THESIS

on

A Brief Study of a Sample of
Preschool Children in Oregon

Submitted to the
OREGON STATE AGRICULTURAL COLLEGE

In partial fulfillment of
the requirements for the
Degree of
MASTER OF SCIENCE

by
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I wish to express my thanks and sincere appreciation to Sara Watt Prentiss, Professor of Child Development and Parent Education, for her encouragement and guidance in the preparation of this thesis.
TABLE OF CONTENTS

1. Nature of the Study ......................................................... 1
2. Purpose of the Study ...................................................... 1
3. Collection of Data .......................................................... 1
4. Description of the Sample ................................................. 2
   I. Number of Cases ....................................................... 2
   II. Brief Description of Communities from Which Cases Were Taken .... 3
5. General Information on the Family ....................................... 7
6. Education of Parents ..................................................... 8
7. Occupation of Parents ................................................... 11
8. Race of Parents .......................................................... 13
9. Health of Parents ....................................................... 13
10. The Home and Surroundings ............................................... 14
11. Sources of Information on Child Care .................................. 19
12. Number of Children in Family .......................................... 19
13. Analysis of Data .......................................................... 27
   I. Physical Measurements ................................................. 27
   II. Sleep ................................................................. 33
   III. Diet and Food Habits ................................................. 38
   IV. Cleanliness and Habit Training ...................................... 45
      A. Personal Cleanliness .............................................. 45
      B. Control of Bowel Elimination .................................... 47
      C. Control of Bladder Elimination .................................. 48
      D. Care of Teeth ..................................................... 52
1. Nature of the Study

This is a study of 153 Oregon homes and the 157 preschool children embraced by them. Two analyses of data are given in this study; the first dealing with a description of the family itself, including the education, occupation, race and health of the parents as well as information on the home and its surroundings; and the second based on the special problems of sleep, diet, habit training, medical care and disease, methods of control and social life of the preschool children as found in this sample of Oregon homes.

2. Purpose of the Study

The purpose of this study is to obtain a general picture of the education and training of a representative sample of Oregon preschool children.

3. Collection of Data

Data for this study were obtained from a questionnaire used by the committee on the education and training of the young child in the home (Committee III B) of the White House Conference (see appendix). The questionnaire included a number of blanks. The first of these contained instructions for the interviewer, the second secured information about the interviewer herself, the third obtained data on the community in which the families visited lived, the fourth secured information regarding the families visited, the fifth dealt with the infant under one year, the sixth, with the young child from 1 to 5 inclusive and the seventh with the older child from 6 to 12 years. For this study of Oregon children, the blanks pertaining to the description of the com-
munity, the home itself and the young child from 1 to 5 years inclusive were used.

The School of Home Economics at Oregon State College was asked to cooperate with the committee in charge in obtaining the information required from Oregon. As a result, members of the faculty, particularly of the Child Development department, the Extension Service, graduate students and members of the classes in child development and behavior problems were responsible for the major portion of these questionnaires. The technique used by the field worker was as follows: having already filled out the blank about the community, she visited a home in which there was a young child, and interviewed the mother. On the basis of this interview, she filled out the blank concerning the family, and then filled out the appropriate blank for each child in the family.

4. Description of the Sample

   a. Number of Cases

   As previously stated, there are 153 cases in this sample of Oregon homes, with 157 preschool children. The total sample includes 2757 white families and 3520 children, 2653 of whom are preschool children. The distribution of these children with reference to age is shown in Table 1.

   (Table 1 on following page)
Table 1

<table>
<thead>
<tr>
<th>Age</th>
<th>Oregon</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year to 1 year, 11 months</td>
<td>14</td>
<td>365</td>
</tr>
<tr>
<td>2 years to 2 years, 11 months</td>
<td>44</td>
<td>581</td>
</tr>
<tr>
<td>3 years to 3 years, 11 months</td>
<td>30</td>
<td>650</td>
</tr>
<tr>
<td>4 years to 4 years, 11 months</td>
<td>28</td>
<td>631</td>
</tr>
<tr>
<td>5 years to 5 years, 11 months</td>
<td>41</td>
<td>426</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>157</td>
<td>2653</td>
</tr>
</tbody>
</table>

One hundred and two of the Oregon children are girls (65 per cent) and 65 (35 per cent) are boys. The total sample contains reports on 1785 boys and 1734 girls.

b. Brief description of communities from which cases were taken.

An effort was made to make the sample representative. Owing to the topography of the state, there is a wide diversity in climate, soil products, farming conditions and general character of the country. The Cascade range of mountains act as a dividing line bisecting the state from north to south. West of the Cascades the country is composed of a series of productive valleys with climatic conditions somewhat similar, yet differing in amount of precipitation, sunshine and length of the growing season, due chiefly to proximity to the ocean.

Ranging south from Portland is the Willamette Valley, which is the most fertile and thickly populated section of the state. It is essentially an agricultural section, but is also a center of manufacturing with its woolen, lumber, flour and paper mills, canneries, conden-
series, packing plants and factories of a wide variety of kinds. Portland, the largest city in the state with a population of one-fourth million, is actually situated in this valley, as are Salem, the state capital and next city in size, Albany, Corvallis and Eugene. Seventy-two per cent of the cases in this sample come from the Willamette Valley section. The climate for the most part is mild, although in latitude the area corresponds to the state of New York. There is more rainfall, however, than in other sections, with an annual fall of from 45 to 60 inches. There is provision of almost every nature for medical and social care with the accessibility of the larger towns and cities.

The Umpqua River Valley includes Douglas County which furnishes but one of the cases studied. It has a population of 25,000, of which 97 per cent are native white, with chief industries being fruit growing and packing, poultry, lumbering and fishing. Provision is made in this county for a doctor, nurse and an agricultural agent, while Roseburg, the largest town provides public health nurses, Red Cross and social workers, juvenile officers and several doctors.

Eleven per cent of the cases were taken from the Rogue River Valley in the south. Dairying, poultry and livestock, fruit and bulb raising are the chief industries in this section. The climate is mild and there is less rainfall than in the Willamette Valley. Ninety-eight per cent of the population is native white. Jackson County provides a county doctor, three county nurses and a Red Cross unit. Josephine county has a Red Cross nurse who does relief work and public
health, while both these counties provide agricultural and home demonstration agents.

West from Portland along the Columbia River is Columbia County with lumber and dairying as its chief industries. This section provides ten per cent of the cases. In climate it is similar to that of sections around Portland, but being situated on the Columbia River and closer to the ocean, the rainfall is somewhat higher. St. Helens and Ranier are the important towns. Proximity to Portland gives opportunity there for medical and social care. There is both an agricultural and home demonstration agent in this county.

East of the Cascade mountains the climate is drier with greater extremes of heat and cold. The rainfall ranges from 15 inches in the northern counties to a semiarid condition in the central part. The remaining seven per cent of the cases came from Deschutes County in central Oregon with but one case from LaGrande in Union County. Deschutes County has a population of 16,500 with 85 per cent being native white. Farming and dairying are the chief industries of this section with grain and potatoes the chief crops. There is a county health nurse, a county health officer, both an agricultural and home demonstration agent with medical and surgical doctors and public clinics in Bend, the principal city.

Table 2 shows the distribution of the Oregon sample according to population, while Table 3 shows distribution by counties.

(Tables 2 and 3 on following page)
### Table 2

**Distribution of Cases According to Population of Localities Represented**

<table>
<thead>
<tr>
<th>Population</th>
<th>Number of cases</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 100,000</td>
<td>43</td>
<td>28</td>
</tr>
<tr>
<td>10,000 - 100,000</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>2500 - 10,000</td>
<td>26</td>
<td>17</td>
</tr>
<tr>
<td>Under 2500</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>Open country</td>
<td>51</td>
<td>33</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>153</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

### Table 3

**Distribution of Cases According to Counties Represented**

<table>
<thead>
<tr>
<th>County</th>
<th>Number of Cases</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benton</td>
<td>36</td>
<td>23.6</td>
</tr>
<tr>
<td>Columbia</td>
<td>10</td>
<td>6.5</td>
</tr>
<tr>
<td>Deschutes</td>
<td>10</td>
<td>6.5</td>
</tr>
<tr>
<td>Douglas</td>
<td>1</td>
<td>.7</td>
</tr>
<tr>
<td>Jackson</td>
<td>9</td>
<td>5.9</td>
</tr>
<tr>
<td>Josephine</td>
<td>10</td>
<td>6.5</td>
</tr>
<tr>
<td>Lane</td>
<td>4</td>
<td>2.6</td>
</tr>
<tr>
<td>Linn</td>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td>Marion</td>
<td>27</td>
<td>17.6</td>
</tr>
<tr>
<td>Multnomah</td>
<td>44</td>
<td>28.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>153</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>
5. General Information on the Family

In 98.1 per cent (151 cases) of the families studied, the mother was living, and in 98 per cent (150 cases) the father was living. Of the total sample, 98.7 per cent of the mothers and 98.6 per cent of the fathers were living. In 3.3 per cent (5 cases) of the cases the parents were divorced, and in 1.3 per cent (2 cases) they were separated, while in the total sample 1.6 per cent were divorced and 2.8 per cent were separated.

In 91.7 per cent (144 cases) of the cases, the Oregon children were living with their own parents; with the mother only, in 1.9 per cent of the cases (3); with the mother and a stepfather in 1.9 per cent of the cases (3); with grandparents in 1.9 per cent (3 cases); and 1 case (.6 per cent) with each of the following: father only, father and stepmother, adopted parents, and aunt. The report from the total sample showed 93.3 per cent of the children living with their parents, the low percentage of broken homes being due, at least in part, to the fact that these studies are concerned with very young children.

In 26 per cent (40 cases) of the Oregon homes there were persons outside of the immediate family living in them. In 15 per cent (23 cases) the "outsiders" were relatives, from 1 to 3 in number; 8.5 per cent (13 cases) were servants and 2.6 per cent (4 cases) were lodgers. Of the 33.5 per cent of homes in the total sample reporting outsiders as living in them, 16.5 per cent were relatives; 9.1 per cent were servants; 6 per cent, lodgers; and 1.9 per cent were individuals not falling in any of these classifications.
The range in age of the Oregon mothers is from 21 years to 50 years with a mean of 31.7 years and a median of 31.6 years. Ages of the fathers ranged between 22 years and 56 years, with a mean of 35.9 years and a median of 34.6 years. The median age of the mothers in the total sample was reported as 32.9 years and of the fathers, 37.3 years. The distribution of the ages of Oregon fathers and mothers at the date of inquiry, as compared to those of total sample is given in Table 4.

<table>
<thead>
<tr>
<th>Age</th>
<th>Oregon Fathers</th>
<th>Oregon Mothers</th>
<th>Total Fathers</th>
<th>Total Mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 20</td>
<td>0</td>
<td>0</td>
<td>.1</td>
<td>.9</td>
</tr>
<tr>
<td>20-24</td>
<td>1 .7</td>
<td>9.59</td>
<td>2.9</td>
<td>9.1</td>
</tr>
<tr>
<td>25-29</td>
<td>25 16.9</td>
<td>43 28.2</td>
<td>15.5</td>
<td>23.4</td>
</tr>
<tr>
<td>30-34</td>
<td>39 26.3</td>
<td>46 30.2</td>
<td>24.9</td>
<td>29.8</td>
</tr>
<tr>
<td>35-39</td>
<td>38 25.6</td>
<td>33 21.6</td>
<td>36.5</td>
<td>22.6</td>
</tr>
<tr>
<td>40-44</td>
<td>29 19.5</td>
<td>18 11.8</td>
<td>17.3</td>
<td>10.9</td>
</tr>
<tr>
<td>45-49</td>
<td>11 7.4</td>
<td>2 1.3</td>
<td>8.8</td>
<td>2.5</td>
</tr>
<tr>
<td>50 up</td>
<td>5 3.3</td>
<td>1 .6</td>
<td>4.3</td>
<td>.8</td>
</tr>
</tbody>
</table>

6. Education of Parents

Thirty per cent (45 cases) of the fathers and 17 per cent (26 cases) of the mothers attained only eighth grade or less with the seventh grade as the mean. Twenty per cent (31 cases) of the men and
34 per cent (61 cases) of the women finished high school. Thirty-one per cent of both men (14 cases) and women (47 cases) finished college, while 9 per cent (14 cases) of the men had graduate work of from 1 to 5 years. Two per cent (4 cases) of the women had from 1 to 4 years of graduate work. Seven per cent of the parents (11 cases each) had from 1 to 2 years at business college. Seven per cent (11 cases) of the mothers and 2 per cent (3 cases) of the fathers had normal school training with the remaining 2 per cent (3 cases) of the mothers being graduate nurses. To summarize this data, 30 per cent of the fathers and 17 per cent of the mothers in the Oregon study have less than a high school education, and 50 per cent of the fathers and 51 per cent of the mothers have less than a college education. The data from the total sample shows that 40 per cent of the fathers and 35 per cent of the mothers have less than a high school education, and that 74 per cent of the fathers and 72 per cent of the mothers have less than a college education.

Table 5 shows the distribution of cases according to school grades completed by the fathers. Table 6 shows similar data for the mothers.

(Tables 5 and 6 on following page)
Table 5
Education of Fathers According to Grade Completed

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Grade Completed</th>
<th>No. of Cases</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade School</td>
<td>1 2 3 4 5 6 7 8</td>
<td>45 31 11 3 3</td>
<td>30 20 7 2</td>
</tr>
<tr>
<td>High School</td>
<td></td>
<td>6 6 3 16</td>
<td>31 20</td>
</tr>
<tr>
<td>Business College</td>
<td></td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Teachers' College</td>
<td></td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>College</td>
<td></td>
<td>5 8 4 29</td>
<td>46 30</td>
</tr>
<tr>
<td>Graduate Work</td>
<td></td>
<td>5 1 5 2 1</td>
<td>14 9</td>
</tr>
<tr>
<td>No data</td>
<td></td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>153</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 6
Education of Mothers According to Grade Completed

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Grade Completed</th>
<th>No. of Cases</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade School</td>
<td>1 2 3 4 5 6 7 8</td>
<td>26 61 11 11 11</td>
<td>17 34 7 7</td>
</tr>
<tr>
<td>High School</td>
<td></td>
<td>6 11 1 33</td>
<td>51 34</td>
</tr>
<tr>
<td>Business College</td>
<td></td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Teachers College</td>
<td></td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>College</td>
<td></td>
<td>9 5 10 23</td>
<td>47 31</td>
</tr>
<tr>
<td>Graduate Work</td>
<td></td>
<td>1 1 2</td>
<td>4 2</td>
</tr>
<tr>
<td>Nurses Training</td>
<td></td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>No Data</td>
<td></td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>153</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 7 shows a summary of the education of fathers and mothers of the Oregon study as compared to fathers and mothers of the total study.

**Table 7**

<table>
<thead>
<tr>
<th></th>
<th>Length of Schooling of Fathers and Mothers in Oregon Study Compared to Total Study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Oregon</td>
</tr>
<tr>
<td>No Formal School</td>
<td>0</td>
</tr>
<tr>
<td>4 years or less</td>
<td>2</td>
</tr>
<tr>
<td>8 years or less</td>
<td>30</td>
</tr>
<tr>
<td>10 years or less</td>
<td>37</td>
</tr>
<tr>
<td>12 years or less</td>
<td>50</td>
</tr>
<tr>
<td>14 years or less</td>
<td>67</td>
</tr>
<tr>
<td>16 years or less</td>
<td>89</td>
</tr>
<tr>
<td>18 years or less</td>
<td>92</td>
</tr>
<tr>
<td>21 years or less</td>
<td>99</td>
</tr>
</tbody>
</table>

7. Occupation of Parents

There was a great diversity in the occupation of the parents, that of the fathers representing fifty-two different kinds of employment. In all but 8 cases the men were employed at the time of the interview. Table 8 shows the data on occupation of the father as fitted to the socio-economic classification presented in the total sample. Since the total sample gave this distribution by number of children, rather than by number of fathers, it will be given here in the same way for
the purpose of comparison. Since, too, the number of children in the Oregon sample exceeds the number of families by only 4, little difference would result in the figures.

TABLE 8

Comparison of the Distribution of Children by Socio-Economic Groups in Oregon and Total Samples

<table>
<thead>
<tr>
<th>Socio-Economic Group</th>
<th>Oregon No. of Cases</th>
<th>Oregon %</th>
<th>Total No. of Cases</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I - Professional</td>
<td>23</td>
<td>14.6</td>
<td>384</td>
<td>10.9</td>
</tr>
<tr>
<td>Group II - Business, Executive, etc.</td>
<td>35</td>
<td>22.3</td>
<td>361</td>
<td>10.2</td>
</tr>
<tr>
<td>Group III - Highly skilled and Upper clerical</td>
<td>5</td>
<td>3.2</td>
<td>848</td>
<td>23.8</td>
</tr>
<tr>
<td>Group IV - Farmers</td>
<td>24</td>
<td>15.2</td>
<td>729</td>
<td>20.7</td>
</tr>
<tr>
<td>Group V - Skilled workers, Trades, Clerical workers</td>
<td>30</td>
<td>19.1</td>
<td>692</td>
<td>19.7</td>
</tr>
<tr>
<td>Group VI - Semi-skilled workers</td>
<td>16</td>
<td>10.2</td>
<td>249</td>
<td>7.1</td>
</tr>
<tr>
<td>Group VII - Laborers, urban and rural</td>
<td>22</td>
<td>14.1</td>
<td>257</td>
<td>7.3</td>
</tr>
<tr>
<td>No data</td>
<td>2</td>
<td>1.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total | 157 | 100.0 | 3520 | 99.8 |

The occupations of the women before marriage was found to include 22 different kinds of work, of which teaching was the most frequent. Thirty-five had been teachers; 25 had had no occupations; 20, stenographers; 11, clerks; 8, nurses; 7, waitresses; 4, students; 3, telephone operators; 2, milliners and dressmakers; and 1 each of the follow-
ing: laboratory technician, physician, associate dean of women, designer, food demonstrator, research worker, social service worker, physiotherapist, cashier and a mill weaver. Ten per cent (15 cases) of the mothers were gainfully employed outside of the home in the following enterprises: 5 as teachers, 2 as waitresses, 2 doing housework and 1 each as janitress, institutional worker, school doctor, preceptress, stenographer and one operated a service station. The hours spent in gainful employment by women averaged 24 per week with a range of from 6 to 56 hours per week.

From the total sample it was shown that 11.5 per cent of the mothers are gainfully employed; of these, 27.9 per cent are employed within the home, 67.2 per cent outside the home and 5.3 per cent both in and out of the home.

8. Race of Parents

In all cases in the Oregon study the families were white, and in the majority of cases of native parentage. Twelve per cent (18 cases) of the parents were native white with foreign or mixed parentage; 3 per cent (5 cases) were foreign born whites. Only 1 father and 1 mother did not speak English fluently. These were Germans not speaking English.

9. Health of Parents

In general, the parents’ health appeared to be good, due perhaps to the fact that the parents of this sample are in the age of maximum health. Fifty-one per cent (78 cases) of the fathers were reported as seldom sick; 10 per cent (15 cases) as never sick; 35 per
cent (53 cases) occasionally and 3 per cent (4 cases) were often sick. Of the mothers, 44 per cent (67 cases) were seldom sick; 39 per cent (59 cases) were never sick; 16 per cent (24 cases) were sick occasionally; and 2 per cent (3 cases) were often sick. Data from the total sample shows that 4.8 per cent of the fathers are reported as often sick; 12.2 per cent as occasionally sick; 45.7 per cent as seldom sick; and 37.3 per cent as never sick. Similar material on the mothers shows that 4.9 per cent are reported as often sick; 17.7 per cent as occasionally sick; 45.5 as seldom sick; and 32.3 per cent as never sick. This report suggests that the agreement between this data indicates that some of the clinical data give an exaggerated impression of the amount of illness in a sample of the population not selected by reason of illness.

10. The Home and Surroundings

In ascertaining the rating of the neighborhoods from which these families came, it was found that 68 per cent (102 cases) came from comfortable surroundings, 17 per cent (25 cases) from meagre, 11 per cent (17 cases) from well-to-do, and less than 2 per cent from wealthy and destitute conditions. In but 4 cases were the neighborhoods composed of other than single dwellings and these were mixed stores and apartments with single dwellings. In all but 1 case the buildings were of the one family type. The number of houses in good condition was 42 per cent (61 cases); in excellent condition, 27 per cent (39 cases); fair, 19 per cent (27 cases); poor, 10 per cent (14 cases) and 3 per cent (5 cases) in a dilapidated condition. The in-
terior of the homes were in the majority of cases neat, 81 per cent (114 cases) classed as such; 14 per cent (20 cases) were fairly presentable, with the remaining 5 per cent (7 cases) slovenly. In 12 cases there was no response.

Forty-nine per cent (74 cases) of the homes were owned; 17 per cent (26 cases) were being bought; while 34 per cent (51 cases) were rented. The average length of residence in the home at the time of interviewing was 3 years and 9 months with a range of from 1 month to 18 years. Homes averaged 5.6 rooms and had a range of 1 and 14.

In towns over 2500 population and in cities, electricity was used for lighting. Fifty-nine per cent (32 cases) of the rural homes used electricity; 9 per cent (5 cases) gas; 20 per cent (11 cases) oil lamps; and one used acetylene lamps. In all but six instances houses were open to air on all sides.

In urban homes city water was used in all but 4 cases. These were in towns under 2500 population, and in 2 cases a drilled well was used, in 1 each a dug well and a spring. Among rural homes 43 per cent of forty-nine responding (21 cases) received their water from drilled wells; 24 per cent (12 cases) from dug wells; 14 per cent (7 cases) from cisterns; 10 per cent (5 cases) from city supply and 8 per cent (4 cases) from springs. Toilets were of plumbing type and in the dwelling in all but 4 of the urban homes. In 44 per cent (22 cases) of the rural homes they were of the plumbing type and in the dwelling. In no case was a toilet used by more than one family.

Eighty-four per cent (122 cases) of the families had bathtubs;
89 per cent (129 cases) had sinks; 64 per cent (94 cases) had radios; 41 per cent (61 cases) owned phonographs; while 38 per cent (55 cases) had pianos.

Many makes of automobiles were represented among the 83 per cent (126 cases) having them. There were more Fords than any other one car, but 19 other makes were included, with models ranging from 1923 to 1930.

Thirty-five per cent (51 cases) of the homes had approximately from 1 to 25 books; twenty-two per cent (32 cases) from 26 to 50; 16 per cent (24 cases) from 51 to 100; 18 per cent (26 cases) from 101 to 250; 4 per cent (6 cases) from 251 to 500; 3 per cent (4 cases) had over 500 and 2 per cent (2 cases) had none. Table 9 compares the number of books found in the Oregon homes with those of the total sample. Both reports indicate that over half of the children are being reared in homes in which there are less than 50 books and three-fourths in homes in which there are less than 100 books.

