British High Commission Ottawa

Department of Geography & Environmental Studies

Carleton University
Centre for European Studies
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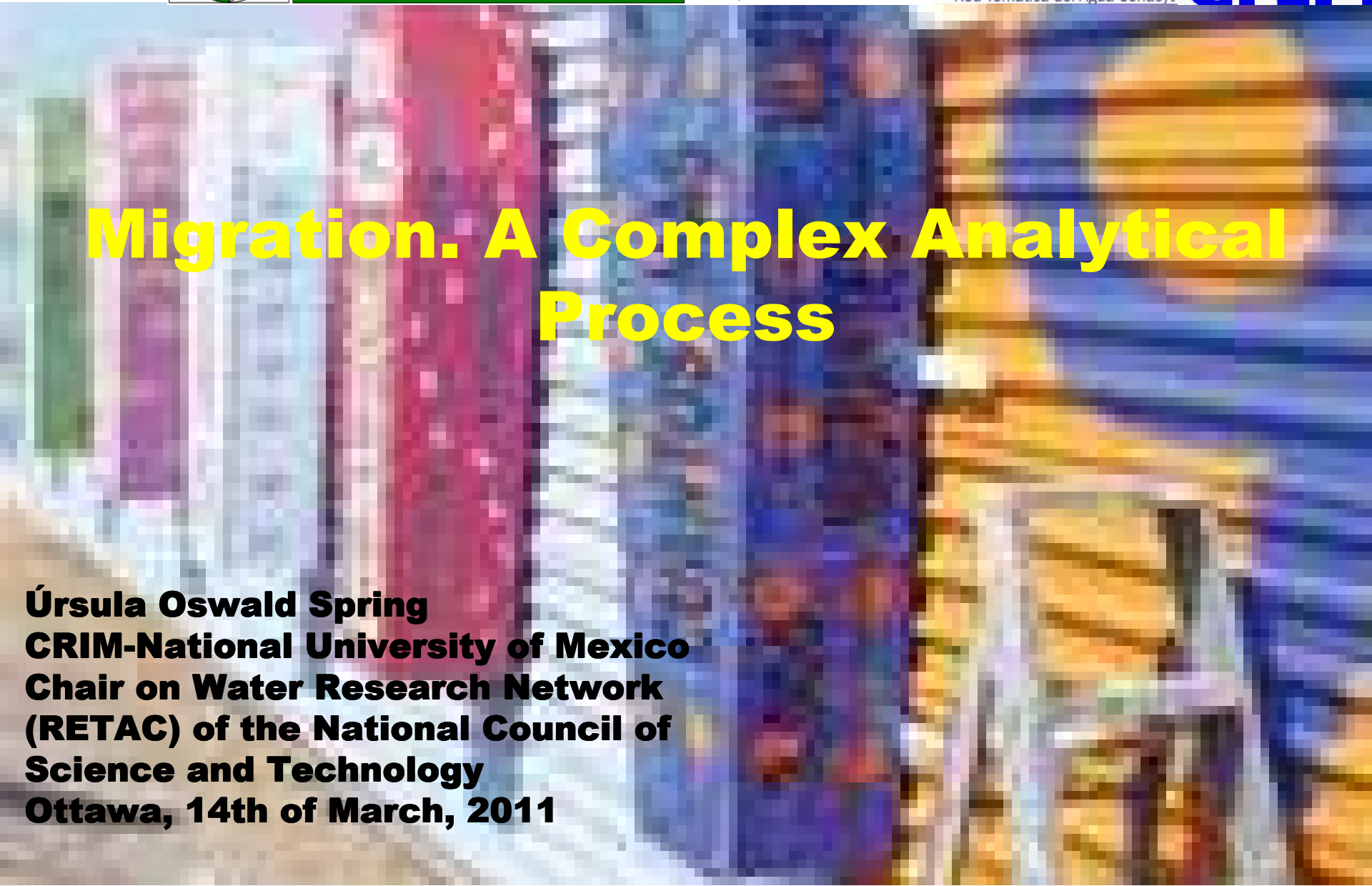
Red Temática del Agua Conacyt

CRIM



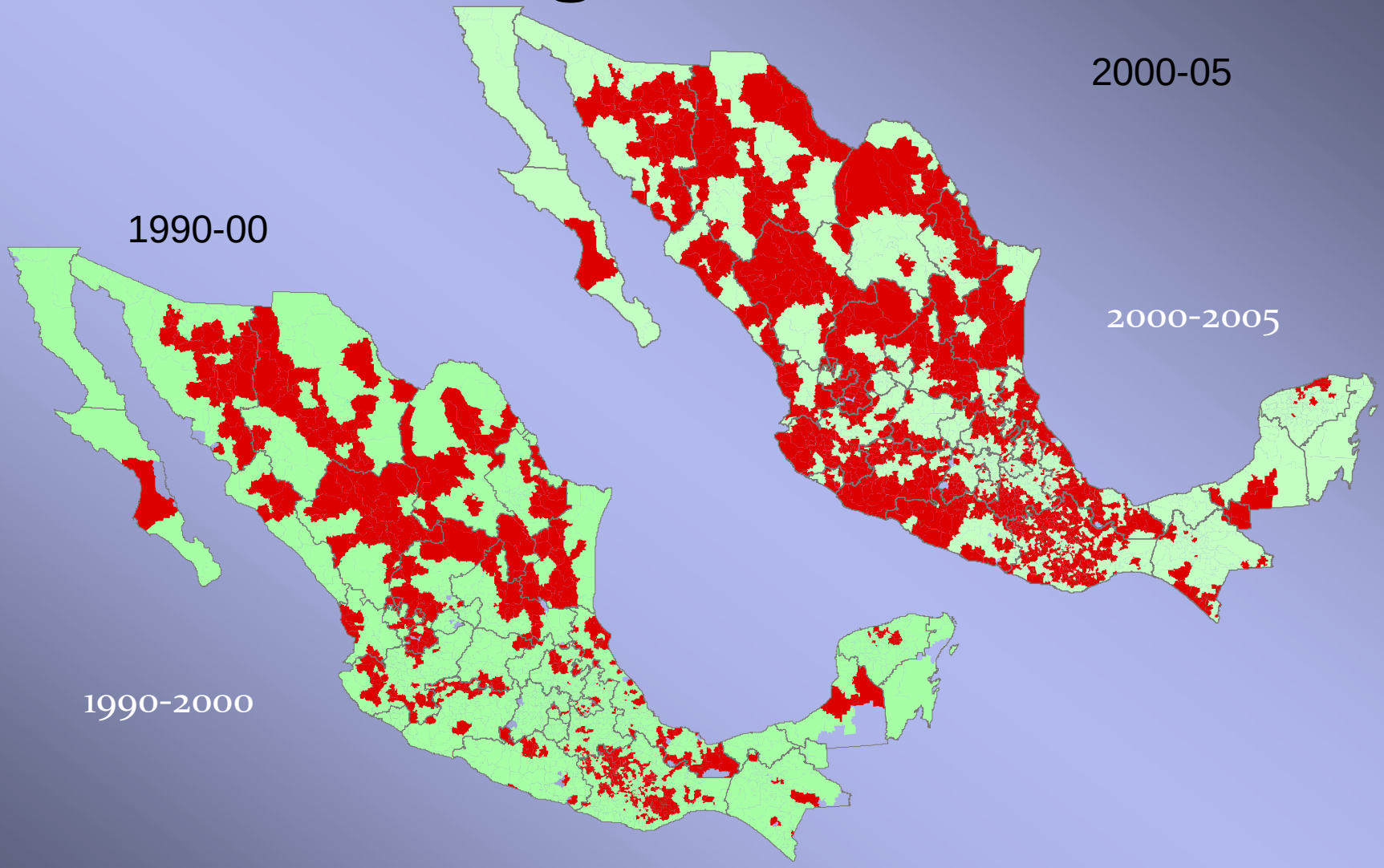
Migration. A Complex Analytical Process

Úrsula Oswald Spring
CRIM-National University of Mexico
Chair on Water Research Network (RETAC) of the National Council of Science and Technology
Ottawa, 14th of March, 2011

Content

1. Situation of migration:
   - Internal migration
   - Transborder migration
2. Causes of migration
   - Human and economic security
   - Environmental security
3. Who is migrating
4. Remittances: 1990-2010
5. Financial crisis, militarized borders and organized crime: a security threat
6. Some conclusions

Internal Migration in Mexico

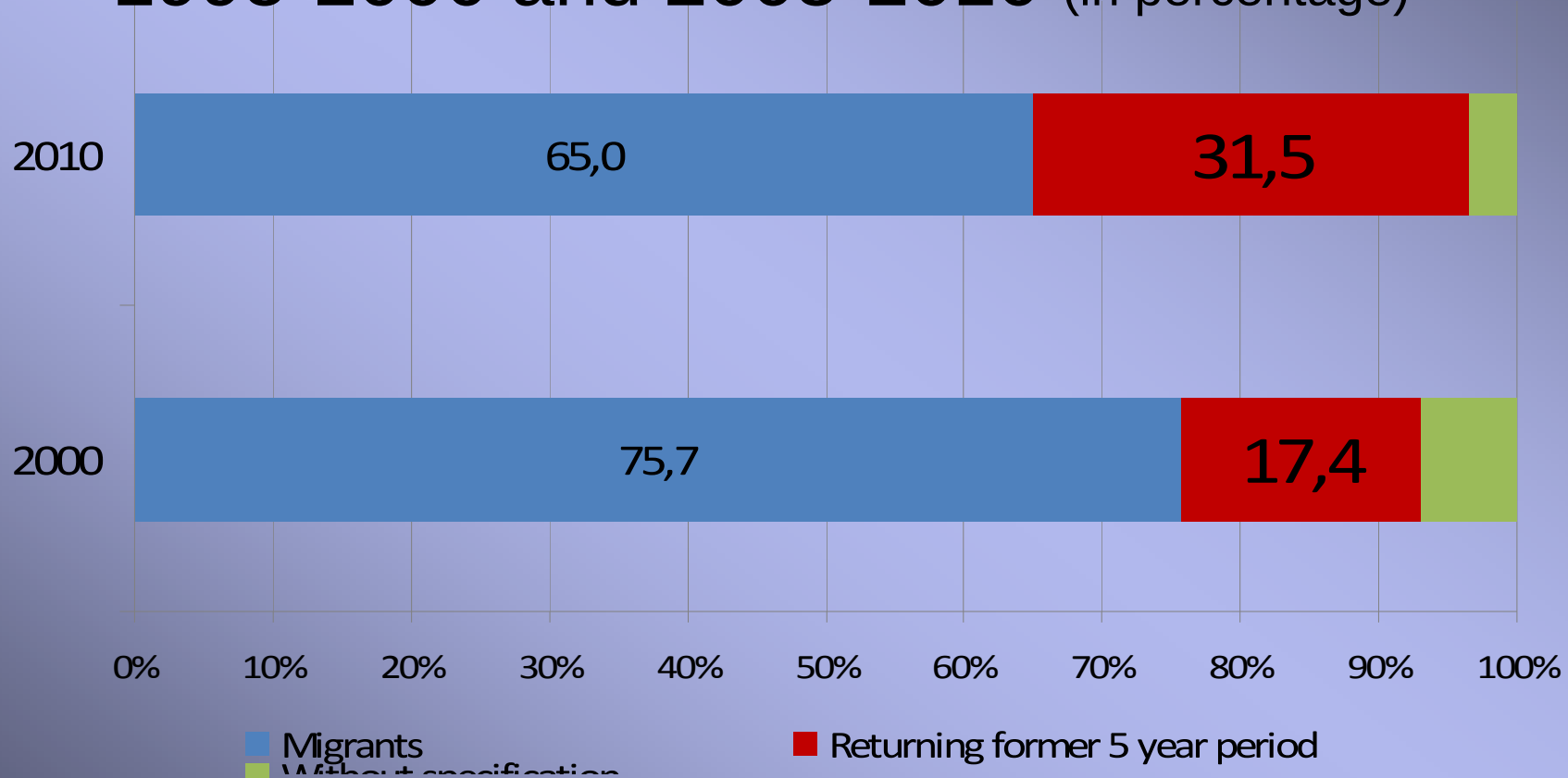


Municipios que pierden población
Municipios que ganan población

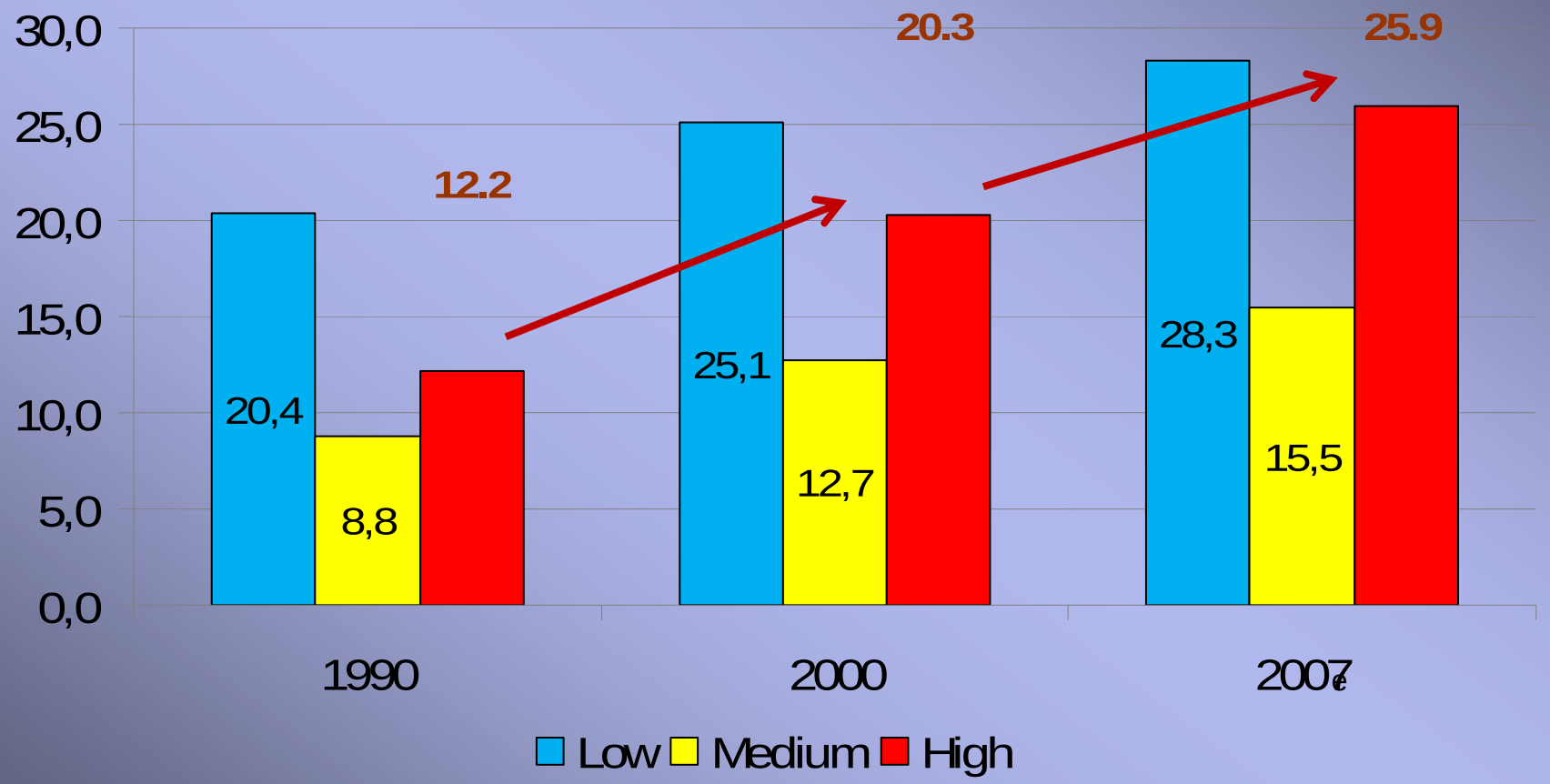
FUENTE: Censos Generales de Población y Vivienda, 199 y 2000. INEGI
II Conteo General de Población y Vivienda, 2005. INEGI

