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Evolving Demographic and Human-Capital Trends in Mexico and Central America and Their Implications for Regional Migration

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Executive Summary

Over the past half century, migration from Mexico and Central America to the United States has been driven by complementary regional demographic and human-capital trends, among many other factors. As the US labor force became better educated, fewer native workers accepted many of the low-wage but essential jobs at the bottom of the labor market. These changes in the United States coincided with a population boom in Mexico and Central America that resulted in a near tripling of the region's population. Economic growth was unable to keep pace with demographic change, however, and many of the region's youth sought opportunities in the United States. By 2009, immigrants from Mexico, El Salvador, Guatemala, and Honduras accounted for nearly one-third (31.5 percent) of all US workers without a high school education, up from just 1.3 percent in 1970.

Yet the demographic and human-capital profiles of Mexico and Central America are evolving rapidly, as are economic conditions in the United States. (For a summary, see Table 1.) In Mexico and El Salvador, the demographic transition initiated a half century ago is running its course, translating into slower population growth, declining numbers of youth, and aging societies. By contrast, population growth is expected to remain at relatively high levels in Guatemala and Honduras for several more decades. The countries of the region have made substantial progress in expanding access to education, with Mexican youth in particular converging with their US peers on key indicators such as years of schooling. Mexican students still lag behind US students on indicators of the quality of education, however; and access to education and test scores lag even further behind in Central America, suggesting the need for a focus on quality of education now that access to education has been so significantly expanded.

At the same time, the recent US economic crisis has accelerated longstanding shifts in the US economy and labor market. Unemployment and underemployment are approaching record levels; and labor force participation is rising among the elderly, youth, and other groups that may compete with immigrants in the labor market, especially in industries such as hospitality and personal services. The retirement of the baby boom generation, which experts have predicted will lead to severe labor shortages, may be further in the future than was previously expected. It is not clear if these trends will last, or if US labor force and consumer behavior will revert to prerecession patterns once the economy starts growing again. Taken together, these changes mean that policymakers can no longer rely on the conventional wisdom about regional labor mobility that has guided their decisions in the past.

Table 1. Summary of Demographic and Human-Capital Trends

	El Salvador	Guatemala	Honduras	Mexico
Real Gross Domestic Product per capita (2009)	$2,566	$1,858	$1,380	$6,099
Demographic transition	Gradual aging, slowing population growth.	Rapidly expanding population, high fertility rates.	Growing population, high fertility rates.	Rapid aging, slowing or declining population.
Access to education and student outcomes	Rapid expansion of access at primary and secondary levels.	Limited access and poor outcomes.	Limited access and no evidence of outcomes.	Rapid expansion of access, poor outcomes.

Source: World Bank, "World Development Indicators." Online database.

I. Introduction

Over the past four decades, migration has emerged as one of the unavoidable, defining issues dominating relations between the United States and its southern neighbors. Between 1960 and 2009, the number of immigrants to the United States from Mexico and the Central American countries of El Salvador, Guatemala, and Honduras grew over twenty-fold, from just under 600,000 in 1960 to 13.9 million in 2009.[1] Migrants in the United States now account for a large share of the region's total population ranging from 6 percent for Guatemala and Honduras to 11 percent for Mexico and 19 percent for El Salvador.[2]

Many factors have contributed to the dramatic increase in migration from Mexico and Central America to the United States. The massive opportunity differential spurred by economic growth in the United States and stagnation in Mexico and Central America has certainly played a central role, as have social and political conditions in the region, geographic proximity, and the social networks that have been established since migration flows began within the region. Economist Giovanni Peri estimates that a typical uneducated Mexican male can increase his salary by 2.5 times by migrating to the United States, even after accounting for differences in the cost of living.[3] For better or worse, demographic and education trends in the region are among the most important features of the regional migration system, and they have enormous implications for migration flows to the United States and for the well-being of the entire region.

Overarching trends in the United States, Mexico, and Central America have been complementary. Over the second half of the 20th century, the United States invested heavily in educating its population, which was then booming due to a wave of postwar births that came to be known as the "baby boom" generation.[4] Rising educational attainment led to increased prosperity, but also to rising employment expectations. Native-born workers in the United States became increasingly reluctant to accept many of the poorly paid but essential jobs at the bottom of the labor market. And as the US economy shifted away from industry and toward knowledge-based services, demand for highly skilled workers increased rapidly while demand for less-skilled workers remained constant or even fell slightly.[5] More recently, the pending retirement of baby boomers has caused some alarm regarding the prospects of a labor shortage,[6] though high unemployment since 2008 mitigates these concerns.

1 Throughout this report, we refer to El Salvador, Guatemala, Honduras, and Mexico as "Mexico and Central America," or, more simply, "the region." We focus on these four countries since migration patterns to United States from Belize, Costa Rica, Nicaragua, and Panama — which are all geographically part of Central America — differ substantially in their composition. For an overview of the demographic characteristics of Mexican and Central American immigrants in the United States, see Marc R. Rosenblum and Kate Brick, *Primer on US Immigration Policy and Regional Migration Flows* (Washington, DC: Migration Policy Institute, forthcoming 2011).

2 US Census Bureau, American Community Survey (ACS) 2009 and World Bank, "World Development Indicators 2009," accessed January 2011.

3 Giovanni Peri, *The Impact of Immigrants in Recession and Economic Expansion* (Washington, DC: Migration Policy Institute, 2010), www.migrationpolicy.org/pubs/Peri-June2010.pdf.

4 For a review, see Claudia Goldin and Lawrence F. Katz, *The Race between Education and Technology* (Cambridge, MA: Belknap Press, 2008).

5 Harry Holzer and Robert Lerman estimate that the number of jobs requiring limited formal education remained remarkably constant between 1986 and 2006. Others argue that demand for less-skilled workers has shifted from industry to personal and household services. See Harry J. Holzer and Robert I. Lerman, *America's Forgotten Middle-Skill Jobs: Education and Training Requirements in the Next Decade and Beyond* (Washington, DC: Workforce Alliance, 2007), www.urban.org/UploadedPDF/411633_forgottenjobs.pdf. For a review, see Rebecca Blank, "Economic change and the structure of opportunity for less skilled workers," in Maria Cancian and Sheldon Danziger, eds., *Changing Poverty, Changing Policies* (New York: Russell Sage Foundation, 2009): 63-91. See also Harry J. Holzer, *Immigration Policy and Less-Skilled Workers in the United States: Reflections on Future Directions for Reform* (Washington, DC: Migration Policy Institute, 2011), www.migrationpolicy.org/pubs/Holzer-January2011.pdf.

6 Richard B. Freeman, "Is a Great Labor Shortage Coming? Replacement Demand in the Global Economy," in Harry J. Holzer and Demetra Smith Nightingale, eds., *Reshaping the American Workforce in a Changing Economy* (Washington, DC: The Urban Institute, 2007).

These trends in the United States coincided with rapid population growth in Mexico and Central America. As these countries shifted from high birth rates and low life expectancy to lower birth rates and increasing life expectancy, the region's total population nearly tripled from 45.9 million in 1960 to 135.1 million in 2009.[7] The number of young adults ages 15 to 29 — roughly the age range of labor market entry and a time when many people seek employment abroad— grew by about 3.0 percent each year between 1970 and 2000.[8] Economic growth was unable to keep pace, and many young adults eventually sought greater opportunities in the United States. And while education and training institutions in the region were underdeveloped, the US labor market offered ample opportunities for workers with little formal education. Thus, Mexico and Central America seemed to provide an endless supply of low-skilled labor perfectly matched to the needs of a rapidly expanding US economy and increasing US consumer demand.

For better or worse, demographic and education trends in the region are among the most important features of the regional migration system.

Yet the US economy and the demographic and human-capital prospects of Mexico and Central America all are evolving. And labor market complementarities among the United States, Mexico, and Central America are not certain to continue or may not continue to the same degree as in the recent past. Two important changes and three critical "unknowns" could reshape the underlying logic of regional labor mobility as well as public and policy discussions on the changing fortunes of US workers and the United States' resulting appetite for immigration. The two changes:

- first, the imminent end of rapid population growth in Mexico and some parts of Central America (currently at different stages of progression in each of the countries); and,
- second, rising (if still imperfect) educational attainment and human-capital investments throughout the region, leading to higher employment expectations among US workers and uncertain effects on Mexican and Central America employment prospects and emigration pressures.

Of course, the implications of these changes for migration trends depend largely on how the region's economies fare in the years ahead. This report does not attempt to comprehensively assess the employment outlook for the region. Instead, it points to three looming unknowns, potentially with far-reaching consequences for the future of regional labor mobility.