### Table 9

<table>
<thead>
<tr>
<th>Number of Books in Home</th>
<th>Oregon Number of Cases</th>
<th>%</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>2</td>
<td>2</td>
<td>8.3</td>
</tr>
<tr>
<td>1 - 25</td>
<td>51</td>
<td>35</td>
<td>28.4</td>
</tr>
<tr>
<td>26 - 50</td>
<td>32</td>
<td>22</td>
<td>16.2</td>
</tr>
<tr>
<td>51 - 100</td>
<td>24</td>
<td>16</td>
<td>16.5</td>
</tr>
<tr>
<td>101 - 250</td>
<td>26</td>
<td>17</td>
<td>14.8</td>
</tr>
<tr>
<td>251 - 500</td>
<td>6</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Over 500</td>
<td>4</td>
<td>3</td>
<td>4.8</td>
</tr>
</tbody>
</table>
The data from both the Oregon study and the total sample show that there were no homes without toys. In 33 per cent (22 cases) of the Oregon homes were found all of the 9 types of toys listed, i.e., animal, balls, dolls, blocks, tools, sand, mechanical, handiwork and transportation. In only 2 cases was there but 1 toy in the home, while in the majority of cases there were from 2 to 8. Balls and dolls showed the greatest frequency. In the total sample were found 3 percent of the homes with but 1 toy, and in the majority of homes 5 or more distinct types of toys.

Table 11 shows in detail the frequency of the types of toys found in the 50 rural and 100 urban homes responding to this inquiry.

<table>
<thead>
<tr>
<th>Classes of Toys</th>
<th>Urban No. of Cases</th>
<th>Urban Per Cent</th>
<th>Rural No. of Cases</th>
<th>Rural Per Cent</th>
<th>Total Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal</td>
<td>80</td>
<td>80</td>
<td>28</td>
<td>56</td>
<td>72</td>
</tr>
<tr>
<td>Balls</td>
<td>93</td>
<td>93</td>
<td>46</td>
<td>92</td>
<td>92</td>
</tr>
<tr>
<td>Dolls</td>
<td>91</td>
<td>91</td>
<td>45</td>
<td>90</td>
<td>91</td>
</tr>
<tr>
<td>Blocks</td>
<td>86</td>
<td>86</td>
<td>36</td>
<td>72</td>
<td>81</td>
</tr>
<tr>
<td>Tools</td>
<td>43</td>
<td>43</td>
<td>24</td>
<td>28</td>
<td>45</td>
</tr>
<tr>
<td>Sand</td>
<td>40</td>
<td>40</td>
<td>6</td>
<td>12</td>
<td>37</td>
</tr>
<tr>
<td>Mechanical</td>
<td>53</td>
<td>53</td>
<td>15</td>
<td>30</td>
<td>45</td>
</tr>
<tr>
<td>Hand Work</td>
<td>76</td>
<td>76</td>
<td>40</td>
<td>80</td>
<td>79</td>
</tr>
<tr>
<td>Transportation</td>
<td>86</td>
<td>86</td>
<td>34</td>
<td>68</td>
<td>80</td>
</tr>
</tbody>
</table>

In 97 per cent of the Oregon homes (141 cases) there was a yard used for play, varying from 10 ft. x 10 ft. in one urban home to several
acres.

Of the 100 responses to the inquiry on play apparatus 10 per cent (10 cases) did not have any apparatus in the yard, while 2 per cent (2 cases) had all types listed: swing, slide, teeter-totter and sandbox. Fifty-seven per cent (57 cases) had swings; 3 per cent (3 cases) had slides; 14 per cent (14 cases), teeter-totter, and 53 per cent (53 cases), sandbox. Other outdoor play apparatus found in 13 per cent of the yards included playhouses (6); trapeze bars (7); rings (1) and a pool (1). In 40 per cent of the yards in the total sample there was a swing; in 40 per cent, a slide; in 4.1 per cent, a teeter-totter; in 7.2 per cent, a sandbox and in 39.7 per cent, some other piece of apparatus. In only 10.4 per cent of the yards was no apparatus for the home play of children found.

One hundred and four of the Oregon cases responded to the query on the nearest playground. In 23 per cent (24 cases) of these, the playground was across the street or within a quarter of a mile; in 11 per cent (12 cases), within a quarter to a half mile; in 43 per cent (45 cases), within 1 to 4 miles; 7 per cent (8 cases) reported the playground over 4 miles away and 4 per cent (5 cases) reported none as accessible. The report of the total sample showed 22.5 per cent of the cases as being across the street or within a quarter of a mile of the playground; 17.2 per cent within a quarter and a half a mile; 16.2 per cent from a half to three-quarters of a mile and in 2.7 per cent from three-quarters to 1 mile away. In 23.9 per cent the playground was within 1 to 4 miles and in 13.1 per cent, 4 miles or over. The report
further shows that about three-fifths of the children are within 1 mile of a playground, one-fifth more within 4 miles of a playground and one-fifth are so far away that the playground is inaccessible or unavailable.

11. Sources of Information on Child Care

Forty-two per cent (56 cases) of the 132 Oregon parents responding to the query on books read did not read any books on child care during the year preceding the interview. An average of 12 per cent (16 cases each) read from 1 to 3 books; 6 per cent (8 cases) read 4, while 15 per cent (25 cases) were reported as having read over 5 during the year. A comparison of books read according to socio-economic status is given in Table 12. The percentages from the total sample are given for comparison.

Sixty responded to the query on the ownership of the books read. Of these, 60 per cent (36 cases) owned them, 40 per cent (24) obtained them from the library, and 20 per cent (12 cases) both owned and obtained books from the library. In comparing this to the total sample, it is found that from the total sample 59 per cent owned them, 30 per cent obtained them from the library and 11 per cent both owned and obtained them from the library.

(Table 12 on following page)
Table 12
A Comparison of Books on Child Care Read Within Year by Parents in Oregon Study and Total Sample According to Socio-Economic Status

<table>
<thead>
<tr>
<th>Socio-Economic Status</th>
<th>None Read</th>
<th></th>
<th>1 - 2</th>
<th></th>
<th>2 - 4</th>
<th></th>
<th>5 and over</th>
<th></th>
<th>No Data</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Oregon</td>
<td>Total</td>
<td>Oregon</td>
<td>Total</td>
<td>Oregon</td>
<td>Total</td>
<td>Oregon</td>
<td>Total</td>
<td>Oregon</td>
<td></td>
</tr>
<tr>
<td>I Professional</td>
<td>30.4%</td>
<td>25%</td>
<td>8.7%</td>
<td>32.2%</td>
<td>13%</td>
<td>16.9%</td>
<td>26%</td>
<td>33.8%</td>
<td>21.9%</td>
<td></td>
</tr>
<tr>
<td>II Business, Executive</td>
<td>20.0</td>
<td>34.7%</td>
<td>40.0%</td>
<td>24.0%</td>
<td>20%</td>
<td>16.4%</td>
<td>20.0</td>
<td>35.0%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>III Highly Skilled, Upper Clerical</td>
<td>28.5</td>
<td>47.8%</td>
<td>22.8%</td>
<td>23.5%</td>
<td>22.8%</td>
<td>14.1%</td>
<td>17.1%</td>
<td>14.6%</td>
<td>8.8</td>
<td></td>
</tr>
<tr>
<td>IV Farmers</td>
<td>50.0</td>
<td>57.2%</td>
<td>18.1%</td>
<td>23.9%</td>
<td>0</td>
<td>10.5%</td>
<td>4.7%</td>
<td>8.4%</td>
<td>27.2</td>
<td></td>
</tr>
<tr>
<td>V Skilled Workers, Trades, Clerical</td>
<td>50.0</td>
<td>52.5%</td>
<td>25.0%</td>
<td>26.8%</td>
<td>10.7%</td>
<td>10.9%</td>
<td>3.6%</td>
<td>9.7%</td>
<td>10.7</td>
<td></td>
</tr>
<tr>
<td>VI Semi-skilled</td>
<td>25.0</td>
<td>70.3%</td>
<td>12.5%</td>
<td>21.0%</td>
<td>12.5%</td>
<td>6.1%</td>
<td>6.3%</td>
<td>2.5%</td>
<td>43.7</td>
<td></td>
</tr>
<tr>
<td>VII Laborers - Urban, Rural</td>
<td>40.9</td>
<td>75.2%</td>
<td>22.7%</td>
<td>14.6%</td>
<td>22.7%</td>
<td>6.4%</td>
<td>0%</td>
<td>3.9%</td>
<td>13.7</td>
<td></td>
</tr>
<tr>
<td>Entire Group</td>
<td>42%</td>
<td>50.5%</td>
<td>12%</td>
<td>23.4%</td>
<td>12%</td>
<td>12.2%</td>
<td>15%</td>
<td>13.8%</td>
<td>13.6</td>
<td></td>
</tr>
</tbody>
</table>
Results from the study on the reading of pamphlets on child care are somewhat similar to those obtained for the reading of books except that the percentages of those not reading any pamphlets are lower in all the socio-economic classes and for the entire group. Table 13 gives a comparison of percentages of pamphlets read by Oregon parents with the parents of the total sample, according as it was possible to fit them to the socio-economic classification.

(Table 13 on following page)
A Comparison of Pamphlets on Child Care Read Within Year by Parents in Oregon Study and Total Sample, According to Socio-Economic Status

<table>
<thead>
<tr>
<th>Socio-Economic Status</th>
<th>None Read</th>
<th>1 - 2</th>
<th>3 - 4</th>
<th>5 and over</th>
<th>No Data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Oregon</td>
<td>Total</td>
<td>Oregon</td>
<td>Total</td>
<td>Oregon</td>
</tr>
<tr>
<td>I Professional</td>
<td>23.8 %</td>
<td>23.4 %</td>
<td>23.8%</td>
<td>12.4 %</td>
<td>4.7 %</td>
</tr>
<tr>
<td>II Business - Executive</td>
<td>17.1</td>
<td>23.5</td>
<td>14.5</td>
<td>13.0</td>
<td>17.1</td>
</tr>
<tr>
<td>III Highly-skilled, Upper Clerical</td>
<td>20.0</td>
<td>36.1</td>
<td>20.0</td>
<td>18.0</td>
<td>20.0</td>
</tr>
<tr>
<td>IV Farmers</td>
<td>40.9</td>
<td>30.1</td>
<td>18.1</td>
<td>23.1</td>
<td>9.0</td>
</tr>
<tr>
<td>V Skilled Workers, Trades, Clerical</td>
<td>42.8</td>
<td>39.2</td>
<td>17.3</td>
<td>19.6</td>
<td>8.9</td>
</tr>
<tr>
<td>VI Semi-skilled</td>
<td>33.3</td>
<td>45.6</td>
<td>13.3</td>
<td>19.4</td>
<td>15.3</td>
</tr>
<tr>
<td>VII Laborers - Urban, Rural</td>
<td>31.3</td>
<td>53.4</td>
<td>4.6</td>
<td>19.9</td>
<td>13.6</td>
</tr>
<tr>
<td>Entire Group</td>
<td>30.7</td>
<td>35.3</td>
<td>15.0</td>
<td>18.5</td>
<td>12.8</td>
</tr>
</tbody>
</table>
The following table (14) shows in summary the number and per centages of fathers and mothers who read articles on child care in newspapers and periodicals. Figures from the total sample are included for comparison.

Table 14

<table>
<thead>
<tr>
<th>Mother</th>
<th>Father</th>
<th>Total</th>
<th>Mother</th>
<th>Father</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newspapers only</td>
<td>4 cases</td>
<td>8 cases</td>
<td>8.0%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Magazines only</td>
<td>17</td>
<td>14</td>
<td>9.2%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Both newspapers and magazines</td>
<td>118</td>
<td>45</td>
<td>29.4%</td>
<td>73.8%</td>
</tr>
<tr>
<td>Neither</td>
<td>10</td>
<td>70</td>
<td>45.7%</td>
<td>11.7%</td>
</tr>
<tr>
<td>No data</td>
<td>4</td>
<td>16</td>
<td>10.4%</td>
<td>52.4%</td>
</tr>
<tr>
<td>Total</td>
<td>153 cases</td>
<td>153 cases</td>
<td>99.9%</td>
<td>99.9%</td>
</tr>
</tbody>
</table>

Sixty-one per cent (88 cases) of the Oregon families do not subscribe to any magazine on child care; 26 per cent (37 cases) take 1 magazine; 8 per cent (11 cases) take 2; and 5 per cent take over 2. The total sample figures show 70 per cent as not taking any; 20 per cent taking 1; 6 per cent, 2 and 4 per cent taking over 2.

Results from the query on whether the mother and father listen to talks on child care over the radio are given in Table 15, along with figures from the total sample.

(Table 15 on following page)
Table 15

A Comparison of Parents Listening to Radio Talks on Child Care in Oregon Study and Total Sample

<table>
<thead>
<tr>
<th>Listens when:</th>
<th>Oregon</th>
<th></th>
<th>Total</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mother</td>
<td>Father</td>
<td>Mother</td>
<td>Father</td>
<td></td>
</tr>
<tr>
<td>Regularly</td>
<td>7 cases</td>
<td>4.5 %</td>
<td>3 cases</td>
<td>1.9 %</td>
<td>9.8 %</td>
</tr>
<tr>
<td>Irregularly</td>
<td>63</td>
<td>41.1</td>
<td>21</td>
<td>13.6</td>
<td>42.3</td>
</tr>
<tr>
<td>Never</td>
<td>74</td>
<td>46.6</td>
<td>117</td>
<td>76.5</td>
<td>47.9</td>
</tr>
<tr>
<td>No data</td>
<td>9</td>
<td>5.8</td>
<td>12</td>
<td>7.9</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>153 cases</td>
<td>100.0 %</td>
<td>153 cases</td>
<td>99.9 %</td>
<td></td>
</tr>
</tbody>
</table>

Nineteen per cent (28 cases) of the Oregon mothers and less than 3 per cent (3 cases) of the fathers attended a child study group; 20 per cent (30 cases) of the mothers and 8 per cent (12 cases) attended the P.T.A.; 4 per cent (6 cases) of the mothers and only 1 father attended both, while 57 per cent (81) of the mothers and 89 per cent (129) of the fathers did not attend either a child study group or the P.T.A. Since the parents in this sample are those of preschool children and probably not interested in the P.T.A., these figures can be considered low. Table 16 compares these data with those from the total sample.

(Table 16 on following page)
Table 16
Comparison of Attendance at Study Groups and P.T.A. of Oregon Parents and Those of Total Sample

<table>
<thead>
<tr>
<th>Group Attended</th>
<th>Oregon Mothers</th>
<th>Oregon Father</th>
<th>Total Mother</th>
<th>Total Father</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Group</td>
<td>28 cases 18.3 %</td>
<td>3 cases 1.9 %</td>
<td>18.8 %</td>
<td>2.8 %</td>
</tr>
<tr>
<td>P.T.A.</td>
<td>30 cases 19.6 %</td>
<td>12 cases 7.9 %</td>
<td>17.8 %</td>
<td>9.6 %</td>
</tr>
<tr>
<td>Both</td>
<td>6 cases 3.9 %</td>
<td>1 case .7 %</td>
<td>9.2 %</td>
<td>.7 %</td>
</tr>
<tr>
<td>Neither</td>
<td>81 cases 52.9 %</td>
<td>129 cases 84.2</td>
<td>54.2 %</td>
<td>86.8 %</td>
</tr>
<tr>
<td>No data</td>
<td>8 cases 5.2 %</td>
<td>8 cases 5.2 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>153 cases 99.9%</td>
<td>153 cases 99.9%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Out of 89 families responding, 3 per cent (3 cases) made use of day nurseries and nursery schools; 42 per cent (37 cases), infant welfare clinics; 46 per cent (41 cases), public health nurses; 7 per cent (6 cases), social agencies; and 12 per cent (18 cases) made no use of any of these. Figures from the total sample show 3 per cent of the parents as having made use of day nursery; 5.1 per cent, of a nursery school; 1.5 per cent, of a settlement; 22.9 per cent of an infant welfare clinic; 27.7 per cent of a public health nurse; and 3.7 per cent, of a social agency other than those listed.

In one-half of the cases, Oregon parents usually agreed on the management of the children; in 45 per cent (63 cases) they always agreed, and in the remaining 5 per cent, 6 cases were reported as "occasionally" and 1 as "seldom". Ninety per cent of the parents from the total sample either "always" or "usually" agreed, while the remaining 10 per cent indicated various degrees of disagreement.
12. Number of Children in Family

The families ranged in size from 1 to 10 children with a mean of 2.6. Table 17 shows distribution of children by number in family.

<table>
<thead>
<tr>
<th>Number in Family</th>
<th>Number of Cases</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>44</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>42</td>
<td>28</td>
</tr>
<tr>
<td>3</td>
<td>33</td>
<td>22</td>
</tr>
<tr>
<td>4</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>149</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Birth orders represented are shown in Table 18. Thirty per cent of the cases were the only child in the family. Thirty-six per cent were the youngest in families of 2 or more; 13 per cent were the oldest; while 10 per cent were the mid-child with the remaining 10 per cent being next to the youngest in families of 4 to 10.
Table 18

Birth Orders of Children

<table>
<thead>
<tr>
<th>Birth Order</th>
<th>Number of Cases</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only child</td>
<td>44</td>
<td>30</td>
</tr>
<tr>
<td>Oldest</td>
<td>19</td>
<td>13</td>
</tr>
<tr>
<td>Youngest</td>
<td>54</td>
<td>36</td>
</tr>
<tr>
<td>Mid-child</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Next to youngest, families 4 - 10</td>
<td>16</td>
<td>10.7</td>
</tr>
<tr>
<td>Next to oldest, family of 4</td>
<td>1</td>
<td>.3</td>
</tr>
</tbody>
</table>

Total 149 100.0

13. Analysis of Data

I. Physical Measurements:

There is enough evidence from careful studies to show that the best method of feeding babies is the mother's breast. Woodbury (71) has analyzed the causes of death among infants and finds an excess mortality among the artificially fed. McCollum and Simmonds (41) emphasize that, although recognized as the best source of infant feeding, human mother's milk is not necessarily a perfect food; that quality and quantity vary in the different cases depending upon the nutritive conditions of the lactating women. Further, "that the quality of the milk the nursing mother produces depends upon the character of her diet. When her diet contains proteins of high biological value, an abundance of the vitamins, inorganic elements in proper amount and
sources of energy in the form of carbohydrates and fats, she produces a milk which will induce optimum gains in the weight of her young. In so far as her diet falls short in these essentials will the quality of her milk be reduced. The nursing mother cannot, except in a very limited degree, put into her milk from her bodily reserves that which she does not receive in her food supply."

According to Sherman (55), "during reproduction or lactation there are added to the demands of maintenance an increased need for all the substances required for the formation of new tissue or of the milk from which new tissue is to be built." Hoobler (31) writes, "there is a unanimity of opinion that the protein content should be relatively high and that optimum calorie intake is 3000. Vitamin studies, as far as can be interpreted from rat feeding experiments, appear to indicate that all the vitamins play a part in milk production, but that vitamins A, B and E have a greater influence than C and D." Blunt and Cowan (13) say there is little doubt that for women as well as for animals during pregnancy and lactation, care of the diet, including cod-liver oil and exposure to sunshine are vitally important for safeguarding the material organism and are also of significance to the offspring.

The optimal length of time for breast feeding is 9 months, according to Rose (51). Holt and Howland (33) state that nursing can rarely be continued after the ninth month without unduly draining the vitality of the mother, and at the same time harming the child. Since the early months of breast feeding are the most important, they continue,
every effort should be made to have the mother continue for five or six months. Authorities appear to agree that every month of breast feeding up to the optimal length of time can be looked upon as so much gain for the baby.

The results from the Oregon sample show that 83 per cent (120 cases) of the children were breastfed, with a range of 2 weeks to 18 months. The model length of time was 9 months, with a mean average of 6.9 months. The material available from the total sample includes no report on these questions.

Sixty-five per cent (102 cases) of the total Oregon sample were girls and 35 per cent (55 cases) were boys. Although height and weight are used extensively as an index of normal growth, they should be considered as only one indication of the child's condition. According to Seham (54), Terman (59) and others, each child is a law unto himself, with his own normal weight that is best for his height and build, and accordingly, the growth status of the individual cannot be evaluated by a table of standards computed from growth averages. Gesell (26) in giving the purpose of standards of height and weight states, "the scientific and the practical function of the standard in child health work is measurement, not compression into a mould. The standard is a formula, which represents a bit of information which may be used as a landmark of reference. We use the height and weight chart, not to standardize physical growth, but to interpret it. Standards are the lenses through which we observe the child's growth to determine whether that growth is pursuing a favorable course."
Baldwin (5), believes that normal growth in weight and height is probably the best single index of good health and good nutrition during early childhood. Sherman (55), feels that although a normal rate of growth is considered more significant than close agreement with the average weight for height and age, yet a comparison of a child's actual weight with the accepted standards gives some indication of his nutritional condition. He says that certain deviations from the average weight for height and age must undoubtedly be considered normal. According to Wood and Lerrigo (72) average growth in height and weight does not necessarily indicate good health, but prolonged or marked lack or cessation of growth in height and weight during the years when growth should proceed usually indicates some serious defect. They feel that for optimum health the child should be not less than 7 per cent under, not more than 15 per cent over the average weight for his age and height. Faegre and Anderson (19) and Seham (54) believe that a 10 per cent or more deviation calls for careful scrutiny. According to Holt and Howland (33) the rate of gain in weight up to the age of 10 is nearly the same for both sexes, boys being on the average a pound or a pound and a half heavier than girls. They give as the result of observations of 1200 children an average gain in growth of 9 inches for the first year, for the 2nd year, 4 1/2 inches, and for the succeeding 3 years about 3 inches per year. Seham (54) estimates the average annual increase in weight as 5 per cent and in height 10 per cent, with little difference between the sexes up to the age of 6. He suggests the use of records, saying,
"a sudden loss or increase in weight is a danger signal not to be ignored." Lucas (38) indicates this same rate of gain in weight and an average gain in height of 3 inches per year.

The heights of 134 cases in this sample were reported. One hundred and three of these were obtained by actual measurements. The average for the total group was 37.9 inches, with a range of from 21 to 49 inches. The 82 girls had a mean average of 36.2 inches and the 52 boys, 37.5 inches.

