

**The Effects of Individual, Family and Community Characteristics on Youth's Engagement in Sports and Volunteering in Mexico**  
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**Short abstract:**

Engagement in civil and community activities and in sports are two activities that are argued to have a positive effect on the development of children and adolescents and on their successful transition to adulthood. In this paper we explore the correlates at the individual and family level of children and youth aged 12 to 24 spending time exercising and on a civil organization. Because engagement on these activities may also depend on unobserved variables at the community and family level, we fit a multi-level probit model which controls for variation at the level of the individual, the family and the community. Data come from a nationally representative survey of time use in Mexico.

**Long abstract:**

***Motivation***

Volunteering, sports and artistic practices during have been demonstrated to have positive medium and long term developmental effects among adolescents and youth. Among the proved medium term benefits are positive effects on academic achievement, school completion, and social adjustment, as well as negative effects on criminal behavior and risky behaviors (Eccles and Barber 1999; McNeal 1995; Broh 2002; ). The long term benefits continue until the young adult age and include increased probability of attending college; increased civic attitudes such as voting and volunteering; and decreased probability of an arrest (Uggen and Janikula 1999; Zaff et al. 2003).

Despite these positive effects, little research exists on the determinants of engagement in these activities. Furthermore, existing studies focus on the United States (Bianchi and Robinson 1997; Hofferth and Sandberg 2001; Saffron, Schulenberg and Bachman 2001).

In developing countries, several programs exist to promote extracurricular activities and civic participation among the young, especially in among the poor (see for example Population Council 2004). However, to our knowledge, no research has been conducted on how prevalent are volunteering are these activities in developing countries, nor on what determines their participation. These studies are necessary because the conclusions of studies in the United States may not be directly applicable to developing countries. Several factors differ between the United States and developing countries that may affect the motivation for participation in sports and volunteering activities: In developing countries, formal institutions such as schools do not promote extracurricular activities as much as in the United States. Also, children and adolescents in developing countries are more likely than children in developed countries to spend part of their time working or contributing to domestic labor (Unicef 2006). This greater work load in and outside the household may reduce the time they have for sports and volunteering.

With this study we make a contribution to the literature by exploring the individual and family-level factors that explain engagement in sports and in volunteering and civil

activities among 12 to 24 year olds in Mexico. Because community-level factors such as school infrastructure, the availability of parks and sport facilities and the presence of NGOs that promote volunteering may influence the decision to engage in sports and volunteering, we incorporate community-level effects in our models.

***Dependent variables:***

In this paper we will have two dependent variables. Both variables are indicator variables. The first dependent variable will reflect engagement in sports. This variable takes the value of 1 when a person in the age group 12 to 24 spent some time exercising during the week prior to the observation period. The variable takes the value of zero when the person did not spend any time exercising.

The second dependent variable reflects engagement in volunteering, civil and community organizations. The variable takes the value of 1 when a person in the age group 12 to 24 spent some time volunteering on a community activity or participating in a civil or social organization. The variable takes the value of 0 when the person did not spend any time in these activities.

***Expected results:***

We expect to find that the following factors affect the probability of engaging in sports and volunteering activities:

- a) Individual-level factors: Age; sex; education level; school attendance; involvement in paid labor; time spent in household chores; time spent socializing with friends and family members; and number of school-age siblings.
- b) Family-level factors: Family-structure (whether the person lives in a single parent household or not); household income; and mother and father's education.
- c) Community of residence: Rural residence, and other unobserved community-level factors.

***Data sources:***

In this paper we use data from the 2002 Mexican National Survey of Time Use -*Encuesta Nacional sobre Uso de Tiempo 2002*- (Inmujeres 2004). This is a nationally representative sample that collected information on household characteristics and assets, household assets and income, time use of all household members older than 12, and sociodemographic characteristics of all household members. In this study we restrict our analysis to individuals aged 12 to 24.

Information on time use collected includes the number of minutes and hours spent during the week prior to the survey on the following general activities: transportation to and from school and work; paid and unpaid work; school; school homework; household chores; recreational activities including visiting other households and receiving visits, and other recreational activities such as going to the movies or dancing; arts; exercising; volunteering

on community activities; participating in civil organizations; and taking care of other household members.

Overall, 5,183 individuals aged 12 to 24 were interviewed. Of these, 35% exercised and 2% engaged in volunteering activities.

### **Methodology:**

To explore the relationship between the dependent variable and the factors, we will use a logit model with random effects at the individual, family and community level.

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