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## **Effect of work in childhood on education of people from agricultural families**

Wpływ pracy w dzieciństwie na edukację osób  
z rodzin rolniczych

**Słowa kluczowe:** praca dzieci, praca a edukacja, dziecko wiejskie.

**Key words:** work of children, work and education, a child from rural areas.

**Streszczenie:** Wśród badaczy istnieje rozbieżność opinii na temat zależności pomiędzy podejmowaniem przez dzieci pracy a ich procesem edukacji. Niektórzy uważają, że zatrudnianie dzieci utrudnia im naukę i przyspiesza wejście w dorosłe życie, natomiast inni twierdzą, że niezbyt wyczerpująca praca nie przeszkadza w nauce, a jednocześnie wpływa pozytywnie na przygotowanie do dorosłego życia.

Celem opracowania jest poznanie zależności pomiędzy stopniem obciążenia pracą w dzieciństwie a przebiegiem procesu edukacji oraz uzyskanym wykształceniem. Ocena tej zależności została przedstawiona na podstawie badań wśród osób dorosłych pochodzących z rodzin rolniczych. Badania przeprowadzono metodą sondażu diagnostycznego, wykorzystując technikę ankietową, w grupie 482 osób dorosłych. Dobór próby badanych osób był celowy według następujących kryteriów: 1) pochodzenie z rodziny rolniczej, 2) wiek badanych od 20 do 65 roku życia, 3) ukończona edukacja. Respondenci zostali wybrani z populacji osób dorosłych zamieszkałych na terenie Polski Środkowo-Wschodniej. Przeprowadzone badania wykazały, że zdecydowana większość osób pochodzących z rodzin rolniczych ocenia, że praca w dzieciństwie nie miała wpływu na ich wykształcenie. Jednocześnie co czwarty spośród nich dostrzega wpływ pracy na edukację, w tym nieco większy odsetek badanych wskazał na pozytywne konsekwencje. Wpływ pracy na wykształcenie częściej dostrzegają mężczyźni niż kobiety i częściej jest to wpływ negatywny. Zagrożenie występowania negatywnych konsekwencji pracy w dzieciństwie na wykształcenie wzrasta, gdy dzieci były angażowane do pracy od najmłodszych lat swojego życia, gdy na pracę poświęcały średnio więcej niż 2 godziny dziennie i były przeciążone obowiązkami w gospodarstwie.

**Introduction.** While analysing negative consequences of the engagement of children in work, its negative effect on education is frequently emphasized. Studies conducted by American sociologists confirm that a large amount of time devoted by children to work exerts a negative effect on their progress in education (Kim, Zepeda, Kantor 2005, p. 167). Some children admit that they have an insufficient amount of time for education, feel overtired, and for this reason obtain worse results.

However, the researchers' opinions concerning the relationship between undertaking work by children and their education process is unequivocal. Some of them consider that the engagement of children in work hinders their education and facilitates the process of entering adult life, whereas others indicate that work which is not too exhausting does not interfere with education, and simultaneously prepares them for adult life (Bourdillon 2006, p.1215). The negative effect on children's education involves the scope of work activities which deprives them, or considerably limits, the possibilities to attend school. Such situations occur in poorly developed countries, where impoverishment of a large part of society forces parents to use children for work to supplement modest household budgets. Studies of the relationship between the work of children and their school attendance conducted in Ethiopia showed that work has a negative effect on their education, especially those from rural environments (Amassie 2003, p. 172). Similar relationships were observed among children in Brazil, Bangladesh, and Cambodia (Dorman 2008).

Not all forms of children's work make it impossible for them to continue education. Nevertheless, it is commonly known that work limits the time which may be devoted by a child for education. Studies conducted in Nicaragua and Pakistan show that even one hour of work daily may exert a negative effect on the school achievements of children (The end of child Labour 2006).

J. Mortimer arrived at opposite conclusions, and rejected the hypothesis that the work of American children outside the home takes up the time and energy needed for their education. Time for work is rather devoted at the cost of 'passive' activities, such as watching television, inactivity, laziness, than at the cost of school education (Martimer 2003). In addition, the relationship between school education and work outside school depends on the general social context, type of work and relations at this work.

