

IZA DP No. 9592

**Fear of Labor Rigidities:  
The Role of Expectations on Employment Growth  
in Peru**

Pablo Lavado  
Gustavo Yamada

December 2015

# **Fear of Labor Rigidities: The Role of Expectations on Employment Growth in Peru**

**Pablo Lavado**

*University of the Pacific, Lima*

**Gustavo Yamada**

*University of the Pacific, Lima  
and IZA*

Discussion Paper No. 9592  
December 2015

IZA

P.O. Box 7240  
53072 Bonn  
Germany

Phone: +49-228-3894-0  
Fax: +49-228-3894-180  
E-mail: [iza@iza.org](mailto:iza@iza.org)

Any opinions expressed here are those of the author(s) and not those of IZA. Research published in this series may include views on policy, but the institute itself takes no institutional policy positions. The IZA research network is committed to the IZA Guiding Principles of Research Integrity.

The Institute for the Study of Labor (IZA) in Bonn is a local and virtual international research center and a place of communication between science, politics and business. IZA is an independent nonprofit organization supported by Deutsche Post Foundation. The center is associated with the University of Bonn and offers a stimulating research environment through its international network, workshops and conferences, data service, project support, research visits and doctoral program. IZA engages in (i) original and internationally competitive research in all fields of labor economics, (ii) development of policy concepts, and (iii) dissemination of research results and concepts to the interested public.

IZA Discussion Papers often represent preliminary work and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be available directly from the author.

## **ABSTRACT**

### **Fear of Labor Rigidities: The Role of Expectations on Employment Growth in Peru**

Many studies have been conducted to analyze the effect of stricter Employment Protection Legislation (EPL). However, almost all of them has focused on an ex-post impact; leaving aside a second but equally important channel: expectations. This paper aims to analyze the role of expectations on Peruvian formal and informal labor market; using news as our identification variable. We use the monthly number of news related to the approval of the General Labor Law (GLL), a proposal entailing future stronger labor rigidities, from January 2001 to May 2012. Using the Permanent Employment Survey (EPE), we find a negative relation between expectations towards a stricter labor market and both employment and average income. News mainly affect formal occupied EAP, arousing a substitution effect from formal to informal employment. We also discover that the effect of expectations differs in periods with higher versus lower GDP growth. Finally, we find some evidence supporting news having a cumulative effect: the larger the previous stock of news, the weaker the effect.

JEL Classification: J21, J23, J24, J46, J32

Keywords: employment protection legislation, expectations, labor law, informal labor market

Corresponding author:

Gustavo Yamada  
Department of Economics  
Universidad del Pacífico  
Av. Salaverry 2020  
Lima 11  
Peru  
E-mail: [yamada\\_ga@up.edu.pe](mailto:yamada_ga@up.edu.pe)

# 1 Introduction

In 2001 arose the idea of establishing a law to protect workers. As of today, the General Labour Law project has undergone three updates over the years. Between 2002 and 2005 the first delivery of the draft was discussed in 152 sessions, which concluded in the approval of 72% of the 468 items proposed. In 2006, there was another discussion of the remaining points from the previous debate. Finally, in 2011, the executive power reactivated the debate by transferring the bill to a council of experts, in order to achieve consensus. Meanwhile, the Congress Working Committee also reactivated the original document update project. Despite having these two channels, the discussion of the General Labour Act is not in agenda of the Congress nor the Executive power.

Although almost 85% of this law's articles have already been approved, the remaining 15% still generates some discrepancies between the business association and the union power. These disagreements are centered in three key points that prevent full approval of the law: the elevation of the compensation for unfair dismissal, the reduction of the types and duration of temporary contracts and the high cost of incorporation as a cause of wrongful dismissal cases referred to the Constitutional Court.

Currently, compensation for unfair dismissal is regulated in 12 years; while the Executive power proposes to increase this payment to 16 years and Congress a payment of 24. In the case of temporary contracts, the maximum term is five and there are nine types of contracts. The General Labor Law proposes reducing to six types and its duration up to 18 months or two years. The last point that causes controversy is the possibility of incorporating workers unjustified cases determined by the Constitutional Court as groundless dismissal, fraudulent and against fundamental rights. Incorporating involves giving them work and payment of wages earned even though they have not worked during the dictamination process. In general, all these measures imply a higher cost of dismissal for the employer, increasing labor market rigidities.

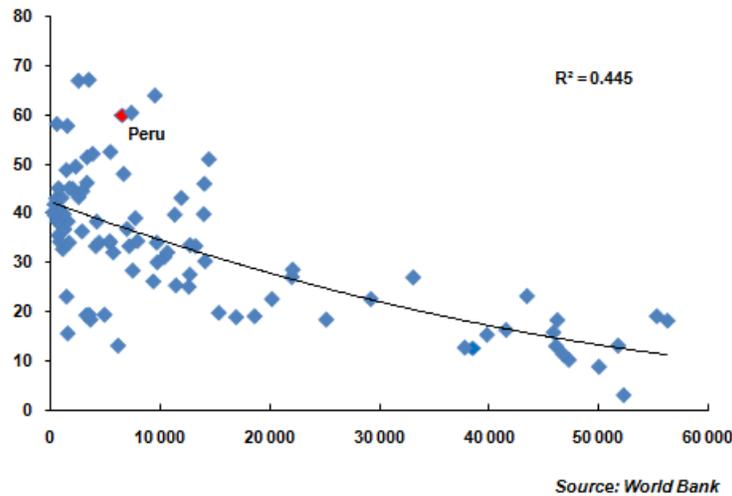
One of the biggest questions raised is the possible impact of the approval and implementation of this law in labor market. But we have to take into account that its impact is not only ex-post; but also ex-ante through firm's expectations. Policy-makers do not usually take in consideration that firms are also rational agents; and, as such, they react not only after the law is implemented; but even before if the context can strongly modify their expectations towards a stricter labor market. Indeed, the ex-ante effect could have been really important in the early years of the last decade; when the discussion of this law was at its peak.

The effect of this General Labor Law might have an interesting effect in a country like Peru; which is characterized as an economy with high levels of informality. The latter is usually associated with having negative impacts on GDP per capita. Main arguments are that it hinders economic transactions; as well as it reduces reporting agents. This last fact makes that the government faces a distorted figure when making decisions.

This negative relation can be seen in Figure 1; where we compare informality rates and GDP per-capita for almost 100 countries in 2012. It can be observed that a higher level of GDP per-capita is related with a lower degree of informality. However, Peru's location shows that it has a high level of GDP per capita and informality too. This demonstrates that even though the average income per capita is growing the informality is not being reduced. Also other countries such as Australia with a higher level of GDP per capita it's not accompanied with informality; mainly because the reduction of it droved the economy into better financial and fiscal performance.

As noted below, Peru is one of the countries with more degree of informality in the world; ranking fifth only below Georgia, Bolivia, Panama and Azerbaijan. Moreover, Peru seems to have a 20 percentage points excess of labor informality in relation to what its GDP per-capita would predict. The main reason is its very strict labor legislation.

Figure 1: Informality and GDP per-capita, 2012



In this sense, this paper aims to estimate the effect of expectations of General Labor Law Proposal on the level of both formal and informal employment and average income. This way, we show the ex-ante effects of this law on the informal sector and, hence, on GDP. We suggest that an increase in firm's expectations towards a stricter labor market had a negative impact on these aggregated variables.

Literature related on Employment Protection Legislation (EPL) has mainly focused on its ex-post impact; analyzing different indicators after some protective's law approval. Previous studies for developed economies has shown that stricter EPL has several effects on both labor and key macroeconomic variables. Lawrence Kahn (2007) studied the effect of protective law in labor distribution using the International Adult Literacy Survey (IALS) for eight countries of the OECD. He finds that it favors older, male and native workers rather young immigrant females.

Also, Bassanini et al (2008) found that stricter EPL leads to lower productivity growth; mainly in binding industries, defined by the authors as those industries with high layoff rate. Using this same definition, Mico and Pages (2006) discovered that a more stringent labor legislation causes lower employment and turnover ratios in binding industries. On the same line falls the results obtained by DiTella and MacCulloch (2005), who, using a VAR for labor variables, found that countries with high labor flexibility have experienced also higher employment rates.

Similar results have been found for developing economies. As Kahn (2007), Heckman and Pages (2000) and Montenegro and Pages (2003) showed that an increase in firing costs has a strong effect on employment rates of younger and female workers in Latin America. Also, Lehmann and Muravyev (2012) obtained that, in Armenia, reducing the stringency of labor regulation in 1% would reduce informality in 0.04%. Besley and Burges (2004) analyzed the effect of the Industrial Disputes Act (IDA) on the manufacture's growth between 1958 and 1992 in India. They found that this law reduced the level of employment and increased the size of the informal sector; leading to a lower level of output. Using this same law, Ahsan and Pages (2008) found that the more stringent EPL had a negative effect on output (stronger in the manufacture sector), employment and wages.

Nevertheless, all these previous studies are based on an ex post analysis. There is little evidence on what would happen before the law has been approved. In this aspect Marcel Garz (2012) found for Germany that there exist an asymmetry in the effect of negative news released, which means that a negative economic coverage of news translates in pessimism unemployment expectations. This is the closest paper we found to ours; but we will also estimate the second channel of expectations on employment and income.

To identify firm's expectations, we use the number of news related to the approval of the General Labor Law from January of 2001 to May of 2005. The labor variables were taken from the Permanent Employment Survey administrated by the National Institute of Statistics and Informatics. This survey provides quarterly information of approximately 19 200 interviewed households in a year. Its objective is to track labor information from Lima Metropolitana and the constitutional province of Callao.

This information allowed us to establish three panels according to the respondent level of education, age and gender. Our main variables of interest are Occupied EAP and average income; and we identify formal and informal workers using health insurance affiliation. We used fixed effects to estimate the impact of news on each panel; as well as other different specifications that allowed us to identify if expectations have a differential effect in periods with high or low growth; and whether it has a cumulative effect.

Our main results show that news coverage affects negatively both employment and average income. However it has a higher effect on formal EAP. This suggests a substitution effect between formal and informal workers; leading the former becoming now part of the latter. On the other hand,

expectations towards a stricter labor market also has a negative impact on average income; specially in wages for all workers, not just the formal ones. This could make us think that the statistical effect is due to a possible effect on the informal sector, because it has no restrained costs as the formal sector does, especially if we consider the formal sector rigidities like contracts.

Also we found that there exists differential effects in periods with higher versus lower growth in both employment and average income; although this effect is not robust to all of our three panels. Finally, we discovered that news has a decreasing effect, that is, the effect of an additional new when there is a large stock of news is weaker than if this extra new is a one-time announcement. A reasonable explanation of this result is that in the former situation this extra new would be one from the lot, representing no credible additional information regarding a stricter labor market. In contrast, in the former situation, this additional new entails a first possibility of an important change in legislation.

This paper is organized as follows. Section II discusses what has been done in literature regarding firing costs and stricter labor markets. Section III describes the Permanent Employment Survey and the expectations index; as well as the methodology used for estimation. Section IV presents our results and Section V concludes.

## **2 Literature Revision**

In this section we review the main studies that aims to predict the different effects of increasing firing costs on, on one hand, macroeconomic key variables such as GDP, added value, productivity, formal employment and informality; and, on the other, some firm-level variables such as wages, job turnover, vacancies or even number of plants per firm. The consequences of firing costs are not yet known with certainty, as we can find evidence both in favor and against it; although almost all studies finds a negative effect on job turnover.

For the case of developed countries, Kahn (2007) analyzed the effect of a stricter Employment Protection Legislation (EPL) on permanent employment among different demographic groups. He distinguished between gender, age, cognitive ability and native versus immigrant citizens. For that, he used the International Adult Literacy Survey (IALS) from 1994 to 1998 for some OECD countries, in particular: Canada, Finland, Italy, Holland, Switzerland, United Kingdom and United States; taking advantage of their very different labor regulation history. Kahn used a logit model, where the dependent variable took the value of one if the worker in time  $t$  had a permanent job; as well as fixed effects for industry, occupation and country. His main results established that stringent EPL favors older, male and native workers with a rather high cognitive ability.

On other side, Bassanini et al. (2008) analyzed the effect of raising firing costs on productivity, distinguishing between EPL-binding industries, where EPL have a large importance since its inherent layoff rate is relatively high; from EPL-non-binding industries. They used the EPL indexes elaborated by the OECD; and data was taken from various sources such as the World Bank, EUK-LEMS, OECD, among others. The approach used was difference-in-difference (DID); to analyze the incremental effect of EPL on binding versus non-binding industries. Bassanini et al. also found a negative effect of EPL since stringent labor regulation leads to lower productivity growth in EPL-binding industries. A similar approach was taken by Micco & Pages (2006), analyzing the differential effect of EPL on industries with a more volatile layoff rate relative to industries with stable layoff rates. The results were very similar to those obtained by Bassanini et al. (2008), as stringent EPL leads to lower employment and turnover ratios in industries where the layoff rate has high volatility.

Di Tella & MacCulloch (2005) took one step ahead and estimated a VAR model to study the effect of labor market flexibility on employment. Their dependent variables were employment rate, labor participation rate, average worked hours in the manufacture sector and the unemployment rate. They worked with 21 OECD countries on a seven year period, from 1984 to 1990; using the OECD unemployment insurance system as a proxy of a country wellbeing and the World Competitiveness Report (WCR) to obtain a variable for labor market flexibility. The main results showed that economies with more flexible labor markets have higher employment rates.

Cross country studies have also been done in emerging economies. Indeed, Heckman & Pages (2000) analyzed the effect of labor protection legislation on the level and distribution of employment in Latin America. The authors used OECD methodology for the construction of the same key variables in 15 Latin American countries; working both together and separately with 28 OECD countries. Additionally, they built an index to measure firing costs in each country based on severance payment. Heckman & Pages utilized the OLS, fixed effect and random effects estimators; obtaining a strong negative effect of firing costs on employment rates, and that this affects more intensively to younger and female workers, in line with previous results.

For the interest of this paper, there has also been some research of the effect of firing cost on informality. As we have seen, there is a significant amount of studies that states that higher firing costs (in the terms of stringent EPL) leads to lower job turnover and even a decrease in the level of employment. The question here is: does it mean that all the employers dismissed unemployed?

Lehmann & Muravyev (2012) tried to pose a solution to this issue by analyzing the impact of the labor market institutions (including labor regulation) on informality. They used the “Labor Markets in emerging and transition economies” database elaborated by IZA, which provides information of the labor market<sup>1</sup> for 27 countries from center Europe and Asia in a four year interval from 1995

---

<sup>1</sup> Such as labor legislation, unemployment insurance, expenditure in labor programs, among others.

to 2007. Additionally, they collect similar information for 25 Latin American economies from the World Bank for three years: 1999, 2003 and 2007. The authors used the definition of informality posed by Schenider and Enste (2000)<sup>2</sup>. The methodology applied was panel data with fixed effects for country and year. They found that economies with more stringent EPL have higher informality levels: reducing the stringency of labor regulation in 1% would reduce informality in 0.04%.

The outcomes obtained for cross country analysis remain fairly the same when analyzing each country individually. Autor et al. (2007) estimated the effect of firing costs on employment and productivity in the United States using the Longitudinal Business Database (LBD) and the Annual Survey of Manufacturers (ASM) from 1976 to 1999. They used the wrongful-discharge protection (WDP) law, approved in 1970 and lasted until 1999. This law had three major regulations: (i) the employer will terminate the contract only in good faith and fair dealing (good faith exception); (ii) the employee cannot be fired when fulfilling public labors such as being part of the jury or denouncing employers bad behavior (public policy exception); and (iii) the employer cannot fire the employee for an unjustified reason (“implied contract” exception). Using fixed effects for industry and year, the authors found that WDP reduces job turnover and entry and exit rates of firms; affecting more intensively in capital based industries because of the negative effect of WDP on capital productivity.

Taking advantage of the 1990 reform that took place in Italy, where “unjustified” firing cost were raised for firms with 15 or less workers, leaving this costs constant for bigger firms; Kugler & Pica (2008) studied the effect of higher firing costs on job turnover rates and employment. The authors used the Italian Social Security Administration (INPS) for 1986 to 1995, which contains both employee and firm main characteristics for every worker in the manufacture and services industry born the 10th of March, June, September and December. Kugler & Pica utilized a lineal probability model (LPM) where the dependent variable takes the value of one if a match<sup>3</sup> is created. Simultaneously, they used a difference-in-difference (DID) approach to analyze the differential effect between small and large firms; and used fixed effect by industry, region and year. The main results are in line with the literature shown here: the 1990 Italian reform had a negative effect on permanent accessions and separations. Nevertheless, they obtained that the impact on employment was not statistically significant.

Leonardi & Pica (2010) used this same reform but now to study its effect on wages; and in which type of worker would have the greater effect. They distinguished between high bargaining power worker (characterized by the authors as incumbent, white collar and older workers) and low bargaining power workers (movers, blue collar and younger workers). The authors used a difference-in-difference approach (DID) combined with a regression discontinuity design (RDD) around the

---

<sup>2</sup> Informal economy includes “unreported income from the production of legal goods and services, either from monetary or barter transactions, hence all economic activities that would generally be taxable were they reported to the tax authorities”.

<sup>3</sup> That is, if either an accession or a separation takes place.

threshold of 15 workers per firm; using dummy variables for industry and year to control for fixed effects. They also used IV estimation to deal with the endogeneity of the firms, as they can choose their size to avoid the reform. Their instrument variable was size of the firm in 1988 and 1989. They found that employers in small firms have wages between 0.7% and 1.5% less than employers in large firms. This effect is mainly due to decrease in wages of low bargaining power workers; as they obtained that high bargaining power workers suffer no reduction in their salaries.

For developing economies, some research has been done in India. Besley & Burges (2004) analyzed the effect of the Industrial Disputes Act (IDA) on the manufacture's growth between 1958 and 1992. This law focused on employee protection; including some regulation for the conciliation, arbitration and adjudication process in case of a conflict. So, the authors classified the laws as pro-employees (+1), neutral (0) and pro-employer (-1). They used both formal (affected from IDA) and informal firms, whose information was obtained from the Annual Survey of Industries (ASI) and the National Sample Surveys (NSS), respectively. A pooled regression panel data model approach was applied; as well as IV estimation to correct for the endogeneity that workers may be lobbying so that they could perceive some benefits from labor regulation could. The main results were that this law had a negative effect on the manufacture industry; both in output and employment. Indeed, the states with more pro-worker laws have lower employment level. Additionally, they also found that the IDA increased the size of the informal sector in India.

Using the same law, Ahsan & Pages (2009) studied its effects on output, employment and wages; and if these effects were the same among industries. They used state and industry-state levels from 1959 to 1997; collecting the information from Besley and Burges database, the Annual Survey of Industries (ASI) and the Labor Bureau. The authors classified the laws in pro-employee, neutral and pro-employer, the same way as Besley & Burges. Nevertheless, Ahsan & Pages used fixed effects at the industry, state and year level. Their results were very similar, showing that the more stringent EPL had a negative effect on output (stronger in the manufacture sector), employment and wages; and this effect was more intense in labor based industries.

A similar study was made in Latin America, where Montenegro & Pages (2004), taking advantage of the high volatility in Chile's labor regulation to analyze its effect on employment level and distribution among different demographic groups: by gender, by age and by cognitive level. The authors used the household survey from 1960 to 1998, elaborated from the economics department of the "Universidad de Chile"; considering only workers between 15 and 65 years old. They also worked with some macroeconomic and fiscal variables obtained from Chile's government and the World Bank. To compare the expected firing cost, they used the job security measure (JS) developed in Montenegro and Pages (1999)<sup>4</sup>. They worked with a probit model with fixed effects; where the

---

<sup>4</sup> This measure is:  $JS_t = \sum_{i=1}^n b^i d^{i-1} (1-d) (b_{i+1} + a_t SP_{t+i}^{jc} + (1-a_t) SP_{t+i}^{Mc})$ ; where T is the maximum tenure a worker can attain in a firm,  $b_{i+1}$  is the advance notice to a worker that has been i years with a firm,  $a_t$  is the probability that the economic difficulties of the firm are considered a justified cause of dismissal,  $SP_{t+i}^{jc}$  is the mandated severance

dependent variable takes the value of one if the individual is working in year  $t$ . As previous studies showed, they obtained that stricter EPL biased the distribution of employment against the younger, female and the low cognitive ability workers. In coherence with this, Montenegro and Pages also found that the employment rate for older, male and the high cognitive ability workers was higher the more stringent EPL.

Until now, all of this studies are based on an ex post analysis. They are all trying to obtain the effect of stricter labor regulations on some key variables after the law has already taken place in the economy. There is little research on what would be the effects of such a law before it has been approved; so this paper is intended to fulfill this research gap. In this context, perceptions and expectations become now very important variables.

Although still an ex post analysis, Pierre & Scarpetta (2004), using the World Banking Doing Business (WDB), World Bank Environment Survey (WBES) and the International Climate Survey (ICS) from the World Bank; tried to study the impact of the way employers perceive regulations in each country and its effect on how they react to it. They created their own EPL indexes, both for permanent and temporal workers. To measure employer's perception, they used a question from the WBES database<sup>5</sup>. First, with a multinomial logit using as the dependent variable the answer of the perception question, they found that medium size and innovating firms are the most affected from the EPL. To analyze the employer's reaction to this perception, the authors developed a bivariate probit with two dummy variables: whether the firm has used temporal employment (take the value of one if it has) or whether the firm has provided training to its previous employees to avoid hiring (again, it is one if it has). They obtained that the worse is the perception of the employers, the highest the probability of using both alternatives; but the use of training is more likely in large and medium size firms, while small firms has a higher probability to use temporal employment.