- Whether Mexico and El Salvador will prosper or stagnate as a result of their advanced demographic transitions: Aging populations can reduce investment constraints, but they can also limit productivity gains.
- The evolution of labor demand in the United States: The recent economic crisis accelerated some long-term shifts in the US economy, but reversed others. The employment outlook for less-educated workers remains difficult.
- It is not clear whether the region's education and workforce-training systems are preparing workers with the skills needed in growing industries; underemployment among the well-educated is a real concern.

7 World Bank, "World Development Indicators," accessed January 2011.

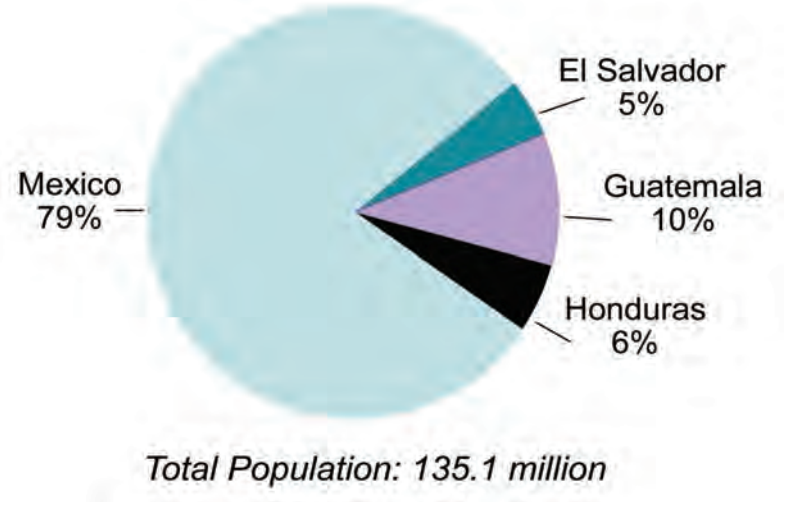
8 Derived from the Comisión Económica para América Latina y el Caribe (CEPAL), Centro Latinoamericano y Caribeño de Demografía (CELADE), "Population Estimates and Projections, 2008 revisions," accessed January 2011.

This report uses data generated by international organizations and the countries' national statistics agencies to describe recent demographic and human-capital trends in the region and how human-capital stock is expected to evolve over the coming decades. It concludes by posing critical questions about the future of regional labor markets and migration in light of these data, with an eye toward these longer-term developments in the regional economy.[9]

II. Population Growth and Age Structure

In 2009, the region was home to about 135.1 million people — roughly three times larger than its total population in 1960. Mexico is the demographic giant of the region, accounting for around four-fifths of the total population, followed by Guatemala (about one-tenth), and by Honduras and El Salvador (about one-twentieth each) (see Figure 1 and Appendix 2 for total populations and shares over time.)

Figure 1. Total Population of Mexico and Central America, 2009

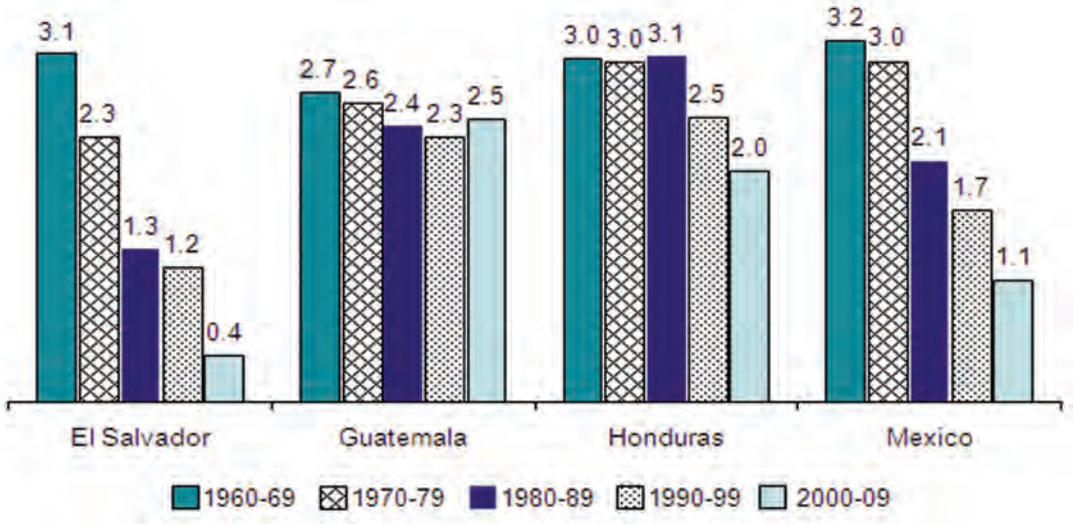


Source: World Bank, "World Development Indicators 2009."

All four countries grew rapidly during the 1960s (about 3 percent a year), but population growth rates have since diverged, with growth rates slowing during the 1970s in El Salvador, during the 1980s in Mexico, and during the 1990s in Honduras, while Guatemala's population growth rate has essentially remained constant (see Figure 2).

9 The statistical agencies include the Instituto Nacional de Estadística y Geografía (INEGI) in Mexico; the Ministerio de Economía, Dirección General de Estadística y Censos (DIGESTYC) in El Salvador; the Instituto Nacional de Estadística (INE) in Guatemala; and the Instituto Nacional de Estadística (INE) in Honduras.

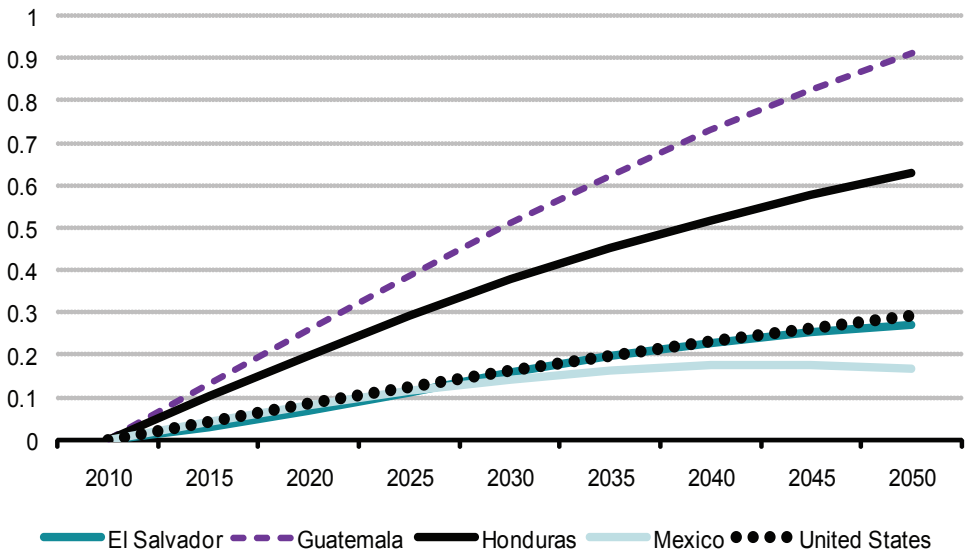
Figure 2. Average Annual Population Growth Rate (Percent), 1960 to 2009



Source: World Bank, "World Development Indicators," multiple years.

From a demographic perspective, the region has divided into two sets of countries over the past four decades. Population growth has slowed in El Salvador and Mexico while it continues at a high rate in Guatemala and Honduras. The United Nations Economic Commission for Latin American and the Caribbean's Population Division (CELADE) projects that the countries' demographic trends will continue to diverge over the next four decades. Cumulative population growth will be below 30 percent in between 2010 and 2050 in Mexico and El Salvador — a modest growth level similar to projections for the United States — while growth is projected to exceed 60 percent in Honduras and 90 percent in Guatemala (see Figure 3).

