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Some aspects of pupil-employment in the senior high school

Merry, Ralph Merton

Boston University

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1949

The Gift of Ralph M. Merry
SOME ASPECTS OF PUPIL--EMPLOYMENT
IN THE SENIOR HIGH SCHOOL

Submitted by
Ralph Merton Merry
B. S. in Ed., Boston University, 1937

In partial fulfillment of requirements
for the degree of Master of Education
1949
Gift of
Ralph M. Merry
School of Education
June 14, 1949
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CHAPTER I
THE PURPOSE AND SCOPE OF THIS STUDY

The Problem

Statement of problem.—This study is concerned with some aspects of the part-time employment of pupils in the senior high school and the effects of that employment upon their marks.

Definition of some terms.—A term which will be used frequently in this study is pupil-worker. A pupil-worker is defined as a high school pupil who is engaged in part-time employment and work-experience. Part-time employment may or may not constitute work-experience. If the part-time employment is pursued in out-of school jobs with no school supervision, then such employment is not work-experience. On the other hand, when properly supervised by the school, part-time employment that is of value to the pupil-worker and society may be characterized as work-experience; hence, work-experience is defined in this study as part-time employment of value to the pupil and society for which the school provides supervision.

Thomas E. Christensen,1/ Director of Guidance, South High School, Worcester, Massachusetts, has defined part-time employment thus:

1/ In personal correspondence with the writer.
Part-time employment is employment out of school, on Saturdays, during school holidays, when it is possible to adjust school schedule without undue interference with a students' program. Such part-time employment does not include regularly organized, cooperative programs for vocational training under the Smith-Hughes and George Dean Acts.

The Youth Conference which met at Stanford University in September, 1942, adopted the following definition of work experience:

Work experience is practical activity of value to the individual and to society which produces goods or services and which meets accepted standards normal to that work situation. It may or may not be accompanied with pay, and it may be conducted both in and out of season.

Scope of study.--Two procedures were followed. First, all literature on the problem of pupil-employment was reviewed. Secondly, from 1944 to 1947 a study was made of the scholarship marks of approximately 2100 students of Malden High School before and after they accepted a job.

The Method

Collection of data.--The data collected from the literature reviewed on pupil-employment has been condensed as much as possible and some of the material has been presented in the form of tables. This material has been gathered from studies made by investigators in East Orange, New Jersey; Newton, Massachusetts; Peoria, Illinois;

New York City, New York; Berks County, Pennsylvania; Oakland, California; Gary, Indiana; Richmond, Indiana; South Bend, Indiana; Tulsa, Oklahoma; Madison, Wisconsin; Chicago, Illinois; Detroit, Michigan; Kansas City, Missouri; Philadelphia, Pennsylvania; and from studies made by the writer himself, who obtained the data from approximately 2100 boys and girls from the Senior High School, Malden, Massachusetts.

The employment and scholastic record was used to obtain the data from which the findings of the Malden High School study were derived.

The Malden High study was divided into two parts. In the first part a detailed study was made of the part-time employment of 489 boys and girls at the end of the second rank period in January, 1944. A distribution of their marks was made and a comparison of their scholastic failures was made between the school population and the working group.

In the second part a special study was made of a mixed group of approximately 600 students from the Senior High School, Malden, Massachusetts, starting with the sophomore year and following their careers until they were seniors, from September, 1944, to June, 1947. This group of pupils was obtained by selecting 150 seniors who were part-time workers but who had not worked during their junior year. A distribution of the marks of this second group in their
junior and senior years was made to discover if pupil-
employment during the senior year had any effect upon the
students' marks.

The California Short Form Test was also given to the
150 seniors who were working part-time to find out if
their score compared favorably with the rest of the seniors
in the school.

In the next chapter, material and charts will be pre-
presented that were gathered from all the literature reviewed
on part-time employment.
CHAPTER II

AN ANALYSIS OF PUPIL WORKERS IN 15 CITIES IN THE UNITED STATES

Pupil-Worker

Increase in number of student workers.--The years 1941-1945 witnessed the entrance of a new type of worker into factory, shop, and store. It was the wage earning pupils, who, with books under their arms, left the school room at the sound of the dismissal bell and gave of their youthful energy and their leisure time to help in the war effort. It was no small contribution that these young people made, and it was no small pay check that they carried home each week. Stunned by the numbers of students who daily joined the ranks of these part-time workers, school supervisors in many cities, fearful lest the school work of these students would be neglected, made extensive studies of the amount of time spent in outside work, the kind of work done, and the marks made by working pupils. The findings of some of these studies are given herewith.

Studies Made in East Orange, New Jersey

The need for a survey.--In the spring of 1944 it became increasingly apparent that many students attending the Clifford J. Scott High School in East Orange, New Jersey1/

were spending many of their after-school hours engaged in some remunerative work. Observing that the placement work of the Guidance Department of the school was heavier in the field of part-time work than ever before, that students had an increased amount of spending money, and that in some cases school work was suffering, school officials of East Orange decided that some kind of survey was advisable. The questionnaire method was used. The questions and results are shown in the following tables.

**Number at work.**—Are you presently employed after school hours or on Saturdays?

Table 1. Number of Students at Work (East Orange, N. J.)

<table>
<thead>
<tr>
<th>Classes</th>
<th>Those reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Freshmen.</td>
<td>29</td>
</tr>
<tr>
<td>Sophomore</td>
<td>32</td>
</tr>
<tr>
<td>Junior.</td>
<td>54</td>
</tr>
<tr>
<td>Senior.</td>
<td>39</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>154</td>
</tr>
</tbody>
</table>

The response was gratifying, for it represented almost all students. The survey was made with the understanding that students would respond voluntarily.
Table 2. Percentage of Those employed by Classes and by Total School Population, East Orange, N. J.