It is imperative to notice that, as expectations and perceptions are more important, the news about the approval of the stricter (or less strict) law would play a central role. Its importance has already been evaluated in the literature of other fields such as the effectiveness of public spending in United States. Valery Ramey (2009), constructed government spending news variables from 1939 to 2008 to analyze the effect of government expenditure on consumption and real wages. She worked mainly with military expenditure and showed that the timing of news (and therefore, expectations of agents) really matters when analyzing the effect on other macroeconomic variables.

In the labor market field, Garz (2012) analyzed the potential link between economic news coverage and the pessimism in German unemployment expectations; working with monthly series from 2001 to 2009. Taking advantage of an extraordinary collection of news in charge of the Media

---

payment in such event to a worker that has been  $i$  years at the firm, and finally,  $SP_{t+1}^{Mc}$  denote the payment to be awarded to a worker with tenure  $i$  in case of unjustified dismissal.

<sup>5</sup> The question was: "Please judge on a four point scale how problematic are these different regulatory areas for the operation and growth of your business (Please do not select more than 4 obstacles as the "major")".

Tenor International, he examined not only the media coverage effect on the short or long-run; but also the existence of asymmetry in the effects of negative and positive news, which entails a plausible relationship between pessimism in unemployment expectations and media coverage. Garz the quantitative dominance of negative over positive coverage; so he suggested a quantity-related asymmetry. The unemployment expectations series uses representative data from the European Business and Consumer Surveys, which repeatedly asks about participant's unemployment expectations for the economy in the next 12 months.

He distinguished two main approaches, short and long run analysis. For the first one he estimated an autorregressive distributed lag model (ARDL) in first differences; while for the second type of analysis he worked with nonlinear autorregressive distributed lag model (NARDL) because of the presence of both  $I(0)$  and  $I(1)$  series<sup>6</sup>. Working with this framework, he found that, controlling for quantitative dominance of negative news coverage, there exist an asymmetry in the effect of negative news regarding the general economic situation, which supports the idea that negativity in economic news coverage is associated with pessimism in unemployment expectations, disentangling the long-run link between these two variables.

The evidence found here is encouraging towards the importance of ex ante analysis to study the effect of stringent EPL on both economies and firms. Nevertheless, paper developed by Garz (2012) represents only the first step in our analysis since it only takes into account the impact of news on expectations. The second step represents estimating both the direct and indirect effects of news on other key macroeconomic variables; considering the expectations channel). As we have seen, Pierre & Scarpetta (2004) worked in this line by estimating labor legislation effects on perceptions and how would the employers and firms react to them. So, the present paper aims to estimate both steps, using the "General Labor Law" proposal.

### **3 Data Description and Methodology**

The empirical implications can be tested against industry and household-level data on Peru. For information regarding labor market indicators and according the worker's characteristics we use Permanent Employment Survey (EPE). We also use Peruvian's newspaper "Gestion" to construct the expectations index by accounting for the number of news related to the General Labor Law in each month since 2001 until the last months in 2012.

---

<sup>6</sup> So he could not work with cointegration.

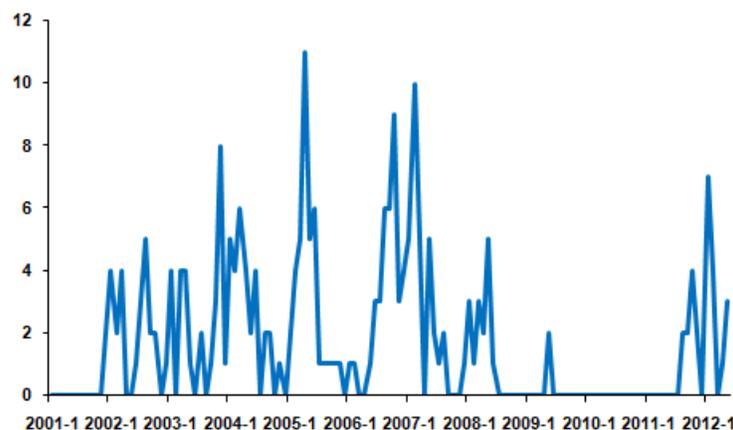
### 3.1 Expectations index

In order to analyze the role that plays labor legislation on the evolution of formal employment, we built an expectations index, which pretends to capture the expectations, mainly of the firms, of the legislative change in favour of the General Labor Law. This index was constructed taking into account the number of news referred to this legislative change in the local newspaper “Gestión” from January of 2001 to May of 2012. The news were prompted by various members of the Work and Social Security committee, members of the Labor Ministry, member of the National Labor Council, specialists of the International Labor Organization (ILO), members of the “Confederación Nacional de Instituciones Empresariales Privadas” (CONFIEP) and the Lima Chamber of Commerce (CCL).

We only use news that appeared on “Gestion” because this is the main economic and business newspaper in Lima. It also belongs to the economic corporation “El Comercio” and has a trajectory of 22 years. According to the XI Annual Executives Survey drawn by Lima Chamber of Commerce in November 2011, this is the second most read newspaper by businessman, only behind “El Comercio” newspaper.

As mentioned earlier, the General Labor Law project was first proposed around the last quarter of 2001. In this year, the discussion about the potential benefits and damages of this law emerged. On one hand, it was argued that this law could prevent the employees from unjustified layoffs; but detractors attacked the law claiming that a rise in firing costs could discourage hiring native workers; and could even affect firm’s investments. The law’s approval was the centre of debate for almost six years, mainly between 2002 and 2007. After this period, the relevance of this law started to fall slowly, until there were almost no news related to the topic from the second half of 2008. It was not until 2011 that the law gain relevance; as the proposal was renewed. The evolution of this topic can be captured in our expectations index; which collects monthly news related to the General Labor Law project from the most important business newspaper in Peru (Figure 2).

Figure 2: Expectations Index, 2001 - 2012



## 3.2 Permanent Employment Survey (EPE)

The Permanent Employment Survey (from now on, EPE, from its acronym in Spanish) provides quarterly information for labor indicators since March 2001. This survey is administered by the “Instituto Nacional de Estadística e Informática” (INEI), and covers 19 200 households approximately annually, quarterly covering around 4 500 households. Although the frequency of this survey is monthly, the variables are presented for the last moving quarter. The scope of the survey is only for Lima Metropolitana and the Constitutional Province of Callao, accounting both, urban and rural areas from 43 districts in the province of Lima and 6 districts in the province of Callao.

Although it's not nationally representative, the information it provides is valuable to track labor market performance. The survey is carried quarterly, asking around 56 questions about characteristics of household members (12 questions), employment and income (26 questions) and household income such as occupational wages (18 questions). Respondents are family members, domestic workers that lives in the household and people who were in the household the last 30 days over 14 years old. This survey offers aggregated indicators such as the number and hours worked of people that belongs to Occupied or Unoccupied EAP, employment composition according both firm's and individual's characteristics, average income and some other labor variables.

The main variables retrieved from this survey are if worker belongs to Occupied EAP and average income; both according to gender, age and education level. As the next subsection will explain, these are the main demographic classifications used for our estimation. Also, we distinguish the effects of the expectations index between formal and informal employment. To make this distinction, we used to what type of health insurance did the individual belonged the time it was surveyed. The workers who belong to the public health insurance (called “ESSALUD” in Peru) or to a private health insurance are considered as part of formal Occupied EAP.

The period covered for this paper is January-February-March in 2001 until the moving trimester of June-July-August of 2012. However the moving quarter of October-November-December 2006 has no information regarding health insurance affiliation, which does not allows us to distinguish between formal and informal employment. The reason is that in that moving trimester, INEI tried to replace EPE for another survey, which did not included our identification variable for formality. Nevertheless, this attempt was not very successful, so in the next moving quarter they return to the EPE. Regrettably, we were informed by the same institution that our formal variable was not accurate for the following two moving trimesters; so we decided to drop this three observations from our database. Also, income variables started to belong to this survey in the moving quarter of January-February-March of 2003. So, the number of observations for occupied EAP sums up to 133; and for average income, 113. However, the next subsection will explain how we treated data to increase the number of observations to improve efficiency in our estimates.

### 3.3 Methodology

To increase the performance of our estimation, we built a panel database. As it should be clear from the description above, data is only available as repeated cross-section; the Permanent Employment Survey does not poll each individual across time as panel data would require. To overcome this issue, we worked with the average individual of each demographic group, in order to form a cohort panel database. We worked with three cohort *panel* datasets: by gender (N=2), by age (N=3) and by education level (N=4).

The groups division was the following. For the gender panel, we use the average men and women. For the age panel, data only allowed us to work with the average individual of these three groups: (i) employees from 14 to 24 years (young workers); (ii) from 25 to 44 years (medium workers) and (iii) more than 45 years (older workers). Finally, for the education panel the four (mutually exclusive) groups we used were: (i) workers with at most primary level, (ii) workers with at most secondary level (but more than primary level), (iii) workers with non-university superior studies and (iv) workers with university studies. To identify the expectations effect we estimate the model using panel fixed effects.

The main reason we used data this way was to increase our sample size (multiplying by two, three and four the number of observations if we worked with the gender, age or education panel; respectively). As we mentioned earlier, our expectations index is almost full of zeros in a considerable part of our sample. This is an important problem because this would increase the variance of our estimates; which may lead to some misleading results. Indeed, working with time series could detect that expectations did not have any effect at all but the explanation for this result could be the high variance rather than the effect of expectations itself. Instead, working with a panel database not only allows us to get more efficient results by exploiting time variability; but also by exploiting variability across average agents of each demographic group. Also, it is worth noting that our expectations index does not have cross-section variability; so a bigger N would not help to identify the indirect impact caused through firm's expectation; but it would help towards efficiency and the identification of the expectations effects.

To further explain our main results, it is important to consider the following. The expectations index contemporaneous value represents the earlier month with respect to the first one of the moving trimester where the labor variables develop. Namely, the current value of the expectations index is lagged one month with respect to occupied EAP and average income. This means that, for example, if we consider the moving trimester of February-March-April 2012, then the "contemporaneous" value for the expectations index is the corresponding to January 2012. In the same way, one lag of the expectations index is the value for December 2011; and so on. We allow in our specifications for at most three lags of our expectations index, which, in our example, would be the number of news regarding PLGT in October 2011; that is, a four months lag, which we think is a reasonable

time that expectations could be strengthened. This would also allow us to discuss about whether the expectations index could act as a leading behaviour (at least in our sample) of both employment and average income.

To ensure the robustness of our estimations we included some control variables. First, we used GDP in levels (millions of Nuevos soles of 1994); which shows the growth of the peruvian economy and the aggregated income. Also, taking into account that employment and average income is determined as a supply-demand equilibrium; we need a labor supply shock that allows us identify the real effect of firms's expectations - captured by news - in their decisions. For that purpose, we used the stock of universities in Peru each month. This variable represents the growth of skilled labor and could be understood as a proxy of the rhythm of graduates. Also, we used peruvian population as another supply shock. Unfortunately, this variable was only available at an annual frequency. For the age and gender panel datasets, we used the population according the demographic groups established before; but for the education panel we only used population as an aggregate due to data availability.

We also want to determine whether this expectations effect is higher in periods with low growth. The main hypothesis is that in periods where the growth rate is higher, the effect of news towards this law's approval might diminish. During an economic boom, firm's are usually washed away by the favorable economic context; so it would take a strike of really bad news to hinder their impulse to hire and to expand their business. On the other side, in periods with relative low economic growth, firms are often more cautious to any sign of bad news that may appear in the market; so their decisions may be more influentiable by news; portraying both the actual and the potential economic context. This differential growth effect might also display (although in an indirect way) an asymmetric effect of news: bad news have a greater impact than good news (Garz, 2012).

For that purpose, we allow the effect from the expectations index to differ in two ways. First, we consider that it may be a differential effect across the sample we consider. From 2001 to 2006 the peruvian economy experienced a steady growth. According to the Central Reserve Bank, we went from a negative real GDP growth in the first trimester of 2001 of 4.2% to 8.9% in the last quarter of 2006; the highest peak in the whole subsample. This growth continued during 2007 and the first semester of 2008; but in the second half of this year, the world financial crisis hinder peruvian growth; mainly in 2009 and the first quarter of 2010. After this bump, Peru has experienced a high growth level.

In order to identify different affects across different periods of growth, we created a dummy variable which takes the value of one from the first moving quarter (January-February-March) of 2007 to the end of the sample and zero otherwise. We consider the first subsample as the lower growth period, having an average GDP growth rate of 4.72%; while after 2007 the average growth rate was of 7.01%.

The second way we identify differential growth effects is by taking into account real GDP growth rate. The procedure is analogous to the previous case. We created a dummy variable which takes the value of one if the real GDP growth rate of the correspondent month is greater than the average of the full sample (which sums up to 5.99%). Again, to capture this differential growth effects, we worked with interactions between our this dummy and the expectations index (and its lags). This way, the coefficient of this interaction variable would be the additional impact of the expectations index on employment and average income.

Finally, we tried to determine whether news has an increasing or decreasing effect. That is to say, if a previous larger stock of news would make the effect of this additional new stronger or weaker. The logic behind is that a larger stock of news, on one hand, would make the menace of a stricter labor market more credible than if it is just a one time release; so its effect could be stronger. On the other hand, the additional effect could be weaker because the previous large stock of news make it less credible. If nothing has happened until now, why would this additional new be different? In this sense, we also estimate previous models adding our news variable squared.

## **4 Results**

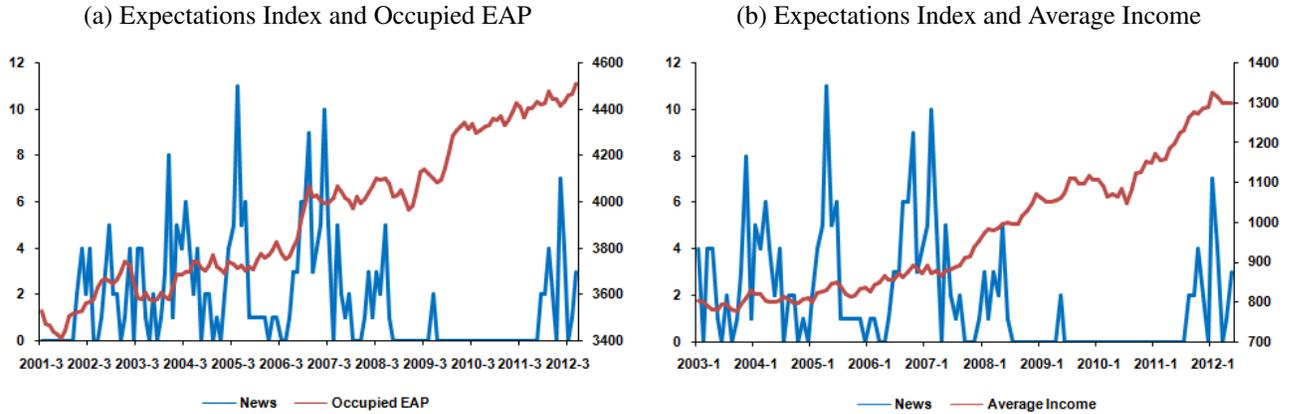
### **4.1 A first approach: descriptive analysis**

The direct impact of the General Labor Law project cannot be obtained since it has not been approved. Nevertheless, we can capture its indirect impact, whose transmission channel is expectations. Employers behaviour (i.e hiring, firing, investments) can be modified by their perceptions; particularly, how strict a market is. Indeed, each firm would act very differently in a context where employment protection is really high in contrast where regulation is not strong. News is one of the possible channels that can alter firm's perceptions. Local media can have a very strong influence among employer's expectations, which, if modified, may have an effect on some key variables such as employment or informality. It is this indirect impact we are capturing by using the expectations index.

Some first evidence of this effect can be drawn from a graphical analysis. The panel on the left in Figure 3 shows the evolution of the expectations index together with occupied EAP. Here, it can be seen a negative relation emerging. Indeed, in periods where news were more constant (from 2002 to the first half of 2004), in spite of the rapid economic growth of peruvian GDP; occupied EAP growth seems to hinder. Also, from mid 2005 to the first semester of 2006, news reduced almost to one per month. In this period, occupied EAP rose considerably; only to hinder when the LGT proposal gain relevance in the end of 2006. Finally, it is worth noting that during the period where

news were almost zero, occupied EAP shows a greater growth; only diminished by the financial world crisis.

Figure 3: Relation of Expectations Index and Key variables



On the other hand, panel b in Figure 3 shows the evolution of the news index and the average income of the occupied EAP. The relation between these two variables is less clear than occupied EAP; but it can be inferred the same negative relation. In periods where monthly news were more constant the average income seems to hinder. In contrast, when the expectations index is near zero, the average income show some signs of growth.

This indirect effect can be decomposed by different type of workers according to demographic groups. The evolution of the expectations index, the occupied EAP and the average income by gender, age and education level also seems to uncover a negative relation. The most pronounced relation with employment is present in the young and less educated workers, as argued in the literature(Garz, 2012). On the other side, older and more educated workers does not seems to be affected by news. There is no observable difference between male and female workers. In the case of average income, preliminary evidence is not that clear; although the same groups as before seems to be the more affected by an expectation on more labor market rigidities.

This same statements can be inferred watching the sample characteristics presented in Table 1. Column (1) describes the characteristics for the whole sample; while column (2) and (3) describes those same characteristics for the subsample explained before. In particular, Column (2) covers the period where the expectations index is different from zero in each month; while Column (3) presents the same results but for the subsample where the expectation index is mainly zero in each month.

**Table 1: Sample Characteristics**

|                       | Full Sample (1)      | 2001-3 to 2006-10 (2) | 2007-1 to 2012-5 (3) |
|-----------------------|----------------------|-----------------------|----------------------|
| Occupied EAP          | 3940.09<br>(316.39)  | 3664.103<br>(115.80)  | 4220.26<br>(177.35)  |
| Average Income        | 976.55<br>(165.91)   | 818.64<br>(25.86)     | 1084.22<br>(130.76)  |
| Formal Occupied EAP   | 1170.14<br>(252.05)  | 959.74<br>(24.69)     | 1383.74<br>(190.88)  |
| Formal Average Income | 1121.304<br>(171.63) | 977.12<br>(56.83)     | 1267.68<br>(115.54)  |
| Expectations Index    | 1.61<br>(2.19)       | 2.05<br>(2.23)        | 1.17<br>(2.03)       |

Table 1 suggests there may be significant differences in periods with higher or fewer news. Indeed, in periods with high amount of news related to the General Labor Law (Column(2)), the occupied EAP and average income for both total and formal labor market is less than the average for the full sample; while the opposite occurs when the expectations index is closer to zero (Column(3)). This results are quite surprising taking into account that the first subsample is a period of a steady and accelerated economic growth; while the second subsample considers the deceleration caused by the world financial crisis; which could diminished the level of both occupied EAP and average income. Namely, it may appear that firm's expectations towards the law's approval could explain somewhat the evolution of employment and income in both subsamples.

## 4.2 Panel Estimation

We start our analysis by studying the total effect of expectations to both formal and informal employment and average income. Our results indicates that the discussion of the approval of the General Labor Law had a negative effect on both Occupied EAP and wages on our three panel datasets. Regarding employment, we can state that news related to a stricter future labor market, while affects negatively to both formal and total occupied EAP, the impact on the former seems to be much more stronger. On the other hand, expectations has also a negative effect on average income and is higher in magnitude for overall occupied EAP; although evidence is not as conclusive as in the case of employment. These results are robust to our three panel datasets.

If we focuss on the education panel (shown in Table 2), we would find some evidence of the results above. Columns (1) and (2) shows the results for overall and formal Occupied EAP; respectively. This order remains for average income; where Column (3) corresponds to all workers; while Column (4) only focus on formal employees. In these specifications, as discussed earlier, we include three lags of our expectations index.

Table 2 shows that expectations has a negative effect on employment. Taking into account the treatment of our data, this estimates should be read as follow: for the case of the contemporaneous value of the expectations index in formal employment, “*one more new related to the approval of the General Labor Law in the earlier month implies an average reduction in formal occupied EAP of about 1.6 thousand workers in each group*”; in this case, in each one of the four education levels.

If we take the month with higher news (11 in April, 2005), this implies that evidencing an assymetric effects of news.the reduction in formal employment in the next moving quarter of May-June-July, 2005 was of approximately 70 400 workers.<sup>7</sup> Now, taking the number of news in the previous three months; the total effect would be of 119 240 employees; which represents 12.51% of formal employment in this moving quarter.

Also, as discussed above, the effect of expectations is different whether we consider formal or total employment. As seen from the two first columns, this impact is stronger in formal occupied EAP. Analyzing first overall employment, we could say that the effect is not statistically significant for any lag; except for the second one; and that its effect is -0.4. In return, the impact on formal employment is much stronger and statistically significant for all three lags. The explanation for this result could be that there exists a *substitution effect* between formal and informal employment. Expectations regarding a stricter labor market affects mostly formal workers who now moves to the informal sector, where, due to lack of enforcement, laws usually does not have an effect. This leaves the overall employment almost unchanged.

Regarding wages, although evidence is not as conclusive, we can state that expectations has a negative impact on average income. Column 3 in Table 2 shows that one more new related to the General Labor Law released two months ago is associated with a reduction in wages of about two nuevos soles for all workers. The impact of expectations is statistically significant for all three lags; albeit the contemporaneous effect is not. This lagged response could be explained by wages rigidity. Employers should be really confident about the future stricter labor market to reduce wages; not to mention the existence of contracts.

