

**THE IMPACT OF TRADE-RELATED JOB LOSS: THE CASE OF THE GHANAIAN
POULTRY INDUSTRY WORKER**

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Abstract

This study attempts to assess the impact of increasing trade-related job losses among poultry farm workers in Ghana, owing to increasing poultry imports. Using a sample size of 500 poultry farm workers, the Ordered Probit and Probit models were used to empirically estimate the quantitative and qualitative impacts on the Ghanaian poultry farm workers who have suffered trade-related job losses owing to trade liberalisation. The results show that significant amounts of trade-related job losses have been recorded over time as a result of heavy importation of poultry into the country. Negative effects such as difficult financial status, poor physical health and loss of properties were observed. Others also suffered in terms of poor mental health (depression). The study therefore recommends the provision of credit facilities, creation of local demand and provision of subsidies in the areas of poultry feed and medication for the poultry industry in Ghana, to help the farmers remain in business.

Keywords: Trade liberalisation, poultry farm worker, trade-related job loss, Ghana

INTRODUCTION

Owing to trade liberalisation, there have been a lot of cheap excess imports of poultry products in Ghana which has been impacting negatively on poultry workers and the poultry industry as a whole. Many small countries worldwide including Ghana are facing problems of high unemployment rates as a result of large import volumes arising from liberalized trade. According to Taymaz (2009), the development of a small state is hindered by a number of unavoidable obstacles such as high production costs, high transportation costs, and transaction costs. Moreover, since most small countries do not have properly diversified economies, they become vulnerable to adverse external shocks. The adoption of the regulations of the World Trade Organization and especially trade reforms and liberalization policies in the 1980s has seen tremendous trade flows into Ghana. This has also led to the influx of the Ghanaian market with cheap excess imports, including poultry. The imported poultry is far cheaper than the locally raised poultry. This is gradually driving a number of domestic poultry farm workers out of business and impacting negatively on their livelihoods. Due to the small sizes of domestic firms (including those in the poultry industry) in Ghana, they are unable to take advantage of economies of scale. Most of these firms are less competitive, hence many of them have been forced to either cut down output or close down owing to massive dumping of the products they produce. As more and more of cheaply priced poultry imports flood the Ghanaian market, domestic farms are forced to reduce their output or shut down completely, thereby increasing trade-related job losses (unemployment).

Trade-related job loss which occurs as a result of liberalized trade has been defined by (Kletzer, 2001, p.12-13) as "... job loss due to increasing imports, with little or no attention paid to the export side of trade". Her definition, as adopted for this work, also notes that since trade is more than just imports, this becomes very unrealistic and unfortunate. "Once an industry is classified as high import competing, all workers displaced from that industry are counted as import-competing displaced workers simply on the basis of the industry's high degree of import competition". Furthermore, (Kletzer, 2001) argues that increasing imports are associated with employment reductions. Thus, as trade liberalization continues, the poultry industry in Ghana will continue to suffer and shrink in size. Owing to the labour intensive nature of the poultry industry, each firm that shrinks in size or folds up results in a lot of trade-related job losses.

Considering the probable negative impact heavy poultry importation into the country would have on the domestic poultry farm workers and the industry as a whole, this paper attempts to investigate the impact of trade-related job loss among poultry farm workers in Dormaa Ahenkro in the Brong-Ahafo Region of Ghana. Specifically it considers the impact of trade-related job loss on their financial, health and property ownership statuses.

LITERATURE REVIEW

Research has proven that in trying to analyze trade-related job losses, certain key determinants such as the state of technology (Kletzer, 1998), efficiency, wage inequality among countries, import pricing (Revenga, 1992) among many other determinants should not be overlooked. Many of such determinants have been accounted for as the reasons why trade-related job losses abound. Dickens (1988) researched into trade and employment and discovered that certain determinants and factors such as changes in domestic demand, real wages and productivity account for the trade-related job losses. Therefore factors such as subsidies, efficiency and state of technology among other variables can make the imported products become cheaper than the domestically produced goods. It would only be by extension that since consumers want more for less, then, they would patronize the cheaper imported goods as substitutes. In the long run, domestic firms may not be able to compete in terms of pricing and demand. Such firms will now shrink in size or worse, fold up all together. The shrinkage or folding up will be accompanied with trade-related job losses. This is the situation facing the Ghanaian poultry industry.

