
| HOUSBRODS WITH SPECITIED NOMBER OE LODGFRS |  Averpipe Iarnines ................. \$1,489... \$1,386. \$1,479. |
|  | ANOUL TARMMOS OT MAGB EARNIR TAMILY HEADS (City Proper) <br> Amount <br> Percentafe of Pamilieg |
|  |  |
| \%- |  |
| HOOSHECLDS WITE SPECIPI ID MRMBER OT LODGING PAMILITS. |  |
|  | 2500 - 2999 ............... 5.3 2.8 3.8 |
|  | 3000-3999 . $\ldots$-............... 6.0 , 2.0.. 3.6 |
|  |  |
|  |  |
| $3+$ |  |
| Estimated Mimber of Households <br>  |  |
|  | gehation of ceoming to thrnt |
| Hor Single magr earmar families: |  |
| (City Proper) | Mage-Earners, |
| Earnines - Averare Kumber of |  |
| $\frac{\text { per Persons: }}{\text { \& }}$ | Amount : $\quad$Mase-karrer <br> Pomilea <br> than <br> per Persoon |
|  | \$ |
| 100 - 199 - 1.1 |  |
| 200-399 399 ...................... ${ }^{*}{ }^{*}{ }^{1.2}$ |  |
| 300 - 399 ....................... . 1.3 | $1500-1999$. 13.0 |
| 400 - 499 ........................ 1.5 |  |
| $500-599$ - ${ }^{500}$ - 1.8 |  |
|  | $3000: 3999$ :............. 3.6 , 8 |
|  | 4000 - 4999 ............t. 1.1 . ${ }^{\text {a }}$ |
| 900 - 999. |  |
|  |  |
| * Family Raerninga divided by total persona in Pamily. |  |

The usefulness of housing census maps depends upon a clear understanding of the material they represent, and the method of presentation. These maps have not the precision of material obtained from a complete survey; as already noted, they have been based upon records from every tenth wage-earner household in the area. Censur oub-divisions are the smallest unit available for analysis of housing census data. These areas generally include several blocks grouped without regard to housing conditions, so that the boundaries of conditions indicated are likely to be approximate.

The shading of the maps is based upon certain characteristics of wage-earner families in esch area. Wagẹ-earner families, l.e., those whose chief bread winner recelves a salary, rages upon a rate or plece-work basis, or works upon a commission basis, usually form a preponderant proportion of all households. These families will ordinarily live in homes commensurate with the income they receive. The third map is of special significance since it indicates the proportion of wage-earner households in each subidistrict. Other maps should be studied in relation to this one, and to the map showing population density which is based on the total population regerdiess of household type.
$\because \quad$ Considerable proportions of any large city are, non-residential, ánd the character of adjacent residential areas is influenced by the land use of these non-residential sections. A distinction has been made, therefore, between sections which are primarily residential, nonresidential., and. parks and non-occupied areas. The population density mep shows that many people live in non-residential areas. Land marked as park areas may not represent formal parks, but also includes play fields and extensive open space around institutions such as hospitals, convents, etc.

Comment on Individual Maps

1. Reference Map_- This map has been propared to show transportation routes. ond the location of primary schools, both of which have a direct bearing upon the housing problem: Nemes of some of the principal streets have been listed for reference purposes.
2. Population Density - Bach dot represents 50 persons. There is no significance in. the exact position of the dots; but the total number within a suib-disitict is significant; and. serves to indicate clearly the congested areas, and the more sparsely populated areas.
3. Proportion of Wage-Earner: Households - Since all subsequent maps are based only upon records for wagemenrner households, it is important to bave a correct impression of the proportions of wage-earner households in each: area. Wage-earner households comprise at least 40 .p.c. of the total in almost all London residential areas.
4. Crowding_- Study of this map particularly in relation to popilation density, and the occurrence of two or more family households is suggested. Any household with lesi than one room per person is considered to be crowded. For example, 4 persons in a 4 -room dwelling would have to sleep two to a room in order to have a kitchen and one other room free for living purposes; another person in this home would produce crowding in either sleeping or living space.
5. Households with Two or More Families - Two or more families living in a dvelling originally meant for one fanily represents an unsatisfactory housing condition, which may be due either to poverty or lack of space. It is not uncommon for gingle familles to have sufficient means to provide for a mall, low rent dwelling without being able to secure one. Their only alternative is to. share a higher rent dwelling with another family.
6. Prevailing Pamily Farnings Levels - Family earnings are closely related to housing and living standurds. Pemily earnings include the total annual earninge of all members of private families, but exclude those of lodgers or damestics. Rent fram boarders or lodgers is not counted as earnings. In households of two or more families, only the earnings of the principal family are counted, all sub-tenant family earnings being excluded. (See definition of waze-earner.)
7. Levels of Housing and Living Conveniences - Accurate criteria for judgiry the quality of housing accomodation are extrerely difficult to determine. This map has been based on information about the dwelling and about living conveniences available to the household. The large number of factors employed has necessitated a complictited system of combinations in order to allocete all dwellings into six groups. The reasonableness of this groupirf, however, is supported by the close relationship between this map and the previous orie based on family narringe. Factors considered in establishing the six groups were: condition of external ropair, plumbirg facilities, elect-ic lighting, cooking and refrigeration facilities, vacuum cleaner, telephone and autcmobile.