International Migration and (Forced)-Return

1995-2000 and 2005-2010 (in percentage)



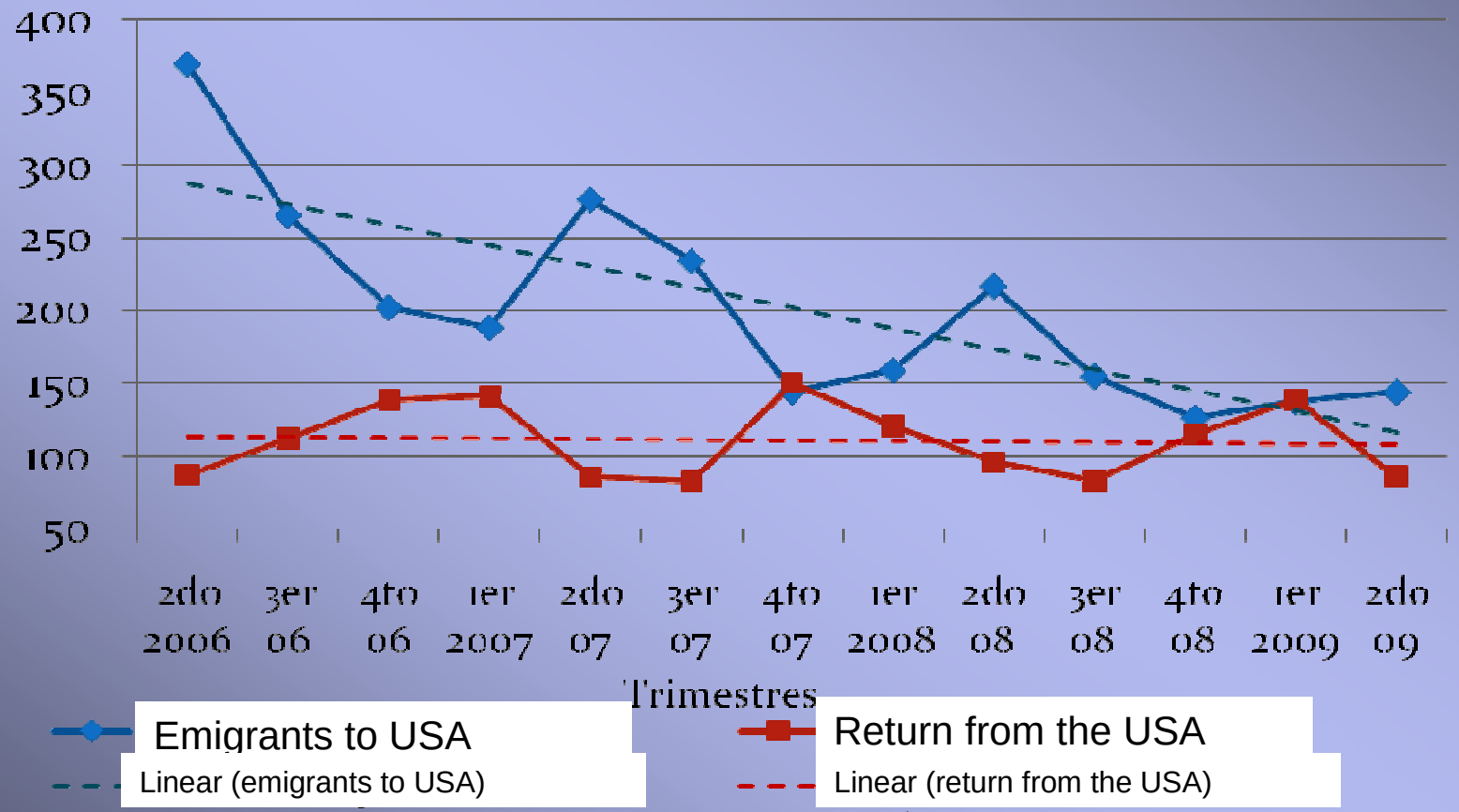
Migrants over 25 years old, residents in OCDE countries with different levels of scolarity, 1990, 2000 y 2007 (million people)



Source: Fernando Lozano, 2011, based on Docquier, Lowell and Marfouk 2008.
2007 es estimated and based on growht rate observed between 1990 and 2000.

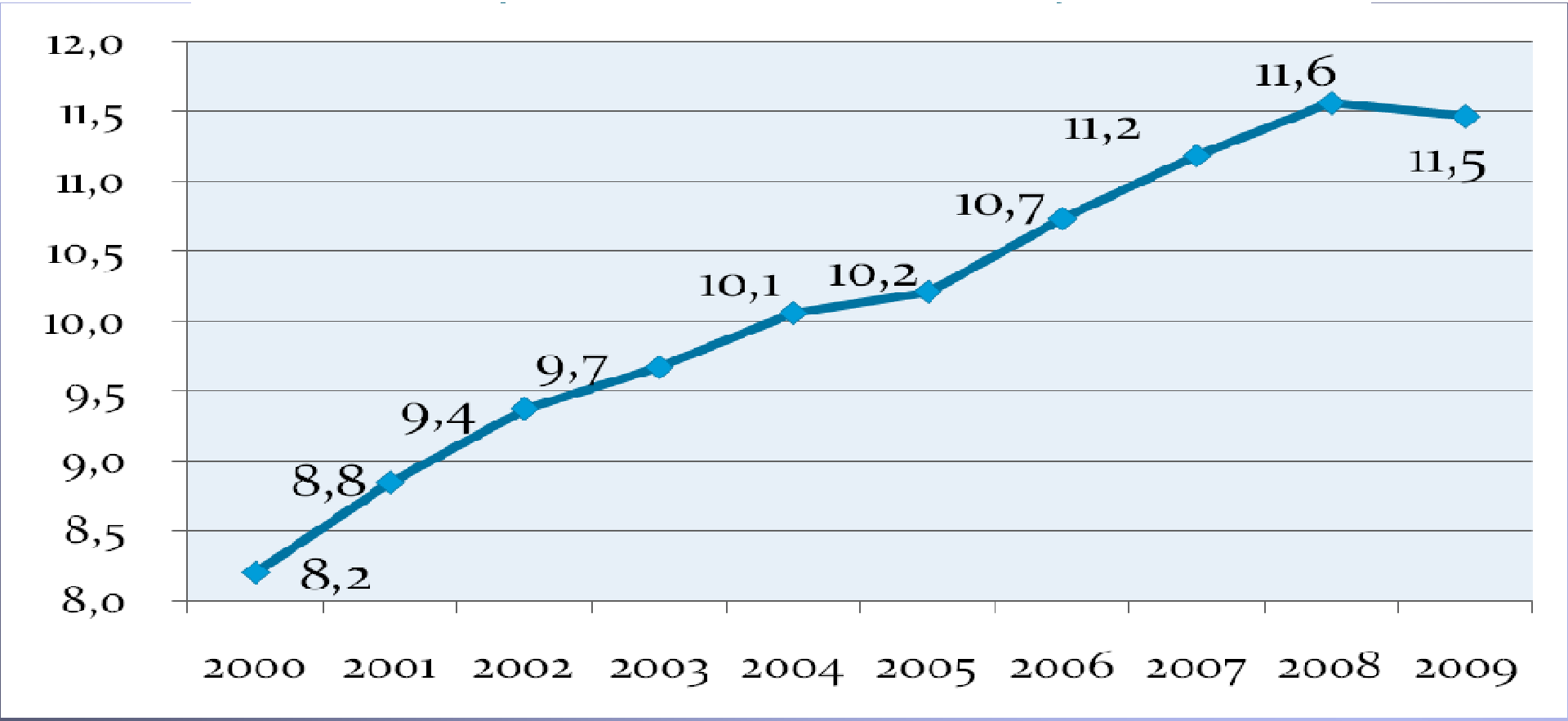
Mexican Migrants to USA and Returning to Mexico: 2006-2009

(1,000 people)

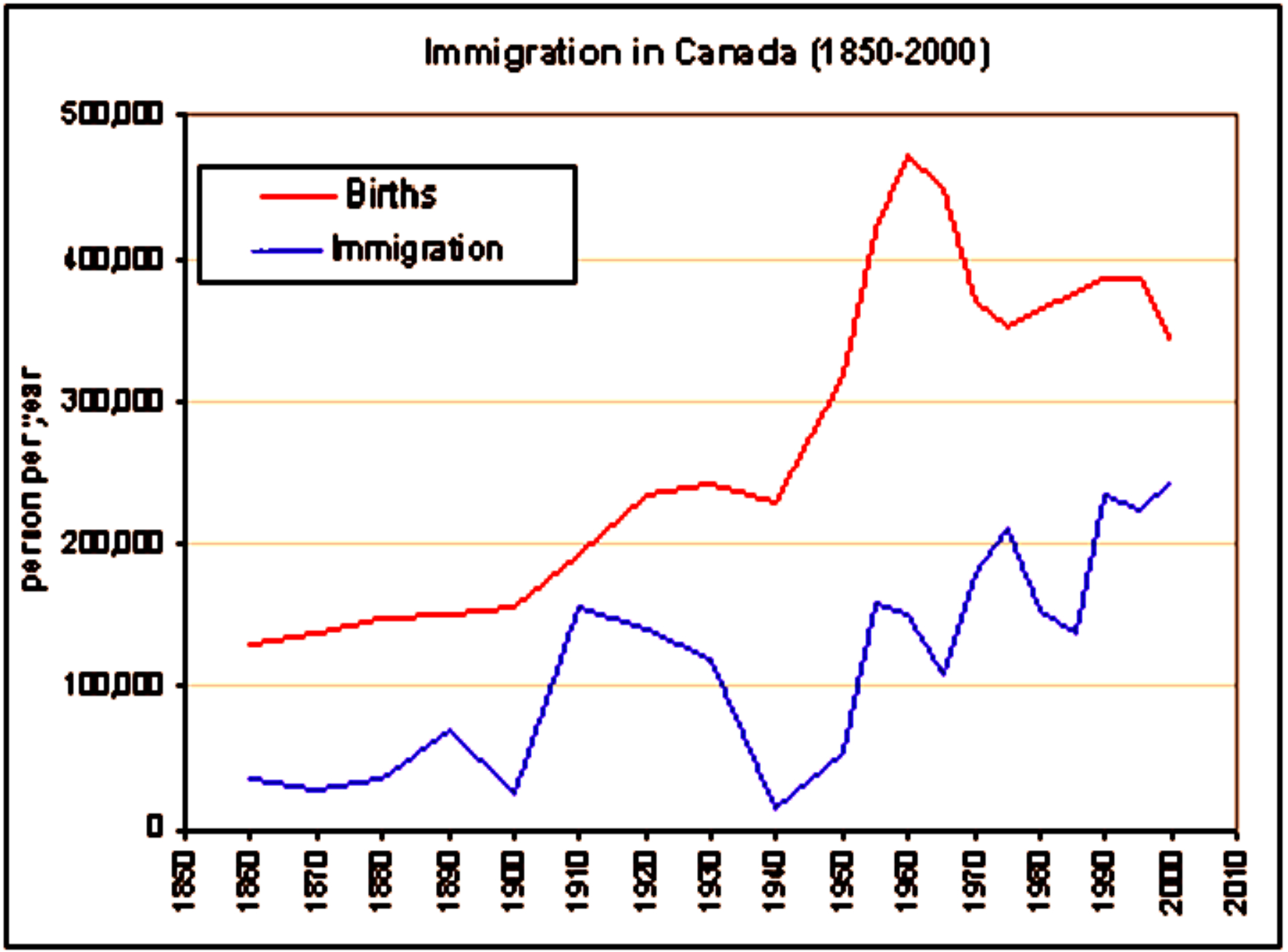


Based on the National Occupation and Employment Survey (Encuesta Nacional de Ocupación y Empleo: ENOE), 2006-2009, elaborated by Fernando Lozano 2011.