Figure 3. Projected Cumulative Population Growth (2010 base year), 2010 to 2050

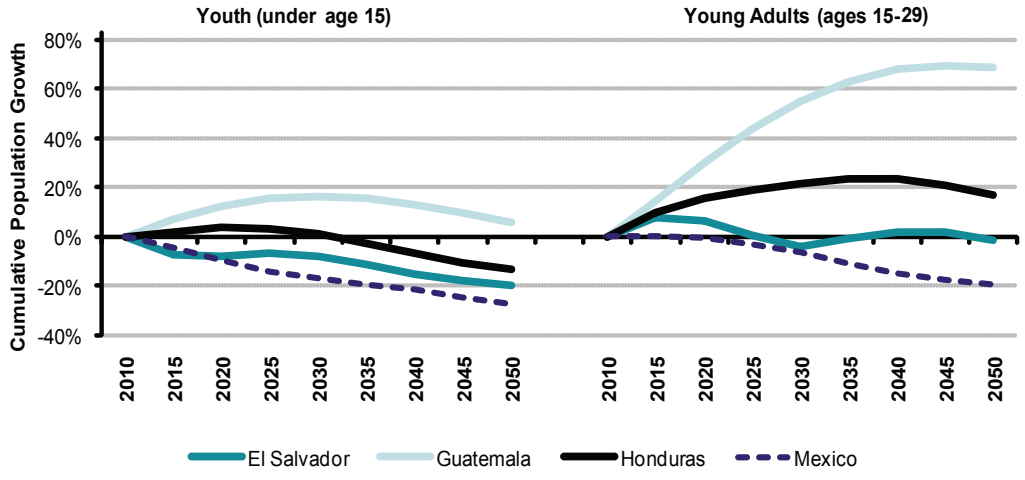


Sources: El Salvador, Guatemala, Honduras, and Mexico: Comisión Económica para América Latina y el Caribe (CEPAL), Centro Latinoamericano y Caribeño de Demografía (CELADE), "Population Estimates and Projections, 2008 revisions." United States: US Census Bureau, "National Population Projections," 2009 revisions, constant net international migration series.

Above all else, these trends reflect diverging fertility rates. (Life expectancies have converged just above 70 years throughout the region, though they are slightly higher in Mexico than elsewhere.) Fertility rates in all four countries were above six children per woman in the 1960s; they dropped in Mexico and El Salvador beginning in the 1970s and reached the replacement rate of about two children per woman by the first decade of the 21st century. Fertility rates fell more slowly in Honduras and Guatemala to three children per woman and four children per woman, respectively, by 2009. The persistence of high fertility rates in Guatemala and Honduras is principally the result of high birth rates among disadvantaged subgroups — particularly indigenous, afro-descendant, rural, and poor women — who constitute a larger portion of the total population in those countries than in Mexico and El Salvador.[10] Fertility rates in Mexico remain substantially higher — above three children per woman — among indigenous and rural women as well.[11]

One result of slowing birth rates in Mexico and El Salvador is that the youth population (under age 15) began to decline during the early 1980s, and Mexico's young adult population (ages 15-29) stabilized in the current decade. In 1970, 46.6 percent of Mexicans and 46.2 percent of Salvadorans were under age 15 compared to 27.9 and 31.5 percent respectively in 2010. By comparison, the youth share of the total US population fell over the same period from 31.1 percent in 1960 (near the peak of the baby boom years) to 20.1 percent in 2009, with second-generation immigrants accounting for a large share of US youth.[12] Over the next 40 years, the youth population is projected to continue falling in Mexico and El Salvador and to begin contracting (around 2035) in Honduras (see Figure 4). Young adult populations are projected to stabilize in El Salvador and to begin declining in Mexico around 2025 to 2030. But this age group is expected to continue growing rapidly in Honduras and Guatemala over 2010 to 2040 before stabilizing or declining modestly.

Figure 4. Projected Cumulative Population Growth by Age Group, 2010 to 2050 (2010 = 0)



Source: CEPAL/CELADE, "Population Estimates and Projections," 2008 revisions.

10 Suzana Cavenaghi, ed., *Demographic transformations and inequalities in Latin America: Historical trends and recent patterns* (Rio de Janeiro: Latin American Population Association, 2009), www.alapop.org/docs/publicaciones/investigaciones/DemogTransformations.pdf#page=161.

11 INEGI, "Conteo de Población y Vivienda 2005," accessed January 20, 2011.

12 Mid-year estimates from US Census Bureau, "2011 Statistical Abstract: Historical Statistics," accessed January 2011, www.census.gov/compendia/statab/hist_stats.html. Data for 2005 and 2009 from the ACS. About one-fifth of children born in the United States in the 1990s and about one-quarter of children born in the United States between 2000 and 2009 had an immigrant parent; see Migration Policy Institute (MPI) Data Hub, "Children under 18 in Immigrant Families," www.migrationinformation.org/datahub/historicaltrends.cfm.

As these smaller youth cohorts age into adulthood, migration pressures in the region may begin to recede. Young adulthood is when most migrants from Mexico and Central America decide to move abroad; it is also the age when the long-term foundations of work and family life are established, a reality with important implications for the social and economic development of a country. Our analysis of 2009 American Community Survey (ACS) data shows that about 56 percent of Mexican immigrants, 60 percent of Honduran immigrants, 61 percent of Salvadoran immigrants, and 63 percent of Guatemalan immigrants had arrived in the United States between the ages of 15 and 30.[13] Another one-fifth to one-quarter migrate before age 15, so that more than four-fifths of all immigrants from the region moved by age 30.[14]

The growing elderly population in the region has led some demographers to voice concerns about the underlying potential for economic growth and the sustainability of pension systems.

At the other end of the spectrum, the elderly population (ages 65 and older) has remained relatively small over the past half century throughout the region, increasing as a share of the total population by only 1 to 2 percentage points. But the elderly cohort is projected to grow rapidly in 2010-50, more than doubling in El Salvador and nearly quintupling in Honduras, and Guatemala.[15] In Mexico, the elderly are expected to triple from 7 million in 2010 to 28 million in 2050, or from 5 percent to over 21 percent of the country's population. By 2050, the elderly will comprise 15 percent of El Salvador's population, 13 percent of Honduras', and 9 percent of Guatemala's. (The elderly are about 13 percent of the US population today, but the share is expected to grow to about 21 percent by 2050.[16]) The growing elderly population in the region has led some demographers to voice concerns about the underlying potential for economic growth and the sustainability of pension systems.[17] Of course, many countries in the advanced industrial world — including the United States, though with less acute pressures than elsewhere — also confront the challenge of how to sustain economic growth in the face of an aging population.[18]

Countries tend to prosper as fertility slows and the so-called "dependency ratio" — that is, the share of the prime working-age population relative to the youth and elderly populations — improves. The narrow window after the number of youth begins to fall but before the number of elderly substantially rises is known as the "demographic dividend."[19] In the best of cases, these favorable demographic conditions lead to virtuous circles of wealth accumulation and prosperity. But this outcome is hardly automatic. Economic policies have sweeping consequences for the quantity and quality of

13 MPI analysis of microdata from the 2009 ACS made available by the Minnesota Population Center: Steven Ruggles, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, and Matthew Sobek, "Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database]" (Minneapolis: University of Minnesota, 2010).

14 Ibid.

15 Unless indicated otherwise, data in this paragraph are based on CEPAL/CELADE, "Population Estimates and Projections."

16 ACS 2009; US Census Bureau, "Interim Projections by Age, Sex, Race and Hispanic Origin, 2000-2050," www.census.gov/population/www/projections/usinterimproj/.

17 See Juan Chackiel, "América Latina: ¿Hacia una Población Decreciente y Envejecida?" *Papeles de Población*, no. 50 (2006): 37-70.

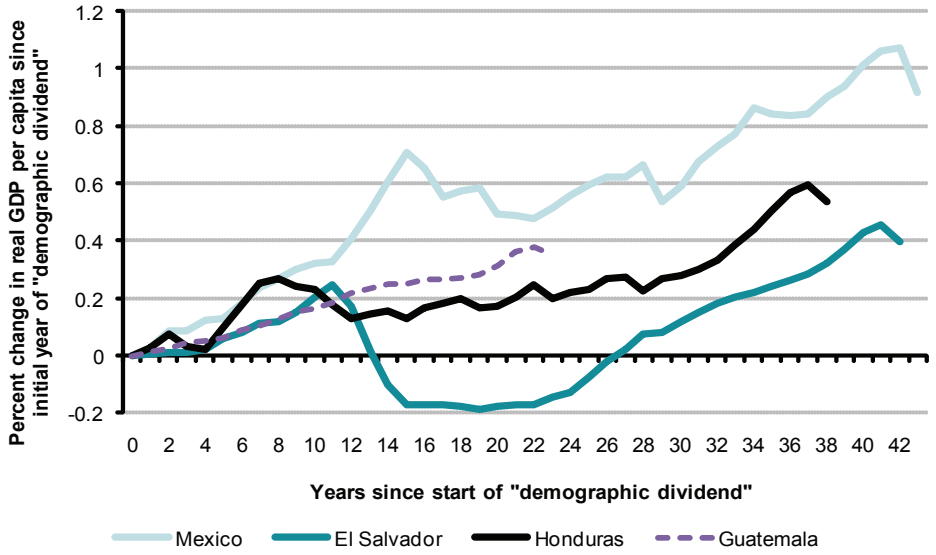
18 See *The Economist,* "A slow-burning fuse: A survey of ageing populations," *The Economist,* June 25, 2009, www.economist.com/node/13888045?story_id=13888045.

