

Theories of international migration

Ernesto F. L. Amaral

September 08, 2020
Migration (SOCL 647)



www.ernestoamaral.com

Outline

- Limitations of migration theory
- Migration framework
 - Initiation of international migration
 - Continuation of migration
 - Theories through time
 - Summary
- What's driving Mexico-US migration?



International migration

- Influenced especially by opportunity structures in place of origin and desired place of destination
- Important processes include
- Step migration
 - From rural to town to city to another country
- Chain migration
 - Pioneer migrants get established
 - Then, they are followed by family and friends

Massey's laws of international migration

- Immigration is a lot easier to start than it is to stop
- Actions taken to restrict immigration often have the opposite effect
- The fundamental causes of immigration may be outside the control of policymakers
- Immigrants understand immigration better than politicians and academicians
- Because they understand immigration better than policymakers, immigrants are often able to circumvent policies aimed at stopping them



Limitations of migration theory

(Portes 1997)

- Immigration theory has sought to understand
 - Fundamental forces driving migration
 - How social networks, community normative expectations, and household strategies affect structural determinants (political, economic...)
- Migration theories and concepts arose from a historical experience, but they are flawed due to
 - Stereotypical characteristics of immigrant groups
 - Too much emphasis and focus on superficial aspects of adaptation (language, cultural habits)



Misconceptions

(Portes 1997)

- Four misconceptions about developing immigration theory
 1. Theories do not grow additively
 2. Theories do not necessarily correspond to people's perception
 3. Typologies are not theories
 4. There is no overall encompassing theory of immigration



1. Theories do not grow additively

(Portes 1997)

- Accumulation of evidence does not lead to theoretical developments and innovation
- Innovation does occur if
 - Accumulated evidence requires new explanation
 - Pre-existing theory cannot make sense of some piece of accumulated evidence



1. Theories do not grow additively

(Portes 1997)

- Researcher need to be able to identify contradictions and single them out for analysis
- Theoretical insights require that we gain some distance from reality, in order to identify patterns
- Excessive empirical analyses (data-driven field) makes it harder to generate theories capable of generalization



2. Theories are not perceptions

(Portes 1997)

- People's subjective orientations are certainly important and represent a legitimate field of study
 - However, unless a theory specifically refers to these perceptions, it is improper to make them a standard of evaluation
- A theory is useful if it can explain and predict immigrant patterns of economic adaptation, residential settlement, and relationships with the native population



2. Theories are not perceptions

(Portes 1997)

- Theoretical progress is stalled when
 - Individual case is presented as contradicting general propositions (case study cannot invalidate a general theory)
 - Measurement and sample selection fit the theory awkwardly, but the researcher still draws conclusion about its validity
 - Migration is data driven and equal attention has not been given to theory and concepts



3. Typologies are not theories

(Portes 1997)

- Typologies might specify concepts and differentiate groups of people
 - However, they do not amount to a theoretical statement because they simply assert differences without specifying their origins or anticipating their consequences
 - Typologies are valid intellectual exercises, but they are not theories



3. Typologies are not theories

(Portes 1997)

- A theory must have four elements
 - Delimitation and description of some area of reality
 - Identification and definition of a process or characteristic to be explained (dependent variable)
 - One or more explanatory factors (independent variables) and their types of effects (additive or interactive)
 - Logical link to at least one other similar proposition



4. There is no overall theory

(Portes 1997)

- The different areas of migration are too disparate to be unified into one theory
- The macrostructural and microstructural levels of migration should not be unified under one theory
- Portes argues for building a middle-range theory in four areas
 - The origins of migration
 - Direction and continuity of migration flows
 - Utilization of immigrant labor
 - Sociocultural and adaptation of immigrants