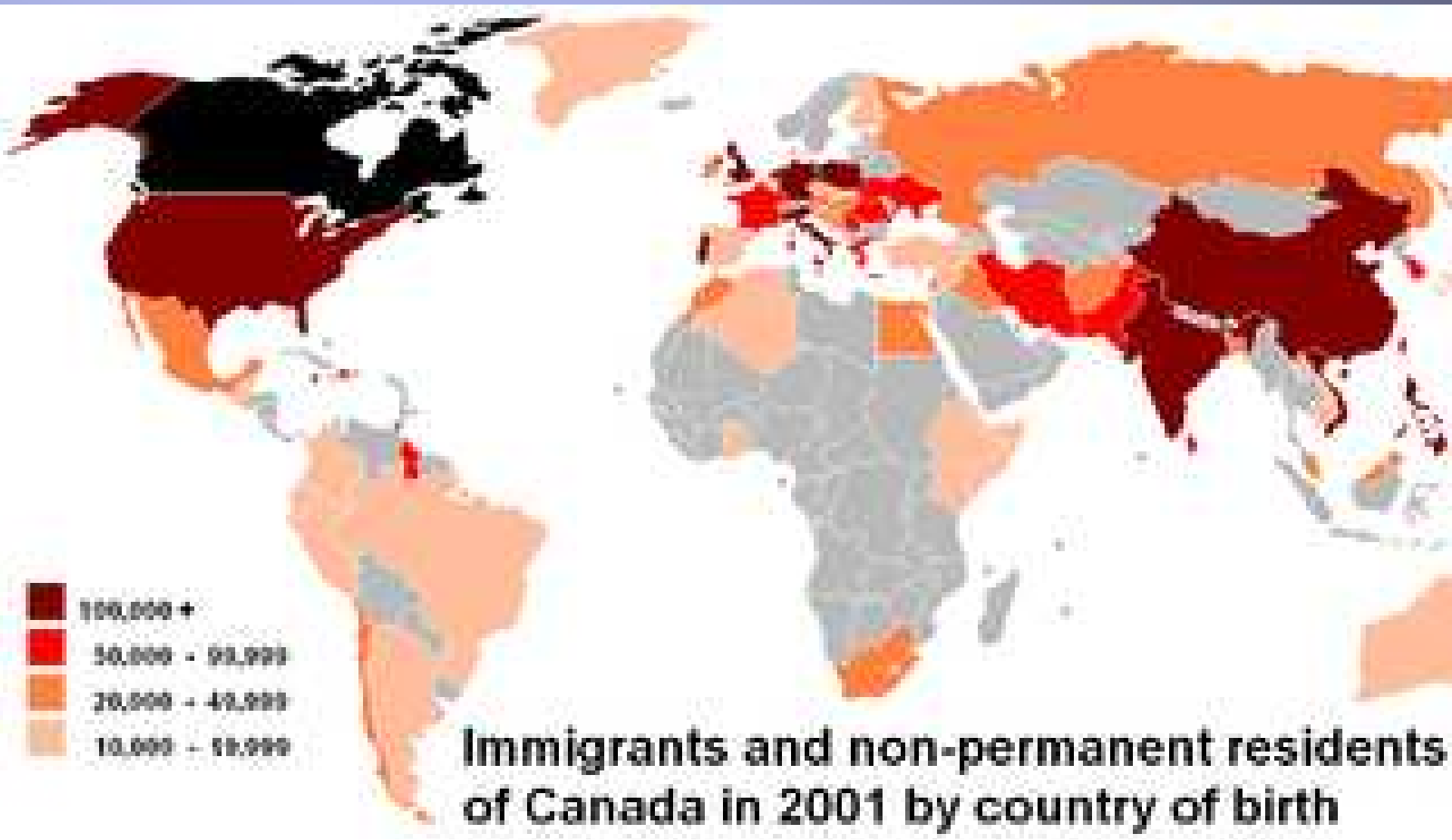
Native Mexicans Residents in USA:
2000-2009 (in million inhabitants)



Fuente: Passel y Cohn, 2009


Immigration in Canada (1850-2000)
Births
Immigration
500,000
400,000
300,000
200,000
100,000
0
1850
1860
1870
1880
1890
1900
1910
1920
1930
1940
1950
1960
1970
1980
1990
2000
2010

Non permanent Inmmigrants in Canada

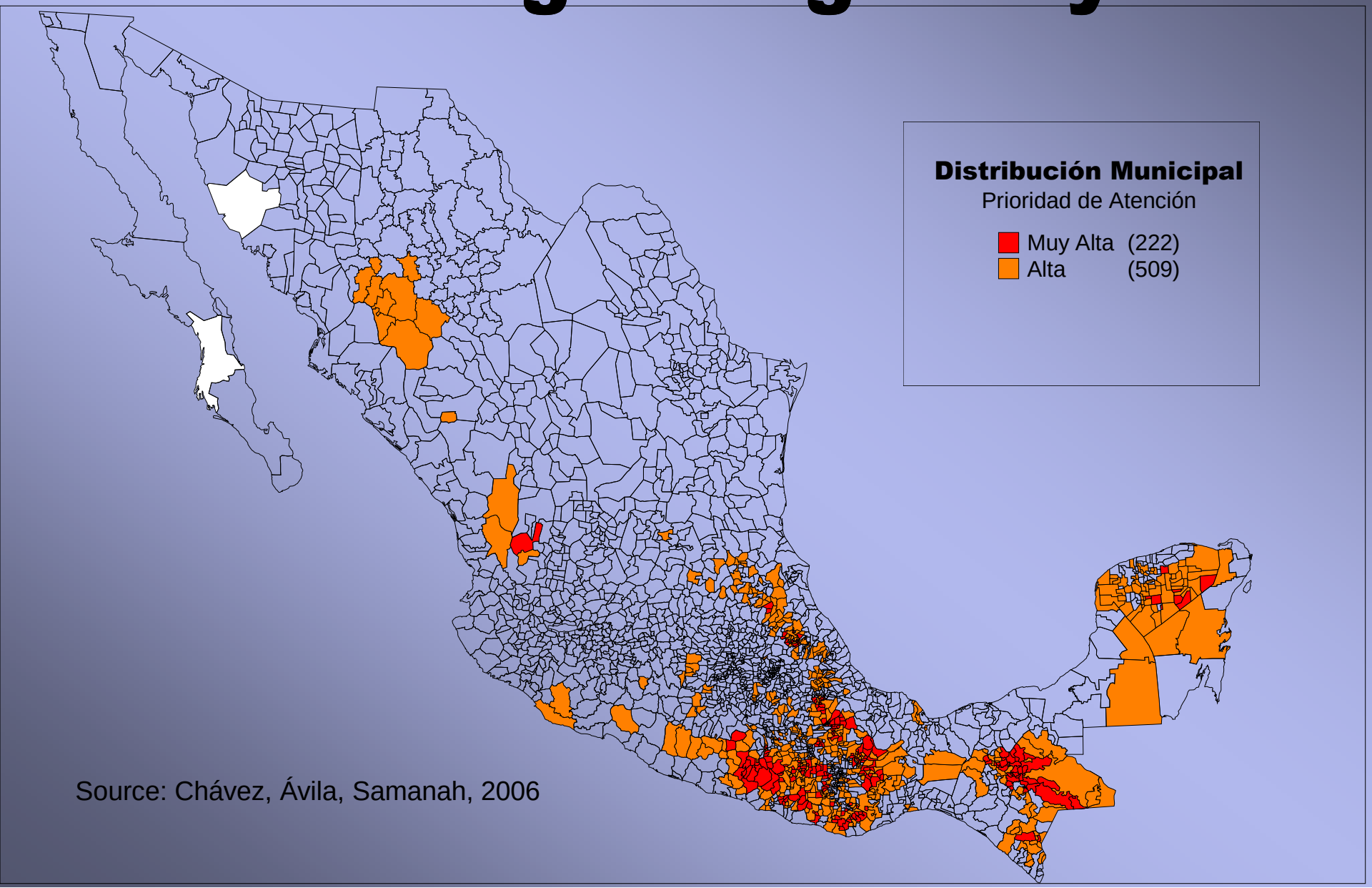


Immigrants and non-permanent residents of Canada in 2001 by country of birth

Reasons for Canadian Immigration

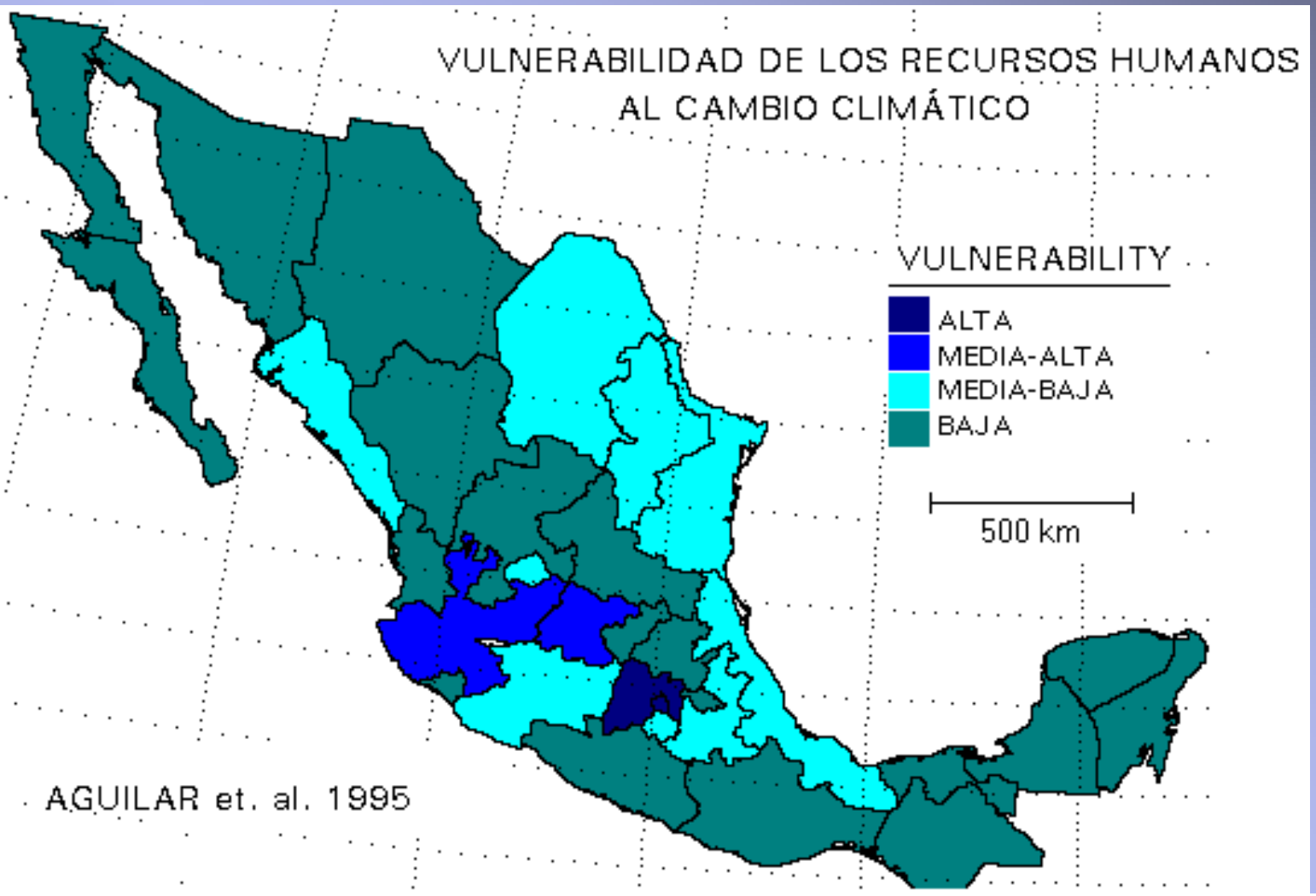
1. 2008: 250,000 immigrants:
    1. 150,000 economic reasons
    2. 66,000 family members
    3. 22,000 refugees
2. Other reasons:
    1. Skilled workers
    2. Professionals
    3. Investors
    4. Entrepreneurs
    5. Self-employed persons
    6. Experience claim (former workers and students)