Weights were obtained from 139 cases, 84 of which were girls and the remaining 55, boys. Eighty-seven per cent (108 cases) of these weights were obtained by use of the scale, and in three-fourths of the cases (123 cases) weights included clothes. The average weight was 35.4 pounds for the total group, with 36 pounds for boys and 34.7 pounds for girls. Tables 19 and 20 show the heights and weights for the different age groups as found in the Oregon sample, and give for comparison the standard weight for the heights obtained, as found in the Woodbury tables. At every age level but the five year, this sample of Oregon boys weigh more than the expected number of pounds, with the greatest difference (9 pounds) at 1 year, and a difference of approximately 3 pounds at 2, 3 and 4 years. For the 5 year group the difference of 3 pounds (approximately) is negative rather than positive. The girls weighed more than the expected number of pounds at all age levels.
Table 19
Comparison of Boys' Height and Weight to Woodbury Standard by Chronological Age

<table>
<thead>
<tr>
<th>Chronological Age</th>
<th>Average Height Obtained</th>
<th>Number of Cases</th>
<th>Average Weight Obtained</th>
<th>Number of Cases</th>
<th>Standard Weight for Heights Obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>28.8</td>
<td>6</td>
<td>29.5</td>
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<td>20.5</td>
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<td>33.7</td>
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<td>30.2</td>
<td>18</td>
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<tr>
<td>3</td>
<td>38.2</td>
<td>16</td>
<td>37.1</td>
<td>19</td>
<td>33.5</td>
</tr>
<tr>
<td>4</td>
<td>40.6</td>
<td>10</td>
<td>41.0</td>
<td>13</td>
<td>38.0</td>
</tr>
<tr>
<td>5</td>
<td>44.6</td>
<td>24</td>
<td>42.3</td>
<td>24</td>
<td>45.5</td>
</tr>
</tbody>
</table>

Table 20
Comparison of Girls' Height and Weight to Woodbury Standard by Chronological Age

<table>
<thead>
<tr>
<th>Chronological Age</th>
<th>Average Height Obtained</th>
<th>Number of Cases</th>
<th>Average Weight Obtained</th>
<th>Number of Cases</th>
<th>Standard Weight for Heights Obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>31.4</td>
<td>5</td>
<td>25.7</td>
<td>5</td>
<td>22.5</td>
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<td>34.3</td>
<td>18</td>
<td>30.0</td>
<td>19</td>
<td>26.5</td>
</tr>
<tr>
<td>3</td>
<td>38.6</td>
<td>9</td>
<td>34.2</td>
<td>10</td>
<td>34.0</td>
</tr>
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<td>4</td>
<td>39.6</td>
<td>14</td>
<td>39.9</td>
<td>11</td>
<td>35.5</td>
</tr>
<tr>
<td>5</td>
<td>43.6</td>
<td>11</td>
<td>44.7</td>
<td>12</td>
<td>42.5</td>
</tr>
</tbody>
</table>

About one half of the cases (68) reported, were weighed regularly once a month; 11 were weighed weekly; 16 half-yearly; 4 yearly and the remaining cases irregularly at intervals greater than a year. These figures are slightly higher than the total sample reporting on 4 year olds. Forty per cent of these were weighed regularly, one-
tenth were weighed weekly, one-half monthly, one-fourth half-yearly and the remainder irregularly at intervals greater than a year.

II. Sleep:

It is conceded by authorities that sleep is of great importance to the physical and mental development of the child. Insufficient amounts of sleep will result in lowered nutrition, emotional disturbance and lessen the resistance and efficiency of the body. There is no set standard for the amount of sleep needed for different ages. In a study of the sleeping habits of 102 children, Blatz and Bott (12) found that the total sleep decreased progressively from $13\frac{3}{4}$ hours at one year to $10\frac{1}{2}$ hours at 12 years. They conclude, "that up to the age of 2 years the child should be permitted to sleep as long as he will, since there is no line between his habits of sleep in the daytime or those of night." Thom (61) believes that "from 6 months, 16 hours or less is required until the age of 4, when 12 hours is probably enough." Burnham (14) gives 12 to 14 hours from 1 year to the 5th year, when the amount required decreases to 11-12 hours. According to Blanton and Blanton (9) the amount for the 1 year old is 16 hours, decreasing one hour each year through the 4th year. Aron (4) writes, "how many hours the child must sleep, what his sleep requirements for his age, weight and size is not known. His food intake, his activity, his intensity of growth, the climate and time of year; in fact, anything that influences his food requirement works indirectly on his sleep requirements. This knowledge is essential: that for many children the lengthening of sleep
will do more than food, appetite producing medicine, iron or arsenic."

The results from the Oregon study show a total of 16 hours and 20 minutes sleep for the one year olds, 15 hours and 18 minutes for the 2 year olds, 12 hours and 42 minutes for the 3 year olds, 12 hours and 55 minutes for the 5 year olds. This higher figure for the 5 year old is no doubt due to the 2 cases of 5 year olds reporting morning naps (see Table 22). Other than these, there were no morning naps reported after the 2nd year. Table 21 shows a comparison of the results of the amounts of sleep, as found in the Oregon study, with those reported by different authorities.

Some difference was noted in the sleeping hours of the urban and the rural child. The average rural time was 20 minutes less than the urban average for hours slept. This agrees with Faegre and Anderson (19), who write, "at all seasons and at all ages country children secure less sleep than do city children, the difference varying somewhat with season, but being in the neighborhood of 20 minutes a night." They believe this is due in part to the fact that rural children are allowed to retire with the family, rather than having their own hours.

(Table 21 on following page)
## Table 21

<table>
<thead>
<tr>
<th>Oregon Study</th>
<th>Age-Years &amp; No. of Total Cases Sleep H - M</th>
<th>Blatz &amp; Bott Age-Years &amp; No. of Cases Sleeping in Day</th>
<th>Total Sleep and Blanton Hours</th>
<th>Brown Hours</th>
<th>Burnham Hours</th>
<th>Hess Hours</th>
<th>Flemings' Data Age-Years H - M</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-0/11</td>
<td></td>
<td>16</td>
<td>16</td>
<td>12-14</td>
<td>12-13</td>
<td>15-05</td>
<td></td>
</tr>
<tr>
<td>1-1/11</td>
<td>16-20</td>
<td>11</td>
<td>16</td>
<td>12-14</td>
<td>12-13</td>
<td>13-20</td>
<td></td>
</tr>
<tr>
<td>2-2/11</td>
<td>15-18</td>
<td>20</td>
<td>16</td>
<td>12-14</td>
<td>12-13</td>
<td>12-49</td>
<td></td>
</tr>
<tr>
<td>3-3/11</td>
<td>12-42</td>
<td>16</td>
<td>14</td>
<td>12-14</td>
<td>10-11</td>
<td>13-34</td>
<td></td>
</tr>
<tr>
<td>4-4/11</td>
<td>12-39</td>
<td>9</td>
<td>13</td>
<td>12-14</td>
<td>10-11</td>
<td>12-26</td>
<td></td>
</tr>
<tr>
<td>5-5/11</td>
<td>12-55</td>
<td>7</td>
<td>11</td>
<td>12-13</td>
<td>11-12</td>
<td>12-06</td>
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</tr>
</tbody>
</table>
Authorities agree that training in good sleeping habits should be begun shortly after birth and that a well-regulated routine life is important in establishing such habits. Thom (61) emphasizes the importance of definitely fixed hours for going to bed and arising and states "that a healthy child should go to sleep within 20 or 30 minutes after going to bed and get up immediately after waking." Blatz and Bott (12) found in their study mentioned above, that regularity was greater with young children and add "the common practice is not sufficiently consistent to promote good sleeping habits." Faegre and Anderson (19) found that the better educated and the more intelligent mothers provided better sleeping conditions and put their children to bed earlier than the less educated and less intelligent ones. It was found from the Oregon sample that the average bedtime hour for the children of mothers with grade school education was 28 minutes later than for the children of mothers with college education. The average retiring hour for the total Oregon sample (157 cases) was 8:54 P. M. with a range of from 6 to 10:30 o'clock. The model bedtime hour was 8 o'clock and for arising, 7 o'clock. The average time of arising was 7:11, with a range of from 5 A. M. to 9:30 A. M.

Authorities agree, too, that children should sleep in a bed alone and where possible in a room alone. Blatz and Bott (10) believe that children should never sleep with adults or children of the opposite sex, and the sleeping in the same bed of children of the same sex may be justified only in an emergency. It was found in the Oregon study
that 24 per cent (37 cases) of the children slept alone in a room alone. In 36 per cent of the cases (55) there was 1 other occupant of the bedroom; in 31 per cent (48 cases) there were 2 others; in 8 per cent (12 cases) there were 3; in 2 cases there were 4 and in 1 case, 5 others. Twenty-one cases (14 per cent) reported one other occupant of the bed, and in 8 cases (5 per cent) there were 2 other occupants of the bed beside the child. The total sample reported that in 43.8 per cent of the cases an adult sleeps in the 4 year old child's bedroom; in 36.3 per cent, another child; and in 19.8 per cent of the cases no one sleeps in the bedroom with the child. Eleven and one half per cent of the 4 year old children sleep in the same bed with an adult; 27 per cent sleep in the same bed with other children; and 61.5 per cent have beds of their own. Usually the 4 year old child shares his bedroom with another person. About two-fifths share their beds.

According to Blatz and Bott (10) and others the afternoon nap is an important part of the sleeping schedule and may continue as long as there is not too much friction over it. These authorities found in their study of sleeping habits that day sleep disappears before the age of 6. They find that between the third and fourth year the child should not be permitted to sleep more than 1 1/2 hours in the daytime; a longer nap may interfere with the night rest and with exercise in the open air in the afternoon.

Eight of the 1 year olds in the Oregon sample took naps in the morning, averaging 2 hours and 20 minutes. Four 2 year olds had
average morning naps of 1⁵/₄ hours; while 2 five year olds averaged 45 minutes. Two-thirds (96 cases) of the cases had afternoon naps, averaging 2 hours and 3 minutes. Up to 3 years, 86 per cent (74 cases) took afternoon naps, as did 46 per cent (13 cases) of the 4 year olds and 27 per cent (11 cases) of the 5 year olds. Table 22 shows the hours of sleep with model and average bedtime according to chronological age.

Table 22

<table>
<thead>
<tr>
<th>Age</th>
<th>No. of Cases Studied</th>
<th>No. of Cases Taking Morning Nap</th>
<th>No. of Cases Taking Afternoon Nap</th>
<th>Hours &amp; Minutes Slept</th>
<th>Model Bedtime Hour</th>
<th>Average Bedtime Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15</td>
<td>8</td>
<td>12</td>
<td>11:58:20</td>
<td>2:2</td>
<td>2:16:20</td>
</tr>
<tr>
<td>2</td>
<td>43</td>
<td>4</td>
<td>36</td>
<td>11:26:1:45</td>
<td>1:17</td>
<td>1:28:16</td>
</tr>
<tr>
<td>3</td>
<td>30</td>
<td>26</td>
<td>26</td>
<td>10:27:2:15</td>
<td>1:42</td>
<td>1:42:12</td>
</tr>
<tr>
<td>4</td>
<td>28</td>
<td>20</td>
<td>13</td>
<td>10:35:2:4</td>
<td>1:09</td>
<td>1:09:12</td>
</tr>
<tr>
<td>5</td>
<td>41</td>
<td>2</td>
<td>11</td>
<td>10:34:0:45</td>
<td>1:36</td>
<td>1:36:12</td>
</tr>
</tbody>
</table>

III. Diet and Food Habits:

Many factors enter into the development of right food habits. Authorities agree that healthy children naturally have good appetites and when a child refuses to eat, the first step is to determine the cause. Plenty of fresh air, vigorous play, along with good sleeping habits are conceded to relate to good appetite. A diet adequate to meet the demands of the child is essential. Blatz and Bott give as
the first objective in training for good food habits, to train the
child to eat the proper kinds and amounts of food, and the second,
to train him to eat in a manner socially acceptable. Following the
standards set up by Rose (51), Roberts (49) and others, the diet of
the preschool child should be built around milk, eggs, vegetables,
fruit, cereals and hard or stale bread. The following are the stand-
ards given by Rose:

1. **Milk** - one quart daily, to include amount drunk and that
   used in cooking. This amount is necessary to insure the calcium re-
   quirement of 1 gram per day for children. Milk also furnishes pro-
   teins of good quality, phosphorous and vitamins A and C.

2. **Cereals** - a well-cooked cereal should be included in the
diet every day. Whole grain cereals are recommended. Milk or cream
   should be used with them.

3. **Hard bread or toast** - should be included in each meal
   for the sake of tooth and jaw development. Whole wheat or other dark
   flour bread is preferable.

4. **Fruit** - at least once a day and twice if it can be
   afforded. Orange or tomato juice should be given daily for vitamin C
   content. It is well established that proper tooth development is de-
   pendent upon this vitamin.

5. **Vegetables** - two servings of vegetables daily in addition
to potato. Raw vegetable is desirable and may be used grated or chopped
   as sandwich filling.

6. **Egg yolk** - should be included in the diet every day. It
may be supplemented by liver, lamb or chicken. Egg yolk furnishes an excellent quality of protein and is a good source of iron and the vitamins.

7. Fats - butter as a source of vitamin A should be used liberally. Cod-liver oil should be given every day for the antirachitic vitamin D and as a good source of vitamin A.

The study of these data shows that for breakfast, 64 per cent of the children had fruit; 73 per cent had cooked cereal; 72 per cent had bread or toast; 19 per cent had eggs; 6 per cent had meat in the form of bacon; 16 per cent had cocoa and in 2 cases, coffee. In all but 16 cases, milk was given in varying amounts of from ½ cup to 2 glasses, with 1 glassful as the model amount. Other food given for breakfast included graham crackers, hot biscuits, waffles and syrup and ovaltine.

For the noon meal these data show the following: 21 per cent had soup; 34 per cent meat or fish; 68 per cent bread or toast; 49 per cent potatoes; 59 per cent cooked vegetables; 26 per cent raw vegetables; 20 per cent eggs, and 51 per cent fruit. Other foods included in this meal were cereal, cocoa, cottage cheese, ovaltine, gravy and cake. In 20 cases no milk was taken, while in 117 cases 1 glass or more was given.

The content of the evening meal was somewhat similar. Fifteen per cent had soup; 37 per cent had meat; 74 per cent had bread or toast; 41 per cent had potato; 47 per cent cooked vegetables; 32 per cent raw vegetables; 57 per cent, fruit; 12 per cent each, eggs and
cooked cereal. Other foods ranging in frequency, included in the evening meal were cake, pudding, ice cream, cottage cheese, waffles and syrup, ovaltine and sassafras tea. Twenty cases had no milk at this meal, while 122 cases had one glassful or more.

In estimating the days dietary, it was found that in 6 cases (3.8 per cent), no milk had been given during the entire day, and in 37 cases (23 per cent) less than 3 cups was given. The report from the total sample showed that 2.6 per cent had less than \( \frac{1}{2} \) pint of milk a day; 30.2 per cent had from \( \frac{1}{2} \) to \( 1\frac{1}{2} \) pints of milk a day and 3.5 per cent of the children had no milk. Roberts (49) says one of the most serious failings in children's diet is the insufficient use of milk. She agrees with Sherman (55) and others that milk is the only dependable source of calcium. She reports experiments showing that the optimum storage of calcium took place when 1 gram or the amount contained in 1 quart of milk was provided.

In 72 cases in the Oregon sample there was no egg in the day's dietary; in 46 cases no meat; and in 27 cases no meat or egg was included. In 16 cases meat was included twice during the day. In 7 cases there was no vegetable and in 9 cases no fruit during the day.

Cod-liver oil or a substitute was given to 63 per cent (97 cases) during winter months, and to 21 per cent (37 cases) during summer. Of the 129 cases reporting on the use of cod-liver oil or a substitute during both summer and winter, 57 cases (44 per cent) did not have it at all, while 36 cases (28 per cent) received it all the year around. The total sample reveals the fact that 41 per cent of the
children have cod-liver oil in winter only; 1½ per cent in the summer only; 10 per cent all the year around and 47.5 per cent never. In an experiment to determine the ultraviolet component of the sunlight of Portland, Manville (39) found that Portland has the lowest average of sunshine of all areas in the United States, being slightly lower than the amounts reported in Michigan, Maine, Vermont, New York and Ohio. He concludes that the amount of ultra violet light or rays does not gradually increase during the year with an increase in sunshine. The smoke, dust and fog prevalent in the northwest destroys from one-half to two-thirds of the ultra violet rays. Authorities agree that some substitute for the health promoting rays of the sun should be provided. Sherman (55) writes, both clinical experience and laboratory experimentation have shown that without special direct attention to the mineral content of the food, rickets may often be prevented or cured by the antirachitic vitamin of cod-liver oil, or by the direct rays of the sun or other forms of ultra violet irradiation. Sherman (55) quotes Park as saying, "Personally, I believe that if pregnant women received ample well-balanced diets in which green vegetables were abundantly supplied and cow's milk was regularly taken, and kept a sufficient part of their time in the open air and sun, and if their infants were placed in the direct rays of the sun for a part of each day and were fed cod-liver oil for the first two or three years of life, more could be accomplished in regard to the eradication of caries of the teeth than in all other ways put together, and that rickets would be abolished from the earth." Rose (51) recommends "the daily administration of from 1 to
3 teaspoons of pure cod-liver oil, at least during the winter months, as well as to see that all, including adults, have daily exposure to the direct rays of the sun."

Blatz and Bott (11) stress the importance of the regularity of feeding in establishing good habits. They say "that infants are conditioned to eating at set intervals; when they are put on a three meal schedule the clock should still regulate the times for feeding. Feeding between meals should not be tolerated. ..... Occasional snacks may not ruin the child's appetite, but they do seriously interfere with a major point in habit training."

In passing from the infantile to the intermediate stage as described by Blanton and Blanton (9) the child is introduced to a great variety of new foods. They believe this change should come about gradually. Blatz & Bott (11) say, "New foods should be introduced one at a time. -- The desirable thing is to accustom the child to the taste of the new food, not to get him to eat fixed amounts of it." Faegre and Anderson (19) feel that new articles of diet should be introduced when the child's appetite is the keenest. A very small amount of the new food should be served the first day early in the meal. They emphasize the importance of forming pleasant associations with new food at the beginning. According to Roberts (50) "the differences in taste and likes and dislikes lies in the minds' reaction or attitude toward the taste recorded. We like, in general, foods to which we have been accustomed from our earliest childhood. We readily acquire likes or dislikes by imitation, conscious or unconscious of those about us,
especially of those we admire." She suggests that "if a child who is not sick does not like plain wholesome foods, all sweets and highly flavored foods should be removed from him; he should be sent outdoors to get good and hungry and then given 3 plain meals of milk, cereal, bread, vegetables, potatoes and eggs with nothing between meals but water." Neff (43) lists as causes of poor appetite, - illness, nervousness, nervous parents, early acquired faulty habits of eating, suggestions and imitation, lunching between meals and drinking milk at school. He says that parents should offer a simple variety and quantity of food at the table and then let the child alone. Parents should quietly let it be understood that the business of coming to the table is to eat. Constant reminders, Neff says, along with well-meant assistance in carrying the food to the child's mouth, criticisms, punishment, coercion, all are unnecessary. Child psychology is no better observed than in the practice of eating and the reaction to environment is here more marked than we are apt to have noticed.

Fifty-nine per cent of the children reported on in the Oregon sample, ate at other times than during the regular meal hours, about half of these being considered a regular meal and the rest as eating between meals. Approximately $\frac{1}{2}$ of these were forenoon feedings, $\frac{1}{2}$ were afternoon feedings and the remainder included both. Further results showed that $\frac{1}{3}$ of the children seldom eat between meals; 23 per cent do occasionally; 20 per cent usually, and the remaining 24 per cent, never. Fruit was the most common food eaten between meals, with bread, milk, crackers, cookies and ice cream following in order of frequency.
Other foods included were candy, cocoa, cereal and raw carrots. The findings from the total sample were as follows: 30.9 per cent usually eat between meals; 28.5 per cent seldom eat between meals; and only 15 per cent never eat between meals.

In all but 8 of the homes in the Oregon sample, meals were served at regular hours and the table set for all meals in all but 20 cases. Figures from the total sample show that meals were served at regular hours in 96.4 per cent of the homes and that in 93.4 per cent of the homes, the tables are set for all meals.

About \( \frac{1}{3} \) of the Oregon children consistently refused to eat spinach and cabbage. Other foods refused in order of frequency were celery (21 cases), carrots and eggs (15), string beans and peas (12 cases), tomatoes (8 cases), potatoes and meat (6 cases) and milk (4 cases).

IV. Cleanliness and Habit Training:

A. Personal cleanliness

The young child has no natural repugnance to dirt according to Foster and Mattson (24). They state that children should be taught that clean bodies, clean hands and face, noses, mouths and teeth are desirable; first because they reduce the chance of spread of infectious diseases; and second, because the person who is clean is more acceptable to other people. Blatz and Bott (11) stress the importance of the child's accomplishing such tasks for himself as, "mastery of early situations tends to give that permanent set toward achievement so valuable throughout life." The same authorities say that the daily bath
should be given throughout the preschool period, being shifted from morning to before bedtime when the child changes to a 3 meal schedule.

The data from the Oregon study show that of the 150 cases reporting on frequency of clothing changes, 34 per cent had change of undergarments daily; 47 per cent had changes twice a week; 16 per cent 3 times a week; and 3 per cent had weekly changes. Eighty-two per cent of the 152 cases reporting had clean outer clothing daily; 17 per cent had changes twice a week; and the remaining 5 cases had weekly changes. Reports from the total sample show that among the 4 year olds, 86 per cent have their undergarments changed twice a week, another 12 per cent weekly and 2 per cent have them changed less frequently than once a week. Daily clean outer clothing was reported in 86 per cent of the cases; twice a week, in 12 per cent; weekly in 1.5 per cent; and less frequently than once a week, in one-half per cent of the cases in the total sample. In all cases, the Oregon children had sleeping garments, while the total sample reported 94 per cent having sleeping garments. The mean number of days since the last bath, from the day of the interview was 1.6 days in the Oregon cases, with a range of from 0 days to 15. The mean number of baths per month was 19. Fifty-nine per cent of the 155 cases reporting had daily baths during the summer months, while 25 per cent had daily baths during winter months, with a mean of 23 and 15 respectively. Table 23 shows a comparison of the frequency of baths in the Oregon study and of the 4 year old children in the total sample.
Table 23
Frequency of Baths in Oregon Study and of Four Year Old Children in Total Sample

<table>
<thead>
<tr>
<th></th>
<th>Oregon Summer</th>
<th>Oregon Winter</th>
<th>Total Summer</th>
<th>Total Winter</th>
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<tbody>
<tr>
<td>Oftener than daily</td>
<td>2 %</td>
<td>0 %</td>
<td>5.4 %</td>
<td>0 %</td>
</tr>
<tr>
<td>Daily</td>
<td>59</td>
<td>25</td>
<td>63.8</td>
<td>24.3</td>
</tr>
<tr>
<td>Twice a week</td>
<td>34</td>
<td>60</td>
<td>24.5</td>
<td>51.0</td>
</tr>
<tr>
<td>Weekly</td>
<td>5</td>
<td>15</td>
<td>6.3</td>
<td>24.6</td>
</tr>
</tbody>
</table>

B. Control of Bowel Elimination

According to Blatz and Bott (12), the child's sensory discrimination must have matured sufficiently for him to recognize the sensations of pressure in the bladder or the rectum, and to remember the associated sensations of voiding before voluntary control of elimination can be established. Blatz (12) sums up the various factors in the development of control as follows: (1) avoidance of over-emphasis of early acquisition or over-training at an early age; (2) avoidance of all disturbing emotional complications, such as shame, scolding, ridicule, anger, punishment or elaborate rewards; (3) employment of a training technique designed to assist the child directly in the process rather than one based on extraneous motivation; (4) an attempt to develop at each stage that rhythm of control best adapted to the physiological and social needs of the individual child.