Unlike employment, our results establish that the effect of expectations is greater in overall workers compared to formal workers. Furthermore, expectations does not seem to have an effect on formal average income. This results could be explained by simple demand and supply movements. As seen before, news reduce mainly formal employment, resulting in an increase in the informal sector. This situation leads, first a rise in the demand for informal workers since they less expensive for the firm (because of expectations towards a stricter labro market). On the other side, the supply of informal workers has also rosen because of the substitution effect. The resulting drop in wages is an indicator that the change in the supply is greater than the change in the demand for informal

---

<sup>7</sup> This quantity comes from multiplying  $11 * 1.6 * 4$ ; which is the number of news, our estimate and the number of categories in that panel.

employment. Formal worker's average income does not change (as it should do since there are now less formal workers) mainly because of rigidities caused by labor contracts.

**Table 2:** Education Panel: Employment and Average Income

|                | Overall Employment  | Formal Employment    | Overall Income        | Formal Income         |
|----------------|---------------------|----------------------|-----------------------|-----------------------|
|                | (1)                 | (2)                  | (3)                   | (4)                   |
| News           | -.615<br>(1.732)    | -1.608<br>(0.64)**   | 0.223<br>(1.564)      | 0.293<br>(0.781)      |
| News-1         | -.444<br>(0.135)*** | -1.313<br>(0.435)*** | -2.009<br>(0.914)**   | 1.026<br>(1.220)      |
| News-2         | -.280<br>(0.324)    | -.903<br>(0.395)**   | -1.381<br>(0.364)***  | 0.265<br>(0.801)      |
| News-3         | 0.006<br>(0.306)    | -1.028<br>(0.469)**  | -4.268<br>(2.388)*    | -.263<br>(0.395)      |
| GDP            | 0.194<br>(0.4)      | 0.23<br>(0.158)      | 1.062<br>(0.272)***   | 0.912<br>(0.348)***   |
| Univ           | 1.270<br>(0.82)     | 2.077<br>(0.765)***  | 4.657<br>(0.728)***   | 2.757<br>(0.34)***    |
| Popul          | 44.553<br>(26.670)* | 19.621<br>(9.204)**  | 50.274<br>(10.059)*** | 90.725<br>(32.413)*** |
| N              | 484                 | 464                  | 444                   | 464                   |
| R <sup>2</sup> | 0.529               | 0.671                | 0.859                 | 0.796                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

These results are robust to the other two panels; although there exists some differences regarding the magnitude of these effects. Tables 4 and 5 in the Appendix shows the result for the age and gender panel, respectively. The negative effect of expectations on both wages and employment still remains, as well as the different impact of news on formal and overall employment. The main difference with previous results is the size of these effects.

For the age panel, again analyzing the month with higher news, we get a reduction of about 79 200 in formal employment for the moving trimester of May-June-July, 2005.; while considering the gender panel leads to a decrease of 81 400 workers. Furthermore, the aggregated effect considering the three previous months would be of 137 460 and 141 468 workers for the age and gender panel; respectively. This means that the total effect for this quarter, taking into account all three panels, fluctuate from a reduction of 12.51% to 14.85% in formal employment.

Finally, the effect of expectations on average income is still larger for overall workers compared to formal employment. Nevertheless, in the two last panels we find a statistically negative impact of news in both groups; although the magnitude is greater in the former than in the latter. The

explanation for this result is again the rigidity brought by labor contracts between the firm and the worker.

### 4.3 Heterogeneous growth effects

In this section we analyze whether there is a different impact of expectations in both employment and average income in periods with high versus low growth. As explained earlier, we identify this heterogeneous effects in two ways: (i) a dummy variable taking the value of one after the moving trimester of January-February-March of 2007; which represents a period with relative lower growth; and (ii) another dummy variable taking the value of one if the real GDP growth in each month is greater than the sample average (5.86%). Our variable of interest would be the interaction between these dummies and the expectations index; capturing the latter's additional impact in periods with low and high growth; respectively.

Our results show that in periods with higher growth (after 2007), the effect of news related to a stricter labor market had a stronger negative effect in both occupied EAP and average income. Nevertheless, this differential impact is not robust to all three panels. Regarding employment, this differential effect only appears statistically significant in the education and the gender panel. On the other hand, the negative effect of expectations on average income is robust to the three panels; having a stronger impact in period of relatively higher growth only for wages of all workers. This same effect in formal workers's average income does not seem to be statistically different after 2007.

The results for the gender panel are shown in Table 8 in the Appendix. As can be seen, after 2007, the negative effect of expectations on formal employment strengthened. Indeed, one more new a month earlier to the moving trimester before this year implies a reduction of approximately 3.65 thousand formal workers; while in a moving quarter after 2007, this negative impact rises, now leading to a reduction of 4.85 thousand formal workers. A similar result could be obtained from the education panel in Table 6, although with a different size effect.

Analyzing overall employment in the gender panel, we arrived to a different result. The effects of expectations towards a stricter labor market on aggregated employment is still negative before 2007. However, after the first moving quarter of 2007, the effects of news becomes statistically zero or even positive for some lags. This result reinforces the previous substitution effect. A future perspective of more labor rigidities leads to less formal employment and a bigger informal labor market in the economy; and this substitution is stronger in periods with high growth.

In return, the effect on average income seems to be robust to all three panels. As can be seen, it appears that there exists a negative relation between expectations and average income; and this

negative effect is greater after 2007. Focusing on the education panel, one more new two months earlier after 2007 causes an additional decrease of 1.71 nuevos soles; compared to this same effect before 2007. This relation does not change when analyzing the results for the other two panel (only differs in terms of magnitude); which are shown in Tables 6 (education) and 7 (age).

One main limitation of these first approach is our expectations index. As discussed above, the number of news related to the General Labor Law dropped to zero from 2008 to early 2011 as the topic lost relevance. This data problem does not allows us to correctly identify the effect of expectations after 2007, precisely because in almost the half of this subsample our main variable takes the value of zero. This could be a plausible explanation for the little robustness of the results presented above.

In this sense, to increase the identification of this heterogeneous growth effect, we used a second approach. This one is based on a classification of each period with a dummy variable according to real GDP growth; taking the value of one if it was higher than the average sample growth. This way, we avoid the problem arose earlier regarding the quantity of zeros of our expectations variable. Indeed, there were 29 months with a growth higher than average before 2007; while after this year the number of months were 40; reassuring the avoidance of the previous difficulty.

Our results indicates that a higher number of news is still related with a reduction in employment; but this effect is weaker in periods with high growth. However, evidence from this last finding is far from being conclusive. The expectation's stronger negative effect in periods with lower GDP growth on both overall and formal employment appears to be only significant in the age and gender panel (shown in Tables 10 and 11, respectively); while this same impact obtained from the education panel is not statistically significant (shown in Table 9).

Analyzing the efbut only applying to its contemporaneous value; not its lagsfect on the gender panel, we find that the effect of news on employment is reduced when the economy is growing above its mean rate. An extra new released two months earlier leads to a decrease in formal employment of about 3.74 thousand workers in months with lower than average growth; while this effect is diminished to a reduction of 2.22 thousand employees when analyzing months with a growth rate above 5.86%. If we analyze the age panel, we could state that, when we consider growth heterogeneous effects, the negative effect of the expectations index is reinforced only in formal occupied EAP. This result could represent some evidence in favour of the labor substitution between formal and informal employment in periods of high growth.

Finally, regarding average income, these estimation suggests that higher expectations towards a stricter labor market have a stronger negative effect on average income in periods with high growth; in line with the results found when using our year dummy. Hence, this means that, although we cannot be confident about the magnitude, we can state that there exists a differential impact of expectations in higher versus lower growth periods in both employment and average income.

## 4.4 Cumulative Effects

We also calculated if expectations had a cumulative effect; that is, whether the effect of news on employment and income is increasing or decreasing. For this purpose, we included in previous estimations news squared. We only worked with formal employment and average income. Results for the three panels are shown in Tables 13 to 14. As can be seen, news seems to have a negative but decreasing effect on both employment and average income. This cumulative feature seems to hold in the three panels, although the magnitude differs in each one.

Our results suggests that news have a negative but decreasing effect. This means that one extra new has a weaker effect if in previous months there was a larger stock of news. This finding makes perfect sense. An extra new released when previous findings had already been published may make the future stricter threat less credible; so the firm may be less willing to react.

Indeed, too much news could decrease the credibility of this threat since each additional new itself becomes less believable. If nothing happened when previous news were released, why now would be different? On the other hand, if it is a one time release it might have a larger effect as it represents a first impression, making firms be more cautious towards this possible threat.

## 4.5 Alternative Specifications

This section presents some alternative specifications from our previous estimation. First, we estimate for each panel the impact of our expectations index up to three lags on each of our labor variables; introducing each one of them sequentially without controlling for any other effect. Results are shown from Tables 19 to 26. It can be seen that this estimation is considerable upwardly biased compared to the results presented above.

We arrived to this same conclusion when we analyze also heterogeneous growth effects without controlling for other variables. Main findings obtained above does not change so much; the main difference is in terms of magnitude. These estimations are shown from Tables 31 to 38 in the Appendix. To correct this bias we added the control variables mentioned before: GDP levels (in millions), population and stock of universities each quarter. As can be seen from Tables 43 to 50, the effect of expectations reduces considerably when we control for this supply shocks; even making statistically zero this impact for overall employment. Columns (3) and (6) of this group of Tables for each panel are the ones presented above.

We also were interested in calculating differential effects across the demographic groups we established for our panel. For that purpose, we created dummy variables according to each category in every panel dataset. Since this identification method for heterogeneous demographic impacts using

a fixed effects estimation was not very clear, we also used a pool estimation for each panel. Tables 55 to 62 shows this results. Our findings regarding this effects are really vague, as it is hard to find some robust and credible estimates across all panels. Nevertheless, at a very general level, we can state that greater expectations for more labor rigidities affects more the female and youngest workers.

## 5 Conclusions

The effects of regulations is far from being neutral. Until recently, literature has focused mainly on the direct impact of stricter Employment Protection Legislation; obtaining different results on whether it rises or decreases both employment and average income. Nevertheless, most of these studies have not taken into account that firms are rational agents who reacts not only after the change in labor rigidities; but also before its implementation if they have some strong evidence of these future changes. This paper has estimated this indirect, ex-ante channel that embodies firms's expectations.

For this purpose, we use the proposal of the General Labor Law. This project was first released in 2001 and has been discussed since then; but has not yet been approved. This law mainly proposes higher rigidities in the labor market. Namely, it seeks to increase the compensation for unfair dismissal, reduce the duration of temporary contracts and rise the cost of incorporation as a cause of wrongful dismissal cases referred to the Constitutional Court. In this sense, we use the number of news related to the approval of the General Labor Law as a mechanism to account for firm's expectations.

Our findings shows little doubt that expectations in Peru plays a significant role in firm's decisions. Higher news related to a future stringent market leads to a reduction in both employment and average income. However, this negative effect of expectations is mainly in formal employment, suggesting a substitution of formal to informal labor. This means that expectations towards stricter labor rigidities causes an increase in the informal labor market by reducing formal employment.

Expectations also have a negative impact on average income; affecting mainly wages for all workers rather than only formal. a reasonable explanation for this finding is that the supply change is greater than the demand change in labor; as well as the effect of contracts rigidity. Our results allows us to aseverate that the effect of expectations is different between periods with higher and lower GDP growth rates; although direction and magnitude cannot be stated as conclusively as previous results. Finally, we discover some evidence supporting that news have a decreasing effect in both employment and average income. What is behind this result is credibility. A larger stock of previous news would make an extra one less believable since these previous news entailed no real impact on legislation.

The analysis reinforces the idea that government regulations do not always meet their goals. When implementing Employment Protection, policy-makers should be really careful since they, unintentionally, do not always take into account the real consequences of this legislations. There are many channels through which stricter labor rigidities can have an important impact on agents behaviour even if it has not yet been implemented, being an important one expectations. Although it is almost impossible that the policy makers could account for all of them, they must be more analytic when making such an important decision. Future research involving this other channels will be of considerable help to understand genuinely the impact of labor regulations.

## References

- Ahsan, A., & Pages, C. (2009). Are all labor regulations equal? evidence from indian manufacturing. *Journal of Comparative Economics*, 37, 62–75. URL: <http://ideas.repec.org/a/eee/jcecon/v37y2009i1p62-75.html>.
- Autor, D. H., Kerr, W. R., & Kugler, A. D. (2007). *Do Employment Protections Reduce Productivity? Evidence from U.S. States*. NBER Working Papers 12860 National Bureau of Economic Research, Inc. URL: <http://ideas.repec.org/p/nbr/nberwo/12860.html>.
- Bassanini, A., Nunziata, L., & Venn, D. (2008). *Job Protection Legislation and Productivity Growth in OECD Countries*. IZA Discussion Papers 3555 Institute for the Study of Labor (IZA). URL: <http://ideas.repec.org/p/iza/izadps/dp3555.html>.
- Besley, T., & Burges, R. (2004). Can labor regulation hinder economic performance? evidence from india. *The Quarterly Journal of Economics*, 119, 91–134. URL: <http://ideas.repec.org/a/tpr/qjecon/v119y2004i1p91-134.html>.
- Di Tella, R., & MacCulloch, R. (2005). The consequences of labor market flexibility: Panel evidence based on survey data. *European Economic Review*, 49, 1225–1259. URL: <http://ideas.repec.org/a/eee/eecrev/v49y2005i5p1225-1259.html>.
- Garz, M. (2012). Unemployment expectations, excessive pessimism, and news coverage. *Journal of Economic Psychology*, .
- Heckman, J. J., & Pages, C. (2000). *The Cost of Job Security Regulation: Evidence from Latin American Labor Markets*. NBER Working Papers 7773 National Bureau of Economic Research, Inc. URL: <http://ideas.repec.org/p/nbr/nberwo/7773.html>.
- Kahn, L. M. (2007). *Employment Protection Reforms, Employment and the Incidence of Temporary Jobs in Europe*. IZA Discussion Papers 3241 Institute for the Study of Labor (IZA). URL: <http://ideas.repec.org/p/iza/izadps/dp3241.html>.
- Kugler, A., & Pica, G. (2008). Effects of employment protection on worker and job flows: Evidence from the 1990 italian reform. *Labour Economics*, 15, 78–95. URL: <http://ideas.repec.org/a/eee/labeco/v15y2008i1p78-95.html>.
- Lehmann, H., & Muravyev, A. (2012). *Labor Market Institutions and Informality in Transition and Latin American Countries*. IZA Discussion Papers 7035 Institute for the Study of Labor (IZA). URL: <http://ideas.repec.org/p/iza/izadps/dp7035.html>.
- Leonardi, M., & Pica, G. (2010). *Who Pays for It? The Heterogeneous Wage Effects of Employment Protection Legislation*. IZA Discussion Papers 5335 Institute for the Study of Labor (IZA). URL: <http://ideas.repec.org/p/iza/izadps/dp5335.html>.

- Micco, A., & Pages, C. (2006). *The Economic Effects of Employment Protection: Evidence from International Industry-Level Data*. IZA Discussion Papers 2433 Institute for the Study of Labor (IZA). URL: <http://ideas.repec.org/p/iza/izadps/dp2433.html>.
- Montenegro, C. E., & Pages, C. (2004). Who benefits from labor market regulations? chile. In *Law and Employment: Lessons from Latin America and the Caribbean* NBER Chapters (pp. 401–434). National Bureau of Economic Research, Inc. URL: <http://ideas.repec.org/h/nbr/nberch/10074.html>.
- Pierre, G., & Scarpetta, S. (2004). *Employment Regulations through the Eyes of Employers: Do They Matter and How Do Firms Respond to Them?*. IZA Discussion Papers 1424 Institute for the Study of Labor (IZA). URL: <http://ideas.repec.org/p/iza/izadps/dp1424.html>.
- Ramey, V. A. (2009). *Identifying Government Spending Shocks: It's All in the Timing*. NBER Working Papers 15464 National Bureau of Economic Research, Inc. URL: <http://ideas.repec.org/p/nbr/nberwo/15464.html>.

# Appendix

## Variables Used

**Table 3: Variables Description**

| <b>Variable</b>       | <b>Source</b>                                    | <b>Description</b>   |
|-----------------------|--|--|
| Occupied EAP          | Permanent Employment Survey                      | Total number of employed workers for each moving quarter. Available at worker's characteristics: gender, age and education level.                    |
| Average Income        | Permanent Employment Survey                      | The average income of all employed workers for each moving quarter. Available at worker's characteristics: gender, age and education level.          |
| Formal Occupied EAP   | Permanent Employment Survey                      | Total number of formal employed workers in each moving quarter. Formal is defined as having health insurance. Available at worker's characteristics. |
| Formal Average Income | Permanent Employment Survey                      | Average income for all formal employed workers. Available at worker's characteristics: gender, age and education level.                              |
| Expectations Index    | Gestion  | A monthly series that compiles number of news related to the General Labor Law from January 2001 to May of 2012.                                     |
| GDP                   | Central Reserve Bank                             | It is expressed in millions. A quarterly series that goes from the first quarter of 2001 to the second quarter of 2012.                              |
| Stock of Universities | National Assembly of Rectors                     | A monthly series that accounts for the number of public and private universities in Peru in each month since 2001.                                   |
| Population            | National Institute of Statistics and Informatics | Total number of habitants in Peru expressed in millions, also divided by worker's characteristics: gender and age. Not available by education level. |

**Table 4:** Age Panel: Employment and Average Income

|                | Overall Employment   | Formal Employment    | Overall Income         | Formal Income          |
|----------------|----------------------|----------------------|------------------------|------------------------|
|                | (1)                  | (2)                  | (3)                    | (4)                    |
| News           | -0.725<br>(0.402)*   | -2.471<br>(0.48)***  | 1.225<br>(1.619)       | -1.895<br>(0.325)***   |
| News-1         | -0.450<br>(0.67)     | -1.921<br>(0.626)*** | -1.221<br>(0.524)**    | -0.464<br>(1.285)      |
| News-2         | -0.262<br>(0.467)    | -1.527<br>(0.702)**  | -2.555<br>(0.211)***   | -0.886<br>(0.506)*     |
| News-3         | 0.159<br>(0.692)     | -1.847<br>(0.74)**   | -2.748<br>(0.731)***   | -1.857<br>(0.529)***   |
| GDP            | 0.31<br>(0.066)***   | 0.495<br>(0.175)***  | 1.329<br>(0.166)***    | 1.804<br>(0.215)***    |
| Univ           | 2.043<br>(1.172)*    | 3.403<br>(1.460)**   | 4.649<br>(0.511)***    | 3.690<br>(0.937)***    |
| Popul          | 161.316<br>(83.903)* | 29.981<br>(81.415)   | 173.103<br>(24.113)*** | 224.126<br>(52.717)*** |
| N              | 390                  | 390                  | 333                    | 390                    |
| R <sup>2</sup> | 0.812                | 0.722                | 0.932                  | 0.904                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 5: Gender Panel: Employment and Average Income**

|                | Overall Employment    | Formal Employment    | Overall Income       | Formal Income         |
|----------------|-----------------------|----------------------|----------------------|-----------------------|
|                | (1)                   | (2)                  | (3)                  | (4)                   |
| ind-exp        | -1.117<br>(0.801)     | -3.701<br>(0.285)**  | 1.086<br>(0.43)**    | -1.322<br>(0.564)**   |
| L.ind-exp      | -.769<br>(0.277)**    | -2.956<br>(0.448)**  | -1.569<br>(0.293)**  | -.592<br>(0.367)      |
| L2.ind-exp     | -.497<br>(0.519)      | -2.375<br>(0.476)**  | -2.313<br>(0.132)**  | -.709<br>(0.178)**    |
| L3.ind-exp     | 0.047<br>(0.964)      | -2.877<br>(0.548)**  | -3.476<br>(0.885)**  | -1.634<br>(0.511)**   |
| pbi-niv        | 0.364<br>(0.355)      | 0.643<br>(0.231)**   | 1.237<br>(0.05)**    | 1.489<br>(0.207)**    |
| univ           | 2.448<br>(0.21)**     | 4.595<br>(0.115)**   | 4.478<br>(1.515)**   | 3.401<br>(0.601)**    |
| pob-gend       | 189.848<br>(11.865)** | 50.624<br>(22.853)** | 139.797<br>(0.277)** | 156.376<br>(13.384)** |
| N              | 260                   | 260                  | 222                  | 260                   |
| R <sup>2</sup> | 0.947                 | 0.934                | 0.925                | 0.92                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses,  
\* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

## Differential Growth Effects

**Table 6:** Education Panel: Employment and Average Income with year heterogeneous effects

|                | Overall Employment   | Formal Employment    | Overall Income        | Formal Income         |
|----------------|----------------------|----------------------|-----------------------|-----------------------|
|                | (1)                  | (2)                  | (3)                   | (4)                   |
| News           | -0.853<br>(1.405)    | -1.249<br>(0.604)**  | 0.539<br>(2.815)      | -0.766<br>(0.325)**   |
| News-1         | -1.133<br>(0.413)*** | -0.902<br>(0.359)**  | -1.136<br>(1.040)     | 0.811<br>(1.121)      |
| News-2         | -0.784<br>(0.713)    | -0.452<br>(0.39)     | 0.215<br>(0.754)      | -0.337<br>(0.534)     |
| News-3         | -0.683<br>(1.342)    | -1.197<br>(1.080)    | -5.287<br>(3.649)     | -1.071<br>(1.151)     |
| News-Year      | 0.203<br>(1.613)     | -1.157<br>(0.686)*   | -1.855<br>(4.041)     | 2.293<br>(1.904)      |
| News-Year-1    | 1.471<br>(1.035)     | -0.575<br>(0.213)*** | -0.990<br>(0.905)     | 0.186<br>(1.026)      |
| News-Year-2    | 0.834<br>(1.474)     | -1.040<br>(0.37)***  | -3.468<br>(0.749)***  | 1.404<br>(1.529)      |
| News-Year-3    | 1.198<br>(2.928)     | 0.901<br>(1.887)     | 3.112<br>(3.887)      | 0.678<br>(1.998)      |
| GDP            | 0.206<br>(0.398)     | 0.221<br>(0.155)     | 1.037<br>(0.285)***   | 0.923<br>(0.362)**    |
| Univ           | 1.355<br>(0.763)*    | 2.044<br>(0.779)***  | 4.593<br>(0.803)***   | 2.856<br>(0.295)***   |
| Popul          | 40.520<br>(25.349)   | 21.609<br>(9.680)**  | 54.008<br>(10.385)*** | 85.621<br>(29.271)*** |
| N              | 484                  | 464                  | 444                   | 464                   |
| R <sup>2</sup> | 0.53                 | 0.672                | 0.86                  | 0.796                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Year is the interaction between our year dummy and the contemporaneous value of the News variable. Similarly, News\_year 1, 2 and 3 represents the interaction between our year dummy and the first, second and third lag of the News variable; respectively.