Socioeconomic Security: Poverty and High Marginality



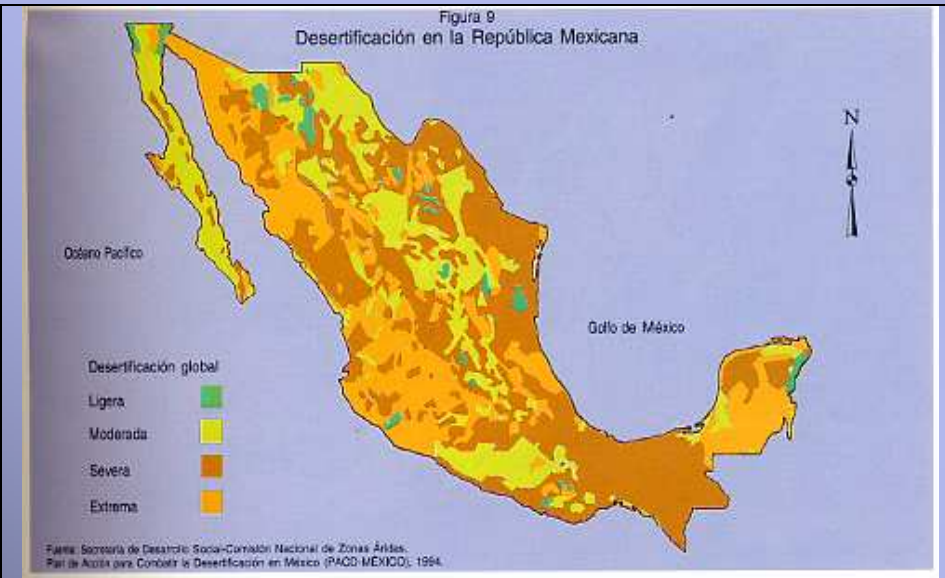
Source: Chávez, Ávila, Samanah, 2006

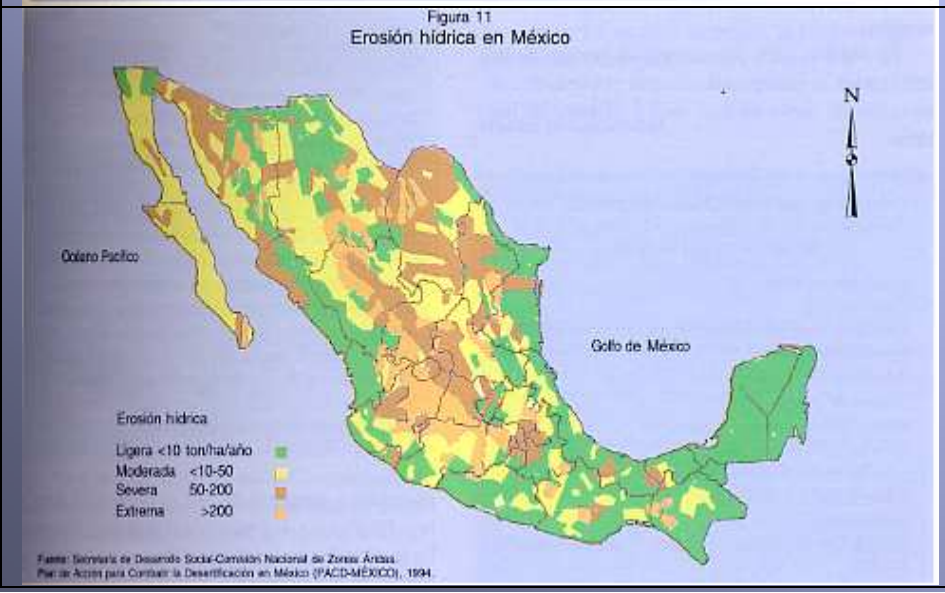
Vulnerability of Human Settlement



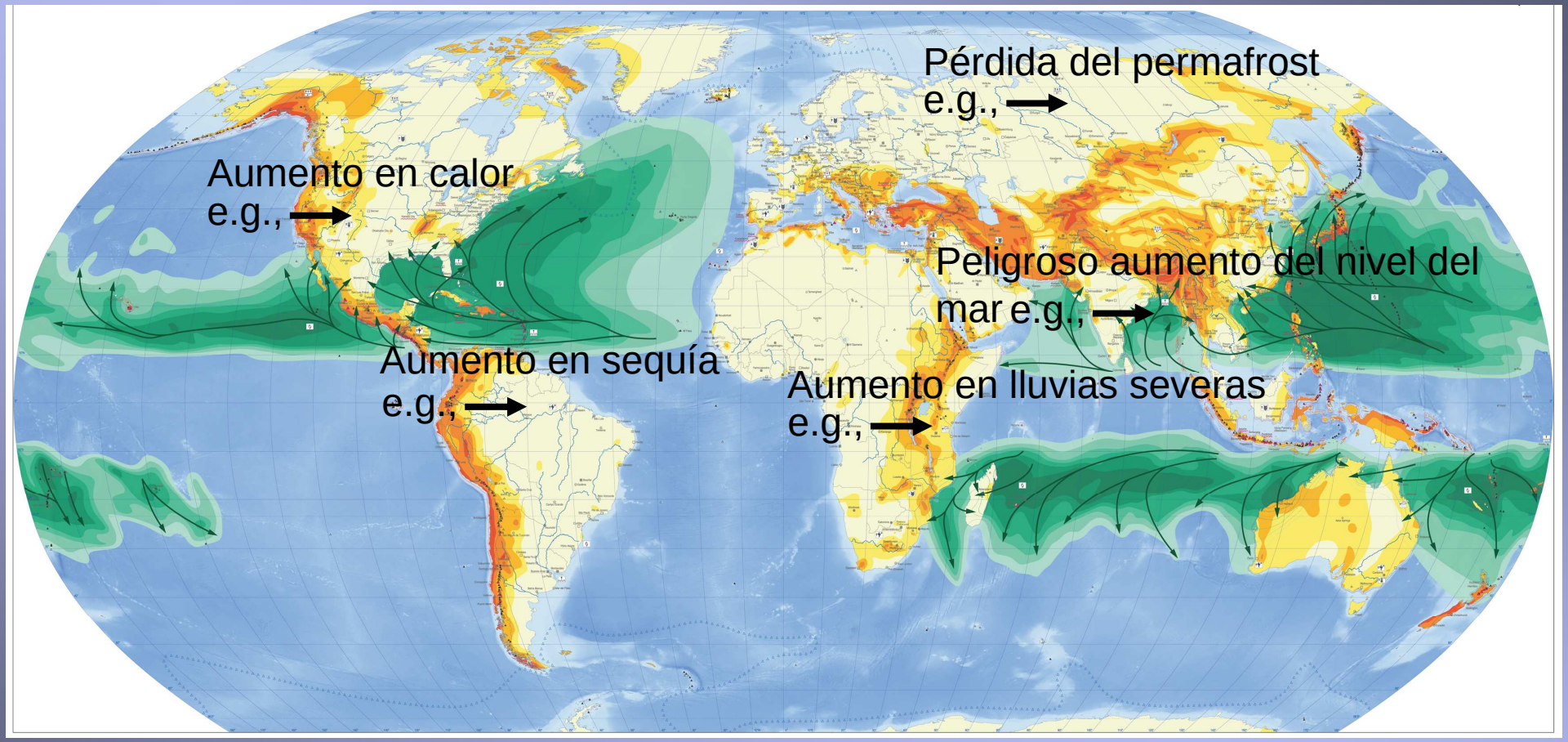
Vulnerability related to population density, growth, morbidity, water consumption/ scarcity / pollution and the impact of CC

Environmental security: drought, fertility loss & erosion is affecting livelihood in Mexico

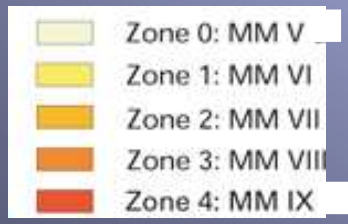




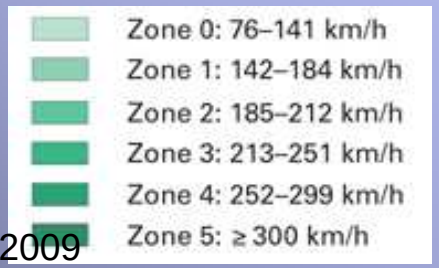
Enviornmental-induced migration



Terremotos



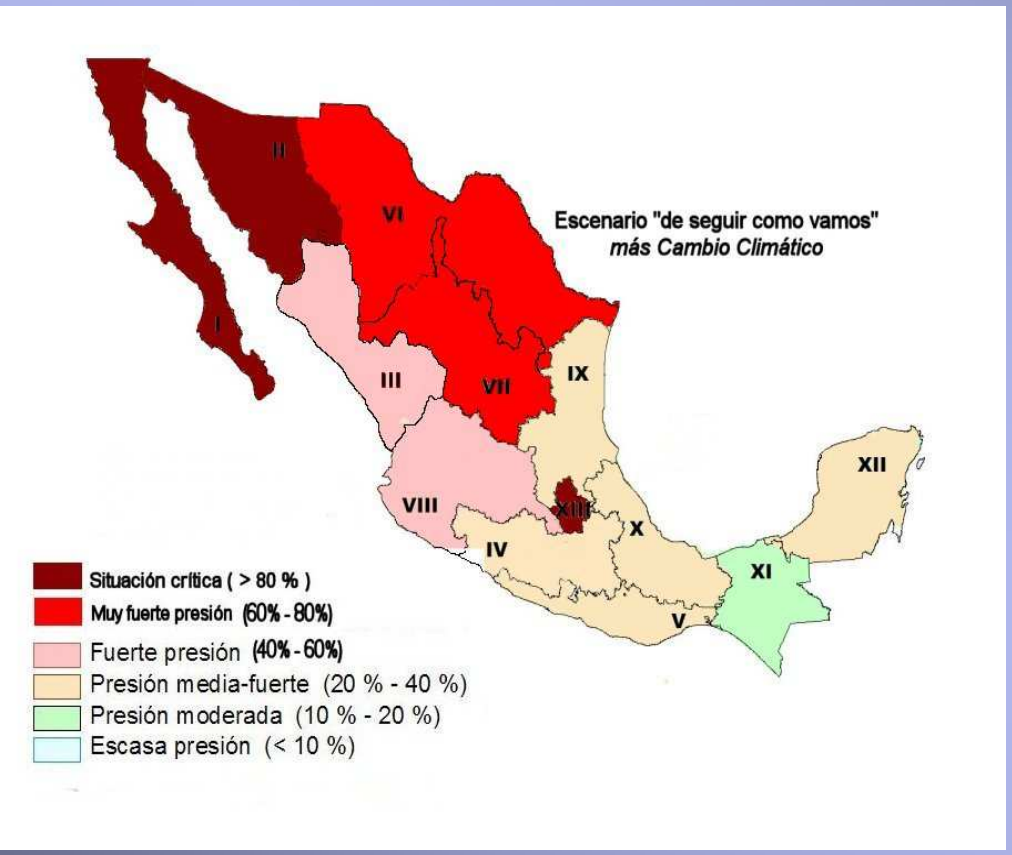
Huracanes tropicales



MM: Escala Mercalli modificada, 2009

Münchener Rück
Munich Re Group

Social Vulnerability in Mexico

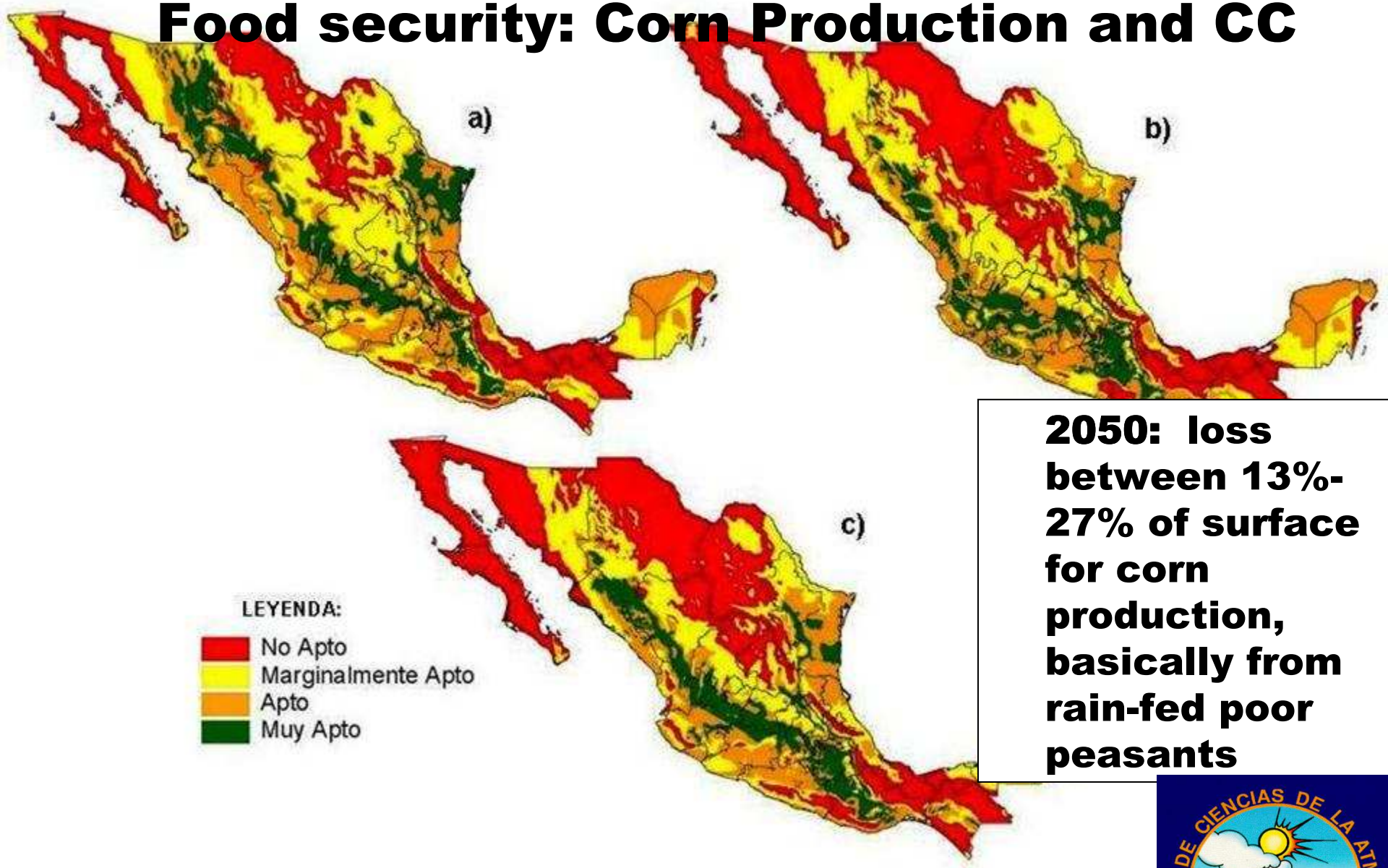


2 decades:

- **75 hydro-meteorological disasters:**
- **-10,000 deads, million of affected**
- **Damages: over 10 billion US$ (500 million/year)**
- **2008: 632 storms (average 469), Tabasco flood: 1.2 million inhabitants affected; 80% of territory**

Arreguín, 2009; Oswald, 2009

Food security: Corn Production and CC

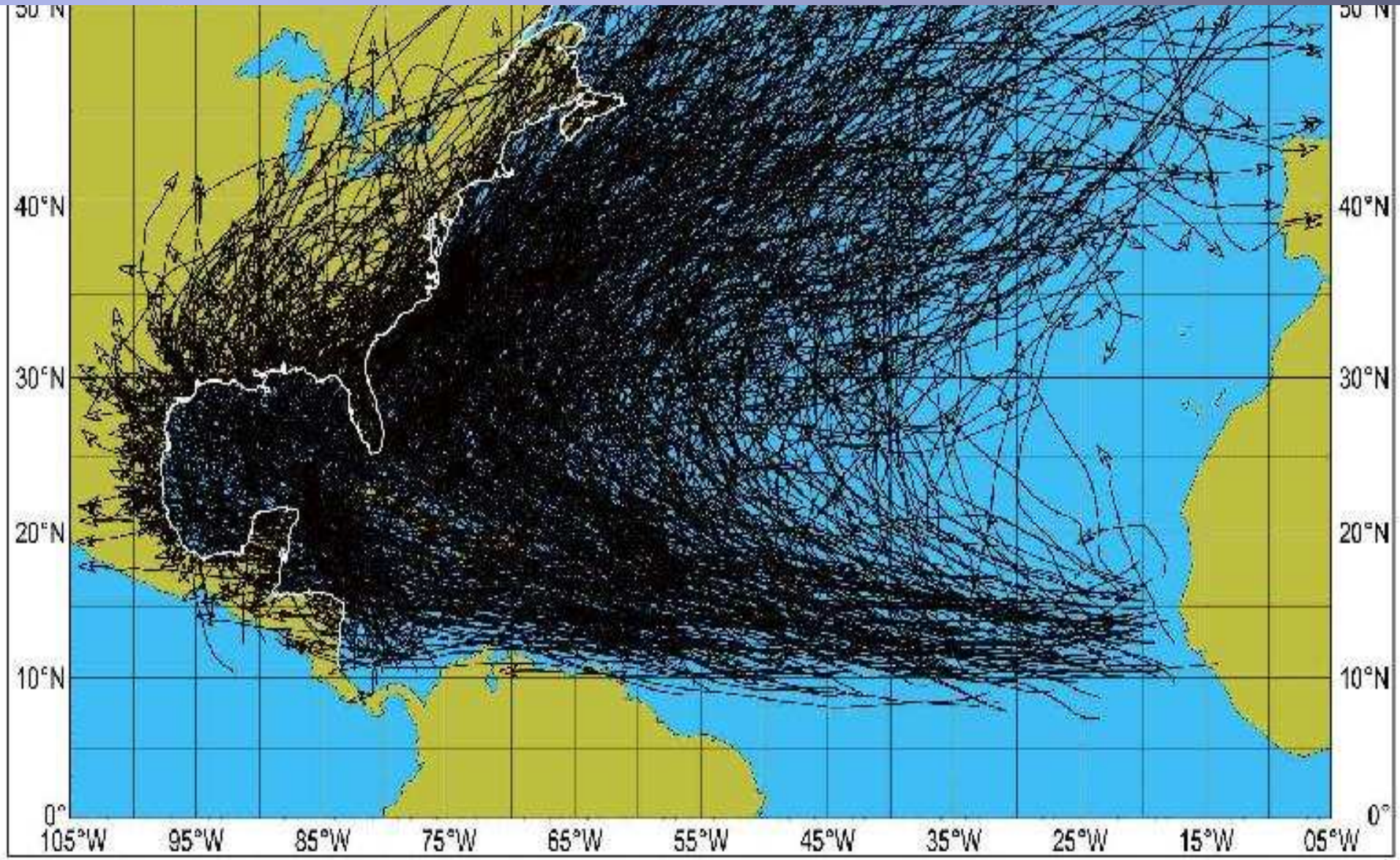


2050: loss between 13%-27% of surface for corn production, basically from rain-fed poor peasants