<table>
<thead>
<tr>
<th>Classes</th>
<th>Number Employed</th>
<th>Per Cent of Class</th>
<th>Per Cent of School Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshmen</td>
<td>29</td>
<td>16</td>
<td>5</td>
</tr>
<tr>
<td>Sophomore</td>
<td>32</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>Junior</td>
<td>54</td>
<td>40</td>
<td>9</td>
</tr>
<tr>
<td>Senior</td>
<td>39</td>
<td>37</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>154</td>
<td></td>
<td>26</td>
</tr>
</tbody>
</table>

It is significant to note that approximately one out of every four students (or 26 per cent) had a part-time job; and that 40 percent of the junior class were working part-time, the senior class running a close second with 37 per cent.

Pupil's reports on advantages gained by part-time work.—Why do you (or why do you not) consider work experience helpful to you?

The responses here given are from seniors only; the other classes are somewhat similar. The following sampling of these responses was done by taking the random order in which the seniors' papers were received and copying the responses to the question from alternate papers:

1. Because I intend to work with children when I get out of school.

2. Just to learn how to operate a projection machine (very complicated apparatus). Am learning while working with a friend who is an operator.

3. Experience under business regulations will be helpful later.
4. You can never tell when you are going to have trouble with your car. So I might as well know what to do under the circumstances.

5. It gives you self-confidence in yourself.

6. It mixes you with other people.

7. It gives me a little extra money which I could use.

8. Because I intend to do this work after graduation.

9. It helps me to be a little independent.

10. I consider this work helpful because this may be the kind of work I will do after I graduate.

11. It helps me to get along with people and to work with them.

12. First, it will teach me a good trade which will come in handy some day. Second, it will help me to understand future working problems.

13. It makes money to pay some school expenses.

14. I consider my work helpful financially and educationally.

15. It gives you a better start in life after you leave school.

16. It is mechanical work and I like mechanical work so I think in the future I may enter some mechanical line.

17. This question would take too much time to answer.

18. I am learning skills which may be useful later on.

Courses and scholarship records.--After a survey of this type, such questions as the following might be asked:
1. What courses are these part-time workers enrolled in?

2. What is their scholarship achievement?

3. What is the potential school achievement as determined by learning aptitude tests?

The answers are attempted in the three tables which follow:

Table 3. Classification of Part-Time Workers by Courses

<table>
<thead>
<tr>
<th>Classes</th>
<th>College</th>
<th>Business</th>
<th>General</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>.15</td>
<td>7</td>
<td>7</td>
<td>29</td>
</tr>
<tr>
<td>Sophomore</td>
<td>.16</td>
<td>7</td>
<td>9</td>
<td>32</td>
</tr>
<tr>
<td>Junior</td>
<td>.16</td>
<td>16</td>
<td>22</td>
<td>54</td>
</tr>
<tr>
<td>Senior</td>
<td>.15</td>
<td>8</td>
<td>16</td>
<td>39</td>
</tr>
<tr>
<td>Sub-Total</td>
<td>62</td>
<td>38</td>
<td>54</td>
<td>154</td>
</tr>
</tbody>
</table>

Per Cent 39 25 36 100

Table 3 shows that of the three curricula, the largest percentage of part-time workers were enrolled in the college preparatory course, the smallest percentage in the business course.

Table 4. School Achievement of Part-Time Workers

<table>
<thead>
<tr>
<th>Classes</th>
<th>Superior</th>
<th>Average Above Average</th>
<th>Failure</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>1</td>
<td>12</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Sophomore</td>
<td>8</td>
<td>16</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Junior</td>
<td>13</td>
<td>25</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Senior</td>
<td>17</td>
<td>8</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Sub-Total</td>
<td>39</td>
<td>61</td>
<td>46</td>
<td>8</td>
</tr>
</tbody>
</table>

Per Cent 25 39 30 6 100
Table 5. Potential Ability of Part-Time Workers as Determined by Aptitude Tests

<table>
<thead>
<tr>
<th>Classes</th>
<th>Superior</th>
<th>Average</th>
<th>Below Average</th>
<th>Inferior</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>8</td>
<td>11</td>
<td>6</td>
<td>4</td>
<td>29</td>
</tr>
<tr>
<td>Sophomore</td>
<td>4</td>
<td>17</td>
<td>9</td>
<td>2</td>
<td>32</td>
</tr>
<tr>
<td>Junior</td>
<td>20</td>
<td>17</td>
<td>12</td>
<td>5</td>
<td>54</td>
</tr>
<tr>
<td>Senior</td>
<td>14</td>
<td>13</td>
<td>11</td>
<td>1</td>
<td>39</td>
</tr>
<tr>
<td>Sub-Total</td>
<td>46</td>
<td>58</td>
<td>38</td>
<td>12</td>
<td>154</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>38</td>
<td>25</td>
<td>7</td>
<td>100</td>
</tr>
</tbody>
</table>

Conclusions from data from East Orange.—Tables 4 and 5 show that students who were potentially able to do good work in school were actually doing it, in spite of their part-time activities. Students whose work at school would probably be adversely affected by outside paid employment were recommended not to take such employment. The New Jersey law restricting to eight hours the combined work and school day for students under 16 may account for this finding.
Report on Working Pupils in the Newton High School, 
Newton, Massachusetts

Types of study made.--Carl P. Birmingham, Director of Placement in Newton High School, Newton, Massachusetts, made a study of the number of working pupils, their hours and earnings, together with a comparison of the academic grades received for the term ending December, 1943. Similar data for the same period, 1944, will be referred to for significant comparisons in the following tables:

Table 6. Employment of Pupils During December

<table>
<thead>
<tr>
<th>Class</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
<th>Per Cent</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>184</td>
<td>134</td>
<td>318</td>
<td>33</td>
<td>221</td>
<td>157</td>
<td>378</td>
<td>41</td>
</tr>
<tr>
<td>11</td>
<td>185</td>
<td>190</td>
<td>375</td>
<td>45</td>
<td>192</td>
<td>181</td>
<td>373</td>
<td>49</td>
</tr>
<tr>
<td>12</td>
<td>160</td>
<td>228</td>
<td>388</td>
<td>58</td>
<td>188</td>
<td>222</td>
<td>410</td>
<td>58</td>
</tr>
<tr>
<td>Total</td>
<td>529</td>
<td>552</td>
<td>1081</td>
<td>45</td>
<td>601</td>
<td>560</td>
<td>1161</td>
<td>49.5</td>
</tr>
</tbody>
</table>

In the above table we discover that in 1943 more than half of the seniors, 58 per cent; 45 per cent of the juniors; and 33 per cent of the sophomores; or 45 per cent of the total school registration worked. In the following year 58 per cent of the seniors, 49 per cent of the juniors, and 41 per cent of the sophomores were employed, or 49.5 per cent of the entire school enrollment, an increase

1/ Tables 6 to 11 inclusive were furnished the writer by Mr. Birmingham. May not have been published.
of 4.5 per cent over 1943.

Table 7. Pupils' Work Hours and Earnings, December, 1943, Newton High School

<table>
<thead>
<tr>
<th>Class</th>
<th>Cases</th>
<th>Hours</th>
<th>Earnings</th>
<th>Cases</th>
<th>Hours</th>
<th>Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>184</td>
<td>13759</td>
<td>$6981.28</td>
<td>134</td>
<td>7721</td>
<td>$2690.24</td>
</tr>
<tr>
<td>11</td>
<td>185</td>
<td>15497</td>
<td>9230.78</td>
<td>190</td>
<td>13884</td>
<td>5615.13</td>
</tr>
<tr>
<td>12</td>
<td>160</td>
<td>13029</td>
<td>8698.82</td>
<td>228</td>
<td>20284</td>
<td>8698.82</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>529</strong></td>
<td><strong>42,276</strong></td>
<td><strong>$24,232.99</strong></td>
<td><strong>552</strong></td>
<td><strong>41,889</strong></td>
<td><strong>$17,004.19</strong></td>
</tr>
</tbody>
</table>

The 1081 pupils employed worked a total of 84,165 hours, with total earnings of $41,237.18. The boys averaged 57 cents per hour, the girls 40 cents.

Table 8. Pupils' Work Hours and Earnings, December, 1944

<table>
<thead>
<tr>
<th>Class</th>
<th>Cases</th>
<th>Hours</th>
<th>Earnings</th>
<th>Cases</th>
<th>Hours</th>
<th>Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>221</td>
<td>14868</td>
<td>$7517.80</td>
<td>157</td>
<td>8461</td>
<td>$3178.45</td>
</tr>
<tr>
<td>11</td>
<td>192</td>
<td>13950</td>
<td>8112.94</td>
<td>181</td>
<td>13490</td>
<td>5552.95</td>
</tr>
<tr>
<td>12</td>
<td>188</td>
<td>15851</td>
<td>9903.67</td>
<td>222</td>
<td>17714</td>
<td>7869.92</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>601</strong></td>
<td><strong>44,769</strong></td>
<td><strong>$25,534.41</strong></td>
<td><strong>560</strong></td>
<td><strong>39,665</strong></td>
<td><strong>$16,601.32</strong></td>
</tr>
</tbody>
</table>

The 1161 boys and girls reported a total of 84,434 working hours with earnings of $42,135.73. The boys averaged 57 cents per hour, the girls 42 cents. Average hours worked by boys, 74; by girls 71. This table was put in to show the large amount of money that is earned by pupil-workers in one month.
Table 9. Summary of Hours, Earnings, School Grades for Fifty-six Pupils Employed in a Newton War Industry (Raytheon) in 1943

<table>
<thead>
<tr>
<th>Cases</th>
<th>Year</th>
<th>Hours</th>
<th>Earnings</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D &amp; F</th>
<th>Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>10</td>
<td>494</td>
<td>271.70</td>
<td>7</td>
<td>18</td>
<td>5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>11</td>
<td>1435</td>
<td>789.25</td>
<td>6</td>
<td>24</td>
<td>6</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>12</td>
<td>3764</td>
<td>2070.20</td>
<td>7</td>
<td>62</td>
<td>69</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td><strong>5693</strong></td>
<td><strong>$3,131.15</strong></td>
<td><strong>13</strong></td>
<td><strong>93</strong></td>
<td><strong>113</strong></td>
<td><strong>26</strong></td>
<td><strong>13</strong></td>
</tr>
<tr>
<td><strong>Per Cent</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>5</strong></td>
<td><strong>36</strong></td>
<td><strong>43.5</strong></td>
<td><strong>10.25</strong></td>
<td><strong>5.25</strong></td>
</tr>
</tbody>
</table>

The failure among students employed in this industry amounted to $10\frac{3}{4}$ per cent.