Considering the controversy concerning the importance of work on behalf of a family farm in the process of children's education, it is justifiable to solve these problems based on further studies. A basis for to-date analyses were studies carried out among children engaged in various work activities at home and outside the home. The objective of these studies was determination of the relationship between the degree of engagement in work and their educational process. The objective of the presented report is the determination of such a relationship; based, however, on the retrospection of adults. Studies of adults from agricultural families were aimed at evaluation of the effect of work in childhood on the course of education and the educational level attained.

**Methodology.** The study was conducted by the method of a diagnostic survey, using a questionnaire technique, within the project pertaining to the effect of work in childhood on the situation of people from agricultural families. Research material was collected using a questionnaire form containing items which concerned: evaluation of the degree of loading with agricultural work at the age of 12 – 14, characteristics of parents' farm, assessment of the effect of work in childhood on the educational process and education obtained, as well as the respondents' socio-demographic characteristics.

The study sample was selected from among the population of adults living in the area of Central-Eastern Poland. The selection of respondents was targeted according to the following criteria: 1) family of agricultural origin (parents posses or possessed own farm), 2) respondents' age from 20 – 65, 3) completed education. The study covered a group of 482 adults.

All respondents came from agricultural families, had a stable occupational situation (completed school or university education and occupational activity undertaken). The majority of respondents were females (62.6%). Respondents were aged from 21 - 65. Young people aged up to 35 constituted nearly 1/3 of the study group, 2/5 of respondents were aged 36 – 50, while the remainder (32.4%) were aged over 50. The mean age of females was slightly younger than that of males. At the time of the study, a half of the respondents (53.9%) lived in rural areas, whereas the remainder were urban inhabitants. Nearly 1/3 of respondents were occupationally connected with agriculture, 12% worked exclusively in agriculture, whereas 18% performed a dual-occupation – they ran own farms and were simultaneously employed outside agriculture.

**Scope of work activities performed in childhood.** In studies concerning the relationship between age and education process an important element is the determination of the degree of loading children with work activities. All the respondents came from agricultural families and in childhood were engaged in work on behalf of a family farm; however, the scope of their engagement in agricultural work was relatively varied. The data obtained showed that farmers' children begin to help on a farm relatively early, and a part of respondents from their youngest years of life were engaged in work on behalf of the family (Tab. 1).

Due to the performance of work on a family farm a smaller amount of time is left for other activities, including education, which may exert a negative effect on the results achieved. At the age of 12–14, the respondents devoted to farming activities approximately 3 hours daily, on average. In nearly ¼ of respondents the amount of time devoted to agricultural work did not exceed 2 hours daily, a half of respondents worked for 2–4 hours, while the remainder (24.1%) for longer than 4 hours daily. The majority of respondents from agricultural families (70.1%) reported that the duration of performing agricultural work in childhood was adequate to their possibilities, while nearly 1/3 of them admitted that the time devoted to work was too long in relation to the capabilities of the child.

**Table 1. Various aspects of loading with agricultural work in childhood according to age**

| Aspects of loading with work  | Age        |              |            |              |             |              | Total      |              |
|---|------------|--------------|------------|--------------|-------------|--------------|------------|--------------|
|   | up to 35   |              | 36 - 50    |              | 51 and over |              | n          | %            |
|   | N          | %            | N          | %            | N           | %            |            |              |
| Age at starting work ( $\chi^2=20,640$ ; $p<0,01$ )                             |            |              |            |              |             |              |            |              |
| 6 and under   | 9          | 6.6          | 15         | 7.9          | 23          | 14.7         | 47         | 9.8          |
| 7 – 9   | 29         | 21.2         | 41         | 21.7         | 38          | 24.4         | 108        | 22.4         |
| 10 – 11   | 43         | 31.4         | 47         | 24.9         | 53          | 34.0         | 143        | 29.7         |
| 12 and over   | 56         | 40.9         | 86         | 45.5         | 42          | 26.9         | 184        | 38.2         |
| Working time  |            |              |            |              |             |              |            |              |
| up to 2 hours   | 36         | 26.3         | 50         | 26.5         | 29          | 18.6         | 115        | 23.9         |
| 2 – 4 hours   | 68         | 49.6         | 102        | 54.0         | 81          | 51.9         | 251        | 52.1         |
| more than 4 hours   | 33         | 24.1         | 37         | 19.6         | 46          | 29.5         | 116        | 24.1         |
| Performance of work activities beyond capabilities ( $\chi^2=14.0$ ; $p<0.01$ ) |            |              |            |              |             |              |            |              |
| frequently  | 31         | 22.6         | 40         | 21.2         | 56          | 35.9         | 127        | 26.3         |
| rarely  | 33         | 24.1         | 52         | 27.5         | 43          | 27.6         | 128        | 26.6         |
| never   | 73         | 53.3         | 97         | 51.3         | 57          | 36.5         | 227        | 47.1         |
| Evaluation of work load ( $\chi^2=10.76$ ; $p<0.05$ )                           |            |              |            |              |             |              |            |              |
| high  | 58         | 42.3         | 80         | 42.3         | 84          | 53.8         | 222        | 46.1         |
| mediocre  | 51         | 37.2         | 86         | 45.5         | 53          | 34.0         | 190        | 39.4         |
| low   | 28         | 20.4         | 23         | 12.2         | 19          | 12.2         | 70         | 14.5         |
| <b>Total</b>  | <b>137</b> | <b>100.0</b> | <b>189</b> | <b>100.0</b> | <b>156</b>  | <b>100.0</b> | <b>482</b> | <b>100.0</b> |

