



The Other Immigrants: Mexican Brain Drain to the United States

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Mexican Immigrants



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Purpose of the Presentation

- Offer an explanation of why the Mexican High-skilled workers are leaving Mexico and coming to the US.
- Assess the Implications of this kind of Immigration for Mexico and the U.S
- In doing so, I will attest that theories of High-skill migration do not explain the Mexican Case and propose a Multi-causal method.



Division of Presentation

- 1) Theories of High-skill Migration
- 2) Number of High-skilled Mexicans leaving the USA
- 2) Explanation of why they are moving to the USA
- 3) Implications for Mexico and the USA
- 4) Some concluding remarks



Theories of High-Skill Migration

- 1) ***Neoclassic Theory***. (Explains Brain Drain)
 - A) People Migrate because of wage differentials between countries.
 - B) Brain Drain, Negative effect on the sending country.
- Other Factors for Migration: Family Reunification; Social Network, Insecurity, Working Conditions, etc.



Theories of High-Skill Migration

- 2) *The New Economics of Migration.*
 - A) Wage Differentials are not the only reason for migration.
 - B) Decisions to Migrate: Families, to Maximize Earnings.
 - C) Families Increase their income by having family members living abroad and sending money back.
- *Household unit of analysis not the individual.*



Theories of High-Skill Migration

Household with capital constraints, family members send money to use for productive activities.

- Need to Migrate, related need to remittances (In the Case of Mexico, ***High Skill workers do not send remittances***).
- Do not explain, high-skill migration.



Theories of High-Skill Migration

- 3) *The Network Theory*
 - A) After migration of the first individual, the cost of migration is significantly reduced for friends and family.
 - B) Process cumulative, the more migration the more possibilities of mobility people.
 - C) *Problem: many people that migrate do not have prior connections, especially case of High-Skill workers*



Theories of High-Skill Migration

- These theories do not explain:
 - A) Personal Insecurity.
 - B) Fear of Crime.
 - C) Professional Development.
 - D) Does not explain why Mexican with higher Income move to the USA.
- We Need a Multi-Causal Methods that combine quantitative and qualitative methods.



Theories of High-Skill Migration

- We Need conception that considers views of Brain Exchange; Brain Gain, and Brain Circulation, Topics not cover by traditional theories of immigration
- Conceptions that not see Global mobility of talents as necessarily unidirectional.
- Interviews with Key Informants and Survey.
- Questionnaire Assessing Insecurity; fears of security; professional development; etc.



General Thesis

- The structural reasons that provoke Mexican High-skill migration to the USA will not be solved in the near future, so Mexican high-skill migration to the USA and other parts of the world will continue.



Some Numbers

- ***College-Educated Mexicans living in the US***
 - Year 2000= 300,000
 - Year 2010= 530,000
- Mexicans= 7.2 years of education
- 30,000 Mexican with a Ph.D.
- 11,000 Live in the United States



Some Numbers

- National Council of Science and Technology (CONACYT)
- 2012= 4,559 Mexicans were Studying MA or Ph.D. Abroad.
- 1,271 (27.9%) were in the US



Who are They?

- The Best Mexicans:
 - 1) Rodolfo Dirzo
 - 2) Mario Molina
 - 3) Alfredo Quiñonez
 - 4) Salvador Moguel (Union College, Nebraska)

Rodolfo Dirzo





Rodolfo Dirzo

- B.A. Universidad Autonoma de Morelos

Ph.D. University of Wales.

- 1) Awarded Presidential Medal in Ecology, Mexico in 2003.
- 2) Chair, Biology Section Mexican Academy of Sciences.
- 3) Member US National Academy of Sciences.
- 4) Member, American Academy of Arts and Sciences
- 5) Member California Academy of Sciences.

Alfredo Quiñonez





Why are they moving to the US?

- 1) *Welcoming of Educated Mexicans*
 - President and Congress Welcome. (Green Cards, MA or Ph.D.)

Private Sector: Bill Gates: “We Need to Attract and Retain the Brightest and most Talented People Around the World.”

- US Universities Support Free Market of Brains.
- Yale= *Seeks to Attract a Diverse Group of Exceptionally Talented Men and Women from Across the Nation and Around the World.*



Why are they moving to the US?

- 2) *Lack of Proper Research Infrastructure and Resources*

- GDP in R&D

- Mexico=0.39% of GDP, 2013 historic 0.51%
 - Israel= 4.20%
 - Finland= 3.80%
 - South Korea 3.45%
 - United States 2.68%.
 - Brazil= 1.25%
 - Argentina=0.61%



Why are they moving to the US?

- Lack of Infrastructure
- “We do not have resources,” asserted Clara Gorodezky, “I am a first-rate professional beggar.”
- Laura Trejo, Head Department of Virology 50% of her Students that go for Ph.D. abroad will not come back.



Why are they moving to the US?