Bowel control, if given systematic training, is much easier to accomplish than is bladder control. According to Blatz (12), the
principle underlying bowel control is a conditioning of the bowel response to a particular and consistent set of sensory habits. A child should be conditioned to a movement at a regular time each day, preferably after the morning meal, according to Blatz and Bott (12). Blatz states that in a healthy child with no complicating dietary or nutritional factors, bowel control should be fairly well established by 6 months. Gesell (26) in his normative summaries for different age levels, gives 18 months as the age when this is "practically established."

Ninety-five per cent (149 cases) of the Oregon children, had, at the time of the interview, established bowel control. The mean age of control in 140 cases reporting age was 15 months with a range of 2 months to 3 years. Some difference was found between sexes as to the age when bowel control was established. Results would indicate that control is established earlier in boys than in girls, with but a slight difference in the mean age, being 15.4 months for boys and 15.7 months for girls. This does not agree with results from the total sample which show that bowel control is established earlier in girls. Tables 24 and 25 show the results of both studies. Of the 7 Oregon children that had not established control, 4 were 1 year olds, and the remaining 3 were 2 year olds; 3 were youngest children in the family, 3 were oldest children and the remaining one was an only child.

C. Control of Bladder Elimination

Blatz (12) gives as the object of training in bladder control, "not to have the child keep the bladder empty nor primarily to avoid
wetting his clothes, but to have him recognize when the bladder is full and how to withhold from responding by an active effort of restraint, until he can seek the proper place to perform the function satisfactorily or at least make his desire known." He states further that there has been excellent progress in training if the child has learned to ask to go to the toilet and is able to remain dry throughout the day by the 18th month. He gives 2 years as the maximum period for the establishment of this degree of control, but indicates that individual variation is great, and due to this a case possibly should not be of pathological significance until there is an established habit of disfunction reaching well into the 4th year. Gesell (26) places bladder control at the 2 year level. Blanton and Blanton (9) state that daytime control should be established from 12 to 15 months and night time control from 2½ to 3 years. Holt (32) gives 2½ years as the maximum age, and states that in the majority of cases, if bladder control is not established at this age in normal children, that it is due to lack of training by the parents. According to Thom (61), any case in which failure to establish bladder control has gone beyond 3 years should be considered as serious. Arlitt (3) indicates that it is rare to find children completely trained at 18 months, and states that in many cases this training is not completed until 3½ years. Woolley (73) claims that by a year the child should be familiar with the use of the chair, at 18 months should be fairly reliable in the daytime, at 2 years should be well trained for daytime, and at 2½ to 3 years should be reliable and able to wake himself at night.
Control of the bladder during sleep is harder to establish. Blatz (12) indicates that "this must wait on voluntary control during the day" as all consciously learned processes tend when habituated to become automatisms to a greater or less degree, losing their preliminary conscious aspect." He sets 18 months as the age level for beginning night control. This same authority feels that the position of the child in the family is of greater significance than the size of the family in establishing control and found in a study of enuresis a preponderence of oldest and youngest children.

The mean age for bladder control for the Oregon children (131 cases reporting age) was 17 months with a range of from 4 to 36 months. Girls showed a lower mean age than did boys, being 15.4 months, and for boys, 20.7 months. Blatz (12) feels that it is doubtful if there is any sex difference and feels that the preponderence of male children in his study of enuresis was due to reticence as regards reporting girls rather than to facts of the situation. Data obtained on 13 cases where bladder control was not established, showed that 4 were 1 year olds, 8 were 2 year olds, and 1 a five year old. Five each of these children were youngest and only children, and the other 3 were oldest children in the family. Five had had 1 accident during the day previous to the interview, 6 had had 2, and the remaining 2 more than this number. Four reported more than 1 night accident.

Sixty-four per cent (98 cases) of 154 cases reporting, go to the toilet by themselves. Of the remaining 56 cases who do not go by themselves, all but 17 cases (11 per cent of total reporting) are
able to make the necessity known. These figures are somewhat lower than the total sample, the difference due, no doubt, to the fact that the only figures available for the total sample were for four year olds. Ninety-three and eight-tenths of the 4 year old children go to the toilet by themselves. Of the 6.2 per cent who do not, all make the necessity known.

Table 24 gives the age at which bowel and bladder control were established in the children of the Oregon sample and those of the total.

<table>
<thead>
<tr>
<th>Age</th>
<th>Oregon Samples</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys No. Cases</td>
<td>Girls No. Cases</td>
</tr>
<tr>
<td>0 - 8.9 months</td>
<td>19% 12</td>
<td>15% 13</td>
</tr>
<tr>
<td>9 - 14.9 months</td>
<td>29 18</td>
<td>36 33</td>
</tr>
<tr>
<td>15 - 20.9 months</td>
<td>25 16</td>
<td>22 21</td>
</tr>
<tr>
<td>21 - 26.9 months</td>
<td>16 10</td>
<td>15 14</td>
</tr>
<tr>
<td>27 - 32.9 months</td>
<td>3 2</td>
<td>1 1</td>
</tr>
<tr>
<td>33 months &amp; over</td>
<td>0 0</td>
<td>2 2</td>
</tr>
</tbody>
</table>

(Table 25 on following page)
Table 25
Comparison of Ages at Which Bladder Control was Established in Children of the Oregon Sample with 4 year olds in Total Sample

<table>
<thead>
<tr>
<th>Age</th>
<th>Oregon Samples</th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys No. Cases</td>
<td>Girls No. Cases</td>
<td></td>
</tr>
<tr>
<td>0 - 8.9 months</td>
<td>0% 0</td>
<td>3% 3</td>
<td>5.7% 5.2%</td>
</tr>
<tr>
<td>9 - 14.9 &quot;</td>
<td>36 24</td>
<td>34 31</td>
<td>21.8 28.8</td>
</tr>
<tr>
<td>15 - 20.9 &quot;</td>
<td>24 16</td>
<td>23 21</td>
<td>27.9 32.8</td>
</tr>
<tr>
<td>21 - 26.9 &quot;</td>
<td>21 14</td>
<td>14 13</td>
<td>30.2 23.6</td>
</tr>
<tr>
<td>27 - 32.9 &quot;</td>
<td>3 2</td>
<td>2 2</td>
<td>7.2  3.2</td>
</tr>
<tr>
<td>33 months &amp; over</td>
<td>4 3</td>
<td>2 2</td>
<td>7.2  6.4</td>
</tr>
</tbody>
</table>

D. Care of Teeth

According to Blanton and Blanton (9), personal duties in the young child's life, as dressing and undressing, care of the skin, hair, teeth and bath, include the very best sort of sensory training. Foster and Mattson (24) emphasize tooth brushing as one of the fundamental hygienic habits, and state that the child should be taught to look upon this as a part of the regular cleaning up process. Willett (70) indicates that cleansing of the teeth should be begun with the appearance of the first one, while the American Academy of Periodontology in a catechism on deciduous teeth (2), state that the time to begin using a toothbrush is after the first 8 teeth are fully erupted. Seventy-nine per cent (116 cases) of the Oregon children had their own toothbrush, while 83 per cent (96 cases) of these were able to brush their own teeth. One-third (52 cases) of the children had brushed their teeth on the day reported in the interview. In 30 cases, 1 day had elapsed.
since the teeth were brushed and in the remaining 13 cases it had been from 2 to 7 days since the last brushing. The total sample report shows that of the four year old children, 13.3 per cent have no toothbrushes; 10.9 per cent have brushes, but do not use them; 1.2 per cent use some one else’s brush; and 74.7 per cent have brushes of their own and use them.

E. Dressing

Blatz and Bott (11) emphasize the importance of letting the small child dress himself as soon as the impulse arises. They indicate that the actual accomplishment viewed from the adult scale is negligible and stress its importance in relation to the personality development of the child. Wagoner and Armstrong (65) state as a result of an experiment on 30 children from 2 to 6 years, that as long as a child is able and interested, he may gain satisfaction and self reliance in aiding himself, but to urge to the point of fatigue is not wise. Gesell (26) in his normative summaries gives 3 years as the age for putting on shoes, 4 years for buttoning clothes, 5 years for lacing shoes and putting on coat and hat alone. These data show that 29 per cent (44 cases) of the Oregon children dressed themselves completely; 39 per cent (59 cases) partially; while 32 per cent (48 cases) were unable to dress themselves at all. The mean age for dressing completely was 4.7 years; partially 3.4 years; and about 2 years for those who could not. The results from the total sample indicate a superiority among girls in dressing themselves as follows: 21.3 per cent of the boys and 42.4 per cent of the girls dress themselves completely; 66.6
per cent of the boys and 53.3 per cent of the girls partially dress themselves; 12.3 per cent of the boys and 4.4 per cent of the girls do not dress themselves at all. They suggest as a possible answer to this difference the fact that the simpler construction of girls clothes may be a factor to be considered. The Oregon sample showed comparable results. Of the 64 boys and 82 girls reported on, the results were as follows: 42 per cent of the boys and 39 per cent of the girls partially dressed themselves; 17 per cent of the boys and 27 per cent of the girls completely dressed themselves; while 26 per cent of the boys and 23 per cent of the girls do not dress themselves at all.

F. Manipulation in Feeding

Blatz and Bott (10) feel that a child should be taught to drink out of a cup and to take liquid from a spoon at an early age, saying it is better to anticipate accomplishments than to wait for everything to be learned at once when the child is introduced to a semi-solid diet. Gesell (26) places manipulation of a spoon and saucer at 9 months; holding and drinking from a cup at 1 year; using a spoon without much spilling at 18 months. Eighty-seven per cent (133 cases) of the Oregon children fed themselves completely. The mean age of this group was 3.8 years; the 10 per cent (16 cases) who partially fed themselves had a mean age of 2.5 years, while the 4 cases unable to feed themselves were 1 year olds. From the total sample all but 1.8 per cent of the four year old boys and 3.6 per cent of the girls were able to feed themselves.
G. Thumbsucking

Blatz and Bott (10) state that such habits as thumbsucking seldom persist beyond the 5th or 6th year unless the trouble has been aggravated in the child by the mother's attitude. They suggest that if interference seems necessary, it should be planned with a view to substituting some more adaptive and interesting behavior for the undesirable habit. Blanton and Blanton (9) hold that thumbsucking is established as a habit in response to hunger or defective nutrition. They claim further that it is a natural form of gratification in all infants and unless carried beyond the third year should be ignored. After this, they suggest that the remedy lies in diet and sunshine. Thom considers thumbsucking a temporary and not firmly embedded habit and feels that it depends upon the intensity of the pleasure derived from it, how long the child will cling to it. Foster and Mattson (24) have found as the most effective treatment, giving the child something else to do with the hands. Tilson reports 28 cases of thumb or fingersucking out of 225 cases. Thirteen of these were boys and 15 girls. Among the Oregon children only 23 cases (14 per cent) responded to the question on thumbsucking, and of these, 3 usually sucked their thumb, 4 did occasionally, 13 did at bed time only and the other 3 never did.

The total sample reporting on 4 year olds shows that 3.3 per cent of the girls usually suck their thumbs; 4.5 per cent do so occasionally; 6.3 per cent do so only at bed time and 85 per cent never such their thumbs. Among the boys 3.4 per cent usually suck their thumbs; 3 per cent, occasionally; 3 per cent only at bed time; while
90.6 per cent never suck their thumbs. The report suggests that although girls seem to show a slightly greater tendency toward sucking their thumbs than boys, that no particular weight can be placed upon the sex differences unless they are verified in the analysis of the other age groups. Of the 23 cases in the Oregon sample who were reported as sucking their thumbs, 16 were girls and 7 were boys.

H. Stuttering

Blanton and Blanton (9) feel that stuttering is common enough among children to be considered a serious problem. They report surveys showing that about 9 out of every thousand children stutter. These show a preponderence of boys who stutter and these same authorities estimate this as occurring from 4 to 6 times as often in boys as in girls. Tilson (60) reports 39 cases of speech defects (21 boys and 18 girls) in a total of 225 children in preschool habit clinics. Anderson and Foster (74) found 21 cases in 100 preschool children distributed as follows: 5 cases at 2 years; 2 cases at 3 years; 7 cases at 4 years; 3 cases at 5 years and 6 cases at 6 years. Seven Oregon children were reported as stuttering occasionally. Four of these were boys, 3 of whom were 5 years old and the other, 3 years. Of the 3 girls there was one each, 3, 4 and 5 years old.

The total sample reported a slight sex difference in the direction of greater stuttering among the boys. Of the 4 year olds, it was found that .4 per cent of the boys and 1.9 per cent of the girls usually stutter; 7.6 per cent of the boys and 4.4 per cent of the girls
do so occasionally; while 92 per cent of the boys and 93.7 per cent of the girls never stutter. They indicate that the likelihood of a 4 year old child, whether boy or girl, sucking his thumb or stuttering is slight.

Burnham (14) says it is recognized that stuttering is not usually due to a local and organic defect, but is likely to be the result of general lack of motor control and lack of power of adjustment. He feels that in some cases it may be no more than an unfortunate conditioned reflex due to accident or bad training. He indicates two methods of cure as available: (1) suitable training which will remove the unfortunate inhibitions by establishing normal conditioned reflexes and (2) by shock, employment of any distracting stimulus sufficiently strong to remove the inhibiting fear. According to Cameron, "stammering persists only when the child loses confidence in his power and when his mind becomes fixed upon the difficulty." The child must be taught, he says, to believe in his growing power of control and be made to feel that his parents are taking pleasure in watching his progress. Excitement, over-exertion and fatigue always show in an increase in the difficulty of articulation.

V. Medical Care and Disease:

A. Medical examination

That the preschool child is at the mercy of his environment, emerging from it only rarely without defects, is emphasized by Seham (54). Authorities agree on the importance of an early and periodic examination of the entire body by a competent physician. Seham points out that
"if the examination discloses the presence of a physical defect or an organic disease, the child will be given the benefit of an early discovery." According to Lucas (38), Seham (54), McCarthy (40) and Holt and Howland (33), such an examination should mean the stripping of the child and a thorough going over by the physician. Lucas believes that 4 examinations during the second year, 3 in the third year and 2 each in the fourth and fifth years are necessary. Faegre and Anderson (19) state that an examination should be made every 6 months on every child under school age. According to Seham (54), every preschool child should be examined 3 times a year as a preventive measure, although in appearance the child is perfectly well. He emphasizes the importance of keeping health records from year to year.

Seventy-eight per cent (119 cases) of the Oregon children had been given a complete or fairly complete medical examination. The mean length of time in months since the last examination was 5.6; the range being from less than 1 month to 2 years. In the total sample it was found that examinations of farmers' children had been given less recently than of other groups. In the Oregon sample, 12 farmers' children had had an examination with a mean of 9.7 months since the last examination. The range was from 1 month to 24. Out of 121 cases reporting in the Oregon study, 24 per cent (29 cases) of the examinations were made by clinics; 47 per cent (57 cases) by family physicians; 13 per cent (16 cases) by pediatricians; 11 per cent (13 cases) by specialists; 3 per cent (4 cases) by school physicians; and 1 per cent (2 cases) by nurses. In the total sample clinics made 18.5 per cent
of the examinations; family physicians, 47 per cent; pediatricians, 13 per cent; specialists, 7 per cent; school physicians, 10 per cent and nurses, 3 per cent. It is reported from the total sample, that 36 per cent of the examinations were made for illness and the remaining 64 per cent as a preventive measure. Thirty-five per cent (42 cases) of the examinations of the Oregon children were made on account of illness and 65 per cent (78 cases) as a preventive measure. One hundred and twenty cases reported.

B. Immunization

Schultz (53) and others point out that the newborn baby is provided with a natural immunity which largely disappears after the first few months. According to Faegre and Anderson, this original immunity is probably acquired from the mother. Authorities agree that due to this loss of natural immunity, the child is more susceptible to infectious diseases during the years between 1 and 6 than at any other time. They agree also to the importance of protective inoculation as a means in establishing immunity toward a disease rather than the immunity which comes through having the disease itself, or through the gradual resistance built up as a result of many contacts with the germ or its toxin in sufficient amounts to cause the disease itself. According to Schultz, there is no danger in using for the same child all the established immunizing procedures, and he states that the goal of immunology is the immunization by scientific treatment of every child against every infectious disease.

Holt and Howland (33) state that the protection against
smallpox through vaccination is one of the best attested facts in medicine. Schultz (53) indicates that universal application of this type of vaccination would entirely eradicate smallpox. Faegre and Anderson (19) agree with this, stating this could be accomplished in one generation. They recommend that vaccination for smallpox be done between 6 months and 1 year, that revaccination should be done upon the child entering school and at 5-year periods thereafter and during epidemics. Holt and Howland (33) find that in infancy the best general time for vaccination is between 2 and 6 months because of the established fact that constitutional disturbance is much less in infancy than in later childhood. They state that revaccination is necessary at puberty, and a third time at 20 or 25 years or within 5 years, if smallpox is prevalent. McCarthy (40) gives 6 months as the best age for the first vaccination. It was found that only 22 per cent (33 cases) of 147 cases of Oregon children responding to this inquiry had received vaccination for smallpox.

The majority of children between 2 and 6 years are susceptible to diphtheria, according to Park (44), Holt and Howland (33); Faegre and Anderson (19), Black (8) and others. They indicate that the immunity of infancy decreases until the third year when it is gradually built up again. Figures as given by Faegre and Anderson from the New York department of health show the susceptibility of children as follows:

15 per cent under 3 months are susceptible.

30 per cent from 3 to 6 months are susceptible.
60 per cent from 6 to 12 months are susceptible.

60 per cent from 1 to 3 years are susceptible.

40 per cent from 3 to 5 years are susceptible.

30 per cent from 5 to 10 years are susceptible.

Holt and Howland estimate this gradual loss in immunity as follows: "At the end of the first year 40 per cent, second and third years 60 per cent and after 4 years the incidence of antitoxin slowly increases so that at the age of 10 years only 25 per cent of the children are without the protection."

According to Park, since so great a majority of children are susceptible, the Schick test to determine susceptibility is better given from 3 to 4 months after the injection of toxin antitoxin. He states that 90 per cent are immunized by the injections and in this way it is possible to determine more accurately those giving positive and negative tests. This procedure agrees with Black(8) and Faegre and Anderson (19), the latter giving 6 months after the injections as the best time for the test.

Black (8) states that from 93 to 95 per cent who have been immunized for diphtheria keep their immunity through life. Frankel (25) points out that since the perfecting of toxin antitoxin the death rate in the U. S. Registration Area has dropped from 36.6 per 100,000 in 1900 - 1904 to 7.8 in 1925.

Of 118 Oregon children, 22 cases (19 per cent) had been inoculated for diphtheria.

According to Schultz (53), vaccination against typhoid has
helped in reducing the prevalence of it and he states that where water supply and general sanitation are not above suspicion that typhoid vaccination is an indispensable protection. Holt and Howland (33) in giving the relative frequency of typhoid at different ages in 970 cases, report 8 per cent occurring under 5 years, 42 per cent between 5 and 10 years and 50 per cent between 10 and 15 years. These data show that among the Oregon children 4 (3 per cent) out of 118 cases have had typhoid inoculation.

Nineteen cases (16 per cent) had received inoculation for scarlet fever. Faegre and Anderson (19) give 5 years as the highest point in susceptibility of scarlet fever, and state that one-half of the children exposed to it take it. This agrees with Holt and Howland, who state that over half the cases are in children between 3 and 8 years. Dick (17) emphasizes that artificial immunization through injection of the antitoxin is just as effective in protecting against subsequent attacks of scarlet fever as is the natural immunity acquired through having the disease, with its attendant dangers. She states further that the Dick test is invaluable in determining immunity.

Success in immunization of whooping cough through vaccines has not been as marked as in the above diseases, according to Schultz (53) and others. Feagre and Anderson (19), Holt and Howland (33) and Lucas (38) report the value of vaccine for immunity in whooping cough as debatable. The difficulty as pointed out, is the result of the fact that many different species exist among the bacteria, anyone of which may cause the disease. Holt and Howland state that inasmuch
as the vaccines are harmless, they may be used as a preventive in the case of young infants exposed. Frankel reports a vaccine used to shorten the course of whooping cough and to lessen its force as well as for prevention, but states that its value is still questioned. Lucas (38) states that in a large percentage of cases vaccine will prevent the development of the disease. Of the 118 cases reporting inoculation in these data 4 had had inoculation for whooping cough.

C. Infectious Diseases

The types of infectious diseases not common to childhood, according to Faegre and Anderson (19) include the eruptive fevers, (scarlet fever, measles, German measles, chicken pox and smallpox), whooping cough, mumps, diphtheria, infantile paralysis and the common cold. They agree with Holt and Howland (53) and Lucas (38) that infection takes place through inhalation of dust carrying the specific germ, or from dust upon the hands, most often through the mouth. They emphasize two important sources of infection; namely, the unrecognized case and "carriers."

The above authorities agree that whooping cough is one of the most dreaded of the infectious diseases, as it is one of the most fatal up to the age of 6 years and because of its principal complications; namely, broncho-pneumonia and convulsions. Holt and Howland (53) and Faegre and Anderson (19) state that one half of all whooping cough cases are in the first 2 years of life while Lucas estimates that 85 per cent of the cases are under 5 years. Thirty per cent (46 cases) of the Oregon children had had whooping cough. The mean age at which
it occurred was 2 years and 9 months and the range from 1 month to 5 years.

Twenty-seven per cent (42 cases) reported having had measles. The range in this case was from 2 months to 5 years, with a mean age of 2 years and 1 month. Lucas (38) and Holt and Howland (33) give this as one of the most infectious and indicate that except in early infancy the probabilities are that every child exposed to it will contract the disease. They agree that broncho-pneumonia is its most dangerous complication. These data show that 21 per cent (33 cases) of the Oregon children had had chicken pox.

Lucas (38) believes that a child should be protected from common colds as carefully as from any other infectious disease, since repeated colds undermine the resistance and open the doors to all sorts of serious infectious diseases. Roberts (49) states that the incidence of colds can be lessened "by building up the child's resistance to such infections through improved nutrition, which comes from better diet, more outdoor exercise, play and sleep."

Fifty-six per cent (84 cases) of the 149 Oregon cases reporting on the inquiry on colds, were troubled with colds and cough. Twenty-five per cent (24 cases) used Vick's Vapo Rub as a remedy, 15 per cent (15 cases) used camphorated oil and 10 per cent (10 cases) used Mentholatum. Other remedies used and their frequencies were laxative, 7; nose and throat sprays, 5; 3 each used soda, mustard plaster and analgesic balm; 2 each used pinex, cough syrup, nose drops, turpentine and argyrol; and 1 each of the following was used: pertussin,
fluids, hot lard packs, onion poultice, lard and kerosene, onion syrup and eucalyptus oil. Only one mother reported cod-liver oil as a remedy for colds.

