Reading books and socioeconomic and demographic characteristics: Mexico in the early XXI century

Jorge FERNÁNDEZ-RUIZ

El Colegio de México

Resumen

La existencia de bajos índices de lectura en México, así como la importancia de la lectura en el desarrollo de las personas y los países han sido reconocidos en múltiples foros académicos, culturales y políticos. Este trabajo pretende contribuir al conocimiento de los hábitos de lectura en México, analizando la relación entre la lectura de libros y diversas características sociodemográficas, haciendo uso técnicas de regresión y datos de la Encuesta Nacional de Lectura 2006. Los resultados de los ejercicios de tipo multivariante confirman la influencia de la edad, la escolaridad, el nivel socioeconómico y la educación de la madre como importantes variables explicativas de la probabilidad de que un individuo lea libros. En particular, se encontró que la probabilidad de que un individuo del nivel socioeconómico muy bajo lea libros aumenta sustancialmente conforme aumenta la escolaridad materna.

Palabras clave: lectura, lectura de libros, hábitos de lectura, características socioeconómicas, características demográficas, México.

Abstract

Book reading and socioeconomic and demographic characteristics: Mexico at the beginning of the twenty-first century

The existence of low reading rates in Mexico as well as the importance of reading in the development of both individuals and countries has been recognized in multiple academic, cultural and political forums. This paper tries to add to our understanding of reading habits in Mexico by performing an analysis of the relationship between book reading and several socioeconomic and demographic characteristics based on the Encuesta Nacional de Lectura 2006. The multivariate exercises results confirm the influence of age, schooling, socioeconomic level and education of the mother as important explanatory variables of the probability that an individual reads books. We found, in particular, that the probability that an individual of very low socioeconomic level reads books increases with maternal education.

Key words: reading, book reading, reading habits, socioeconomic characteristics, demographic characteristics, Mexico.

Introduction

In the public discussion on the problems of contemporary Mexico, the fact that reading has enormous benefits in promoting the development of individuals and society has been frequently emphasized, both in academical and political forums. In fact, this appreciation has been grasped in government programs that have collected what seems to be a broad

consensus on these facts. As an example, the National Program of Culture 2001-2006 (Conaculta (Consejo Nacional para la Cultura y las Artes, *National Council for Culture and Arts*, 2001) indicates that:

> Reading is a definitive component of education and human development. Reading broadens and enhances knowledge, the way you see and integrate into the world, understanding of social processes, the needs and deficiencies of a country and its people; it expands horizons and by means of it, the value of the written word, the individual can approach any area of knowledge in order to understand it, and also all the creative activities for their enjoyment and appreciation (Conaculta, 2001: 42).

On the other hand, several academic articles (Corona Berkin, 2004; Chávez Méndez, 2005; Del Ángel and Rodríguez, 2007, and Gutiérrez Valencia, 2005) have indicated that reading rates in Mexico are very low. For example, Gutiérrez Valencia (2005) cites several studies of the OCDE and the United Nations Educational, Scientific and Cultural Organization (UNESCO) on the reading situation internationally, which confirm that, indeed, reading in Mexico is very scarce compared with other countries in the world, even in Latin America.

The diagnosis of reading rates in Mexico being very low also appears in the program mentioned above:

> In recent years the awareness that reading rates in Mexico are much lower than those required by the development of the countries and than those supposed by the attained level of literacy has been stressed (Conaculta, 2001:153).

These facts naturally lead to consider the encouragement of reading as an unavoidable task and, in the context of this proposal; books appear in a privileged place:

> Raising the levels of book reading, indispensable for the formation of capable readers, is now an urgent task…Reading, especially books, is a fundamental factor for the improvement of people and nations. The level of development of a country can enve be measured by the number and quality of its readers, as well as by the infrastructure that supports reading and writing (Conaculta, 2001: 153).

This work aims to contribute to learn the habits of book reading in Mexico in the early twenty-first century from a quantitative perspective. More precisely, we focus on the analysis of the relation between socio-demographic characteristics and the fact that people read books or not, using multivariate regression techniques.

We used as a data source the National Survey on Reading 2006 (Conaculta, 2006) because it is the most complete and recent information existent for this purpose.[1]

We recognize that reading books is not the only type of reading possible, neither does it provide a complete picture of the behavior of the readers,[2] but it is an important face of it, and given the fundamental role assigned to it in the discussions and public policies, reading becomes an esential aspect of study.

In broad terms, we find that the variables of age, educational level, socioeconomic status and the educational level of the mother significantly influence the probability for an individual to read books. Our results also show evidence of interactions in the effects of these variables. For example, the probability that an individual of a very low socioeconomic status reads books increases substantially as maternal education does. By contrast, in higher socioeconomic levels, this probability increases much less with increasing maternal education and in some cases, it does not even register a statistically significant increase. We also found evidence, however less conclusive, of interactions between education and socioeconomic status.

To present our analysis and results we proceed, in the rest of this paper, as follows. In section 1 we show statistics of what percentage of people report to read books, both nationally and for various segments of the population, grouped by sex, age, education, socioeconomic status, education level of the parents and the condition of speaking an indigenous language. These statistics are a first approximation to the study of the relation each variable has with reading books, for example, the proportion of readers is higher among better educated segments. However, since the reading behavior can, at first, depend not only on the level of education, but also on socioeconomic status, age, and other characteristics, it is necessary to somehow control these other variables, to determine the influence of education level on reading behavior. Statistics shown in this section examine the relation between reading behavior and each demographic and socioeconomic variable separately, without considering that all of them can influence such behavior and this influence must be controlled in order to determine the effect of each variable in the behavior of readers and non readers.

[1] A quantitative research on reading in Mexico, prior to ENL, is the one by Chávez Méndez (2005), and the references cited there, in particular: Chávez Méndez (2002), which presents the details of a 1993 survey in which these analysis are supported.

[2] Some of the studies analyzing other types of reading using different approaches are used in Escalante (2008), Kalman (2003), Peredo (2003), and the references cited therein. See Vázquez (1988) for a history of reading in Mexico.

In section 2 we specify a conventional model that serves as a basis for the several multivariate regression exercises. With them we find the relations between reading behavior and the different demographic and socioeconomic variables simultaneously. The results of these exercises are presented in section 3 and they allow us to establish the relationship between reading behavior and each of the variables, maintaining constant values of other relevant demographic and socioeconomic variables. Additionally, these exercises take into account that the opportunities and motivation for reading can also depend on factors that differ depending on the residence of the individual. More precisely, a relation is postulated, in which the decision of reading depends both on certain demographic and socioeconomic variables of the individual and their family environment and on the place of residence. Section 4 shows the interactions that verify the effect of an explanatory variable on the probability of reading.

Sections 5 and 6 consider various extensions to the previous exercises. Section 5 examines different variants to maternal education as an explanatory variable, and section 6 examines the consequences of including the reading carried out by individuals as part of their job, as an explanatory variable. In both sections we find that the analyzed modifications do not significantly alter the results shown in section 4.

Reading books in Mexico

In order to study reading habits in Mexico we used as an information source the National Survey on Reading 2006 (Conaculta, 2006) (hereinafter ENL, *Encuesta Nacional de Lectura*), which was performed from November 1st to December 7th, 2005, the target population was people who were 12 years of age and older that inhabit a particular household. 4057 questionnaires were applied in 29 states, 136 municipalities and six regions of the country. It is representative at a national level, in six regions of the country, in the three largest metropolitan areas (Mexico City, Guadalajara and Monterrey) and in six layers of population in which the municipalities were divided.

ENL provides information on multiple facets of reading for the respondents. Out of these, in this paper, we focus on learning whether people read books, for which we base ourselves on the question: "Do you read books?" which appears in the questionnaire. We selected this question because it seems to be a natural starting point for analyzing book reading, before delving into how, when, what and where people read.

