Determining the Quality of Life of Temporary Migrants using Ordered Probit Model

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Abstract
Small developing economies are facing immense problems in pursuing the dual objective of economic growth and addressing rising social problems. Pacific Island countries are no exception. Issues pertaining to labour market, in particular employment, is a major cause of concern amongst policy makers. Governments actively seek large scale investments as a mean to create employment. How have these projects fared in terms of income generation and poverty alleviation? This study examines the case of migrant workers at a hotel construction project in Fiji. Results from the ordered probit model reveal that the quality of life of the workers have improved since working at the resort and the key factor affecting the improvement in quality of life is higher income. Long distance commuting also affects quality of life, but negatively.

Keywords: temporary migration, ordered probit model, quality of life, Fiji.
JEL: C25
1.0 Introduction

Small developing economies are facing immense problems in pursuing the dual objective of economic growth and addressing rising social problems. The small developing economies are in no short of social and economic problems. Economic growth rates have been low by international standards and most of the governments face fiscal problems. Along with these, there are also problems of rising unemployment, poverty, and crime and violence.

With a view to solve these and other relating issues, many countries see investment as the key to long term sustained growth and development. Large scale investment is seen to provide employment both in the short and as well as in the long run. The nature and quality of investment can have a significant impact on the social-economic profile of households. Examples of large investment are the multi-million dollar hotel construction projects in Fiji. Fiji has emerged as one of the most lucrative tourist destination country in the Pacific and as such attracted a number of investments from prominent hotel chains. Large investment projects tend to employ large number of different types of workers at different stages of the project thereby influencing labour mobility.

The movement of workers is primarily in pursuit of higher income and improving the quality of life (QoL). QoL can be linked to various indicators such as health, educational opportunities, family togetherness and social coercion. Given that the nature of work which involves daily commuting or camping at the site away from family, lack of proper food and other difficulties, a question that one may ask is has the quality of life of the temporary migrant workers and their family really improved? If yes, what are the key determinants of the QoL? In this study, we examine in detail the case of temporary migrant workers at a hotel construction site. More specifically we examine the quality of life before and after the project and model the determinants of QoL.

The balance of the paper is organized as follows. The second section introduces the research setting of the survey. The third section provides a survey of the literature on internal labour mobility. Section four provides information on data collection, methodology, and model specification. Next section provides the basic statistics of the survey. In section six we model the determinants of QoL and discuss the results. The final section provides summary and conclusions.
2.0 Research Setting
Momi Bay lies along the west coast of Fiji’s main island Viti Levu and is midway between the towns of Nadi and Sigatoka. The research site is the JW Marriott Fiji Resort & Spa at Momi Bay along the Old Queens Road. The project started in 2005 and is expected to open in August 2007. Since construction began, it has attracted a large number of workers to the site. These workers do not work directly for the resort management but are employed by various construction companies that have been contracted for construction of the resort and related facilities. Though it is difficult to get an accurate number of workers, from a crude survey we estimated around 200 – 250 workers at the site. This particular area was chosen because it is one of the largest tourism construction projects in Fiji at the moment. The location of Momi Bay is a rural area with the surrounding communities’ being predominantly agricultural based economy, in particular sugarcane farming.

3.0 Internal Labour Mobility: A Survey
The internal movement of workers and their families due to work is not new. While rural urban migration has been unprecedented in the South Pacific, circular migration seems to be emerging as a dominant pattern of movement amongst unskilled and seasonal workers. There exist a large number of studies on internal labour mobility, mostly looking permanent rural urban migration. Most of these studies deal with the causes of internal labour mobility given that labour mobility has implications on a company’s competitiveness and human resources management (Carnicer, et. al., 2004). Research has generally attributed that the determinants of labour mobility to job and labour market factors. However, Hom and Griffeth (1995) and Griffeth, et. al. (2000) argue that the determinants are much more than just limited to these two factors. They argue that personal factors also play a significant role in mobility decisions. Some of these factor can be classified as demographic factors like gender, age, family situation (Mobley, 1982., and Cohen, 1995), while other factors could be derived from the process of socialization such as relationship with colleagues, gender roles or attachment to specific occupations (Mitchell, et. al., 2001). Carnicer, et. al., (2004:223) argues that one of the “most influential factors on labour mobility is the job attractiveness which can be measured by the employee’s perceptions about such job benefits like job satisfaction, employment stability or greater pay. This view is quite close to the Harris-Todaro model of rural to urban migration which argues that the incentive to migrate comes from a quest to
maximize the positive difference in the expected level of wages (Todaro, 1969 and Harris and Todaro, 1970).