The mean number of weeks since the last cold was 8.3, with a range from the time of interview to $1\frac{1}{2}$ years. Eighteen were reported as having colds at the time of the interview. Ninety-three per cent (104 cases) of the 112 cases had head colds, while in 40 per cent (45 cases) the cold was in the throat. There is some overlapping here as is to be expected.

The total sample report indicated that slightly over one-half of the 4 year olds were troubled with colds and coughs.

Other infectious diseases which the Oregon children had had and their frequencies were: scarlet fever, 3; German measles, 4; small pox, 2; mumps, 9; infantile paralysis, 1. Other sources of illness were found to be the following (with 1 case of each): pneumonia, tonsilitis, meningitis, ear complication, mastoid, bronchitis, influenza, hay fever and 2 cases of eczema.

Nineteen cases were reported as having been sick in bed from $\frac{1}{2}$ day to 1 month in the six months preceding the interview. The mean number of days in bed was 6.4.

Table 26 shows the frequency of inoculation and disease as reported among the Oregon children and the 4 year old children of the total sample.
Table 26
Showing Frequency of Inoculation and Disease in Oregon Sample as Compared to 4 Year Old Group in Total Sample

<table>
<thead>
<tr>
<th>Disease</th>
<th>Oregon</th>
<th></th>
<th>Oregon</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vaccinated or Having Had Disease</td>
<td>Vaccinated or Having Had Disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>--------</td>
<td>----------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>22 cases 19% 0 Cases 0%</td>
<td>33.8 % 1.5 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smallpox</td>
<td>33 22 2 1.6</td>
<td>26 .7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typhoid</td>
<td>4 3.3 0 0</td>
<td>5.7 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarlet Fever</td>
<td>19 16 3 2.5</td>
<td>1.8 4.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whooping Cough</td>
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<td>.2 37.5</td>
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<td>Colds</td>
<td>84 56</td>
<td>.2</td>
<td></td>
<td></td>
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<td>Measles</td>
<td>42 27</td>
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<td>Chicken Pox</td>
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</tr>
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<td>Infantile Paralysis</td>
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<td>Mumps</td>
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<tr>
<td>Pneumonia</td>
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<td></td>
</tr>
</tbody>
</table>

D. Dental Examination

Thirty-six per cent of the children had had their teeth examined by a dentist or a dental nurse. The mean length of time since this examination was 3.3 months. Authorities stress the importance of regular dental examinations. Lucas (38) states that the runabout child should be taken at least once in 3 months to a dentist for a cleansing and examining treatment. Faegre and Anderson (19) emphasize semi-annual visits to a dentist. Sullivan (58) gives 2 years as the proper
age for starting children's dentistry. Willett (70) points out that it is not uncommon to find cavities in teeth as early as 2 years, and according to him, dental inspection should begin with the eruption of the first tooth, this examination being to determine structural defects of the enamel surface.

E. Disturbances in the Digestive Tract

Authorities seem generally agreed that constipation is usually due, in otherwise healthy children, to improper diet and irregular habits. Twenty-three per cent (35 cases) of the Oregon children were troubled with constipation. Household remedies used in these cases with their frequencies were as follows: castor oil and enemas, 7 each; mineral oil, 5; castoria, 4; control of diet, 3; milk of magnesia and phenolax, 2 each and infant suppositories, cascara and catnip phenal, 1 each. Twelve per cent (19 cases) had been bothered with colic and indigestion. The following household remedies were used: in 3 cases each, soda and peppermint; in 2 cases each, milk of magnesia, castoria, an enema and a hot water bottle; and in 1 case each, warm vinegar packs, asafetida, suppositories, cough syrup, vapo rub, castor oil and cascara.

The report of the total sample is comparable. Approximately one-fifth of the 4 year old children were reported as being troubled with constipation, while one-eighth were troubled with colic and indigestion.

F. Handedness

According to Fenton (20), a baby's early preference for one
hand or the other contains no implication of his later established habit in the use of the right or left hand. She emphasizes the fact that to change the natural inclination toward the use of the left hand "has been found to have a tendency to disturb the nervous balance in various ways, particularly in the delay of speech development and the increase of the liability to speech defects." Watson (67) writes "the results of all our tests of this nature, (for handedness), extending from the age of 150 days to one year, show no steady and uniform handedness. Some days the right is used more often, some days the left. The main problem is, I believe, settled: handedness is not an "instinct". It is socially conditioned. But why we have 5 per cent of out and out left handers and from 10 to 15 per cent who are mixtures, e.g., using right hand to throw a ball, write or eat, but the left hand to guide an axe or hoe, etc., is not known."

In a study of 49 preschool children to bring the observations concerning the handedness type and the sighting eye of the preschool child into connection with results for Test 1 in the Stanford Binet six-year level, the test of the child's ability to discriminate right from left by showing the examiner his right hand, left ear and right eye, Downey (18) found the same dextrality types for the children as for adults, although a slightly larger per centage of unstable reactions were found in the case of the children. She says that an intelligent child learns to handle the right-left distinction by indirect means, and, if unable to master it in terms of the greater kinesthetic readiness of one hand or the other, has recourse to visual or verbal tags.
She believes that dextrality types are bound up with certain differences in intelligence and also with sex differences. Gesell (26) places the showing of hand preference in reaching at the 1 year level. According to Inskipp (34), some children show a decided tendency during the first few years after birth, to use one or the other hand rather exclusively, but the majority are ambidextrous until they are 3 or 4 years of age.

Eighty-two per cent (124 cases) of the Oregon children were reported as being right-handed; 6 per cent (9 cases) were left handed; while 11 per cent (17 cases) used both the right and the left hand. No attempt was made, in the 9 left-handed cases, to change to right handedness. There was no report made on handedness in the 4 year old children in the total sample.

VI. Methods of Control:

These data show that 6 per cent (9 cases) of the Oregon children were never punished; 4 per cent of these were girls and 2 per cent boys. Eighty per cent of both sexes were punished by both the mother and father, 17 per cent in each case were by the mother only and 1 per cent of the girls were by the father only. Table 27 compares these results with the total sample, in which there is evidence of a greater per centage of girls punished by the mother only.

(Table 27 on following page)
Table 27

Comparison of Oregon Study and Total Sample as to Administration of Punishment

<table>
<thead>
<tr>
<th>By Whom Punished</th>
<th>Oregon Boys</th>
<th>Oregon Girls</th>
<th>Total Boys</th>
<th>Total Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of Cases Per Cent</td>
<td>No. Cases Per Cent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother Only</td>
<td>11</td>
<td>17.0</td>
<td>14</td>
<td>17.0</td>
</tr>
<tr>
<td>Father Only</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Both</td>
<td>51</td>
<td>80</td>
<td>66</td>
<td>80</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td></td>
<td>83</td>
<td></td>
</tr>
</tbody>
</table>

The number of spankings for the month preceding the time of interview ranged from 0 to 30. The mean number of spankings for the preceding month was 6. Little difference was noted between the sexes. Among the boys 30 per cent (16 cases) had not been spanked during this period, 19 per cent (10 cases) had once; 7 per cent, (4 cases), twice; 7 per cent (4 cases), three times; 9 per cent (5 cases) had 4 times; and 30 per cent (15 cases) had 5 times or more. Among the girls 27 per cent (19 cases) had not been spanked once; 15 per cent (11 cases), once; 17 per cent (12 cases), twice; 7 per cent (6 cases) each 3 and 4 times; and 25 per cent, more than 5. Table 28 shows comparative per centages of spankings from these data as compared to total sample.

(Table 28 on following page)
Table 28

Comparative Percentages of Spankings in Oregon Sample and Total Sample

<table>
<thead>
<tr>
<th>Number of Spankings</th>
<th>Oregon Boys</th>
<th>Oregon Girls</th>
<th>Total Boys</th>
<th>Total Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>30%</td>
<td>27%</td>
<td>29.3%</td>
<td>27.7%</td>
</tr>
<tr>
<td>1</td>
<td>19</td>
<td>15</td>
<td>11.2%</td>
<td>15.9%</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>17</td>
<td>12.2%</td>
<td>13.0%</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>7</td>
<td>9.2%</td>
<td>12.3%</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>7</td>
<td>.1%</td>
<td>6.4%</td>
</tr>
<tr>
<td>5 or more</td>
<td>30</td>
<td>25</td>
<td>27.0%</td>
<td>24.6%</td>
</tr>
</tbody>
</table>

From these data, one can assume that spanking is generally used as a method of control. Authorities do not agree on corporal punishment as a disciplinary method. Watson (67) believes that spanking usually serves as an emotional outlet for the angry parent and gives as the only legitimate reason for spanking, "to set up a negative reaction in the child; that is, to get the child, for example, to let an object alone or to move back from an object." The spanking, he continues, "should be indelibly associated in the child's mind with the act committed." Spanking persists because it is an easy way for adults to force their will upon children, according to Groves (29). In his opinion, "it alienates the child, challenges his loyalty, and if much repeated leads the child to dread the punishment rather than the wrong doing." Thom (61) believes that "corporal punishment might be eliminated as a disciplinary measure without great loss." He states
that the great majority of children are quite indifferent to this type of punishment. If corporal punishment is to be effective, it must necessarily be painful, and if it is to be a motive for deterring the erring child from repeating some undesirable act, its severity has to be out of proportion to what the misdemeanor actually calls for.

Gruenberg (27) believes that deliberate resort to corporal punishment for the purpose of correcting a fault or as a measure of discipline should be ruled out. In her opinion, it reaches the child on the lowest level possible, that of vindictiveness or retaliation, or that of physical pain, and is a violation of the child's personality. On the other hand, Hollingworth (30) believes that most children require a spanking occasionally, but emphasizes that a parent should never spank while he himself is emotionally upset. Further, that "all spanking should be done before the age of reflective memory, when emotional experience functions without resentment." She indicates this age as 3 years, but adds that the average child may be spanked until 6 or 7 years without disaster to self-feeling, but if spankings are to be effective, they must be infrequent. Blanton and Blanton (9) say that if given, physical punishment should be sharp, short and used for the purpose of giving a conditioned response. Physical, as well as psychological, punishment must be aimed to control a distinct situation; it must be adequate, immediate and on the occasion of the first offense known to be an offense. They believe that in a normal child physical punishment should not be given before the second year, nor after the eighth, but that this will vary with the type and intelligence of the
child. Blatz and Bott (10) are of the opinion that corporal punishment is a complicating and arbitrary method of control and state that it is a mere expression of failure on the part of the parent.

Reasons for the administering of spankings in 92 cases in these data were as follows: disobedience, 42 cases (46 per cent); running away, 12 cases (13 per cent); impudence, 10 cases (11 per cent); obstinance, 9 cases (10 per cent); 3 cases each of wetting clothes, naughtiness, getting into things; 2 each for temper, tantrums, crying, fighting and 1 each for swearing, spilling milk, lying and teasing.

Methods used in control other than physical punishment, show that parents use several methods, as there is a great deal of overlapping in the following figures. Reasoning was used in 92 cases (69 per cent); scolding in 56 cases (35 per cent); ignoring, 37 cases (23 per cent); deprivation of pleasure, 43 cases (27 per cent); putting to bed, 29 cases (12 per cent), putting the child on a chair in a corner, 40 cases (25 per cent); comparing unfavorably to another in 6 cases (3 per cent). Other methods given, including 8 cases (5 per cent) were slapping, tying to a chair and mother's feelings hurt. Table 29 shows the comparison of the Oregon figures with those for the total sample. Evidently Oregon parents scold about three-fourths as often; put to bed as punishment less than one-half as often; compare unfavorably with another about one-third as often; put on a chair for punishment about two-thirds as often as do the parents represented in the total sample. Also, Oregon parents deprive of pleasure four-fifths as often and
reason only about three-fourths as much. The last two methods are probably the most desirable of those mentioned in this list.

<table>
<thead>
<tr>
<th>Method of Punishing</th>
<th>Per Cent in Oregon Sample</th>
<th>Per Cent in Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignoring</td>
<td>23.0</td>
<td>21.8</td>
</tr>
<tr>
<td>Scolding</td>
<td>35.0</td>
<td>51.9</td>
</tr>
<tr>
<td>Reasoning</td>
<td>59.0</td>
<td>77.3</td>
</tr>
<tr>
<td>Deprivation of Pleasure</td>
<td>27.0</td>
<td>34.1</td>
</tr>
<tr>
<td>Putting to Bed</td>
<td>12.0</td>
<td>28.0</td>
</tr>
<tr>
<td>Comparing</td>
<td>3.0</td>
<td>9.4</td>
</tr>
<tr>
<td>Putting on chair</td>
<td>25.0</td>
<td>33.9</td>
</tr>
<tr>
<td>Other</td>
<td>5.0</td>
<td>6.0</td>
</tr>
</tbody>
</table>

According to Blanton and Blanton (9), who describe these methods as acute psychological, they have the advantage over physical control, in that they do not involve actual pain and do not establish feelings of revolt and anger. They state further that prolonged psychological control, pouting or withdrawal of approval and companionship, is one of the most distinctive elements in home training. Meek (42) believes that one of the greatest obstacles in the mental and emotional development of children is the exercise of parental authority, the demand of parents for unquestioning obedience. She states that democracy
in the home, toys, play space and activities in line with the needs of the child are all factors in securing obedience. Thom (62) indicates that disobedience is due largely to the standards and requirements of the environment and the attitude of those in authority. Further, that a few well thought out commands should be given with an attitude of expecting obedience. Reynolds (47) in a study of 250 preschool children found that the important reasons for negativism were due to a lack of understanding on the part of parents, the natural curiosity of children, tendency to hurry children, to have them show off and the fact that parents constantly interrupt what they are doing. He believes that parents usually think of obedience as the immediate and proper response to their commands, and are prone to overlook or forget the impulses arising in the child which demand attention and which the child is called upon to obey. The results of a study of preschool children at the University of Chicago points out, according to Vaughn (63) that parents will be more successful in securing obedience, if "they do not issue commands, do not build up a discipline based on fear, threat and physical punishment, - that more is to be gained by treating the child as reasonable human beings."

VII. Emotional Life:

According to Blatz and Bott (11), from the standpoint of training the emotions, "no period in life is more important than the preschool period when the child is first rapidly broadening his environmental contacts and developing his characteristic self-tendencies. It is therefore not surprising if the child of 2 to 3 years shows a suscep-
tibility to emotion which is only rivaled by that of the adolescent period." Arlitt (3) gives this as the age "when anger, tantrums, stubbornness, negativism and a host of other mechanisms are acquired to thwart adults and overcome inhibitions and desires." The first emotional crisis occurs at 3 years, the next at 6 and the next at 9, according to Buseman (15). Watson (66), in studying several infants, found 3 inborn emotions, - fear, rage and love, and believes that all others are developed through conditioning. Sherman (57) says that the infant as old as six months does not show typical forms of behavior which can be characterized as definite emotions; the emotions develop, as a result of experience, as specific patterns of response. Fenton (20) states that the child who is so handled in infancy that "he has little opportunity and no encouragement to develop habits of fear, rage, jealousy and who at the same time is definitely conditioned toward cheerfulness, friendliness, interest and curiosity will be the emotionally controlled adult. His emotions are disciplined, in the primary sense of training and will consequently not require discipline in the secondary sense of punishment, thwarting and compulsion."

A. Fear

The preschool period is the most prolific of all periods for fear, according to Gesell (26), who believes that fears are conditioned as well as inborn and multiply and show great variety as the child gets older. He reports the most common fear discovered in a survey of preschool children to be loud noises, strange persons, animals, fire and the dark. Preyer (45) found that the time for the appearance of fear
in children is dependent upon the treatment the child has received. When fear stimuli are not presented, he says the time for this reaction is greatly delayed. The number of fears of children increase with the increase in age as the result of two factors; namely, greater insight into unusual conditions and conditioning, according to Jones (35). She states that fears are best brought out by strange objects, and by sudden noise. Watson (67), in a study of 3 infants, concluded that the common fears of animals, of the dark or other objects are due to the conditioning of infants or children to these objects rather than to an inborn fear. Valentine (64) feels that Watson's experiments establishing conditioned fears in an infant at 11 months do not disprove the existence of innate fear tendencies, for the maturing of some of the fears seem to take place only towards the end of the second year. Thom (62) states that it is doubtful if children have any inherent fears at birth. Fears, he says, are produced by some experience through which the individual has had to pass early in life. Burnham (14) gives as the primary cause of fear, a violent change of stimulation. In the mental field, he states, the most effective inhibition of fear is knowledge of facts that show the fear to be groundless. Arlitt (3) gives 5 ways in which, in her opinion, fears are developed: (1) by direct conditioning; (2) by transference of a fear state aroused in a situation to a similar object or situation; (3) by verbal associations such as warnings; (4) by imitation, and (5) as a means of control. Fenton (20) places noise as the first source of fears, which is really more a jar to the nervous system. Later the unfamiliar in itself be-
comes terrifying. She states that a fear should be removed by definitely creating pleasant associations to replace it. According to Blatz and Bott (11), the sensory stimuli of sight, taste and smell seem less provocative of fears in children than those of sound or touch; although, they state, the former may become emotionally affective through association. They quote the work of Jones in the unconditioning of fears. Her methods and results were as follows: (1) disuse, - little value, (2) verbal organization, - proved ineffective, (3) frequent presentation or familiarizing, - served to intensify rather than to dispel the fear, (4) social factors as ridicule, - led only to repression of outward manifestations, (5) distraction, - ineffective, (6) social imitation, - had some effect, (7) gradual building up of a pleasant association in connection with the object feared, - most successful.

Among the Oregon children 42 per cent (63 cases) were reported as not fearing anything. Twenty-eight per cent (43 cases) had shown fear of dogs; 13 per cent (20 cases) of the dark; 1 per cent (2 cases) of storms and 9 per cent (13 cases) of strangers. Sixteen per cent (24 cases) had shown fear of other objects which included noises, vacuum cleaner, trains, trucks, worms and insects, balloon, policeman, horses, water and in 1 case, a new bed. Since the total sample showed no significant difference between the sexes as to fears shown, sex differences were not determined for the Oregon sample.

To the question on methods used in removing fears there were only 86 responses. Of these 27 per cent (24 cases) did nothing to remove the fear; 8 per cent (7 cases) used soothing; 20 per cent (18 cases)
used diverting the attention and in 59 per cent (51 cases) the situation was explained. In 1 case, prayer was used. Some difference is noted in this and the total sample as shown in Table 30.

<table>
<thead>
<tr>
<th>Method Used</th>
<th>Oregon Sample</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing</td>
<td>27.0%</td>
<td>17.1%</td>
</tr>
<tr>
<td>Soothing</td>
<td>8.0</td>
<td>18.9</td>
</tr>
<tr>
<td>Attention Diverted</td>
<td>20.0</td>
<td>14.6</td>
</tr>
<tr>
<td>Situation Explained</td>
<td>59.0</td>
<td>57.4</td>
</tr>
<tr>
<td>Other</td>
<td>.1</td>
<td>4.9</td>
</tr>
</tbody>
</table>

B. Anger

Arlitt (3) indicates the difference in fear and anger: the attitude in fear is to shrink back, to hide, to run away, etc., while in anger it is to strike. The infant experiences anger a few hours after birth. Arlitt emphasizes that anger is aroused by anything that thwarts the individual, as obstruction of movement. According to Fenton (20), the particular situations which will arouse rage other than this primitive one of thwarting, will depend largely on the training and environment of the child. Accordingly, the baby whose life affords few opportunities or incentives to rage will have a better chance to develop a good disposition than one in whom anger is allowed to become a habit. She suggests a regular schedule for the child with
every precaution against tantalizing and teasing. The aim in her opinion should be "not to bring up the child who shall never get angry, but one who will be angered by the right things." Watson (67) states that any child from birth can be thrown into a rage if its arms are held tightly to its sides; sometimes even if the elbow joint is clasped between the fingers, the response appears. He classes anger as one of the 3 inborn emotions. Negativism, resistance and sulkiness are less dramatic, though more pervasive forms of anger, according to Blatz and Bott (11). These are common manifestations in children of 2 or 3 years "who are feeling keenly the urge to independent behavior, but who have not yet developed the capacity to accomplish those things which they are unable to envisage." They state that temper tantrums are a normal form of anger reactions in the young child. Thom (61) states that anger is "frequently stimulated when any of the instinctive tendencies are thwarted or obstructed."

Out of 123 cases responding to the question on anger, 40 per cent (60 cases) became angry on not having own way; 31 per cent (38 cases) because of teasing; 11 per cent (14 cases) when things were taken away from the child. Other situations given as causes for anger included when scolded, when put to bed, when falls down, when father leaves, when sister dictates, when dressing and when washing face. In 8 cases no one thing caused anger and in 3 cases the child never became angry.

C. Affection and Jealousy

Faegre and Anderson (19) emphasize the importance of developing the affections of children along normal lines leading to contentment.
The mother naturally becomes the first object of the child's affections due to her care that surrounds him. These authors point out "that adjustments to prevent unhappiness from too great dependence on one individual for affection should begin early in childhood." According to Groves (29), the child does not react the same to both parents. "The child," he says, "distinguishes between the mother and father in such a way that his behavior is slightly modified because of his recognition that they are in some sense different and demand from him different treatments." The development of affections in children begins with a fixation upon the mother, and as Groves states, lasts until about the age of 6 years with girls and 8 years with boys. Richardson (48) points out the danger of too much "coddling" of the son by the mother and states that the opposite danger, that of too great coddling of a boy by his father is not apt to occur, but that it frequently occurs with father and daughter, "sometimes even to the point of unwise indulgence in physical caresses." Watson (67) believes there is no instinctive love of the child for his parents, that the love response is brought about through touching and stroking the skin. The petting and stroking of the skin by the mother, he feels, is the explanation of the child's joyous reaction to the sounds of the mother's voice.

There were 144 responses to the inquiry on the child's favorite in the home. In 27 per cent (39 cases) of these the mother was the favorite, in 13 per cent (28 cases) the father was the favorite, and in 46 per cent (66 cases) there was no favorite. Among the girls, 26 per cent (21 cases) showed the mother to be the favorite, 20 per cent
(16 cases), the father; 44 per cent (40 cases), no favorite and 6 per cent (5 cases), the sister. Among the boys, the mother was the favorite in 31 per cent (19 cases); the father in 21 per cent (13 cases); there was no favorite in 39 per cent (24 cases); the brother in 6 per cent (5 cases) and in 1 case only, the sister. Table 31 compares the results from this question in the Oregon sample with those from the total sample.