When analyzing the relations with the socio-demographic variables, we consider the variables that have been chosen in similar studies.[3] In the next section we abound in the justification for these variables in the framework of a binary choice conventional model.

Table 1 gives us a first glimpse of how reading behavior changes with different demographic and socioeconomic characteristics. This table presents estimates based on ENL of the percentage of people who reported reading books nationally and for various groups of individuals. In it we see that 56.4 percent of the people declare reading books at national level and, below, which values this percentage takes in different segments of the population, grouped according to several demographic and socioeconomic characteristics.

The propensity to read books is very similar among men and women: the percentage of men who report to read books (56.7 percent) is virtually equal to the percentage of women who report to read books (56.1 percent).

Regarding age, there are differences in the percentage of book readers among different age groups. Individuals aged from18 to 22 years of age are most likely to read (69.7 percent does), followed by those between 12 and 17 years of age (66.6 percent). At the other end, among individuals 56 years and older, only four percent declare to read books.

The percentage of readers differs markedly among groups of people of different educational level; we observe a larger percentage of readers as we consider higher educational levels. Thus, only 20 percent of the people with no formal education declare to read books, a percentage that increases to 46.8 percent among those with elementary education and reaches 76.6 percent among those with university studies.

The percentage of readers also differs among different socioeconomic groups. Whereas only 37 percent of the people from a very low socioeconomic status report to read books, this percentage increases to 48.9 percent for the low socioeconomic status and continues to grow as we consider higher levels up to a maximum of 79.2 percent for the middle socioeconomic status. It is interesting to observe that in the middle-high/ high socioeconomic status, a percentage slightly lower than the previous (75.9 percent) report to read books.

The percentage of book readers varies between the groups formed according to the educational level of the parents. The lowest percentages of readers are observed in the group of people whose mother or father has not formal education (38.8 and 44.1 percent, respectively).

[3] For example: National Endowment for the Arts (2004).

TABLE 1
READING BOOKS, ACCORDING TO GENDER, AGE, SCHOOLING, SOCIOECONOMIC LEVEL, SCHOOLING OF THE MOTHER AND FATHER AND CONDITION OF INDIGENOUS LANGUAGE SPEAKER (PERCENTAGE)

	Do you read books				Total
	Yes	No	DK	NA	
Gender					
National	56.4	43.5	0.0	0.1	100.0
Man	56.7	43.2	0.0	0.1	100.0
Woman	56.1	43.7	0.0	0.1	100.0
Age					
12 to 17 years	66.6	33.2	0.1	0.1	100.0
18 to 22 years	69.7	30.2		0.1	100.0
23 to 30 years	52.6	47.1		0.3	100.0
31 to 45 years	54.8	45.1		0.2	100.0
46 to 55 years	52.8	47.1	0.0		100.0
56 years and older	41.0	59.0			100.0
Schooling					
None	20.0	79.9	0.1		100.0
Elementary	43.8	56.1		0.2	100.0
Secondary	55.7	44.2	0.0	0.0	100.0
High school	60.5	39.2	0.0	0.3	100.0
University and higher	76.6	23.3		0.1	100.0
Socioeconomic level					
Very low	37.0	62.9	0.0		100.0
Low	48.9	50.8	0.0	0.3	100.0
Mid low	57.1	42.9	0.0	0.0	100.0
Mid	79.2	20.7		0.1	100.0
Mid high / high	75.9	24.1			100.0
Schooling of the mother					
None	38.8	60.9	0.1	0.2	100.0
Elementary	59.2	40.8			100.0
Secondary	62.1	37.5	0.0	0.4	100.0
High school	75.1	24.8		0.1	100.0
University	72.1	27.9			100.0
Schooling of the father					
None	44.1	55.5	0.1	0.2	100.0
Elementary	55.5	44.5			100.0
Secondary	62.0	37.5		0.4	100.0
High school	71.2	28.5		0.3	100.0
University	78.7	21.3			100.0
Indigenous language speaker					
Yes, speaker	33.3	66.5	0.3		100.0
Do not speak, understand it	53.7	46.3			100.0
Neither speak nor understand	56.4	434	0.0	0.2	100.0
Do not speak, write it	74.1	25.9			100.0
DK	59.2	408			100.0
NA	74.4	25.6			100.0

Source: Encuesta Nacional de Lectura 2006.

From there, in general, there are higher percentages with increasing education of the parents. One exception is that the percentage of readers is greater when the mother has high school education (75.1 percent) than when she has a university degree (72.1 percent).

Finally, the percentage of readers is notably lower among people who speak an indigenous language (33 percent) than among those who do not (that is, for example, 56.4 percent among those who neither speak nor understand it).

Table 1 gives us a first idea of how the different demographic and socioeconomic characteristics are associated with the reading behavior. However, it has the problem of examining each variable in isolation without considering the others. For example, it tells us that the group of people who have parents without formal education read much less than other people, without considering that these groups of people can differ from others in other characteristics that also affect their propensity to be readers (such as their socioeconomic status or their own educational level). To approach this problem, in the next section, we make a multivariate analysis, one of its advantages is precisely that considering the relation of reading behavior with each demographic or socioeconomic variable is held constant the values of other variables that might influence such behavior.

The model

We postulate a conventional model that attempts to explain the behavior of a variable than can take only two values, corresponding to two possible alternatives from which an individual can choose, parting from a set of independent variables that influence the relative attractiveness of these two alternatives.

In our case, each individual faces an election between reading and not reading books, that may be represented formally by the maximization of an utility function: individual I reaches utility Ui 1 if they choose to read books and the utility Ui 0 if they choose not to, where:

$$U_{ij} = x_i' \beta_j + \varepsilon_{ij} \quad (j = 0, 1) \qquad (1)$$

This is to say, the utility U_{ij}, obtained by the individual *i* when choosing the alternative *j* depends on a vector of characteristics x_i, and a random error ε_{ij}. Both the characteristics and the random component vary from individual to individual.

The individual *i* will choose to read books (j = 1) if, $u_{i1} \geq u_{i0}$, which is the same as:

$$Y_i^* = U_{i1} - U_{i0} = x_i'(\beta_1 - \beta_0) + \varepsilon_{i1} - \varepsilon_{i0} \geq 0 \qquad (2)$$

Let us define the dichotomous variable Y_i so that it represents the decision *i* of the individual, considering the value of one if they choose to read books and zero if they choose not to. We will have, then:

$Y_i = 1$ if $Y_i^* \geq 0$
$Y_i = 0$ if $Y_i^* < 0$

And therefore, the probability to choose to read books is given by:

$$\text{Prob}(Y_i = 1) = \text{Prob}(Y_i^* \geq 0 = \text{Prob}(x_i'(\beta_1 - \beta_0) \geq \varepsilon_{i0} - \varepsilon_{i1}) = F(x_i'(\beta_1 - \beta_0)) \qquad (4)$$

Where F is the accumulative distribtion function $u_1 = (\varepsilon_{i0} - \varepsilon_{i1})$

From here, we can obtain both the *probit* and *logit* models, depending on our supposing a normal or a logistic distribution, respectively, for the difference of random errors. Alternatively, if we abandon the idea of F as a distribution function, we can formally obtain the linear probability model from equation (4). This model has the disadvantage that for some values of the x_i characteristics it generates probabilities negative or greater than one, but it is more easily interpreted, especially when interaction variables are included.[4]

The vector x_i, of variables that influence the decision of an individual to read or not, includes both personal (and family) characteristics as their place of residence. Among the first, their educational level and socioeconomic status stand out. It is possible for their education to influence, not only if they can read and how well they can do it, but also their preferences for doing it, and it is possible for their socioeconomic status to influence, as well, over their capacity to buy books (via their budget constraint). Additionally, we consider their age, sex, education of parents and if they speak an indigenous language. All these variables can, at first, affect both the facility to access different types of books, and their ability and preferences for reading. On the other hand, there are variables that also affect the U_{ij} utilities of reading and not reading books and that vary depending on the place where the individual lives, such as the existence and quality of libraries and bookstores (or book clubs), and the facility and conditions under which they can access them and the conditions under which they can – price, available titles, waiting time, among others.

