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Adverse Shocks and Economic Insecurity: Evidence from Chile and Mexico

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"Adverse Shocks and Economic Insecurity: Evidence from Chile and Mexico"

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Abstract

This paper uses multinomial logit to analyze economic insecurity for Chile and Mexico from household surveys. It analyses the effect changes in well-being, age, health, wealth, employment status, gender and education have on economic insecurity. The results show that the most significant variable is current exposure to adverse events, the second most significant is age and the third is health. The current exposure to adverse events produces great anxiety and concern about and the inability to recover from these bad events. Older households assign higher probabilities to negative prospects and are thus subject to higher levels of economic insecurity. This also occurs when the household head is seriously ill. The effect of gender and wealth on negative expectations is very small, while education only affects Mexico, while self-employment only Chile. Finally, the similarities between Chile and Mexico provide evidence of identifiable patterns for economic insecurity in Latin American countries.

JEL Subject Codes: I31, D84, C01

Key words: economic insecurity, multinomial logit, econometrics.

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I. Introduction

Many countries have recently observed an increase in variability in both household incomes and wealth, due to recessions, economic slowdown, unemployment and instability. As a result of this, the issue of economic insecurity is currently drawing an increasing amount of attention.

Although the literature does not entirely agree on how to measure economic insecurity, the most commonly used definitions involve subjective perceptions on how individuals regard the development of their personal financial situation. Economic insecurity was defined by Osberg (1998, p.23) as "the anxiety produced by a lack of economic safety – i.e. by an inability to obtain protection against subjectively significant potential economic losses". Jacobs (2007, p.1), from the political science field, defined it as a combination given by **"**the intersection between *perceived* and *actual* downside risk**"**. To develop a more rigorous and precise measure of economic insecurity, Bossert and D'Ambrosio (2009, p.1), after analyzing the definitions currently in use, redefine economic insecurity as "the anxiety produced by the exposure to adverse events and the inability to recover from them". By definition then, insecurity is a concept related either to the exposure to adverse events or to the risk of exposure to adverse events. The event, often referred to as a shock, affects the household's well-being, by having an effect over the individual or his family (as an illness or unemployment), the community, the region, or even the nation (a natural disaster or macroeconomic crisis)[1].

The likelihood that an objective shock, of a specific magnitude, will result in a larger or smaller decline in subjective well-being can be described in terms of vulnerability or resilience – the more vulnerable (less resilient) a group, family or individual is, the greater the decline in well-being, for any given shock. Risk exposure measures the probability that a certain risk will occur. Risks can be classified as micro, meso, and macro according to the level at which they take place. Macro shocks arise at the national or international level such as macroeconomic crisis, wars and civil strife. Meso shocks strike groups of households or an entire community or village, such as droughts and floods. Micro shocks are idiosyncratic and affect specific individuals or households and correspond with events like illness or unemployment.

Even when the risk of exposure to adverse events is high, the existences of coping strategies that seek to lessen the potential impact of a shock reduce economic insecurity. The possibility of accessing assets, government transfers, unemployment and health insurances, government provision of emergency jobs and other social security benefits reduces economic insecurity.

Because of the relevance of the individuals´ perception of economic insecurity in well-being, Osberg and Sharpe (2002) argue that it should be measured and considered as an

[1] Substantial parts of this paragraph and the following two follow the definitions and concepts found in "World Development Report 2000/2001, Attacking Poverty," published for the World Bank by *Oxford University Press*, 2001.

integral part of an indicator of the economic well-being of society. Yet, there are a series of dichotomies in how to measure economic insecurity and what to measure. It can be measured objectively with an index, or subjectively from the answers provided by households on how they feel. It can measure how insecurity changed after a shock (ex-post measure) or it can measure households' perceptions about future shocks (ex-ante measures). Insecurity may be a measure of the effects of events over income (an economic measure of well-being) or it may measure a wider concept where economic measures are expanded with psychological attributes (a measure of general well-being). Osberg and Sharpe (2005) set out to construct an index of economic insecurity, which is modified and complemented by Berloffa and Modena (2011a, 2011b) to include new measures of economic insecurity related to the risk of unemployment.

The study of economic insecurity in economics should consider the effect of certain very relevant variables over expectations on well-being and the effect of these expectations over economic insecurity. The relationship between expectations and economic insecurity focuses in the perceived risks of exposure to adverse events and derives a subjective idiosyncratic measure. Scheve and Slaughter (2004) direct their attention to the economic insecurity associated with FDIs, by associating increases in worker's self-perception of the risk of losing their job to the demand for labour by multinationals. Dominitz and Manski (1997) find that respondents with a high risk of one adverse outcome tend also to perceive high risks of having other negative outcomes. Their study finds that economic insecurity tends to decline with age and with schooling and that minority respondents perceive much greater insecurity than do whites, especially among males. They also find that expectations and the realizations of health insurance coverage and of job loss tend to match up quite closely.

In Latin America, the measurement and analysis of subjective indicators of well-being has been pioneered by the work of the Inter-American Development Bank, presented to a great extent in Lora et al. (2008). It introduces a Subjective Human Development Index, comparable to the well-known United Nations Human Development Index. It compares the gap between the individual's perceptions, the reality of his own live and the situations in his country, based in worldwide surveys on the quality of life established in 2006 by Gallup[2]. In this index a country does poorly when perceptions lag behind reality, especially where perceptions are very negative in the face of very real achievements in human development.

Beyond the work of the Inter-American Bank, economic insecurity in Latin America has received little consideration from economists. Rodrik (2001) finds economic insecurity in Latin America is multifaceted and feeds from many sources. He argues that some of the insecurity arises from the observed decline in employment protection and the increased volatility of outcomes faced by households, while another part of it is the result of erratic capital flows and the systemic instability observed at times. Finally, he also considers that an important component is associated with the weakness of the institutions of voice and representation. Glewwe and Gillette (1998) use micro-data to study vulnerability in Peru, and find that households with better educated heads are less vulnerable; female headed

[2] Gallup World Poll, 2006. Available at http://www.gallup.com/consulting/worldpoll/24046/about.aspx.

households are not more vulnerable than male headed households; and households with more children are more vulnerable.

The main objective of this paper is to derive measures of economic insecurity for Chile and Mexico from data obtained directly from respondent's subjective appreciation of their past and future situation. Micro-data from these two Latin American countries is used to construct and to instrumentalize the definition developed by Bossert and D'Ambrosio (2009) where economic insecurity is defined as "the anxiety produced by the exposure to adverse events and the inability to recover from them."