**Table 7:** Age Panel: Employment and Average Income with year heterogeneous effects

|                | Overall Employment   | Formal Employment    | Overall Income         | Formal Income          |
|----------------|----------------------|----------------------|------------------------|------------------------|
|                | (1)                  | (2)                  | (3)                    | (4)                    |
| News           | -0.768<br>(0.413)*   | -2.460<br>(0.735)*** | 2.025<br>(2.364)       | -3.364<br>(0.403)***   |
| News-1         | -1.198<br>(0.753)    | -1.619<br>(0.624)*** | -.389<br>(0.746)       | -1.377<br>(0.935)      |
| News-2         | -.763<br>(0.493)     | -1.210<br>(0.542)**  | -2.681<br>(1.231)**    | -1.291<br>(0.2)***     |
| News-3         | -.474<br>(0.9)       | -2.716<br>(1.416)*   | -3.372<br>(0.241)***   | -3.213<br>(0.915)***   |
| News-Year      | -.131<br>(0.993)     | -.809<br>(0.904)     | -2.397<br>(1.852)      | 3.484<br>(1.143)***    |
| News-Year-1    | 1.830<br>(0.417)***  | -.286<br>(0.453)     | -1.330<br>(0.904)      | 2.124<br>(1.242)*      |
| News-Year-2    | 0.98<br>(1.078)      | -.857<br>(0.499)*    | -.025<br>(1.755)       | 1.282<br>(1.413)       |
| News-Year-3    | 1.440<br>(0.806)*    | 2.307<br>(1.675)     | 2.042<br>(2.010)       | 1.836<br>(1.696)       |
| GDP            | 0.286<br>(0.076)***  | 0.486<br>(0.165)***  | 1.333<br>(0.175)***    | 1.741<br>(0.196)***    |
| Univ           | 1.990<br>(1.211)     | 3.409<br>(1.454)**   | 4.684<br>(0.521)***    | 3.560<br>(0.921)***    |
| Popul          | 158.695<br>(84.885)* | 29.518<br>(82.193)   | 174.703<br>(21.539)*** | 219.192<br>(50.910)*** |
| N              | 390                  | 390                  | 333                    | 390                    |
| R <sup>2</sup> | 0.814                | 0.722                | 0.932                  | 0.906                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Year is the interaction between our year dummy and the contemporaneous value of the News variable. Similarly, News\_year 1, 2 and 3 represents the interaction between our year dummy and the first, second and third lag of the News variable; respectively.

**Table 8:** Gender Panel: Employment and Average Income with year heterogeneous effects

|                | Overall Employment    | Formal Employment    | Overall Income        | Formal Income          |
|----------------|-----------------------|----------------------|-----------------------|------------------------|
|                | (1)                   | (2)                  | (3)                   | (4)                    |
| News           | -1.192<br>(2.086)     | -3.645<br>(0.505)*** | 1.746<br>(1.568)      | -2.678<br>(0.065)***   |
| News-1         | -1.752<br>(0.406)***  | -2.386<br>(0.42)***  | -.513<br>(0.42)       | -1.101<br>(0.164)***   |
| News-2         | -1.087<br>(0.734)     | -1.820<br>(0.751)**  | -1.345<br>(0.146)***  | -.693<br>(0.101)***    |
| News-3         | -.643<br>(0.173)***   | -3.961<br>(1.012)*** | -3.015<br>(1.829)*    | -2.200<br>(0.827)***   |
| News-Year      | -.063<br>(3.048)      | -1.205<br>(0.378)*** | -1.546<br>(3.443)     | 3.548<br>(0.87)***     |
| News-Year-1    | 2.369<br>(0.277)***   | -.752<br>(0.004)***  | -1.856<br>(0.851)**   | 1.027<br>(0.816)       |
| News-Year-2    | 1.156<br>(0.022)***   | -1.437<br>(0.659)**  | -1.857<br>(0.439)***  | 0.435<br>(0.224)*      |
| News-Year-3    | 1.552<br>(0.772)**    | 2.966<br>(0.88)***   | -.073<br>(3.101)      | 0.069<br>(2.777)       |
| GDP            | 0.354<br>(0.334)      | 0.636<br>(0.224)***  | 1.201<br>(0.046)***   | 1.465<br>(0.232)***    |
| Univ           | 2.477<br>(0.22)***    | 4.619<br>(0.126)***  | 4.317<br>(1.538)***   | 3.392<br>(0.58)***     |
| Popul          | 183.988<br>(8.908)*** | 50.454<br>(20.894)** | 154.729<br>(1.895)*** | 151.638<br>(18.920)*** |
| N              | 260                   | 260                  | 222                   | 260                    |
| R <sup>2</sup> | 0.948                 | 0.934                | 0.927                 | 0.921                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Year is the interaction between our year dummy and the contemporaneous value of the News variable. Similarly, News\_year 1, 2 and 3 represents the interaction between our year dummy and the first, second and third lag of the News variable; respectively.

**Table 9:** Education Panel: Employment and Average Income with growth heterogeneous effects

|               | Overall Employment   | Formal Employment    | Overall Income        | Formal Income         |
|---------------|----------------------|----------------------|-----------------------|-----------------------|
|               | (1)                  | (2)                  | (3)                   | (4)                   |
| News          | -1.233<br>(1.292)    | -1.024<br>(0.498)**  | 3.091<br>(3.649)      | 2.857<br>(1.095)***   |
| News-1        | -1.125<br>(0.315)*** | -1.259<br>(0.39)***  | 1.087<br>(0.561)*     | -.217<br>(0.908)      |
| News-2        | -.075<br>(1.193)     | -.366<br>(0.303)     | 0.724<br>(0.283)**    | -.248<br>(1.298)      |
| News-3        | 0.433<br>(1.407)     | -.720<br>(0.842)     | -4.284<br>(4.962)     | -1.786<br>(1.992)     |
| News-Growth   | 0.922<br>(1.081)     | -.943<br>(0.622)     | -3.824<br>(2.861)     | -4.143<br>(0.729)***  |
| News-Growth-1 | 0.985<br>(0.584)*    | 0.167<br>(0.338)     | -3.911<br>(1.477)***  | 2.130<br>(1.052)**    |
| News-Growth-2 | -.336<br>(1.779)     | -.787<br>(0.179)***  | -3.043<br>(1.185)**   | 0.73<br>(1.970)       |
| News-Growth-3 | -.797<br>(1.774)     | -.328<br>(0.872)     | 1.082<br>(4.353)      | 2.160<br>(2.895)      |
| GDP           | 0.198<br>(0.403)     | 0.23<br>(0.156)      | 1.020<br>(0.272)***   | 0.919<br>(0.347)***   |
| Univ          | 1.323<br>(0.732)*    | 1.960<br>(0.751)***  | 3.992<br>(0.666)***   | 2.737<br>(0.228)***   |
| Popul         | 43.307<br>(27.554)   | 22.008<br>(10.063)** | 65.130<br>(12.490)*** | 91.072<br>(28.474)*** |
| N             | 484                  | 464                  | 444                   | 464                   |
| $R^2$         | 0.529                | 0.672                | 0.863                 | 0.796                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 10:** Age Panel: Employment and Average Income with growth heterogeneous effects

|                | Overall Employment   | Formal Employment    | Overall Income         | Formal Income          |
|----------------|----------------------|----------------------|------------------------|------------------------|
|                | (1)                  | (2)                  | (3)                    | (4)                    |
| News           | -1.487<br>(1.366)    | -2.148<br>(1.129)*   | 3.848<br>(3.062)       | 0.498<br>(0.652)       |
| News-1         | -1.280<br>(1.386)    | -2.556<br>(0.765)*** | -.588<br>(0.976)       | -4.284<br>(1.117)***   |
| News-2         | -.109<br>(0.966)     | -.940<br>(0.777)     | -.778<br>(0.848)       | -.189<br>(0.715)       |
| News-3         | 0.644<br>(0.187)***  | -1.901<br>(0.974)*   | -1.751<br>(0.256)***   | -2.763<br>(1.247)**    |
| News-Growth    | 1.227<br>(1.666)     | -.565<br>(1.796)     | -4.187<br>(2.264)*     | -4.038<br>(1.563)***   |
| News-Growth-1  | 1.208<br>(1.021)     | 1.084<br>(0.149)***  | -.189<br>(1.265)       | 6.119<br>(2.135)***    |
| News-Growth-2  | -.221<br>(1.042)     | -1.023<br>(1.435)    | -2.568<br>(1.461)*     | -1.217<br>(0.524)**    |
| News-Growth-3  | -.912<br>(1.128)     | 0.123<br>(0.545)     | -1.208<br>(0.611)**    | 1.008<br>(1.614)       |
| GDP            | 0.3<br>(0.07)***     | 0.504<br>(0.185)***  | 1.398<br>(0.177)***    | 1.819<br>(0.235)***    |
| Univ           | 2.063<br>(1.228)*    | 3.386<br>(1.487)**   | 4.452<br>(0.353)***    | 3.674<br>(0.954)***    |
| Popul          | 159.883<br>(86.437)* | 30.470<br>(84.858)   | 183.958<br>(17.376)*** | 223.514<br>(54.150)*** |
| N              | 390                  | 390                  | 333                    | 390                    |
| R <sup>2</sup> | 0.813                | 0.722                | 0.935                  | 0.905                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 11:** Gender Panel: Employment and Average Income with growth heterogeneous effects

|                | Overall Employment    | Formal Employment     | Overall Income        | Formal Income          |
|----------------|-----------------------|-----------------------|-----------------------|------------------------|
|                | (1)                   | (2)                   | (3)                   | (4)                    |
| News           | -1.721<br>(1.234)     | -2.722<br>(0.472)***  | 3.967<br>(1.053)***   | 0.363<br>(1.408)       |
| News-1         | -1.804<br>(0.366)***  | -3.735<br>(0.836)***  | 0.228<br>(0.342)      | -3.154<br>(0.742)***   |
| News-2         | -.002<br>(0.4)        | -1.263<br>(1.077)     | -.157<br>(0.894)      | -.314<br>(0.695)       |
| News-3         | 1.003<br>(0.208)***   | -2.824<br>(1.703)*    | -1.842<br>(1.956)     | -2.814<br>(0.94)***    |
| News-Growth    | 0.874<br>(0.846)      | -1.713<br>(1.128)     | -4.173<br>(0.85)***   | -2.762<br>(1.231)**    |
| News-Growth-1  | 1.684<br>(0.376)***   | 1.517<br>(0.427)***   | -1.752<br>(0.15)***   | 3.999<br>(1.439)***    |
| News-Growth-2  | -.754<br>(0.1)***     | -1.912<br>(0.936)**   | -2.832<br>(1.825)     | -.761<br>(1.396)       |
| News-Growth-3  | -1.624<br>(1.217)     | 0.058<br>(1.677)      | -1.741<br>(1.944)     | 1.590<br>(1.976)       |
| GDP            | 0.368<br>(0.35)       | 0.659<br>(0.228)***   | 1.202<br>(0.056)***   | 1.498<br>(0.217)***    |
| Univ           | 2.457<br>(0.131)***   | 4.478<br>(0.183)***   | 3.767<br>(1.492)**    | 3.433<br>(0.476)***    |
| Popul          | 189.049<br>(8.994)*** | 54.639<br>(20.570)*** | 171.981<br>(0.242)*** | 154.512<br>(18.454)*** |
| N              | 260                   | 260                   | 222                   | 260                    |
| R <sup>2</sup> | 0.947                 | 0.934                 | 0.93                  | 0.921                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

## Cumulative Effects

**Table 12:** Education Panel with quadratic terms: Formal Employment and Average Income

|                | Formal Employment     |                      |                      | Formal Average Income |                      |                       |
|----------------|-----------------------|----------------------|----------------------|-----------------------|----------------------|-----------------------|
|                | (1)                   | (2)                  | (3)                  | (4)                   | (5)                  | (6)                   |
| News           | -4.826<br>(1.936)**   | -3.822<br>(1.574)**  | -2.418<br>(1.208)**  | -12.241<br>(3.852)*** | -9.909<br>(3.439)*** | -2.807<br>(0.944)***  |
| News-sqr       | 0.405<br>(0.168)**    | 0.29<br>(0.127)**    | 0.127<br>(0.092)     | 1.485<br>(0.528)***   | 1.218<br>(0.484)**   | 0.395<br>(0.225)*     |
| News-1         | -9.156<br>(3.573)**   | -3.395<br>(1.511)**  | -1.915<br>(1.047)*   | -21.401<br>(4.027)*** | -8.028<br>(1.568)*** | -.541<br>(1.186)      |
| News-sqr-1     | 0.925<br>(0.379)**    | 0.283<br>(0.158)*    | 0.099<br>(0.121)     | 2.612<br>(0.559)***   | 1.122<br>(0.308)***  | 0.191<br>(0.148)      |
| News-2         | -9.565<br>(3.566)***  | -3.290<br>(1.282)**  | -2.049<br>(0.823)**  | -18.504<br>(3.092)*** | -3.936<br>(1.170)*** | 2.342<br>(2.239)      |
| News-sqr-2     | 0.877<br>(0.321)***   | 0.3<br>(0.113)***    | 0.158<br>(0.073)**   | 1.766<br>(0.317)***   | 0.426<br>(0.144)***  | -.288<br>(0.242)      |
| News-3         | -10.610<br>(3.881)*** | -3.317<br>(1.263)*** | -2.422<br>(0.853)*** | -18.315<br>(3.617)*** | -1.384<br>(1.140)    | 3.146<br>(1.555)**    |
| News-sqr-3     | 0.942<br>(0.336)***   | 0.297<br>(0.101)***  | 0.196<br>(0.062)***  | 1.568<br>(0.34)***    | 0.071<br>(0.147)     | -.441<br>(0.192)**    |
| GDP            | 2.435<br>(0.86)***    | 0.415<br>(0.22)*     | 0.24<br>(0.156)      | 6.460<br>(1.497)***   | 1.770<br>(0.629)***  | 0.884<br>(0.332)***   |
| Univ           |                       | 2.913<br>(1.070)***  | 2.129<br>(0.797)***  |                       | 6.762<br>(1.258)***  | 2.798<br>(0.31)***    |
| Popul          |                       |                      | 17.858<br>(8.984)**  |                       |                      | 90.347<br>(33.070)*** |
| N              | 464                   | 464                  | 464                  | 464                   | 464                  | 464                   |
| R <sup>2</sup> | 0.387                 | 0.665                | 0.672                | 0.446                 | 0.761                | 0.797                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_sqr is the square of the expectations index. Similarly, News\_sqr 1, 2 and 3 represents the square of the first, second and third lag of the News variable; respectively.

**Table 13: Age Panel with quadratic terms: Formal Employment and Average Income**

|                | Formal Employment    |                      |                      | Formal Average Income |                      |                        |
|----------------|----------------------|----------------------|----------------------|-----------------------|----------------------|------------------------|
|                | (1)                  | (2)                  | (3)                  | (4)                   | (5)                  | (6)                    |
| News           | -3.982<br>(0.616)*** | -4.327<br>(0.746)*** | -3.931<br>(1.155)*** | -9.082<br>(4.303)**   | -9.754<br>(4.415)**  | -6.679<br>(2.749)**    |
| News-sqr       | 0.295<br>(0.056)***  | 0.296<br>(0.057)***  | 0.244<br>(0.14)*     | 1.054<br>(0.531)**    | 1.057<br>(0.532)**   | 0.65<br>(0.324)**      |
| News-1         | -8.757<br>(3.260)*** | -3.489<br>(1.179)*** | -3.154<br>(1.031)*** | -16.061<br>(3.352)*** | -5.770<br>(1.733)*** | -3.164<br>(0.395)***   |
| News-sqr-1     | 0.885<br>(0.361)**   | 0.261<br>(0.125)**   | 0.211<br>(0.076)***  | 1.965<br>(0.573)***   | 0.746<br>(0.385)*    | 0.355<br>(0.202)*      |
| News-2         | -9.783<br>(4.412)**  | -3.716<br>(2.013)*   | -3.477<br>(1.861)*   | -12.155<br>(1.959)*** | -3.06<br>(1.688)     | 1.559<br>(2.530)       |
| News-sqr-2     | 0.853<br>(0.403)**   | 0.321<br>(0.193)*    | 0.288<br>(0.168)*    | 0.947<br>(0.24)***    | -0.092<br>(0.217)    | -3.48<br>(0.295)       |
| News-3         | -12.057<br>(5.005)** | -4.257<br>(1.920)**  | -4.145<br>(1.854)**  | -13.822<br>(3.214)*** | 1.414<br>(2.907)     | 2.280<br>(3.492)       |
| News-sqr-3     | 1.042<br>(0.448)**   | 0.36<br>(0.178)**    | 0.34<br>(0.167)**    | 0.942<br>(0.392)**    | -3.91<br>(0.428)     | -5.44<br>(0.489)       |
| GDP            | 3.729<br>(1.545)**   | 0.571<br>(0.337)*    | 0.48<br>(0.177)***   | 8.633<br>(1.505)***   | 2.464<br>(0.518)***  | 1.758<br>(0.194)***    |
| Univ           |                      | 3.890<br>(1.542)**   | 3.392<br>(1.476)**   |                       | 7.598<br>(1.237)***  | 3.726<br>(0.914)***    |
| Popul          |                      |                      | 28.679<br>(82.249)   |                       |                      | 223.164<br>(52.697)*** |
| N              | 390                  | 390                  | 390                  | 390                   | 390                  | 390                    |
| R <sup>2</sup> | 0.397                | 0.719                | 0.724                | 0.483                 | 0.825                | 0.905                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_sqr is the square of the expectations index. Similarly, News\_sqr 1, 2 and 3 represents the square of the first, second and third lag of the News variable; respectively.

**Table 14:** Gender Panel with quadratic terms: Formal Employment and Average Income

|                | Formal Employment     |                      |                      | Formal Average Income |                      |                        |
|----------------|-----------------------|----------------------|----------------------|-----------------------|----------------------|------------------------|
|                | (1)                   | (2)                  | (3)                  | (4)                   | (5)                  | (6)                    |
| News           | -5.960<br>(0.421)***  | -6.476<br>(0.485)*** | -5.536<br>(0.003)*** | -8.113<br>(1.744)***  | -8.766<br>(1.839)*** | -5.705<br>(1.455)***   |
| News-sqr       | 0.437<br>(0.031)***   | 0.439<br>(0.031)***  | 0.311<br>(0.031)***  | 1.011<br>(0.132)***   | 1.014<br>(0.133)***  | 0.598<br>(0.092)***    |
| News-1         | -13.174<br>(2.143)*** | -5.276<br>(1.183)*** | -4.489<br>(0.771)*** | -14.661<br>(1.469)*** | -4.670<br>(0.069)*** | -2.109<br>(0.289)***   |
| News-sqr-1     | 1.326<br>(0.221)***   | 0.391<br>(0.108)***  | 0.269<br>(0.048)***  | 1.790<br>(0.098)***   | 0.607<br>(0.068)***  | 0.21<br>(0.111)*       |
| News-2         | -14.749<br>(1.837)*** | -5.656<br>(0.731)*** | -5.108<br>(0.428)*** | -12.528<br>(0.782)*** | -1.026<br>(0.832)    | 0.758<br>(1.135)       |
| News-sqr-2     | 1.281<br>(0.14)***    | 0.483<br>(0.043)***  | 0.404<br>(0.004)***  | 1.055<br>(0.031)***   | 0.046<br>(0.173)     | -0.212<br>(0.202)      |
| News-3         | -18.239<br>(3.168)*** | -6.546<br>(1.748)*** | -6.345<br>(1.581)*** | -14.452<br>(0.425)*** | 0.338<br>(1.652)     | 0.993<br>(1.956)       |
| News-sqr-3     | 1.576<br>(0.287)***   | 0.554<br>(0.162)***  | 0.509<br>(0.138)***  | 1.105<br>(0.133)***   | -0.189<br>(0.315)    | -0.335<br>(0.341)      |
| GDP            | 5.584<br>(0.925)***   | 0.85<br>(0.349)**    | 0.635<br>(0.239)***  | 8.141<br>(1.128)***   | 2.153<br>(0.289)***  | 1.452<br>(0.198)***    |
| Univ           |                       | 5.831<br>(0.711)***  | 4.628<br>(0.116)***  |                       | 7.376<br>(1.036)***  | 3.456<br>(0.611)***    |
| Popul          |                       |                      | 47.494<br>(22.787)** |                       |                      | 154.680<br>(14.349)*** |
| N              | 260                   | 260                  | 260                  | 260                   | 260                  | 260                    |
| R <sup>2</sup> | 0.513                 | 0.929                | 0.935                | 0.506                 | 0.885                | 0.921                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_sqr is the square of the expectations index. Similarly, News\_sqr 1, 2 and 3 represents the square of the first, second and third lag of the News variable; respectively.