19 For a review, see David E. Bloom, David Canning, and Jaypee Sevilla, *The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change* (Santa Monica, CA: RAND Corporation, 2003).

jobs available. In many instances, it is difficult to generate sufficient employment to keep pace with demographic growth. Moreover, social policies — particularly education and training policy — determine the skill level of a country's future workforce and, as a result, the types of industries where it is possible to forge a comparative advantage in the global marketplace.

CELADE estimates that the dependency ratio first began to decline in Mexico and El Salvador during the mid-1960s and will continue falling through the early 2020s in Mexico and through the late 2020s in El Salvador (see Appendix 2).[20] A falling dependency ratio appeared in Honduras by the early 1970s and should last through the early 2040s, while it first appeared in the mid- to late 1980s in Guatemala and should last through 2050. But across Latin America, and in sharp contrast to East Asia, favorable demographic change has failed to translate into economic growth and prosperity. National income per capita has increased only modestly since the start of the demographic dividend, with Mexico outperforming its southern neighbors at comparable points in time (see Figure 5). And emigration from the region has continued to grow despite the demographic transitions in Mexico and El Salvador, with the United States absorbing between one-fifth and one-quarter of the region's annual population growth.[21]

Figure 5. Cumulative GDP Per Capita Growth over the "Demographic Dividend"



Note: *Calculated from the earliest initial year of "demographic dividend" according to the two definitions proposed by the Economic Commission for Latin America and the Caribbean (ECLAC): Mexico (1966), El Salvador (1967), Honduras (1971), Guatemala (1986).
Sources: World Bank, "World Development Indicators," multiple years; ECLAC, Population Estimates and Projections.

Overall, the demographic outlook for Mexico and Central America over the next four decades points to emerging opportunities and to new challenges, with uncertain implications for the regional migration system. The demographic transition will run its course in Mexico and El Salvador, leading to slower population growth. Fewer youth will enter the labor market, freeing resources for investment, potentially leading to productivity gains and reducing pressure on the countries' economies to generate employment. Mexico's national income per capita and total population are comparable to levels recorded in the United States around 1930.[22] And like the United States at that time, Mexico is

20 CEPAL, *Transformaciones Demográficas y su Influencia en el Desarrollo en América Latina y el Caribe* (Santiago, Chile: CEPAL, 2008).
21 MPI estimates based on data from the Economic Commission for Latin America and the Caribbean (ECLAC) and the US Census Bureau.
22 Mexico's 2009 population was 108 million and per capita income was $7,057; and the US population in 1930 stood at 123 million and per capita income at $7,254, with incomes in 2005 inflation-adjusted dollars. Mexico estimates from US Department of Agriculture (USDA), Economic Research Service, "Current Dollar and Real Gross Domestic Product," January 19, 2011

characterized by stark inequalities between affluent urban zones and an impoverished agrarian south. While the contemporary global economic environment is different and each country is unique, history suggests that investments in Mexico's workforce over the coming decades could yield meaningful returns.

Mexico's national income per capita also is comparable to those of Spain and Greece in the mid-1960s, Portugal in the mid-1970s, and South Korea and Taiwan in the mid-1980s. If the experiences of these countries are relevant, substantial emigration from Mexico could continue for another decade or more — particularly among the better educated. Indeed, over the past decade, the number of Mexican immigrants in the United States with a bachelor's degree or higher grew nearly twice as fast as the number with less education (79 versus 44 percent). With Mexico's aging population representing an additional factor, the long-term implications of slower population growth in Mexico remain very much uncertain.

In many respects, El Salvador appears to be at a similar point along its demographic transition as Mexico — only it is much poorer.[23] The opportunity costs of a decade of civil war are obvious in the country's low national income per capita relative to its progression along the demographic transition (see Figure 5). Many countries in Latin America experienced a lost decade of growth during the 1980s, but El Salvador slid backward. According to the World Bank's Commission on Growth and Development, the economic prospects of small, densely populated, and resource-poor countries such as El Salvador (and Singapore and Mauritius, for example) historically are tied to the productivity of their workers or to close ties with larger regional or global powers (e.g., the island states of the Caribbean and Oceania).[24] Yet even among the wealthiest of small countries, such as New Zealand, emigration is endemic — particularly among the well-educated, the young, and the entrepreneurial.

Finally, compared to Mexico and El Salvador, the demographic prospects for Guatemala and Honduras over the coming decades appear to deviate less from the recent past. Both countries remain poorer than El Salvador,[25] and both will continue to experience rapid population growth along with its accompanying social and economic challenges, including the likelihood of continued high emigration rates.

III. Labor Force Characteristics and Education

As in many developing and emerging economies, it is difficult to measure the precise dimensions of employment and labor force participation in Mexico and Central America. Workers often move fluidly between formal and informal employment and "employment" may reference various intensities of economic activity including full- and part-time paid employment, self-employment, contract labor, trainee labor (e.g., apprentices, interns), and unpaid family workers.[26] With these caveats in mind,

update, www.ers.usda.gov/Data/Macroeconomics/ and INEGI, "Encuesta Nacional de Ocupación y Empleo 2009" online database; US historical estimates derived from US Department of Commerce, Bureau of Economic Analysis, "Current-dollar and Real GDP," www.bea.gov/national/index.htm#gdp, and US Census Bureau, "Historical Population Estimates," www.census.gov/popest/archives/pre-1980/.

23 National income per capita in El Salvador stood at $3,039 in 2009; USDA, Economic Research Service, "Current Dollar and Real Gross Domestic Product."

24 See Commission on Growth and Development, *The Growth Report: Strategies for Sustained Growth and Inclusive Development* (Washington, DC: The World Bank: 2008): 77-9.

25 National income per capita was $2,812 in Guatemala and $1,201 in Honduras in 2009; USDA, Economic Research Service, "Current Dollar and Real Gross Domestic Product."

26 There is no universally accepted definition of the "informal economy," but it is generally understood to include economic activity that circumvents standard regulation. For a review of this phenomenon in Mexico, see Chapters 2 and 5 in Santiago Levy, *Good Intentions, Bad Outcomes: Social Policy, Informality, and Economic Growth in Mexico* (Washington, DC: Brookings Institution Press, 2008).

about 54 million of the region's 95 million adults ages 15 and older were formally or informally employed in 2008 — 44.0 million in Mexico (57 percent of the population ages 15 and older), 4.9 million in Guatemala (62 percent), 2.5 million in Honduras (56 percent), and 2.2 million in El Salvador (54 percent).[27] In addition, about one-tenth of children ages 7 to 14 across the region participate in the labor force (the share is closer to one-fifth in Guatemala) — totaling about 2 million children. With the exception of Honduras, most working children also are enrolled in school.

On initial inspection, unemployment rates appear fairly low across the region — ranging from 3 percent in Honduras to 4 percent in Guatemala and Mexico, and 6 percent in El Salvador.[28] Yet official unemployment statistics fail to account for underemployed workers (workers who are employed part-time but would prefer full-time work), who are between one-quarter and one-third of employed workers in Central America and one in ten employed workers in Mexico.[29] Many underemployed workers are in the informal sector, which is estimated to account for that just over half of all nonagricultural jobs in the region, ranging from 50 percent in Mexico to 56 percent in Guatemala, 57 percent in El Salvador, and 58 percent in Honduras.[30]

Agriculture (including hunting, forestry, and fishing) was the largest employer in Guatemala and Honduras, accounting for about one-third of all jobs in both countries (see Table 2). In Mexico and El Salvador, commerce and hospitality employed more workers — 29 to 30 percent of employment — while agriculture accounted for less than one-fifth of jobs in both countries. About one in six workers across the region worked in manufacturing while about one in eight worked in social and personal services. The share of the region's workforce employed in agriculture has declined since 1980 from over half in Guatemala and Honduras, about one-third in El Salvador, and about one-quarter in Mexico. Employment has largely shifted to services rather than to industry, with "services" including a diverse set of both well-paying and poorly paying occupations across many sectors of the economy.