The degree of work load is affected not only by the duration of its performance but also by the type of work. Over fatigue with agricultural jobs certainly unfavourably affects the possibilities of good preparation for school classes at home, as well as an effective education at school. Every second respondent (52.9%) mentioned that in childhood, at the age 12 – 14, performed work activities which were beyond their physical capabilities, whereas 25% of the total number of respondents performed these jobs often (Tab.1). At the same time, nearly a half of respondents reported that in childhood they were loaded with agricultural work to a high degree, 2/5 of them evaluated loading with work as mediocre, and only 14.5% as low.

The evaluations of the degree of loading with work in childhood significantly differed by age. Older respondents began work on farm at a younger age, more often performed work activities beyond their capabilities, and more frequently experienced high work load than those at a younger age. In addition, older respondents more often mentioned that the working time during the day was too long. These results indicate that in recent decades a tendency has occurred towards limiting the scope of engagement of children in work on family farms.

**Effect of work in childhood on education process.** An assumption was adopted that the engagement of children in work on a family farm exerts a negative effect on the process of their education at school. This thesis was not confirmed in the case of approximately a half of respondents, who did not perceive the negative effects of work, while others did not experience such effects (Tab. 2). Nearly every second respondents misses school classes (46.1%) or neglected school duties (44.8%) because of work on farm, whereas the majority of respondents admitted that work on farm caused the feeling of fatigue during classes at school (53.3%). A considerable part of respondents from agricultural families were engaged in agricultural activities within such a scope that difficulties frequently occurred with school education. Every eighth respondent often neglected school duties (12.0%) and often experienced fatigue due to work on a farm (12.9). A similar percentage of respondents (11.6%) missed school classes relatively often (at least once a month or more frequently).

Males significantly more often than females experienced the negative effect of work on the education process in childhood. The majority of males neglected school duties because of work on a farm (60.6%), and only 1/3 of females (Tab. 2). Similar proportions occurred with respect to school absenteeism. Slightly smaller differences were observed while analyzing fatigue during school classes caused by work on a farm, and this difficulty also more often concerned boys than girls ( $\chi^2 = 22.851, p < 0.001$ ).

**Table 2. Negative effect of work on farm on education process according to gender.**

|   | Gender |       |      |       | Total |       |
|---|--------|-------|------|-------|-------|-------|
|   | Female |       | Male |       | n     | %     |
|   | n      | %     | n    | %     |       |       |
| Neglecting school duties ( $\chi^2=34.461, p<0.001$ )           |        |       |      |       |       |       |
| frequently  | 21     | 6.9   | 37   | 20.5  | 58    | 12.0  |
| rarely  | 86     | 28.5  | 72   | 40.0  | 158   | 32.8  |
| never   | 195    | 64.6  | 71   | 39.4  | 266   | 55.2  |
| Total   | 302    | 100.0 | 180  | 100.0 | 482   | 100.0 |
| Frequency of missing classes at school $\chi^2=36.763, p<0.001$ |        |       |      |       |       |       |
| 1– 3 times a month or more frequently                           | 18     | 6.0   | 38   | 21.1  | 56    | 11.6  |
| several times a year  | 56     | 18.5  | 50   | 27.8  | 106   | 22.0  |
| once or twice a year  | 43     | 14.2  | 17   | 9.4   | 60    | 12.4  |
| never   | 185    | 61.3  | 75   | 41.7  | 260   | 53.9  |
| Total   | 302    | 100.0 | 180  | 100.0 | 482   | 100.0 |
| Experiencing fatigue at school $\chi^2=9.581, p<0.05$           |        |       |      |       |       |       |
| frequently  | 33     | 10.9  | 29   | 16.1  | 62    | 12.9  |
| rarely  | 122    | 40.4  | 73   | 40.6  | 195   | 40.5  |
| never   | 147    | 48.7  | 78   | 43.3  | 225   | 46.7  |
| Total   | 302    | 100.0 | 180  | 100.0 | 482   | 100.0 |