[4] In our case, all three models will provide similar results.

Results

In this section we present the results of diverse regressions that explain the probability that a person reads books, using as explanatory variables, both personal and family characteristics of the individual —sex, age, education, socioeconomic status, education of the mother,[5] and indigenous language speaker condition[6]— and their place of residence. Regarding the place of residence, we use two alternative ways of measurement, that of the municipality of residence (i.e., fixed effects for the municipality are included) and that of the metropolitan area of residence. The difference between the two formulations arises because there are metropolitan areas that include several municipalities. Then, when two people live in different municipalities of the same metropolitan area, they are considered to live in the same place when using the metropolitan area concept; but it will be understood that they live in different places if using the municipality concept. The utilized definition of metropolitan is the one provided by the National Population Council (*Consejo Nacional de Poblacion,* CONAPO), the National Institute of Statistics and Geography (*Instituto Nacional de Estadística y Geografía* INEGI) and Sedesol (*Secretaria de Desarrollo Social*, Secretariat of Social Development) (2004).[7]

The conventional way to treat the case of a dichotomous dependent variable such as the present one is by *probit* y *logit* regressions, various versions are shown in appendix table A.1. However, given that these regressions include fixed effects (of the place of residence), their estimation may turn out highly inconsistent.[8] Because of this, we estimate a conditional *logit* model as well (Chamberlain, 1980)[9] and a linear probability model (LPM), obtaining the results shown in tables 2 and 3, respectively. Both models yielded similar results —which turned out to be similar to those in table A.1 in the appendix—. Because the MPL has a simple interpretation —especially when interaction effects are included, as it will occur later— it will be the one we focus our attention on.

[5] Later we explore the consequences of incorporating the education of the father as an additional variable or to replace education of the mother.
[6] Both the independent variables and the explanatory variables (except in the case of the definition of the metropolitan areas) are taken from the ENL. See Conaculta (2006) for details.
[7] Also see: Sobrino (2003)for an inmidiate antecedent of this work.
[8] See Andersen (1970) and Chamberlain (1980)
[9] Chamberlain (1980) is the standard reference model. Greene (1993) provides a detailed exposition of this model, the Linear Probability Model and related variables.

Let us now examine the effect of explanatory variables on the regressions in table 3. Column I shows the results of an MLP in which the municipality of residence of the individual is used as a control variable. Column II differs from column I in the fact that it only considers individuals at least 18 years of age, this is to say it excludes individuals between 12 and 17 years of age; it makes sense donig so because of the possibility that individuals between 12 and 17 have a completely different behavior from that of older individuals, mainly due to the decisions of their parents. Column III is similar to column I, and column IV is similar to column II. The difference in the first two columns is that they use the metropolitan area (which we call "city" in the tables for simplicity) as opposed to municipality (for the individual to which such distinction is relevant).

In general, sex is not relevant in the different specifications, such as occurred when analyzing the relationship between reading and sex without considering other variables. The age variable is indeed statistically significant. The group of adolescents (individuals between 12 and years of age) is the one that shows a greater tendency towards reading, followed by the group of individuals between 18 and 22, showing, both groups, a significant difference from the reference group (individuals between 23 and 30). When considering only individuals under 18, the coefficient of the group between 18 and 22 years of age appears significantly different from the reference group, once again.

The education variable uses as a reference the group of people with primary education. This variable has the expected sing and is generally significant. This result is also very robust, since it has proven to be true in all regressions. The probability that a person without formal education reads books is significantly lower than that of a person with primary education. By contrast, the probability that a person with university education reads books is significantly higher than that of a person with primary education.

Socioeconomic status is also significant, it has the expected sign and this is a robust result in different specifications. An individual of a low socioeconomic status is more likely to read books than an individual of a very low socioeconomic status (reference category) and this probability tends to increase with increasing socioeconomic status.

The educational level of the parents was captured with the variable education of the mother, being the reference category the on of no schooling. The coefficients are positive and significant, a result observed in the different specifications. As the education level of the mother increases,

TABLE 2
PROBABILITY OF READING BOOKS. LOGIT CONDITIONAL MODEL

	(I) Logit (≥ 12)	(II) Logit (≥ 17)	(III) Logit (≥ 12)	(IV) Logit (≥ 17)
Men	-0.129	-0.126	-0.116	-0.099
	(0.083)	(0.093)	(0.082)	(0.092)
12-17 years	1.012**		1.021**	
	(0.148)		(0.145)	
18-22 years	0.440**	0.431**	0.428**	0.426**
	(0.143)	(0.147)	(0.140)	(0.143)
31-45 years	0.259	0.319	0.202	0.268
	(0.160)	(0.165)	(0.159)	(0.163)
46-55 years	0.165	0.165	0.141	0.148
	(0.117)	(0.120)	(0.116)	(0.118)
56 or older	0.162	0.182	0.167	0.193
	(0.156)	(0.159)	(0.153)	(0.157)
None	-1.205**	-1.259**	-1.174**	-1.254**
Education	(0.289)	(0.303)	(0.286)	(0.301)
Secoandary	0.208	0.274*	0.160	0.221
	(0.113)	(0.126)	(0.111)	(0.124)
High school	0.499**	0.634**	0.493**	0.629**
	(0.138)	(0.154)	(0.136)	(0.152)
University	0.988**	1.062**	0.944**	1.049**
	(0.163)	(0.176)	(0.160)	(0.172)
Low SEL	0.249*	0.252	0.263*	0.262
	(0.127)	(0.144)	(0.126)	(0.142)
Mid-low SEL	0.421**	0.416**	0.444**	0.431**
	(0.139)	(0.157)	(0.137)	(0.153)
Mid SEL	0.756**	0.755**	0.756**	0.737**
	(0.175)	(0.195)	(0.172)	(0.191)
Mid-high and high	0.982**	1.113**	0.715**	0.764**
SEL	(0.270)	(0.308)	(0.249)	(0.279)
Sch. mother	0.335**	0.300*	0.338**	0.302*
Elementary	(0.117)	(0.125)	(0.115)	(0.123)
Sch. mother	0.548**	0.565**	0.524**	0.540**
secondary	(0.143)	(0.159)	(0.141)	(0.157)
Sch. mother	0.736**	0.727**	0.733**	0.714**
High school	(0.170)	(0.192)	(0.168)	(0.188)
Sch. mother	0.761**	0.707*	0.749**	0.673*
University	(0.256)	(0.289)	(0.250)	(0.281)
Speaker of Ind.	0.056	0.162	0.086	0.183
Language	(0.304)	(0.343)	(0.299)	(0.336)
Fixed effects	Municipality	Municipality	City	city
N	3398	2814	3398	2816
LR CHI^2	326.44	250.47	323.52	246.58
	(19)	(18)	(19)	(18)

*Significant at five percent.
** Significant at one percent.