Governments in Mexico and Central America have made extraordinary progress in recent years expanding access to primary education.[31] In the late 1990s, about three-quarters of children in El Salvador and Guatemala were enrolled in primary school. By 2008, *net primary enrollment* — that is, the share of primary-school age children enrolled in school —approached full coverage, reaching 94

27 MPI estimates based on total population age-structure estimates are from ECLAC; total population, gender, and employment-to-population ratios for adults ages 15 and older are from the World Bank, "World Development Indicators." Applying the age-structure estimates to estimates of the total male and female population, we estimate the number of males and female ages 15 and older. We then apply employment-to-population ratios to these figures to estimate total employment. "Employment" is defined according to International Labor Organization (ILO) definitions to include both paid and self-employment of at least one hour in a specified reference period — either one week or one day. It includes most unpaid family workers, trainees, and armed forces. For additional details, see ILO, "Main Statistics (annual) – Employment," accessed January 2011, http://laborsta.ilo.org/applv8/data/c2e.html.

28 Unless otherwise indicated, labor force data in this section are from MPI tabulations of data compiled from national labor force surveys; in order to avoid confusing structural and cyclical trends, the data predate the global financial crisis of 2008. Data for El Salvador: Ministerio de Economía, Dirección General de Estadística y Censos, Encuesta de Hogares de Propósitos Múltiples (EHPM), 2007; Guatemala: Instituto Nacional de Estadística, "Encuesta Nacional de Empleo e Ingresos" (ENEI), 2006; Honduras: Secretaría de Trabajo y Seguridad Social, Encuesta Permanente de Hogares de Propósitos Múltiples (EPHPM), 2007, Primer Semestre; Mexico: INEGI, ENOE, 2007.

29 Underemployment may also refer to workers who fail to earn sufficient income to support their families; MPI analysis of national labor force surveys, see footnote 26.

30 Johannes Jütting and Juan R. de Laiglesia, *Is Informal Normal? Towards More and Better Jobs in Developing Countries* (Paris: Organization for Economic Cooperation and Development [OECD], 2009); Sangeeta Pratap and Erwan Quintin, "The Informal Sector in Developing Countries: Output, Assets and Employment" (Research Paper No. 2006/130, World Institute for Development Economics Research, 2006). Additional estimates of the informal sector based on national accounts are available in Guillermo Vuletin, "Measuring the Informal Economy in Latin America and the Caribbean" (Working Paper 08/12, International Monetary Fund [IMF], April 2008).

31 Formal education is a crude indicator of workers' capacities since it overlooks tacit and technical skills and fails to account for the quality of instruction. For a discussion of the challenges of quantifying and evaluating labor qualifications in Europe, see Elizabeth Collett and Fabian Zuleeg, "Soft, Scarce and Super Skills: Sourcing the Next Generation of Migrant Workers in Europe," in *Talent, Competitiveness and Migration*, eds. Bertelsmann Stiftung and Migration Policy Institute (Gütersloh, Germany: Verlag Bertelsmann Stiftung, 2009): 337-61.

percent in El Salvador and 95 percent in Guatemala (see Table 3). (Primary school enrollment rates have been substantially higher in Mexico and Honduras for several decades).

Table 2. Occupational Distribution of Employed Workers

Occupation	El Salvador (2007) (%)	Guatemala (2006) (%)	Honduras (2007) (%)	Mexico (2008) (%)
Agriculture, hunting, forestry, and fishing	18.0	33.2	34.6	13.1
Natural resource extraction and distribution	0.6	0.4	0.7	0.9
Construction	6.1	6.6	6.7	8.3
Manufacturing	16.7	15.9	14.9	16.5
Commerce and hospitality	29.8	22.8	21.3	29.2
Transportation and communications	4.3	3.0	3.7	4.6
Finance, research, and business activities	4.7	3.3	3.3	5.9
Social and personal services	11.1	12.6	14.8	11.5
Public administration and defense	4.1	2.1	*	5.0
Other	4.6	0.2	0.1	5.0

Note: *Categorized with "Social and personal services." See Appendix 3 for detailed definition of occupational categories.
Source: MPI analysis of national survey data compiled by the International Labor Organization, "Laborsta Database," Industrial Standard Industrial Classification of all Economic Activities Revision 2 and Revision 3.

Moreover, *gross enrollment rates* — which measure total enrollment relative to the age group corresponding to a given level of schooling — suggests that the region is rapidly making up for lost time by enrolling older students in primary school as well. Thus, the numbers of out-of-school children in Central America have declined dramatically in the last decade: from 179,000 to 38,000 in El Salvador, from 377,000 to 78,000 in Guatemala, and from 119,000 to 31,000 in Honduras. The number of out-of-school children in Mexico has declined less dramatically — from 82,000 to 61,000 — but is still extremely small given the country's total population.[32] Mexico also has made enormous progress in promoting both secondary and tertiary enrollment. Public education is compulsory in Mexico through lower-secondary school — and access to postsecondary education has expanded in El Salvador in recent years (see Table 3). The number of students enrolled in postsecondary programs in Mexico tripled from 936,000 in 1980 to 2.8 million in 2009 — an often overlooked success story.[33]

One outcome of the region's success in expanding access to basic education has been an increasingly educated youth population. While parental educational attainment remains one of the strongest predictors of a child's educational opportunities,[34] Mexican and Central American education levels for young adults ages 15 to 19 and (to a lesser degree) for young adults ages 20 to 24 are rapidly converging with those in the United States, though Guatemalans lag farther behind (see Figure 6).[35]

32 Primary school-age children only. Figures from El Salvador and Guatemala are for 1998-2008; figures from Honduras and Mexico are for 2000-2008.

33 Luis de la Calle and Luis Rubio, *Clasemediero: Pobre no más, desarrollado aún no* (Mexico, DF: Centro de Investigación para el Desarrollo, A.C., 2010).

34 Ricardo Paes de Barros, Francisco H. G. Ferreira, José R. Molinas Vega, and Jaime Saavedra Chanduvi with Mirela de Carvalho, Samuel Franco, Samuel Freije-Rodríguez, and Jérémie Gignoux, *Measuring Inequality of Opportunities in Latin America and the Caribbean* (Washington, DC: The World Bank, 2009): 176.

35 Robert J. Barro and Jong-Wha Lee, "A New Data Set of Educational Attainment in the World, 1950-2010" (National Bureau of Economic Research Working paper No. 15902, April 2010). Data available at www.barrolee.com.

Table 3. School Enrollment Rates, 2008

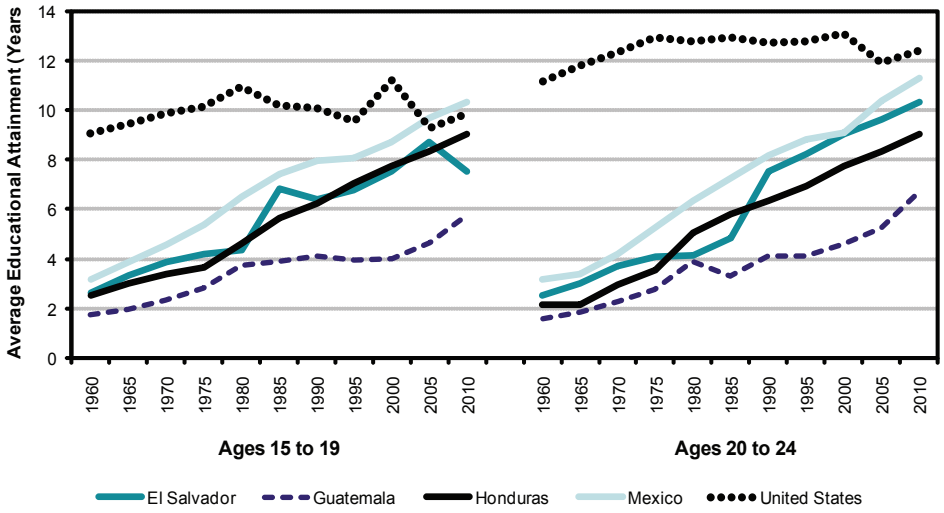
	Primary		Secondary		Tertiary
	Net (%)	Gross (%)	Net (%)	Gross (%)	Gross (%)
El Salvador	94	115	55	64	25
Guatemala	95	114	40	57	18*
Honduras	97	116	n/a	65	17†
Mexico	98	114	72	90	27

Notes: * 2007. † 2004. "N/a" indicates that data are not available. The difference between the net and gross enrollment rates is composed of student enrollment beyond the grade-level age group.