The econometric estimations use multinomial logit since the technique is especially well suited for this research. Representative household surveys from each country provide the data which is exploited matching procedures, variables and estimation techniques for both countries so that results are deemed highly comparable. The left hand variable is anxiety and is measured by the subjective probabilities household heads assign to future adverse events. The right hand variables are (i) the household head subjective perception on whether he currently is or not subject to an adverse event, (ii) his age, (iii) his subjective perception of his health, (iv) his wealth, (v) his employment status and (vi) his education. The inability to recover from a shock is measured by the effect current adverse events have over anxiety. A principal component analysis (PCA) index based on ownership of durables was constructed as a proxy for wealth.

This study focuses on the microeconomic and determinants of economic insecurity, referring to those that distinguish one household from another. The study answers questions of the kind: "what types of households are more insecure?", rather than others of a more macro nature, such as: "what makes all households more or less insecure? Idiosyncratic (micro) risks are mainly associated with aging, labour market, health and wealth. Aging is linked to social isolation, inability to continue working, and uncertainty about whether transfers will provide an adequate living. Labour market risks include unemployment, falling wages, and having to take up precarious and low-quality jobs in the informal sector as a result of losing the (good) job. Health issues include the cost of treatments, losing the job and earning less. Wealth provides resources to cope with problems and mitigate their effects. These variables give information on how people currently feel, providing the building blocks for ex-ante measure of economic insecurity.

This study is one of the very first to use household micro-data to measure economic insecurity, and one of the few to research economic insecurity in emerging countries. The econometrics provides new information on the relevance of age, health, wealth, education, gender and employment status on economic insecurity. It also gives insights helpful for the design of policies directed at reducing economic insecurity.

The paper is structured as follows: Section II examines the data and describes the variables; Section III presents a set of descriptive statistics for both Chile and Mexico. Section IV contains the econometric results and the marginal probabilities, Section V discusses the results while finally Section VI presents the conclusions.

II. Data Sources and Variable Construction

The Chilean data comes from the National Socio-Economic Characterization Survey panel (CASEN-PANEL), that has been implemented in three waves; 1996, 2001 and 2006. The survey is representative for households in geographical areas covering around 60% of the country, and is also roughly representative at the national level. This research is based on data from the 2006 survey, which compromises 3,769 households with 14,558 individuals. The survey conveys current and historic information on several social and economic issues including past and current economic well-being, expectations on economic well-being, age, gender, labor status, health and ownership of durables among others. The expanded data for 2006 revealed 9,590,087 individuals and 2,377,678 households. The data set has some limitation primarily due to the fact that the labor history sub-base has not been made public. A second limitation is the large number of respondents that answered the questionnaire only partially or omitted the questions on expectations, forcing a reduction in the sample size to 1,687 observations, which then expands to 1,025,812 households.

The Mexican Family Life Survey (MXFLS) is a panel survey representative at the national level that has had two waves, one in 2002 and a second in 2005. The survey conveys current and past information on several social and economic variables including educational level, current and past well-being, expectations on well-being, age, gender, labor status, health, ownership of durables and other variables. The data set also has some important limitations primarily due to the fact that some of the questions, such as those about wealth, go unanswered by most respondents and are rendered useless. The MXFLS-2005 is hard to exploit as the expansion factors have not been released, and also because some of the MXFLS-2002 questions were not asked again in 2005, including the question on well-being. This research uses the MXFLS-2002 data drawn from a representative sample that averaged 8,388 households and 36,628 individuals, that expands to 24,153,549 households and 101,344,436 individuals. As was the case for Chile, there are a number of answers that were omitted by respondents, so the final sample size reduces to 4,766 observations that represent 14,564,306 households for the 2002 wave.

Information on wealth, particularly the value of houses, savings, financial assets, debt and mortgages is one of the hardest to capture in household surveys, either because people may feel the need to hide information on what their assets truly are, or because the value of these assets is either subjective or not thoroughly known by the respondent. Respondents may want to cooperate, yet not know how much they owe, what their mortgage is or how much their consolidated debts finally are. The information on Mexican household financial assets, savings, debt, mortgages and real estate included in the 2002 survey is very poor and incomplete mainly because the great majority of the households omitted these questions. For this reason it was not possible to directly estimate the value of the wealth coefficients for Mexico. To overcome this limitation an index based on ownership of durables was constructed and used as an additional variable.

The index was built independently for each country using Principle Components Analysis (PCA), as suggested by Filmer and Pritchett (2001). The PCA index was applied to a large set of durables assets including automobiles, refrigerators, washing machines, microwaves and other electronic devices. By assigning weights to the assets and capturing common

information based on the first principal component, PCA reduces a large number of variables to only a few and produces an index that provides a proxy of household wealth.

It is important take notice that some questions in the survey in one country are not identical with those in the other. In Chile the respondent is asked to consider how his current economic well-being compares with five years ago, and asked to scrutinize economic well-being three years into the future.[3] In Mexico the respondent is asked how his general well-being compares with one year ago and what he expects one year from now.[4]

In both countries expectations about the future (the left hand variable) have been classified into three categories: worse than the current situation, remained unchanged or better than the current situation. They were built according to how the family head answered the question on expectations.

III. Descriptive Statistics

The following paragraphs outline descriptive information that characterizes households on aspects that are pertinent to economic insecurity relevant for this study.

Chilean households in the 2006 survey on average earned a monthly income of US$ 499, compared to US$ 496 of the Mexican households in the 2002 survey, all in constant 2006 dollars. In relation to households who expect a fall in well-being, Chileans average US$ 455, while similar Mexican households average US$ 298, all in 2006 dollars, as presented in table 1.[5]

Economic insecurity is tightly associated with negative expectations on well-being. A large fraction of the Chilean household heads, 25.5%, feel that they are currently worst-off than before compared to 10.0% of the Mexicans. Similarly, 14.3% of the Chileans households feel they will do worst in the future, against 6.1% of Mexican. One of the recurring characteristics in the surveys is that Chileans are always more pessimistic than Mexicans about their current and future well-being. These and other relevant statistics are presented in table 2.

For those Chilean households that declared that their current situation had improved, 5.5% believed they would change for the worse in the future, while for similar Mexicans only 1.6% expected it to worsen. At the other end of the field, for those Chilean households

[3] In Mexico the question is: "Do you believe your life will improve, worsen or remain unchanged during the next 12 months?" The possible answers are, 1. Improve by much; 2. Improve Little; 3. Remain unchanged; 4. Worsen some; 5. Worsen by much. 1 and 2 are grouped as improved, 3 as remained unchanged, 4 and 5 as worsened.

[4] In Chile the question is: "Thinking about the next three years, do you believe your personal economic situation will…1. Probably improve; 2. Probably remain just as good; 3. Probably remain just as bad; 4. Probably worsen. 1 corresponds with improved, 2 and 3 are grouped as remained unchanged, 4 as worsened.