TABLE 3
PROBABILITY OF READING BOOKS. LINEAR PROBABILITY MODEL

	(I) M.L.P (≥ 12)	(II) M.L.P. (≥ 18)	(III) M.L.P. (≥ 12)	(IV) M.L.P. (≥ 18)
Man	-0.023	-0.024	-0.022	-0.020
	(0.016)	(0.018)	(0.016)	(0.018)
12-17 years	0.203**		0.204**	
	(0.028)		(0.028)	
18-22 years	0.091**	0.084**	0.087**	0.084**
	(0.028)	(0.028)	(0.028)	(0.028)
31-45 years	0.034	0.034	0.031	0.032
	(0.023)	(0.023)	(0.023)	(0.023)
46-55 years	0.035	0.038	0.038	0.042
	(0.030)	(0.030)	(0.030)	(0.030)
56 or older	0.048	0.058	0.039	0.050
	(0.031)	(0.032)	(0.031)	(0.031)
No	-0.199**	-0.204**	-0.198**	-0.205**
Education	(0.039)	(0.040)	(0.038)	(0.040)
Secondary	0.049*	0.060*	0.039	0.049
	(0.023)	(0.026)	(0.023)	(0.026)
High school	0.104**	0.134**	0.104**	0.134**
	(0.028)	(0.031)	(0.028)	(0.031)
University	0.200**	0.211**	0.194**	0.211**
	(0.030)	(0.032)	(0.030)	(0.032)
Low SEL	0.053*	0.048	0.056*	0.051
	(0.026)	(0.028)	(0.026)	(0.028)
Mid-low SEL	0.090**	0.084**	0.095**	0.088**
	(0.028)	(0.031)	(0.028)	(0.031)
Mid SEL	0.152**	0.149**	0.151**	0.145**
	(0.034)	(0.037)	(0.033)	(0.037)
Mid-high and high	0.176**	0.193**	0.138**	0.143**
SEL	(0.044)	(0.048)	(0.044)	(0.048)
Sch. mother	0.072**	0.061*	0.073**	0.062**
Elementary	(0.023)	(0.024)	(0.023)	(0.024)
Sch. mother	0.116**	0.113**	0.113**	0.111**
Secondary	(0.028)	(0.031)	(0.029)	(0.032)
Sch. mother	0.146**	0.141**	0.148**	0.141**
High school	(0.031)	(0.035)	(0.031)	(0.035)
Sch. mother	0.148**	0.132**	0.149**	0.132**
University	(0.044)	(0.049)	(0.044)	(0.049)
Speaker of	0.026	0.050	0.033	0.057
indigenous language	(0.053)	(0.055)	(0.053)	(0.054)
Fixed effects	Municipality	Municipali	City	City
N	3414	2836	3414	2836
R^2	0.245	0.267	0.229	0.2486

*Significant at five percent.
** Significant at one percent.

the probability of the individual reading books also increases. Later, we analyze when replacing the education of the mother by the education of the father, or when we include both variables simultaneously.

Finally, the condition of indigenous language speakers is generally not significant. This result should be taken only as a first approximation, among other reasons because there are speakers of different indigenous languages who are grouped in a single group.[10]

Interactions

Table 4 introduces the possibility of interactions using MLP once again. This means that the effect of an explanatory variable on the probability of reading depends on the values taken by another explanatory variable. We found evidence of interactions between the education of the mother and socioeconomic status, and to a lesser extent, between the education of the individual and their socioeconomic status. The first column adds to the explanatory variables above, variables of interaction between the education of the mother and socioeconomic status. Since it uses very low socioeconomic status as the base category, the effect collected by the coefficients associated to the educational level of the mother is precisely the case of a person with a very low socioeconomic status. According to column 1, a higher education level of the mother has a large and positive effect for individuals in socioeconomic status. The interaction effects were collapsed in only two possibilities: a differential effect for low socioeconomic status (NSE), and another for the rest of socioeconomic levels (medium-low, medium and medium-high, called NSE+ in table 4). Column 1 shows that the positive effect of the education of the mother on the probability of individuals reading in low socioeconomic status is diminished for the rest of socioeconomic levels. The effect for these socioeconomic statuses is obtained by adding the interaction coefficient of the analyzed socioeconomic status to the coefficient of the category base. In fact, by testing hypothesis of the sum of the two coefficients, we find that in many cases this amount is not significantly different from zero.

For example, for higher socioeconomic levels, with increasing education of the mother from the category of not formal education (base category) to primary or secondary education, a statistically significant increase in the probability of reading is not produced. In other cases, a significant

[10] See Sandoval Forero (2002), which provides an exposition of the different ethno-linguistic groups in Mexico.

increase, however less than the observed for the lowest socioeconomic status is registered. It is also important to notice that by adding these interaction effects the coefficients of the other explanatory variables were not significantly altered.

Column 2 does the same exercise as column 1, but for the segment of 18 years of age and older, obtaining similar results: the effect of increased education of the mother is lower for the higher socioeconomic levels than for the lowest socioeconomic status, and in some cases it is not statistically different form zero.

Colum 3 adds the interaction effects between the educational level of a person and their socioeconomic status. These interaction effects were jointly significant at a 10 percent level, but not at a 5 percent level. By adding interaction variables, the meaning of the coefficients of education variables changes. Now they refer to the effect of the education variable on the probability of reading for people in the very low socioeconomic status (reference group). There is a significant difference between the category of no education and the category of primary education (reference category). However, for the higher socioeconomic levels, the difference between these two categories disappears: the sum of the coefficient associated with no education for the reference socioeconomic status and the interaction coefficient is not significantly different from zero. While all the other variables are constant the probability that an individual of a medium or higher socioeconomic status reads is not altered when passing from the category of no formal education to the category of primary education. However, it does increase significantly by reaching university education: it is significantly more likely that an individual of a medium or higher socioeconomic status reads if they have university studies than if they only have primary, secondary or high school education.

Column 4 shows similar results to those in column 3 for the segment of people of 18 years and older. However it should be noted that the interaction variables between education and socioeconomic status did not result jointly significant, not even at a 10 percent level, so we will no longer refer to them.

Table 4
Probability of reading books. Interactions (MLP)

	(I) MLP-Read books? (≥ 12)	(II) MLP- Read books? (≥ 18)	(III) MLP- Read books? (≥ 12)	(IV) MLP- Read books? (≥ 18)
Man	-0.022	-0.024	-0.023	-0.023
	(0.016)	(0.018)	(0.016)	(0.018)
12-17 years	0.206**		0.204**	
	(0.028)		(0.028)	
18-22 years	0.088**	0.081**	0.087**	0.080**
	(0.028)	(0.028)	(0.028)	(0.028)
31-45 years	0.034	0.033	0.033	0.034
	(0.023)	(0.023)	(0.023)	(0.023)
46-55 years	0.034	0.039	0.033	0.037
	(0.030)	(0.030)	(0.030)	(0.031)
56 or older	0.047	0.059	0.046	0.058
	(0.031)	(0.031)	(0.031)	(0.031)
No education	-0.183**	-0.189**	-0.178**	-0.167**
	(0.039)	(0.040)	(0.052)	(0.052)
Secondary	0.048*	0.060*	0.069	0.106
	(0.023)	(0.026)	(0.048)	(0.058)
High school	0.104**	0.136**	0.089	0.184**
	(0.028)	(0.031)	(0.063)	(0.069)
University	0.200**	0.213**	-0.063	0.044
	(0.030)	(0.032)	(0.120)	(0.144)
Low SEL	0.142**	0.151**	0.126*	0.154**
	(0.042)	(0.044)	(0.050)	(0.051)
Low-mid SEL	0.193**	0.176**	0.208**	0.211**
	(0.047)	(0.049)	(0.055)	(0.058)
Mid SEL	0.260**	0.244**	0.272**	0.279**
	(0.051)	(0.054)	(0.060)	(0.063)
Mid-high and high	0.283**	0.287**	0.293**	0.319**
SEL	(0.059)	(0.062)	(0.067)	(0.071)
Sch. mother	0.136**	0.140**	0.134**	0.138**
Elementary	(0.041)	(0.044)	(0.042)	(0.045)
Sch. mother	0.366**	0.361**	0.373**	0.356**
Secondary	(0.071)	(0.082)	(0.073)	(0.084)
Sch. mother	0.255**	0.257*	0.253**	0.246*
High school	(0.086)	(0.109)	(0.088)	(0.114)
Sch. mother	0.646**	0.642**	0.706**	0.678**
University	(0.066)	(0.076)	(0.085)	(0.086)
Speaker of indigenous	0.032	0.052	0.027	0.049
language	(0.053)	(0.056)	(0.054)	(0.056)
Sch. mother	-0.094	-0.126*	-0.104	-0.134*
Low SEL	(0.053)	(0.056)	(0.055)	(0.058)
Sch. mother	-0.275**	-0.291**	-0.301**	-0.302**
Secondary –low SEL	(0.083)	(0.094)	(0.086)	(0.099)
Sch. mother	-0.100	-0.085	-0.118	-0.086
High sch. low SEL	(0.103)	(0.127)	(0.107)	(0.134)
Sch. mother	-0.704**	-0.792**	-0.762**	-0.827**
University –low SEL	(0.165)	(0.199)	(0.173)	(0.203)