**Table 3. Effect of work on farm on education according to gender\*.**

| Effect on education   | Gender |       |      |       | Total |       |
|-----------------------|--------|-------|------|-------|-------|-------|
|                       | Female |       | Male |       | n     | %     |
|                       | n      | %     | n    | %     |       |       |
| Positive and negative | 14     | 4.7   | 16   | 9.0   | 30    | 6.3   |
| Only positive         | 39     | 13.0  | 10   | 5.6   | 49    | 10.3  |
| Only negative         | 15     | 5.0   | 25   | 14.0  | 40    | 8.4   |
| No effect             | 232    | 77.3  | 127  | 71.3  | 359   | 75.1  |
| Total                 | 300    | 100.0 | 178  | 100.0 | 478   | 100.0 |

\*In table missing data are excluded.

$\chi^2=20.718$ ,  $p<0.001$

Considering all circumstances associated with work on a family farm, the majority of respondents from agricultural families evaluated that work in childhood had no effect on their education (Tab. 3), and only ¼ of them perceived any effect. Those who perceived the effect of agricultural work on education more often mentioned positive consequences of work (16.6%) than negative (12,7%). These differences were considerable in the group of females, where almost every fifth (17.7%) indicated a positive effect of work in childhood on education, whereas negative consequences were perceived by twice as few women (9.7%). Among males, the proportions of respondents indicating positive and negative consequences of work in childhood were opposite. Nearly every male considered that work did not favour good education, whereas only 12.7% of respondents expressed an opposite opinion. In general, males perceived the effect of work on education obtained slightly more frequently than females, and more often described this effect as negative.

**Education level according to loading with agricultural work activities.** The final effect of education is the level of education attained, the variations of which are not directly proportional to loading with work in childhood. Based on analyses concerning the negative effect of work on the educational process, according to various levels of loading with agricultural work, it may be presumed that a higher work load in childhood results in attaining a lower level of education.

A multifactor analysis using logistic regression analysis confirmed the relationship between the degree of loading with agricultural work in childhood and education achieved. Seven independent variables were introduced into the model, the aim of which was to estimate the probability of attaining a better education: respondents' gender, age, place of residence, age at beginning work in childhood, frequency of performing agricultural work in childhood equally with adults, frequency of performing work beyond the physical capabilities of a child, and mean time of performing agricultural work in childhood. The achieving of a higher level of education was significantly related with the following factors: very frequent or rare performance of work activities beyond physical capabilities of a child, age at beginning agricultural work activities and duration of their performance, respondent's

gender and age, as well as place of residence (Tab. 4). The results of analysis show that the opportunity to attain a good education was the lower the older the respondents, also among those who from the youngest years of life performed agricultural work and devoted a large amount of time to this work. This means that devoting a large amount of time to agricultural work activities in childhood and at a younger age at beginning of these activities, limited the possibilities to achieve a better education. In addition, the risk of achieving a lower education level increased when respondents were overloaded with work in childhood – performed agricultural work beyond their physical capabilities. A relationship was also found between the education attained and respondents' gender and place of residence. The chance to achieve a university education was lower in the group of males, and among respondents who currently live in rural areas.