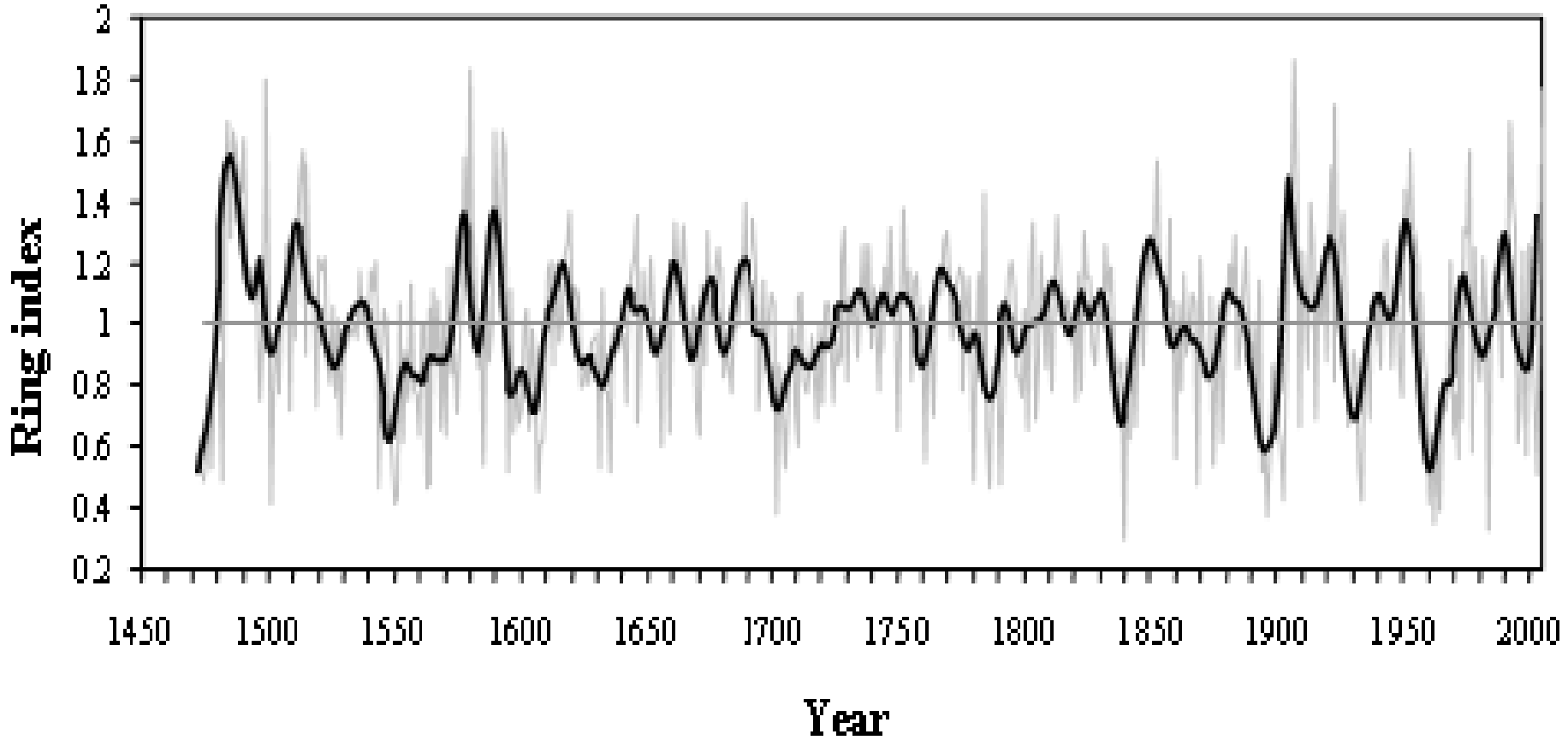
Monterroso, A. G, Rosales, 2006.

CENTRO DE CIENCIAS DE LA ATMOSFERA
UNAM

Hurricane paths during 20iest century

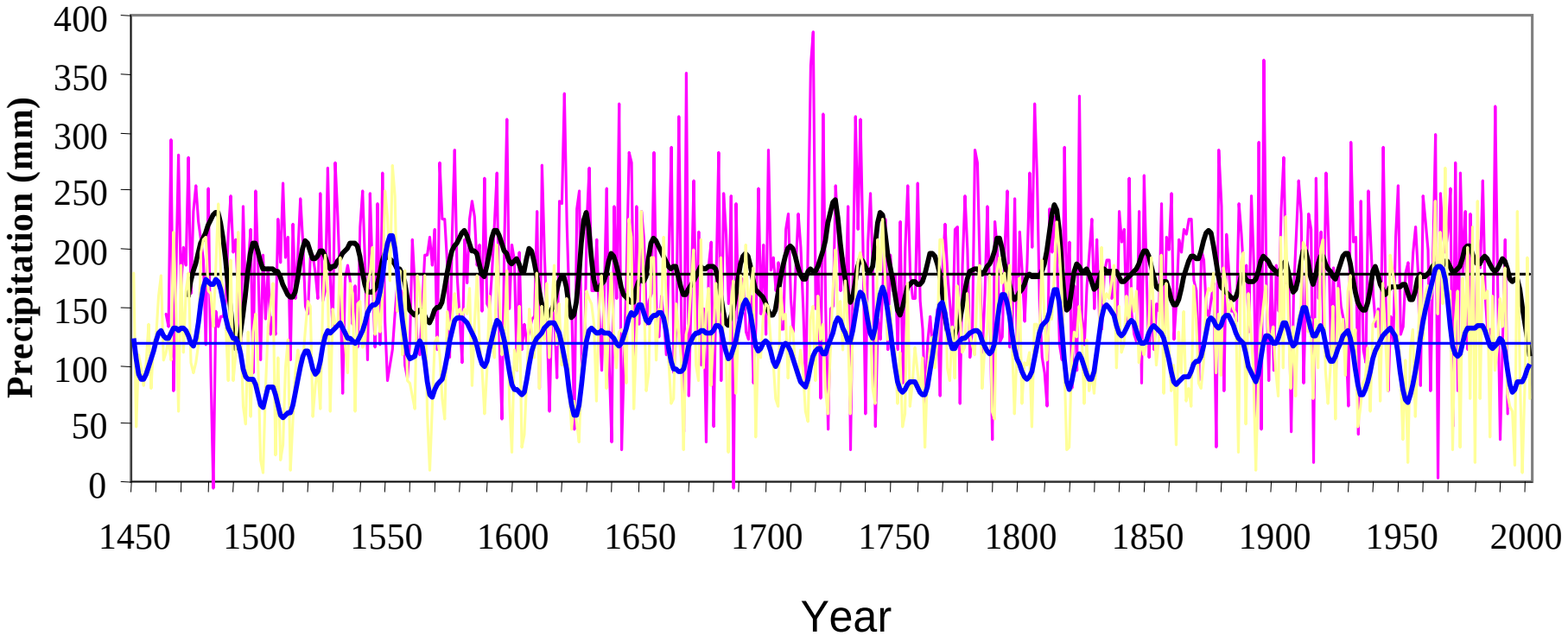


Historical droughts: Tree rings



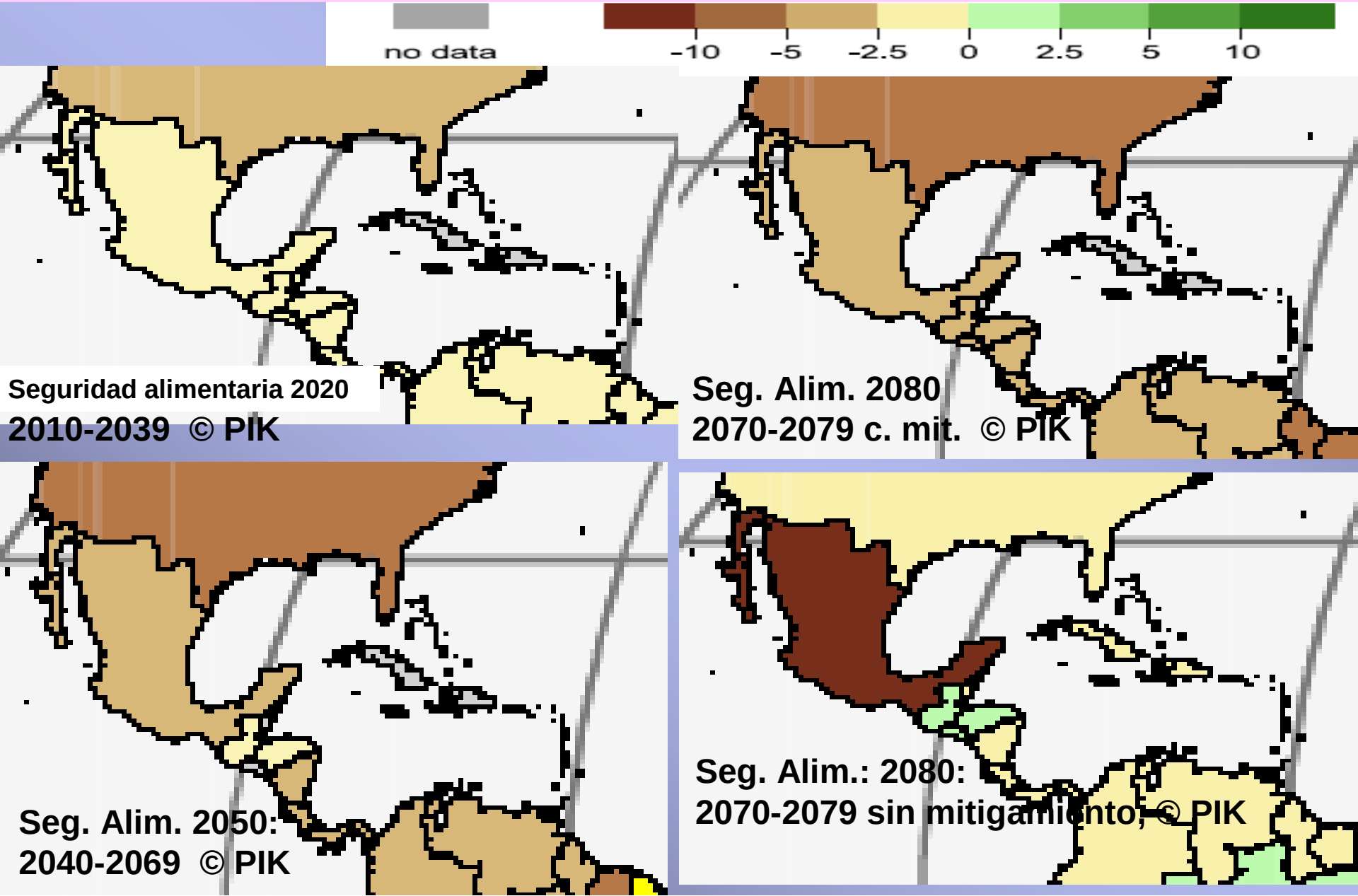
Source: Therrell et al., 2006

Historical rainfall reconstruction



Magenta and yellow lines indicate annual rainfall variability for the northern state of **Chihuahua** and **Sonora** and Northern state of **Durango** and **Sinaloa** respectively. Black and blue lines are 10 years moving average of precipitation; horizontal lines shows mean annual rainfall. Data above the average are wet years and below are dry years (Villanueva et al., 2008).