Moving on, there will definitely be impact points in a person's life and the economy as a whole when employment figures dwindle. Whether the unemployment is as a result of trade-related job loss or not, certain impacts will be felt. This study classifies the affected areas in two. The first area is the impact on the domestic economy (mainly loss of government revenue from taxes) as agreed by Winters (2002). The second impact is on the individuals who suffer trade-related job losses. Such effects including lost wages, happiness (Frey and Stutzer, 2002), poor health (Sullivan and Von Wachter, 2009), depression (Catalano and Wilson, 1994) and loss of property amongst many other areas have been researched into. Other negative impacts on the economic stability or security of a family when the bread winner loses his or her job (see for example, Farber, 1993; Jacobson, LaLonde, and Sullivan, 1993; Stevens, 1997) have also been researched into. Furthermore, increase in family tensions, mental and physical effects with respect to adults and an increased chance of divorce for the married (Kalil, 2009), and the inability to properly care for children or dependents as argued by Duncan and Brooks-Gunn (1997) are all very common with the unemployed.

In attempting to capture the impact points or effects of trade-related job loss, certain variables cannot be overlooked. Uma et al., (2010) relied on variables such as export intensity, import penetration ratio, import weighted tariff, capital-output ratio, real net value added, real emoluments per employee as the yardstick of measurement. However, Heo and Park (2007) relied on worker characteristics such as age, job tenure and educational status. The aim was to be able to know which particular class of people in terms of the above mentioned variables is significantly affected by import competition.

METHODOLOGY

The study solely relied on the use of primary data due to the fact that information required (poultry farm workers who had suffered trade-related job loss or become unemployed) was not readily available. Using 500 respondents from Dormaa Ahenkro in the Brong Ahafo region of Ghana stratified and snowball sampling techniques were employed to help identify the respondents who had lost their jobs. Dormaa Ahenkro is the hub of poultry farm business in the country and has the largest proportion of its populace in the poultry industry. Questionnaires were used as the method of data collection.

In the analysis of the data, both qualitative and quantitative methods were employed. In the quest to determine the true relationship between two or more variables, the quantitative method was employed. Quantitative methods have also been documented to be more convincing when it's been aided by qualitative arguments (Bless et al., 2006). The quantitative type of analysis helps to sort out the many confounding factors that often obscure the main qualitative findings. The data was analyzed using Stata 11.0 software.

Empirical Estimation

Ordered Probit and Probit models were used in the empirical estimations. The paper employed Ordered Probit modelling technique to be able to capture the impact point of trade-related job loss (being unemployed as a result of high poultry imports) as intended. According to Stock and Watson (2007) such methods are employed when the mutually exclusive qualitative groupings do have some form of ordering such as rating or ranking. Also, Praag and Ferrer-i-Carbonell (2011) argue that in measuring utility, respondents may be asked about the satisfaction levels they experience. They continue that, other aspects of the respondent's life such as their financial situation, health, marriage life, job satisfaction among others can all be captured on an ordinal scale hence the use of Ordered Probit.

Also, following Barnes et al., (2009), this research adopted and adjusted a standard 12 general health questionnaire used to assess the mental health of the respondents, post trade-related job loss. This was done using the Probit model because the dependent variable was dichotomous in nature. A threshold of five or more positive responses for a period of more than two weeks represented a state of depression. So that, post job loss, if more five or more of the responses to the questions were in the affirmative, then the respondent was said to have suffered depression.