Table 31

<table>
<thead>
<tr>
<th></th>
<th>Oregon Sample</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>No favorite</td>
<td>39.0 %</td>
<td>44 %</td>
</tr>
<tr>
<td>Mother</td>
<td>31</td>
<td>26</td>
</tr>
<tr>
<td>Father</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>Brother</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Sister</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

Jealousy is not an inheritance, according to Thom (61), but is the result of selfishness which in turn means faulty training. He believes that jealousy is a normal reaction, common to most children between the ages of 1 and 5 years. Much of the ill feeling in family relationships is the outgrowth of early jealousies. Jealousy is the basis of much conduct that is described as queer, eccentric or peculiar and the jealous child is frequently unhappy and fretful, giving and getting little out of life. Thom points out the common causes of
jealousy in children as, the arrival of the new baby, affection between parents and the constant praise of other children. Faegre and Anderson (19) agree with these and add to this list of common causes unwise praise or comments from outsiders and the fact that many times parents expect too much of one member of the family, often the oldest child. They consider jealousy as one of the morbid manifestations of affection. According to Watson (67), jealousy is a bit of behavior that is a conditioned love stimulus. In an observation of 9 children to determine home factors leading to the emotional conditioning of children, he concluded that jealous behavior was called out in the following situations: (1) parents embraced each other; (2) when parents playfully attacked each other, and (3) when a younger child is born into the family. Arlitt (3) is of the opinion that jealousy in the young child is all too frequently produced by the behavior of the adults toward him, - that adults suggest the reaction of jealousy toward the new child or toward one or both of his parents. She indicates that reconditioning involves both a change in the factors which have produced the jealousy, and new interests and activities as a substitute for the behavior which it has caused. Fenton (20) suggests that since jealousy is a subtle form of flattery, it is not unnatural that parents should be pleased by its manifestations in a child. She believes that caresses are often deliberately and teasingly bestowed on others in order to arouse a jealous response in a baby. The child learns that his jealousy is pleasing to others and accordingly becomes adept at the performance finding that it serves to attract attention to himself and to get him
what he wants. According to Richardson (48), there is a definite element of jealousy operative in the reaction of father and son toward the object of their common affection, - the wife and mother. He suggests that parents should exercise the greatest care in showing their affection for one another. Groves (29) points out that jealousy shows itself frequently and clearly in early childhood and is expressed when a relationship of affection appears to be threatened by some other association.

According to Blatz and Bott (12) jealousy is a mixed emotion in which love and anger mingle. Jealousy and feelings of inferiority are characteristic non-adaptive reactions within the family circle. They add that the basic emotions seem to be relatively pure in infants, the more complex emotional states such as embarrassment, pride, jealousy, etc., not appearing until later. To quote from the 28th Year Book (75), "It has been stated that various social instincts appear in the child's behavior at different ages. For example, it is said that at 5 years of age, love of emulation is evident, that disobedience increases, and that the child is still selfish; while at the 6th year, jealousy, emulation, efforts at attention are strong."

As a result of a study of the personality make-up of 50 jealous children, Foster (23) feels that "jealousy is not an inborn trait, but is in general the product of the environmental situation in which it is the child's misfortune to be placed. It may be that in some instances there is an inherent tendency toward a neurotic make-up which makes it easier for a given environment to arouse jealousy." She says further that between the age of 1 and 5
jealousy is probably a normal thing. Frequently the passing jealousy may, through accidental or deliberate fostering, become fixed, and if so the child is headed for difficulty; for this reason it is most important that the first indications of jealousy should be handled quickly and wisely. Further conclusions from this study show that the "jealous child is more often a girl between 3 and 4, frequently the oldest child. In make-up she is likely to be independent and selfish, pugnacious, demanding attention and resorting to various means to obtain it. Often she shows undue attachment to one parent and is subject to mild neurotic fears. She is seldom a daydreamer, is frequently troubled by disturbances, food capriciousness, and enuresis, often destructive and hyperactive, leading playmates in some instances with play opportunities generally limited and little chance for social relationships." Blatz and Bott (12) feel that jealousy is perhaps the commonest of the personality difficulties in precipitating crises of bed-wetting.

Among the Oregon children 61 per cent (57 cases) of the girls and 56 per cent (39 cases) of the boys showed no evidence of jealousy. This large percentage is comparable to the findings of the total sample in which 64.6 per cent of the girls and 60.2 per cent of the boys did not show jealousy. These large percentages are probably questionable, and may be due to the fact that the mother does not recognize jealousy in the child.

Four per cent (4 cases) of the girls and 3 per cent (2 cases) of the boys were jealous when affection is shown by the mother to the
father; 8 per cent (8 cases) of the girls and 14 per cent (10 cases) of the boys were jealous when affection was shown by the father to the mother; 11 per cent (10 cases) of the girls and 14 per cent of the boys were jealous when the mother showed affection to other children; 9 per cent (8 cases) of the girls and 6 per cent (4 cases) of the boys were jealous when the father showed affection to other children; 7 per cent of the girls (7 cases) and the same percentage of boys (5 cases) did not show jealousy on these occasions, but did at other times. Table 32 shows a comparison of jealousy in the Oregon children and the 4 year olds of the total sample.

<table>
<thead>
<tr>
<th>Jealous When Affection Shown</th>
<th>Oregon Girls</th>
<th>Oregon Boys</th>
<th>4 Year Olds of Total Sample Girls</th>
<th>4 Year Olds of Total Sample Boys</th>
</tr>
</thead>
<tbody>
<tr>
<td>By mother to father</td>
<td>4%</td>
<td>3%</td>
<td>6.9%</td>
<td>5.8%</td>
</tr>
<tr>
<td>By father to mother</td>
<td>9</td>
<td>14</td>
<td>7.6</td>
<td>7.3</td>
</tr>
<tr>
<td>By mother to other children</td>
<td>11</td>
<td>14</td>
<td>16.3</td>
<td>17.1</td>
</tr>
<tr>
<td>By father to other children</td>
<td>9</td>
<td>6</td>
<td>11.2</td>
<td>8.8</td>
</tr>
<tr>
<td>Other occasions</td>
<td>7</td>
<td>7</td>
<td>6.9</td>
<td>6.9</td>
</tr>
</tbody>
</table>

Of the 150 cases responding to the inquiry on what the most annoying thing is that the child does, 11 were reported as doing nothing annoying. The numerous responses are given in the following tabulation, by age and as reported.
# Table 33

The Most Annoying Thing the Child Does, Listed as Reported in the Sample and by Age Groups

<table>
<thead>
<tr>
<th></th>
<th>1 Year Old</th>
<th>2 Year Old</th>
<th>3 Year Old</th>
<th>4 Year Old</th>
<th>5 Year Old</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting into</td>
<td>Nothing special (5)</td>
<td>Nothing special (2)</td>
<td>Stubborn (4)</td>
<td>Teases (5)</td>
<td></td>
</tr>
<tr>
<td>things</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nothing</td>
<td>Getting into</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tempt tantrums</td>
<td>things (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noisy</td>
<td>Spitting (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negativism</td>
<td>Teasing (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Won't go to sleep</td>
<td>Stamping feet (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Throwing things</td>
<td>Says &quot;No&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>out window</td>
<td>Refuses to sleep</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Scratchy</td>
<td>Prolonging meals</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Running away</td>
<td>Demands attention</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Picking up things</td>
<td>Throws covers from</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Puts things in</td>
<td>bad</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Window</td>
<td>Pours out milk</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Sits on floor when</td>
<td>Putting things in</td>
<td></td>
<td></td>
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<tr>
<td>Angry</td>
<td>mouth</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Sprinkles water on</td>
<td>Does not mind</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>himself</td>
<td>Annoys at meals</td>
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<td></td>
<td>Does not come when</td>
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<td></td>
<td>called</td>
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<td></td>
<td>Tears magazines</td>
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<tr>
<td></td>
<td>Gets peeved</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>Squeals</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Naughty</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Screaming when he</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>does not get own way</td>
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<td></td>
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<tr>
<td></td>
<td>Too active</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>Wetting panties</td>
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</tbody>
</table>

(Note: Where the frequency was more than one, the number is indicated in parenthesis)
VIII. Intellectual Life:

These data show that 44 per cent (56 cases) of the Oregon children have a favorite book or story. Of these, fairy stories appear to have preference. The following were given as favorites: The Three Bears (12), Mother Goose (8), Red Riding Hood (1), Jack and the Bean Stalk (1), Raggedy Ann (1), Peter Rabbit (1), The Cock, the Mouse and the Little Red Hen (1), Cuddle Bear (1), Grandfather Possum (1), Little Black Sambo (1), Watermelon Pete (1), Animal stories (2), Burgess Bed Time stories (2), Winnie the Pooh (1), Book House and Wonder Books (1), Life of the Chinese (1). Robert L. Stevenson and Olive Miller were the only authors mentioned as favorites.

In 32 per cent of the cases (49), the Oregon children were read or told stories by the mother on the day preceding the interview, and in 27 cases (20 per cent) stories had been read or told by the father. Thirteen per cent (21 cases) had been read to by both the mother and father while 56 per cent had not been read or told stories by either parent on that day. This is comparable to the results from the total sample which show that in one-fifth of the cases, both the father and mother had told or read stories, and in over half the cases neither the father nor the mother had told or read a story on the preceding day. The number of fathers telling or reading stories was higher in the Oregon sample than in the total, which showed a negligible number.

Four per cent (5 cases) of the Oregon children had learned or were learning to write; 72 per cent (82 cases) had learned or were
learning to count; 71 per cent (80 cases) were learning or had learned rhymes; 59 per cent (67 cases) had learned or were learning prayers; 54 per cent (61 cases) had learned or were learning songs; 17 per cent (19 cases) had learned or were learning the alphabet, while 4 per cent (5 cases) were learning other things and 3 per cent (4 cases) had learned or were learning all of the above categories. The total sample showed that 98 per cent of the children had given evidence of learning 5 or more. This is much higher than the Oregon sample, which showed 9 per cent (10 cases) as having learned or in the process of learning 5 or more. This great difference is no doubt due to the fact that the report from the total sample embraces only 4 year olds, while the Oregon figures are for the complete range of 1 to 5 years. Thirty-three per cent (37 cases) of the Oregon children had learned or were learning 4 or more of the above categories.

Twenty-three per cent (31 cases) of the Oregon children had asked where babies come from. The report of the 4 year olds in the total sample showed 6.9 per cent. The mean age of the Oregon children (29 cases) who had asked this question was 4 years, the range being between 3 and 5 years. Eleven of these had asked at 3 years; 14 had asked at 4 years and 3 at 5 years. The report from the total sample shows that about one-third had asked the question between 3 and 4, and two-thirds, between 4 and 5 years. The Oregon sample shows that in 22 of these cases, or approximately two-thirds, the question was answered. As evidenced from the following answer given to this question it can be concluded that these parents were not well prepared to contribute to the
child's education in this way. Answers and frequencies were as follows: babies come from heaven or from God (5); from the hospital (1); brought by grandmother (1); by doctor (1); by the stork (1); and in 3 cases no real answer was given. In 2 the child was told to wait for his reply.

Blatz and Bott (11) write, "as far as we have been able to discover from inquiries in parent education groups the questions that children first ask about sex are: "Why are little boys different from little girls" and "where do babies come from."

These two questions are almost sure to be asked in the preschool period,- often as early as the third year. If they have not been asked by the time the child is 5 years old, it is probably wise for the mother to make occasion herself to introduce the matter with the child." They say that these questions should be answered quite briefly and simply. The little child should learn what he wishes to know from both mother and father, the natural sources for such teaching. Blanton and Blanton (9) feel that the time to give sex information is before the child questions about it, rather than after. They say that when the child questions, his emotions concerning sex have very probably already been somewhat aroused; that sex information can be given and received as is any other casual piece of information; therefore complete information as to the function of both sexes should be given as soon as the child has the intellectual capacity to understand it. They add, "if the child asks a question and is given little information, then questions again and is given more information, the habit is being established in him of thinking all the time about sex. If he is told as quickly and completely as
possible as much of the process as he is capable of understanding, then
when the emotions come, they will be built up around the correct infor-
mation."

According to Gruenberg (28), it is utterly impossible to keep the normal child from asking this question. He emphasizes the necessity of answering truthfully and of telling the child all he wants to know at the moment. He states further that if an alternative is used, "it will drive the child to sources of information that cannot be approved, will force a vocabulary that is of necessity vulgar, or ribald, and will develop in him an attitude in which sex occupies a degraded or debasing role." Lowry (37) believes that before the child's questions of sex can be answered adequately, that the parents' attitude must be an objective and an unemotional one toward sex itself. The child's questions should be answered frankly and honestly, but he suggests that one go no further than the question demands. Thom (61) suggests that the parent must free himself from self consciousness when this subject is mentioned. He states that "clear, frank answers suited to the child's intelligence and development will satisfy his interest for the moment; whereas emphasizing the matter by "hushing" the child up and telling him it is "naughty" to talk of such things will make him only the more determined to find out why and what it is all about. He feels that telling the child fanciful tales about the stork, the doctor, etc., are an insult to his intelligence.

IX. Social Life:

Dewey in his philosophical theory states that "we are, by
reason of those about us." Authorities agree that the physical, mental and social development of children gained through their contacts in play with other children as well as their environment are extremely important. Cleveland (16) states, "granting that the child develops his standards of conduct out of contacts with his group, it seems to follow that he should early spend at least part of his time in a group of his peers, whose purposes, abilities and limitations are similar to his own, rather than all of his time in the family group with its varying ages and interests." Faegre and Anderson (19) point out that "it was formerly thought that very young children did not enjoy or profit by companionship with children of their own age. Experience in the nursery school has shown this to be not entirely true." While the child is not interested primarily in group play or group activities, he can learn to accept group standards, he can learn habits of sharing, of taking turns, of taking hard knocks without undue resentment. .......
The little child is also happier and freer from strain when he is with children of like age and development." Thom (61) gives two years as the age when the child begins to take notice of other small children. He says, "the child up to two responds very little to children of his own age. He is busy learning from adults or from considerably older children or from the marvelous world about him. ....... From two on, he should spend the greater portion of his playtime with children of his own age or a little older, and a smaller proportion with children either a little younger or considerably older. There is too great a strain on a young child from the effort to keep up with more advanced companions,
a small amount of this is a valuable stimulus. It is from the time he is 3 years old that it is well to let him spend more time with younger children in proportion as he learns self control, generosity, helpfulness, sympathy, kindliness and other companionable qualities."

In the opinion of Blatz and Bott (11), social contacts with other children are the most stimulating interests in a child of 2 years, and while the two-year old shows little direct response to social stimulation, he fits in with a group of children with less friction and upset than does an older child. According to them, "the 2 year old, though solitary in play, shows by his imitative behavior that he is influenced by the older children; 3 year olds in contrast, play together, building, riding on the seesaw, etc. They exhibit at least a rudimentary sort of team play with some differentiation of function. Cooperation is the key-word to describe their play. With the 4 year olds, still more marked distinctions appear, definite leadership trends develop, and fairly large and permanent groups form, usually with one older child directing and dominating the activities of several younger ones. Our insistence on the importance of early social experience both in situations of age, equality and of inequality, will not seem overdone when one recognizes that basic personality traits are being developed in these first encounters with one's fellows."

According to Arlitt (3) there are few instances of group cooperation in children under 3 years of age, though dramatic play of a simple sort which involves 2, or even 3 children is not unusual. She states further that "one of the advantages of placing children in a
nursery group is found in the fact that each child has developed a vocabulary of activities, some of which have not yet been acquired by others in the group. ... The models set by children of the same age and of the same relative stage in the development of muscular coordinations are much more easily copied than are the same activities as presented by adults." Blanton and Blanton (9) feel that the normal child will tend to be extremely fond of companionship and to have very little, if any, resource for amusing himself. They say that to be socially adequate a person should be popular with people of his own age and type. A child will find his own level and very often children with marked intelligence, aggressiveness and inventiveness will select companions who to the eye of the parent are not socially desirable, but who have the same traits as the child. Baldwin and Stecker (6) believe that early participation in group play can do much to correct unfortunate temperamental traits and to develop desirable social qualities. The study of normal, as well as of abnormal, psychology shows that the earlier a child makes its social contacts and feels itself an integral part of a community the easier does its adjustment come to the requirements of adult life. One of the most striking differences between the 2 and the 5 year old, according to Foster and Mattson (24) is in their attitude toward other children. With the 2 year old, although he is interested in other children, play is in the main solitary and he seldom gets the idea of competition. To the 5 year old, the group has become of great importance and he will take keen interest in competition for awhile at least. Rand, Sweeney and Vincent (46) say that if con-
contacts have been sufficiently varied, the child will begin to direct his affection and interest toward other children before he is 3 years old. They say further that at 5 years his contacts with other children begin to assume the appearance of the "group interest". According to them, "children from a few months of age enjoy being with or near other children. They recognize or notice each other for awhile but this novelty of another child wears off quickly and the play becomes individualistic. From 18 months to 2 years the child continues to be absorbed in this type of play, but is more influenced by the presence of another child. At 3 to 4 years the "shifting group" is conspicuous. Under this arrangement a fairly loosely organized game may grow up lasting throughout a whole morning or even for several days, entertaining the activity of a number of children, but depending upon the presence of no particular child."

The Oregon sample showed that all but 1 of the 14 cases of 1 year olds reporting were restricted to the home yard when unsupervised and in the case of this one to the home. Thirty-seven 2 year olds were reported, showing that 8 per cent (3 cases) were restricted to the home; 70 per cent (26 cases) to the home yard; 11 per cent (4 cases) to the block; 3 per cent (1 case) to the neighbor's yards, and 8 per cent (3 cases) were not restricted. None of the 3 year olds reported were restricted to the home. Sixty-seven per cent (20 cases) were restricted to their home yards; 17 per cent (4 cases) to the block; 13 per cent (4 cases) to the neighbor's yard and 3 per cent (1 case) were not restricted. Only 1 (3 per cent) of the 28 four year olds re-
ported was restricted to the home. Thirty-five per cent (10 cases) were restricted to the home yard; 46 per cent (12 cases) to the block; 7 per cent (2 cases) to the neighbors' yards and 1 case (3 per cent) was not restricted. None of the 5 year olds were restricted to the home; 24 per cent (11 cases) were restricted to the home yard; 29 per cent (12 cases) to the block; 19 per cent (8 cases) to neighbors' yards and 3 cases (7 per cent) were not restricted.

Two-thirds (10 cases) of the one year olds played with other children in the home and 13 per cent (2 cases) played with them elsewhere. Seventy-nine per cent (34 cases) of the 2 year olds played with other children in the home, while 65 per cent (28 cases) had playmates elsewhere. Of the 3 year olds, 63 per cent (19 cases) had playmates within the home and 70 per cent (21 cases) elsewhere. Eighty-five per cent (24 cases) of the 4 year olds had playmates in the home, while 71 per cent had them elsewhere. Fifty-six per cent (23 cases) of the 5 year olds played with children within the home and 65 per cent (27 cases) played with them elsewhere.

Only 1 of the 1 year olds was reported as having a favorite playmate and in this case the playmate was older than the child reported. Thirty per cent (13 cases) of the 2 year olds in the Oregon sample had playmates; of these one-third were of the same age as the child, and the remaining two-thirds were older. Of the 3 year olds 36 per cent (11 cases) had favorite playmates; 46 per cent (5 cases) were of the same age and 54 per cent (6 cases) were older than the child. Fifty-seven per cent (16 cases) of the 4 year olds had favorite playmates of whom
62 per cent (10 cases) were of the same age, 25 per cent (4 cases) were older and 13 per cent (2 cases) were younger. Of the 5 year olds, 51 per cent (21 cases) had favorite playmates and of these 38 per cent (3 cases) were younger, 42 per cent (9 cases) older and 19 per cent (4 cases) were of the same age.

In no case among the 142 cases reporting did these data show that the child did not play outdoors on the day preceding the interview. The average length of time was 5.4 hours, with a range of from $\frac{1}{2}$ to 12 hours. (Note: It will be recalled that these interviews were made in May and June when the days were long.) The average for the 1 year olds (12 cases) was 4 hours; for the 2 year olds (39 cases), 5.4 hours; 3 year olds (27 cases), 6 hours; 4 year olds (25 cases), 5.4 hours and for the 5 year olds (29 cases) 5.4 hours. According to Watson (67), the child should be ready to play outdoors by 10 o'clock in the morning, and again after the afternoon nap. He says, "social contacts should have their place as part of the afternoon schedule --- with at least an hour a day with other companions." Faegre and Anderson (19) believe that as much as possible of the child's play should be carried on out-of-doors and state, "the true home of the child is the out-of-doors."

Roberts (49) says that ideally, a child should spend most of his waking hours out-of-doors and believes that if left to follow his natural bent he would do so. She feels that "too little outdoor play with the consequent restriction of fresh air, exercise and sunshine must be considered as a fundamental cause of poor development."

Most of the Oregon children were restricted to neighbors'
yards when playing away from home. There were no reports on this question from the 1 year old group. Of the six 2 year old girls reported, all played in neighbors' yards when away from home, and of the 4 year old boys reported on, 3 played in neighbors' yards and 1 in a vacant lot. Of the 3 year olds 10 of the 12 girls played in neighbors' yards, 1 in a vacant lot and 1 in a park; of the boys, 7 of the 11 cases reporting played in neighbors' yards, 1 in a vacant lot and 1 each on the sidewalk, a sandpile, and at the grandmothers. Among the 4 year olds, 10 of the 13 boys reporting played at the neighbors', and 1 each in a park, vacant lot and sidewalk. Of the six 4 year old girls, 2 each played in the neighbors' yard and at the grandmothers, and 1 each in a park and vacant lot. Among the 27 five year old girls reported on, 19 played in the neighbors' yards, 3 each in a park and vacant lot, and 1 each in the street and playground. Of the 11 five year old boys, 8 played in the neighbors' yard and 1 each in a park, playground and on the sidewalk.

Four and seven-tenths of the 4 year olds reported in the total sample played in the street; 6.3 per cent in parks; 8.7 per cent in vacant lots; 62 per cent, in neighbors' yards or homes; 8.7 per cent played in a playground; the remainder, 4.7 per cent of the children played on the sidewalk in an adjacent school yard or some other similar place.

Table 34 shows children by per cents where the 90 Oregon children reported on, play in comparison to the 4 year olds of the total sample.
Thirty-seven per cent (58 cases) of the Oregon children attend the movies. Thirty-eight per cent (22 cases) attended once during the month preceding the interview; only 1 attended twice; 10 per cent (6 cases) attend 3 or more times while the remaining 50 per cent (29 cases) did not attend. The figures from the total sample were somewhat higher, no doubt due to the fact that the total sample reported on 4 year olds only. Sixty per cent of the 4 year olds had attended the movies 1 to 2 times during the month preceding the interview; 33 per cent, 3 to 4 times; and 7 per cent, 4 or more times during the month. The Oregon children attending movies are distributed by ages, as follows: 1 year olds, 1 case (6 per cent); 2 year olds, 8 cases (9 per cent); 3 year olds, 11 cases (38 per cent); 4 year olds, 17 cases (60 per cent); and 5 year olds, 21 cases (51 per cent).