# Alternative Specifications

## Expectation Index and Lags

**Table 15:** Education Panel: Employment

|                | Overall Employment  |                     |                     |                     |
|----------------|---------------------|---------------------|---------------------|---------------------|
|                | (1)                 | (2)                 | (3)                 | (4)                 |
| News           | -9.313<br>(4.676)** | -5.931<br>(3.310)*  | -4.845<br>(2.849)*  | -4.439<br>(2.701)   |
| News-1         |                     | -7.057<br>(3.069)** | -4.880<br>(2.092)** | -4.230<br>(1.831)** |
| News-2         |                     |                     | -5.624<br>(2.560)** | -4.051<br>(1.921)** |
| News-3         |                     |                     |                     | -4.277<br>(1.758)** |
| N              | 484                 | 484                 | 484                 | 484                 |
| R <sup>2</sup> | 0.044               | 0.064               | 0.076               | 0.083               |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 16:** Education Panel: Average Income

|                | Average Income        |                       |                       |                       |
|----------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                | (1)                   | (2)                   | (3)                   | (4)                   |
| News           | -19.395<br>(1.753)*** | -12.054<br>(0.486)*** | -9.576<br>(0.409)***  | -7.950<br>(0.711)***  |
| News-1         |                       | -14.904<br>(2.910)*** | -10.225<br>(2.091)*** | -8.285<br>(1.597)***  |
| News-2         |                       |                       | -11.983<br>(2.116)*** | -7.601<br>(1.005)***  |
| News-3         |                       |                       |                       | -12.197<br>(3.181)*** |
| N              | 444                   | 444                   | 444                   | 444                   |
| R <sup>2</sup> | 0.08                  | 0.115                 | 0.137                 | 0.16                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 17: Education Panel: Formal Employment**

|                | Formal Employment    |                      |                      |                      |
|----------------|----------------------|----------------------|----------------------|----------------------|
|                | (1)                  | (2)                  | (3)                  | (4)                  |
| News           | -9.961<br>(3.619)*** | -6.563<br>(2.396)*** | -5.603<br>(2.030)*** | -5.174<br>(1.870)*** |
| News-1         |                      | -6.988<br>(2.533)*** | -4.957<br>(1.756)*** | -4.329<br>(1.519)*** |
| News-2         |                      |                      | -5.093<br>(1.961)*** | -3.547<br>(1.371)*** |
| News-3         |                      |                      |                      | -4.102<br>(1.575)*** |
| N              | 464                  | 464                  | 464                  | 464                  |
| R <sup>2</sup> | 0.088                | 0.121                | 0.138                | 0.149                |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 18: Education Panel: Formal Average Income**

|                | Formal Average Income |                       |                       |                      |
|----------------|-----------------------|-----------------------|-----------------------|----------------------|
|                | (1)                   | (2)                   | (3)                   | (4)                  |
| News           | -18.099<br>(3.627)*** | -12.269<br>(2.516)*** | -10.481<br>(2.218)*** | -9.642<br>(2.069)*** |
| News-1         |                       | -11.993<br>(2.346)*** | -8.210<br>(1.737)***  | -6.983<br>(1.554)*** |
| News-2         |                       |                       | -9.483<br>(1.695)***  | -6.462<br>(1.148)*** |
| News-3         |                       |                       |                       | -8.017<br>(1.526)*** |
| N              | 464                   | 464                   | 464                   | 464                  |
| R <sup>2</sup> | 0.061                 | 0.082                 | 0.094                 | 0.103                |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 19: Age Panel: Employment**

|                | Overall Employment   |                      |                      |                      |
|----------------|----------------------|----------------------|----------------------|----------------------|
|                | (1)                  | (2)                  | (3)                  | (4)                  |
| News           | -8.083<br>(3.058)*** | -5.706<br>(1.979)*** | -5.228<br>(1.752)*** | -5.218<br>(1.714)*** |
| News-1         |                      | -5.570<br>(2.568)**  | -4.191<br>(1.931)**  | -3.907<br>(1.760)**  |
| News-2         |                      |                      | -4.134<br>(1.893)**  | -3.211<br>(1.357)**  |
| News-3         |                      |                      |                      | -3.077<br>(1.643)*   |
| N              | 399                  | 396                  | 393                  | 390                  |
| R <sup>2</sup> | 0.022                | 0.033                | 0.041                | 0.049                |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 20: Age Panel: Average Income**

|                | Average Income        |                       |                       |                       |
|----------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                | (1)                   | (2)                   | (3)                   | (4)                   |
| News           | -19.174<br>(1.728)*** | -11.857<br>(1.057)*** | -9.143<br>(0.954)***  | -7.659<br>(0.892)***  |
| News-1         |                       | -14.855<br>(1.664)*** | -9.730<br>(1.062)***  | -7.959<br>(0.777)***  |
| News-2         |                       |                       | -13.123<br>(1.668)*** | -9.123<br>(1.029)***  |
| News-3         |                       |                       |                       | -11.137<br>(1.878)*** |
| N              | 333                   | 333                   | 333                   | 333                   |
| R <sup>2</sup> | 0.073                 | 0.107                 | 0.132                 | 0.149                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 21: Age Panel: Formal Employment**

|                | Formal Employment     |                      |                      |                      |
|----------------|-----------------------|----------------------|----------------------|----------------------|
|                | (1)                   | (2)                  | (3)                  | (4)                  |
| News           | -10.310<br>(3.514)*** | -6.926<br>(2.284)*** | -6.072<br>(1.933)*** | -5.818<br>(1.833)*** |
| News-1         |                       | -7.285<br>(2.691)*** | -5.259<br>(1.865)*** | -4.666<br>(1.639)*** |
| News-2         |                       |                      | -5.422<br>(2.197)**  | -3.857<br>(1.594)**  |
| News-3         |                       |                      |                      | -4.471<br>(1.728)*** |
| N              | 399                   | 396                  | 393                  | 390                  |
| R <sup>2</sup> | 0.055                 | 0.078                | 0.093                | 0.105                |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 22: Age Panel: Formal Average Income**

|                | Formal Average Income |                       |                       |                      |
|----------------|-----------------------|-----------------------|-----------------------|----------------------|
|                | (1)                   | (2)                   | (3)                   | (4)                  |
| News           | -15.585<br>(2.050)*** | -11.152<br>(2.010)*** | -10.056<br>(1.980)*** | -9.783<br>(1.950)*** |
| News-1         |                       | -9.954<br>(0.799)***  | -7.205<br>(0.683)***  | -6.389<br>(0.646)*** |
| News-2         |                       |                       | -7.626<br>(0.849)***  | -5.358<br>(0.41)***  |
| News-3         |                       |                       |                       | -6.781<br>(1.411)*** |
| N              | 399                   | 396                   | 393                   | 390                  |
| R <sup>2</sup> | 0.034                 | 0.047                 | 0.057                 | 0.066                |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 23: Gender Panel: Employment**

|                | Overall Employment    |                      |                      |                      |
|----------------|-----------------------|----------------------|----------------------|----------------------|
|                | (1)                   | (2)                  | (3)                  | (4)                  |
| News           | -12.127<br>(1.028)*** | -8.561<br>(1.175)*** | -7.845<br>(1.307)*** | -7.830<br>(1.392)*** |
| News-1         |                       | -8.351<br>(0.271)*** | -6.283<br>(0.011)*** | -5.856<br>(0.115)*** |
| News-2         |                       |                      | -6.202<br>(0.615)*** | -4.817<br>(0.328)*** |
| News-3         |                       |                      |                      | -4.616<br>(0.713)*** |
| N              | 266                   | 264                  | 262                  | 260                  |
| R <sup>2</sup> | 0.028                 | 0.041                | 0.052                | 0.061                |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 24: Gender Panel: Average Income**

|                | Average Income        |                       |                       |                       |
|----------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                | (1)                   | (2)                   | (3)                   | (4)                   |
| News           | -20.374<br>(3.301)*** | -12.613<br>(1.873)*** | -9.810<br>(1.375)***  | -8.182<br>(1.031)***  |
| News-1         |                       | -15.759<br>(2.914)*** | -10.467<br>(1.973)*** | -8.525<br>(1.563)***  |
| News-2         |                       |                       | -13.551<br>(2.426)*** | -9.164<br>(1.495)***  |
| News-3         |                       |                       |                       | -12.213<br>(2.609)*** |
| N              | 222                   | 222                   | 222                   | 222                   |
| R <sup>2</sup> | 0.079                 | 0.115                 | 0.14                  | 0.16                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 25: Gender Panel: Formal Employment**

|        | Formal Employment     |                       |                      |                      |
|--------|-----------------------|-----------------------|----------------------|----------------------|
|        | (1)                   | (2)                   | (3)                  | (4)                  |
| News   | -15.557<br>(2.188)*** | -10.436<br>(1.403)*** | -9.136<br>(1.198)*** | -8.748<br>(1.149)*** |
| News-1 |                       | -11.021<br>(1.669)*** | -7.944<br>(1.193)*** | -7.045<br>(1.064)*** |
| News-2 |                       |                       | -8.222<br>(1.259)*** | -5.854<br>(0.909)*** |
| News-3 |                       |                       |                      | -6.760<br>(1.024)*** |
| N      | 266                   | 264                   | 262                  | 260                  |
| $R^2$  | 0.071                 | 0.102                 | 0.121                | 0.137                |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 26: Gender Panel: Formal Average Income**

|        | Formal Average Income |                      |                      |                      |
|--------|-----------------------|----------------------|----------------------|----------------------|
|        | (1)                   | (2)                  | (3)                  | (4)                  |
| News   | -14.084<br>(2.419)*** | -9.960<br>(1.746)*** | -8.984<br>(1.640)*** | -8.744<br>(1.632)*** |
| News-1 |                       | -9.422<br>(1.707)*** | -6.911<br>(1.327)*** | -6.165<br>(1.203)*** |
| News-2 |                       |                      | -7.075<br>(1.256)*** | -4.984<br>(0.86)***  |
| News-3 |                       |                      |                      | -6.290<br>(1.304)*** |
| N      | 266                   | 264                  | 262                  | 260                  |
| $R^2$  | 0.033                 | 0.047                | 0.057                | 0.067                |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

## Adding Growth Dummies

**Table 27:** Education Panel: Employment with growth heterogeneous effects

|               | Overall Employment   |                     |                      |                      |
|---------------|----------------------|---------------------|----------------------|----------------------|
|               | (1)                  | (2)                 | (3)                  | (4)                  |
| News          | -10.317<br>(4.824)** | -7.778<br>(3.676)** | -8.336<br>(3.715)**  | -8.359<br>(3.609)**  |
| News-1        | -5.047<br>(2.141)**  | -9.277<br>(4.032)** | -10.070<br>(4.204)** | -10.082<br>(4.177)** |
| News-2        | -4.133<br>(1.952)**  | -4.075<br>(1.930)** | -2.402<br>(2.063)    | -2.425<br>(1.800)    |
| News-3        | -4.456<br>(1.828)**  | -4.870<br>(2.013)** | -4.693<br>(1.989)**  | -4.616<br>(2.605)*   |
| News-Growth   | 10.148<br>(4.360)**  | 5.817<br>(2.434)**  | 6.686<br>(2.560)***  | 6.712<br>(2.529)***  |
| News-Growth-1 |                      | 6.795<br>(3.168)**  | 8.128<br>(3.326)**   | 8.152<br>(3.271)**   |
| News-Growth-2 |                      |                     | -2.893<br>(2.630)    | -2.841<br>(2.053)    |
| News-Growth-3 |                      |                     |                      | -.132<br>(1.816)     |
| N             | 484                  | 484                 | 484                  | 484                  |
| $R^2$         | 0.103                | 0.107               | 0.108                | 0.108                |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 28:** Education Panel: Average Income with growth heterogeneous effects

|               | Average Income        |                       |                       |                       |
|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
|               | (1)                   | (2)                   | (3)                   | (4)                   |
| News          | -9.403<br>(1.392)***  | -5.005<br>(1.786)***  | -8.121<br>(1.633)***  | -7.367<br>(2.529)***  |
| News-1        | -8.469<br>(1.532)***  | -15.968<br>(2.390)*** | -20.137<br>(2.724)*** | -19.681<br>(2.219)*** |
| News-2        | -7.628<br>(0.998)***  | -7.633<br>(0.999)***  | 1.220<br>(0.336)***   | 1.772<br>(0.362)***   |
| News-3        | -12.181<br>(3.190)*** | -12.761<br>(3.260)*** | -11.777<br>(3.192)*** | -13.998<br>(5.880)**  |
| News-Growth   | 2.352<br>(1.102)**    | -5.351<br>(1.835)***  | -.923<br>(1.580)      | -1.826<br>(2.670)     |
| News-Growth-1 |                       | 12.228<br>(1.436)***  | 18.633<br>(1.965)***  | 17.862<br>(1.244)***  |
| News-Growth-2 |                       |                       | -14.188<br>(1.205)*** | -15.490<br>(2.628)*** |
| News-Growth-3 |                       |                       |                       | 3.723<br>(4.552)      |
| N             | 444                   | 444                   | 444                   | 444                   |
| $R^2$         | 0.16                  | 0.166                 | 0.174                 | 0.174                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 29:** Education Panel: Formal Employment with growth heterogeneous effects

|               | Formal Employment    |                     |                      |                      |
|---------------|----------------------|---------------------|----------------------|----------------------|
|               | (1)                  | (2)                 | (3)                  | (4)                  |
| News          | -7.283<br>(2.715)*** | -5.524<br>(2.028)** | -6.668<br>(2.396)*** | -6.793<br>(2.387)*** |
| News-1        | -4.623<br>(1.638)**  | -7.648<br>(2.836)** | -9.439<br>(3.396)**  | -9.524<br>(3.380)**  |
| News-2        | -3.604<br>(1.395)**  | -3.582<br>(1.388)** | 0.06<br>(0.34)       | -.072<br>(0.251)     |
| News-3        | -4.141<br>(1.592)**  | -4.358<br>(1.680)** | -3.993<br>(1.569)**  | -3.552<br>(1.755)**  |
| News-Growth   | 3.595<br>(1.483)**   | 0.541<br>(0.414)    | 2.278<br>(0.877)***  | 2.428<br>(0.925)***  |
| News-Growth-1 |                      | 4.835<br>(1.994)**  | 7.679<br>(2.839)***  | 7.822<br>(2.792)***  |
| News-Growth-2 |                      |                     | -6.054<br>(1.949)*** | -5.773<br>(1.984)*** |
| News-Growth-3 |                      |                     |                      | -.734<br>(0.82)      |
| N             | 464                  | 464                 | 464                  | 464                  |
| $R^2$         | 0.153                | 0.157               | 0.163                | 0.163                |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 30:** Education Panel: Formal Average Income with growth heterogeneous effects

|               | Formal Average Income |                       |                       |                       |
|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
|               | (1)                   | (2)                   | (3)                   | (4)                   |
| News          | -18.883<br>(5.859)*** | -12.499<br>(3.997)*** | -14.372<br>(3.879)*** | -14.142<br>(3.416)*** |
| News-1        | -8.269<br>(1.969)***  | -19.244<br>(5.048)*** | -22.178<br>(4.805)*** | -22.023<br>(4.495)*** |
| News-2        | -6.711<br>(1.240)***  | -6.632<br>(1.220)***  | -.667<br>(1.891)      | -.424<br>(1.497)      |
| News-3        | -8.185<br>(1.597)***  | -8.972<br>(1.837)***  | -8.374<br>(1.897)***  | -9.183<br>(3.529)***  |
| News-Growth   | 15.747<br>(6.652)**   | 4.666<br>(3.317)      | 7.510<br>(3.125)**    | 7.233<br>(2.593)***   |
| News-Growth-1 |                       | 17.540<br>(5.390)***  | 22.198<br>(4.941)***  | 21.934<br>(4.445)***  |
| News-Growth-2 |                       |                       | -9.914<br>(1.328)***  | -10.431<br>(1.147)*** |
| News-Growth-3 |                       |                       |                       | 1.348<br>(2.770)      |
| N             | 464                   | 464                   | 464                   | 464                   |
| $R^2$         | 0.12                  | 0.131                 | 0.134                 | 0.134                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 31:** Age Panel: Employment with growth heterogeneous effects

|               | Overall Employment    |                      |                       |                       |
|---------------|-----------------------|----------------------|-----------------------|-----------------------|
|               | (1)                   | (2)                  | (3)                   | (4)                   |
| News          | -12.221<br>(4.030)*** | -9.104<br>(2.893)*** | -10.071<br>(3.283)*** | -10.084<br>(3.397)*** |
| News-1        | -4.826<br>(2.065)**   | -10.064<br>(3.984)** | -11.567<br>(4.589)**  | -11.574<br>(4.652)**  |
| News-2        | -3.375<br>(1.411)**   | -3.295<br>(1.384)**  | -.160<br>(0.387)      | -.175<br>(0.599)      |
| News-3        | -3.325<br>(1.720)*    | -3.829<br>(1.894)**  | -3.517<br>(1.780)**   | -3.469<br>(1.283)***  |
| News-Growth   | 12.344<br>(4.083)***  | 7.032<br>(2.143)***  | 8.585<br>(2.764)***   | 8.601<br>(2.892)***   |
| News-Growth-1 |                       | 8.397<br>(3.077)***  | 10.942<br>(4.096)***  | 10.958<br>(4.223)***  |
| News-Growth-2 |                       |                      | -5.469<br>(2.182)**   | -5.435<br>(1.954)***  |
| News-Growth-3 |                       |                      |                       | -.084<br>(1.182)      |
| N             | 390                   | 390                  | 390                   | 390                   |
| $R^2$         | 0.069                 | 0.074                | 0.076                 | 0.076                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 32:** Age Panel: Average Income with growth heterogeneous effects

|                | Average Income        |                       |                       |                       |
|----------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                | (1)                   | (2)                   | (3)                   | (4)                   |
| News           | -9.778<br>(1.854)***  | -4.100<br>(2.331)*    | -7.434<br>(1.933)***  | -7.138<br>(2.008)***  |
| News-1         | -8.227<br>(0.769)***  | -17.910<br>(1.535)*** | -22.370<br>(2.473)*** | -22.191<br>(2.467)*** |
| News-2         | -9.162<br>(1.015)***  | -9.168<br>(1.018)***  | 0.305<br>(0.996)      | 0.522<br>(1.015)      |
| News-3         | -11.114<br>(1.886)*** | -11.863<br>(1.955)*** | -10.809<br>(1.747)*** | -11.682<br>(1.761)*** |
| News-Growth    | 3.432<br>(1.695)**    | -6.515<br>(2.678)**   | -1.777<br>(1.902)     | -2.131<br>(1.986)     |
| News-Growth-1  |                       | 15.788<br>(1.675)***  | 22.642<br>(3.109)***  | 22.339<br>(3.079)***  |
| News-Growth-2  |                       |                       | -15.182<br>(3.226)*** | -15.693<br>(3.276)*** |
| News-Growth-3  |                       |                       |                       | 1.462<br>(0.357)***   |
| N              | 333                   | 333                   | 333                   | 333                   |
| R <sup>2</sup> | 0.15                  | 0.16                  | 0.168                 | 0.168                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 33:** Age Panel: Formal Employment with growth heterogeneous effects

|               | Formal Employment    |                      |                       |                       |
|---------------|----------------------|----------------------|-----------------------|-----------------------|
|               | (1)                  | (2)                  | (3)                   | (4)                   |
| News          | -8.746<br>(3.046)*** | -6.614<br>(2.306)*** | -7.679<br>(2.747)***  | -7.612<br>(2.627)***  |
| News-1        | -5.051<br>(1.795)*** | -8.633<br>(3.029)*** | -10.290<br>(3.712)*** | -10.255<br>(3.655)*** |
| News-2        | -3.926<br>(1.624)**  | -3.871<br>(1.608)**  | -.417<br>(0.313)      | -.337<br>(0.322)      |
| News-3        | -4.575<br>(1.773)*** | -4.919<br>(1.896)*** | -4.576<br>(1.757)***  | -4.822<br>(2.218)**   |
| News-Growth   | 5.162<br>(2.135)**   | 1.528<br>(0.87)*     | 3.240<br>(1.576)**    | 3.160<br>(1.429)**    |
| News-Growth-1 |                      | 5.744<br>(2.005)***  | 8.548<br>(3.163)***   | 8.472<br>(3.026)***   |
| News-Growth-2 |                      |                      | -6.026<br>(2.482)**   | -6.197<br>(2.806)**   |
| News-Growth-3 |                      |                      |                       | 0.424<br>(0.842)      |
| N             | 390                  | 390                  | 390                   | 390                   |
| $R^2$         | 0.11                 | 0.113                | 0.117                 | 0.117                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 34:** Age Panel: Formal Average Income with growth heterogeneous effects