FINDINGS & DISCUSSION

Table 1: Demographic and Socio-Economic Characteristics

Variable	Mean	Standard Deviation	Minimum Value	Maximum Value
Age	29.468	8.502798	18	62
Work Tenure	5.2536	3.895731	0.3	18
Monthly Income	108.124	25.73257	60	200
Monthly Expenditure	131.876	56.18193	50	300
Monthly Savings	19.625	19.08363	2	100

The age range of the respondents is from 18 years through 62 years with a mean age of 29.5 years (Table 1). This shows that most of the respondents are in the active labour force. The mean monthly income was also pegged at GH¢108.124 with a range of GH¢60 to GH¢200. This also shows the low income level for the poultry farm workers. Work tenure or duration also has a range of (0.3) three months through eighteen years with a mean of 5 years (approximately). On monthly expenditure, the range was from GH¢50 to GH¢300 with a monthly mean expenditure of GH¢ 131.876. This signifies a high propensity to consume which is denied by low earnings hence increasing borrowing. Last but not least is the monthly savings level. This is also low with a range of GH¢2 to GH¢100 and a mean of GH¢19.625.

Table 2: Demographic Details of the Respondents

Scale		N	%
Gender	Male	268	53.60
	Female	232	46.40
Education	Basic Education	373	74.60
	Senior High school	53	10.60
	Tertiary	13	2.60
	Uneducated	61	12.20
Income Sufficiency	Yes	38	7.60
	No	462	92.40
Family Type	Single Parent with no dependent	174	34.80
	Single Parent no dependent(s)	3	0.60
	Couple with no child	27	5.40
	Couple with dependents	296	59.20
	Couple with no dependent	0	0.00
Marital Status	Married	166	33.20
	Single	176	35.20
	Cohabitation	158	31.60
	Widowed	0	0.00

Respondents constituted 53.60% males and 46.40% females with a majority of 74.60% having basic education. On income sufficiency, there were 7.60% who were content with their incomes as against 92.40% who were not content with theirs. Majority of the respondents were couples with dependent(s) totaling 59.20%. There were also the married, singles and those into cohabitation with percentages of 33.20%, 35.20% and 31.60% respectively.

The purpose of the study was to assess the impact point of suffering of a trade-related job loss (unemployment) on the respondents. Thus, after being laid off and being classified as unemployed, what next? What exactly is the impact point of being laid-off due to trade related job losses on the respondent in terms of his/her finances, health status and property retention rate.

Interpretation of the Threshold Parameters in the Ordered Probit Models

Given the Ordered Probit, y is an observed dependent variable. In Table 3, the respondents' financial status, y , is a function of a continuous unmeasured latent variable y^* whose values determine what the observed ordinal variable y (financial status) is. However, the continuous latent variable has many threshold points shown as cuts in the table labeled as cut 1, cut 2, cut 3 and cut 4. These cuts give the limits to determine whether a respondent on the observed variable y (financial status) has crossed any of the given thresholds given as: 1, 2, 3, 4, and 5 for (very difficult, quite difficult, getting by, ok and comfortable respectively). Given this reference, there are now five (5) possible outcomes or values for the respondent in relation to his or her financial status as shown in Table 3.

$y = \text{very difficult if } y^* \leq -.4540821$

$y = \text{quite difficult if } -.4540821 < y^* \leq .0732868$

$y = \text{getting by if } .0732868 < y^* \leq .9367082$

$y = \text{ok if } .9367082 < y^* \leq 1.734659$

$y = \text{comfortable if } y^* > 1.734659$

Therefore, in Table 3 (Ordered Probit results on the financial status), Cut 1 gives estimated thresholds or cut-off point on the latent variable used to differentiate a *very difficult* financial status from that of *quite difficult*, *getting by*, *ok* and *comfortable* financial status of the respondents. This is made possible when the values of the independent variables are equated to zero. Thus, respondents with a value of -0.4540821 or less on the underlying latent variable; (financial status), would be classified as having a *very difficult* financial standing.

Cut 2 also gives the cut-off points on the latent variable that differentiates *very difficult* and *quite difficult* financial status from the choices of *getting by*, *ok* and *comfortable* when the values of the independent variables are again evaluated at zero. Thus, respondents who fall

from the ranges of $-.4540821$ and $.0732868$ on the underlying latent variable would be classified to have a *quite difficult* financial status.