According to Thom (61) children should not be taken to the
movies. He feels they should have rest and sleep and more opportunity for play during waking hours. Blanton and Blanton (9) believe that children are actually forced to like the movies through continued attendance. As a result, they suffer from eye-strain and fatigue as their eyes cannot endure constant notion over a prolonged period. They feel that up to 7 or 8 years, little of the pernicious part of sex pictures actually gets over to the child. It is the opinion of Watson (69) that "while motion pictures are an insult to our adult organization, nevertheless they form a part of the child's environment. I believe in bringing children up from infancy to face everything there is to face in their environment, and to so organize them about life in general that such things as movies and sex and crime and death fit into their general scheme of life." According to Anderson (1) there is nothing in the motion picture apart from the quality of the films which would seem harmful to children under ten, unless attendance keeps them for long periods of time or for many periods from their play, exercise or sunlight. He feels that in this age there is a widespread tendency to over-emphasize the harmful effects of particular procedures and to lay down general rules, irrespective of the conditions under which they are to be applied. In his opinion the problem is not one of laying down a general and rigid rule, but rather one of educating parents in the selection of the pictures which their children attend, in guarding against over-indulgence in motion pictures to the exclusion of other desirable activities, and in surrounding the whole experience with an appropriate background. Fenton (22) writes, "the ordinary
motion picture program is too long for small children, and involves by its very length, too much fatigue through its demand on the child's attention. There are still relatively few motion picture theaters in which the mechanical imperfection of the apparatus does not involve a further strain for young eyes. And I am convinced that it is the very, very exceptional film that is really good for a child to see, really suited to child's point of view. Ideally, the moving picture should take its place beside the best of children's books in the child's interest and training, but I do not feel that we have approached this ideal standard."

It was found that 48 per cent (78 cases) of the Oregon children attend Sunday school. Nine per cent (7 cases) attended once during the month preceding the interview; 17 per cent (13 cases) attended twice; 19 per cent (15 cases) attended 3 times; 36 per cent (27 cases) attended 4 times, while the remaining 16 per cent (12 cases) did not attend. According to ages, the percentages were as follows: only 1 (6 per cent) of the 1 year olds attend Sunday school; 24 per cent of the 2 year olds (10 cases); 53 per cent of the 3 year olds (16 cases); 70 per cent of the 4 year olds (21 cases) and 68 per cent of the five year olds (28 cases). No report of Sunday school attendance was made on the 4 year olds from the total sample.

Blanton and Blanton (9) feel that Sunday school is often a profoundly affecting experience for the young child. They write, "the strain is great. The association with other children in a group is new. He has a feeling of awe, often of the church building itself. The
material given may not be suitable for the intelligence of a young child and the congregation singing and the ado made over the kindergarten are often too great a strain. Adults not working with the children should be excluded; the children should be divided into small groups; the service should be simple and not too long." According to Betts (7), the spiritual growth should normally keep pace with other phases of development. She feels that it is worth while for even the little child to come to the church, but the church must be ready and equipped to receive him as a little child. She says the little child's first impression of God should come from God's presence in the world about and in the common experiences (food, care, sunshine) of everyday life. She states that the child should enter the nursery department of the church school at the age of 35 or 36 months.

Four of the Oregon children attended or had attended nursery school, 1 had attended a day nursery and 2 attended kindergarten.

14. Summary

In all but 13 instances, the children in this sample of Oregon preschool children live in a home with both parents, in one-fourth of which live persons outside of the immediate family. The parents are in their early thirties, the mother about 3 years younger than the father. One-half of the parents have less than college education, while one-third of the fathers and about one-fifth of the mothers have less than high school. The fathers are employed in all but a negligible number of cases and one-tenth of the mothers are gainfully employed outside the home. Judging from the data, the parents are in
a good state of health and are seldom ill.

The majority of the homes are in comfortable surroundings; one-half are owned, and one-half are in good or better condition. The interiors are for the most part neat, and with modern conveniences, i.e., with running water, bathtubs, toilets of plumbing type and sinks. Over three-fourths have automobiles. Approximately three-fourths of the homes have fewer than 100 books, while one-half have fewer than 50.

There are toys in all homes, varying in number from 2 to 8. All but one-tenth of the yards used for play have some type of play apparatus, usually a swing or a sand box. Playgrounds are within 1 mile of one-third of the homes and within 4 miles of three-fourths.

Approximately one-half of the parents read an average of 3 books a year on child care; these usually are owned. This is higher than the total sample by 2 books. More pamphlets than books are read. About one-third subscribe to magazines on child care; while three-fourths of the mothers and one-fourth of the fathers read articles on child care in both newspapers and periodicals. Nearly one-half the mothers and one-eighth of the fathers attend P.T.A. or child study groups. Practically no use is made of day nurseries, nursery schools or social agencies, while nearly one-half make use of infant welfare clinics and public health nurses.

Approximately all of the Oregon parents either usually or always agree on the management of their children.

In general this picture of the home of the Oregon preschool child, as judged from the sample, agrees with that presented from the
Judging from the sample, the majority of Oregon children are breastfed for about 7 months. About one-half are weighed regularly and in general are heavier than the expected weight for height as given in standard tables of measurement.

The amount of sleep is comparable to that of other studies and at the 1, 2 and 5 year levels appeared greater. The rural children sleep 20 minutes less per day than do the urban children, judging from these data. The number of morning naps appears negligible after the first year, while two-thirds take afternoon naps, averaging 2 hours in length. The bedtime hour is 8 o'clock P.M. and the arising hour 7 A.M. About one-fourth of the children sleep alone in a room alone; this proportion exceeds that for the total sample.

As evidenced from the sample, one-fourth of the Oregon children are taking less than 1 quart of milk per day, this being a smaller number than for the total group. A small percentage does not receive any. About seven-eights receive vegetables and fruit; one-half, eggs; and one-tenth, meat twice a day. Fewer of the Oregon children than those in the total sample eat between meals, and in practically all homes, meals are served at regular times and with the table set.

About one-fourth of the children are receiving cod-liver oil the year around, two-thirds in winter only and one-fifth in summer only. This exceeds the total sample by approximately one-fifth at all times.

The number of changes in underclothing appears to be higher among the Oregon children, but slightly lower than the total in changes
of outer clothing. No Oregon children are without sleeping garments, as were a few children in the total sample. Fewer Oregon children have daily baths.

Bowel control appeared to be established earlier in boys than in girls, although this does not agree with results from the total sample. Oregon children established control earlier. Indications are that girls establish bladder control considerably earlier than do boys. Two-thirds go to the toilet by themselves and all but one-tenth make the necessity known. Figures from the total group were much higher, due, no doubt, to the difference in the age grouping. More Oregon children own tooth brushes and use them.

There appears to be a superiority among girls in dressing themselves. All but one-tenth feed themselves and most of those who do not are at the 1 year level.

Of the one-seventh of Oregon children who suck their thumbs, there is a preponderence of girls. A negligible number occasionally stutter.

Three-fourths of the children have had a complete or fairly complete medical examination, more often by the family physician as a preventive measure. Fewer farmers' children had examinations.

Immunization was less frequent among the Oregon children for diphtheria, smallpox and typhoid fever, but more frequent for scarlet fever and whooping cough. Less than one-fourth have been vaccinated for smallpox. Colds were the most common of the infectious diseases, over one-half of the Oregon children having them.
One-third have had dental examinations. One-fifth are troubled with constipation and one-eighth, with colic and indigestion.

In all but 9 cases these 157 Oregon children were right-handed.

Administration of punishment is usually by both parents; in one-fifth of the cases by the mother only and in a negligible number by the father only. Spankings are generally used as a method of punishment, with no significant difference in the sexes. Disobedience is the most common cause of punishment. These data show that parents use several methods of control other than physical punishment, of which, reasoning, scolding and deprivation of some pleasure are the most common.

Over half the children have shown a definite fear. In the majority of cases the method of diverting the fear is to explain the situation. The two most common causes of anger are "not having own way", and "teasing." Slightly less than half show no favoritism in the home, while the children show no evidence of jealousy, although more jealousy was shown when affection was shown by mother to the other children.

Less than half of the Oregon children have a favorite story, and are read to by the parents, usually the mother. More Oregon fathers tell or read stories than do those of the total group. About three-fourths of the children are learning or have learned to count and quote rhymes, while over half were learning or had learned to say prayers. The total sample indicated much higher percentages in these and other categories, due again to age grouping. Fewer Oregon children have shown curiosity as to the origin of babies.
The children, for the most part, are restricted in their play to the home yard or to the neighbors' yards. They play with other children and less than half have a favorite playmate. An average of five hours is spent in outdoor play each day. Approximately one-third attend the movies once or twice a month, and one-half attend Sunday school 2 or 3 times a month.

15. Conclusions

The size of this sample is too small, and the data too unreliable to admit of any positive generalizations. However, these data present a picture of the daily life of the Oregon preschool child, his training and education in the home, which compares favorably with the picture of the preschool child presented in the total sample, embracing children from every section of the country. In the comparisons drawn, it must be borne in mind, that the Oregon sample, includes children from the 1, 2, 3, 4 and 5 year levels, while from the total sample the results from the 4 year old group only were presented, no other reports being available at the time this paper was prepared.
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INSTRUCTIONS FOR FIELD WORKER

The following forms are to be used in this investigation:

R.2 Information Concerning Field Worker (Gray)
R.3-a Information About Community in which Families Visited Live—Blank for Rural Communities and Towns (Yellow)
R.3-b Information About Community in which Families Visited Live—Blank for Cities (Buff)
R.4 General Information Regarding Family Visited (Orange)
R.5 The Infant, Under One Year (Pink)
R.6 The Young Child—From 1 to 5 Years, Inclusive (Primrose)
R.7 The Older Child, 6-12 Years (Blue)

First, look at each form.
Second, fill out for yourself R.2 Information Concerning Field Worker (Gray).
Third, notice that R.3 Information About Community in which Families Visited Live has two parts, R.3-a Blank for Rural Communities and Towns, and R.3-b Blank for Cities. If the families you intend to visit live in a:

- Rural Community (under 2500 pop.), use the front side of R.3-a (Yellow),
- Town (2500 to 10,000 pop.) use the reverse side of R.3-a (Yellow),
- City (10,000 to 100,000 pop.) use the front side of R.3-b (Buff),
- Large City (over 100,000 pop.) use the reverse side of R.3-b (Buff).

Now select the form applicable to the size of the community and fill in the information asked for.
Fourth, read R.4 General Information Regarding Family Visited (Orange) along with following explanations.

Item 19. This entry should be the word or words which most accurately indicate the particular kind of work done by which the father earns money or a money equivalent, as "physician", "carpenter", "laborer", "cashier in bank", etc. Be sure to distinguish between a farmer and a farm laborer, and specify whether or not the farm laborer is working at the home farm. Also distinguish between a traveling salesman and salesman in a store. Do not use vague terms like "real estate", "manufacturing", or "clerk"; but specify the actual occupation.

Item 21. If the mother has had more than one occupation before marriage, give the one she was engaged in for the longest period of time. If she did not work for pay before marriage, write "none".

Item 22. Gainfully employed means working for pay. Thus in Item 24 "Within home" does not include the usual household tasks, but only taking in washing, dressmaking, and similar occupations.

Items 27 to 30. Ask these questions only (1) if parents are foreign born or (2) if they live in an extremely foreign section of the city or rural territory.

Item 40. Do not include bathrooms, pantries, halls, or rooms not used all year.

Item 70. If the person interviewed knows the birthdates of the children without calculating them from the ages, use the birthdate column, but if calculation is necessary, merely fill in the ages in the age column. Under "school grade", write in the grade for those in grade school; indicate high school students by "H.S." (for example, "2 H.S." for a sophomore in high school); use the abbreviation "Col." for those in colleges and universities. "Lives at home" can be answered by "yes" or "no". Under "handicapped", write in the word that describes the handicap.

Item 71. For your rating:

Fifth, read R.5 The Infant, Under One Year (Pink)
Sixth, read R.6 The Young Child—From 1 to 5 Years (Primrose) along with the following explanations:

Items 48 and 49. "Accident" here means soiling the clothes or bed with faeces, while in items 52 and 53 it refers to wetting the clothes or bed.
Item 70. "Household remedies" include home preparations like "turpentine and lard" or such preparations as may be readily purchased at a drug store.

Item 97. Do not suggest the answers for this question.

Item 110. If the person interviewed is hesitant about answering this, do not press the question.

Seventh, read R 7 The Older Child, 6—12 Years (Blue)

Eighth, read these general instructions for all forms.

1. Be sure to obtain as much of the requested information as you can.

2. If it is impossible to get answers to certain questions because the person interviewed does not have the information or because he or she has forgotten it, draw a circle around the number preceding the question.

   For example: ☐ Height........................

3. Do not omit any question unless a negative answer to a previous question obviates the necessity for asking it.

   For example: Did he take a nap yesterday morning? Yes ☐; No ☐. If the answer is no, it is obviously unnecessary to use this question which follows it. If so, from......................to......................

   Again: Has he been given a complete or fairly complete medical examination? Yes ☐; No ☐. If the answer is no, the following question is unnecessary:

   Who made this examination? Clinic ☐; nurse ☐; family physician ☐; pediatrician ☐; specialist ☐; school physician ☐.

4. Note that the square ☐ appears after the item to be checked.

5. On forms R 4, R 5, R 6, and R 7 “mother” refers to the mother of the child. If, however, the mother is dead or is not living in the home, or if the child is adopted, the term “mother” will be understood to refer to the woman who has the most direct care of the child.

6. “Father” refers to the father of the child. If, however, the father is dead or is not living in the home, the term “father” will be understood to refer to the man who takes his place such as stepfather, adopted father, etc. If no man has filled the father’s place, the information on R 4 should be given for the dead or absent father. On other forms write “none” where data on the father is asked for.

7. On forms R 5, R 6, and R 7, he and his always refer to the child whether male or female.

8. There is a serial number in the upper righthand corner of each Form R 4. This identifies the family. Thus, when you use a Form R 5 (The Infant), R 6 (The Young Child), or R 7 (The Older Child), please fill in the number on these forms that you find on Form R 4. If this is omitted, it is almost impossible to tell to which family a child belongs; so it is essential that you do this.

9. In general, the questions have been stated in approximately the form you can use in asking them. The questions appear in ordinary type and the answers in italics. In almost every case, you may suggest the range of answers to the persons interviewed. Where it is not advisable to do this, the questions will be marked with an asterisk and explained.

10. If it is possible, arrange to have all the children out of the room during the interview.

11. Do not let the person interviewed read any of the forms, but make them as unobtrusive as possible.

Ninth, you are now ready to begin the interview

1. Take forms R 4 (Orange), R 5 (Pink), R 6 (Primrose) and R 7 (Blue) with you to the child’s home, and ask the questions from them.

2. Form R 4 (Orange) should be filled out first, and only once for each family.

3. Then fill out R 5 (Pink), R 6 (Primrose) or R 7 (Blue). Which one is used depends, of course, on the ages of the children in the family.

4. In families with more than one child, please get information on at least two children.
White House Conference
on Child Health and Protection

Committee III, B, Education and Training
Of the Infant and Preschool Child

INFORMATION CONCERNING FIELD WORKER
(To be filled in by field worker)

This information is for the guidance of the Committee. A brief statistical summary of the information contained herein will be published to show the characteristics of those who secured the data. This summary will contain no reference to individuals or agencies other than an acknowledgement of their cooperation.

Name ................................................................. Sex .................................................

Agency or organization connected with ...........................................................

What is your title? ...........................................................................................

Education:

High School—completed in (date). ..............................................................

College—completed 1 yr., 2 yrs., 3 yrs., 4 yrs., (Underline correct year.)

Graduate work—completed 1 yr., 2 yrs., 3 yrs., 4 yrs., (Underline correct year.)

Names of schools, other than the above, attended and number of years attendance: ..............................................................

What degrees do you hold? ..................................................................................

In what subject did you major in college? ..........................................................

In what subject did you minor in college? ..........................................................

In what subject did you major in graduate work? ..............................................

In what subject did you minor in graduate work? ..............................................

Number of courses taken in: sociology ............ social work ............ economics ............, child welfare ............, medicine ............, psychiatry ............, psychology ............, education ............, nutrition ............, home economics ............

Experience:

Number of years experience in visiting homes? ..................................................

With what organization? ....................................................................................

Are you married? .................. Number of years married .................. Number of children ..................
White House Conference on Child Health and Protection

Committee III, B, Education and Training Of the Infant and Preschool Child

Information about Community in Which Families Visited Live

(To be filled out once for each community)

Blank for Rural Community and Towns

If the families visited live in a RURAL community (under 2500 population), please give the following information; if they live in a TOWN (2500-10,000 population) use the other side of the sheet.

Name of county................................................................. State..............................................

Population of county (1920 census).......................... Native white ......% Foreign born ......% Negro ......%

Open farm?............. If village, give name and pop. (1920) ..............................................................

Name of nearest accessible shopping district........................................ No. miles away

No. of miles to nearest town of 10,000 or over.............. No. of miles to nearest city of 100,000 or over

Chief crops are ................................................................

Chief industries are............................................................

Schools: Elementary; graded?..........................consolidated? No. high schools

Are there any social, fraternal or cooperative organizations active in the community such as "The Grange" or "Farm Bureau"? Give names.

What provision is there for medical and social care; such as doctors, traveling clinics, probation officers, county nurses, public health nurses, social workers, Y. M. C. A., Y. W. C. A., etc?

Is there a county agricultural agent? Does he reach this community?

Is there a home demonstration agent? Does she reach this community?
INFORMATION ABOUT COMMUNITY IN WHICH FAMILIES
VISITED LIVE
(To be filled out once for each community)

If the families visited live in a TOWN (2500 to 10,000 pop.), please give the following information; if they live in a RURAL community (under 2500 population) use the other side of the sheet.

<table>
<thead>
<tr>
<th>Name of town</th>
<th>State</th>
</tr>
</thead>
</table>

Population (1920 census) | Native white | % Foreign born | % Negro | %

Type of community, such as center of agricultural district, industrial, mining center, etc.

If mixed, indicate

What provision is there for medical and social care; such as doctors, clinics, traveling clinics, probation officers, county nurses, social workers, public health nurses, Y. M. C. A., Y. W. C. A., etc.

Name of nearest city | Pop. (1920) | No. miles away
Name of nearest accessible large shopping and trading center

| No. miles away |

Elementary schools: No. ungraded | No. graded | No. high schools

Are schools consolidated?

| No. nursery schools | No. day nurseries |

Kindergartens: No. private | No. public school

What other institutions are there for children under six, such as children's homes, etc.
**White House Conference on Child Health and Protection**

**COMMITTEE III, B, EDUCATION AND TRAINING OF THE INFANT AND PRESCHOOL CHILD**

**INFORMATION ABOUT COMMUNITY IN WHICH FAMILIES VISITED LIVE**

*(To be filled out once for each community)*

**BLANK FOR CITIES**

If the families visited live in a CITY (10,000 to 100,000 population) please give the following information; if they live in a LARGE CITY (over 100,000 population), use the other side of the sheet.

**Name of city..........................................................**

**State..........................................................................**

Population (1920 census).................................................. Native, white % Foreign % Negro %

What are the chief industries such as mining, milling, manufacturing, etc?

..........................................................................................

Are there a council of social agencies? A community fund? A community fund?

Are there a central clearing house or confidential exchange for social agencies?

Approximate No. square miles of parks and play grounds % of city area

What specific provisions in parks and play grounds are there for the child under six?

No. of nursery schools No. day nurseries

No. of private kindergartens No. public school kindergartens

What other institutions are there for children under six, such as children’s homes, etc.?

Social agencies, health organizations, clinics, etc., dealing with young children:

<table>
<thead>
<tr>
<th>Names</th>
<th>Type of Service Rendered</th>
<th>Approx. No. Cases Per Yr.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*(If more space is needed, use other side of sheet)*
INFORMATION ABOUT COMMUNITY IN WHICH FAMILIES
VISITED LIVE
(To be filled out once for each community)

If the families visited live in a LARGE CITY (100,000 or over population), please give the following information; if they live in a CITY (10,000 to 100,000 population), use the other side of the sheet.

Name of city........................................................................................................ State........................................................................................................

Is there a council of social agencies?.............. If so, give name and address.............................................................................

Is there a community fund?........................

Is there a central clearing house or confidential exchange for social agencies?..............

Are there kindergartens in the public school system?.........
**GENERAL INFORMATION REGARDING FAMILY VISITED**  
(Check small square to indicate answer where choice is given, thus: [V])

1. Name of field worker: [Name]  
2. Date of visit: 6/14/30  
3. Hour of day: A.M. 4:00 P.M.  
4. City or place: Mt. View, District No. 21  
5. State: Oregon  
6. Size of community: open country [ ]; under 2500 [ ]; 2500-10,000 [ ]; 10,000-100,000 [ ]; over 100,000 [ ]
7. Person interviewed is: mother [ ]; father [ ]; older sister [ ]; older brother [ ]; other [ ]
8. What is the telephone number? [ ]
9. Is mother living? [Yes] [No]
10. Is father living? [Yes] [No]
13. Are parents divorced? [Yes] [No]
14. Are parents separated? [Yes] [No]
15. With whom is child living? own parents [ ]; mother only [ ]; father only [ ]; father and stepmother [ ]; mother and stepfather [ ]; adopted parents [ ]; grandparents [ ]; other [ ]
16. How many persons live in the home other than the immediate family? relatives [ ]; servants [ ]; lodgers [ ]; others [ ]; If none, check here [ ]

**EDUCATION**  
(Encircle highest grade completed)

17. What was the highest grade completed by father?  
Grade School 0, 1, 2, 3, 4, 5, 6, 7, 8; High School 1, 2, 3, 4; Business College 1, 2; Teachers College 1, 2, 3, 4; College 1, 2, 3, 4; Graduate Work 1, 2, 3, 4; Other [ ]

18. What was highest grade completed by mother?  
Grade School 0, 1, 2, 3, 4, 5, 6, 7, 8; High School 1, 2, 3, 4; Business College 1, 2; Teachers College 1, 2, 3, 4; College 1, 2, 3, 4; Graduate Work 1, 2, 3, 4; Other [ ]

**OCCUPATION**

19. What is father's usual occupation? [ ]

20. Is he employed now? [Yes] [No]

21. What was occupation of mother before marriage? [ ]

22. Is mother gainfully employed now? [Yes] [No]

23. If so, what is her occupation? [ ]

24. How many hours is she gainfully employed per week?  
Within home [ ] hours. Outside home [ ] hours.

**RACE**

25. Father: Native white of native parentage [ ]; native white of foreign or mixed parentage [ ]; foreign born white [ ]; Negro [ ]; Indian [ ]; Japanese [ ]; Chinese [ ]; Mexican [ ]; other [ ]

26. Mother: Native white of native parentage [ ]; native white of foreign or mixed parentage [ ]; foreign born white [ ]; Negro [ ]; Indian [ ]; Japanese [ ]; Chinese [ ]; Mexican [ ]; other [ ]

27. What is father's native language? [ ]

28. How well does he speak English: fluently [ ]; inadequately [ ]; not at all [ ]

29. What is mother's native language? [ ]

30. How well does she speak English: fluently [ ]; inadequately [ ]; not at all [ ]

**PARENTS' HEALTH**

31. How often is father sick? often [ ]; occasionally [ ]; seldom [ ]; never [ ]

32. How often is mother sick? often [ ]; occasionally [ ]; seldom [ ]; never [ ]

**THE HOME AND SURROUNDINGS**

33. Rating of neighborhood: wealthy [ ]; well-to-do [ ]; comfortable [ ]; meager [ ]; destitute [ ]

34. Nearby buildings are chiefly: single dwellings [ ]; apartments [ ]; mixed apartments and single dwellings [ ]; factories [ ]; stores [ ]; other [ ]

(over)
56. How many books on child care have parents read in last year? 0 ☐; 1 ☐; 2 ☐; 3 ☐; 4 ☐; 5-10 ☐; over 10 ☐.
57. Are these books owned? Yes ☐; No ☐.
58. Were these books from library? Yes ☐; No ☐.
59. How many pamphlets on child care have parents read in last year? 0 ☐; 1 ☐; 2 ☐; 3 ☐; 4 ☐; 5-10 ☐; over 10 ☐.
60. Does mother read articles on child care in newspapers only ☐; magazines only ☐; both ☐; neither ☐.
61. Does father read articles on child care in newspapers only ☐; magazines only ☐; both ☐; neither ☐.
62. How many magazines on child care does family take now? 0 ☐; 1 ☐; 2 ☐; over 2 ☐.
63. Does mother listen over radio to talks on child care—regularly ☐; irregularly ☐; never ☐.
64. Does father listen over radio to talks on child care—regularly ☐; irregularly ☐; never ☐.
65. Has mother attended a—child study group ☐; P. T. A. group ☐; both ☐; neither ☐.
66. Has father attended a—child study group ☐; P. T. A. group ☐; both ☐; neither ☐.
67. Have parents made use of—day nursery ☐; nursery school ☐; settlement ☐; infant welfare clinic ☐; public health nurse (school nurse or visiting nurse) ☐; social agency ☐; other ☐.
68. How often, in general, do mother and father agree on management of children? always ☐; usually ☐; occasionally ☐; seldom ☐; never ☐.
69. Comments of Field Worker:

CHILDREN IN FAMILY, LIVING OR DEAD

(Put x after names of those dead. Do not include miscarriages.)

