

Age structure, labor force and education in Costa Rica

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This paper looks at the effect of changes in age structure on labor force and education in Costa Rica in order to assess whether the country is taking advantage of the window of opportunity opened up by a low dependency ratio. During the past decades Costa Rica has undergone changes in fertility and mortality that modified age structure and will continue to do so for at least two decades. In the paper I examine changes in labor force brought about by lower fertility and the effect of varying growth rates of school age population on education and productivity of the labor force. Results show that the country has not benefited from lower dependency ratio as East Asian countries did during past decades. On the contrary changes in age structure and labor force characteristics pose serious threats to the health and pension system of the country.

Different studies have documented the effects of changes in age structure on the economy in South East Asia. There is a general agreement that lower dependency ratios or what has been called the “demographic bonus”, played a substantial role in maintaining high growth rates of the economy in these countries. Much less is known however about the effects of age structure changes in Latin American countries. This paper examines the case of Costa Rica, a country with strong institutions and social policies, where the major demographic changes related to fertility and mortality decline have already taken place. The study compares changes in labor force and education occurred in Costa Rica and their effects on the performance of the economy with those changes in East Asian countries.

The biggest demographic changes have already taken place in the country; in the past year it registered the lowest TFR (2.08) and the highest life expectancy (78.2) ever. The dependency ratio (ratio of working age to not working age population) has been declining in Costa Rica since 1970 when it was exactly 1. Population projections show that it will continue to decline over the next 15 years until it reaches 0.42. The subsequent increase in the dependency ratio will coincide with an exponential growth of the population of ages 65 and older. These changes are also associated with varying growth rates of the working age population and with growth rates of school age population.

The paper uses data from past population censuses and current population projections and enrollment rates over time to examine the effect of varying age structure. An examination of the effects of different growth rates of school age population shows that higher growth rates of school age population coincided with an important drop in public investment in education. Investment in public education had been increasing both in real terms and as a percentage of the total social investment of the government. During the 1980s the financial crisis which affected much of Latin America interrupted growth of public investment overall and specially education. Economic policies since have not resulted in an increase of social spending. As a consequence the country was not able to respond to high growth rates of children 5 to 17 during the 1980s. A substantial decrease in enrollment seriously modified the characteristics of the work force. As the working age population ages a substantial percentage of the labor force will be those cohorts

whose enrollment ratios particularly in secondary school dropped during the 1980s.

Growth rate of working age population has been on average higher than growth rate of the labor force despite the fact that women's participation in the labor force has increased considerably. Women's entry into the labor force has increase steadily since 1960. Decrease in fertility during the 1960s and 1970s explains a considerable amount of women's entry into the labor force. Results from multivariate analysis show that socioeconomic characteristics of women entering the labor force are the same characteristics that explain lower fertility.

Studies of economic growth in Costa Rica agree that productivity of the labor force has not change over the past three decades. Different measures record only a slight increase in labor force productivity over the last thirty years. This is in sharp contrast to the experience of East Asian countries. Economic policies in Costa Rica have lower jobs in agriculture and increase jobs in the service sector, but specially jobs in economic activities with low productivity. In addition growth rate of employment in the informal sector are higher than growth rates of employment in the formal sector. These shifts of the labor force pose over the next years a serious threat to the health and pension system which depends heavily on contributions by employers and workers. As the same time that dependents begin to change from being predominantly young under 15 to older above 65 the size of cohorts entering working age will stabilize. This will happen in the country in approximately 15 years. Characteristics of the labor force are therefore crucial to the economy's future. Changes of labor force characteristics and education are examined using household and employment surveys taken in the country since 1976.