[5] These incomes were directly provided by respondents in the surveys, converted from 2002 to 2006 using CPI (in Mexico), and transformed to dollars by dividing by the December 2006 exchange rate in both countries.

declaring that they are currently worse-off, 33.8% believe the future will be even worse, compared to 31.7% in Mexico (see table 2). This hints to the high correlation between current conditions and expectations.

Place table 1 here

Place table 2 here

In Chile 9.3% of households declare their health to be bad or very bad and 23.6% of those in bad health expect their well-being to worsen, as compared to 11.7% of those in good health. In Mexico 4.6% of the households assert that their current health is bad, out of which 27.1% expect their well-being to worsen, compared to 3.5% of those in good health (see table 3). Age is also associated to expectations. While only 1.9% of the Chilean household heads aged 18-30 expects their well-being to fall, 20.0% of those over 65 and 12.8% of those aged 31-65 expect a decline. In Mexico only 1.2% of the younger households expect their well-being to fall and 5.6% of those aged 31-65. This compares with 17.1% for those over 65 (see table 4). Finally, with respect to self-employment, the descriptive statistics show a much stronger link with expectations in Chile than in Mexico: 22.1% of the Chilean self-employed feel pessimistic about the future, as compared to 9.7% of the employees, while in Mexico 7.0% of the self-employed have negative expectations, compared to 3.9% of the employees (see table 5).

Place table 3 here

Place table 4 here

Place table 5 here

IV. Econometric Results

Independent estimations were run for Mexico and for Chile, employing a conventional multinomial logit specification of the kind

Equation VI.1

$$P(Y_i = j) = \frac{e^{\beta'_j x_i}}{1+\sum_{k=1}^{3} e^{\beta'_k x_i}} \quad j = 1,2,3$$

The variables included in the multinomial logit are those that are believed to influence expectations on household well-being associated with economic insecurity. In the case of Mexico, the variable on the left corresponds to the personal expectations the household head has on his well-being, while for Chile it corresponds to his personal economic expectations. In both countries expectations have been classified into three categories: worse than the current situation, remained unchanged or better than the current situation.

The explanatory variable vector x_i is made up of current well-being, gender, age, education, health, employment status and wealth. Current well-being[6] is divided in three categories: whether it *remained unchanged; worsened* or *improved*; the omitted category is *improved*. For the variable *gender*, the omitted category is *male*. *Age* is given in years. *Education* is defined by the years of schooling. Related to health, the variables were defined as *good, regular and bad* according to the household's head self-perception of his condition. The omitted category is *bad health*. The employment status is made up of the categories *employee, self-employed, unemployed* and *others*[7]. The omitted category in the regression is *employee*. The PCA Index provides the proxy for *wealth* built so that possessing more durables implies a higher number in the index.

a. Estimations

Table 6 provides the results for the multinomial logit. Out of the 48 parameters, all except three have p-values below 1%, and only one, in Chilean Employment Status, *others* is below 5%.

Place table 6 here

To test the assumption of independence of irrelevant alternatives (IIA) the Small-Hsiao test is used. The results show no evidence that may lead to reject the assumption of IIA. The Hausman test for IIA was performed in addition and test statistics gave negative. According to Hausman and McFadden, who noted this possibility, a negative result is evidence that IIA has not been violated (Long and Freese, 2001). The goodness of fit, measured using the Pseudo R^2, is 0.13 for Chile and 0.22 for Mexico showing a better fit for Mexico. In both countries the Wald test rejects the hypothesis that all the slope coefficients are zero (see table 6 for details).

b. Sensitivity

To check for the robustness of the results, the regressions were tested for structural differences between groups, implemented by comparing results with those from two modified versions of the model. In the first modified version, control variables were included for regions within each country to test whether the regional variables capture any

[6] For Mexico, the current situation concerns current well-being. This variable is the answer to the question on whether personal well-being in the past 12 months, has: improved, remained unchanged or worsened. For Chile it concerns the current economic situation and answers the question on whether personal economic conditions in the past 5 years have improved, remained unchanged or worsened.

[7] The category *others* includes the following groups: employers, armed forces, non-paid relatives and retired.

specific effect and whether this weakens the impact of the relevant variables. For every category of expectations, all the coefficients keep their signs except the coefficient for *wealth*, and present a relative constancy in the marginal effects; therefore the new effects are qualitatively similar to the original ones (see results in tables 17-20). There are some few exceptions all of secondary importance, four in Chile and two in Mexico: after incorporating controls for regions; (i) the Chilean variable *regular health* no longer shows significant differences with *bad health* in the categories *improve* and *remained unchanged*; (ii) the Chilean parameter in *employment-others-improving* changes sign, though it is not significant; (iii) the Chilean parameter in *employment-others-unchanged* ceases to be significant; (iv) the Chilean parameter for *wealth* changes sign; (v) the Mexican estimations for *employment-self-employed-improving* and *employment-others-improving* switch signs, but are no longer significant.

In the second modified version, control variables were included to distinguish women that are: (i) household heads; (ii) sole bread-earners; (iii) and with children, from the other household heads. This would show whether the group is very different from the core group and to observe whether this biases the results in the relevant variables. The signs, magnitudes, and marginal effects are stable in both countries with few exceptions: The Chilean coefficients on *improve* in regular health and *education* are no longer significant, although the coefficient *others* in employment now turns significant. In Mexico signs do not change and parameters stay significant. The results are still very robust for the modified versions of the model in both countries, showing that variables and categories are not sensitive to particular specifications.

c. Marginal Probabilities

This section examines the marginal effects derived from the results presented in table 6 for each of the relevant variables or combinations.

i. Current Fluctuations on Well-being

The dependent (i.e. left hand) variable, economic insecurity, measured as the expectations the household head has on his well-being is bound to depend strongly on the changes in *current well-being*. The econometric results confirm that it is the variable that has the largest weight over economic insecurity. Table 7 presents the probabilities associated with household expectations according to whether their current conditions were *improving*, *worsening or remained unchanged*. The influence of negative shifts in well-being can be measured by the large impact they have on economic expectations in both countries. The marginal effects suggest that for Chilean household heads that declare that their current well-being is worse than in the past (25.5% of the households are in that condition), there is a 31.3% probability that they consider the future will be even worse. For comparable Mexican heads (10.0% of the households) the probability is 23.5%.

The impact of the negative shifts on expectations can be more thoroughly understood by comparing the above with households that were not subject to changes in current well-being. The probability that a Chilean household that did not experience change (53.6% of the household heads declared their condition had not changed) considers it will be worse-

off in the future is only 8.6%. For similar Mexican households (59.6% of the households), the probability is only 3.8%. These results show how important current adverse events are over expectations and economic insecurity. The probability of negative expectations is many times larger for households that have been exposed to adverse events vis-à-vis the rest.