Cut 3 is the estimated cut-off point on the latent variable used to differentiate *very difficult*, *quite difficult* and *getting by* from those of *ok* and *comfortable* financial status when the values of the independent variables are evaluated at zero. Respondents that fall between the ranges of $.0732868$ and $.9367082$ are classified as having a *getting by* financial status.

Cut 4 estimates the latent variable used to differentiate *very difficult*, *quite difficult*, *getting by* and *ok* from a *comfortable* financial status of the respondents when the values of the independent variables are evaluated at zero. Respondents that fell between the ranges of $.9367082$ and 1.734659 are classified as having an *ok* financial status.

Last but not least, respondents with a value greater than 1.734659 on the underlying latent variable will be classified to have a *comfortable* financial status. This explanation of the thresholds or the cut-offs is applicable to the other two Ordered Probit results which represent the health status and property ownership of the respondents in respect to their various thresholds or cut-offs.

Financial Status Report

In Table 3, the results show an inverse relationship between being a male with no job and a having difficult financial status ($p=0.077$).

Table 3: Ordered Probit Results on the Respondents Financial Status

Explanatory Variable (Financial Status)	Coefficient	Standard Errors	P-Values
Male	-0.2027583	0.1147779	0.077**
Age	-0.0094812	0.10694	0.360
Single parent with dependent(s)	-0.1235703	0.1837143	0.501
Couple with no child	0.3621106	0.5052945	0.474
Couple with dependent(s)	-0.0421561	0.1685869	0.803
Couple with no dependent(s)	0.1903722	0.4260904	0.655
Basic	2.253415	0.1518397	0.000*
S.H.S.	1.420718	0.179868	0.000*
Tertiary	1.773764	0.21981	0.000*
Work Tenure	-0.03159	0.196113	0.107
Job Loss	-1.330194	0.1230821	0.000*

P-value < .05, 0.10***

/cut1	-.4540821	.2793062	-1.001512	.0933481
/cut2	.0732869	.2803596	-.4762078	.6227816
/cut3	.9367082	.2800937	.3877347	1.485682
/cut4	1.734659	.2826166	1.180741	2.288577

This implies that for those males who lost their job, their ability to perform whatever role either as a family man or not is hampered due to joblessness. Considering that males by tradition are the bread winners who shoulder most responsibilities, suffering a job loss tends to increase such financial burdens. Coupled with the already low wages and low savings of majority of the respondents, the financial stress worsens in the period of unemployment. Thus, for such men, they reported a more difficult financial status compared to the control group (90% confidence level). Therefore, suffering a job loss meant having higher degrees of financial difficulties than their employed counterparts in the controlled group. This finding is consistent with the works of Broman et al., (1996) and Barnes et al., (1996).

A significant positive relationship between educational attainments and a comfortable financial status ($p=0.000$) at 95% confidence level was also realized. Therefore, having education was accompanied by a much more comfortable financial status (Stauss, 2011). The respondents who had education were seen to suffer less financial difficulties as compared to the uneducated in the control group. Education therefore minimized the financial distress of a respondent, as compared to the stark illiterate. Therefore, even though both classes of respondents earn low wages, the educated earned relatively more than the uneducated in the control group. Majority of the respondents with education also had either their spouses or children operating small kiosks to sell petty items as an alternative source of income. Thus, there exists a positive correlation between education and small business success (Thapa, 2007). Such positive steps to secure their future were not common with the uneducated in the control group. Therefore, the more educated a person is, the higher the likelihood of a less difficult financial status, especially for older adults (Krause, 1991).

Physical Health Report

Table 4 also shows a significant positive correlation between relatively higher education and an excellent health status (Ostrove et al., 1999) at 95% confidence level.