Others like Chapman and Prothero (1985), and Stark and Levhari (1982) argue that due to high level of underemployment or unemployment in many countries, temporary migration is perceived as an attempt by households to maximize family welfare and ward off risks involved in permanent migration. The literature on labour migration within Fiji contains a number of studies of the determinants of migration. Studies distinguishing between permanent and temporary migration and their determinants are non existent. Also there is no study on Fiji, family level or macro-economic level, which looks at the QoL of migrant workers.

4.0 Data, Methodology and Model Specification
This study requires collection of primary data from temporary migrants at construction sites. The data was obtained through interviews using structured questionnaires designed to elicit a wealth of information. The first part covered the worker’s general details, and comprised questions regarding age, gender, marital status, education level, size of household, ethnicity, demographic details, and problems faced as a result of taking up this job. The succeeding parts included questions concerning previous and current employment, current and previous wages, and social and economic conditions now and before.

The survey was administered over a 5-week period in June/July 2006. An attempt was made to interview all the workers at the site but due to difficulty in getting them and their willingness to provide data, only 121 workers were interviewed. We identified three different categories of workers; those camping at the job site, travelling workers (some from as far as Nadi, Lautoka and Ba), and workers who have moved with their families to the surrounding areas in Momi Bay.

In this study, we examine three key aspects of temporary labour migrants. Firstly, we examine if the economic status of workers have change positively after taking up the new employment. Secondly, we examine in depth what are some of the problems they have encountered during the employment. Both of these issues will be examined using descriptive statistics. Thirdly, we attempt to model a quantitative relationship between QoL and various socio-economic factors.
Quantitative relationship modelling would allow researchers to rigorously test and determine the significance of various factors. To do so, the following theoretical model is specified:

\[ Y_i = \alpha + \beta X_i + \epsilon_i \]

Where \( Y_i \) = quality of life;

\( X_i \) = vector of explanatory variables; and

\( \epsilon_i \) = random error term.

Application of Ordinary Least Squares (OLS) techniques to estimate the above model will result in inefficient estimates since the error term is heteroskedastic. Furthermore, the parameter estimates will be inefficient (Goldberger, 1964; Pindyck and Rubinfeld, 1983). Also, due to a non-normal error structure, classical hypothesis tests such as the t-test are no longer appropriate (Shakya and Flinn, 1985). Given this problem, a commonly used approach in the econometrics literature is to transform the original model using a cumulative probability function in such a way that the predictions (\( P \)) will lie within the stated lower and upper limits of the stated dependent variable for all \( X \). The dependent variable, \( Y \), is a discreet variable that represents a choice from a set of mutually exclusive choices. Commonly known as the probit model, it has become a popular tool for explaining binary choice decisions in econometrics.

A large number of studies exist in the literature which has utilised this model to explain the probability of adoption or acceptance by decision makers (see Masuao and Reddy, 1997, Yanagida and Reddy, 1997, and Reddy, Yanagida, and MacWilliams, 1999). Many more examples can be found in Amemiya (1981) and Maddala (1983).

The Probit model can be shown as follows:

\[ P_i = F (Z_i) = F (\alpha + \beta X_i) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{\infty} e^{-s^2/2} ds \]

Where \( P_i \) = probability that the event occurs (will lie in the (0, 1) interval);

\( e \) = base of natural logarithm;

\( s \) = is a random variable variable which is normally distributed with
mean zero and unit variance. However, we extend the model to handle more than three discrete points for the dependent variable known as the ordered dependent variable. To model this relationship, we use the ordered probit probability model (which utilizes the cumulative normal probability function) for estimation.