Place table 7 here

ii. Age

Age is an idiosyncratic characteristic related to vulnerability and to risk exposure. Elder household heads are in a declining stage of their life-cycle earnings and are more vulnerable to negative shocks and ran higher risks of being subject to one. The opposite is true for young household heads. The multinomial estimates show that the age of the household head is the second most important variable in determining expectations in both countries. To illustrate, table 8 displays the results for household heads aged 25, 40 and 70. The marginal probabilities show those Chilean household heads that are 70 have an 18.2% probability of expecting the future to be worse, while in Mexico the probability is 10.1%. This compares with corresponding probabilities of 7.4% in Chile and 2.6% for Mexico for those that are 25, and 10.5% in Chile and 4.4% in Mexico for those that are 40 years old. Younger households feel much less insecurity compared to older ones.

Place table 8 here

iii. Health

Household heads in bad health are more vulnerable to shocks and are in a higher risk of being subject to one. The econometrics shows that *current health*, again an idiosyncratic characteristic of the household head, is a major determinant of negative expectations. In Chile, the probability associated with negative shifts in well-being for household heads that declare *bad health* reaches 18.9%, and the corresponding number for Mexico is 10.5%. For those in *good health*, these numbers are 13.3% in Chile and 5.0% in Mexico. The health variable is not as significant as *current well-being* or *age*, but it still is very important (see table 9 below).

Place table 9 here

iv. Wealth

Information on the value of houses, savings, financial assets, debts and mortgages is one of the hardest to capture in household surveys, either because people may feel the need to hide information on what their assets truly are, because the value of these assets is subjective, or because they do not fully know what the consolidated assets or debt really are. In the Mexican survey, the questions on financial assets, savings and debt were omitted by the most of the households. To overcome the limitations associated to the incomplete information on wealth, an index based on ownership of durables (i.e. automobile, refrigerator, etc.) was constructed and added as an idiosyncratic variable to proxy wealth. The index was built independently for each country using Principle Components Analysis (PCA).

All things equal, more assets should be associated with less economic insecurity because they provide a reserve with which to withstand negative fluctuations in well-being or illness, making households less vulnerable. The PCA index was grouped in categories from low to high according to ownership and every household was fitted into one category. A higher value for the index is associated to households that own a larger set of durables. The marginal probabilities associated to the PCA durable index shows there is only a very small dampening effect of wealth on economic insecurity. This can be checked in tables 10 and 11 that show that that a higher index is not associated to less pessimism in Mexico, and only has a slight effect in Chile.[8]

Place table 10 here

Place table 11 here

v. Employment

To determine the importance of the employment status, households have been divided into four groups: *employees, self-employed, unemployed* and *other*.[9] Regarding the self-employed, they should be subject to more volatility in their incomes because by definition it is irregular and not a pre-set salary as for employees. Although self-employment should then be associated to more economic insecurity, is only observed in Chile, not in Mexico. In Chile, the probabilities of doing worse in the future for the self-employed are significantly higher than those of the employees (20.4% versus 13.2%), but in Mexico they are almost identical (6.2% versus 6.3%). These results are consistent with those of Lora at

[8] Observe an indirect effect in table 11: Mexicans with a higher wealth index under a negative current shock are more optimistic than those with a lower index.

[9] *Other* category includes heads of households that are: (i)retired; (ii)housewives; (iii)have no income and are not searching for a job; (iv)have no income and did not provide additional information; (v)omitted labour status question in the questionnaire.

al. (2008), that found that informal workers are happy with their jobs in Mexico (and in most of Latin America), yet not in Chile.

With respect to the unemployed, in Chile the probabilities they associate to negative shifts in future well-being are almost identical with those of employees, and in Mexico only a bit larger than those of employees. More than implying that it is not relevant in determining negative expectations, the effect of unemployment over well-being is most probably already captured by the negative current fluctuations on well-being category.

Place table 12 here

vi. Education

Households can rely in their human capital to try to avoid negative shocks, to mitigate their impact or recover from the shocks. Education can be thought of as an idiosyncratic variable that reduces risk and vulnerability. The effect of education in moderating economic insecurity has some influence in Mexico, though not in Chile. The probability associated with negative shifts in future well-being by Mexican household heads with 4 years of education is 6.4%, while for those with 16 years of education is 3.7% (see table 13 below). In Chile the probabilities were almost the same across educational groups. In the example above, those with 4 years of schooling felt they had a 14.4% probability of a negative shift, while those with 16 years of education had an almost identical 14.2%.

Place table 13 here

vii. Gender

The marginal probabilities associated with gender and presented in table 14 shows that both in Chile and Mexico male household heads are slightly more pessimistic than females (and also more optimistic, observed in the variable improve). This implies that after controlling for all the other variables (health, age, wealth, etc.), gender only has a small role in determining economic insecurity.

Place table 14 here

V. Discussion and Analysis

a. Chile v/s Mexico

Chilean households always show much more economic insecurity than Mexican households. In every category the fraction of Chilean households that expect their situation to worsen outnumbers Mexicans. The difference between Chileans and Mexicans may respond to the nature of this particular experiment or to differences in socio-economic characteristics between both countries. In the first case it would answer to: (i) The subjective nature of the information: respondents are asked for their subjective appreciation of their current, future and past well-being; (ii) The differences can also lie in that the questions are of a similar nature, but not the same: Chileans are asked for their economic well-being, while Mexicans are surveyed on their general well-being; (iii) The time span is also different: Chileans are asked to look back 5 years and forward 3 years, while Mexicans are asked to look back and forth 1 year; (iv) The Mexican survey was conducted in 2002, while the Chilean survey was in 2006, and each country is subject to different macroeconomic conditions: In 2002-2003 Mexico expanded after recovering from the 2001 recession, while in Chile, the economy expanded in 2006-2007, but then slowed down in 2008 and slipped into recession in 2009.

However, the difference in how pessimistic Chileans are in relation to Mexicans may lie in a different venue. According to two studies, the pessimism of Chileans versus Mexican is probably rooted in deep socio-economic and cultural characteristics. In a set of 19 Latin American and Caribbean countries controlled by the Gallup World Poll[10], Chileans are the most pessimistic, while Mexicans stand as the third most optimistic. In a subsequent study Lora et al. (2008) developed a Subjective Human Development Index for Latin American and the Caribbean, comparable to the (objective) United Nations Human Development Index. The results show that Chile does high at the objective human development ranking, but very low at the subjective human development level, while Mexico has a high to medium level at both the objective and subjective human development indexes. Lora shows that Chile has the largest the gap between both indexes in Latin America, while Mexico has one of the smallest, implying Chileans show a very negative perception of society in the face of real achievements in human development.

b. Combinations of Variables

The estimated multinomial logit presented in table 6 can be exploited to calculate the marginal probabilities for combinations of variables. The combinations are many, so only some, those deemed most relevant are presented in table 15. That table is especially helpful to compare by how much households with different characteristics can differ from one another. Take a 64-year-old male household head with 4 years of schooling, who has currently undergone a negative shock, has serious health problems, with a low wealth index, and is self-employed. In this case if he were Chilean, the probability he would associate to negative shifts in future well-being reaches 17.7% and if he were Mexican the

[10] Gallup World Poll, 2006. Available at http://www.gallup.com/consulting/worldpoll/24046/about.aspx.

corresponding probabilities are 18.2%. On the other side of the scale, a 30-year-old Chilean household head with 16 years of education, who has currently undergone a positive change in well-being, in good health with a high wealth index, and works as an employee: he only perceives a 2.3% chance of being worse-off in the future, while the corresponding probability for a Mexican household is 0.4%.