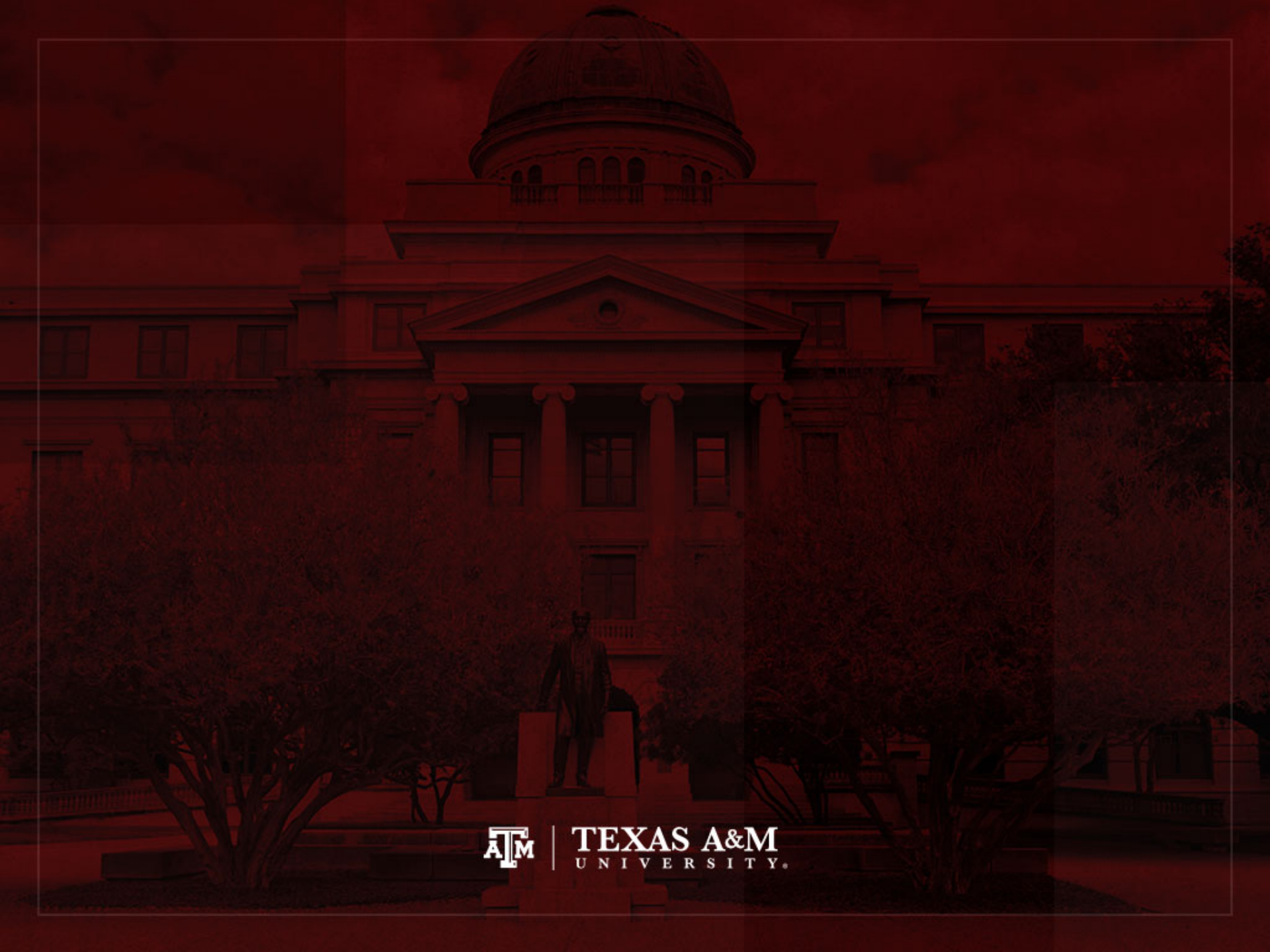
TABLE 1.1: MIGRATION THEORIES ACROSS DISCIPLINES