The ordered probit model is an extension of the probit model where there is an ordering with the dependent variable. This model was first introduced into the social sciences by political scientists McKelvey and Zavoina (1975) (see also Davidson and MacKinnon, 1993; Greene, 2003). Similar to the probit model, the parameters are estimated using maximum likelihood and standard normal tests can be used to test the significance of individual coefficients.

The dependent variable for this study is an encompassing measure of temporary migrant QoL provided by responses to the question: “All in all what do you think about the overall economic and social situation of your family after taking up the employment?” A five category likert scale was used with respondents being asked to nominate one of five categories: 1 = strongly agree of improvement, 2 = agree of improvement, 3 = neutral, 4 = disagree, and 5 = strongly disagree.

The basis of the ordered probit model is the linear relationship:

\[ QoL_i = X_i \beta + \epsilon_i \]

\(QoL_i\) is an unobserved index of quality of life, and can be thought of as the underlying tendency of an observed phenomenon, namely the quality of life likert scale, \(QL_i\). \(\beta\) is a vector of parameters with \(X\) being the vector of explanatory variables and it is assumed that \(\epsilon_i\) (disturbance term) follows a normal distribution with \(\sim N(0, \sigma^2)\). As the underlying tendency towards the quality of life, QoL is unobserved, and the statistical analyses are based around the observed indicator, QL given by the response to the question. The observed scale, QL for a worker \(i\) is linked to the unobserved variable (latent variable), QoL, as follows:

\[QL_i = 1 \text{ if } QoL \leq \delta_0\]
\[QL_i = 2 \text{ if } \delta_0 \leq QoL < \delta_1\]
\[QL_i = 3 \text{ if } \delta_1 \leq QoL < \delta_2\]
\[QL_i = 4 \text{ if } \delta_2 \leq QoL < \delta_3\]
QLi = 5 if $\delta_3 \leq QoL$

where $\delta$ is unknown threshold parameter separating the adjacent categories. QL is completely arbitrary and the model requires that larger category values correspond to larger values for the latent variable, so that $\delta_i < \delta_j$ implies that $QoL_i < QoL_j$. Given the assumption of normality, the following probabilities may be calculated as:

\[
P (QL_i = 1) = P (QoL_i < \delta_0) = P (X_i \beta + \varepsilon_i < \delta_0) = P (\varepsilon_i < \delta_0 - X_i \beta) = \Phi (\delta_0 - X_i \beta)
\]

\[
P (QL_i = 2) = P (\delta_0 \leq QoL_i < \delta_1) = P (\delta_0 \leq X_i \beta + \varepsilon_i < \delta_1) = P (\varepsilon_i < \delta_1 - X_i \beta) - (\varepsilon_i \leq \delta_0 - X_i \beta) = \Phi (\delta_1 - X_i \beta) - \Phi (\delta_0 - X_i \beta)
\]

\[
..., etc. and
\]

\[
P (QL_i = 5) = P (QoL_i \geq \delta_3) = P (X_i \beta + \varepsilon_i \geq \delta_3) = p (\varepsilon_i \geq \delta_3 - X_i \beta) = \Phi (X_i \beta - \delta_3)
\]

where $\Phi$ denotes the respective cumulative distribution function.

QoL is posited to be a function of various characteristics of the individual and the household. The empirical model for this study therefore can be written as follows:

\[
QL_i = \beta_0 + \beta_1 \text{AGE}_i + \beta_2 \text{MS}_i + \beta_3 \text{ETH}_i + \beta_4 \text{EDU}_i + \beta_5 \text{HS}_i + \beta_6 \text{RES}_i + \beta_7 \text{YChange}
\]

QL\text{\_i} = \text{QoL as measured by likert-type scale ranging from 0 to 4;}

AGE\text{\_i} = \text{Age of the respondent/labour (in years);}

MS\text{\_i} = \text{Marital status with, 0= Single, 1=Married.}

ETH\text{\_i} = \text{Ethnicity of the respondent, 0 = Indo-Fijian, 1 = Fijian}

EDU\text{\_i} = \text{Education level of the respondent measured in terms of no. of years of formal education; and,}

HS\text{\_i} = \text{Households size in number of persons;}

RES\text{\_i} = \text{Residence location: 0 = camp at job site, 1= commute to work daily;}

Y \text{Change} = \text{Income change measured in terms of income now minus income before (in F$).}
where \( i \) refers to the \( i \)th respondent.