The table presents a sample of 21 additional cases with the probabilities associated with different combinations of variables and characteristics. These combinations of variables provide insights into how strong economic insecurity may be felt by groups more vulnerable to shocks, and shows how individuals with different characteristics can have contrasting expectations about their future well-being. The similarity in the marginal probabilities for Chileans and Mexicans can be remarkable, as in the example above.

Place table 15 here

c. Policy Recommendations

The results from this paper may help governments in the design of policies to reduce economic insecurity. This research has established that economic insecurity affects the older and the ill with particular strength. The strong link between health, age and economic insecurity suggests that in order to reduce insecurity, governments should encourage pension plans and health insurances that provide proper coverage. It is also important to ensure that older household heads can also access policies and instruments designed to reduce economic insecurity.

It also follows from this paper that policies directed at lending households a hand to overcome current negative shocks are central to reducing insecurity. This involves future research into the nature of the factors that generate such shocks. Because the results show that most educational, wealth and employment segments of society are subject to similar levels of anxiety about the future when they are facing a current negative shock, policies designed to reduce economic insecurity should be broad in terms of inclusion.

The self-employed also suffer economic insecurity in comparable terms with that of employees in Mexico or even higher in Chile. They should be given access to mechanisms directed at reducing insecurity, including the health insurance and unemployment benefits normally provided to employees.

Mechanisms that focus in mitigating economic insecurity do not necessarily require large public funding. Two recent examples in that direction are: (i) the creation of an unemployment insurance scheme in Chile financed mostly from compulsory employee and employer payments. The results from this paper would suggest that the insurance should be expanded to the self-employed and to cover the wages associated to households in the upper income brackets, currently covered only partially; (ii) A new law that automatically switches money away from tax-refunds to obligatory payments to social security in Chile will help small contractors and some of the self-employed access economic insecurity coping mechanisms that are usually only available to employees.

In general, this research stresses the need of having government social security schemes made obligatory for all, not only for formal employees. This is especially so in Latin America where the self-employed, contractors, small business and small farmers may account for over 30% of households.

It was already pointed out that policies designed to reduce economic insecurity should be broad in terms of inclusion. Yet, to what extent do governments expenditure directed at mitigating economic insecurity focus in the poor? Table 16 presents data organized by income quintiles on current well-being of household heads. Observe that 15.8% of the Chilean households grouped in the richest quintile feel that their current condition has worsened versus 33.6% of the households in quintile I, a substantial difference. This difference is smaller for Mexicans where 8.6% of those grouped in quintile V declare that their current well-being has worsened compared to 12.9% of the households in the richest quintile. These results highlight that the current situation of households is correlated with income levels, implying that policies directed at helping households overcome current shocks, or helping them reduce their risk of facing a shock, will by default focus in poorer families.

Place table 16 here

VI. Conclusions

Economic insecurity defined as "the anxiety produced by the exposure to adverse events and the inability to recover from them" is analysed by measuring the impact that different variables associated with economic insecurity have on expectations on well-being for Chile and Mexico. In order to study expectations, they were divided in three: that the situation (i) will *improve* (ii) *remained unchanged* or (iii) will *worsen*.

The econometric results confirm the relevance of the variables traditionally associated with economic insecurity in the formation of expectations and provide new evidence to rank their importance according to their impact on household expectations. The Chilean and Mexican parameters are comparable, with no serious contradictions or discrepancies between them. The similarities of the estimated parameters for Chile and Mexico suggest the existence of identifiable patterns for economic insecurity across Latin American countries. In both countries fears about future well-being are tied directly to the following, listed in order of importance: (i) undergoing a negative current shock on well-being, (ii) age and (iii) health.

Households that are currently subjected to a negative shock show the highest levels of anxiety in both countries, proving that the anxiety and fear that results from the exposure to adverse events significantly increases economic insecurity and downgrades expectations about future well-being. Over 30% of Chilean and Mexican households that are exposed to negative events will be pessimistic about their future, compared to well below 6% for the rest.

This research also shows the importance of age and health in economic insecurity: almost 20% of the seventy year old Chileans and about 17% of their Mexican counterparts expect a negative shift in well-being in the future, compared to 2% or less for household heads aged 25. Health is not as significant as changes in either well-being or age, but it still is an important determinant of economic insecurity. About 23.6% of Chilean households and 27.1% of the Mexicans suffering from bad health are negative about the future, while for those in good health, these numbers respectively fall to 12% and to almost 4%.

This research tested an additional set of variables to determine their relevance for economic insecurity, namely employment status, education, gender and wealth. With respect to these other variables, self-employment was relevant only in Chile, while educational levels were only relevant in Mexico. In relation to the other variables, the econometric results show that after controlling for current well-being, age, health, education and employment, the household head's gender and wealth have very little importance in determining negative expectations on well-being.

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Tables

Table 1
Income by Category of Expectations

Monthly Average Income in Dollars 2006		
Expectations	**Chile 2006**	**Mexico 2002**
Improve	605	548
No Change	424	446
Worse	455	298
Total	499	496

Table 2

	Households Current Situation							
	Chile				Mexico			
Expectation	**Improved**	**No Change**	**Worsened**	**Total**	**Improved**	**No Change**	**Worsened**	**Total**
Improve	68.2%	28.9%	37.2%	39.2%	85.5%	35.9%	39.2%	51.3%
No Change	26.3%	62.7%	29.1%	46.5%	12.9%	60.1%	29.2%	42.7%
Worse	5.5%	8.5%	33.8%	14.3%	1.6%	4.0%	31.7%	6.1%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Total	**20.8%**	**53.6%**	**25.5%**	**100%**	**30.3%**	**59.6%**	**10.0%**	**100%**