Projections of yield averages/ ha related to climate change: 2020, 2050, 2080 with & without mitigation



Potential and real changes of temperature

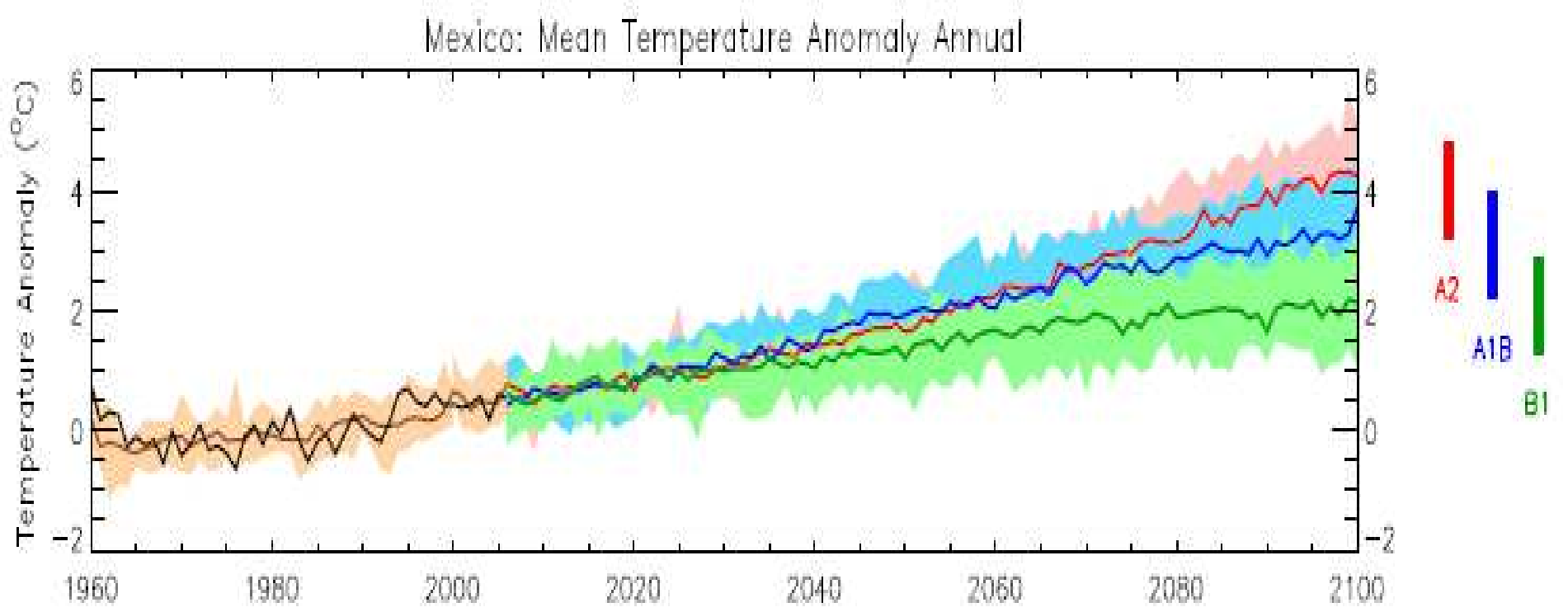
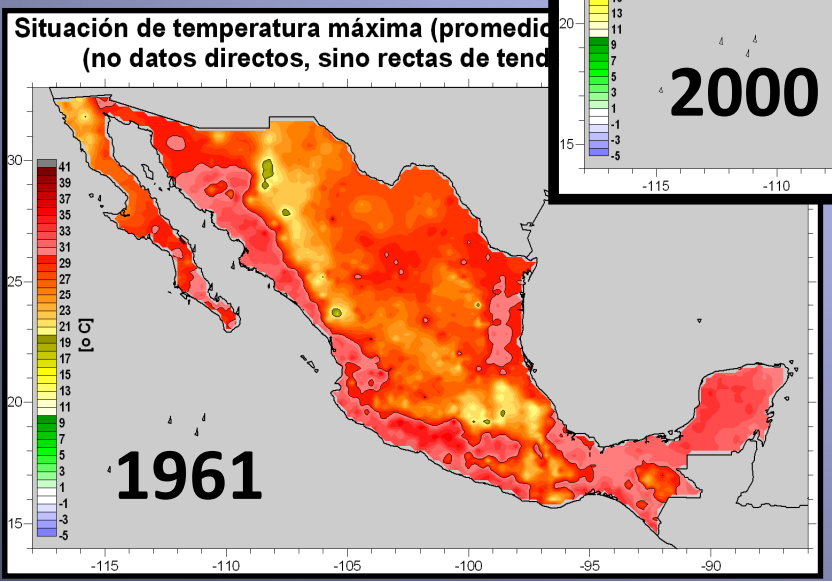
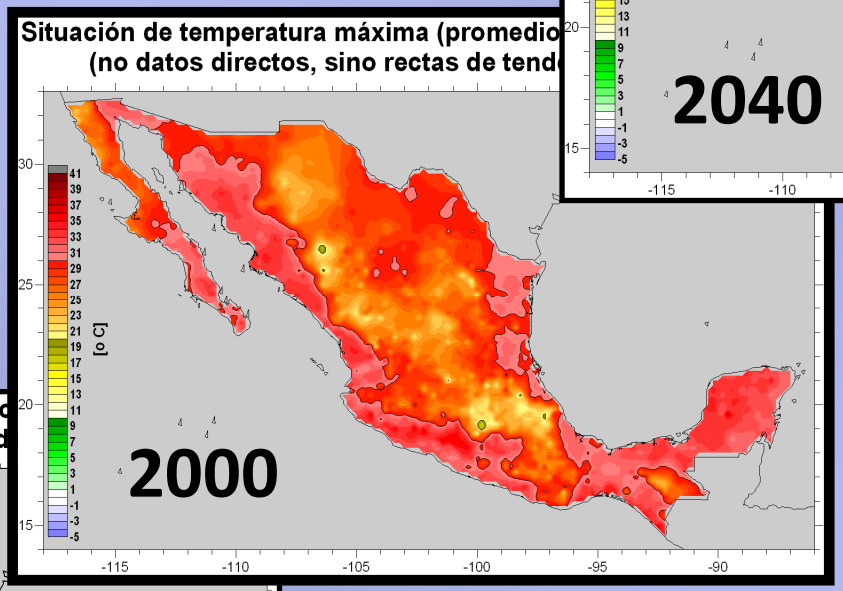
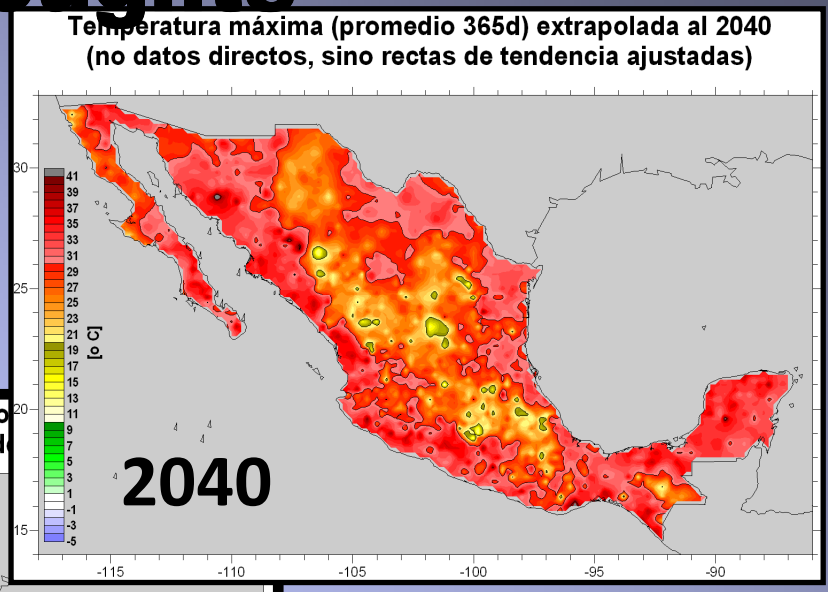


Figure 1: Trends in annual and seasonal mean temperature for the recent past and projected future. All values shown are anomalies, relative to the 1970-1999 mean climate. Black curves show the mean of observed data from 1960 to 2006, Brown curves show the median (solid line) and range (shading) of model simulations of recent climate across an ensemble of 15 models. Coloured lines from 2006 onwards show the median (solid line) and range (shading) of the ensemble projections of climate under three emissions scenarios. Coloured bars on the right-hand side of the projections summarise the range of mean 2090-2100 climates simulated by the 15 models for each emissions scenario.

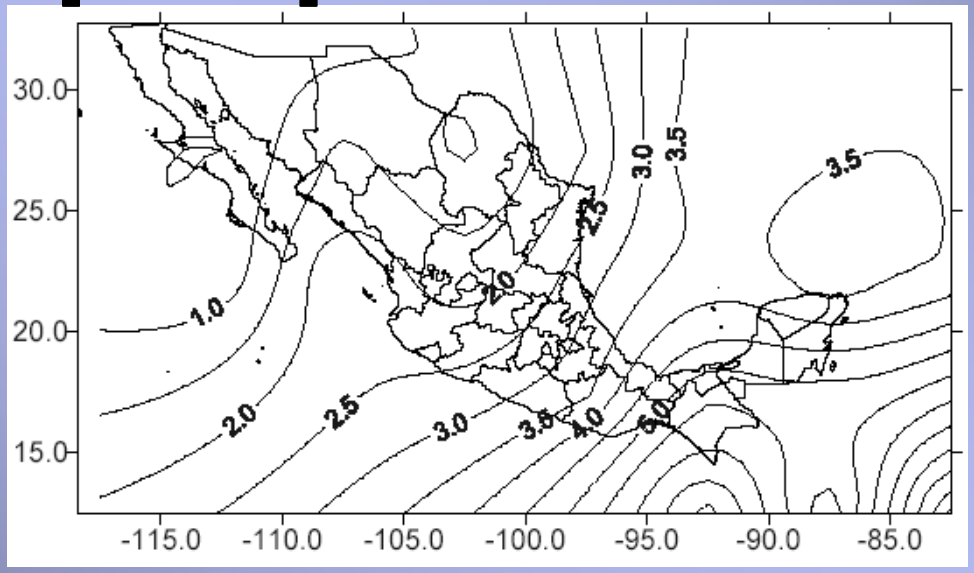
Higher temperature: droughts



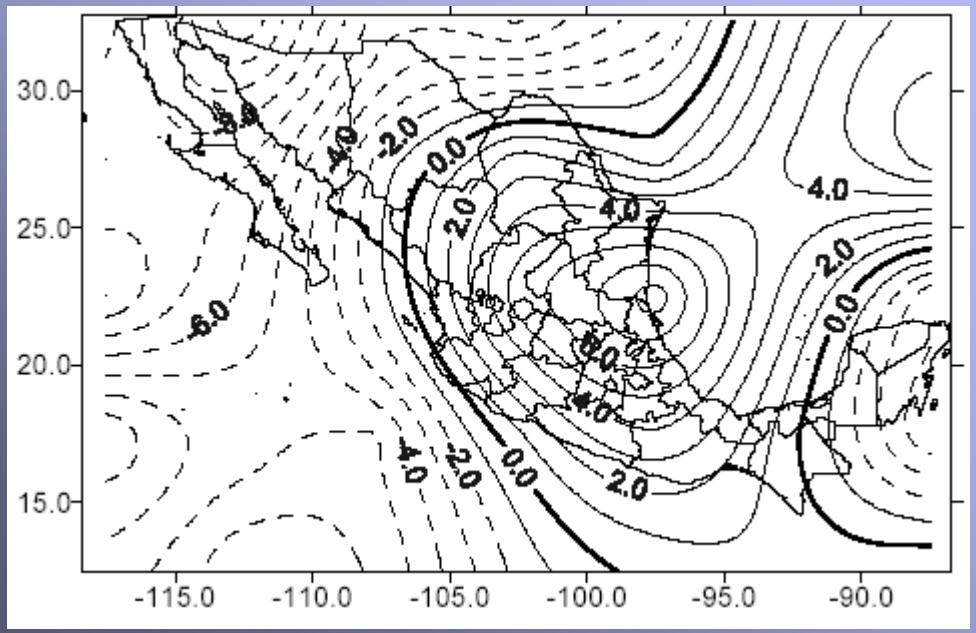




Potential changes in annual precipitation in Mexico for 2050



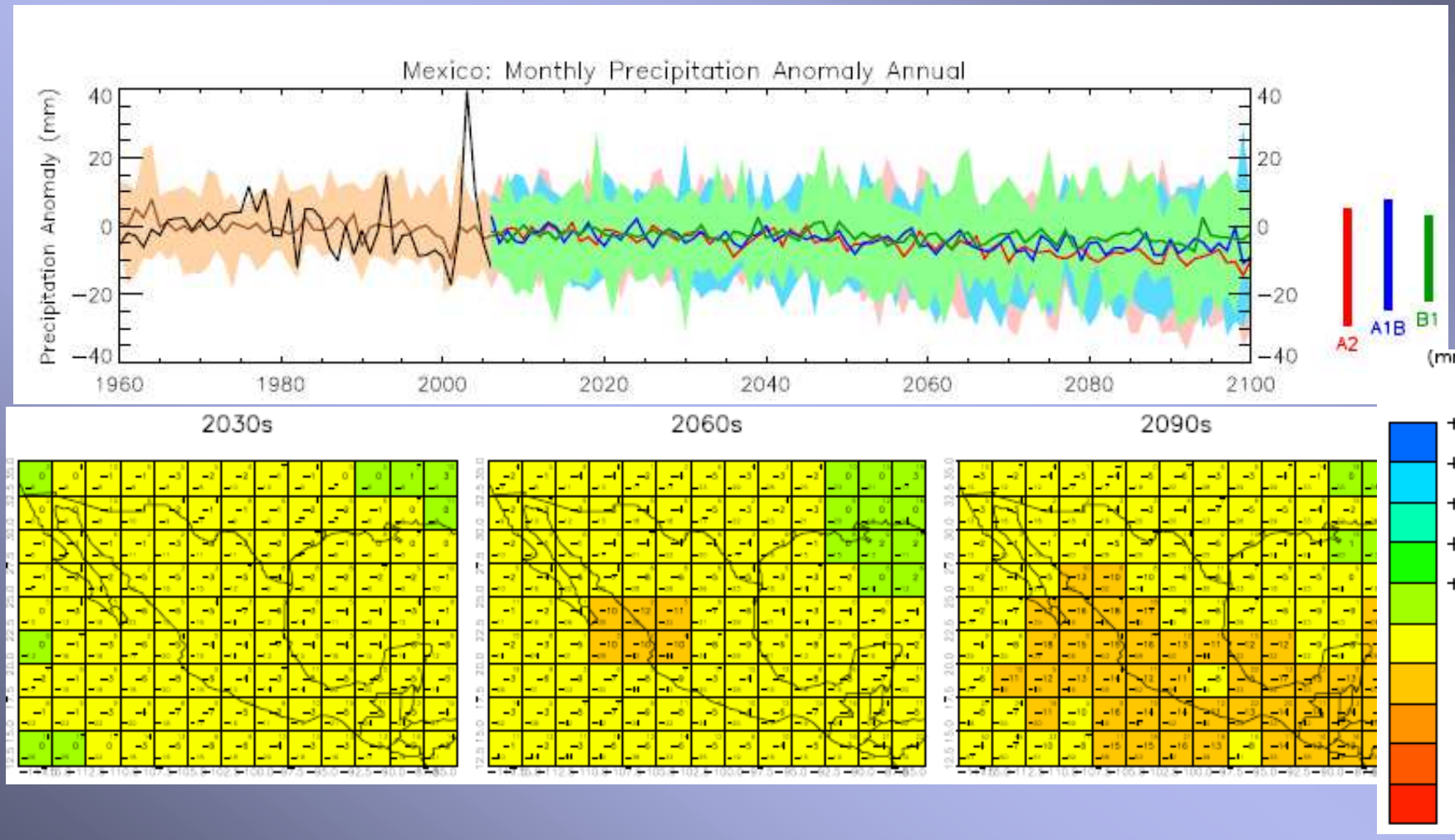
Scenario base (1961 – 1990) of average precipitation/year annual (mm/day)