Table 4: Ordered Probit Results on the Respondents Health Status

Explanatory Variable (Health Status)	Coefficient	Standard Errors	P-Values
Male	-0.0367805	0.1123435	0.743
Age	0.0018704	0.0097487	0.848
Single parent with dependent(s)	-0.0805216	0.178552	0.652
Couple with no child	-0.0333397	0.5806026	0.954
Couple with dependent(s)	0.0561815	0.1650524	0.734
Couple with no dependent(s)	-0.33972	0.3900352	0.931
Basic	0.0600533	0.1297466	0.643
S.H.S.	0.480661	0.1527131	0.002*
Tertiary	0.4880152	0.2229134	0.029*
Work Tenure	0.0074733	0.0183115	0.683
Job Loss	-1.743035	0.1218168	0.000*

P-value < .05, 0.10***

/cut1 | -1.044151 .2588226 -1.551434 -.5368675
 /cut2 | -.5289534 .2565538 -1.03179 -.0261171
 /cut3 | -.338487 .2556742 -.8395992 .1626251
 /cut4 | .2587812 .2547258 -.2404722 .7580347

Respondents with senior high school ($P=0.002$) and tertiary education ($p=0.029$) reported excellent health status as compared to the uneducated in the controlled group. This implies that education can make a person have a healthy lifestyle. With more education, respondents have more knowledge on healthy life styles including proper eating habits and safe sex. This is consistent with the findings of Bloom (2007). Therefore the lower the educational status, the higher the chance of ill health after a job loss as supported by Edwards (2008).

There is also a strong inverse relationship between job loss and physical health status ($p=0.000$). This is consistent with studies of (McClelland et al., 1992; Smith 1987; Feinstein et al., 2006; Adams et al., 2003). Respondents who suffered trade-related job loss (unemployment) were thus more prone to poor health in general as compared to their employed counterparts in the controlled group at 95% confidence level. Thus being unemployed means poor nutrition (Pollit, 1994; Beasley, 1991), loss of access to health care or insurance and regular checkups. Paying for instructed exercises and trying to seek preventive measures for chronic diseases all now become luxury good for the unemployed.

Property Ownership Report

Table 5 indicates that having obtained basic education ($p=0.048$), secondary education ($p=0.001$) or tertiary education ($p=0.008$) gives a positive impact on the property ownership status of the individual.

Table 5: Ordered Probit Results on the Respondents Property Ownership Status

Explanatory Variable (Property Ownership)	Coefficient	Standard Errors	P-Values
Male	0.150817	0.1154164	0.191
Age	-0.0071877	0.0101755	0.480
Single parent with dependent(s)	0.0121707	0.180472	0.946
Couple with no child	0.4205575	0.5863938	0.473
Couple with dependent(s)	0.0670274	0.1693486	0.692
Couple with no dependent(s)	0.2860786	0.3935425	0.467
Basic	0.2637272	0.1335125	0.048*
S.H.S.	0.5119472	0.15634	0.001*
Tertiary	0.5933723	0.2252476	0.008*
Work Tenure	0.0203847	0.0187871	0.278
Job Loss	-0.2415352	0.1185922	0.042*

P-value < .05, 0.10***

/cut1 | .1462475 .2646315 -.3724207 .6649158
 /cut2 | .3304242 .2648836 -.1887381 .8495865
 /cut3 | .3679755 .2649312 -.1512801 .8872311

The respondents with education seemed to maintain their property as compared to the uneducated in the control group, at a 95% confidence level. Almost all of the educated respondents said the first thing they acquired was either a plot of land or a house. Even though some of the houses were wooden structures, it was their own. Some respondents pooled resources together with colleagues to buy properties and these were maintained post trade-related job losses. The results also show that, respondents who lost their jobs were more likely to suffer a loss of their property in terms of evictions or relocating to a different affordable place as compared to the employed in the control group. Others also reported having to sell the little property they had in order to survive. The likelihood of losing properties such as land, farms, accommodation amongst others is higher for the unemployed than the employed in the control group. Thus, job loss has been a major cause of evictions for most of the respondents ($p=0.042$) as compared to the employed at 95% confidence level.

Mental Health Report

Results from Table 6 shows that, job loss is positively related to feeling depressed (Montgomery et al., 1999; Fryers et al., 2005; Laaksonen et al., 2007).

