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(Town Planning and Housing Consultants)
January, 1949.

## ANALYSIS OF POSSIBLE FAMILY COMPOSITIONS AND THEIR

## RELATION TO ROOM REQUIREMENTS.

1. In the following analysis definitions and allowances have been made as follows:
(a). "Person-units" are defined ar follows:

$$
\begin{aligned}
& \text { Babies under } 1 \text { year............... }
\end{aligned} \text { Nil person-units. } \text {. } \text {. }
$$

(b) All bedrooms are assumed to cater for 2 adults only except the main bedroom which can take husband, wife and baby. Two methods of calculation are shown:
(i) Number of bedrooms needed assuming living room is not used for sleeping purposes.
(ii) Number of bedrooms needed assuming living room is used by one child or adolescent. (In this case the kitchen must in terms of the slums Act be entirely separated from the living room).
(c) Further assumptions for normal families (ie. where both father and mother are present) are:
(i) Babies under 1 year sleep in their parents room.
(ii) Husbend and wife occupy main room possibly with a baby.
(iii) Up to 3 children between 1-12 years cen occupy one room. (This has been assumed as, although under the Slums Act 4 children could occupy a room designed for 2 adults, there is in practice only sleeping space for 3 bodies).
(iv) Whore adolescents (or adults) and children share rooms only two beds have been allowed. (Reasons similar to those given in note (iii) above.)
(v) Adolescents are placed two in a room provided they are of the same sex. This condition results on occasions in the necessity of providing one extra room or on other occasions of the sharing of rooms by adolescents and children.
(d) Assumptions for abnormal families having no adult male parent, (i.e. woman and children with husband permanently away or with illegitimate children):
(i) $/ \ldots \ldots$
(i) Mother, one child of either sex or one adolescent daughter, and baby share main bedroom,
(ii) Mother and two children can share main bedroom.
(iii) Other assumptions similar to those in paragraphs (c) (iii), (iv) and (v) above
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Y NOTE: In some cases due to possible boy-girl compositions among the adolescent children an extra room is necessary, and where this is the case, the following sign will appear on the table
---00000 -
2. NORMAL FAMILIES (i.e. both father and mother present).

| Type of <br> Family. | Possible Compositions |  |  |  | Person Units. | No. of Bedrooms required |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Adults | CHILDREN |  |  |  | Living Room not used for sleeping. | One child or adolescent sleeping in Living Room. |
|  |  | 0-1 | 1-12 | 12-18 |  |  |  |
| No Children | 2 | - | - | - | 2 | 1 | 1 |
| $\begin{aligned} & \text { I Child } \\ & \text { (3 souls) } \end{aligned}$ | 2 2 2 | 1 - | $\underline{\square}$ | $\bar{\square}$ | 2 23 3 | 1 2 2 | 1 1 1 |
| $\begin{aligned} & 2 \text { Children } \\ & (4 \text { souls) } \end{aligned}$ | 2 2 2 2 2 | 1 <br> 1 <br> - | 1 <br> 2 <br> 1 | 1 <br> 1 <br> $2 \pi$ | $2 \frac{1}{2}$ 3 3 $3 \frac{1}{2}$ 4 | 2 2 2 2 2 or 3 | 1 1 2 2 2 |
| $\begin{aligned} & 3 \text { Children } \\ & (5 \text { souls }) \end{aligned}$ | 2 2 2 2 2 2 2 | 1 <br> 1 <br> 1 <br> - <br> - | 2 <br> 1 <br>  <br> 3 <br> 2 <br> 1 | $\overline{1}$ $2 *$ 7 1 2 3 | 3 $3 \frac{1}{2}$ 4 $4 \frac{1}{2}$ 4 4 4 5 | $\begin{gathered} 2 \\ 2 \\ 2 \text { or } 3 \\ 3 \\ 3 \\ 3 \\ 3 \end{gathered}$ | $\begin{aligned} & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \end{aligned}$ |