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TABLE 4
PROBABILITY OF READING BOOKS. INTERACTIONS (MLP)
(CONTINUATION)

	(I) MLP-Read book? (≥ 12)	(II) MLP-Read book? (≥ 18)	(III) MLP-Read books? (≥ 12)	(IV) MLP-Read books? (≥ 18)
Sch. mother	-0.093	-0.092	-0.077	-0.077
Elementary -SEL+	(0.055)	(0.058)	(0.057)	(0.060)
Sch. mother	-0.310**	-0.287**	-0.299**	-0.262**
secondary-SEL+	(0.081)	(0.092)	(0.084)	(0.096)
Sch. mother	-0.157	-0.156	-0.139	-0.127
High school SEL+	(0.095)	(0.118)	(0.098)	(0.123)
Sch. mother	-0.529**	-0.522**	-0.576**	-0.547**
University-NSE+	(0.084)	(0.094)	(0.100)	(0.104)
No			-0.041	-0.060
Education-low			(0.082)	(0.083)
Secondary-low			0.025	-0.009
			(0.057)	(0.067)
High school-low			0.069	-0.003
			(0.076)	(0.083)
University-low			0.233	0.144
			(0.139)	(0.162)
No education- SEL+			0.097	0.053
			(0.120)	(0.132)
Secondary- SEL+			-0.073	-0.104
			(0.058)	(0.069)
High school - SEL+			-0.026	-0.098
			(0.071)	(0.078)
University- SEL+			0.248*	0.142
			(0.126)	(0.150)
Fixed effects	Municipality	Municipality	Municipality	Municipali
N	3414	2836	3414	2836
R^2	0.251	0.272	0.254	0.275

Replacing the educational level of the mother

Throughout the previous analysis we used maternal education as one of the explanatory variables. Table 5 explores the consequences of using the education of the father instead of education of the mother, or of using both variables. Column 3 replicates the results —for comparison— of a regression that uses the education of the mother as an explanatory variable and includes interaction effects between this variable and the socioeconomic status. Column 2 shows the results obtained when replacing the education of the mother by the education of the father. We noticed that the estimates are very similar. The effect of sex, age, education and socioeconomic status variables is similar when the education of the father is used instead of the mother's. On the other hand, as it was the case with education of the mother, higher education of the father positively affects the probability of reading for the reference socioeconomic status (very low). The coefficients are generally large and significant. Furthermore, the interaction coefficients indicate, as in the case of education of the mother, that the effect of a higher education of the father is lower in the higher socioeconomic levels and that, in some cases, this effect is not significantly different from zero. For example, by increasing the educational level of the father from the reference category to the categories of primary and secondary education, there is not a statistically significant increase in the reading probability of people in these socioeconomic levels.

Column 1 in table 5 explores what occurs when we include the education of the father and the education of the mother simultaneously as explanatory variables. By comparing this column with columns 2 and 3, we can see the simultaneous inclusion of education does not alter the coefficients of the other explanatory variables: the effect of the variables of sex, age, education and socioeconomic status is similar that obtained when including the educational level of only one of the parents. On the other hand, if we compare column 1 with column 2 we can see that, the effect of the education of the father is lower when we also include the education of the mother than when not included, and standard errors are larger. This is due to the heavy correlation between the educational level of the father and the educational level of the mother. As a result, some coefficients stop being significant, for example, the one that indicates the difference in the probability of reading when the father has no formal education (reference category) and when he has primary education (for the reference socioeconomic status). In other cases, the coefficient is reduced and the standard deviation increases, but no statistical significance is lost.

Similarly, when we compare column 1 with column 3, we observe that the effect of the education of the mother is reduced when we also include the education of the father as an explanatory variable and, again the standard errors increase, reflecting that precision is lost in the estimation.

Then, the education of the father has an additional affect to the education of the mother, which otherwise is attributed to her. However, given the heavy correlation between both variables, the inclusion of both educational levels, causes loss of precision in the estimation and, instead, the option of including only one of them does not alter the estimate coefficients of other explanatory variables.

The influence of labor reading

It is possible that the type of work performed by an individual affects their abilities and preferences in reading. To examine this possibility, we introduce additional explanatory variables, a dichotomous one that indicates whether the individual works or not, and different forms of a variable that indicates how often the individual has to read as part of their job. These variables were not included in the analysis above because of possible endogeneity problems: it is possible, firstly that the individuals with the habit of reading develop skills to perform jobs that require reading that is why the results of this section must be interpreted with caution.

Both the dichotomous variable as that which measures the intensity of reading at work are set to zero if the individual does not work. The other variable "reading at work" has four modes, which are explained below. Reading at work-1 refers to the frequency with which the individual, as part of their job, should read instructions for operating machinery. The other three modes of reading at work are defined similarly: reading at work-2 refers to brochures and instructions, reading at work-3 reports, memoranda, documents or letters, and reading at work-4 refers to general information. Each of these four variables can take four values: zero, if that type of reading is never performed; one, if done occasionally; two, if done one or few times a month; three, of done daily or several times a week. Column 1 in table 6 shows the results of a regression which the dichotomous variable is added, a variable that indicates whether the individual works or not traditional explanatory variables, including interaction terms between education of the mother and socioeconomic status. We note that by adding this variable the effect of the other explanatory variables on the reading probability is

TABLE 5
PROBABILITY OF READING BOOKS. SCHOOLING OF THE PARENTS

	(I) MLP-Read books? (≥ 12) (Father &mother)	(II) MLP- Read books? (≥ 12) (Father)	(III) MLP- Read books? (≥ 12) (Mother)
Man	-0.023	-0.024	-0.022
	(0.017)	(0.016)	(0.016)
12-17 years	0.196**	0.206**	0.206**
	(0.029)	(0.028)	(0.028)
18-22 years	0.076**	0.083**	0.088**
	(0.028)	(0.028)	(0.028)
31-45 years	0.027	0.029	0.034
	(0.024)	(0.023)	(0.023)
46-55 years	0.031	0.040	0.034
	(0.031)	(0.030)	(0.030)
56 or older	0.055	0.060	0.047
	(0.032)	(0.031)	(0.031)
No	-0.191**	-0.193**	-0.183**
Education	(0.040)	(0.039)	(0.039)
Secondary	0.055*	0.060*	0.048*
	(0.024)	(0.024)	(0.023)
High school	0.118**	0.126**	0.104**
	(0.029)	(0.028)	(0.028)
University	0.211**	0.219**	0.200**
	(0.031)	(0.030)	(0.030)
Low SEL	0.141**	0.094*	0.142**
	(0.047)	(0.042)	(0.042)
Low-mid SEL	0.206**	0.162**	0.193**
	(0.053)	(0.048)	(0.047)
Low SEL	0.261**	0.215**	0.260**
	(0.057)	(0.052)	(0.051)
Mid-high and high	0.253**	0.204**	0.283**
SEL	(0.065)	(0.060)	(0.059)
Sch. mother	0.100*		0.136**
Elementary	(0.048)		(0.041)
Sch. mother	0.250**		0.366**
Secondary	(0.082)		(0.071)
Sch. mother	0.149		0.255**
High school	(0.119)		(0.086)
Sch. mother	0.411*		0.646**
University	(0.162)		(0.066)
Sch. father	0.034	0.086*	
Elementary	(0.050)	(0.043)	
Sch. father	0.253**	0.371**	
Secondary	(0.086)	(0.077)	
Sch. father	0.110	0.250**	
High school	(0.120)	(0.092)	
Sch. father	0.356**	0.523**	
University	(0.119)	(0.068)	