Discipline	Research Question(s)	Levels/Units of Analysis	Dominant Theories	Sample Hypothesis
Anthropology	How does migration effect cultural change and affect cultural identity?	Micro/individuals, households, groups	Relational or structuralist and transnational	Social networks help maintain cultural difference.
Demography	To what extent do immigrant and native populations become more similar over time?	Individuals, immigrant groups, ethnoracial groups, national foreign-born populations	Theories of migration (cost/benefit and structural; theories in integration (assimilation and pluralist-based); theories of migration effects (economic, social structural, and cultural)	Immigrants will not become successfully integrated when they experience significant membership exclusion.
Economics	What explains the propensity to migrate and its effects?	Micro/individuals	Rationalist: cost-benefit and utility maximizing behavior	Incorporation varies with the level of human capital of immigrants.
Geography	What explains the socio-spatial patterns of migration?	Macro, meso and micro/individuals, households and groups	Relational, structural, and transnational	Incorporation depends on ethnic networks and residential patterns.
History	How has a phenomenon (e.g. causes, structures, processes, consequences of migration) or a relationship (e.g. gender and migration) changed or persisted over time?	Varies temporally (from short-to medium and long-term) as well as spatially	Periodization	Usually not applicable.
Law	How does the law influence migration?	Macro and micro/the political and legal system	Institutionalist and rationalist (borrows from all the social sciences)	Rights create incentive structures for migration and incorporation.
Political science	Why do states have difficulty controlling migration?	More macro/political and international systems	Institutionalist and rationalist	States are often captured by pro-immigrant interests.
Sociology	What explains incorporation and exclusion?	Macro/ethnic groups and social class	Structuralist or institutionalist	Incorporation varies with social and human capital.



TABLE 1.2: MODELING MIGRANT BEHAVIOR AND ITS EFFECTS

Discipline	Dependent Variables	Independent Variables
Anthropology	Migrant behavior and migrant identities, gender relations (emigration, integration)	Social and cultural context, transnational networks
Demography	Sizes of migration flows, degree of integration for individuals and groups, societal cohesion	Kinds of migration policies, contexts of reception, ethnoracial diversity
Economics	Migrant flows and adjustment and macroeconomic impact	Wage/income differentials, demand-pull/supply-push, human capital, factor proportions, structure of the economy and transfer systems
Geography	Migrant decision making	Spatial, environmental, political, cultural, and socioeconomic contexts
History	Migrant experience	Social/historical context
Law	Legal, political, social, and economic treatment of migrants	Law or policy
Political science	Policy outputs (admissionist or restrictionist); policy outcomes (control); political incorporation and civic engagement	Institutions, rights, Interests
Sociology	Migrant behavior (immigration and incorporation)	Networks, enclaves, social capital



TEXAS A&M
UNIVERSITY.

Migration framework

(Massey et al. 1994)

- Build framework to better understand resurgence of immigration into North America, primarily after 1945
- Evaluate theories that account for the initiation of international migration
- Consider theories that explain persistence and transnational movements across time and space
- Reconsider the current state of theoretical knowledge in light of the available empirical evidence
- Specify the kinds of studies and data that would be needed to address the theoretical questions and conceptual ideas
- Offer a preliminary synthesis of the theories reviewed