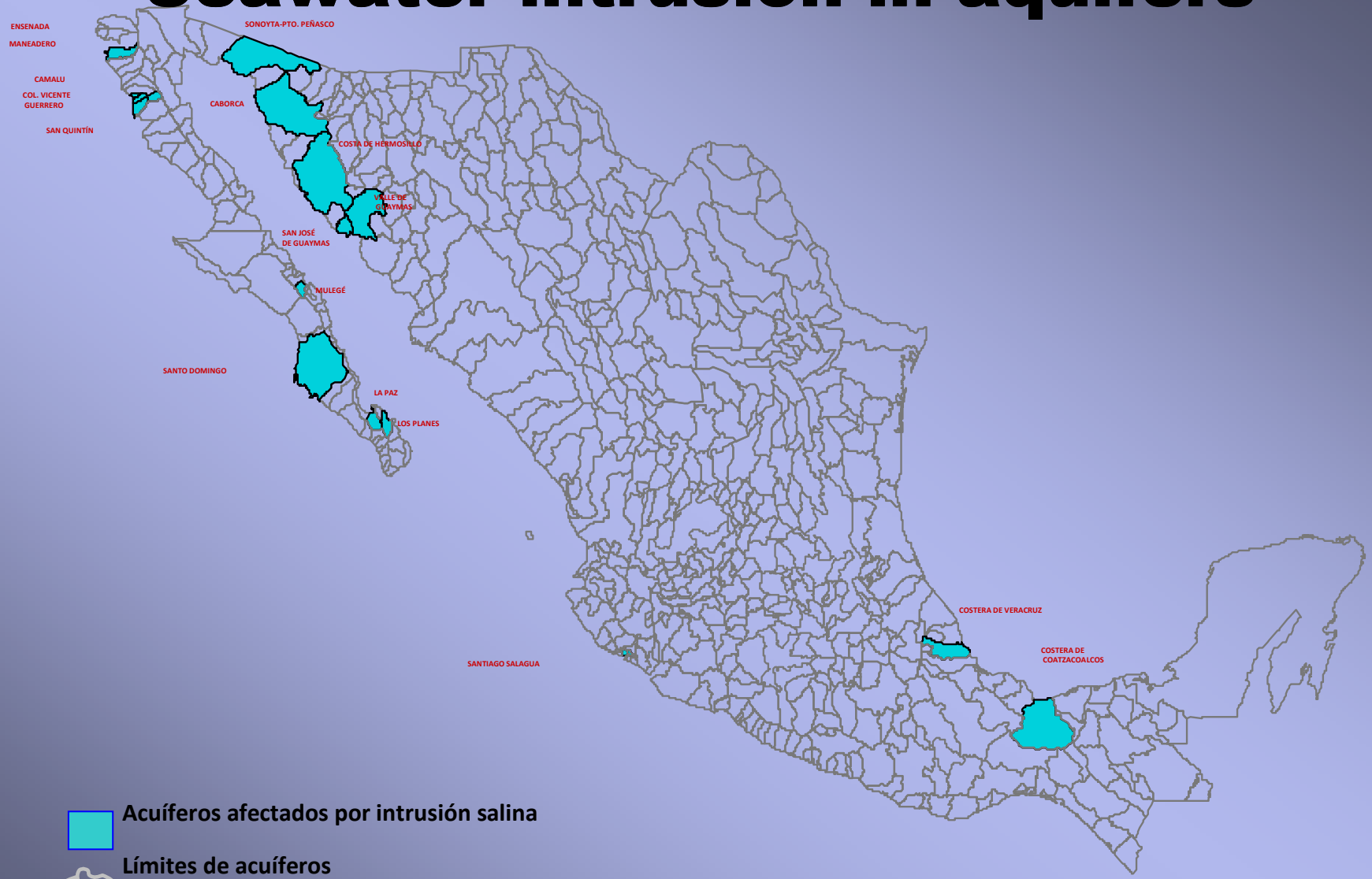
% of changes in average annual precipitation depending on medium sensitivity. The interrupted lines represent decrease. Model ECHAM4

Conde C., 2006

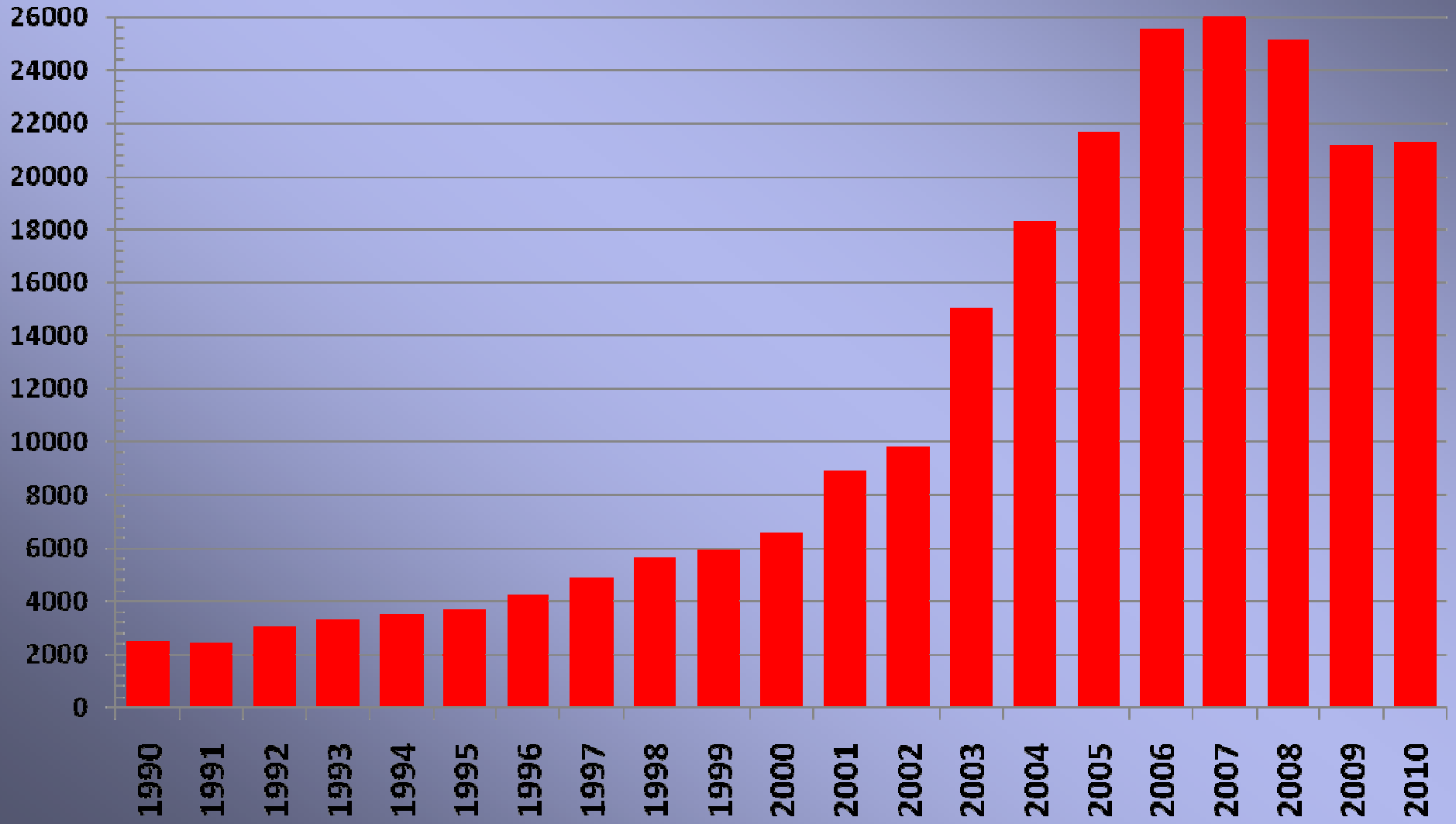
Precipitation anomalies



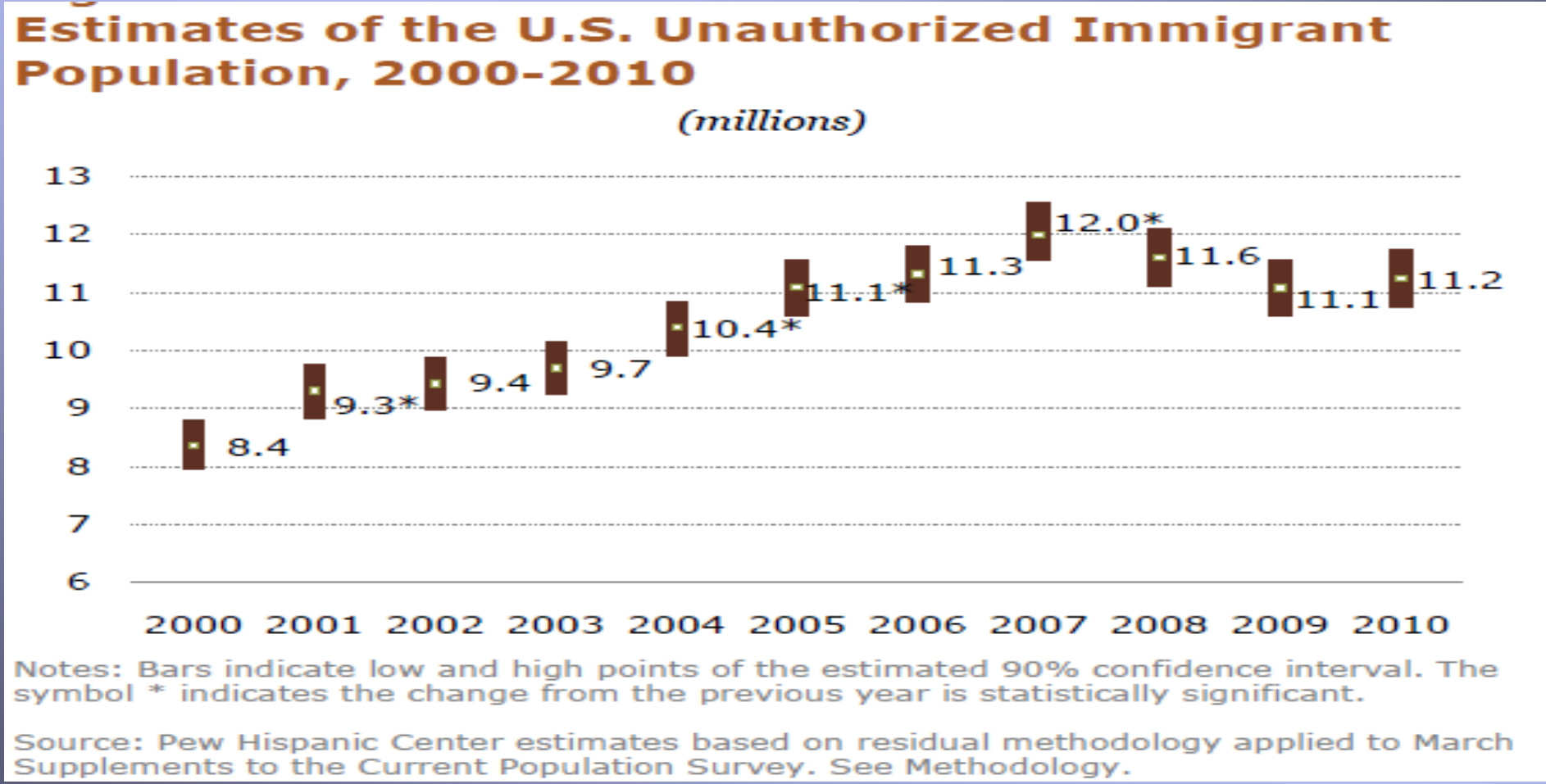
Seawater intrusion in aquifers



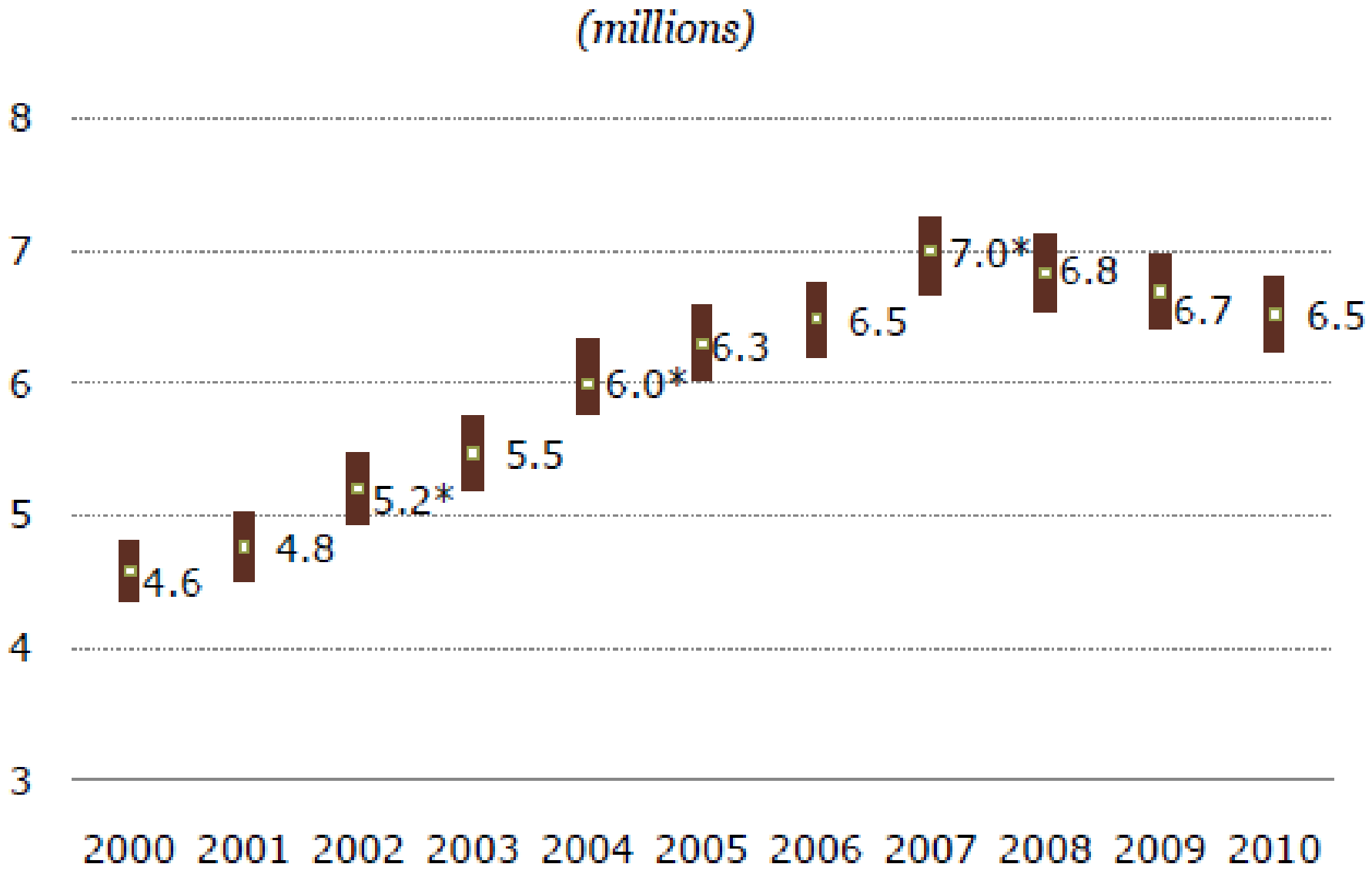
4. Economic security: remittances from the USA: 1990-2010