Definitions: Net enrollment rate is the ratio of children of official school age (based on the International Standard Classification of Education, 1997) who are enrolled in school to the population of the corresponding official school age; gross enrollment rate is the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to school level indicated.

Sources: World Bank, "World Development Indicators" based on Education Policy and Data Center, Trend Projections and United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics.

Figure 6. Average Educational Attainment of Youth by Age, 1960 to 2010



Source: Robert J. Barro and Jong-Wha Lee, "A New Data Set of Educational Attainment in the World, 1950-2010" (National Bureau of Economic Research Working paper No. 15902, April 2010).

Overall, more than half of workers in Central America have completed primary school. Nearly one-third of Salvadoran workers have a secondary education or higher compared to less than one-quarter of Honduran workers and less than one-fifth of Guatemalan workers. Mexican workers are much more educated on average than workers in Central America: over three-quarters have at least a secondary education and nearly one-quarter have some postsecondary education (see Table 4).

Table 4. Education Level of the Labor Force, 2007

Education Level	El Salvador* (%)	Guatemala** (%)	Honduras*** (%)	Mexico (%)
No education	15.7	24.0	13.9	5.7
Primary education	54.1	55.4	52.9	30.2
Secondary education	19.8	13.7	18.5	41.4
Tertiary education	10.3	6.9	4.9	22.7

Notes: Columns may not add to 100 percent as unknown responses are excluded from the table. For Honduras, 9.8 percent of labor force participants did not respond to the question on educational attainment. For Mexico, the nonresponse rate was 0.1 percent.

* Total population ages 15 and older; all other data for labor force participants.

** 2006. All other data for 2007.

*** Labor force participants ages 10 and older.

Sources: MPI tabulations of data compiled from national labor force surveys. El Salvador: Ministerio de Economía, Dirección General de Estadística y Censos, Encuesta de Hogares de Propósitos Múltiples (EHPM), 2007; Guatemala: Instituto Nacional de Estadística, "Encuesta Nacional de Empleo e Ingresos" (ENEI), 2006; Honduras: Secretaría de Trabajo y Seguridad Social, Encuesta Permanente de Hogares de Propósitos Múltiples (EPHPM), 2007, Primer Semestre; Mexico: Instituto Nacional de Estadística y Geografía, "Encuesta Nacional de Ocupación y Empleo" (ENOE), 2007.

Despite these promising trends, several education indicators offer some cause for concern. Workforce education levels remain substantially below the United States, where nearly two-thirds of the labor force has some postsecondary education. Nearly one-quarter of workers in Guatemala, about one in seven workers in Honduras and El Salvador, and one in 20 workers in Mexico reported no formal education (see Table 4). Primary education is compulsory in all four countries, but these laws are poorly enforced, as drop-out rates are about one-third in Guatemala, one-fourth in El Salvador and Honduras, and one-twelfth in Mexico. The comparable rate is 1 percent in the United States.[36] In any given year, between 4 percent and 14 percent of primary school students in the region are repeating a grade level. And secondary school enrollments are still low in Central America, particularly in Guatemala, where a majority of secondary school-age youth is not enrolled in school (see Table 3).

Though cross-national comparisons are difficult, a pair of recent studies also suggest a large performance gap between Central American and US primary school students, with Mexican students performing somewhere in between (see Table 5). In one study conducted by the United Nations Educational, Scientific, and Cultural Organization (UNESCO), the 2006 Latin American Laboratory for Assessment of Quality Education (LLECE by its Spanish acronym), Mexican sixth graders scored in a second tier among 15 Latin American countries, behind Cuban, Uruguayan, and Costa Rican students on math tests and behind Cuban, Costa Rican, and Chilean students on reading tests.[37] Salvadoran students scored near the middle of the group, and Guatemalan students scored among the lowest performers. In a second study by the Organization for Economic Cooperation and Development's Program for International Student Assessment (PISA) — which tests the capabilities of 15-year-old students in reading, mathematics, and science — Mexican students scored well behind US students on reading and math tests. US students, in turn, scored behind their peers from Northern Europe and East Asia.[38] (Students in Finland, Hong Kong, South Korea, and Singapore were the top performers on the PISA reading and mathematics exams.) The data point to a need for policymakers in the region to focus on

36 Dropout data are for 2007. Unless otherwise indicated, all data in this section are from the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and the World Bank.

37 Participating countries included Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Nicaragua, Panama, Peru, and Uruguay.

38 Participating countries included Albania, Argentina, Australia, Austria, Azerbaijan, Belgium, Brazil, Bulgaria, Canada, Chile, Colombia, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Indonesia, Ireland, Israel, Italy, Japan, Kazakhstan, South Korea, Kyrgyz Republic, Latvia, Liechtenstein, Lithuania, Luxembourg, Macao, Mexico, Montenegro, Netherlands, New Zealand, Norway, Panama, Peru, Poland, Portugal, Qatar, Romania, Russia, Serbia, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Thailand, Trinidad and Tobago, Tunisia, Turkey, United Kingdom, United States, and Uruguay.

the quality of education in the wake of impressive gains expanding access.[39]

Table 5. Student Performance in Mathematics and Reading

	LLECE 2006		PISA 2009	
	Mean Score in Math, 6th Grade	Mean Score in Reading, 6th Grade	Mean Score in Math, 15-year-olds	Mean Score in Reading, 15-year-olds
El Salvador	472	496	n/a	n/a
Guatemala	456	452	n/a	n/a
Mexico	542	523	419	425
United States	n/a	n/a	487	500

Note: Mexican, Guatemalan, and Salvadoran students participated in UNESCO's Latin American Laboratory for Assessment in Quality Education (LLECE), ; Mexican and US students participated in the Organization for Economic Cooperation and Development OECD) Program for International Student Assessment (PISA). Honduras did not participate in any of the exams.

Sources: UNESCO, LLECE; OECD, PISA; World Bank, Education Statistics.

Finally, some evidence suggests a need for greater focus on the labor market relevance of postsecondary education in the region. While postsecondary enrollment has increased in Mexico in recent decades, higher education appears to offer Mexican workers less protection than their US counterparts against informal employment and underemployed (see Figure 7). Well-educated Mexicans face unemployment and underemployment rates on par with their less-educated peers and about one in six well-educated Mexican workers has a low-wage job.[40] And a growing body of research suggests that Mexican institutions of higher education — similar to their counterparts across much of the developed world — are producing many graduates in fields that appear not to be directly relevant to employers.[41]

In sum, the human-capital profile of Mexico and Central America is evolving rapidly. Educational attainment has been rising in Mexico and to a lesser degree in Central America. A substantial portion of the region's labor force continues to lack any formal education, but many of these workers are older and will age out of the labor force over the coming decade.[42] Mexican, Salvadoran, and Honduran youth also are converging with US youth when it comes to years of schooling, though Guatemala remains several decades behind the rest of the region on this measure. Finally, available evidence suggests that Mexican and Central American students continue to lag behind US youth on standardized tests. US students, in turn, tend to lag behind their East Asian and European peers.

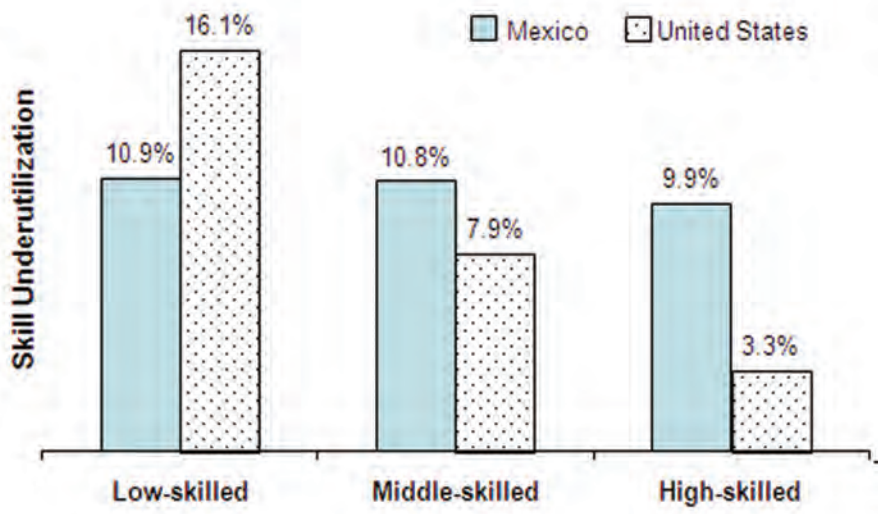
39 This finding is in line with the conclusions of recent studies. See for example, Jeffrey Puryear and Tamara Ortega Goodspeed, "How Can Education Help Latin America Develop?" *Global Journal of Emerging Market Economies,* vol. 3, no. 1 (2011): 111-34.