5.0 Basic Statistics of the Survey

A summary profile of the respondents is provided in Table one. The mean age of the respondent is 37 years with the youngest being 17 years while the oldest being 58 years. A larger proportion of the workers were Indo-Fijians, 56.2%. The mean household size is slightly higher than the national mean with most of them, 81.8% being married. A small proportion, 5.8% were either divorced or separated.

Table 1: Some Basic Characteristics of Respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Age (years)</td>
<td>37 (Min: 17; Max: 58)</td>
</tr>
<tr>
<td>Mean Formal Education (years)</td>
<td>11.5 (Min: 7; Max: 15)</td>
</tr>
<tr>
<td>Ethnicity (%)</td>
<td></td>
</tr>
<tr>
<td>Ethnic Fijian</td>
<td>43.8</td>
</tr>
<tr>
<td>Indo Fijian</td>
<td>56.2</td>
</tr>
<tr>
<td>Marital Status (%)</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>81.8</td>
</tr>
<tr>
<td>Single</td>
<td>12.4</td>
</tr>
<tr>
<td>Divorced/Separated</td>
<td>5.8</td>
</tr>
<tr>
<td>Widowed</td>
<td>0</td>
</tr>
<tr>
<td>Mean Household Size</td>
<td>5.2 (Min: 1; Max: 8)</td>
</tr>
<tr>
<td>Gender (%)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>100</td>
</tr>
<tr>
<td>Female</td>
<td>0</td>
</tr>
<tr>
<td>Sample size (n)</td>
<td>121</td>
</tr>
</tbody>
</table>

We then looked at the new problems/difficulties faced by the workers as a result of this new job. First we looked at the problems faced by those who travel to the job site. These workers travel from as far as Nadi (about 25 km from the job site), Lautoka (about 50 km from the site), and Ba (about 65 km from the site).
Table 2: Problems Faced by Commuters

<table>
<thead>
<tr>
<th>Problems</th>
<th>1st Most Important</th>
<th>2nd Most Important</th>
<th>3rd Most Important</th>
<th>4th Most Important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>1. Late to home from work</td>
<td>2.6</td>
<td>23.1</td>
<td>5.1</td>
<td>0</td>
</tr>
<tr>
<td>2. Wake up early and morning traveling</td>
<td>41</td>
<td>7.7</td>
<td>5.1</td>
<td>2.6</td>
</tr>
<tr>
<td>3. Long hours of morning &amp; afternoon traveling</td>
<td>10.3</td>
<td>15.4</td>
<td>7.7</td>
<td>2.6</td>
</tr>
<tr>
<td>4. Late to work due to poor transportation</td>
<td>2.6</td>
<td>2.6</td>
<td>2.6</td>
<td>0</td>
</tr>
<tr>
<td>5. Water problem at job site</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2.6</td>
</tr>
<tr>
<td>6. Over speeding bus</td>
<td>0</td>
<td>0</td>
<td>2.6</td>
<td>0</td>
</tr>
<tr>
<td>7. Have to walk down to the job site</td>
<td>28.2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8. Dusty road condition</td>
<td>0</td>
<td>0</td>
<td>2.6</td>
<td>0</td>
</tr>
<tr>
<td>9. Less time spent with family and children because leave home early and come back late</td>
<td>0</td>
<td>2.6</td>
<td>7.7</td>
<td>7.7</td>
</tr>
</tbody>
</table>

For most of the workers free transport is provided by the construction company that they are employed with. Table two indicates the four most important problems faced by the commuters. A large number indicated that the most important problem is the time they have to wake up as well as traveling in the mornings. Other major problems include late to home from work and the long hours of traveling.

The problems faced by those labourers who are camping at the job site are shown in table three. For the labourers, the most important problem identified is quality of meals.