Group l includes nothing but dwellings which are ulmcst certainly belcw acceptable housing standards. All such dwellings were' cefective either with regard to condition of repair or plunting, and occupant households possessed none of the usvai city conveniences such as electric or gas cooking stoves, or refrigerators; reither had they vacuum cleariers; telephones, or automobiles. Group 2 was only slightly better, including many buildinfs in need of repair, or without standard plumbing, but with a few conveniences. Groups 3, 4 and 5 are similar, but not until: Group 5 is reached, are dwellines always satisfactory so f'ar as external répairs and plumbing are concerned, elthough many households in Groups 3 and- 4 have most of the conveniences noted abore. Group 6 has all conveniences, satisfactary condition of repair, and standard plumbirg. Family earnings averages in Ontario for the six levels of housing and living conveniences were as follows in 1941.


|  |  | \$ |
| :---: | :---: | :---: |
| Level 4 |  | 1,708 |
|  | 5 | 1,832 |
| 6 | 6 | 2,497 |

8. Low Rent Dwellings - This map shows the proportion of dwellings in each area renting for less than 20 a month. Such dwellings are most prevalent in crowded areas with low levels of housing and conveniences.
5... Owner-Occupied Homes - This map may be used for two purposes. The thading for tenant-occupied dwellings would be roughly reversed from that show for owner-occupled dwellings. Tenure, earrings, and standard maps show generally similar patterns.

## Definitions for Statistical Tables

1. Dwelling - The dwelling may be considered as the home of the household. It must be otructurally separate but may be a single house, epartment; one section of a semi-detached house, etc. Dwelling, dwelling unit, and home are used interchangeably.
2. Household - For purposes of housing analysis, all persons sleeping in a dwelling unit are considered as members of the same household. The housing census household, therefore, is a broader unit than the household as defined by a.population censtis. The latter considers a household to be a person or group of persons living as a separate house-keeping unit. The housing census household adds to this, the multiple family groups in which each one maintains seperate living and eating quarters ir the same dwelling. Two or more families may live this way in et ingle house which has not been partitioned off into flats or epartments.
3. Family Earnirgs - This term is applied to the total wages received in the year ending June 2, $194 l^{\prime \prime}$ by parents and children of private families whose head is a wage-earcer. Averages of family earnings give a usefulindex of income levels in urban arcas, since families of this type comprise nearly 68 p .c. of all urban households. It will be noted that ramily earnings excluce the income of lodgers and servants living with wage-earner families, and that the sum of family wages may be something less than the total of family income from all sources. The latter difference is usually small.

4 Value of Homes - This is the owner's.estimate of the market value of the home on June 2, 1941.
5. External Repairs - Enumerators were asked to consider the following defects under the heading of external repairs: (1) cracked or leaning exterior walls; (2) shingled roofs vith warped or missing shingles; (3) chimneys cracked or with missing bricks; and (4) unsafe outside steps or stairways.
6. Homemaker - A woman responsible for the comestic management of a home, but not receiving salary or wages.











[^0]:    To reti a clear-cut picture of relationships between earnings and rents from 1941 Censur records, it is necessary to limit considerations to sinele family wape-earner households.