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TABLE 5
PROBABILITY OF READING BOOKS. SCHOOLING OF THE PARENTS
(CONTINUATION)

	(I) MLP-read books? (≥ 12) (Father & mother)	(II) MLP- read books? (≥ 12) (Father)	(III) MLP- read books? (≥ 12) (Mother)
Speaker of indigenous	0.034	0.011	0.032
language	(0.053)	(0.052)	(0.053)
Sch. mother	-0.064		-0.094
Elementary Low SEL	(0.062)		(0.053)
Sch. mother	-0.203*		-0.275**
Secondary-Low SEL	(0.097)		0.083)
Sch. mother	0.012		-0.100
High school –Low SEL	(0.137)		(0.103)
Sch. mother	-0.473*		-0.704**
University-Low SEL	(0.225)		(0.165)
Sch. mother Elementary	-0.073		-0.093
SEL+	(0.064)		(0.055)
Sch. mother	-0.212*		-0.310**
Secondary-SEL+	(0.095)		(0.081)
Sch. mother	-0.110		-0.157
High school SEL +	(0.129)		(0.095)
Sch. mother	-0.359*		-0.529**
University - SEL +	(0.175)		(0.084)
Sch. father	-0.006	-0.035	
Elementary-Low SEL	(0.063)	(0.054)	
Sch. father	-0.183	-0.256**	
Secondary-low SEL	(0.101)	(0.088)	
Sch. father	-0.067	-0.135	
High school –low SEL	(0.139)	(0.110)	
Sch. father	-0.446**	-0.525**	
University-Low SEL	(0.169)	(0.130)	
Sch. father elementary -	-0.017	-0.052	
SEL+	(0.065)	(0.056)	
Sch. father	-0.270**	-0.365**	
Secondary-SEL+	(0.098)	(0.087)	
Sch. father	-0.029	-0.140	
High school- SEL+	(0.130)	(0.100)	
Sch. father	-0.229	-0.371**	
University -SEL+	(0.132)	(0.082)	
Fixed effects	Municipality	Municipality	Municipality
N	3234	3340	3414
R^2	0.267	0.259	0.251

not altered. It is also noted that there is no significant difference in the probability of reading for and individual that works and an individual that does not work and it is similar to the first in all the aspects measured by the other explanatory variables.

Columns 2 to 5 in table 6 simultaneously include the dichotomous variable that indicates whether the individual works and some of the modes of the measurement of the frequency with which people must read at work. Overall, we observe a positive and significant impact on the frequency of different types of reading at work on the probability of reading books.

Also, the inclusion of the measurement frequency of reading at work alters, sometimes significantly, the coefficient associated with the dichotomous variable indicating whether the individual works. When considering the coefficients of these two variables jointly, we find that an individual working in an activity that requires daily or several times a week reading (the highest reading rate) certain type of contents, they have a significantly higher probability of reading books than any individual that does not work. However, in some specifications, for example, column 5 shows that an individual who works and never has to read as part of their job has, in fact, a significantly lower probability of reading books than an individual that does not work (the coefficient of the dichotomous variable "does the individual work?" is negative and significant). It is also important to underline that, in general terms, the inclusion of these two additional variables in the analysis does not alter the impact of the other explanatory variables on the probability of reading.

Conclusions

In this paper we have analyzed how reading books in Mexico is related with several relevant socio-demographic variables, using the ENL. In a first approach we have presented statistics of what percentage of people reports to read books, both nationally as for several segments of the population. 56.4 percent of the population reported to read books; but this percentage is different for the diverse segments, grouped according to certain socio-demographic characteristics. For example, the percentage of readers is higher among the better educated segments. In the same way, it is greater among young population, with higher socioeconomic status and with fathers and mothers with higher education, and it is lower among the population that speaks an indigenous language. This percentage almost does not differ between men and women. The data presented in this way allow us to glimpse the relationship between the reading behavior and

TABLE 6
PROBABILITY OF READING BOOKS. EFFECT OF READING AS A PART OF WORKING ACTIVITIES

	(I) MLP Read books? (≥ 12)	(II) MLP- Read books? (≥ 12)	(III) MLP- Read books? (≥ 12)	(IV) MLP- Read books? (≥ 12)	(V) MLP-read books last year (≥ 12)
Men	-0.029	-0.030	-0.028	-0.026	-0.028
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
12-17 years	0.214**	0.215**	0.213**	0.217**	0.216**
	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)
18-22 years	0.091**	0.089**	0.089**	0.096**	0.098**
	(0.028)	(0.028)	(0.028)	(0.028)	(0.028)
31-45 years	0.033	0.033	0.031	0.032	0.032
	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)
46-55 years	0.033	0.033	0.030	0.034	0.034
	(0.030)	(0.030)	(0.030)	(0.030)	(0.030)
56 or older	0.050	0.050	0.049	0.053	0.049
	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)
No	-0.183**	-0.186**	-0.183**	-0.184**	-0.177**
education	(0.039)	(0.038)	(0.039)	(0.039)	(0.039)
Secondary	0.047*	0.044	0.045	0.044	0.041
	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)
High school	0.103**	0.101**	0.097**	0.090**	0.090**
	(0.028)	(0.028)	(0.028)	(0.028)	(0.028)
Universidad	0.198**	0.195**	0.187**	0.179**	0.174**
	(0.030)	(0.030)	(0.030)	(0.030)	(0.030)
Low SEL	0.143**	0.140**	0.138**	0.141**	0.136**
	(0.042)	(0.042)	(0.042)	(0.042)	(0.042)
Low-mid SEL	0.195**	0.193**	0.186**	0.186**	0.181**
	(0.047)	(0.047)	(0.047)	(0.047)	(0.047)
Mid SEL	0.261**	0.258**	0.248**	0.246**	0.242**
	(0.051)	(0.051)	(0.051)	(0.051)	(0.051)
Mid-high and	0.284**	0.280**	0.269**	0.258**	0.246**
high SEL	(0.059)	(0.059)	(0.059)	(0.058)	(0.059)
Sch. mother	0.136**	0.134**	0.134**	0.129**	0.129**
Elementary	(0.041)	(0.041)	(0.041)	(0.041)	(0.041)
Sch. mother	0.366**	0.356**	0.360**	0.355**	0.353**
secondary	(0.071)	(0.071)	(0.071)	(0.070)	(0.070)
Sch. mother	0.254**	0.253**	0.250**	0.248**	0.254**
High school	(0.086)	(0.086)	(0.087)	(0.085)	(0.085)
Sch. mother	0.644**	0.652**	0.651**	0.645**	0.644**
University	(0.066)	(0.067)	(0.067)	(0.067)	(0.067)
Speaker of an	0.031	0.031	0.023	0.020	0.017
indigenous	(0.053)	(0.053)	(0.052)	(0.053)	(0.054)
language					
¿Works?	0.018	-0.017	-0.032	-0.048*	-0.073**
	(0.018)	(0.021)	(0.022)	(0.021)	(0.022)
Reading at		0.030**			
work I		(0.008)			
Reading at			0.035**		
work II			(0.008)		
Reading at				0.052**	
work III				(0.008)	
Reading at					0.059**
work IV					(0.008)