Table 6: Probit Results for Respondents who felt Depressed

Explanatory Variable (Depressed)	Coefficient	Standard Errors	P-Values
Male	0.3079844	0.1237007	0.014*
Age	-0.0068943	0.103306	0.505
Single parent with dependent(s)	0.8427096	0.1977908	0.000*
Couple with no child	0.7876049	0.7120124	0.269
Couple with dependent(s)	0.573954	0.1807967	0.002*
Couple with no dependent(s)	0.1719506	0.410481	0.675
Basic	0.14541336	0.1435939	0.311
S.H.S.	0.0561762	0.1663731	0.736
Tertiary	-0.1462805	0.245016	0.550
Working period	-0.333855	0.196564	0.089**
Unemployed	0.241757	0.1262303	0.055**

P-value < .05, 0.10***

For these respondents, males were found to be more prone to depression after suffering trade-related job loss (Clark and Oswald, 1994; Mathers and Schofield, 1998; Murphy and Athanasou, 1999; Dorling, 2009) than females in the control group ($p=0.014$). Most males said they lost sleep over worry, feeling worthless, lost interest in activities, loss of social identity. They also became hopeless and unhappy after becoming unemployed. Others reported that for a very long time they had lost appetite and felt very sad. They said it was like taking away the one thing that made them men (working to provide for their families). Also, the shifting of the fatherly role unto the children and wives who normally play supporting roles in the family caused the men to feel very bad, unhappy and more depressed. This finding is consistent with Artazcoz et al., (2004). Research has proven that economic difficulties can easily lead to mental health problems (Reading and Reynolds, 2001; Taylor, Pevalin and Todd, 2007).

Furthermore, single parents with dependant(s) ($p=0.000$) and couples with dependents ($p=0.002$) also complained of feeling very depressed as compared to single parents without dependent(s) in the control group. In a setting where the employed mostly adopt other relatives to cater for alongside one's own children if any, losing a job can cause much worry and trigger a state of depression. This was the case with such respondents. Therefore, a significant positive correlation between being a single parent with dependent(s) and feeling depressed after a job

loss was found at 95% confidence level. The same was true for couples with dependents. An inverse relationship was also discovered between the working period of the respondents and feeling depressed for those who had suffered trade-related job loss. At 90% confidence level, the results showed that short-term workers were less likely to feel depressed after suffering a trade-related job loss as compared to long-term workers.

CONCLUSION AND RECOMMENDATIONS

This study concludes that increasing poultry imports is causing a lot of trade-related job losses for poultry farm workers in the country, coupled with many impact points on the job losers. Negative impacts including poor finances, bad physical health, loss of property and depression, were found to be very common among the respondents.

The study therefore recommends increased subsidies on poultry feed to reduce the burden on the poultry farmers. The poultry farmers lament that the cost of feed represents the largest part of their total expenditure. Most of these feed are also imported and therefore subject to currency depreciation and other external shocks. Majority of the farmers are driven out of business as a result of the rising cost of the feed. A subsidy on the feed will therefore relieve the farmers of some cost and help them stay in business for a while. One other major factor affecting the poultry business is disease infections. The poultry are very prone to diseases. The study therefore recommends subsidies on poultry medication and veterinary services.

The creation of demand for locally raised poultry and its products is also highly recommended. We believe that the Ghana School Feeding Programme (GSFP) could be of tremendous help. We propose a policy that will ensure schools under the GSFP feed their pupils on an egg thrice weekly. The meat should also be consumed at least once in a week. We strongly believe that this is going to create a very huge demand for the industry considering the number of schools and pupils under the programme. Access to credit facilities on flexible terms via public-private-partnership would also help poultry farm businesses acquire funds for expansion and revamping of collapsed businesses.

Active labour market programmes should also be introduced by the government and Ghana Association of Poultry Farmers to help those who lose their jobs in the industry reorient their minds to move on. This will help improve the chances of coming back to the industry or reemployment in other sectors of the economy. We believe that with these recommendations, the poultry industry in Ghana will be sustained and those workers who have lost their jobs can re-enter.

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