4 Children/......

| Type of Family. | Possible Compositions |  |  |  | Person Units. | No. of Bedrooms required |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Aduits | CHILDREN |  |  |  | Living Room not used | One child or adolescent |
|  |  | 0-1 | 1-12 | 12-18 |  | for sleeping. | Living Room. |
| 4 Children $(6$ souls $)$ | 2 2 2 2 2 2 2 2 2 | 1 <br> 1 <br> 1 <br> 1 <br> - <br>  <br> - | $\begin{aligned} & 3 \\ & 2 \\ & 1 \\ & \hline \\ & 4 \\ & 3 \\ & 2 \\ & 1 \\ & \hline \end{aligned}$ | $\begin{aligned} & \overline{1} \\ & 2 \\ & 3 \\ & \hline 1 \\ & \hline 2 \\ & 3 \\ & 4 \end{aligned}$ | $\begin{aligned} & 3 \frac{1}{2} \\ & 4 \\ & 4 \frac{1}{2} \\ & 5 \\ & 4 \\ & 4 \frac{1}{2} \\ & 5 \\ & 5 \frac{1}{2} \\ & 6 \end{aligned}$ | $\begin{gathered} 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \text { or } 4 \end{gathered}$ | $\begin{aligned} & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 3 \\ & 3 \\ & 3 \end{aligned}$ |
| 5 Children $(7$ souls $)$ | $\begin{aligned} & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \end{aligned}$ | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & \hline- \\ & \hline- \\ & \hline- \\ & - \end{aligned}$ | $\begin{aligned} & 4 \\ & 3 \\ & 2 \\ & 1 \\ & 1 \\ & \hline 5 \\ & 4 \\ & 3 \\ & 2 \\ & 1 \\ & \hline \end{aligned}$ | $\begin{aligned} & \overline{1} \\ & 2 \\ & 3 \\ & 4 \\ & \hline-1 \\ & 7 \\ & 2 \pi \\ & 3 \\ & 4 \\ & 5 \\ & 5 \end{aligned}$ | 4 $4 \frac{1}{2}$ 5 5 $5 \frac{1}{2}$ 6 $4 \frac{1}{2}$ 5 5 $5 \frac{1}{2}$ 6 $6 \frac{1}{2}$ 7 | $\begin{gathered} 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ \text { or } 4 \\ 3 \\ 3 \\ 3 \\ 3 \\ \text { or } 4 \\ 4 \\ 4 \\ 4 \\ 4 \end{gathered}$ | $\begin{aligned} & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \end{aligned}$ |
| $\begin{aligned} & 6 \text { Children } \\ & \text { (8 souls) } \end{aligned}$ | $\begin{aligned} & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \end{aligned}$ | 1 <br> 1 <br> 1 <br> 1 <br> 1 <br> 1 <br> - <br> - <br> - <br> - | $\begin{aligned} & 5 \\ & 1 \\ & 2 \\ & 3 \\ & 4 \\ & 4 \\ & \hline 6 \\ & 5 \\ & 4 \\ & 3 \\ & 2 \\ & 1 \\ & \hline \end{aligned}$ | $\begin{aligned} & \overline{4} \\ & 3 \\ & 2 \pi \\ & 1 \\ & 5 \\ & - \\ & 1 \\ & 2 \\ & 3 \\ & 4 \\ & 5 \\ & 6 \end{aligned}$ | $\begin{aligned} & 4 \frac{1}{2} \\ & 6 \frac{1}{2} \\ & 6 \\ & 5 \frac{1}{2} \\ & 5 \\ & 6 \\ & 5 \\ & 5 \frac{1}{2} \\ & 6 \\ & 6 \frac{1}{2} \\ & 7 \\ & 7 \frac{1}{2} \\ & 8 \end{aligned}$ | $\begin{gathered} 3 \\ 4 \\ 4 \\ 3 \text { or } 4 \\ 3 \\ 4 \\ 4 \\ 3 \\ 4 \\ 4 \\ 4 \\ 4 \\ 4 \\ 4 \\ 4 \text { or } 5 \end{gathered}$ | $\begin{aligned} & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 4 \\ & 4 \\ & 4 \end{aligned}$ |
| $\begin{aligned} & 7 \text { Children } \\ & (9 \text { souls) } \end{aligned}$ | $\begin{aligned} & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \end{aligned}$ | 1 <br> 1 <br> 1 <br> 1 <br> 7 <br> 1 <br> 1 <br> - <br> - <br>  <br>  | 6 5 4 3 2 1 7 7 6 5 4 3 2 1 - | - 1 2 3 4 5 $6 \pi$ - 1 2 3 $4 \pi$ 5 6 7 | 5 $5 \frac{1}{2}$ 6 $6 \frac{1}{2}$ 7 $7 \frac{1}{2}$ 8 5 $6 \frac{1}{2}$ $6 \frac{1}{2}$ 7 $7 \frac{1}{2}$ 8 $8 \frac{1}{2}$ 9 | 3 4 4 4 4 4 4 or 5 4 4 4 4 4 or 5 5 5 5 | $\begin{aligned} & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 4 \\ & 4 \\ & 4 \\ & 3 \\ & 3 \\ & 4 \\ & 4 \\ & 4 \\ & 4 \\ & 4 \\ & 4 \\ & 4 \end{aligned}$ |