Table 3: Problems faced by Labourers Camping at Job Site

<table>
<thead>
<tr>
<th>Problems</th>
<th>1st Most Important</th>
<th>2nd Most Important</th>
<th>3rd Most Important</th>
<th>4th Most Important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>1. Away from family/ missing family</td>
<td>25</td>
<td>40.1</td>
<td>3.6</td>
<td>3.6</td>
</tr>
<tr>
<td>2. Living condition</td>
<td>5.4</td>
<td>16.1</td>
<td>19.6</td>
<td>1.8</td>
</tr>
<tr>
<td>3. Meals</td>
<td>44.7</td>
<td>5.4</td>
<td>1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>4. Unhygienic sanitation</td>
<td>12.5</td>
<td>10.7</td>
<td>12.5</td>
<td>1.8</td>
</tr>
<tr>
<td>5. No electricity</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. Lack of recreational facilities and entertainment to spend time</td>
<td>5.4</td>
<td>16.1</td>
<td>26.8</td>
<td>8.9</td>
</tr>
<tr>
<td>7. No proper medical and other facilities</td>
<td>5.4</td>
<td>1.8</td>
<td>3.6</td>
<td>0</td>
</tr>
<tr>
<td>8. Congested</td>
<td>1.8</td>
<td>0</td>
<td>1.8</td>
<td>0</td>
</tr>
</tbody>
</table>
It is likely that either they do not like the food cooked there or the food is different from what they regularly eat. The second most important problem is an obvious one for many; missing family. Since majority of the workers are married with children, this is hardly surprising. Some have also identified lack of recreational facilities and entertainment as the major problem. Since the Momi bay area by all means is a rural area, there are basically no sources of entertainment available to the public. The nearest urban centre is Nadi which is around twenty kilometers from Momi.

There are workers who have moved to the surrounding villages with their families. Table four highlights the four most important problems gathered from these workers. Many are renting houses near to the construction site. For these workers and the majority of them (88.5%) have shown the most important problem as the rent they have to pay. The rent is not exorbitantly high but is be much cheaper in relative terms compared to urban areas. The very fact is that they have to pay since previously many of them lived in their own homes.

<table>
<thead>
<tr>
<th>Problem</th>
<th>1st Most Important</th>
<th>2nd Most Important</th>
<th>3rd Most Important</th>
<th>4th Most Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Medical/ health services are far</td>
<td>0</td>
<td>3.9</td>
<td>19.2</td>
<td>38.5</td>
</tr>
<tr>
<td>2. Education of children affected due to change of school</td>
<td>0</td>
<td>7.7</td>
<td>15.4</td>
<td>23.2</td>
</tr>
<tr>
<td>3. Lack of Shopping facilities</td>
<td>0</td>
<td>0</td>
<td>3.9</td>
<td>3.9</td>
</tr>
<tr>
<td>4. Lack of Banking facilities</td>
<td>0</td>
<td>0</td>
<td>3.9</td>
<td>3.9</td>
</tr>
<tr>
<td>5. Lack of Entertainment</td>
<td>0</td>
<td>0</td>
<td>3.9</td>
<td>3.9</td>
</tr>
<tr>
<td>6. Poor Road Conditions</td>
<td>0</td>
<td>3.9</td>
<td>15.4</td>
<td>3.9</td>
</tr>
<tr>
<td>7. No Electricity and Water supply</td>
<td>3.9</td>
<td>72.2</td>
<td>15.4</td>
<td>0</td>
</tr>
<tr>
<td>8. Cost of living is high due to rent</td>
<td>88.5</td>
<td>3.7</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The time this research was conducted, there was neither electricity nor water supply in these areas. Hence the second most important problem by 72% of those interviwed. Electricity has been provided but wells are still the source of water supply in these communities.

For the impact on the economic situation, we looked at the change in income from previous employment. The results of an impact on the economic situation, measured solely by the increase in weekly wages for all workers, are given in table 5.
Table 5: Economic Impact

<table>
<thead>
<tr>
<th>Income Change in $</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 0</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>0-50</td>
<td>60</td>
<td>49.58</td>
</tr>
<tr>
<td>51-100</td>
<td>29</td>
<td>23.96</td>
</tr>
<tr>
<td>101-150</td>
<td>19</td>
<td>15.70</td>
</tr>
<tr>
<td>151-200</td>
<td>10</td>
<td>8.2</td>
</tr>
<tr>
<td>201-250</td>
<td>2</td>
<td>1.6</td>
</tr>
<tr>
<td>n</td>
<td>121</td>
<td>100</td>
</tr>
</tbody>
</table>

At least half of those interviewed said that their weekly income has increased between 0 to fifty dollars. Overall 99% of the workers agreed that their incomes have increased.