40 Includes workers with *"medio superior"* or "*superior*" studies. Low salary includes employed workers earning up to two minimum wages in 2007; INEGI, *ENOE*.

41 According to UNESCO statistics, in 2008, 42 percent of Mexican tertiary education graduates studied social sciences, business, and law compared to 15 percent who studied engineering, manufacturing, and construction; 13 percent education; 11 percent sciences (excluding health); 9 percent in health; 4 percent humanities and the arts; 3 percent services; and 2 percent who studied agriculture. See José Antonio Ardavín, "Vinculación educación-empresa para la transición de jóvenes al mercado laboral," (Mexico City: OECD Center for Mexico and Latin America, 2009) and Gonzalo Varela-Petito, "Facing the Knowledge Society: Mexico's Public Universities," *Higher Education Policy*, vol. 23, no. 3 (2010): 436-49.

42 About half of Mexican workers with no formal education and nearly 60 percent of Salvadorans without formal education are ages 50 or older. "*Primaria incompleta*" among employed workers in Mexico; "no education" among the total population ages 15 and older in El Salvador; MPI analysis of national labor force surveys.

Figure 7. Broad Measure of Skill Underutilization* by Education Level, 2007



Notes: * The ratio of unemployed plus underemployed ("subocupado" in Mexico and "part-time workers for economic reasons" in the United States) to the total labor force beyond the age of compulsory public education (15 or older in Mexico and 18 or older in the United States). Rates are not necessarily comparable across countries, but are indicative of trends within each country.

Definitions: Low-skilled equals "*Primaria incompleta*" and "*primaria completa*" in Mexico; less than 12th grade in the United States; middle-skilled equals "*Secundaria completa*" in Mexico; a high school degree, some college education without a degree, or an associate's degree in the United States; high-skilled translates into "*Medio superior y superior*" in Mexico; a bachelor's degree or higher in the United States.

Source: MPI analysis of data from INEGI, "Encuesta Nacional de Ocupación y Empleo," 2007 and US Census Bureau, Current Population Survey, March Socio-Economic Supplement, 2007.

The conventional wisdom that Mexico and Central America will endlessly supply unskilled labor to the US labor market appears increasingly out of date. The region continues to have a large population of less-skilled workers, particularly in Central America, which has only recently begun investing in education. But the region also has an emerging generation of better-educated workers, who will continue to face substantial incentives to seek opportunities abroad. Already, an estimated one-tenth to one-quarter of tertiary-educated adults born in the region reside abroad (mostly in the United States), even when excluding those who moved as children and received their entire education abroad.[43] Whether others in this pool of human capital opt to move abroad (and, if so, to where) or to apply their talents and energies at home is a critical question for the region's future well-being.

IV. Conclusions and Future Prospects

The recent global economic crisis has forced policymakers to think harder about the assumptions driving policy and about their countries' futures in the global economy. North and Central American leaders are no exception. The United States, Mexico, El Salvador, Guatemala, and Honduras benefited from growing regional economic integration before the crisis in the form of trade, de facto labor mobility and its consequences for the well-being of individuals and communities.[44] But these countries

43 Migration at ages 18 or older. Michel Beine, Frederic Docquier, and Hillel Rapoport, "Measuring international skilled migration: New estimates controlling for age of entry" (World Bank Policy Research Discussion Paper, 2006).

44 For a discussion of these trends with a focus on migration flows, see Demetrios G. Papademetriou, Madeleine Sumption, and Aaron Terrazas, "Introduction: Changing Economies and Uneven Fortunes in the Labor Market," in *Migration and Immigrants*

also shared a number of risks and close economic ties likely amplified the spread of economic shocks throughout the region as the recession deepened.

The crisis shattered the popular image of the United States as a country virtually immune from protracted labor market malaise. Unemployment has remained stubbornly high and there is evidence that native-born workers are moving into some "immigrant occupations:" between 2006 and 2010, native-born employment increased and foreign-born employment fell among food preparation and food service workers, maids and domestic workers, barbers, and laundry and dry-cleaning workers.[45] Labor force participation among the elderly has increased rapidly. Nearly one in five senior citizens ages 65 and older now participates in the US workforce, a rate last observed in the 1960s.

The recent global economic crisis has forced policymakers to think harder about the assumptions driving policy and about their countries' futures in the global economy.

Yet many of the concerns that have grabbed policymakers' attention over the past three years have roots in demographic and economic trends that predate the recent downturn. As the US economy continues to move inexorably toward knowledge- and service-based industries that require higher cognitive and interactive/collaborative skills, demand for less-educated and Limited English Proficient (LEP) workers is expected to moderate substantially, although it will not disappear.[46] Sustained inattention to the country's workforce-training infrastructure, especially in skilled trades, has led many industries to rely on foreign workers — often from Mexico and Central America — to fill both lower-skilled and mid-skilled jobs. Many of these jobs are essential to the US economy, may provide a decent living, and sometimes offer opportunities for skill upgrading and a pathway to the middle class, though immigrants tend to face barriers to fully utilizing their skills and credentials acquired abroad.[47] Lessons from Europe's more successful economies such as Germany, the Netherlands, and Scandinavia highlight the importance of training — and constantly retraining — workers for both knowledge industries and skilled trades.

In Mexico and Central America, the financial crisis renewed longstanding debates about the region's continued dependence on the US economy and, to a lesser degree, about national barriers to domestic growth and prosperity. Policymakers took pride in the observation that, unlike in some past crises, the recent global economic turmoil did not originate in the region.[48] And many emerging economies fared remarkably well over the crisis, partly as a result of their prudent economic management. Yet there is also a sense that Mexico in particular is not living up to its potential and is being surpassed by other emerging economies such as China, India, and Brazil.[49] Despite preferential access and

Two Years after the Financial Collapse: Where Do We Stand? eds. Demetrios G. Papademetriou, Madeleine Sumption, and Aaron Terrazas with Carola Burkert, Stephen Loyal and Ruth Ferrero-Turrión (Washington, DC and London: MPI and the British Broadcasting Corporation, 2010), www.migrationpolicy.org/pubs/MPI-BBCreport-2010.pdf.

45 Employed workers ages 16 and older; MPI analysis of data from the March 2006 and March 2010 Socio-economic Supplements to the Current Population Survey (CPS).

46 See T. Alan Lacey and Benjamin Wright, "Occupational employment projections to 2018," *Monthly Labor Review* (2009): 83- 123.

47 Randy Capps, Michael Fix, and Serena Yi-Ying Lin, *Still an Hourglass? Immigrant Workers in Middle-Skilled Jobs* (Washington, DC: MPI, 2010), www.migrationpolicy.org/pubs/sectoralbrief-Sept2010.pdf.

48 For a summary of this perspective, see Otaviano Canuto and Marcelo Giugale, eds., *The Day After Tomorrow: A Handbook of the Future of Economic Policy in the Developing World* (Washington, DC: The World Bank, 2010).

49 See for example Gideon Rachman, "¿Por qué México no es una economía BRIC?" *Expansión*, February 16, 2010. Former Mexican President Carlos Salinas de Gortari has made similar public comments, see "México rezagado de los países BRIC: Salinas de Gortari," *Milenio*, November 24, 2010.

geographic proximity to the US consumer market, trade with the United States in the NAFTA era has not transformed Mexico to the degree many had hoped. Illegal immigration to the United States (and through Mexico in the case of Central Americans) continues and has become an increasingly dangerous and costly proposition.

The economic crisis struck at a critical juncture. For Mexico, the regional giant, the demographic transition that commenced over half a century ago is running its course. The young adult population — the age group most likely to seek opportunities abroad — has stopped growing and is projected to contract in the coming decades. Mexican youth are increasingly well educated and the country has a sophisticated (if in some ways dysfunctional) education system spanning prekindergarten through the university level. Over the past decade, the country has invested intensively in building the human capital of underprivileged youth — notably through its conditional cash transfer program known as *Oportunidades.*[50] The demographic outlook for El Salvador resembles Mexico's in some respects although the country's education and training infrastructure is less developed. At the other extreme, Guatemala's population is expected to continue growing robustly for another half century, and the country will face enormous challenges identifying the resources for needed physical and human investments. Emigration pressures from Guatemala could remain high for several decades. The prospects for Honduras appear somewhat better than for Guatemala, although the country lags the region on many indicators of well-being and the country's education and training infrastructure is grossly underdeveloped.