4

| Type of <br> Family. | Possible Compositions |  |  |  | Person Units. | No. of Bedrooms required |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Adults | CHILDREN |  |  |  | Living Room not used | One child or adolescent |
|  |  | 0-1 | 1-12 | 12-18 |  | sleeping. | g Ro |
| ${ }_{\text {( }}\left(10\right.$ Children ${ }^{\text {souls }}$ ) | $\begin{aligned} & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \end{aligned}$ | $1$ | $\begin{aligned} & 7 \\ & 6 \\ & 5 \\ & 4 \\ & 3 \\ & 2 \\ & 1 \\ & \hline 8 \\ & 7 \\ & 6 \\ & 5 \\ & 4 \\ & 3 \\ & 2 \\ & 1 \\ & - \end{aligned}$ | $\begin{aligned} & - \\ & 1 \\ & 2 \\ & 3 . \\ & 4 \pi \\ & 5 \\ & 6 \\ & 7 \\ & \hline 1 \\ & 2 \\ & 3 \\ & 4 \\ & 4 \\ & 5 \\ & 6 \\ & 7 \\ & 8 \end{aligned}$ | $5^{\frac{1}{2}}$ <br> 6 <br> 7 <br> $7 \frac{1}{2}$ <br> 8 <br> $8 \frac{1}{2}$ <br> 9 6 <br> $6 \frac{1}{2}$ <br> 7 <br> $7 \frac{1}{2}$ 8 <br> $8 \frac{1}{2}$ <br> ${ }^{9} 9$ <br> 10 | 4 4 4 4 4 or 5 5 5 5 5 4 4 4 5 5 5 5 5 5 or 6 | $\begin{aligned} & 3 \\ & 3 \\ & 4 \\ & 4 \\ & 4 \\ & 4 \\ & 4 \\ & 4 \\ & 4 \\ & 4 \\ & 4 \\ & 4 \\ & 4 \\ & 4 \\ & 4 \\ & 4 \\ & 5 \\ & 5 \\ & 5 \end{aligned}$ |
| $\begin{aligned} & 9 \text { Children } \\ & \text { (11 souls) } \end{aligned}$ | $\begin{aligned} & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \end{aligned}$ | 1 1 1 1 1 1 1 1 - - - - - - - | 8 7 6 5 5 4 3 2 1 8 7 6 5 4 3 2 1 | $\begin{aligned} & -1 \\ & 12 \pi \\ & 3 \\ & 4 \\ & 5 \\ & 6 \\ & 7 \\ & 7 \\ & 1 \\ & 2 \\ & 3 \\ & 4 \\ & 5 \\ & 6 \\ & 7 \\ & 8 \end{aligned}$ | $\begin{aligned} & 6 \\ & 6 \frac{1}{2} \\ & 7 \\ & 7 \frac{1}{2} \\ & 8 \\ & 8 \frac{1}{2} \\ & 9 \\ & 9 \frac{1}{2} \\ & 7 \\ & 7 \frac{1}{2} \\ & 8 \\ & 8 \frac{1}{2} \\ & 9 \\ & 9 \frac{1}{2} \\ & 10 \\ & 10 \frac{1}{2} \end{aligned}$ | $\begin{gathered} 4 \\ 4 \\ 4 \text { or } 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \text { or } \\ 6 \\ 6 \\ 6 \end{gathered}$ | 4 4 4 4 4 4 5 5 4 4 4 5 5 5 5 5 5 |