6.0 Modeling Determinants of Quality of Life

The analysis in section 5 reveals the nature and magnitude of socio-economic change and its implication on the migrant workers and their households. However, it does not examine the QoL of these households after taking the job at the new site. A likert-type choice scale was used to ascertain what has happened to the QoL of the migrant workers after taking up the employment at the construction. The results from the analysis of the responses are presented in Table 6. From the results, it can be noted that more than half of those interviewed strongly agree that their lives have improved as a result of taking up the job at the resort.

Table 6: Quality of Life Improvement Index

<table>
<thead>
<tr>
<th>Scale</th>
<th>Index</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree of Improvement</td>
<td>4</td>
<td>59.5</td>
</tr>
<tr>
<td>Agree of improvement</td>
<td>3</td>
<td>39.7</td>
</tr>
<tr>
<td>Neutral</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td>Disagree of Improvement</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Strongly disagree of improvement</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The improvement in QoL can be caused by a number of factors, both economic and social. In this section, we examine how these variables have affected the QoL of all categories of workers after taking up the construction employment. The ordered probit model results are presented in Table 7. The results reveal that income and residency status are the two key variables that affect QoL significantly.
Table 7: Ordered Probit Model Estimates of the Quality of Life Determinants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficients</th>
<th>Marginal Effects</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.734</td>
<td>0.622</td>
<td>0.622</td>
</tr>
<tr>
<td>Age</td>
<td>-0.029</td>
<td>-0.011</td>
<td>0.191</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-0.792</td>
<td>-0.292</td>
<td>0.092</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>0.369</td>
<td>0.136</td>
<td>0.181</td>
</tr>
<tr>
<td>Years of F Education</td>
<td>-0.008</td>
<td>-0.003</td>
<td>0.927</td>
</tr>
<tr>
<td>Household Size</td>
<td>0.177</td>
<td>0.065</td>
<td>0.096</td>
</tr>
<tr>
<td>Residency of Lab</td>
<td>-0.447</td>
<td>-0.165</td>
<td>0.048</td>
</tr>
<tr>
<td>Income Change</td>
<td>0.009</td>
<td>0.003</td>
<td>0.001</td>
</tr>
<tr>
<td>$F(\beta'x)$</td>
<td>0.369</td>
<td></td>
<td></td>
</tr>
<tr>
<td>McFadden $R^2$</td>
<td>0.183</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The residency variable indicates that labourers who commute to work daily have lower probability of having good QoL. The income change variable indicates that those whose income has improved positively have a higher probability of better QoL. The rest of the variables do not affect the QoL.

7.0 Summary and Conclusion

Large scale construction projects are seen as a new approach to absorb unemployed and seasonal workers. It can also serve to complement the income of underemployed workers. However, there is hardly any scientific research done to date to examine how these temporary employment schemes affect the QoL.

The results from the study reveal that long distance traveling by commuters and rising up early morning is one of the major problems. The second most important problem faced by commuters is getting late to home from work given the long distance from project site. Amongst those workers who camp at the project site, the single most important problem was lack of good quality meals while the second most important problem is missing family members. Those workers who have moved to the job site with their families, the most important problem is lack of electricity and improper water supply. Any move towards improving the QoL of the migrant workers will require addressing the above problems.

However, on an average, apart from one worker, all the rest experienced a net gain in income. The general quality of life index measured in this study reveals that 99% of the workers QoL have improved. Econometric analysis of the determinants of the quality of life index reveals
that income is one of the most important variables that determine the quality of life. The ability of the worker to live closer to the project site also affects QoL. Factors such as age, ethnicity and gender do not make any difference in the QoL.

Our sample is small (though it may not be so looking from the point of view of employment generation needed in Fiji relative to it’s population) and is specific to one area but micro-data based studies is important for specific.
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