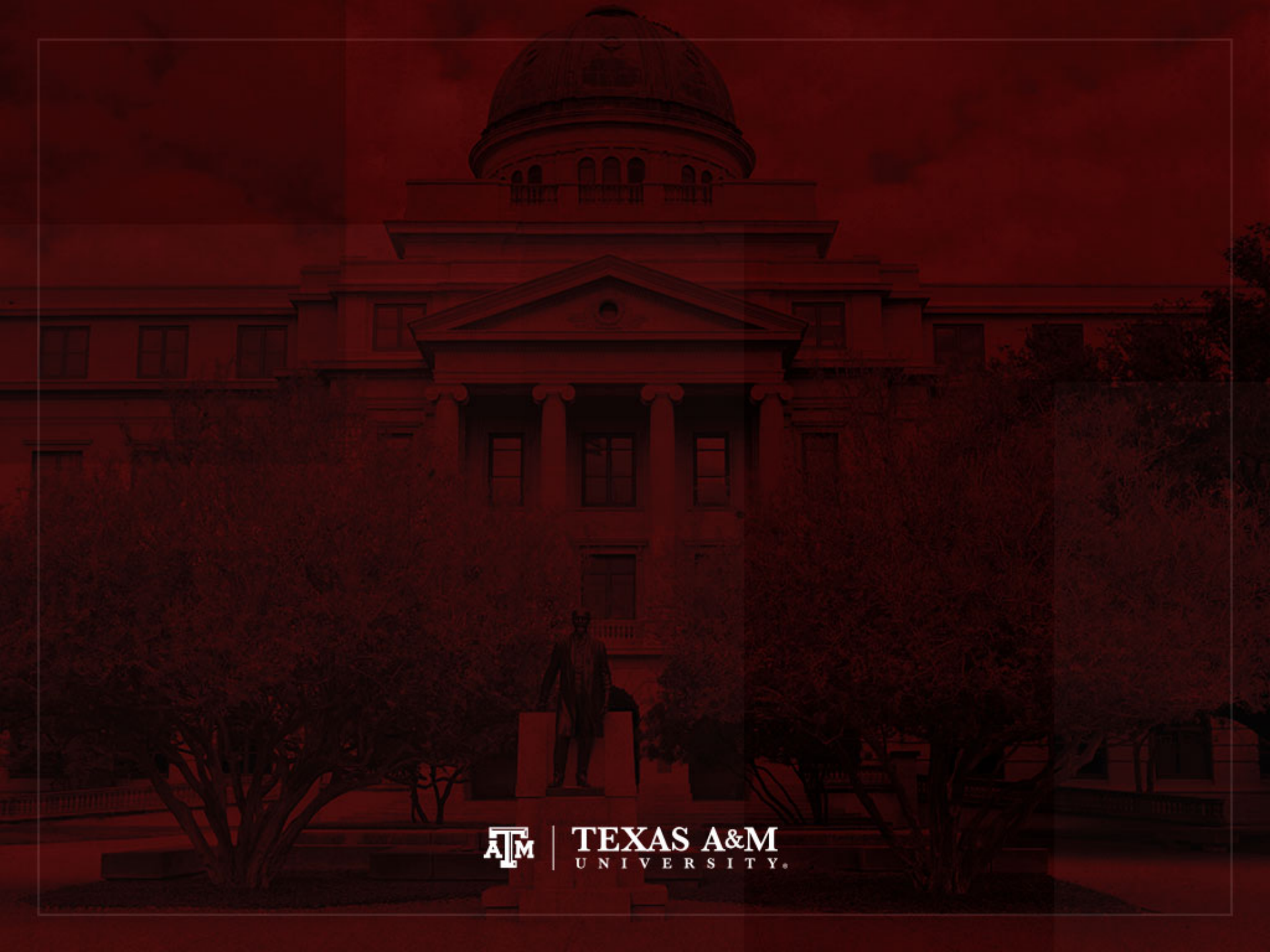


International migration theories

(Massey et al. 1994)

- Initiation of international migration
 - Neoclassical economics
 - The new household economics of migration
 - Segmented labor market theory
 - World systems theory
- Continuation of migration
 - Network theory
 - Institutional theory
 - Cumulative causation





TEXAS A&M
UNIVERSITY.

Initiation of international migration

(Massey et al. 1994)

- Neoclassical economics
 - Supply-demand framework
- The new household economics of migration
 - Diversify income sources: remittances
- Segmented labor market theory (demand-driven)
 - Primary sector: well-educated, good salary, benefits
 - Secondary sector: low wages, unstable, usually rejected by natives
- World systems theory
 - Peripheral countries are most likely to send migrants to core nations



Neoclassical economics

(Massey et al. 1994)

- Differential wage gaps between countries of origin and destination do contribute to international movement
- Wage gaps do not fully explain international migration, nor do they seem to be the most important factor in determining migration decisions



New economics of migration

(Massey et al. 1994)

- Poor households do use international migration to diversify their labor portfolios and to minimize financial risk in the sending regions
- Remittances from foreign settings raise household income in sending regions by more than the value of the remittances themselves
- However, the new economics model does not fully explain international movement, but merely complements the neoclassical model



Segmented labor market theory

(Massey et al. 1994)

- U.S. labor markets are segmented
 - Immigrants are selectively excluded from the primary labor market and found disproportionately in the secondary labor market
- However, it is not clear that labor market segmentation explains all or even most of the demand for immigrants
 - Dual labor market theory complements rather than replaces the neoclassical and new economics theories