- 3) *Instability of Research Institutions.*
 - -Politics in Academia.
 - -Union Strikes.
 - -Student's Strikes
 - -Government Pressures to Change Research.
 - -Political Appointees.
 - -Government Bureaucracy (Funds).
 - -University Bureaucracy, etc.



Why are they moving to the US?

- 4) ***Salary Gap and Unclear Route for Professional Promotion.***
- Average Salary Assistant Professor in Political Science
- Mexico= \$30,000.
- UT Austin=\$85,000

- Medical Science Assistant Professor
- Mexico=\$22,000
- Molecular Genetics and Microbiology
- UT Austin= \$79,817



Why are they moving to the US?

- Full Professor in Medical Sciences
- Mexico= \$100,000 Clear Plus benefits (Aguinaldo, SNI).
- UT Austin= Molecular Genetics and Microbiology is \$160,000
- *Problems of Living in Mexico.*



Why are they moving to the US?

- 5) ***Security Reasons.***

- Thefts Incidents:

- 2006= 545,251

- 2012= 711,168

- Kidnappings

- 2006= 733

- 2012= 1,317

- 2013= 1,698

- Extortion

- 2006= 3,157

- 2012= 6,038

- 2013= 8,042



Why are they moving to the US?

- Intentional Homicide
 - 2006= 11,806
 - 2012 =20,555
- Survey 148 Highly Skilled Mexican Workers
 - 113, or 76% Insecurity Reason they Live in other Countries .
 - Insecurity, Central for Mexicans' Migration to Australia



Why are they moving to the US?

- Insecurity, Reason Decline in Number of US Temporary Students.
- Traditionally, Mexico is the Main Destination for US Students in LA.
- ***Institute for International Education.***
- Costa Rica and Argentina, Number one and two in Latin America.
- Costa Rica received in
 - 2009/2010= 6,262
 - 2010/2011= 7,230
 - 2011/2012= 7,900
 - 2012/2013= 8,497



Why are they moving to the US?

- Mexico Received in
 - 2009/2010= 7,157
 - 2010/2011= 4,167
 - 2011/2012= 3,815
 - 2012/2013= 3,730



Implications: Benefits for the USA

- US as a Free Rider: People Educated in Mexico
- Studied Abroad with Money from the Mexican Gov.
- Few Times with the Money of Bilateral Organizations. (Fulbright).
- Fewer Times with American Money.



Implications: Benefits for the USA

- **2) *The US is Receiving Highly Qualified Mexicans***
 - In the US the Filter for Good Students and Professionals is done by the Universities.
 - In Mexico it is done by the Universities, the Government, the American Universities and Job Market.



Implications: Benefits for the USA

- **3) *Contribute to American and Global Science and Shaping American Science and Culture.***
- Mexican Scientists Bring a Background that Shape the Work and Science of the USA.
- Ignacio Chapla=flow of transgenes from genetically modified corn into Mexican wild maize (Oaxaca).
- Rodolfo Dirzo= Loosing Megafauna and Risk of Diseases For Local Communities. (Chiapas).



Implications for Mexico

- 1) Mexico is loosing some of its best professionals
- 2) These people do not pay taxes.
- 3) Do not send remittances.
- 4) Do not contribute to the reputation of Mexican Academia.
- 5) They are not training or mentoring Mexicans



Mexican Policy of Retention

- 1) National Research System (NRS or SNI).
- 2) CONACYT Runs a repatriation program.
- 3) Not enough



Brain Circulation

- Louis Pasteur: “Science Knows no Country”
- Scientists produced Knowledge and Knowledge is a pure, global, public, good
- High-skilled workers can contribute to Mexico:
 - 1) Research Collaboration Across borders.
 - 2) Circulation of Professionals.
 - 3) Transfer of Know-how



What is Mexico Doing To Promote Brain Circulation

- *Mexican Talent Network (MTN)*
- “Stop the Brain Drain is a Lost Battle.”
- Government Work with People who have Already Gone.
- These Require Synergies Between Professionals Abroad and Home Country Institutions.
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Brain Circulation: What can Mexico Do

- 1) Identification of Scholars.
- 2) Support by CONACYT to Mexican scholars working abroad.
- 3) Joint Projects between Between Mexican and American Universities.
- 4) Transnational Teaching Models (Skype, Google Groups).
- 5) Transnational Dual Appointments



Concluding Remarks

- 1) US has an Immigration Policy to Retain and Attract High-skilled Workers but Mexico does not.
- 2) Given Disparities in higher education this Tendency will continue.
- 3) Higher Education and R&D are already a Common enterprise between Mexico and the US.
- 4) Possible Solution: a bi-national Brain Circulation Program



Concluding Remarks

- Mexico will Continue Losing its Professionals because the structural Reasons that are Propelling Mexicans to move to the USA are not going to Change in the Near Future.