|               | Formal Average Income |                       |                       |                       |
|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
|               | (1)                   | (2)                   | (3)                   | (4)                   |
| News          | -19.749<br>(4.487)*** | -13.039<br>(3.459)*** | -14.586<br>(3.517)*** | -14.211<br>(3.399)*** |
| News-1        | -7.698<br>(0.844)***  | -18.970<br>(2.366)*** | -21.375<br>(2.570)*** | -21.181<br>(2.562)*** |
| News-2        | -5.592<br>(0.471)***  | -5.419<br>(0.448)***  | -.403<br>(0.804)      | 0.038<br>(0.495)      |
| News-3        | -7.135<br>(1.503)***  | -8.218<br>(1.689)***  | -7.720<br>(1.657)***  | -9.085<br>(2.177)***  |
| News-Growth   | 17.566<br>(4.588)***  | 6.133<br>(3.204)*     | 8.618<br>(3.159)***   | 8.174<br>(2.929)***   |
| News-Growth-1 |                       | 18.072<br>(3.381)***  | 22.143<br>(3.875)***  | 21.721<br>(3.961)***  |
| News-Growth-2 |                       |                       | -8.748<br>(1.289)***  | -9.699<br>(0.93)***   |
| News-Growth-3 |                       |                       |                       | 2.357<br>(1.710)      |
| N             | 390                   | 390                   | 390                   | 390                   |
| $R^2$         | 0.082                 | 0.091                 | 0.094                 | 0.094                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 35:** Gender Panel: Employment with growth heterogeneous effects

|               | Overall Employment    |                       |                       |                       |
|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
|               | (1)                   | (2)                   | (3)                   | (4)                   |
| News          | -18.334<br>(2.738)*** | -13.658<br>(2.505)*** | -15.108<br>(2.433)*** | -15.128<br>(2.245)*** |
| News-1        | -7.236<br>(0.292)***  | -15.092<br>(0.694)*** | -17.347<br>(0.576)*** | -17.358<br>(0.478)*** |
| News-2        | -5.063<br>(0.297)***  | -4.943<br>(0.303)***  | -.241<br>(0.056)***   | -.265<br>(0.284)      |
| News-3        | -4.989<br>(0.667)***  | -5.744<br>(0.63)***   | -5.277<br>(0.606)***  | -5.203<br>(0.096)***  |
| News-Growth   | 18.515<br>(2.369)***  | 10.546<br>(1.966)***  | 12.875<br>(1.848)***  | 12.899<br>(1.622)***  |
| News-Growth-1 |                       | 12.597<br>(0.644)***  | 16.414<br>(0.444)***  | 16.437<br>(0.227)***  |
| News-Growth-2 |                       |                       | -8.202<br>(0.432)***  | -8.151<br>(0.057)***  |
| News-Growth-3 |                       |                       |                       | -.128<br>(1.215)      |
| N             | 260                   | 260                   | 260                   | 260                   |
| $R^2$         | 0.086                 | 0.092                 | 0.094                 | 0.094                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 36:** Gender Panel: Average Income with growth heterogeneous effects

|               | Average Income        |                       |                       |                       |
|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
|               | (1)                   | (2)                   | (3)                   | (4)                   |
| News          | -10.820<br>(0.923)*** | -5.062<br>(0.058)***  | -8.516<br>(0.807)***  | -8.206<br>(0.381)***  |
| News-1        | -8.858<br>(1.553)***  | -18.677<br>(3.234)*** | -23.297<br>(4.399)*** | -23.110<br>(4.150)*** |
| News-2        | -9.212<br>(1.496)***  | -9.219<br>(1.501)***  | 0.593<br>(0.954)      | 0.819<br>(1.269)      |
| News-3        | -12.185<br>(2.616)*** | -12.945<br>(2.752)*** | -11.854<br>(2.485)*** | -12.766<br>(3.751)*** |
| News-Growth   | 4.272<br>(0.178)***   | -5.815<br>(1.902)***  | -.908<br>(0.676)      | -1.278<br>(1.190)     |
| News-Growth-1 |                       | 16.011<br>(2.735)***  | 23.109<br>(4.520)***  | 22.793<br>(4.094)***  |
| News-Growth-2 |                       |                       | -15.723<br>(3.940)*** | -16.257<br>(4.688)*** |
| News-Growth-3 |                       |                       |                       | 1.529<br>(2.112)      |
| N             | 222                   | 222                   | 222                   | 222                   |
| $R^2$         | 0.161                 | 0.171                 | 0.179                 | 0.179                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 37:** Gender Panel: Formal Employment with growth heterogeneous effects

|               | Formal Employment     |                       |                       |                       |
|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
|               | (1)                   | (2)                   | (3)                   | (4)                   |
| News          | -13.119<br>(2.663)*** | -9.907<br>(1.646)***  | -11.506<br>(1.485)*** | -11.399<br>(1.198)*** |
| News-1        | -7.619<br>(1.265)***  | -13.014<br>(2.985)*** | -15.500<br>(2.735)*** | -15.444<br>(2.591)*** |
| News-2        | -5.956<br>(0.946)***  | -5.874<br>(0.922)***  | -.691<br>(1.457)      | -.566<br>(1.119)      |
| News-3        | -6.915<br>(1.080)***  | -7.434<br>(1.247)***  | -6.919<br>(1.302)***  | -7.307<br>(2.359)***  |
| News-Growth   | 7.704<br>(2.666)***   | 2.231<br>(0.929)**    | 4.798<br>(0.666)***   | 4.672<br>(0.325)***   |
| News-Growth-1 |                       | 8.651<br>(2.754)***   | 12.857<br>(2.327)***  | 12.737<br>(2.005)***  |
| News-Growth-2 |                       |                       | -9.039<br>(0.93)***   | -9.310<br>(0.198)***  |
| News-Growth-3 |                       |                       |                       | 0.67<br>(1.820)       |
| N             | 260                   | 260                   | 260                   | 260                   |
| $R^2$         | 0.144                 | 0.148                 | 0.153                 | 0.153                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 38:** Gender Panel: Formal Average Income with growth heterogeneous effects

|                | Formal Average Income |                       |                       |                       |
|----------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                | (1)                   | (2)                   | (3)                   | (4)                   |
| News           | -18.793<br>(2.026)*** | -12.831<br>(2.476)*** | -14.185<br>(3.063)*** | -13.707<br>(3.367)*** |
| News-1         | -7.485<br>(1.257)***  | -17.500<br>(0.51)***  | -19.605<br>(1.417)*** | -19.358<br>(1.573)*** |
| News-2         | -5.219<br>(0.871)***  | -5.065<br>(0.884)***  | -.677<br>(1.002)      | -.115<br>(0.654)      |
| News-3         | -6.646<br>(1.320)***  | -7.609<br>(1.251)***  | -7.173<br>(1.066)***  | -8.910<br>(0.014)***  |
| News-Growth    | 17.712<br>(0.69)***   | 7.553<br>(1.451)***   | 9.727<br>(2.389)***   | 9.162<br>(2.746)***   |
| News-Growth-1  |                       | 16.058<br>(1.201)***  | 19.620<br>(0.329)***  | 19.082<br>(0.665)***  |
| News-Growth-2  |                       |                       | -7.655<br>(3.293)**   | -8.864<br>(2.546)***  |
| News-Growth-3  |                       |                       |                       | 2.999<br>(1.869)      |
| N              | 260                   | 260                   | 260                   | 260                   |
| R <sup>2</sup> | 0.086                 | 0.094                 | 0.096                 | 0.097                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

## Some Control Variables

**Table 39:** Education Panel: Employment and Average Income with controls

|                | Employment          |                     |                     | Average Income        |                      |                       |
|----------------|---------------------|---------------------|---------------------|-----------------------|----------------------|-----------------------|
|                | (1)                 | (2)                 | (3)                 | (4)                   | (5)                  | (6)                   |
| News           | -1.905<br>(2.001)   | -1.271<br>(1.819)   | -.615<br>(1.732)    | -2.492<br>(1.339)*    | -.791<br>(1.521)     | 0.223<br>(1.564)      |
| News-1         | -2.553<br>(1.066)** | -.952<br>(0.319)*** | -.444<br>(0.135)*** | -5.219<br>(1.216)***  | -2.439<br>(0.917)*** | -2.009<br>(0.914)**   |
| News-2         | -3.979<br>(1.892)** | -.946<br>(0.478)**  | -.280<br>(0.324)    | -7.906<br>(1.045)***  | -2.125<br>(0.41)***  | -1.381<br>(0.364)***  |
| News-3         | -4.158<br>(1.707)** | -.700<br>(0.199)*** | 0.006<br>(0.306)    | -12.240<br>(3.190)*** | -5.242<br>(2.423)**  | -4.268<br>(2.388)*    |
| GDP            | 3.199<br>(1.489)**  | 0.654<br>(0.503)    | 0.194<br>(0.4)      | 6.381<br>(0.836)***   | 1.594<br>(0.307)***  | 1.062<br>(0.272)***   |
| Univ           |                     | 3.379<br>(1.588)**  | 1.270<br>(0.82)     |                       | 6.821<br>(0.769)***  | 4.657<br>(0.728)***   |
| Popul          |                     |                     | 44.553<br>(26.670)* |                       |                      | 50.274<br>(10.059)*** |
| N              | 484                 | 484                 | 484                 | 444                   | 444                  | 444                   |
| R <sup>2</sup> | 0.271               | 0.499               | 0.529               | 0.474                 | 0.848                | 0.859                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 40:** Education Panel: Formal Employment and Average Income with controls

|                | Formal Employment    |                      |                      | Formal Average Income |                      |                       |
|----------------|----------------------|----------------------|----------------------|-----------------------|----------------------|-----------------------|
|                | (1)                  | (2)                  | (3)                  | (4)                   | (5)                  | (6)                   |
| News           | -2.972<br>(1.120)*** | -2.018<br>(0.775)*** | -1.608<br>(0.64)**   | -3.812<br>(0.846)***  | -1.602<br>(0.599)*** | 0.293<br>(0.781)      |
| News-1         | -2.972<br>(1.043)*** | -1.560<br>(0.539)*** | -1.313<br>(0.435)*** | -3.391<br>(1.037)***  | -.120<br>(1.003)     | 1.026<br>(1.220)      |
| News-2         | -3.625<br>(1.400)*** | -1.175<br>(0.515)**  | -.903<br>(0.395)**   | -6.668<br>(1.189)***  | -.992<br>(0.641)     | 0.265<br>(0.801)      |
| News-3         | -4.112<br>(1.580)*** | -1.303<br>(0.597)**  | -1.028<br>(0.469)**  | -8.042<br>(1.533)***  | -1.535<br>(0.482)*** | -.263<br>(0.395)      |
| GDP            | 2.584<br>(0.911)***  | 0.437<br>(0.222)**   | 0.23<br>(0.158)      | 6.841<br>(1.577)***   | 1.868<br>(0.657)***  | 0.912<br>(0.348)***   |
| Univ           |                      | 2.966<br>(1.086)***  | 2.077<br>(0.765)***  |                       | 6.871<br>(1.277)***  | 2.757<br>(0.34)***    |
| Popul          |                      |                      | 19.621<br>(9.204)**  |                       |                      | 90.725<br>(32.413)*** |
| N              | 464                  | 464                  | 464                  | 464                   | 464                  | 464                   |
| R <sup>2</sup> | 0.363                | 0.662                | 0.671                | 0.418                 | 0.756                | 0.796                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 41:** Education Panel: Employment and Average Income with controls and growth heterogeneous effects

|                | Employment          |                     |                     | Average Income       |                     |                      |
|----------------|---------------------|---------------------|---------------------|----------------------|---------------------|----------------------|
|                | (1)                 | (2)                 | (3)                 | (4)                  | (5)                 | (6)                  |
| News           | -4.038<br>(1.878)** | -3.690<br>(1.736)** | -1.233<br>(1.292)   | 1.423<br>(3.595)     | 0.149<br>(3.466)    | 3.091<br>(3.649)     |
| News-1         | -7.336<br>(2.906)** | -2.726<br>(0.912)** | -1.125<br>(0.315)** | -13.122<br>(1.377)** | -2.295<br>(0.37)**  | 1.087<br>(0.561)*    |
| News-2         | -2.291<br>(1.765)   | -1.516<br>(1.510)   | -0.075<br>(1.193)   | 0.413<br>(0.188)**   | -0.734<br>(0.094)** | 0.724<br>(0.283)**   |
| News-3         | -4.141<br>(2.453)*  | -0.796<br>(1.519)   | 0.433<br>(1.407)    | -13.513<br>(5.825)** | -6.490<br>(5.070)   | -4.284<br>(4.962)    |
| News-Growth    | 3.448<br>(1.246)**  | 4.064<br>(1.395)**  | 0.922<br>(1.081)    | -7.007<br>(3.310)**  | -1.368<br>(2.730)   | -3.824<br>(2.861)    |
| News-Growth-1  | 6.923<br>(2.697)**  | 2.029<br>(0.776)**  | 0.985<br>(0.584)*   | 13.181<br>(0.789)**  | -0.094<br>(1.259)   | -3.911<br>(1.477)**  |
| News-Growth-2  | -2.885<br>(2.068)   | 0.953<br>(1.991)    | -0.336<br>(1.779)   | -13.570<br>(2.377)** | -2.482<br>(1.135)** | -3.043<br>(1.185)**  |
| News-Growth-3  | -0.460<br>(1.820)   | -0.361<br>(1.829)   | -0.797<br>(1.774)   | 2.894<br>(4.454)     | 2.270<br>(4.393)    | 1.082<br>(4.353)     |
| GDP            | 3.103<br>(1.466)**  | 0.573<br>(0.498)    | 0.198<br>(0.403)    | 6.394<br>(0.854)**   | 1.623<br>(0.327)**  | 1.020<br>(0.272)**   |
| Univ           |                     | 3.370<br>(1.596)**  | 1.323<br>(0.732)*   |                      | 6.803<br>(0.767)**  | 3.992<br>(0.666)**   |
| Popul          |                     |                     | 43.307<br>(27.554)  |                      |                     | 65.130<br>(12.490)** |
| N              | 484                 | 484                 | 484                 | 444                  | 444                 | 444                  |
| R <sup>2</sup> | 0.281               | 0.506               | 0.529               | 0.485                | 0.848               | 0.863                |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 42:** Education Panel: Formal Employment and Average Income with controls and growth heterogeneous effects

|                | Formal Employment    |                      |                      | Formal Average Income |                      |                       |
|----------------|----------------------|----------------------|----------------------|-----------------------|----------------------|-----------------------|
|                | (1)                  | (2)                  | (3)                  | (4)                   | (5)                  | (6)                   |
| News           | -3.063<br>(1.086)*** | -2.410<br>(0.852)*** | -1.024<br>(0.498)**  | -4.395<br>(1.242)***  | -2.877<br>(0.972)*** | 2.857<br>(1.095)***   |
| News-1         | -6.996<br>(2.502)*** | -2.294<br>(0.802)*** | -1.259<br>(0.39)***  | -15.417<br>(3.044)*** | -4.498<br>(1.170)*** | -.217<br>(0.908)      |
| News-2         | -.425<br>(0.362)     | -.894<br>(0.522)*    | -.366<br>(0.303)     | -1.347<br>(1.637)     | -2.436<br>(1.794)    | -.248<br>(1.298)      |
| News-3         | -3.472<br>(1.732)**  | -1.158<br>(0.983)    | -.720<br>(0.842)     | -8.974<br>(3.488)**   | -3.599<br>(2.511)    | -1.786<br>(1.992)     |
| News-Growth    | -.176<br>(0.428)     | 0.593<br>(0.411)     | -.943<br>(0.622)     | 0.429<br>(1.097)      | 2.216<br>(1.422)     | -4.143<br>(0.729)***  |
| News-Growth-1  | 6.359<br>(2.294)***  | 1.048<br>(0.463)**   | 0.167<br>(0.338)     | 18.112<br>(3.644)***  | 5.777<br>(1.654)***  | 2.130<br>(1.052)**    |
| News-Growth-2  | -5.234<br>(1.801)*** | -.470<br>(0.065)***  | -.787<br>(0.179)***  | -9.024<br>(1.083)***  | 2.041<br>(2.350)     | 0.73<br>(1.970)       |
| News-Growth-3  | -.785<br>(0.819)     | -.264<br>(0.877)     | -.328<br>(0.872)     | 1.213<br>(2.743)      | 2.424<br>(2.970)     | 2.160<br>(2.895)      |
| GDP            | 2.564<br>(0.905)***  | 0.429<br>(0.22)*     | 0.23<br>(0.156)      | 6.701<br>(1.514)***   | 1.742<br>(0.58)***   | 0.919<br>(0.347)***   |
| Univ           |                      | 2.959<br>(1.091)***  | 1.960<br>(0.751)***  |                       | 6.872<br>(1.303)***  | 2.737<br>(0.228)***   |
| Popul          |                      |                      | 22.008<br>(10.063)** |                       |                      | 91.072<br>(28.474)*** |
| N              | 464                  | 464                  | 464                  | 464                   | 464                  | 464                   |
| R <sup>2</sup> | 0.37                 | 0.662                | 0.672                | 0.432                 | 0.763                | 0.796                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 43:** Age Panel: Employment and Average Income with controls

|                | Employment           |                      |                      | Average Income        |                      |                        |
|----------------|----------------------|----------------------|----------------------|-----------------------|----------------------|------------------------|
|                | (1)                  | (2)                  | (3)                  | (4)                   | (5)                  | (6)                    |
| News           | -1.559<br>(0.552)*** | -1.071<br>(0.399)*** | -.725<br>(0.402)*    | -1.717<br>(1.253)     | 0.062<br>(1.440)     | 1.225<br>(1.619)       |
| News-1         | -1.838<br>(1.097)*   | -.463<br>(0.634)     | -.450<br>(0.67)      | -4.621<br>(0.419)***  | -1.713<br>(0.404)*** | -1.221<br>(0.524)**    |
| News-2         | -3.706<br>(1.511)**  | -.357<br>(0.479)     | -.262<br>(0.467)     | -9.455<br>(1.076)***  | -3.409<br>(0.337)*** | -2.555<br>(0.211)**    |
| News-3         | -3.627<br>(1.806)**  | 0.161<br>(0.729)     | 0.159<br>(0.692)     | -11.183<br>(1.888)*** | -3.865<br>(0.847)*** | -2.748<br>(0.731)***   |
| GDP            | 4.873<br>(1.609)***  | 0.844<br>(0.248)***  | 0.31<br>(0.066)***   | 6.946<br>(0.993)***   | 1.940<br>(0.272)***  | 1.329<br>(0.166)***    |
| Univ           |                      | 4.865<br>(1.702)***  | 2.043<br>(1.172)*    |                       | 7.134<br>(1.032)***  | 4.649<br>(0.511)***    |
| Popul          |                      |                      | 161.316<br>(83.903)* |                       |                      | 173.103<br>(24.113)*** |
| N              | 390                  | 390                  | 390                  | 333                   | 333                  | 333                    |
| R <sup>2</sup> | 0.354                | 0.708                | 0.812                | 0.501                 | 0.887                | 0.932                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 44:** Age Panel: Formal Employment and Average Income with controls

|                | Formal Employment    |                      |                      | Formal Average Income |                      |                        |
|----------------|----------------------|----------------------|----------------------|-----------------------|----------------------|------------------------|
|                | (1)                  | (2)                  | (3)                  | (4)                   | (5)                  | (6)                    |
| News           | -2.929<br>(0.655)*** | -2.535<br>(0.501)*** | -2.471<br>(0.48)***  | -3.138<br>(0.784)***  | -2.374<br>(0.665)*** | -1.895<br>(0.325)***   |
| News-1         | -3.034<br>(1.010)*** | -1.923<br>(0.614)*** | -1.921<br>(0.626)*** | -2.634<br>(0.872)***  | -.481<br>(1.117)     | -.464<br>(1.285)       |
| News-2         | -4.248<br>(1.754)**  | -1.544<br>(0.695)**  | -1.527<br>(0.702)**  | -6.257<br>(0.562)***  | -1.018<br>(0.304)*** | -.886<br>(0.506)*      |
| News-3         | -4.905<br>(1.908)**  | -1.847<br>(0.705)*** | -1.847<br>(0.74)**   | -7.779<br>(1.588)***  | -1.854<br>(0.63)***  | -1.857<br>(0.529)***   |
| GDP            | 3.847<br>(1.582)**   | 0.594<br>(0.339)*    | 0.495<br>(0.175)***  | 8.850<br>(1.562)***   | 2.547<br>(0.557)***  | 1.804<br>(0.215)***    |
| Univ           |                      | 3.928<br>(1.553)**   | 3.403<br>(1.460)**   |                       | 7.611<br>(1.237)***  | 3.690<br>(0.937)***    |
| Popul          |                      |                      | 29.981<br>(81.415)   |                       |                      | 224.126<br>(52.717)*** |
| N              | 390                  | 390                  | 390                  | 390                   | 390                  | 390                    |
| R <sup>2</sup> | 0.382                | 0.717                | 0.722                | 0.473                 | 0.822                | 0.904                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 45:** Age Panel: Employment and Average Income with controls and growth heterogeneous effects