**Table 4. Factors significantly related with obtaining high level of education based on logistic regression analysis. Stepwise regression analysis**

| Factors   | $\beta$ | p     | OR (95% CI)        |
|---|---------|-------|--------------------|
| Age at beginning work in childhood                          | -0.147  | 0.004 | 0.864(0.782–0.954) |
| Duration of performing agricultural work in childhood       | -0.278  | 0.004 | 0.757(0.628–0.913) |
| Frequency of performing work activities beyond capabilities |         |       |                    |
| very frequently   | 1.270   | 0.010 | 3.560(1.359–9.327) |
| frequently  | 0.206   | 0.590 | 1.229(0.580–2.604) |
| rarely  | 0.720   | 0.017 | 2.054(1.135–3.714) |
| never   |         |       | 1                  |
| Place of residence  |         |       |                    |
| rural area  | -1.526  | 0.000 | 0.217(0.115–0.411) |
| small town  | -0.177  | 0.660 | 0.837(0.380–1.846) |
| medium-size town  | -0.008  | 0.983 | 0.992(0.475–2.072) |
| large city  |         |       | 1                  |
| Respondents' age  | -0.095  | 0.000 | 0.909(0.889–0.930) |
| Respondents' gender   |         |       |                    |
| female  | 0.702   | 0.004 | 2.018(1.245–3.271) |
| male  |         |       | 1                  |

**Conclusion.** Studies conducted in economically under-developed countries confirm that the engagement of children in work in early years of their life hinders, and in many cases, makes it impossible for them to attain a good education. In many countries, children do not undertake education at all due to poverty and the necessity to undertake work (Ahmad 2012; Akarro, Mtweve 2011).

Own studies have shown that the majority of respondents from agricultural families admitted that work in childhood had no effect on their education. At the same time, every fifth respondent perceived the effect of work on education, including a slightly higher percentage of those who indicated positive consequences. The effect

of work on education was more frequently perceived by males than females, and more often this was a negative effect.

Statistical analysis of the data confirmed the occurrence of a significant relationship between the degree of loading with agricultural work in childhood and the process of education. Negative phenomena in the education process, such as school absenteeism, neglecting school duties, or fatigue among children who were more loaded with work on a farm more frequently occurred among children who were more loaded with work on a farm. Among the factors exerting a negative effect on the process of education and its final result in the form of the level of education attained, was the time devoted in childhood to performing agricultural work. The longer the working time, the more were the difficulties experienced during education and the lower level of education attained. The relationship between working time in childhood and the attained level of education was also observed by S. Krutikova (2006) in her studies of inhabitants of rural areas in Tanzania. These studies showed that the work of a child for 18 hours a week shortened education time by a half, compared to people who did not undertake work in childhood. As a final result, individuals who undertook work in childhood attained a considerably lower level of education, compared to those who did not work.

Analysis of the results of own studies indicated that for the course of education the most optimum situation was when a child was engaged in agricultural work for not more than 2 hours daily. With an increase in working time, there was an increase in the percentage of respondents for whom the performance of these work activities negatively affected their education. A negative relationship between work and education was also confirmed in the studies by Ranjan and Lancaster (2003). Analysis of the relationship between working time and school attendance and results of education showed that, in the majority of the countries examined, including Kampuchea, Panama, Philippines, Sri Lanka, and Portugal, the work of children negatively affects the systematicity of attending school and educational results. A positive effect of work on school results was observed only among Portuguese boys who during the week work for not longer than 35 hours. In the group of girls, any amount of time devoted to work negatively affected the results at school. While analyzing various results of studies, it was estimated that the negative effect of working time on education occurs only when a child works for longer than 20 hours weekly (Dorman 2008). Own studies showed that negative consequences for education may occur when a child works longer than 14 hours weekly (2 hours daily, on average).

Some researcher emphasize that the effect of work on the educational process and its results may be indirect. A low level of school achievements is associated not only directly with being overtired with work and school absenteeism, but also with a low interest in education, lack of incentives for education in favour of interest with work (Heady Ch. 2000). It should be presumed that in the case of children who are less talented, and have no special educational achievements, their interests may focus on work on a farm. In this form of activity, they discover their fondness for the occupation of a farmer, and gain appreciation of the family and rural community.



In this situation, it would be a mistake to approach worse achievements at school as exclusively a negative effect of the engagement of a child in agricultural work. A larger scope of work activities undertaken may also be a manifestation of searching for the sphere of activity in which a child could perform own interests, and achieve psychological rewards, e.g. satisfaction, appreciation of others and self-esteem. This regularity is in accordance with the concept of enrichment of the social role, which perceives benefits from the fulfilment of many roles (Brannon 2002).

The presented results, to a great degree, are based on subjective indicators – opinions concerning the effect of work on education. It is recommended that longitudinal studies should be undertaken, in which it would be possible to trace the process of education among children from agricultural families at various stages of their education, until achieving the target level of education.

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