<table>
<thead>
<tr>
<th>Name</th>
<th>Birthdate</th>
<th>Age</th>
<th>Sex</th>
<th>School</th>
<th>Lives at home</th>
<th>Handicapped (blind, paralyzed, deaf, epileptic, crippled)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helen</td>
<td></td>
<td>7</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

*71. Was the person interviewed—cooperative ☐; fairly cooperative ☐; uncooperative ☐; negativistic ☐.
**White House Conference on Child Health and Protection**

**COMMITTEE III, B, EDUCATION AND TRAINING**

**OF THE INFANT AND PRESCHOOL CHILD**

---

**THE INFANT, UNDER ONE YEAR**

*(Check small square to indicate answer where choice is given, thus: [✓ ])*

1. Name of child..........................................................  
2. Sex  
   - Male [✓]; Female [ ]  
3. Age ................................................................. months  
4. Date of birth..........................................................  
5. Where was he born? at home [✓]; hospital [ ]; other [ ]  
6. Who attended mother? family physician [✓]; midwife [ ]; obstetrician [ ]; other [ ]  
7. Where does mother get information on infant care?  
   - pediatrician [✓]; nurse [ ]; books [ ]; pamphlets [ ]; grandmother [ ]; other mothers [ ]; relies on own experience [✓]; other [ ]  
8. Height............................................................... inches  
9. Was height obtained by measuring? Yes [✓]; No [ ]  
10. If not, was height estimated? Yes [✓]; No [ ]  
11. Weight............................................................... pounds  
12. Was weight obtained by use of scale? Yes [✓]; No [ ]  
13. Was weight estimated? Yes [✓]; No [ ]  
14. Is he weighed regularly? Yes [✓]; No [ ]  
15. How many days since he was last weighed?..............  

---

**SLEEP**

16. How many hours did he sleep from 6 P. M. to 6 A. M. last night?..............  
17. How many hours did he sleep from 6 A. M. to 6 P. M. yesterday?..................  
18. In morning, from.............. to..............  
19. In afternoon, from.............. to..............  
20. How many others sleep in his bedroom?  
   - men [ ]; women [ ]; boys [ ]; girls [ ]  
   - infants [✓]; If none, check here [ ]  
21. How many others sleep in his bed?  
   - men [ ]; women [ ]; boys [ ]; girls [ ]  
   - infants [✓]; If none, check here [ ]  
22. Does he sleep in a crib, basket, or bassinet? Yes [✓]; No [ ]  
23. Does he sleep in a sleeping bag? Yes [✓]; No [ ]  

---

**DIET**

24. For how many months was he breastfed only?..............  
25. For how many months was he both breastfed and bottlefed?.........................  
26. For how many months was he bottlefed only?..............  
27. How old was he when first given solid food?.............. months  
28. How old was he when weaned?.............. months  
29. Is he fed at regular times? Yes [✓]; No [ ]  

**Food Child Had Yesterday**

<table>
<thead>
<tr>
<th>Time</th>
<th>Food</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

---

**BATHING**

31. How often is he bathed? 2 or more times daily [✓];  
   - once daily [ ]; 2 or 3 times a week [ ]; once weekly [ ]; less than once a week [ ]  
32. How often is he given sunbath? daily [✓]; 2 or 3 times a week [ ]; once a week [ ]; less than once a week [ ]; never [ ]  

---

**HABIT TRAINING**

33. Is bowel control established? Yes [✓]; No [ ]  
34. If established, at what age?.............. months  
35. Does he make known necessity for going to toilet? Yes [✓]; No [ ]  
36. Is he regular in bowel movements? Yes [✓]; No [ ]  
37. Has attempt been made to establish bladder control? Yes [✓]; No [ ]  
38. If established, at what age?.............. months  
39. Is he picked up when he cries? Yes [✓]; No [ ]  
40. Does he suck thumb or blanket? Yes [✓]; No [ ]  

---

**MEDICAL CARE AND DISEASE**

41. Has he been given a complete medical examination? Yes [✓]; No [ ]  
42. Does mother consult about infant—clinic [ ]; nurse [✓]; family physician [ ]; obstetrician [ ]; pediatrician [ ]; specialist [ ]; none [ ]; others [ ]  
43. How many times has above been consulted about this child?..............  
44. For what has he been inoculated? diptheria [ ]; typhoid [ ]; neither [ ]; other [ ]  
45. Has he been vaccinated for smallpox? Yes [✓]; No [ ]  
46. What diseases has he had? whooping cough [ ]; measles [ ]; chicken pox [ ]; none [ ]; other [ ]  
47. Has he been troubled with: cough [ ]; colic [ ]; constipation [ ]; indigestion [ ]; teething [ ]; colds and coughs [ ]; other [ ]  

---

**METHODS OF CONTROL**

48. How is he corrected? by saying no—no [ ]; by slapping hand [ ]; other [ ]  

---

**EMOTIONS**

49. Of what things has he shown definite fear? nothing [ ]; dogs [ ]; the dark [ ]; thunder storms [ ]; strangers [ ]; loud noises [ ]; other [ ]  

---

**PLAY AND EXERCISE**

50. Did mother play with child yesterday? Yes [✓]; No [ ]  
51. Did father play with child yesterday? Yes [✓]; No [ ]  
52. How many days since child was outdoors last?..............  
53. What does he play with? nothing [ ]; rattles [ ]; paper [ ]; balls [ ]; dolls [ ]; household utensils [ ]; other [ ]  
54. Is he allowed to play on bed unclad? Yes [✓]; No [ ]
White House Conference on Child Health and Protection

COMMITTEE III, B, EDUCATION AND TRAINING
OF THE INFANT AND PRESCHOOL CHILD

THE YOUNG CHILD—from 1 to 5 years, inclusive

(Check small square to indicate answer where choice is given, thus [V])

1. Name of child

2. Sex

3. Age

4. Date of birth

5. Was he breastfed?

6. If so, how many months was he entirely breastfed?

7. Height

8. Was height obtained by measuring?

9. If not, was height estimated?

10. Weight

11. Was weight obtained by use of scale?

12. If not, was weight estimated?

13. Does this weight include clothes?

14. Is he weighed regularly?

15. If so, how often is he weighed?

16. At what time did he retire last night?

17. At what time did he arise this morning?

18. Did he take a nap yesterday morning?

19. If so, from...

20. Did he nap yesterday afternoon?

21. If so, from...

22. How many others sleep in his bedroom?

23. How many others sleep in his bed?

24. What did he eat for breakfast?

25. How much milk did he drink?

26. What did he eat at noon?

27. How much milk did he drink?

28. What did he eat at evening meal?

29. How much milk did he drink?

30. Did he eat at any other time?

31. If so, at what time?

32. Was this a “regular” meal?

33. Was it “eating between meals”?

34. What did he eat or drink?

35. How frequently does he eat between meals?

36. Are meals served at regular hours?

37. Is table set for all meals?

38. Of the following foods, cross out those not offered child and check those he consistently refuses to eat when offered:

39. Is cod liver oil or substitute (Keplers, acerol, etc.) given: in summer?

40. How often are his undergarments changed?

41. How often are his suits or dresses changed?

42. Does he have a sleeping garment?

43. How many days since he had last bath?

44. What is usual number of baths he has in summer per month?

45. What is usual number of baths he has in winter per month?

46. Is bowel control established?

47. If so, at what age was it established?

48. How many accidents did he have yesterday?

49. How many accidents did he have last night?

50. Is bladder control established?

51. If so, at what age was it established?

52. How many accidents did he have yesterday?

53. How many accidents did he have last night?

54. Does he go to toilet by himself?

55. If not, does he make known necessity for going to toilet?

56. Does he have toothbrush of his own?

57. Does he brush his own teeth?

58. How many days since he was last bathed?

59. Does he dress himself? completely, partially, not at all?

60. Does he feed himself? completely, partially, not at all?
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>61. How often does he suck his thumb?</td>
<td>usually ☐; occasionally ☐; only at bed time ☐; never ☑</td>
</tr>
<tr>
<td>62. How often does he stutter?</td>
<td>usually ☐; occasionally ☐; never ☑</td>
</tr>
</tbody>
</table>

**MEDICAL CARE AND DISEASE**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>63. Has he been given a complete or fairly complete medical examination?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>64. How many months since last examination?</td>
<td></td>
</tr>
<tr>
<td>65. Who made last examination?</td>
<td>clinic ☐; nurse ☐; family physician ☐; pediatrician ☐; specialist ☐; school physician ☐</td>
</tr>
<tr>
<td>66. What was last examination for?</td>
<td>illness ☐; preventive measure ☐</td>
</tr>
<tr>
<td>67. Has he been inoculated for: diphtheria ☐; typhoid ☐; neither ☒; other ☐</td>
<td></td>
</tr>
<tr>
<td>68. Has he been vaccinated for smallpox?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>69. How many days in last 6 months has he been sick in bed?</td>
<td></td>
</tr>
<tr>
<td>70. Has he had whooping cough?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>71. If so, at what age?</td>
<td></td>
</tr>
<tr>
<td>72. Has he had measles?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>73. If so, at what age?</td>
<td></td>
</tr>
<tr>
<td>74. Has he had chicken pox?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>75. If so, at what age?</td>
<td></td>
</tr>
<tr>
<td>76. Has he had—scarlet fever ☐; German measles ☐; smallpox ☐; infantile paralysis ☐; diphtheria ☐; mumps ☐; other ☐</td>
<td></td>
</tr>
<tr>
<td>77. Has he had teeth examined by dentist or dental nurse?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>78. How many months since last examination?</td>
<td></td>
</tr>
<tr>
<td>79. What household remedies are or have been used for quieting him when fretful?</td>
<td></td>
</tr>
<tr>
<td>80. Has he been troubled with constipation?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>81. If so, what household remedies were used?</td>
<td></td>
</tr>
<tr>
<td>82. Has he been troubled with colic and indigestion?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>83. If so, what household remedies were used?</td>
<td></td>
</tr>
<tr>
<td>84. Has he been troubled with colds and coughs?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>85. If so, what household remedies were used?</td>
<td></td>
</tr>
<tr>
<td>86. How many weeks since he had last cold?</td>
<td></td>
</tr>
<tr>
<td>87. Was the cold in his head?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>88. Was the cold in his throat?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>89. Is he: righthanded ☐; lefthanded ☐; uses both ☐</td>
<td></td>
</tr>
<tr>
<td>90. Has an attempt been made to make him righthanded?</td>
<td>Yes ☐; No ☑</td>
</tr>
</tbody>
</table>

**METHODS OF CONTROL**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>91. Is he ever punished?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>92. By whom is he punished?</td>
<td>mother only ☐; father only ☐; both ☐; other ☐</td>
</tr>
<tr>
<td>93. How many times was he spanked in last month?</td>
<td></td>
</tr>
<tr>
<td>94. For what was he last spanked?</td>
<td></td>
</tr>
<tr>
<td>95. Which of the following methods of controlling child are used?</td>
<td>ignoring ☐; scolding ☐; reasoning ☐; deprivation of some pleasure ☐; putting to bed ☐; comparing child unfavorably to another ☐; put on a chair or in a corner ☐; other ☐</td>
</tr>
</tbody>
</table>

**EMOTIONAL LIFE**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>96. Of what things has he shown definite fear?</td>
<td>nothing ☐; dogs ☐; the dark ☐; storm ☐; strangers ☐; other ☐</td>
</tr>
<tr>
<td>97. What is done to remove fears?</td>
<td>nothing ☐; soothing ☐; attention is diverted ☐; situation is explained ☐; other ☐</td>
</tr>
<tr>
<td>98. What most often makes him angry?</td>
<td></td>
</tr>
<tr>
<td>99. Who is his favorite in the home?</td>
<td>mother ☐; father ☐; sister ☐; brother ☐; no favorite ☐; other ☐</td>
</tr>
<tr>
<td>100. Is he jealous when affection is shown by mother to father ☐; by father to mother ☐; by mother to other child ☐; by father to other child ☐; not jealous at these times but is under different circumstances ☐; never jealous ☐</td>
<td></td>
</tr>
<tr>
<td>101. What is the most annoying thing child does?</td>
<td>Nothing in particular ☐</td>
</tr>
</tbody>
</table>

**INTELLECTUAL LIFE**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>102. Does he have a favorite book or story?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>103. If so, name and author</td>
<td></td>
</tr>
<tr>
<td>104. Did mother tell or read stories to child yesterday?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>105. Did father tell or read stories to child yesterday?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>106. Has he learned or is he learning—to read ☐; to count ☐; rhymes ☐; prayers ☐; songs ☐; alphabet ☐; other ☐</td>
<td></td>
</tr>
<tr>
<td>107. Has he asked where babies come from?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>108. How old was he when he first asked this?</td>
<td>yrs ☐; yrs ☑</td>
</tr>
<tr>
<td>109. Did mother answer?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>110. If so, what did she say?</td>
<td></td>
</tr>
</tbody>
</table>

**SOCIAL LIFE**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>111. Is he restricted when unsupervised—to the home ☐; to the home yard ☐; to the block ☐; to neighborhood ☐; If not restricted, check here ☐</td>
<td></td>
</tr>
<tr>
<td>112. Does he play with other children in his home?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>else where?</td>
<td>Occasional ☐; Yes ☐; No ☑</td>
</tr>
<tr>
<td>113. Does he have a favorite playmate outside of family?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>114. If so, how old is favorite playmate?</td>
<td>yrs ☐; yrs ☑</td>
</tr>
<tr>
<td>115. Did child play outdoors yesterday?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>116. If so, about how many hours?</td>
<td>hrs ☐; hrs ☑</td>
</tr>
<tr>
<td>117. Where does he play away from home?</td>
<td>in street ☐; park ☐; vacant lot ☐; neighbors' yards or homes ☐; playground ☐; other ☐</td>
</tr>
<tr>
<td>118. Has he ever attended the movies?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>119. How many times has he attended movies in last month?</td>
<td></td>
</tr>
<tr>
<td>120. Has he ever attended Sunday School?</td>
<td>Yes ☐; No ☑</td>
</tr>
<tr>
<td>121. Times attended Sunday School in last month?</td>
<td></td>
</tr>
<tr>
<td>122. At what age did he begin Sunday School?</td>
<td>6 yrs ☐; 6 yrs ☑</td>
</tr>
<tr>
<td>123. Does he attend—nursery school ☐; kindergarten ☐; junior kindergarten ☐; day nursery ☐; play school ☐; other of similar nature ☐</td>
<td></td>
</tr>
<tr>
<td>124. Comments of fieldworker</td>
<td></td>
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</tbody>
</table>
White House Conference on Child Health and Protection

COMMITTEE III, B, EDUCATION AND TRAINING
OF THE INFANT AND PRESCHOOL CHILD

THE OLDER CHILD, 6-12 YEARS

(Check small square to indicate answer where choice is given, thus: [✓])

1. Name of child .............................................................
2. Sex Male [ ]; Female [ ]
3. Age ...................................................... years
4. Date of birth ..................................................
5. Height: ........................................ inches.
6. Was height obtained by measuring? Yes [ ]; No [ ]
7. If not, was height estimated? Yes [ ]; No [ ]
8. Weight: ........................................ pounds.
9. Was weight obtained by use of scale? Yes [ ]; No [ ]
10. If not, was weight estimated? Yes [ ]; No [ ]
11. Does this weight include clothes? Yes [ ]; No [ ]

SLEEP

12. At what time did he retire last night?..........................
13. At what time did he arise this morning?....................
14. How many others sleep in his bedroom? men...........
   women .......... boys .......... girls .......... infants .......... If none, check here [ ].
15. How many others sleep in his bed? men ...............
   women .......... boys .......... girls .......... infants .......... If none, check here [ ].

DIET

(Food and beverages child ate yesterday)

16. What did he eat for breakfast? fruit [ ]; cooked
    cereal [ ]; dry cereal [ ]; bread or toast [ ]; eggs [ ];
    meat [ ]; coffee or tea [ ]; cocoa [ ]; other

17. How much milk did he drink?.................................
18. What did he eat at noon? soup [ ]; meat or fish [ ];
    bread or toast [ ]; potatoes [ ]; other cooked vegetables [ ];
    raw vegetables [ ]; eggs [ ]; dry cereal [ ];
    cooked cereal [ ]; fruit [ ]; coffee or tea [ ];
    cocoa [ ]; other

19. How much milk did he drink?.................................
20. What did he eat at the evening meal? soup [ ]; meat
    or fish [ ]; bread or toast [ ]; potatoes [ ]; other cooked
    vegetables [ ]; raw vegetables [ ]; eggs [ ]; dry
    cereal [ ]; cooked cereal [ ]; fruit [ ]; coffee or
    tea [ ]; cocoa [ ]; other

21. How much milk did he drink?.................................
22. Did he eat at any other time? Yes [ ]; No [ ]
23. If so, at what time?....................................... 
24. What did he eat or drink?...................................

25. How frequently does he eat between meals?
   usually [ ]; occasionally [ ]; seldom [ ]; never [ ].
26. Are meals served at regular hours? Yes [ ]; No [ ]
27. Is table set for all meals? Yes [ ]; No [ ]
28. Of the following foods, cross out those not offered
   him and check those he consistently refuses
eating when offered: celery [ ]; prunes [ ]; peas [ ];
   spinach [ ]; string beans [ ]; potatoes [ ]; tomatoes [ ];
   carrots [ ]; cabbage [ ]; meat [ ]; oatmeal [ ]; milk [ ]; eggs [ ].

CLEANLINESS

29. How often does he change his undergarments?
   daily [ ]; twice a week [ ]; weekly [ ]; less than once
   a week [ ].
30. Does he have a sleeping garment? Yes [ ]; No [ ]
31. How many days since he last bathed?...................... days
32. How many baths does he usually have per month in
   summer?.............................................
33. How many baths does he usually have per month in
   summer?.............................................

HABITS AND SELF HELP

34. Does he have a toothbrush of his own? Yes [ ]; No [ ]
35. How many days since he brushed his teeth?............... 
36. Does he stammer or stutter? Yes [ ]; No [ ]
37. Does he run errands to store, neighbors, etc.? Yes [ ]; No [ ]
38. Is he given a regular allowance? Yes [ ]; No [ ]
39. Does he earn money except by doing things for parents?
   Yes [ ]; No [ ]

MEDICAL CARE AND DISEASE

40. Has he been given a complete or fairly complete
    medical examination? Yes [ ]; No [ ]
1. How many months since last examination?
2. Was this examination made by: clinic □; nurse □; family physician □; pediatrician □; specialist □; school physician □; other...
3. Was this examination for: illness □; as preventative measure □.
4. Has he been inoculated for: diphtheria □; typhoid □; neither □; other...
5. Has he been vaccinated for smallpox? Yes □; No □
6. How many days in last six months has he been sick in bed?
7. What diseases has he had? whooping cough □; measles □; chicken pox □; scarlet fever □; smallpox □; infantile paralysis □; diphtheria □; mumps □; other...
8. How many weeks since he had his last cold?
9. Was the cold in his head? Yes □; No □
10. Was the cold in his throat? Yes □; No □
11. Has he been troubled with—constipation □; indigestion □; neither □; others...

**METHODS OF CONTROL**

12. Is he ever punished? Yes □; No □
13. By whom is he punished? mother only □; father only □; both □; other...
14. How many times was he spanked in last month?
15. For what was he last spanked?
16. Which of the following methods of controlling child are used? isolation □; ignoring □; scolding □; reasoning □; deprivation of some pleasure □; comparing child unfavorably to others □; put on a chair or in corner □; others...

**EMOTIONAL LIFE**

17. Of what things has he shown definite fear? nothing □; dogs □; the dark □; storm □; strangers □; other...
18. What is done to remove fears? nothing □; soothing □; attention is diverted □; situation is explained □; other...
19. Who is his favorite in home? mother □; father □; sister □; brother □; no favorite □; other...

**SOCIAL LIFE**

20. Does he play with other children: In this home? Yes □; No □
21. Elsewhere? Yes □; No □
22. Did he play outdoors yesterday? Yes □; No □
23. If so, about how many hours?...
24. Does he have a favorite playmate? Yes □; No □
25. If so, how old is playmate?...
26. Where does he play away from home? in street □; park □; vacant lot □; neighbors' yards or homes □; playground □; other...
27. Has he ever attended the movies? Yes □; No □
28. How many times has he attended movies in last month?...
29. Does he usually go to movies with parent □; with other children □; alone □.
30. Has he ever attended Sunday School? Yes □; No □
31. How many times has he attended Sunday School in the last month?...
32. At what age did he begin Sunday School?...