|                | Employment           |                      |                      | Average Income        |                      |                        |
|----------------|----------------------|----------------------|----------------------|-----------------------|----------------------|------------------------|
|                | (1)                  | (2)                  | (3)                  | (4)                   | (5)                  | (6)                    |
| News           | -3.821<br>(1.388)*** | -3.833<br>(1.393)*** | -1.487<br>(1.366)    | 2.408<br>(2.739)      | 1.078<br>(2.621)     | 3.848<br>(3.062)       |
| News-1         | -7.884<br>(3.451)**  | -2.225<br>(1.491)    | -1.280<br>(1.386)    | -15.069<br>(1.428)*** | -3.773<br>(0.285)*** | -.588<br>(0.976)       |
| News-2         | -.761<br>(0.674)     | -1.179<br>(0.77)     | -.109<br>(0.966)     | -.954<br>(0.805)      | -2.151<br>(0.644)*** | -.778<br>(0.848)       |
| News-3         | -3.439<br>(1.275)*** | 0.007<br>(0.099)     | 0.644<br>(0.187)***  | -11.155<br>(1.687)*** | -3.828<br>(0.632)*** | -1.751<br>(0.256)***   |
| News-Growth    | 3.792<br>(1.331)***  | 4.805<br>(1.683)***  | 1.227<br>(1.666)     | -7.758<br>(2.510)***  | -1.874<br>(2.031)    | -4.187<br>(2.264)*     |
| News-Growth-1  | 9.050<br>(3.603)**   | 1.953<br>(1.132)*    | 1.208<br>(1.021)     | 17.255<br>(2.382)***  | 3.405<br>(1.070)***  | -.189<br>(1.265)       |
| News-Growth-2  | -5.106<br>(1.848)*** | 1.365<br>(0.582)**   | -.221<br>(1.042)     | -13.608<br>(2.984)*** | -2.039<br>(1.488)    | -2.568<br>(1.461)*     |
| News-Growth-3  | -.658<br>(1.284)     | -.320<br>(1.211)     | -.912<br>(1.128)     | 0.562<br>(0.36)       | -.089<br>(0.396)     | -1.208<br>(0.611)**    |
| GDP            | 4.778<br>(1.585)***  | 0.749<br>(0.227)***  | 0.3<br>(0.07)***     | 6.943<br>(1.017)***   | 1.965<br>(0.306)***  | 1.398<br>(0.177)***    |
| Univ           |                      | 4.869<br>(1.710)***  | 2.063<br>(1.228)*    |                       | 7.098<br>(1.024)***  | 4.452<br>(0.353)***    |
| Popul          |                      |                      | 159.883<br>(86.437)* |                       |                      | 183.958<br>(17.376)*** |
| N              | 390                  | 390                  | 390                  | 333                   | 333                  | 333                    |
| R <sup>2</sup> | 0.364                | 0.714                | 0.813                | 0.514                 | 0.888                | 0.935                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 46:** Age Panel: Formal Employment and Average Income with controls and growth heterogeneous effects

|                | Formal Employment    |                      |                      | Formal Average Income |                      |                        |
|----------------|----------------------|----------------------|----------------------|-----------------------|----------------------|------------------------|
|                | (1)                  | (2)                  | (3)                  | (4)                   | (5)                  | (6)                    |
| News           | -2.586<br>(0.577)*** | -2.595<br>(0.581)*** | -2.148<br>(1.129)*   | -2.763<br>(1.495)*    | -2.780<br>(1.500)*   | 0.498<br>(0.652)       |
| News-1         | -7.294<br>(2.454)*** | -2.736<br>(0.678)*** | -2.556<br>(0.765)*** | -14.436<br>(1.413)*** | -5.605<br>(0.63)***  | -4.284<br>(1.117)***   |
| News-2         | -.808<br>(0.379)**   | -1.144<br>(0.474)**  | -.940<br>(0.777)     | -1.033<br>(0.515)**   | -1.684<br>(0.568)*** | -.189<br>(0.715)       |
| News-3         | -4.798<br>(2.211)**  | -2.022<br>(1.127)*   | -1.901<br>(0.974)*   | -9.031<br>(2.171)***  | -3.653<br>(1.405)*** | -2.763<br>(1.247)**    |
| News-Growth    | -.699<br>(0.189)***  | 0.116<br>(0.2)       | -.565<br>(1.796)     | -.617<br>(1.808)      | 0.964<br>(1.986)     | -4.038<br>(1.563)***   |
| News-Growth-1  | 6.941<br>(2.397)***  | 1.226<br>(0.185)***  | 1.084<br>(0.149)***  | 18.233<br>(3.452)***  | 7.161<br>(2.463)***  | 6.119<br>(2.135)***    |
| News-Growth-2  | -5.932<br>(2.701)**  | -.721<br>(0.693)     | -1.023<br>(1.435)    | -9.097<br>(0.839)***  | 0.999<br>(1.129)     | -1.217<br>(0.524)**    |
| News-Growth-3  | -.037<br>(0.665)     | 0.235<br>(0.762)     | 0.123<br>(0.545)     | 1.308<br>(1.680)      | 1.835<br>(1.706)     | 1.008<br>(1.614)       |
| GDP            | 3.834<br>(1.585)**   | 0.589<br>(0.34)*     | 0.504<br>(0.185)***  | 8.734<br>(1.532)***   | 2.447<br>(0.528)***  | 1.819<br>(0.235)***    |
| Univ           |                      | 3.921<br>(1.559)**   | 3.386<br>(1.487)**   |                       | 7.597<br>(1.248)***  | 3.674<br>(0.954)***    |
| Popul          |                      |                      | 30.470<br>(84.858)   |                       |                      | 223.514<br>(54.150)*** |
| N              | 390                  | 390                  | 390                  | 390                   | 390                  | 390                    |
| R <sup>2</sup> | 0.387                | 0.717                | 0.722                | 0.483                 | 0.827                | 0.905                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 47:** Gender Panel: Employment and Average Income with controls

|                | Employment           |                     |                        | Average Income        |                      |                       |
|----------------|----------------------|---------------------|------------------------|-----------------------|----------------------|-----------------------|
|                | (1)                  | (2)                 | (3)                    | (4)                   | (5)                  | (6)                   |
| News           | -2.342<br>(0.956)**  | -1.609<br>(0.941)*  | -1.117<br>(0.801)      | -2.079<br>(0.033)***  | -.235<br>(0.357)     | 1.086<br>(0.43)**     |
| News-1         | -2.754<br>(0.133)*** | -.690<br>(0.181)*** | -.769<br>(0.277)***    | -5.096<br>(1.005)***  | -2.082<br>(0.369)*** | -1.569<br>(0.293)***  |
| News-2         | -5.560<br>(0.269)*** | -.536<br>(0.387)    | -.497<br>(0.519)       | -9.505<br>(1.554)***  | -3.238<br>(0.231)*** | -2.313<br>(0.132)***  |
| News-3         | -5.441<br>(0.649)*** | 0.241<br>(0.783)    | 0.047<br>(0.964)       | -12.261<br>(2.623)*** | -4.675<br>(1.023)*** | -3.476<br>(0.885)***  |
| GDP            | 7.310<br>(0.584)***  | 1.266<br>(0.444)*** | 0.364<br>(0.355)       | 7.135<br>(1.169)***   | 1.946<br>(0.072)***  | 1.237<br>(0.05)***    |
| Univ           |                      | 7.298<br>(0.171)*** | 2.448<br>(0.21)***     |                       | 7.395<br>(1.566)***  | 4.478<br>(1.515)***   |
| Popul          |                      |                     | 189.848<br>(11.865)*** |                       |                      | 139.797<br>(0.277)*** |
| N              | 260                  | 260                 | 260                    | 222                   | 222                  | 222                   |
| R <sup>2</sup> | 0.442                | 0.882               | 0.947                  | 0.513                 | 0.907                | 0.925                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses,  
\* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 48:** Gender Panel: Formal Employment and Average Income with controls

|                | Formal Employment    |                      |                      | Formal Average Income |                     |                        |
|----------------|----------------------|----------------------|----------------------|-----------------------|---------------------|------------------------|
|                | (1)                  | (2)                  | (3)                  | (4)                   | (5)                 | (6)                    |
| News           | -4.424<br>(0.444)*** | -3.833<br>(0.373)*** | -3.701<br>(0.285)*** | -2.470<br>(0.788)***  | -1.728<br>(0.689)** | -1.322<br>(0.564)**    |
| News-1         | -4.601<br>(0.667)*** | -2.935<br>(0.465)*** | -2.956<br>(0.448)*** | -2.619<br>(0.727)***  | -.527<br>(0.444)    | -.592<br>(0.367)       |
| News-2         | -6.439<br>(1.006)*** | -2.386<br>(0.514)*** | -2.375<br>(0.476)*** | -5.832<br>(0.976)***  | -.741<br>(0.286)*** | -.709<br>(0.178)***    |
| News-3         | -7.410<br>(1.132)*** | -2.826<br>(0.575)*** | -2.877<br>(0.548)*** | -7.232<br>(1.434)***  | -1.474<br>(0.653)** | -1.634<br>(0.511)***   |
| GDP            | 5.760<br>(0.941)***  | 0.883<br>(0.348)**   | 0.643<br>(0.231)***  | 8.357<br>(1.128)***   | 2.231<br>(0.297)*** | 1.489<br>(0.207)***    |
| Univ           |                      | 5.889<br>(0.719)***  | 4.595<br>(0.115)***  |                       | 7.397<br>(1.006)*** | 3.401<br>(0.601)***    |
| Popul          |                      |                      | 50.624<br>(22.853)** |                       |                     | 156.376<br>(13.384)*** |
| N              | 260                  | 260                  | 260                  | 260                   | 260                 | 260                    |
| R <sup>2</sup> | 0.494                | 0.927                | 0.934                | 0.494                 | 0.882               | 0.92                   |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

**Table 49:** Gender Panel: Employment and Average Income with controls and growth heterogeneous effects

|                | Employment            |                      |                       | Average Income        |                      |                       |
|----------------|-----------------------|----------------------|-----------------------|-----------------------|----------------------|-----------------------|
|                | (1)                   | (2)                  | (3)                   | (4)                   | (5)                  | (6)                   |
| News           | -5.734<br>(1.508)***  | -5.751<br>(1.511)*** | -1.721<br>(1.234)     | 1.589<br>(1.247)      | 0.209<br>(0.957)     | 3.967<br>(1.053)***   |
| News-1         | -11.823<br>(0.042)*** | -3.333<br>(0.164)*** | -1.804<br>(0.366)***  | -15.803<br>(2.945)*** | -4.083<br>(0.457)*** | 0.228<br>(0.342)      |
| News-2         | -1.143<br>(0.215)***  | -1.770<br>(0.201)*** | -.002<br>(0.4)        | -.695<br>(1.021)      | -1.937<br>(0.759)**  | -.157<br>(0.894)      |
| News-3         | -5.159<br>(0.093)***  | 0.011<br>(0.032)     | 1.003<br>(0.208)***   | -12.226<br>(3.670)*** | -4.624<br>(2.060)**  | -1.842<br>(1.956)     |
| News-Growth    | 5.686<br>(1.056)***   | 7.205<br>(1.095)***  | 0.874<br>(0.846)      | -7.052<br>(2.153)***  | -.947<br>(0.858)     | -4.173<br>(0.85)***   |
| News-Growth-1  | 13.575<br>(0.002)***  | 2.930<br>(0.257)***  | 1.684<br>(0.376)***   | 17.576<br>(3.236)***  | 3.207<br>(0.184)***  | -1.752<br>(0.15)***   |
| News-Growth-2  | -7.657<br>(0.019)***  | 2.050<br>(0.217)***  | -.754<br>(0.1)***     | -14.118<br>(4.343)*** | -2.116<br>(1.798)    | -2.832<br>(1.825)     |
| News-Growth-3  | -.989<br>(1.150)      | -.482<br>(1.164)     | -1.624<br>(1.217)     | 0.605<br>(1.963)      | -.070<br>(1.824)     | -1.741<br>(1.944)     |
| GDP            | 7.167<br>(0.565)***   | 1.123<br>(0.42)***   | 0.368<br>(0.35)       | 7.124<br>(1.185)***   | 1.960<br>(0.088)***  | 1.202<br>(0.056)***   |
| Univ           |                       | 7.303<br>(0.177)***  | 2.457<br>(0.131)***   |                       | 7.364<br>(1.568)***  | 3.767<br>(1.492)**    |
| Popul          |                       |                      | 189.049<br>(8.994)*** |                       |                      | 171.981<br>(0.242)*** |
| N              | 260                   | 260                  | 260                   | 222                   | 222                  | 222                   |
| R <sup>2</sup> | 0.454                 | 0.89                 | 0.947                 | 0.525                 | 0.908                | 0.93                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

**Table 50:** Gender Panel: Formal Employment and Average Income with controls and growth heterogeneous effects

|                | Formal Employment     |                      |                       | Formal Average Income |                      |                        |
|----------------|-----------------------|----------------------|-----------------------|-----------------------|----------------------|------------------------|
|                | (1)                   | (2)                  | (3)                   | (4)                   | (5)                  | (6)                    |
| News           | -3.874<br>(0.01)***   | -3.887<br>(0.008)*** | -2.722<br>(0.472)***  | -2.914<br>(1.864)     | -2.931<br>(1.870)    | 0.363<br>(1.408)       |
| News-1         | -11.011<br>(1.884)*** | -4.177<br>(1.037)*** | -3.735<br>(0.836)***  | -12.999<br>(0.687)*** | -4.404<br>(0.487)*** | -3.154<br>(0.742)***   |
| News-2         | -1.270<br>(1.234)     | -1.774<br>(1.299)    | -1.263<br>(1.077)     | -1.125<br>(0.514)**   | -1.759<br>(0.428)*** | -.314<br>(0.695)       |
| News-3         | -7.272<br>(2.358)***  | -3.111<br>(1.845)*   | -2.824<br>(1.703)*    | -8.859<br>(0.021)***  | -3.625<br>(0.737)*** | -2.814<br>(0.94)***    |
| News-Growth    | -1.107<br>(0.604)*    | 0.116<br>(0.453)     | -1.713<br>(1.128)     | 0.874<br>(1.592)      | 2.412<br>(1.805)     | -2.762<br>(1.231)**    |
| News-Growth-1  | 10.445<br>(1.641)***  | 1.877<br>(0.578)***  | 1.517<br>(0.427)***   | 15.795<br>(0.206)***  | 5.018<br>(1.266)***  | 3.999<br>(1.439)***    |
| News-Growth-2  | -8.914<br>(0.262)***  | -1.102<br>(1.234)    | -1.912<br>(0.936)**   | -8.297<br>(2.471)***  | 1.530<br>(1.133)     | -.761<br>(1.396)       |
| News-Growth-3  | -.020<br>(1.713)      | 0.388<br>(1.767)     | 0.058<br>(1.677)      | 2.010<br>(2.011)      | 2.523<br>(1.945)     | 1.590<br>(1.976)       |
| GDP            | 5.741<br>(0.923)***   | 0.877<br>(0.32)***   | 0.659<br>(0.228)***   | 8.234<br>(1.152)***   | 2.115<br>(0.318)***  | 1.498<br>(0.217)***    |
| Univ           |                       | 5.878<br>(0.731)***  | 4.478<br>(0.183)***   |                       | 7.394<br>(1.011)***  | 3.433<br>(0.476)**     |
| Popul          |                       |                      | 54.639<br>(20.570)*** |                       |                      | 154.512<br>(18.454)*** |
| N              | 260                   | 260                  | 260                   | 260                   | 260                  | 260                    |
| R <sup>2</sup> | 0.501                 | 0.927                | 0.934                 | 0.504                 | 0.888                | 0.921                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_Growth is the interaction between our growth dummy and the contemporaneous value of the News variable. Similarly, News\_Growth 1, 2 and 3 represents the interaction between our growth dummy and the first, second and third lag of the News variable; respectively.

## Heterogeneous demographic effects

**Table 51:** Education Panel: Employment - Fixed Effects

|                | Overall Employment       |                          | Formal Employment        |                          |
|----------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                | (1)                      | (2)                      | (3)                      | (4)                      |
| News           | 11.159<br>(3.958)***     | 6.994<br>(2.489)***      | 8.156<br>(3.081)***      | 4.740<br>(1.846)**       |
| News-sec       | -22.721<br>(2.34e-13)*** | -16.099<br>(2.03e-13)*** | -17.191<br>(1.80e-13)*** | -11.440<br>(2.39e-13)*** |
| News-nus       | -10.947<br>(2.33e-13)*** | -6.641<br>(2.03e-13)***  | -9.594<br>(1.72e-13)***  | -6.091<br>(2.27e-13)***  |
| News-su        | -13.428<br>(2.31e-13)*** | -7.696<br>(2.02e-13)***  | -12.271<br>(1.72e-13)*** | -7.862<br>(2.28e-13)***  |
| News-1         | -.444<br>(0.136)***      | 8.246<br>(3.059)***      | -1.313<br>(0.436)***     | 5.714<br>(2.136)***      |
| News-sec-1     |                          | -13.817<br>(6.89e-14)*** |                          | -11.830<br>(7.13e-14)*** |
| News-nus-1     |                          | -8.985<br>(6.10e-14)***  |                          | -7.207<br>(6.46e-14)***  |
| News-su-1      |                          | -11.959<br>(6.48e-14)*** |                          | -9.069<br>(6.24e-14)***  |
| News-2         | -.280<br>(0.325)         | -.280<br>(0.326)         | -.903<br>(0.397)**       | -.903<br>(0.398)**       |
| News-3         | 0.006<br>(0.307)         | 0.006<br>(0.308)         | -1.028<br>(0.471)**      | -1.028<br>(0.472)**      |
| GDP            | 0.194<br>(0.402)         | 0.194<br>(0.403)         | 0.23<br>(0.158)          | 0.23<br>(0.159)          |
| Univ           | 1.270<br>(0.823)         | 1.270<br>(0.826)         | 2.077<br>(0.767)***      | 2.077<br>(0.77)***       |
| Popul          | 44.553<br>(26.754)*      | 44.553<br>(26.839)*      | 19.621<br>(9.234)**      | 19.621<br>(9.265)**      |
| N              | 484                      | 484                      | 464                      | 464                      |
| R <sup>2</sup> | 0.562                    | 0.573                    | 0.706                    | 0.719                    |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_sec, News\_nus, News\_su are the interaction between our dummy variable that indicates the employees level of education and the contemporaneous value of the News variable. The suffix sec, su, su indicates that the maximum level of education achieved by the respondent is secondary, non superior university, superior university, respectively. Similarly, News\_sec, News\_nus, News\_su 1, represents this same interaction using the first lag of the News variable.

**Table 52: Education Panel: Average Income - Fixed Effects**

|                | Overall Income          |                          | Formal Income            |                          |
|----------------|-------------------------|--------------------------|--------------------------|--------------------------|
|                | (1)                     | (2)                      | (3)                      | (4)                      |
| News           | 4.045<br>(3.285)        | 1.636<br>(1.864)         | 7.007<br>(3.922)*        | 4.669<br>(2.888)         |
| News-sec       | -3.294<br>(1.04e-13)*** | -1.578<br>(3.45e-14)***  | -6.350<br>(3.84e-13)***  | -3.531<br>(4.85e-13)***  |
| News-nus       | -3.505<br>(1.01e-13)*** | -2.140<br>(3.08e-14)***  | -3.647<br>(3.80e-13)***  | -2.398<br>(4.78e-13)***  |
| News-su        | -8.490<br>(1.04e-13)*** | -1.937<br>(2.95e-14)***  | -16.858<br>(3.72e-13)*** | -11.577<br>(4.72e-13)*** |
| News-1         | -2.009<br>(0.918)**     | 2.881<br>(2.093)         | 1.026<br>(1.224)         | 5.833<br>(2.715)**       |
| News-sec-1     |                         | -3.484<br>(3.18e-14)***  |                          | -5.799<br>(1.70e-13)***  |
| News-nus-1     |                         | -2.771<br>(2.90e-14)***  |                          | -2.569<br>(1.71e-13)***  |
| News-su-1      |                         | -13.305<br>(3.25e-14)*** |                          | -10.863<br>(1.70e-13)*** |
| News-2         | -1.381<br>(0.366)***    | -1.381<br>(0.367)***     | 0.265<br>(0.804)         | 0.265<br>(0.807)         |
| News-3         | -4.268<br>(2.396)*      | -4.268<br>(2.404)*       | -.263<br>(0.397)         | -.263<br>(0.398)         |
| GDP            | 1.062<br>(0.273)***     | 1.062<br>(0.274)***      | 0.912<br>(0.349)***      | 0.912<br>(0.35)***       |
| Univ           | 4.657<br>(0.73)***      | 4.657<br>(0.733)***      | 2.757<br>(0.341)***      | 2.757<br>(0.342)***      |
| Popul          | 50.274<br>(10.094)***   | 50.274<br>(10.129)***    | 90.725<br>(32.520)***    | 90.725<br>(32.628)***    |
| N              | 444                     | 444                      | 464                      | 464                      |
| R <sup>2</sup> | 0.861                   | 0.865                    | 0.803                    | 0.805                    |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_sec, News\_nus, News\_su are the interaction between our dummy variable that indicates the employees level of education and the contemporaneous value of the News variable. The suffix sec, su, su indicates that the maximum level of education achieved by the respondent is secondary, non superior university, superior university, respectively. Similarly, News\_sec, News\_nus, News\_su 1, represents this same interaction using the first lag of the News variable.