3. /.......
4. ABNORMAL FAMILTES (Those without adult male).

| Type of <br> Family. | Possible Compositions |  |  |  | Person Units. | No. of Bedrooms required |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Adults | CHILDREN |  |  |  | Living Room not used | One child or adolescent |
|  |  | 0-1 | 1-12 | 12-18 |  | sleeping. | Living Room. |
| 1 Child (2 souls) | 1 1 1 | $\underline{1}$ | $\overline{7}$ | $\overline{I_{7}}$ | 1 $1 \frac{1}{2}$ 2 | 1 1 1 | 1 1 1 |
| $\begin{aligned} & 2 \text { Children } \\ & (3 \text { souls }) \end{aligned}$ | 1 1 1 1 1 | 1 1 - - | 1 <br> 2 <br> 1 <br> - | $\cdots$ | $\begin{aligned} & 1 \frac{1}{2} \\ & 2 \\ & 2 \\ & 2 \frac{1}{2} \\ & 3 \end{aligned}$ | 1 1 or 2 2 2 2 | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ |
| 3 Children <br> (4 souls) | 1 1 1 1 1 1 1 | 1 <br> 1 <br> 1 <br> - <br> - | 2 <br> 1 <br>  <br> 3 <br> 2 <br> 1 <br> - | $\overline{1}$ $2 *$ -1 2 $3 \%$ | $\begin{aligned} & 2 \\ & 2^{\frac{1}{2}} \\ & 3 \\ & 2 \frac{1}{2} \\ & 3 \\ & 3 \frac{1}{2} \\ & 4 \end{aligned}$ | $\begin{gathered} 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \text { or } 3 \end{gathered}$ | $\begin{gathered} 1 \\ 1 \\ 1 \text { or } 2 \\ 1 \\ 1 \\ 1 \\ 2 \\ 2 \end{gathered}$ |
| 4 Children <br> (5 souls) | 1 1 1 1 1 1 1 1 1 | 1 <br> 1 <br> 1 <br> 1 <br>  <br>  <br> - | 3 <br> 2 <br> 1 <br>  <br> 4 <br> 3 <br> 2 <br> 1 <br> - | $\begin{aligned} & \overline{1} \\ & 2 \\ & 3 * \\ & \overline{1} \\ & 2 \\ & 3 \\ & 4 * \end{aligned}$ | $2 \frac{1}{2}$ 3 $3 \frac{1}{2}$ 4 3 3 $3 \frac{1}{2}$ 4 $4 \frac{1}{2}$ 5 | $\begin{gathered} 2 \\ 2 \\ 2 \\ 2 \text { or } 3 \\ 2 \\ 2 \\ 2 \\ 3 \\ 3 \end{gathered}$ | $\begin{gathered} 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \text { or } 3 \end{gathered}$ |
| 5 Children <br> (6 souls) | 1 1 1 1 1 1 1 1 1 1 1 | 1 <br> 1 <br> 1 <br> 1 <br> 1 <br> - <br> - <br>  | $\begin{aligned} & 4 \\ & 3 \\ & 2 \\ & 1 \\ & \hline \\ & \hline 5 \\ & 4 \\ & 3 \\ & 2 \\ & 1 \\ & \hline \end{aligned}$ |  | $\begin{aligned} & 3 \\ & 3 \frac{1}{2} \\ & 4 \\ & 4 \frac{1}{2} \\ & 5 \\ & 3 \frac{1}{2} \\ & 4 \\ & 4 \frac{1}{2} \\ & 5 \\ & 5 \frac{1}{2} \\ & 6 \end{aligned}$ | $\begin{gathered} 2 \\ 2 \text { or } \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 2 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \text { or } 4 \end{gathered}$ | $\begin{gathered} 2 \\ 2 \\ 2 \\ 2 \\ 2 \text { or } 3 \\ 2 \text { or } 3 \\ 2 \\ 2 \\ 2 \\ 2 \text { or } 3 \\ 2 \text { or } 3 \\ 3 \\ 3 \end{gathered}$ |

4. SUMMARIES OF BEDROOM REQUTREMENTS TO FAMILY COMPOSITIONS.

While many of the family compositions will be rarely met with for instance a family of 10 souls having father, mother and 8 children between 12 and 18 years of age - all such must be considered and the following summaries indicate different ways of presenting the material set out in the preceding tables.