Table 10. Comparison of Failures, November-December Marking Period.
1941--42 to 1943--44

<table>
<thead>
<tr>
<th>Departments</th>
<th>41-42</th>
<th>43-44</th>
<th>Increase or Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>10</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Language</td>
<td>15.9</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>Social Studies</td>
<td>9</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Mathematics</td>
<td>13</td>
<td>19</td>
<td>6</td>
</tr>
<tr>
<td>Science</td>
<td>9.4</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Business</td>
<td>9.7</td>
<td>11</td>
<td>1.3</td>
</tr>
<tr>
<td>Retail Selling</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Art, Music</td>
<td>3.5</td>
<td>10</td>
<td>6.5</td>
</tr>
<tr>
<td>Home Economics</td>
<td>1.9</td>
<td>3.8</td>
<td>1.9</td>
</tr>
<tr>
<td>All Departments</td>
<td>10</td>
<td>11</td>
<td>1</td>
</tr>
</tbody>
</table>

The percentage of failing marks in December was 11, an increase of only 1 per cent over 1941 for the entire school. The percentage of failing marks for all working pupils was 10, or 1 per cent less than the average.
Table 11. Distribution of Working Pupils' Marks, December, 1944

<table>
<thead>
<tr>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D's &amp; F's</th>
<th>Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Pupils</td>
<td>9.2</td>
<td>34.2</td>
<td>42.2</td>
<td>10.4</td>
<td>4</td>
</tr>
<tr>
<td>Total Pupils</td>
<td>8.8</td>
<td>33.3</td>
<td>41.</td>
<td>10.5</td>
<td>6.5</td>
</tr>
<tr>
<td>Difference</td>
<td>-.4</td>
<td>-.9</td>
<td>-1.2</td>
<td>.1</td>
<td>2.5</td>
</tr>
</tbody>
</table>

The working pupils earned only .4 few A's than the whole school average and 19 per cent fewer B's, both honor grades. Thus working pupils' failures exceed the school average by one tenth of one per cent.

Conclusions based on data collected from Newton.-- The study in 1943 shows that grades of working pupils continued to compare favorably with the average of non-working pupils. This is contrary to the assumption of some teachers that work was inflicting havoc upon academic achievement. It is true in Newton that there were several individual cases requiring school adjustment or home counseling to have pupils curtail or discontinue outside work.
Report on Peoria and New York City

Effect of part-time work on standing of high school students.--A brief investigation of high school students was made in Peoria, Illinois, and in New York City.1/

A summary of the study in Peoria shows that in three high schools in the city, 1650 out of 5,000 students were working for wages. The proportion of boys working in the several high schools varied from 30.0 to 47.7 per cent and of girls from 14.6 to 30.4 per cent. The great majority of junior high school boys were employed as bus boys and in bowling alleys. Although the greater number of students was employed outside less than 30 hours per week, there were 117 students whose weekly work in addition to their school work ranged from 31 to 40 hours, and 56 students were employed over 40 hours per week. The Illinois law limits the combined school and work programs for boys and girls under 16 to eight hours per day.

The study in New York City included a selected group of students rather than specified high schools. The figures, prepared by the Bureau of Attendance, show that among 774 pupils who were part-time workers, absences increased only slightly. The scholastic record of the group of

part-time workers, even before they took outside employment, was a somewhat lower than average, and after they undertook part-time jobs, there was a decided rise in the number who failed in two or more subjects.

Conclusions from data collected from Peoria and New York City.--In the report of the three high schools in Peoria, Illinois, the withdrawals from school were only one per cent above the 1937-38 record. But the advantages of remaining in school were doubtful, since, according to the deans and teachers, "The students were too sleepy to absorb anything in class, and some of them were unable to keep up with their school work."

In the study made in New York City the findings indicated that part-time outside work affected the scholastic standing adversely.
Results of Experiments in Other Schools
of the United States

Report made in Berks County, Pennsylvania.1/—In 1944 there were in Berks County, Pennsylvania, approximately 10,000 youths, who, under the leadership developed within the county and participated in by the schools, became creative, productive, bond-purchasing young adults. During the summer months these young people furnished more than 875,000 days of labor to the farms, businesses, and industries of this country, and earned a total of more than two million dollars.

Inquiries concerning the future of the school-employment program of Berks County revealed that thus far the project is regarded as temporary, as it was concerned chiefly with meeting the labor needs of the war emergency.

Report made in Oakland, California.2/ The public schools of Oakland, California, have in operation the Four-Four plan. Work-experience constitutes one of the courses which may be elected by a student. High scholarship is not a prerequisite, but the student's health, his parent's attitude, and the requirements of his chosen high-school program are the determining factors. The evidence available indicates that students, employers,

2/ Ibid. p. 7
parents, and teachers have all gained much value from the program. It is emphasized by those in charge that the value to the individual student depends partly upon his own ability to profit from the experience and partly upon the employer's appreciation of work as an educational experience.

Report made in Gary, Indiana.1/ The schools and the employers in Gary, Indiana, have developed a cooperative plan under which students over sixteen years of age may be employed in industry while they are still enrolled in school. The fundamental assumption underlying this program is that through cooperative effort on the part of industry and the schools, the industries of the city may be better served by the schools, and the schools may benefit through suggestions from the industries.

Report made in Richmond, Indiana.2/ A plan cooperatively worked out by leading industrialists and school authorities at a meeting during the summer made it possible for pupils in Richmond, Indiana, to continue their schooling and at the same time help solve the critical employment situation of the war years.

The student's combined school and work schedule was adjusted to fit both his school needs and his employment requirements. The school schedule was operated on a

1/ Ibid. p. 8
2/ Ibid. p. 8
three-shift day. For a limited number of students and teachers, school started at seven o'clock in the morning, another group came at eight o'clock, and the remainder at nine. Some of the students could therefore be dismissed from school at 11:30, a second group at one, and others at two and three. This gave the pupils who worked in retail stores time to meet the businessman's requirements for additional help. In April, 1942, nearly three-fourths of these students were employed in retail stores, offices, and industry. Of the total, 83 per cent were working a four-hour shift.