Table 3

	Households Current Health							
	Chile				Mexico			
Expectation	**Good**	**Regular**	**Bad**	**Total**	**Good**	**Regular**	**Bad**	**Total**
Improve	41.4%	40.2%	22.4%	39.2%	57.7%	46.4%	29.6%	51.3%
No Change	46.9%	44.0%	54.0%	46.5%	38.8%	46.9%	43.3%	42.7%
Worse	11.7%	15.8%	23.6%	14.3%	3.5%	6.8%	27.1%	6.1%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Total	**53.9%**	**36.8%**	**9.3%**	**100%**	**49.8%**	**45.6%**	**4.6%**	**100%**

Table 4

	Households Age							
	Chile				Mexico			
Expectation	**18 a 30**	**31 a 65**	**66+**	**Total**	**18 a 30**	**31 to 65**	**66+**	**Total**
Improve	62.5%	44.2%	22.6%	39.2%	69.1%	51.4%	20.8%	51.3%
No Change	35.6%	43.1%	57.5%	46.5%	29.7%	43.0%	62.1%	42.7%
Worse	1.9%	12.8%	20.0%	14.3%	1.2%	5.6%	17.1%	6.1%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Total	**2.3%**	**72.6%**	**25.1%**	**100%**	**17.5%**	**71.8%**	**10.7%**	**100%**

Table 5

		Households Employment Status				
Country	**Expectation**	**Employees**	**Self-employed**	**Unemployed**	**Others**	**Total**
	Improve	44.0%	46.7%	33.5%	28.1%	39.2%
	No Change	46.3%	31.1%	53.1%	54.8%	46.5%
Chile	Worse	9.7%	22.1%	13.4%	17.1%	14.3%
	Total	**100%**	**100%**	**100%**	**100%**	**100%**
	Total	**48.4%**	**17.4%**	**2.5%**	**31.7%**	**100%**
	Improve	58.5%	47.2%	43.6%	33.7%	51.3%
	No Change	37.7%	45.8%	49.0%	54.2%	42.7%
Mexico	Worse	3.9%	7.0%	7.4%	12.1%	6.1%
	Total	**100%**	**100%**	**100%**	**100%**	**100%**
	Total	**53.5%**	**30.7%**	**1.7%**	**14.1%**	**100%**

Table 6
Multinomial Logit Estimates for Determinants of Expectations

Dependent Variable: Expectations	Chile		Mexico	
	Improve	No Change	Improve	No Change
Gender				
Female	0.135	0.026	0.470	-0.012
	(0.008)**	(0.008)**	(0.006)**	(0.006)*
Health				
Regular	0.040	-0.247	-0.173	-0.257
	(0.008)**	(0.008)**	(0.003)**	(0.003)**
Bad	-0.763	-0.307	-0.892	-1.042
	(0.013)**	(0.011)**	(0.005)**	(0.004)**
Age	-0.037	-0.012	-0.051	-0.022
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Years of Schooling	0.003	0.003	0.085	0.028
	(0.001)**	(0.001)**	(0.000)**	(0.000)**
Employment Status				
Self-employed	-0.377	-0.812	-0.008	0.035
	(0.009)**	(0.009)**	(0.003)*	(0.003)**
Unemployed	-0.127	0.180	0.341	0.441
	(0.021)**	(0.020)**	(0.010)**	(0.010)**
Other	0.017	0.050	-0.027	0.229
	(0.010)	(0.010)**	(0.004)**	(0.004)**
Current Situation				
No Change	-1.145	0.451	-1.513	0.740
	(0.011)**	(0.012)**	(0.004)**	(0.004)**
Worsened	-2.182	-1.601	-3.151	-1.846
	(0.011)**	(0.012)**	(0.004)**	(0.005)**
Wealth Index	-0.021	-0.048	0.031	-0.024
	(0.002)**	(0.002)**	(0.001)**	(0.001)**
Constant	4.445	2.457	5.758	3.112
	(0.022)**	(0.022)**	(0.008)**	(0.008)**

Base Category: Worse

Notes: Robust standard error in parentheses. * significant at 5%, **significant at 1%.

Table 7
Current Situation and Expected Probabilities

Current Situation	Expectations in Chile			Expectations in Mexico		
	Improve	No Change	Worse	Improve	No Change	Worse
Improved	64.5%	29.0%	6.4%	81.7%	15.9%	2.5%
No Change	29.8%	61.6%	8.6%	37.7%	58.5%	3.8%
Worsened	39.0%	29.7%	31.3%	47.9%	28.5%	23.5%

Table 8
Age and Expected Probabilities

Age	Expectations in Chile			Expectations in Mexico		
	Improve	No Change	Worse	Improve	No Change	Worse
25	56.5%	36.1%	7.4%	63.7%	33.7%	2.6%
40	47.4%	42.1%	10.5%	54.6%	41.1%	4.4%
70	30.0%	51.7%	18.2%	36.5%	53.3%	10.1%

Table 9
Health Status and Expected Probabilities

Health Status	Expectations in Chile			Expectations in Mexico		
	Improve	No Change	Worse	Improve	No Change	Worse
Good	38.4%	48.4%	13.3%	50.9%	44.1%	5.0%
Regular	43.1%	42.5%	14.4%	51.9%	42.1%	6.0%
Bad	28.2%	52.9%	18.9%	51.0%	38.5%	10.5%

Table 10
Wealth Index and Expected Probabilities

Wealth Index	Expectations in Chile			Expectations in Mexico		
	Improve	No Change	Worse	Improve	No Change	Worse
Low	38.2%	48.6%	13.2%	46.0%	47.9%	6.0%
Medium	39.1%	46.7%	14.3%	48.5%	45.4%	6.1%
High	39.9%	44.8%	15.3%	52.1%	41.8%	6.1%

Table 11
Wealth Index, Current Situation and Expected Probabilities

Wealth Index	Current Situation	Expectations in Chile			Expectations in Mexico		
		Improve	No Change	Worse	Improve	No Change	Worse
Low	Improved	63.3%	30.8%	5.9%	77.5%	19.8%	2.7%
	No Change	28.5%	63.8%	7.7%	31.4%	64.9%	3.7%
	Worsened	38.7%	32.0%	29.3%	42.4%	33.6%	24.0%
Medium	Improved	64.4%	29.2%	6.4%	79.6%	17.8%	2.6%
	No Change	29.6%	61.8%	8.6%	34.3%	61.9%	3.8%
	Worsened	38.9%	29.9%	31.2%	45.1%	31.1%	23.8%
High	Improved	65.5%	27.6%	6.9%	82.4%	15.2%	2.4%
	No Change	30.8%	59.7%	9.5%	38.6%	57.5%	3.9%
	Worsened	39.1%	27.8%	33.1%	48.8%	27.8%	23.4%