The long-term implications of these trends are uncertain. For decades, it has been widely accepted that the baby boomer retirement that is just beginning would cause labor shortages in the United States, that a long-term shift toward a knowledge-based economy would reduce the prospects for US workers without a college education, and that Mexico and Central America would be relied upon to meet the US demand for low-skilled labor. In Mexico and Central America, policymakers assumed that slower population growth

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would lead to prosperity and that expanded access to education would lead to higher worker productivity. But the end of the population boom in Mexico and Central America, rising education attainment among Mexican and Central American youth, and the prospect of slower economic growth and reduced demand for low-skilled labor in the United States could reshape the underlying logic of regional labor mobility and cast doubt on the conventional wisdom that has guided policy conversations in the region. In Mexico, as the "*Oportunidades* generation" begins to enter the labor market over the next decade, some will inevitably migrate to the United States. Compared to their predecessors, this new generation of Mexican immigrant youth will be healthier and much better educated; but will likely face familiar challenges, particularly surrounding English language proficiency, credential translation, and legal status.

Indeed, all of these assumptions merit reconsideration. The exit of baby boomers from the US labor market may be further on the horizon and may occur more gradually than earlier demographic projections had

50 Initially created in 2002, *Oportunidades* is a social assistance program that provides conditional cash payments to families for regular school attendance, health visits, and nutritional support. By the late 2000s, the program covered nearly one-quarter of Mexican families and a much higher share of low-income families. The program has become a model for anti-poverty and human capital development programs elsewhere. For recent evaluations of the outcomes of the *Oportunidades* Program, see Secretaría de Desarrollo Social (SEDESOL), Programa de Desarrollo Humano Oportunidades, accessed January 20, 2011, http://evaluacion.oportunidades.gob.mx:8010/es/publicaciones.php.

suggested.[51] Knowledge-based economies generate demand for goods and services, some of which require tacit knowledge or experience not easily mass-produced and not traditionally taught in modern schools. Many of the jobs filled by substantial numbers of Mexican and Central American immigrants in the past will not return for the foreseeable future, most notably in construction. Industries that are expected to grow in the years ahead, such as health care, historically have employed few Mexican and Central American immigrants, relying more on Asian immigrants with higher levels of formal education and industry credentials.

It is increasingly clear that the historic drivers of regional migration are in flux and require more thoughtful consideration from policymakers.

Simultaneously, population growth in Mexico and parts of Central America is gradually coming to an end. The region's youth are increasingly well educated and may not be content taking jobs at the bottom of the US labor market, but slowing population growth in Mexico and El Salvador has not yet yielded meaningful economic benefits. As the two countries age in the coming decades, it is not clear whether they are on the cusp of rapid wealth accumulation, like the United States enjoyed after 1930, or if they face the prospect of stagnation similar to present-day Greece and Portugal, which have not fully exploited the potential benefits of their demographic dividend and instead face elderly population structures with inadequate wealth accumulation to fund their retirements.[52] Available evidence points to both possibilities. In Guatemala and Honduras (as well as in Mexico), indigenous, Afro-descendant, and rural communities still lag well behind major urban areas in terms of fertility and access to education. And while the region has made laudable progress expanding access to primary education, the quality of its schools and teachers requires greater attention.

As is often the case, it is possible to imagine many alternative scenarios for how the region's demographic and human-capital profile will evolve over the decades ahead and the implications of these changes for migration and regional economic competitiveness. It is increasingly clear that the historic drivers of regional migration are in flux and require more thoughtful consideration from policymakers. Regardless of the precise direction in which trends move, however, it is clear that policymakers can no longer rely on the conventional wisdom that has guided their decisions in the past.

51 David Ellwood, *Grow Faster Together, Or Grow Slowly Apart* (Washington, DC: The Aspen Institute Domestic Strategy Group, 2002).

52 Neil Howe, Richard Jackson, and Rebecca Strauss, *Latin America's Ageing Challenge: Demographics and Retirement Policy in Brazil, Chile and Mexico* (Washington, DC: Center for Strategic and International Studies, 2009).

Appendices

Appendix 1. Total Population, 1960 to 2009

	United States	Mexico and Central America*	El Salvador	Guatemala	Honduras	Mexico
Number (millions)						
1960	180.7	45.9	2.8	4.1	2.0	36.9
1970	205.1	62.4	3.7	5.4	2.7	50.6
1980	227.2	82.9	4.7	7.0	3.6	67.6
1990	249.6	102.4	5.3	8.9	4.9	83.2
2000	282.2	121.4	5.9	11.2	6.2	98.0
2009	307.0	135.1	6.2	14.0	7.5	107.4
Country Share of Total* (horizontal percent)						
1960		100%	6.0%	9.0%	4.4%	80.6%
1970		100%	6.0%	8.7%	4.3%	81.0%
1980		100%	5.6%	8.5%	4.4%	81.5%
1990		100%	5.2%	8.7%	4.8%	81.3%
2000		100%	4.9%	9.3%	5.1%	80.7%
2009		100%	4.6%	10.4%	5.5%	79.5%

Note: *El Salvador, Guatemala, Honduras, and Mexico.

Source: World Bank, World Development Indicators.

Appendix 2. Estimated Timeframe of the Demographic Dividend

	Definition 1		Definition 2	
	Initial Year	Terminal Year	Initial Year	Terminal Year
El Salvador	1968	2028	1967	2033
Guatemala	1988	2050	1986	2050
Honduras	1972	2040	1971	2044
Mexico	1966	2022	1966	2024

Notes: Definition 1 equals ratio of the youth (ages 0 to 14) and elderly (ages 60+) population to the working-age population (ages 15 to 59); Definition 2 equals ratio of the youth (ages 0 to 14) and elderly (ages 65+) population to the working-age population (ages 15 to 64).

Source: CELADE, División de Población de la CEPAL, Population estimates and projections, 2007.

Appendix 3. Occupational Classification for Table 1

Agriculture, hunting, forestry and fishing: Agriculture, livestock production, hunting, forestry, logging and related service activities; fishing, operation of fish hatcheries and fish farms, and service activities incidental to fishing.

Natural resource extraction and distribution: Mining of coal and lignite, extraction of peat, extraction of crude petroleum and natural gas and related services (excluding surveying), mining of uranium and thorium ores, mining of metal ores, other mining and quarrying; electricity, gas, steam, and hot water supply; collection, purification, and distribution of water.

Construction: Residential and commercial construction.

Manufacturing: Manufacture of food products and beverages; tobacco products; textiles, wearing apparel, dressing and dyeing of fur; tanning and dressing of leather, manufacture of luggage, handbags, saddler, harness, and footwear; manufacture of wood and wood or cork products (excluding furniture) or straw and plaiting materials; manufacture of paper and paper products; publishing, printing, and reproduction of recorded media; manufacture of coke, refined petroleum products, and nuclear fuel; manufacture of chemicals and chemical products; manufacture of rubber and plastic products; manufacture of other nonmetallic mineral products; manufacture of basic metals and fabricated metal products (excluding machinery and equipment); manufacture of office, accounting, and computing machinery or other electrical machinery; manufacture of radio, television, and communication equipment and apparatus; manufacture of medical, precision, and optical instruments, watches, and clocks; manufacture of motor vehicles, trailers, and semitrailers; manufacture of transport equipment; manufacture of furniture; recycling.

Commerce and hospitality: Sale, maintenance, and repair of motor vehicles and motorcycles; retail sale of automotive fuel; wholesale trade and commission trade; retail trade; repair of personal and household goods; hotels and restaurant services; cafes and other eating and drinking places; rooming houses, camps, and other lodging places.

Transportation and communications: Land transport or transport via pipelines; water transport; air transport; supporting or auxiliary transport activities; travel agencies; post and telecommunications.

Finance, research and business activities: Financial intermediation; insurance and pension funding or auxiliary activities; real estate activities; renting machinery and equipment without operator and of personal and household goods; computer and related activities; research and development; other business activities;

Social and personal services: Education, health, dental, veterinary, and social work; sewage and refuse disposal, sanitation, and similar activities; activities of membership organizations; recreational, cultural, and sporting activities.

Public administration and defense: Public administration and defense.

For additional details see International Labor Organization, Laborsta Database
Industrial Standard Industrial Classification of all Economic Activities
Revision 2, http://laborsta.ilo.org/applv8/data/isic2e.html, and
Revision 3, http://laborsta.ilo.org/applv8/data/isic3e.html.

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