Close study was made of attendance and scholastic achievement of these pupils for each successive six-week period. These studies revealed that the percentage of attendance for those working generally was at least as good as if not better than the average for the school. Their record for dropping out of school was much better than that of others. Scholastically the working group achieved results better than average. While there were fluctuations from period to period, striking an average, those working earned two per cent more A's, four per cent more B's, and one per cent more C's than the school as a whole; on the other side of the ledger they received two per cent fewer D's and had two per cent fewer failures.

Report made in South Bend, Indiana.1/ In South Bend, Indiana, the school-work arrangement grew out of a

1/ Ibid, p. 9
necessity. In the spring of 1945, it was found that about 1,000 pupils were working from thirty minutes to forty-eight hours per week. The principals of the schools discussed the matter and decided that a pupil who worked full time should not attempt to carry more than a half-time school load; correspondingly if he wished to be in school the full day, arrangements should be made for his employer to take him on the "victory shift" from four to eight o'clock in the evening. Not many changes were made. By and large, the pupils who worked had better records of attendance and higher marks than those who did not hold outside jobs.

Mr. P. D. Pointer, Principal of the Central Junior and Senior High School, South Bend, Indiana, says the following: 1/

I believe that students should have the opportunity to work and should have the advantage of work experience; we as school people should make it possible for them to secure this experience. As this program develops I feel confident that we will come to value work experience as a very vital and integral part of a high school student's educational program.

Report made in Tulsa, Oklahoma.—The work experience program of the Daniel Webster High School, Tulsa, Oklahoma, was primarily designed to give work experience to students. All told, approximately half of the school's enrollment now does some outside work under this program. However, 1/ Education For Victory, U. S. Office of Education, Federal Security Agency (April 20, 1945) 3:No. 20, Washington, D. C. p. 9.
only about one student in ten asked to be excused from school for part of the day in order to work. The hours of work range from one to eight hours a day and the rate of pay from twenty to ninety cents an hour. The instruction aims to develop confidence in the student and to prepare him to make application for a job, to familiarize him with a few necessary job skills, and especially to impress upon him the importance of good business behavior and his responsibility on the job. As a follow-up project in English, every student who works is asked to give a report on his experience.

Report made in Madison, Wisconsin.1/ The largest survey made in the city of Madison, Wisconsin, was completed in November, 1944, and showed 1,706 pupils to have jobs. A work-experience credit plan was initiated to enable boys and girls sixteen years of age and older to continue with their education and at the same time secure work experience which would assist the nation at war. The plan is based upon the philosophy that going to school is the primary responsibility of youth, that work experience is valuable if wisely chosen and properly guided, and that pupils who wish to work and who are able to do so without suffering educationally should have the opportunity. The student's health, recreation, and education are considered. It is felt that four hours in school and four hours at work is the maximum load for the pupil.

1/ Ibid. p. 10.
Dr. Carl H. Waller, Director of the Department of Child Study and Service, Madison, Wisconsin, makes the following statement regarding the plan: 1/

At the present time about one hundred and fifty pupils have entered upon the work-experience credit plan. Many of them would have dropped out of regular school attendance if such provisions were not afforded. Under this plan an opportunity for them to work as well as to keep their high school connection has been afforded. Local employers have expressed appreciation for the schools' cooperation at a time when the labor problem is acute.

The plan has made for better understanding on the part of parents, school people, and employers of the needs of youth and educational opportunities. The experiences youth receive under such a plan will assist them materially in future vocational and social life.

Report made in Chicago, Illinois.—The policy followed in Chicago is to give recognition to work experience, but not to grant credit for it. The school maintains that part-time work values limit themselves to the generalities of learning to get along with people, to work on schedule, and to know the value of money, and that no new skills are learned as a result of the work done, thereby justifying school credit. Instead of school credit the student is given credit for work experience on his personal record.

A survey made in April, 1944, revealed that of a total high school enrollment of 11,000, more than one-

third were working part-time, and nearly one-tenth had home responsibilities which prevented them from accepting employment. More than three-fourths of those employed were working from ten to twenty-nine hours a week and were being paid from forty to seventy cents an hour.

In a survey made in December, 1944, of 6,500 graduating students, two-thirds were found to be working part-time. Seventeen hundred of the 2,948 boys were planning to be in the Armed Services shortly after graduation.

Report made in Detroit, Michigan.1/ The schools of Detroit, Michigan, have a plan for giving credit for work experience to senior high school pupils who are regularly employed outside of school hours.

Work experience credit is granted on the basis of two hours of work per day or a weekly average of twelve hours satisfactorily performed over the period of a semester. For this amount of work experience, one semester credit is allowed. This report, on a four-point scale, covers attendance, promptness, reliability, and quality of work.

Report made in Kansas City, Missouri.2/ Part-time work figures in the programs of many students in the high schools of Kansas City, Missouri. The students are

1/ Ibid, p. 10
2/ Ibid, p. 11
encouraged to undertake balanced programs that will enable them to maintain health and scholarship. In dealing with the adjustments to part-time work plans, the schools are greatly aided by a community temper, which is unmistakable in its emphasis upon school as the primary concern of youth.

Almost one out of every five pupils is regularly employed in part-time work. Half of these have their work hours over weekends, after school, or on certain evenings of the week when their attendance at school is not interfered with in any way. Among those who work more than twenty-five hours, are some who are taking abbreviated programs designed to lead to high school graduation in five years instead of the customary four.