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TABLE 6
PROBABILITY OF READING BOOKS. EFFECT OF READING
AS A PART OF WORKING ACTIVITIES
(CONTINUATION)

	(I) MLP-Read books? (≥ 12)	(II) MLP- Read books? (≥ 12)	(III) MLP- Read books? (≥ 12)	(IV) MLP- Read books? (≥ 12)	(V) MLP-Read books last year (≥ 12)
Sch. mother	-0.094	-0.089	-0.092	-0.089	-0.087
Elementary-	(0.053)	(0.053)	(0.053)	(0.052)	(0.053)
Low SEL					
Sch. mother	-0.276**	-0.266**	-0.275**	-0.279**	-0.274**
Secondary-	(0.082)	(0.082)	(0.083)	(0.081)	(0.081)
Low SEL					
Sch. mother	-0.099	-0.103	-0.103	-0.116	-0.119
High school-	(0.104)	(0.103)	(0.104)	(0.103)	(0.103)
Low SEL					
Sch. mother	-0.706**	-0.728**	-0.714**	-0.704**	-0.688**
University-	(0.165)	(0.167)	(0.168)	(0.166)	(0.167)
Low SEL					
Sch. mother	-0.094	-0.091	-0.091	-0.086	-0.089
Elementary-	(0.055)	(0.055)	(0.055)	(0.055)	(0.055)
SEL+					
Sch. mother	-0.311**	-0.305**	-0.305**	-0.302**	-0.301**
Secondary-	(0.081)	(0.081)	(0.081)	(0.080)	(0.080)
SEL+					
Sch. mother	-0.158	-0.159	-0.153	-0.155	-0.160
High school-	(0.095)	(0.094)	(0.095)	(0.094)	(0.094)
SEL+					
Sch. mother	-0.528**	-0.534**	-0.533**	-0.522**	-0.529**
University-	(0.084)	(0.084)	(0.084)	(0.084)	(0.084)
SEL+					
Fixed effects	Municipality	Municipality	Municipality	Municipality	Municipality
N	3 414	3 414	3 414	3 414	3 414
R^2	0.251	0.254	0.255	0.260	0.264

*significant at 5 percent.
** significant at one percent.

these variables, but suffer from a problem: they examine this relationship with each variable separately, ignoring the effect of the others. Thus, the observation that the percentage of readers is higher among the segments with better education must be accompanied by the observation that these segments may differ from the rest of the population in other characteristics —such as socioeconomic status— which also affect their propensity to be readers. These additional characteristics must be controlled in some way in order to determine the influence of the educational level on reading. For this reason, we conducted multivariate type exercises as well. These exercises find the relationship between reading behavior and the different demographic and socioeconomic variables simultaneously, thus they allow us to establish the relationship between reading behavior and each one of the variables, holding constant the values of the relevant variables. It is important to note that, in particular, the place of residence maintains constant. The results of these exercises of multivariate regressions confirm the influence of age, level of education, socioeconomic status and education of the mother as important explanatory variables on the probability that an individual reads books. They also show evidence of interactions in the effects of these variables. Thus, for example, the probability that an individual of the very low socioeconomic status reads books increases substantially with the education of the mother. However, for individuals in higher socioeconomic levels this relationship is much lower and, in some cases, the probability of reading books does not increase significantly with increasing the education of the mother. We also found evidence, less conclusive however, of interaction between education and socioeconomic status.

Subsequently, we consider two extensions for the previous exercises: we examine the alternatives to education of the mother as explanatory variables and consider the reading required at work as an additional independent variable. None of these changes alter the previous results significantly.

We believe that this analysis is a contribution to the knowledge of reading habits in Mexico in the early XXI century, made from one of many approaches that can help us understand this important phenomenon better.

TABLE A.I
PROBABILITY OF READING BOOKS.
PROBIT AND LOGIT (NON-CONDITIONAL)

	(I) Probit (≥ 12)	(II) Probit (≥ 18)	(III) Probit (≥ 12)	(IV) Probit (≥ 18)
Man	-0.087	-0.082	-0.076	-0.062
	(0.050)	(0.057)	(0.050)	(0.056)
12-17 years	0.622**		0.621**	
	(0.091)		(0.089)	
18-22 years	0.274**	0.269**	0.266**	0.268**
	(0.086)	(0.089)	(0.084)	(0.087)
31-45 years		0.104	0.091	0.095
	0.106 (0.071)	(0.072)	(0.070)	(0.072)
46-55 years		0.109	0.101	0.116
	0.099 (0.093)	(0.095)	(0.092)	(0.094)
56 or older		0.195	0.125	0.165
	0.159 (0.096)	(0.100)	(0.095)	(0.099)
No education	-0.734**	-0.771**	-0.715**	-0.766**
	(0.160)	(0.169)	(0.158)	(0.167)
Secondary		0.172*	0.104	0.139
	0.134 (0.069)	(0.076)	(0.068)	(0.075)
High school	0.317**	0.396**	0.313**	0.390**
	(0.084)	(0.093)	(0.083)	(0.092)
University	0.612**	0.655**	0.577**	0.638**
	(0.098)	(0.105)	(0.096)	(0.103)
Low SEL	0.166*	0.164	0.175*	0.169*
	(0.077)	(0.086)	(0.076)	(0.085)
Low-mid SEL	0.272**	0.268**	0.282**	0.271**
	(0.085)	(0.094)	(0.083)	(0.092)
Low SEL	0.480**	0.478**	0.469**	0.452**
	(0.105)	(0.116)	(0.104)	(0.114)
Mid-high and high	0.605**	0.682**	0.434**	0.453**
SEL	(0.158)	(0.175)	(0.149)	(0.165)
Sch. mother	0.211**	0.188*	0.215**	0.193**
Elementary	(0.069)	(0.074)	(0.069)	(0.074)
Sch. mother	0.338**	0.350**	0.323**	0.337**
Secondary	(0.086)	(0.096)	(0.086)	(0.096)
Sch. mother	0.449**	0.445**	0.451**	0.440**
High school	(0.100)	(0.113)	(0.099)	(0.111)
Sch. mother	0.457**	0.433*	0.461**	0.426*
University	(0.153)	(0.172)	(0.150)	(0.167)
Speaker of an indigenous		0.094	0.050	0.105
language	0.034 (0.180)	(0.199)	(0.175)	(0.193)
Fixed effects	Municipality	Municipality	City	City
N	3398	2814	3398	2816
Wald CHI2	758.77	670.39	699.99	616.05
	(153)	(150)	(120)	(118)

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TABLE A.I
PROBABILITY OF READING BOOKS.
PROBIT AND LOGIT (NON-CONDITIONAL)
(CONTINUATION)