TABLE / .......

TABLE "A".

| Souls in <br> Family | Bedrooms required.Living Room not used <br> for sleeping |  |
| :---: | :---: | :---: |
|  | 1, rarely 2 | One child or adolescent <br> sleeping in living room |
| 3 | 2 , rarely 1 | 1 |
| 4 | 2 or rarely 3 | 1 or rarely 2 |
| 5 | 2 or 3 | 1 or 2 |
| 6 | 3 or rarely 4 or 2 | 2 or rarely 3 |
| 7 | 3 or 4 | 2 or 3 |
| 8 | 3 or 4 or rarely 5 | 3 |
| 9 | 4 or rarely 5 or 3 | 3 seldom 4 |
| 10 | 4 or 5 or rarely 6 | 3 or 4 |
| 11 | 5 rarely 4 or 6 | 4 or rarely 5 or 3 |

TABLE "B".

| Children <br> in <br> Family | Living Room not used <br> for sleeping | One child or adolescent <br> sleeping in living room |
| :---: | :---: | :---: |
|  | 1 | 1 |
| 0 | 1 or 2 | 1 |
| 1 | 2 rarely 3 or 1 | 1 or 2 |
| 2 | 2 or 3 | 2 rarely 1 |
| 3 | 3 or rarely 4 or 2 | 2 or 3 |
| 4 | 3 or 4 or rarely 2 | 3 rarely 2 |
| 5 | 3 or 4 or rarely 5 | 3 seldom 4 |
| 6 | 4 or 5 or rarely 3 | 3 or 4 |
| 7 | 4 or 5 or rarely 6 | 4 or 5, rarely 3 |
| 8 | 5 rarely 4 or 6 | 4 or 5 |
| 9 |  |  |

TABLE / .......

## TABLE "C"

| Person- <br> Un Family. | Bedrooms required. |  |
| :---: | :---: | :---: |
|  | Living Room not used <br> for sleeping | One child or adolescent <br> sleeping in living room |
| 1 | 1 | 1 |
| 2 | 1 | 1 |
| $2 \frac{1}{2}$ | 2 | 1 |
| 3 | 2 | 1 or 2 |

While the analysis does not cover all possibilities, a study of the three table shows that a more clear-cut decision as to probable bedroom requirements is possible by using the total personmunit composition of the family, than by the other means shown.
5. THE FOLLOWING LIMITS WOULD MAKE USEFUL WORKTVG FTGURES:

TABLE "D"

| Person-Units <br> in family | Bedroom requirements <br> where living room is <br> not used for sleeping |
| :---: | :---: |
| $1-2$ | 1 |
| $2 \frac{1}{2}-3 \frac{1}{2}$ | 2 |
| $4-5 \frac{2}{2}$ | 3 |
| $6-7 \frac{1}{2}$ | 5 |
| $8-10$ | 6 |
| $10 \frac{1}{2}$ and over |  |

TABLE "E"

| Person-Units <br> in family. | Bedroom requirements <br> where kitchenette is <br> provided and one child <br> or adolescent sleeps <br> in Living Room. |
| :---: | :---: |
| $1-2 \frac{1}{2}$ | 1 |
| $3-4 \frac{1}{2}$ | 2 |
| $5-6 \frac{1}{2}$ | 3 |
| $7-8 \frac{1}{2}$ | 4 |
| $9-10 \frac{1}{2}$ | 5 |
| 11 and over | 6 |

Collection Number: AD1715

SOUTH AFRICAN INSTITUTE OF RACE RELATIONS (SAIRR), 1892-1974

## PUBLISHER:

Collection Funder:- Atlantic Philanthropies Foundation
Publisher:- Historical Papers Research Archive
Location:- Johannesburg
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