Report made in Philadelphia, Pennsylvania.--1/

Variety marks the provisions of the schools in this city regarding the employment of high school students. About 2,000 students are registered and trained in the spring months to work on farms during the summer months.

Many other students carry outside jobs along with school attendance during the school year. This is known as a school-work program. This school-work program places the education and welfare of the student first in importance. From 1942 to 1945 the enrollment increased 25 per cent.

1/ Ibid., p. 11
Edwin W. Adams, Associate Superintendent of Schools, Philadelphia, Pennsylvania, January 1945, wrote the following in the Foreward View point to a publication on the School-Work Program:

Experience has demonstrated that larger numbers of our young people can be held on school rolls on a part-time basis. Observation indicates an improvement in appearance, attitude toward school, and regularity of attendance. The testimony of students and teachers alike is to the effect that the work of the classroom assumes a practical worth because of its application in the tasks of the business world. Moreover, at this particular moment of crisis in the labor market, the service of youth in employment stands as a distinct contribution to our war effort. Work experience is a movement under way through the length and breadth of the land.

The provisions for employment vary from school to school and from student to student. Some of the high schools close a week early for Christmas vacation to permit thousands of students to assist in relieving the labor shortage in the United States Post Office and in the stores during the Christmas rush.

Viewpoints on Part-Time Jobs.--In addition to the reports from the various school systems as to the work policy in their cities, many articles have been published by educators discussing this vital problem. In January, 1944, there appeared in the magazine School and Society an article by Harriet E. Lee entitled: "Part-Time Jobs."

I quote a portion of this article:

This daily strain of meeting appointments from eight in the morning until after twelve at night is common among high school pupils. In time, it leaves its mark in irregular attendance at school, falling behind in lessons with eventual failure, and a lowering of health status, revealed by loss of weight and lassitude. These are tangible evidences of the evils of this so-called "part-time" working program. There have been three common policies in dealing with it. In general, the tendency has been to maintain school life as usual, disregarding the individual maladjustments. This is bad for the future of education because the pupils that leave feel a hearty dislike for school and a resentment toward educators. As future citizens, they will not have an interest in the welfare of our schools. In some cases the problem has been met with a shortened program. Pupils are not permitted to carry a full program if working more than three hours a day. This policy has its disadvantages, for it leads to evasion, friction, and deceit. A third solution, is the granting of credit for out-of-school work. Pupils substitute working credit for one school subject. This plan necessitates close coordination between employers and the school, but it does seem to offer some hope. Part-time work is not a school problem alone, but the problem of every member of every community, a problem of democracy in peace as well as war.

Carl A. Jessen, who is a senior specialist in Secondary Education in the United States Office of Education has assembled the following report on school-work programs from several schools and school systems:


Youth is participating in all-out effort for war production in the Los Angeles City area in excess of 1,000,000 hours per week. At the same time, these boys and girls are successfully carrying their full load of school work. They will graduate at the normal time with their classmates. Much has been gained through the Four-Four Plan (4 hours of school and 4 hours of work each day) and little or nothing has been lost.

Mr. Jessen states that the experience of the Four-Four Plan has enabled many pupils to make better decisions in their own occupational selection. School credit is given to boys and girls for many types of successful work experience which have actual educational value. They have found many new and some unsuspected values in work experience for pupils. The Four-Four Plan was a distinct success in the war production era and is being given careful consideration by educators for post-war continuation.

Dr. Arnold E. Joyal, Acting Dean of the College of Education at the University of Maryland, makes the following statement:1/

If we can once accept the position that work is an essential ingredient in the total education of every individual, and follow this general principle through to its logical conclusion in action, we shall find that many of the problems that have hitherto beset the administration of school-work programs will disappear.

The following paragraph quoted from a report circulated by Mr. A. J. Stoddard, Superintendent of Schools, Philadelphia, Pennsylvania, gives a general judgment growing out of the experience with the school-work program in Philadelphia. 1/

The serious application to studies, often characteristic of students working their way through college, has been noted in many of these young part-time workers. On the other hand, there have been instances of too much work interfering with school progress. The impression grows, however, that a well organized day of school and work, geared to the capacity of the student to perform both tasks well, has in a great majority of cases proved to be a steadying influence and a stimulus to school achievement. To attain this integration of schooling and employment has been one of the objectives of the school-work program.

Problems still unsolved.—Mr. Stoddard goes on to say that many problems still remain unsolved. One is the question of whether school-work experience shall be given academic credit toward high school graduation, and, if so, how much? This question must be answered by asking and answering another question: How much educational value does work experience have? Most educators believe that it has considerable value and that credit should be granted when there is evidence that desirable learning has taken place. There are also the problems of whether outside work may affect the health of children,

what the limits of employment in hours and types of work should be, how much pay should be assured, and many other matters.

Victory Farm group.--Hundreds, if not thousands, of American secondary schools in all parts of the nation have worked out plans for releasing students during regular school hours for out-of-school work supervised by the school. One of the best bulletins on this subject was Bulletin No. 111, published by the National Association of Secondary School Principals. This bulletin explains how the Victory Farm Volunteers plan works.

This is one specialized phase of farm work program. It was designed as a device to recruit and train urban youth for work on farms in the summer and other times, and was set up by the United States Office of Education in cooperation with the War Manpower Commission and the Department of Agriculture. Since some crops are harvested during times when school is in session, schools have devised harvest plans which provide farmers with specified numbers of helpers by rotating the individuals so that a particular youth misses school only a fraction of the time. Under a plan like this, a student may work three days in two weeks. Usually only students who are physically and scholastically able to carry both school

and job are included in this program.