6. Financial crisis and migration

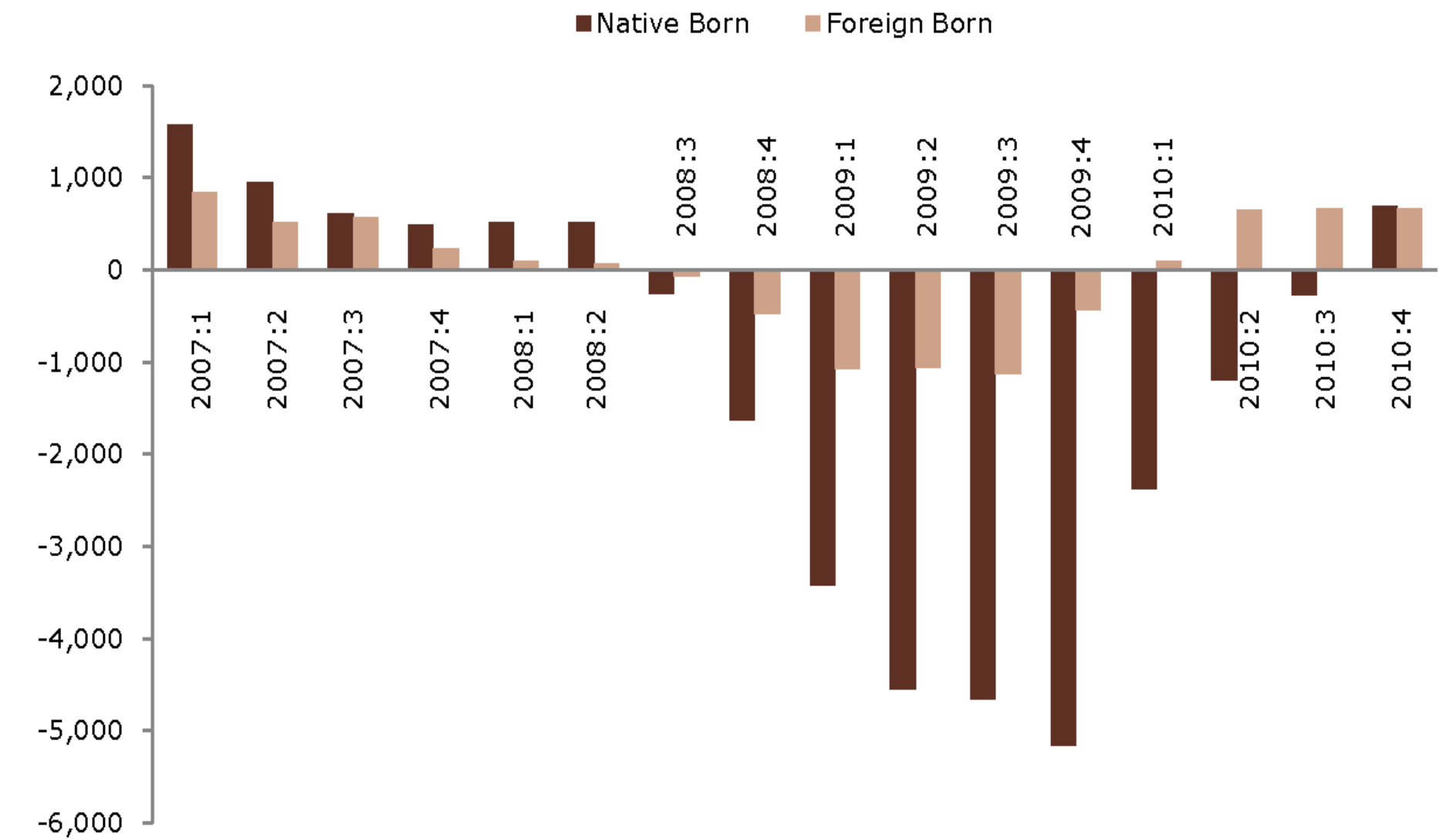


Estimates of the U.S. Unauthorized Immigrant Population from Mexico, 2000-2010



Change in Employment Over the Same Quarter Last Year for Foreign-Born and Native-Born Workers, 2007 to 2010

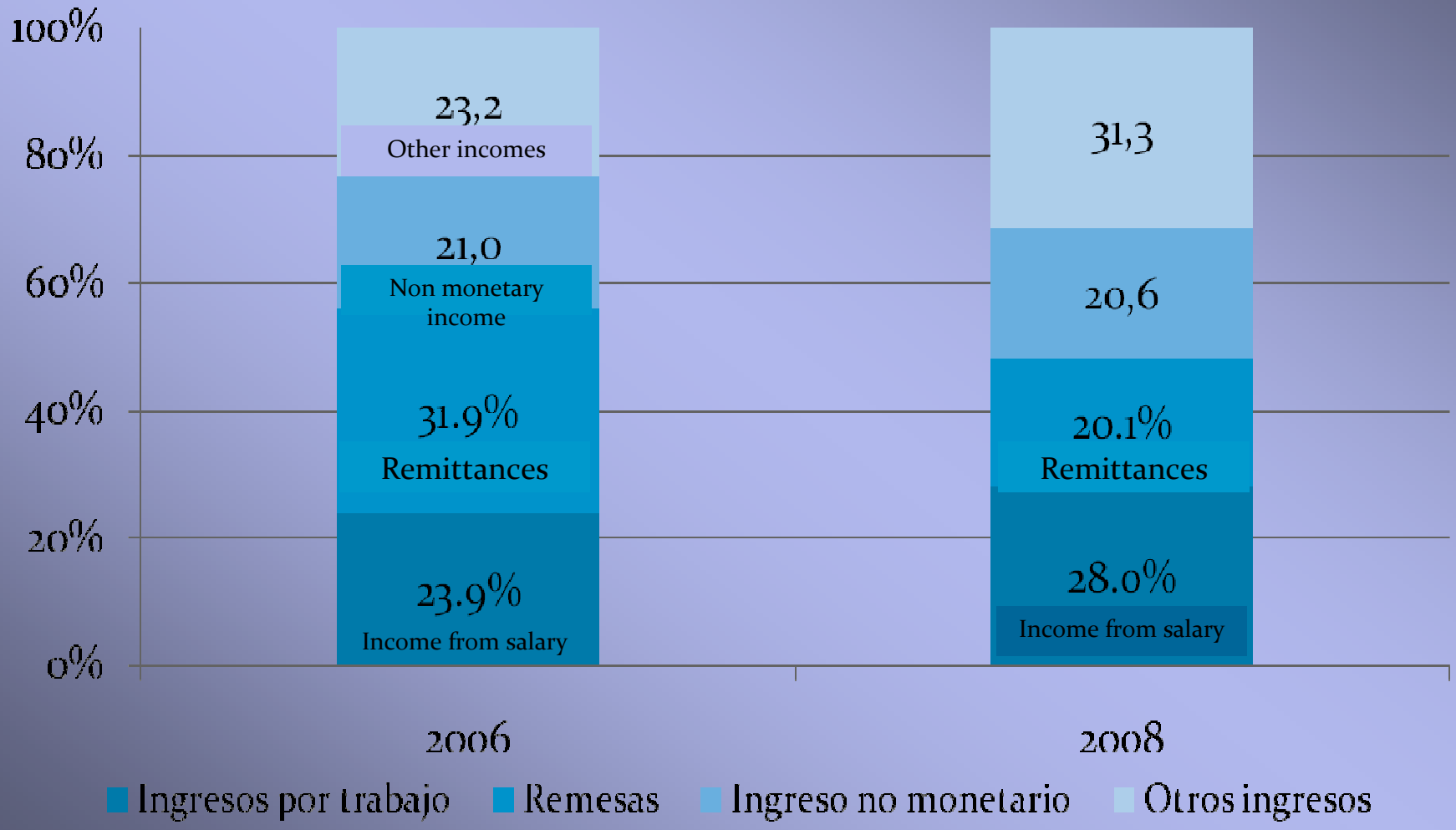
(nonseasonally adjusted; ages 16 and older; numbers in thousands)



Note: Data are adjusted to account for the effects of annual revisions to the CPS.

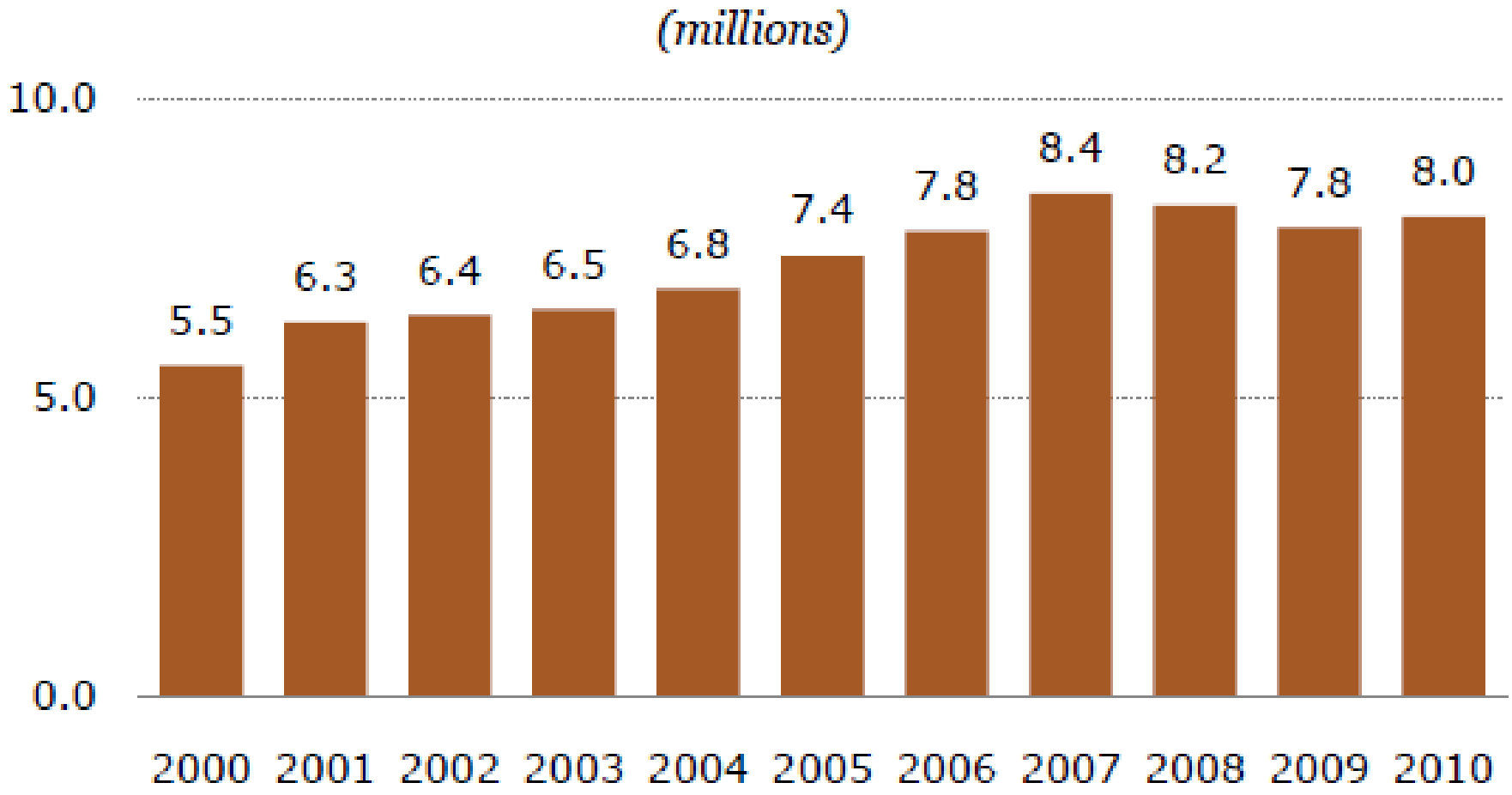
Source: Pew Hispanic Center tabulations of Current Population Survey data

Changes of remittances at family level:
2006 and 2008



Source: Fernando Lozano, elaborated on microdata from ENIGH, 2006 y 2008

Unauthorized Immigrants in the U.S. Civilian Labor Force, 2000-2010



Note: Includes employed and unemployed workers.

Source: Pew Hispanic Center estimates based on augmented March Supplements to the Current Population Survey. See Methodology.

Some conclusive remarks

- An agreement between Mexico, Canada and USA with annually contingent of low qualified people that are legally accepted
- The trafficking of arms from the US to Mexico and the high US drug consumption and the money laundering in the USA, Canada and Mexico must be addressed
- Mexico: environmentally induced migration could decrease with rural development policy
- Cooperation between the USA, Canada and Mexico should support the weaker country as an ethical compensation for historical and current higher levels of green house gas emissions
- Prevailing Hobbesian mindset of military solution to migration reflect strategies of business as usual
- A wider human, gender and environmental security: a ‘HUGE’ security approach (Oswald 2009) reduces tensions, illegality and migration
- A new sustainability paradigm must be developed.
- A new worldview, mindset and policy require changes in thinking and action towards a fourth sustainability revolution.
- Sustainability in development and peace will be able to develop the sophisticated political strategies to address the causes of socioeconomic and environmental induced migration.

Thank you for your attention

reddeagua@gmail.com

http://www.afes-press.de/html/download_oswald.html