Table 12
Employment Status and Expected Probabilities

Employment Status	Expectations in Chile			Expectations in Mexico		
	Improve	No Change	Worse	Improve	No Change	Worse
Employee	38.8%	48.0%	13.2%	52.0%	41.7%	6.3%
Self-employed	43.2%	36.4%	20.4%	51.3%	42.5%	6.2%
Unemployed	33.4%	54.0%	12.7%	51.0%	44.4%	4.6%
Other	38.3%	48.8%	12.8%	47.8%	46.5%	5.7%

Table 13
Years of Education and Expected Probabilities

Years of Education	Expectations in Chile			Expectations in Mexico		
	Improve	No Change	Worse	Improve	No Change	Worse
4	39.1%	46.5%	14.5%	48.0%	45.5%	6.4%
10	39.2%	46.5%	14.3%	54.8%	40.2%	5.0%
16	39.3%	46.6%	14.1%	61.6%	34.6%	3.7%

Table 14
Gender and Expected Probabilities

Gender	Expectations in Chile			Expectations in Mexico		
	Improve	No Change	Worse	Improve	No Change	Worse
Male	38.5%	46.9%	14.5%	50.9%	43.0%	6.1%
Female	40.9%	45.4%	13.7%	59.7%	35.1%	5.2%

Table 15
Type of Households and Expectations

Age	Gender	Years of Schoolin	Current Stuation	Health	Wealth	Employment Status	Expectations in Chile			Expectations in Mexico		
							Improve	No Change	Worse	Improve	No Change	Worse
30	Female	4	Worsened	Good	High	Employee	57.3%	28.2%	14.5%	62.6%	26.1%	11.4%
30	Female	4	Worsened	Good	High	Self-employed	59.2%	18.9%	21.9%	61.8%	26.9%	11.3%
30	Female	4	Worsened	Good	Low	Self-employed	59.2%	16.3%	24.6%	68.7%	21.0%	10.3%
30	Female	16	Improved	Good	Low	Employee	78.9%	18.7%	2.4%	95.9%	3.9%	0.2%
30	Male	4	Improved	Good	High	Self-employed	80.2%	16.0%	3.8%	83.1%	15.9%	1.0%
30	Male	4	Worsened	Good	High	Employee	54.4%	29.9%	15.8%	50.9%	34.3%	14.8%
30	Male	4	Worsened	Good	High	Self-employed	56.2%	20.0%	23.8%	50.1%	35.3%	14.7%
30	Male	4	Worsened	Good	Low	Employee	55.6%	26.3%	18.1%	58.4%	27.7%	13.9%
30	Male	4	Worsened	Good	Low	Self-employed	56.1%	17.2%	26.7%	57.6%	28.5%	13.8%
30	Male	16	Improved	Good	High	Employee	74.8%	22.9%	2.3%	91.1%	8.5%	0.4%
30	Male	16	Improved	Good	Low	Employee	77.0%	20.3%	2.7%	93.5%	6.1%	0.3%
30	Male	16	Improved	Good	Low	Self-employed	81.8%	14.0%	4.2%	93.3%	6.4%	0.3%
64	Female	4	Improved	Bad	High	Self-employed	51.2%	32.9%	15.9%	72.3%	19.7%	7.9%
64	Female	4	Worsened	Bad	High	Employee	21.4%	38.0%	40.6%	22.2%	21.4%	56.4%
64	Female	4	Worsened	Bad	Low	Employee	21.5%	32.8%	45.7%	26.6%	18.0%	55.4%
64	Female	16	Worsened	Bad	High	Employee	21.8%	38.5%	39.7%	41.5%	20.3%	38.2%
64	Male	4	Worsened	Bad	High	Employee	19.4%	38.5%	42.1%	15.1%	23.6%	61.4%
64	Male	4	Worsened	Bad	High	Self-employed	18.4%	23.5%	58.1%	14.9%	24.2%	60.9%
64	Male	4	Worsened	Bad	Low	Employee	19.4%	33.1%	47.4%	18.4%	20.2%	61.4%
64	Male	4	Worsened	Bad	Low	Self-employed	17.7%	19.5%	62.8%	18.2%	20.8%	61.0%
64	Male	16	Worsened	Bad	High	Employee	19.8%	39.0%	41.2%	30.6%	24.3%	45.1%
64	Male	16	Worsened	Bad	Low	Employee	19.8%	33.7%	46.5%	36.2%	20.2%	43.6%

Table 16
Current Situation, Quintiles of Income and Distribution of Households

Current Situation	Quintiles in Chile					
	I	II	III	IV	V	Total
Improved	12.7%	15.8%	17.6%	25.5%	33.1%	20.8%
No Change	53.7%	56.1%	56.7%	50.1%	51.1%	53.6%
Worsened	33.6%	28.1%	25.6%	24.4%	15.8%	25.5%
Total	100%	100%	100%	100%	100%	100%
Current Situation	**Quintiles in Mexico**					
	I	**II**	**III**	**IV**	**V**	**Total**
Improved	25.2%	27.2%	33.6%	37.1%	42.1%	30.4%
No Change	61.9%	62.8%	58.9%	51.5%	49.3%	58.5%
Worsened	12.9%	10.0%	7.5%	11.4%	8.6%	11.1%
Total	100%	100%	100%	100%	100%	100%

Table 17. Robustness Check for Chile. Regions.
Multinomial Logit Estimates for Determinants of Expectations

Chile Dependent Variable: Expectations	Model A: Base Case		Model B	
	Improve	No Change	Improve	No Change
Gender				
Female	0.135	0.026	0.159	0.037
	(0.008)**	(0.008)**	(0.008)**	(0.008)**
Health				
Regular	0.040	-0.247	0.015	-0.260
	(0.008)**	(0.008)**	(0.008)	(0.008)**
Bad	-0.763	-0.307	-0.782	-0.324
	(0.013)**	(0.011)**	(0.013)**	(0.011)**
Age	-0.037	-0.012	-0.036	-0.012
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Years of Schooling	0.003	0.003	0.010	0.010
	(0.001)**	(0.001)**	(0.001)**	(0.001)**
Employment Status				
Self-employed	-0.377	-0.812	-0.437	-0.873
	(0.009)**	(0.009)**	(0.009)**	(0.009)**
Unemployed	-0.127	0.180	-0.176	0.136
	(0.021)**	(0.020)**	(0.023)**	(0.021)**
Other	0.017	0.050	-0.019	0.013
	(0.010)	(0.010)**	(0.010)	(0.010)
Current Situation				
No Change	-1.145	0.451	-1.138	0.449
	(0.011)**	(0.012)**	(0.011)**	(0.012)**
Worsened	-2.182	-1.601	-2.146	-1.590
	(0.011)**	(0.012)**	(0.011)**	(0.012)**
Wealth Index	-0.021	-0.048	0.029	-0.006
	(0.002)**	(0.002)**	(0.002)**	(0.002)*
Constant	4.445	2.457	4.837	2.190
	(0.022)**	(0.022)**	(0.032)**	(0.033)**
Region Control	No		Yes	
Base Category: Worse				
Number of Observations	1,025,812		1,025,812	
Wald chi2	245,041		250,121	
Prob > chi2	0.00		0.00	
Pseudo R2	0.13		0.13	

Notes: Robust standard error in parentheses. * significant at 5%, **significant at 1%.
Model A: Base Model; Model B: Incorporates regional dummies.