The students are usually paid for their work, and, where they are adequately supervised, such plans have operated without harmful effects to the students' academic work. In a nation as vast as ours, there have been many different adjustments to war conditions and many variations in the plans from one school to another.

In the September, 1943, issue of the *Journal of Education*, a project described by Charles and Eunice Jucket 1/ offers some valuable advice on the basis of their experience with a group of secretarial-practice students. They rightly assumed that their pupils appreciated the significance of high morals among servicemen and that one very important factor is such morale was news from home, news of what "was really going on in the old home town." If there was one group that could provide such "printed gossip," it was the group at the school which the men had attended before leaving for the service. To provide the news, the pupils prepared bulletins as a group project.

There has been, and there still is, evidence of the need for vigorous campaigns by school authorities to induce pupils to return to school after vacation periods and to continue their programs of study until they graduate.

1/ Charles and Eunice Jucket, *Journal of Education* (September, 1943) P.182
The lure away from the school in wartime is exerted from three directions as stated by the School Review.1/ One of these three is the school itself. In anticipation of summer and holiday vacations, the school authorities admonish pupils to aid the war effort by seeking jobs on farms and in shops, stores, and factories. The financial attraction of regular full-time employment is another urge compelling young people to leave their books. A third tendency to forsake studies comes with the desire of many persons to contribute immediately something very definite to war service.

Many teachers and principals have endeavored to satisfy the last mentioned urge by bringing to their schools activities which relate directly to the war.

Advantages in continuation after the war.—Work experience programs will be one device for strengthening the relationship between the school and the community. The Educational Policies Commission 2/ gives a full detailed explanation of work experience in the secondary school of the future.

Summary.--Thirteen out of the fifteen cities reviewed were in favor of part-time employment. Some of the statements in favor of work-experience are as follows:

1. Tables show that pupils who were able to do good work in school were actually doing it, in spite of their part-time activities.

2. Working pupils continued to compare favorably with the average of non-working pupils.

3. Pupils, employers, parents and teachers have all gained much value from this type of program.

4. Industries of the city may be better served by the schools, and the schools may benefit through suggestions from the industries.

5. Scholastically the working-group achieved results better than average.

6. Pupils who worked had better records of attendance and higher marks than those who did not hold outside jobs.

7. The plan is based upon the philosophy that going to school is the primary responsibility of youth, that work experience is valuable if wisely chosen and properly guided, and that pupils who wish to work and who are able to do so without suffering educationally should have the opportunity.
8. The school maintains that part-time work values limit themselves to the generalities of learning to get along with people, to work on schedule, and to know the value of money.

9. In one school system work experience credit is granted, on a four-point scale, covers attendance, promptness, reliability, and quality of work.

10. Observation indicates an improvement in appearance, attitude toward school, and regularity of attendance, and the work of the classroom assumes a practical worth because of its application in the tasks of the business world.

The next chapter will be devoted to the subject of pupil employment in Malden High School, Malden, Massachus- etts.
CHAPTER III
AN ANALYSIS OF PART-TIME EMPLOYMENT
IN MALDEN HIGH SCHOOL

First Study

Procedure.—A detailed study was made of the part-time employment of 499 boys and girls at the end of the second ranking period, January, 1944. A distribution of their marks was made and a comparison of the scholastic failures between the school population and the working group. A study of the scholarship marks of those working students will be shown in the following table.

Table 12. Comparison of Marks Between the 499 Part-Time Worker and the Rest of the School Population of 1018.

<table>
<thead>
<tr>
<th>Class</th>
<th>Number</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers</td>
<td>499</td>
<td>76.03</td>
<td>9.79</td>
</tr>
<tr>
<td>Non-Workers</td>
<td>1018</td>
<td>73.31</td>
<td>10.44</td>
</tr>
<tr>
<td>N = 1517</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 12 shows the workers with a mean of 76.03 and standard deviation 9.79. The non-workers shows a mean of 73.31 and a standard deviation of 10.44. Statistically this means that the average marks for the workers are a little higher than the non-workers.
Second Study

Procedure. — The second study was made of a mixed group approximately 600 students from the senior high school starting with the sophomore year and following their careers until they were seniors, from September, 1944 to June, 1947. This group of pupils was obtained by selecting 150 seniors who were part-time workers but who had not worked during their junior year. A distribution of the marks of this second group in their junior and senior years was made to discover if pupil-employment during the senior year had any effect upon the students' marks.

The California Short Form Test was also given to the 150 seniors to find out if their score compared favorable with the rest of the seniors in the school and also distribution of hours worked per week, and marks for seniors, for the upper group who worked long hours and for the lower group who worked short hours.

Tables of Comparison. — This study was made up of 600 students from September, 1944 to June, 1947.

Table 13. Comparison of Marks for the 150 Non-Working Juniors and the Same Group Working in the Senior Year.

<table>
<thead>
<tr>
<th>Class</th>
<th>Number</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juniors</td>
<td>150</td>
<td>75.50</td>
<td>10.07</td>
</tr>
<tr>
<td>Seniors</td>
<td>150</td>
<td>76.15</td>
<td>9.06</td>
</tr>
<tr>
<td>No. 150</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 15 shows the non-working juniors with a mean of 75.50 and a standard deviation of 10.07. The seniors shows a mean of 76.15 and a standard deviation of 9.06. This is not statistically significant altho the senior group did a little better scholastically when they were working.

Table 14. Total Work Hours Per Week and Marks for 150 Seniors.