	(V) Logit (≥ 12)	(VI) Logit (≥ 18)	(VII) Logit (≥ 12)	(VIII) Logit (≥ 18)
Man	-0.136	-0.133	-0.122	-0.104
	(0.086)	(0.096)	(0.084)	(0.094)
12-17 years	1.064**		1.063**	
	(0.157)		(0.153)	
18-22 years	0.461**	0.461**	0.444**	0.449**
	(0.144)	(0.152)	(0.140)	(0.146)
31-45 years	0.175		0.148	0.157
	(0.119)	0.176 (0.123)	(0.117)	(0.121)
46-55 years	0.172		0.177	0.206
	(0.156)	0.196 (0.160)	(0.153)	(0.157)
56 or older	0.274	0.339*	0.212	0.281
	(0.162)	(0.170)	(0.160)	(0.168)
No education	-1.266**	-1.344**	-1.224**	-1.326**
	(0.289)	(0.310)	(0.282)	(0.301)
Secondary	0.219	0.289*	0.168	0.231
	(0.115)	(0.129)	(0.114)	(0.127)
High school	0.523**	0.668**	0.513**	0.655**
	(0.142)	(0.158)	(0.139)	(0.155)
University	1.030**	1.115**	0.973**	1.087**
	(0.169)	(0.182)	(0.165)	(0.179)
Low SEL	0.264*		0.275*	0.274
	(0.129)	0.267 (0.145)	(0.127)	(0.142)
Low-mid SEL	0.444**	0.439**	0.462**	0.448**
	(0.142)	(0.159)	(0.139)	(0.155)
Mid SEL	0.790**	0.789**	0.778**	0.757**
	(0.178)	(0.196)	(0.175)	(0.192)
Very high and high SEL	1.016**	1.151**	0.727**	0.770**
	(0.285)	(0.317)	(0.262)	(0.289)
Sch. mother Elementary	0.353**	0.319*	0.352**	0.318**
	(0.118)	(0.126)	(0.116)	(0.124)
Sch. mother Secondary	0.573**	0.596**	0.543**	0.562**
	(0.147)	(0.165)	(0.145)	(0.163)
Sch. mother High school	0.768**	0.768**	0.757**	0.744**
	(0.171)	(0.194)	(0.168)	(0.189)
Sch. mother University	0.795**	0.754*	0.774**	0.706*
	(0.272)	(0.305)	(0.260)	(0.290)
Speaker of an indigenous language	0.052		0.080	0.186
	(0.314)	0.169 (0.353)	(0.301)	(0.334)
Fixed effects	Municipality	Municipality	City	City
N	3 398	2 814	3 398	2 816
Wald CHI2	646.07	561.48	603.02	525.66
	(153)	(150)	(120)	(118)

Bibliography

ANDERSEN, E. B., 1970, "Asymptotic properties of conditional maximal likelihood estimators", in *Journal of the Royal Statistical Society*, 32.

CONACULTA, 2001, *Programa Nacional de Cultura 2001-2006. La Cultura en tus Manos*, Consejo Nacional para la Cultura y las Artes, Mexico.

CONACULTA, 2006, *Encuesta Nacional de lectura*, Consejo Nacional para la Cultura y las Artes, Mexico.

CONAPO, INEGI and SEDESOL, 2004, *Delimitación de las zonas metropolitanas de México*, Conapo/INEGI/Sedesol, Mexico.

CORONA BERKIN, Sarah, 2004, "¿Leer para qué? Hacia una política de la lectura", in *Comunicación y Sociedad*, July-December, num. 2, Universidad de Guadalajara.

CHAMBERLAIN, G., 1980, "Analysis of covariance with qualitative data", in *Review of Economic Studies*, 47.

CHÁVEZ MÉNDEZ, Guadalupe, 2002, *Práctica de la lectura en México y el libro como producto cultural*, Cuadernos Altexto/Universidad de Colima.

CHÁVEZ MÉNDEZ, Guadalupe, 2005, "La lectura masiva en México: apuntes y reflexiones sobre la situación que presenta esta práctica social", in *Estudios sobre las Culturas Contemporánea*s, June, vol. XI, num. 21, Universidad de Colima.

DEL ÁNGEL, Minerva and Adolfo RODRÍGUEZ, 2007, "La promoción de la lectura en México", in *Infodiversidad*, num. 11, Sociedad de Investigaciones Bibliotecológicas, Buenos Aires.

ESCALANTE, Fernando, 2008, *A la sombra de los libros. Lectura, mercado y vida pública*, El Colegio de México, Mexico

GREENE, W. H., 2003, *Econometric analysis*, Prentice Hall, New Jersey.

GUTIÉRREZ VALENCIA, Ariel, 2005, "La lectura: una capacidad imprescindible de los ciudadanos del siglo XXI. El caso de México", in *Anales de Documentación*, num. 8.

KALMAN, Judith, 2003, "El acceso a la cultura escrita: la participación social y la apropiación de conocimientos en eventos cotidianos de lectura y escritura", in *Revista Mexicana de Investigación Educativa*, 8, 17.

NATIONAL ENDOWMENT FOR THE ARTS, 2004, *Reading at risk: a survey of literary reading in America*, Research Division Report num. 46, Washington, D.C.

PEREDO, María Alicia, 2003, "La importancia del contexto en la lectura laboral", in *Revista Mexicana de Investigación Educativa*, 8, 17.

SANDOVAL FORERO, Eduardo A., 2002, "Grupos etnolingüisticos en el México del Siglo XXI", in *Papeles de Población*, October-December, num. 34, UAEM, Toluca.

SOBRINO, Luis Jaime, 2003, "Zonas metropolitanas de México en 2000: conformación territorial y movilidad de la población ocupada", in *Estudios Demográficos y Urbanos*, vol. 18, núm. 3.

VÁZQUEZ, Josefina Zoraida, 1988, *Historia de la lectura en México*, El Colegio de México, Mexico.

Jorge FERNÁNDEZ-RUIZ

Ph.D in Economics from the Autonomous University of Barcelona. He is currently a researcher-professor in the Center for Economic Studies in El Colegio de Mexico. He holds a level 3 in the National System of Researchers. Recent Publications: 2006, "El premio nobel de economía y la teoría de juegos: un encuentro más", in *Análisis Económico*, vol. XXI, num. 48; 2005, "La debilidad financiera y el comportamiento depredador en la financiación de la deuda", in *El Trimestre Económico*, vol. 72 (3), num. 287; 2004, "Predation due to adverse selection in financial markets", in *International Journal of Industrial Organization*, vol. 22.
E-mail address: jfernan@colmex.mx

In demographic terms, a decline in child mortality has the same effect on the number of surviving children as an increase in fertility. Hence, already the population baseline of 2015 was markedly higher than had been projected on the basis of the 2010 baseline, which was used in the previous assessment. However, in the long run demography is not destiny and alternative scenarios show a broad range of possible futures. Assuming rapid social development (SSP1), in particular a rapid expansion of education following the Sustainable Development Goals, world population would after a further increas Beginning of XXI century: the case northeastern montenegro. Goran Rajovic, Jelisavka Bulatovic, Researchers College of Textile Design, Technology and Management, Belgrade, Serbia E-mail: dkgoran.rajovic@gmail.com, jelisavka.bulatovic@gmail.com Phone: 0038161/19-24-850, 003861/ 3082651. ABSTRACT.Â Nineties of the last century, represent an extremely complex period in the social life of our population. In addition to long-term demographic factors on the development of the region seemed a series of major historical events.Â General population density is one of the basic demographic characteristics that indicate the spatial distribution of population. Recent political and economic developments and associated changes in the practice and delivery of health and social care have led managers and professionals to recognise the importance and links between problem solving and decision-making skills. In particular, assessing the impact of political, economic, socio-cultural, environmental and other external influences upon health care policy, proposals and organisational programmes is becoming a recognisable stage of health service strategic development and planning mechanisms. Undertaking this form of strategic analysis therefore is to diagnose t 27 Gibb, , â€˜Industrialization and demographic changeâ€™; R.A. Cage, â€˜Population and employment characteristicsâ€™, in idem (ed.), The Working Class in Glasgow, 1750â€“1914 (London, 1987), 1â€“28. 28 SÃ¶derberg, et al. , A Stagnating Metropolis.Â 45 Boulton, J., â€˜London widowhood revisited: the decline of female remarriage in the seventeenth and early eighteenth centuriesâ€™, Continuity and Change, 5 (1990), 323â€“55; Lewis, , â€˜The demographic and occupational structure of Liverpoolâ€™. 46 Woods, R.I., â€˜Social class variations in the decline of fertility in late nineteenth-century Londonâ€™, Geografiska Annaler, series B (1984), 66; Lawton, , â€˜The components of demographic changeâ€™.