**Table 53:** Education Panel: Employment - Pool

|                | Overall Employment      |                        | Formal Employment     |                       |
|----------------|-------------------------|------------------------|-----------------------|-----------------------|
|                | (1)                     | (2)                    | (3)                   | (4)                   |
| News           | -109.813<br>(15.804)*** | -66.318<br>(15.270)*** | -41.633<br>(5.728)*** | -26.114<br>(6.335)*** |
| News-sec       | 333.620<br>(26.601)***  | 198.057<br>(30.469)*** | 75.644<br>(6.465)***  | 45.947<br>(7.977)***  |
| News-nus       | 40.860<br>(13.913)***   | 25.309<br>(16.525)     | 33.084<br>(4.995)***  | 20.491<br>(6.207)***  |
| News-su        | 63.271<br>(12.724)***   | 39.448<br>(15.198)***  | 51.372<br>(5.104)***  | 31.588<br>(6.339)***  |
| News-1         | -.362<br>(8.786)        | -65.236<br>(14.770)*** | -1.313<br>(2.106)     | -24.369<br>(5.996)*** |
| News-sec-1     |                         | 200.834<br>(29.941)*** |                       | 44.123<br>(7.640)***  |
| News-nus-1     |                         | 23.038<br>(15.971)     |                       | 18.710<br>(5.944)***  |
| News-su-1      |                         | 35.294<br>(14.658)**   |                       | 29.394<br>(6.101)***  |
| News-2         | -.258<br>(11.259)       | -.280<br>(8.550)       | -.903<br>(2.876)      | -.903<br>(2.255)      |
| News-3         | 0.006<br>(10.124)       | 0.006<br>(8.501)       | -1.028<br>(2.508)     | -1.028<br>(2.313)     |
| GDP            | 0.22<br>(2.372)         | 0.194<br>(2.407)       | 0.23<br>(0.638)       | 0.23<br>(0.643)       |
| Univ           |                         | 1.270<br>(3.315)       | 2.077<br>(0.975)**    | 2.077<br>(0.941)**    |
| Popul          | 64.784<br>(30.607)**    | 44.553<br>(55.139)     | 19.621<br>(15.564)    | 19.621<br>(14.929)    |
| N              | 484                     | 484                    | 464                   | 464                   |
| R <sup>2</sup> | 0.353                   | 0.421                  | 0.365                 | 0.407                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_sec, News\_nus, News\_su are the interaction between our dummy variable that indicates the employees level of education and the contemporaneous value of the News variable. The suffix sec, su, su indicates that the maximum level of education achieved by the respondent is secondary, non superior university, superior university, respectively. Similarly, News\_sec, News\_nus, News\_su 1, represents this same interaction using the first lag of the News variable.

**Table 54:** Education Panel: Average Income - Pool

|                | Overall Income         |                        | Formal Income          |                        |
|----------------|------------------------|------------------------|------------------------|------------------------|
|                | (1)                    | (2)                    | (3)                    | (4)                    |
| News           | -92.501<br>(13.391)*** | -57.915<br>(12.695)*** | -91.330<br>(12.602)*** | -55.247<br>(12.396)*** |
| News-sec       | 28.450<br>(12.291)**   | 18.205<br>(14.220)     | 38.733<br>(11.335)***  | 24.344<br>(13.206)*    |
| News-nus       | 78.602<br>(10.306)***  | 48.356<br>(12.011)***  | 93.396<br>(10.135)***  | 56.484<br>(11.887)***  |
| News-su        | 263.841<br>(21.126)*** | 165.989<br>(24.905)*** | 234.363<br>(17.961)*** | 141.331<br>(21.026)*** |
| News-1         | -2.009<br>(7.181)      | -53.716<br>(12.331)*** | 1.026<br>(5.887)       | -52.585<br>(12.326)*** |
| News-sec-1     |                        | 15.317<br>(13.768)     |                        | 21.379<br>(13.067)     |
| News-nus-1     |                        | 45.219<br>(11.619)***  |                        | 54.841<br>(11.766)***  |
| News-su-1      |                        | 146.289<br>(25.507)*** |                        | 138.222<br>(20.777)*** |
| News-2         | -1.381<br>(9.084)      | -1.381<br>(6.930)      | 0.265<br>(8.070)       | 0.265<br>(6.083)       |
| News-3         | -4.268<br>(8.277)      | -4.268<br>(6.994)      | -.263<br>(7.226)       | -.263<br>(6.279)       |
| GDP            | 1.062<br>(1.705)       | 1.062<br>(1.723)       | 0.912<br>(1.444)       | 0.912<br>(1.451)       |
| Univ           | 4.657<br>(3.069)       | 4.657<br>(2.939)       | 2.757<br>(2.565)       | 2.757<br>(2.442)       |
| Popul          | 50.274<br>(57.603)     | 50.274<br>(54.532)     | 90.725<br>(42.594)**   | 90.725<br>(40.014)**   |
| N              | 444                    | 444                    | 464                    | 464                    |
| R <sup>2</sup> | 0.392                  | 0.445                  | 0.4                    | 0.456                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_sec, News\_nus, News\_su are the interaction between our dummy variable that indicates the employees level of education and the contemporaneous value of the News variable. The suffix sec, su, su indicates that the maximum level of education achieved by the respondent is secondary, non superior university, superior university, respectively. Similarly, News\_sec, News\_nus, News\_su 1, represents this same interaction using the first lag of the News variable.

**Table 55: Age Panel: Employment - Fixed Effects**

|                | Overall Employment   |                      | Formal Employment     |                      |
|----------------|----------------------|----------------------|-----------------------|----------------------|
|                | (1)                  | (2)                  | (3)                   | (4)                  |
| News           | 2.556<br>(2.235)     | 1.092<br>(1.179)     | 0.767<br>(2.872)      | -.633<br>(1.603)     |
| News-adul      | -9.164<br>(1.659)*** | -5.479<br>(1.129)*** | -10.783<br>(1.587)*** | -6.634<br>(1.074)*** |
| News-old       | -.683<br>(3.305)     | 0.02<br>(2.199)      | 1.074<br>(3.162)      | 1.124<br>(2.092)     |
| News-1         | -.450<br>(0.672)     | 2.540<br>(1.478)*    | -1.921<br>(0.627)***  | 0.924<br>(1.962)     |
| News-adul-1    |                      | -7.510<br>(1.076)*** |                       | -8.436<br>(1.024)*** |
| News-old-1     |                      | -1.461<br>(2.246)    |                       | -.098<br>(2.138)     |
| News-2         | -.262<br>(0.468)     | -.263<br>(0.468)     | -1.526<br>(0.704)**   | -1.526<br>(0.706)**  |
| News-3         | 0.159<br>(0.694)     | 0.159<br>(0.696)     | -1.847<br>(0.743)**   | -1.847<br>(0.745)**  |
| GDP            | 0.311<br>(0.061)***  | 0.312<br>(0.059)***  | 0.493<br>(0.173)***   | 0.493<br>(0.171)***  |
| Univ           | 2.050<br>(1.145)*    | 2.057<br>(1.135)*    | 3.393<br>(1.426)**    | 3.392<br>(1.414)**   |
| Popul          | 160.905<br>(83.542)* | 160.513<br>(83.504)* | 30.590<br>(79.935)    | 30.632<br>(79.462)   |
| N              | 390                  | 390                  | 390                   | 390                  |
| R <sup>2</sup> | 0.818                | 0.821                | 0.737                 | 0.743                |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_adul, News\_old, are the interaction between our dummy variable that indicates the age group which the respondent belongs to and the contemporaneous value of the News variable. The suffix adul and old, indicates that the respondent's age lies between 25-45 and 45-65 years old; respectively. Similarly, News\_adul and News\_old 1, represents this same interaction using the first lag of the News variable.

**Table 56:** Age Panel: Average Income - Fixed Effects

|                | Overall Income         |                        | Formal Income          |                        |
|----------------|------------------------|------------------------|------------------------|------------------------|
|                | (1)                    | (2)                    | (3)                    | (4)                    |
| News           | -.607<br>(1.062)       | -.667<br>(0.659)       | -2.079<br>(1.263)*     | -1.593<br>(0.449)***   |
| News-adul      | -.685<br>(0.717)       | 0.182<br>(0.491)       | 0.615<br>(1.070)       | 0.746<br>(0.742)       |
| News-old       | 6.324<br>(1.284)***    | 5.655<br>(0.861)***    | -.064<br>(2.133)       | -1.644<br>(1.445)      |
| News-1         | -1.201<br>(0.536)**    | -1.111<br>(0.752)      | -.464<br>(1.288)       | -1.488<br>(0.68)**     |
| News-adul-1    |                        | -1.710<br>(0.454)***   |                        | -.224<br>(0.707)       |
| News-old-1     |                        | 1.450<br>(0.849)*      |                        | 3.296<br>(1.476)**     |
| News-2         | -2.520<br>(0.196)***   | -2.516<br>(0.194)***   | -.886<br>(0.508)*      | -.885<br>(0.511)*      |
| News-3         | -2.702<br>(0.734)***   | -2.696<br>(0.736)***   | -1.857<br>(0.531)***   | -1.857<br>(0.532)***   |
| GDP            | 1.304<br>(0.16)***     | 1.301<br>(0.159)***    | 1.804<br>(0.212)***    | 1.801<br>(0.209)***    |
| Univ           | 4.547<br>(0.505)***    | 4.535<br>(0.506)***    | 3.691<br>(0.956)***    | 3.673<br>(0.977)***    |
| Popul          | 180.212<br>(24.442)*** | 181.060<br>(24.351)*** | 224.090<br>(53.912)*** | 225.122<br>(54.873)*** |
| N              | 333                    | 333                    | 390                    | 390                    |
| R <sup>2</sup> | 0.933                  | 0.934                  | 0.904                  | 0.904                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_adul, News\_old, are the interaction between our dummy variable that indicates the age group which the respondent belongs to and the contemporaneous value of the News variable. The suffix adul and old, indicates that the respondent's age lies between 25-45 and 45-65 years old; respectively. Similarly, News\_adul and News\_old 1, represents this same interaction using the first lag of the News variable.

**Table 57: Age Panel: Employment - Pool**

|                | Overall Employment    |                       | Formal Employment     |                       |
|----------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                | (1)                   | (2)                   | (3)                   | (4)                   |
| News           | -27.383<br>(4.499)*** | -17.085<br>(4.213)*** | -29.835<br>(4.227)*** | -19.254<br>(3.758)*** |
| News-adul      | 31.574<br>(4.840)***  | 20.006<br>(5.097)***  | 26.394<br>(4.515)***  | 16.247<br>(4.646)***  |
| News-old       | 50.527<br>(5.333)***  | 31.208<br>(6.831)***  | 56.618<br>(4.733)***  | 35.038<br>(5.616)***  |
| News-1         | -.424<br>(3.025)      | -15.696<br>(4.620)*** | -1.909<br>(2.516)     | -17.263<br>(3.855)*** |
| News-adul-1    |                       | 16.861<br>(5.304)***  |                       | 13.454<br>(4.712)***  |
| News-old-1     |                       | 28.953<br>(7.052)***  |                       | 32.606<br>(5.792)***  |
| News-2         | -.066<br>(2.703)      | -.066<br>(2.759)      | -1.442<br>(2.414)     | -1.441<br>(2.299)     |
| News-3         | 0.154<br>(2.865)      | 0.154<br>(2.531)      | -1.849<br>(2.519)     | -1.849<br>(2.119)     |
| GDP            | -.790<br>(0.459)*     | -.792<br>(0.47)*      | 0.02<br>(0.46)        | 0.011<br>(0.465)      |
| Univ           | -3.760<br>(0.381)***  | -3.771<br>(0.385)***  | 0.896<br>(0.353)**    | 0.852<br>(0.35)**     |
| Popul          | 493.029<br>(6.877)*** | 493.652<br>(7.214)*** | 173.283<br>(6.053)*** | 175.798<br>(6.243)*** |
| N              | 390                   | 390                   | 390                   | 390                   |
| R <sup>2</sup> | 0.963                 | 0.964                 | 0.828                 | 0.842                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_adul, News\_old, are the interaction between our dummy variable that indicates the age group which the respondent belongs to and the contemporaneous value of the News variable. The suffix adul and old, indicates that the respondent's age lies between 25-45 and 45-65 years old; respectively. Similarly, News\_adul and News\_old 1, represents this same interaction using the first lag of the News variable.

**Table 58: Age Panel: Average Income - Pool**

|                | Overall Income        |                       | Formal Income         |                       |
|----------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                | (1)                   | (2)                   | (3)                   | (4)                   |
| News           | -58.544<br>(8.812)*** | -36.110<br>(8.083)*** | -62.212<br>(8.573)*** | -38.038<br>(7.870)*** |
| News-adul      | 58.023<br>(8.218)***  | 35.263<br>(8.112)***  | 63.978<br>(8.101)***  | 38.478<br>(8.047)***  |
| News-old       | 119.148<br>(9.577)*** | 74.677<br>(11.239)*** | 116.031<br>(8.622)*** | 69.030<br>(10.017)*** |
| News-1         | -1.522<br>(3.960)     | -34.379<br>(7.833)*** | -.475<br>(3.966)      | -36.002<br>(8.014)*** |
| News-adul-1    |                       | 31.689<br>(7.874)***  |                       | 35.893<br>(8.009)***  |
| News-old-1     |                       | 66.910<br>(10.566)*** |                       | 70.687<br>(10.001)*** |
| News-2         | -3.078<br>(5.081)     | -3.061<br>(3.871)     | -.972<br>(4.962)      | -.970<br>(3.909)      |
| News-3         | -3.432<br>(4.524)     | -3.409<br>(3.923)     | -1.855<br>(4.278)     | -1.855<br>(3.806)     |
| GDP            | 1.703<br>(0.872)*     | 1.691<br>(0.879)*     | 2.291<br>(0.913)**    | 2.280<br>(0.909)**    |
| Univ           | 6.171<br>(0.811)***   | 6.120<br>(0.769)***   | 6.259<br>(0.741)***   | 6.202<br>(0.709)***   |
| Popul          | 67.103<br>(10.228)*** | 70.594<br>(10.434)*** | 77.303<br>(9.152)***  | 80.551<br>(9.393)***  |
| N              | 333                   | 333                   | 390                   | 390                   |
| R <sup>2</sup> | 0.559                 | 0.599                 | 0.573                 | 0.612                 |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_adul, News\_old, are the interaction between our dummy variable that indicates the age group which the respondent belongs to and the contemporaneous value of the News variable. The suffix adul and old, indicates that the respondent's age lies between 25-45 and 45-65 years old; respectively. Similarly, News\_adul and News\_old 1, represents this same interaction using the first lag of the News variable.

**Table 59: Gender Panel: Employment - Fixed Effects**

|                | Overall Employment     |                        | Formal Employment    |                      |
|----------------|------------------------|------------------------|----------------------|----------------------|
|                | (1)                    | (2)                    | (3)                  | (4)                  |
| News           | -.443<br>(0.143)***    | -.175<br>(0.139)       | -1.479<br>(1.924)    | -2.294<br>(1.116)**  |
| News-male      | -1.349<br>(0.052)***   | -1.884<br>(0.033)***   | -4.448<br>(0.099)*** | -2.818<br>(0.063)*** |
| News-1         | -.769<br>(0.278)**     | -1.314<br>(0.295)***   | -2.956<br>(0.45)***  | -1.297<br>(1.201)    |
| News-male-1    |                        | 1.089<br>(0.038)***    |                      | -3.317<br>(0.074)*** |
| News-2         | -.497<br>(0.52)        | -.497<br>(0.521)       | -2.375<br>(0.477)*** | -2.375<br>(0.478)*** |
| News-3         | 0.047<br>(0.966)       | 0.047<br>(0.968)       | -2.877<br>(0.55)***  | -2.877<br>(0.551)*** |
| GDP            | 0.365<br>(0.356)       | 0.365<br>(0.357)       | 0.645<br>(0.232)***  | 0.647<br>(0.232)***  |
| Univ           | 2.452<br>(0.211)***    | 2.450<br>(0.211)***    | 4.609<br>(0.115)***  | 4.615<br>(0.115)***  |
| Popul          | 189.689<br>(11.897)*** | 189.761<br>(11.922)*** | 50.099<br>(22.917)** | 49.878<br>(22.970)** |
| N              | 260                    | 260                    | 260                  | 260                  |
| R <sup>2</sup> | 0.947                  | 0.947                  | 0.935                | 0.936                |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_male is the interaction between our dummy variable that indicates if the respondent is a male and the contemporaneous value of the News variable. Similarly, News\_male 1 represents this same interaction using the first lag of the News variable.

**Table 60: Gender Panel: Average Income - Fixed Effects**

|             | Overall Income        |                       | Formal Income          |                        |
|-------------|-----------------------|-----------------------|------------------------|------------------------|
|             | (1)                   | (2)                   | (3)                    | (4)                    |
| News        | 4.031<br>(3.444)      | 2.718<br>(2.118)      | 1.289<br>(2.059)       | 0.456<br>(1.227)       |
| News-male   | -5.916<br>(0.001)***  | -3.304<br>(0.0006)*** | -5.225<br>(0.058)***   | -3.560<br>(0.037)***   |
| News-1      | -1.574<br>(0.294)***  | 1.078<br>(2.416)      | -.592<br>(0.368)       | 1.102<br>(1.334)       |
| News-male-1 |                       | -5.310<br>(0.0007)*** |                        | -3.388<br>(0.043)***   |
| News-2      | -2.323<br>(0.133)***  | -2.328<br>(0.133)***  | -.709<br>(0.179)***    | -.709<br>(0.179)***    |
| News-3      | -3.488<br>(0.888)***  | -3.495<br>(0.89)***   | -1.634<br>(0.512)***   | -1.633<br>(0.514)***   |
| GDP         | 1.245<br>(0.05)***    | 1.248<br>(0.05)***    | 1.492<br>(0.208)***    | 1.493<br>(0.208)***    |
| Univ        | 4.509<br>(1.519)***   | 4.524<br>(1.522)***   | 3.417<br>(0.603)***    | 3.423<br>(0.604)***    |
| Popul       | 138.328<br>(0.227)*** | 137.590<br>(0.202)*** | 155.760<br>(13.426)*** | 155.534<br>(13.458)*** |
| N           | 222                   | 222                   | 260                    | 260                    |
| $R^2$       | 0.927                 | 0.928                 | 0.921                  | 0.922                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_male is the interaction between our dummy variable that indicates if the respondent is a male and the contemporaneous value of the News variable. Similarly, News\_male 1 represents this same interaction using the first lag of the News variable.

**Table 61: Gender Panel: Employment - Pool**

|                | Overall Employment     |                        | Formal Employment      |                        |
|----------------|------------------------|------------------------|------------------------|------------------------|
|                | (1)                    | (2)                    | (3)                    | (4)                    |
| News           | -52.405<br>(7.730)***  | -31.748<br>(6.561)***  | -16.389<br>(2.338)***  | -11.459<br>(2.167)***  |
| News-male      | 102.718<br>(7.636)***  | 61.427<br>(8.746)***   | 25.812<br>(2.599)***   | 15.957<br>(3.337)***   |
| News-1         | -1.044<br>(4.933)      | -31.888<br>(6.620)***  | -3.359<br>(1.825)*     | -10.721<br>(2.214)***  |
| News-male-1    |                        | 61.716<br>(8.596)***   |                        | 14.729<br>(3.187)***   |
| News-2         | -1.092<br>(5.968)      | -1.054<br>(4.624)      | -3.197<br>(2.242)      | -3.187<br>(1.954)      |
| News-3         | -.703<br>(5.654)       | -.663<br>(4.702)       | -3.971<br>(1.973)**    | -3.962<br>(1.896)**    |
| GDP            | 0.804<br>(1.078)       | 0.748<br>(1.095)       | 1.038<br>(0.462)**     | 1.025<br>(0.468)**     |
| Popul          | 251.140<br>(28.823)*** | 253.274<br>(28.054)*** | 182.267<br>(11.387)*** | 182.776<br>(11.350)*** |
| N              | 260                    | 260                    | 260                    | 260                    |
| R <sup>2</sup> | 0.52                   | 0.569                  | 0.746                  | 0.757                  |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_male is the interaction between our dummy variable that indicates if the respondent is a male and the contemporaneous value of the News variable. Similarly, News\_male 1 represents this same interaction using the first lag of the News variable.

**Table 62:** Gender Panel: Average Income - Pool

|                | Overall Income         |                        | Formal Income          |                        |
|----------------|------------------------|------------------------|------------------------|------------------------|
|                | (1)                    | (2)                    | (3)                    | (4)                    |
| News           | -36.094<br>(6.071)***  | -21.596<br>(5.036)***  | -44.586<br>(7.005)***  | -27.625<br>(6.135)***  |
| News-male      | 76.633<br>(6.565)***   | 47.710<br>(7.968)***   | 86.777<br>(6.743)***   | 52.873<br>(7.974)***   |
| News-1         | -1.522<br>(4.267)      | -23.129<br>(5.190)***  | -.939<br>(4.446)       | -26.264<br>(6.420)***  |
| News-male-1    |                        | 43.274<br>(7.638)***   |                        | 50.675<br>(8.024)***   |
| News-2         | -2.373<br>(5.453)      | -2.313<br>(4.319)      | -1.443<br>(5.361)      | -1.412<br>(4.299)      |
| News-3         | -3.460<br>(4.999)      | -3.386<br>(4.458)      | -2.577<br>(4.920)      | -2.544<br>(4.266)      |
| GDP            | 1.349<br>(1.042)       | 1.301<br>(1.047)       | 1.965<br>(0.986)**     | 1.919<br>(0.987)*      |
| Popul          | 293.549<br>(33.903)*** | 296.008<br>(32.185)*** | 246.746<br>(25.391)*** | 248.498<br>(24.582)*** |
| N              | 222                    | 222                    | 260                    | 260                    |
| R <sup>2</sup> | 0.561                  | 0.594                  | 0.552                  | 0.59                   |

Note: Robust standard errors calculated by clusters at each category level for every panel are reported in parentheses, \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%. The variables News\_male is the interaction between our dummy variable that indicates if the respondent is a male and the contemporaneous value of the News variable. Similarly, News\_male 1 represents this same interaction using the first lag of the News variable.