<table>
<thead>
<tr>
<th>Hours</th>
<th>Number</th>
<th>Per Cent</th>
<th>Marks</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 25-42</td>
<td>25</td>
<td>.16</td>
<td>74.14</td>
<td>10.04</td>
</tr>
<tr>
<td>Average 12-25</td>
<td>100</td>
<td>.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 12-0</td>
<td>25</td>
<td>.16</td>
<td>74.23</td>
<td>9.11</td>
</tr>
<tr>
<td></td>
<td>150</td>
<td></td>
<td>Mean 18.02</td>
<td>Median 16.97</td>
</tr>
</tbody>
</table>

Table 14 shows the comparison of the marks for the upper 16 per cent who worked 25 hours or more and the lower 16 per cent who worked 12 hours or less. The upper 16 per cent shows a mean of 74.14 and a standard deviation of 10.04 and the lower 16 per cent shows a mean of 74.23 and a standard deviation of 9.11. Very little discrimination is shown in their marks between the upper group and the lower group; evidently, it makes no difference for the students were capable of carrying the load.
Table 15. Comparison Between the Workers and Non-Workers in the California Short-Form Test of Mental Maturity Advanced S-Form.

<table>
<thead>
<tr>
<th>Seniors</th>
<th>Number</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers</td>
<td>150</td>
<td>110.20</td>
<td>16.11</td>
</tr>
<tr>
<td>Non-Workers</td>
<td>300</td>
<td>106.78</td>
<td>13.32</td>
</tr>
<tr>
<td><strong>N = 450</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 15 shows the results of the California Short Form test that was given to the workers and non-workers. The workers shows a mean of 110.20 and a standard deviation of 16.11. The non-workers shows a mean of 106.8 and a standard deviation of 13.32. Statistically this means that the workers scored higher on the test.


<table>
<thead>
<tr>
<th>Seniors</th>
<th>Number</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers</td>
<td>150</td>
<td>107.5</td>
</tr>
<tr>
<td>Non-Workers</td>
<td>300</td>
<td>105.0</td>
</tr>
<tr>
<td>New England</td>
<td></td>
<td>107.0</td>
</tr>
</tbody>
</table>

Table 16 shows the comparison between the workers, non-workers, and the New England norms. The National norms are the median I. Q. and it is 105 for all seniors, the New England norms 107 for seniors. The median for the 300 non-workers was 105, and the median for the 150 workers was 107.5. Statistically the 150 workers made a higher score on the test then the 300 non-workers.
Summary.—Comparing the first study of 499 part-time workers with the school population of 1517 students, the working students' achievement scholastically was higher. In the second study of the 600 workers the comparison of marks for the 150 non-working juniors did not do as well as the same group did when they were working in their senior year. In the study of the comparison of the marks for the upper 16 per cent who worked 25 hours or more and the lower 16 per cent who worked 12 hours or less, it made no difference for the students' were capable of carrying the load. The California Short Form test given to the 150 seniors working part-time shows that the I. Q.'s are a little better than the school population.

The next chapter of this study will include a summary of the data presented, the conclusions that may be drawn, and certain recommendations.
CHAPTER IV
Summary and Conclusions

Summary

Purpose of the study.—This study is concerned with part-time employment of pupils in the senior high school and the effects of that employment upon their marks. The major findings are as follows:

1. Thirteen out of the fifteen cities reviewed were in favor of part-time employment.
2. From the data collected from Malden, the comparison of marks between the 499 part-time workers and the rest of the school population showed the study to be in favor of the workers.
3. In the comparison of marks for the 150 non-working juniors and the same group working in the senior year showed the study was in favor of the seniors.
4. In the comparison of the marks for the upper group working long hours and the lower group working short hours showed that it made no difference in their marks.
5. In the comparison between the workers and the non-workers in the California Short-Form test the workers scored higher on the test.
Conclusions

From an analysis of the results. -- The conclusions from the literature reviewed are as follows:

1. The fundamental assumption underlying this whole program in the literature reviewed is, that going to school is the primary responsibility of youth, but that work experience is valuable if wisely chosen and properly guided. Therefore, pupils who wish to work and who are able to do so without suffering educationally should have the opportunity.

2. In Newton the working pupils' failures exceed the school average by one tenth of one per cent. Therefore, the grades of working pupils compare favorably with the average of non-working pupils.

The conclusions from the Malden study are as follows:

1. In the comparison of marks between the part-time workers and the school population there was a difference of only 2.72 in the mean and .65 in the standard deviation.

2. In the comparison of marks for the 150 non-working juniors and the same group working in the senior year, there was a difference of only .65 in the mean and 1.01 in the standard deviation.

3. In the comparison of marks for the upper 16 per cent who worked long hours and the lower 16 per cent who
worked short hours, there was a difference of only .09 in the mean and .93 in the standard deviation.

4. In the comparison between the workers and the non-workers given the California Short-Form test, there was a difference of 3.42 in the mean and 2.79 in the standard deviation.

5. The results just presented from the Malden study show only a slight amount of difference in their marks, which is not statistically significant. Therefore, it is quite evident from the data presented that pupil-employment does not affect the students' marks.
Criticisms and suggestions for further study. -- It needs to be borne in mind that the school-work programs previously described are probably of the better variety. It is likely that they are found in some-what superior schools where effort has been made to do some thinking and planning regarding out-of-school work by high school students. The success in school of those pupils engaging in part-time employment varies with the different types of pupils involved. Probably the average and the poorer student do a poorer school job. Good students exert more effort to carry the dual burden.

Following are a few questions that perhaps need further consideration:

1. At what ages or grades should part-time work be started?

2. On what basis should students be selected for work-experience?

3. Should school work programs be elective for all students, or restricted by the school on the basis of interest, aptitude, and progress?

4. How much work should be allowed, and how should the time be divided between hours of school and hours of work?

5. What measures are required to safeguard the health of part-time workers?
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