Table 18. Robustness Check for Chile. Female Head with Children
Multinomial Logit Estimates for Determinants of Expectations

Chile Dependent Variable: Expectations	Model A: Base Case		Model B	
	Improve	No Change	Improve	No Change
Gender				
Female	0.135	0.026	0.309	0.265
	(0.008)**	(0.008)**	(0.009)**	(0.009)**
Health				
Regular	0.040	-0.247	0.012	-0.283
	(0.008)**	(0.008)**	(0.008)	(0.008)**
Bad	-0.763	-0.307	-0.782	-0.324
	(0.013)**	(0.011)**	(0.013)**	(0.011)**
Age	-0.037	-0.012	-0.039	-0.016
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Years of Schooling	0.003	0.003	0.001	0.001
	(0.001)**	(0.001)**	(0.001)	(0.001)
Employment Status				
Self-employed	-0.377	-0.812	-0.389	-0.822
	(0.009)**	(0.009)**	(0.009)**	(0.009)**
Unemployed	-0.127	0.180	-0.196	0.101
	(0.021)**	(0.020)**	(0.021)**	(0.020)**
Other	0.017	0.050	0.028	0.065
	(0.010)	(0.010)**	(0.010)**	(0.010)**
Current Economic Situation				
No Change	-1.145	0.451	-1.133	0.468
	(0.011)**	(0.012)**	(0.011)**	(0.012)**
Worsened	-2.182	-1.601	-2.142	-1.544
	(0.011)**	(0.012)**	(0.011)**	(0.012)**
Wealth Index	-0.021	-0.048	-0.019	-0.049
	(0.002)**	(0.002)**	(0.002)**	(0.002)**
Constant	4.445	2.457	4.574	2.629
	(0.022)**	(0.022)**	(0.022)**	(0.022)**
Female Head Control	No		Yes	
Base Category: Worse				
Number of Observations	1,025,812		1,025,812	
Wald chi2	245,041		245,737	
Prob > chi2	0.00		0.00	
Pseudo R2	0.13		0.13	

Notes: Robust standard error in parentheses. * significant at 5%, **significant at 1%.
Model A: Base Model; Model B: Incorporates female head dummies.

Table 19. Robustness Check for Mexico. Regions
Multinomial Logit Estimates for Determinants of Expectations

Mexico Dependent Variable:Expectations	Model A: Base Case		Model B	
	Improve	No Change	Improve	No Change
Gender				
Female	0.470	-0.012	0.415	-0.064
	(0.006)**	(0.006)*	(0.006)**	(0.006)**
Health				
Regular	-0.173	-0.257	-0.180	-0.259
	(0.003)**	(0.003)**	(0.003)**	(0.003)**
Bad	-0.892	-1.042	-0.834	-1.002
	(0.005)**	(0.004)**	(0.005)**	(0.005)**
Age	-0.051	-0.022	-0.053	-0.023
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Years of Schooling	0.085	0.028	0.081	0.028
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Employment Status				
Self-employed	-0.008	0.035	0.000	0.025
	(0.003)*	(0.003)**	(0.003)	(0.003)**
Unemployed	0.341	0.441	0.314	0.449
	(0.010)**	(0.010)**	(0.010)**	(0.010)**
Other	-0.027	0.229	0.002	0.249
	(0.004)**	(0.004)**	(0.004)	(0.004)**
Current Economic Situation				
No Change	-1.513	0.740	-1.529	0.741
	(0.004)**	(0.004)**	(0.004)**	(0.004)**
Worsened	-3.151	-1.846	-3.151	-1.837
	(0.004)**	(0.005)**	(0.004)**	(0.005)**
Wealth Index	0.031	-0.024	0.052	-0.004
	(0.001)**	(0.001)**	(0.001)**	(0.001)**
Constant	5.758	3.112	5.980	3.263
	(0.008)**	(0.008)**	(0.009)**	(0.009)**
Region Control	No		Yes	
Base Category: Worse				
Number of Observations	14,564,306		14,557,746	
Wald chi2	4,174,409		4,136,369	
Prob > chi2	0.00		0.00	
Pseudo R2	0.22		0.22	

Notes: Robust standard error in parentheses. * significant at 5%, **significant at 1%.
Model A: Base Model; Model B: Incorporates regional dummies.

Table 20. Robustness Check for Mexico. Female Head with Children
Multinomial Logit Estimates for Determinants of Expectations

Mexico Dependent Variable:Expectations	Model A: Base Case		Model B	
	Improve	No Change	Improve	No Change
Gender				
Female	0.470	-0.012	0.476	-0.039
	(0.006)**	(0.006)*	(0.006)**	(0.006)**
Health				
Regular	-0.173	-0.257	-0.173	-0.259
	(0.003)**	(0.003)**	(0.003)**	(0.003)**
Bad	-0.892	-1.042	-0.892	-1.044
	(0.005)**	(0.004)**	(0.005)**	(0.004)**
Age	-0.051	-0.022	-0.051	-0.022
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Years of Schooling	0.085	0.028	0.085	0.028
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Employment Status				
Self-employed	-0.008	0.035	-0.008	0.035
	(0.003)*	(0.003)**	(0.003)*	(0.003)**
Unemployed	0.341	0.441	0.342	0.441
	(0.010)**	(0.010)**	(0.010)**	(0.010)**
Other	-0.027	0.229	-0.030	0.233
	(0.004)**	(0.004)**	(0.004)**	(0.004)**
Current Economic Situation				
No Change	-1.513	0.740	-1.513	0.740
	(0.004)**	(0.004)**	(0.004)**	(0.004)**
Worsened	-3.151	-1.846	-3.151	-1.844
	(0.004)**	(0.005)**	(0.004)**	(0.005)**
Wealth Index	0.031	-0.024	0.031	-0.024
	(0.001)**	(0.001)**	(0.001)**	(0.001)**
Constant	5.758	3.112	5.757	3.111
	(0.008)**	(0.008)**	(0.008)**	(0.008)**
Female Head Control	No		Yes	
Base Category: Worse				
Number of Observations	14,564,306		14,564,306	
Wald chi2	4,174,409		4,176,047	
Prob > chi2	0.00		0.00	
Pseudo R2	0.22		0.22	

Notes: Robust standard error in parentheses. * significant at 5%, **significant at 1%.
Model A: Base Model; Model B: Incorporates female head dummies.