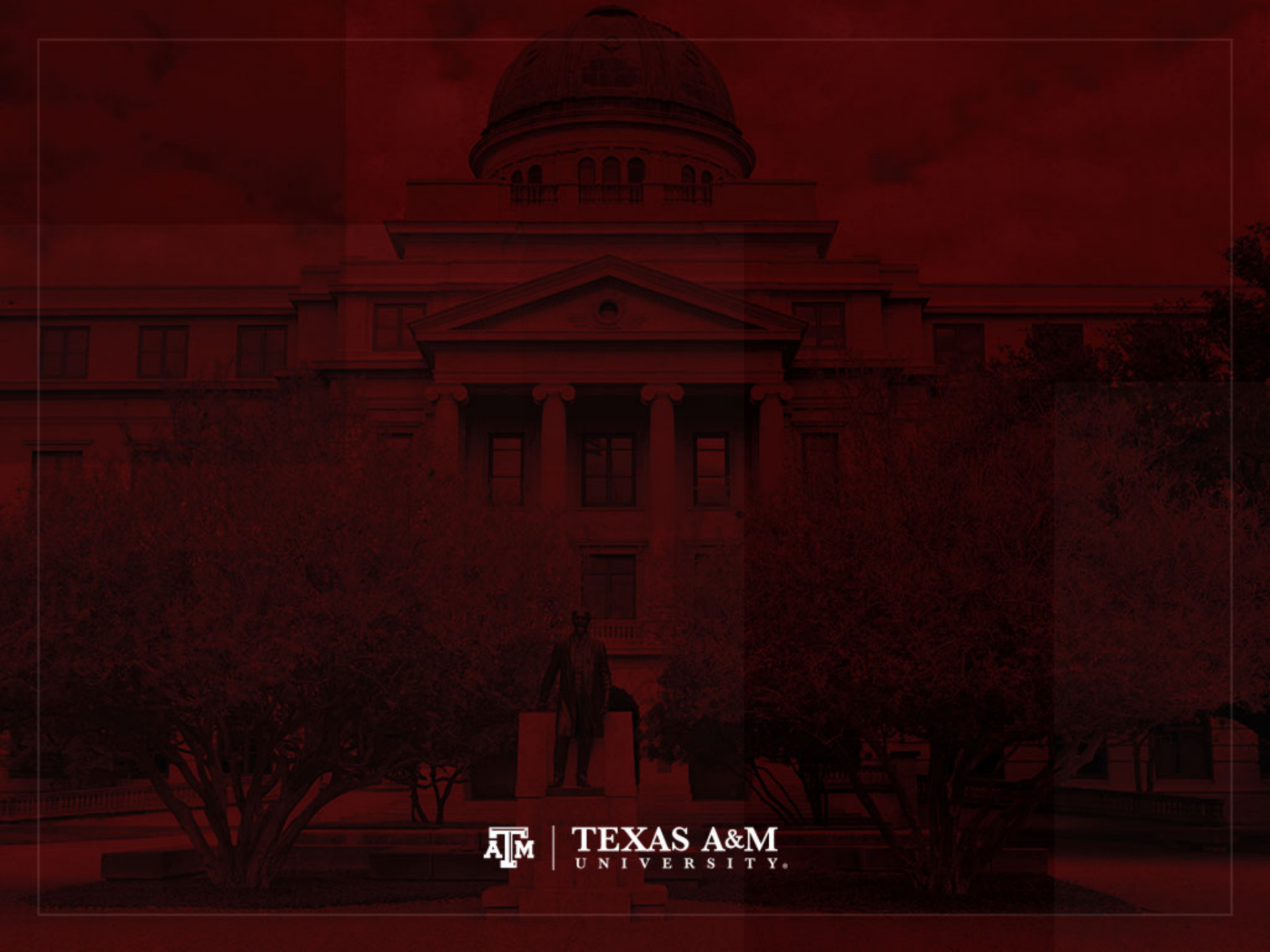


World systems theory

(Massey et al. 1994)

- Available evidence does suggest that indicators of capitalist market penetration are instruments in initiating migratory flows
 - Industrialization, agricultural development, direct foreign investment, U.S. military base
- However, its theoretical propositions have not received sufficient analytical attention
 - It is difficult to draw conclusions about the explanatory power of world systems theory





TEXAS A&M
UNIVERSITY.

Continuation of migration

(Massey et al. 1994; Massey, Espinosa 1997)

- Network theory
 - Migrants establish interpersonal ties
 - Once started, migration sustains itself through diffusion
- Institutional theory
 - Institutions facilitate or profit from the continued flow of migrants
 - Organizations help perpetuate migration in the face of government attempts to limit the flow of migrants
- Cumulative causation
 - Migration has an impact on social environments of sending and receiving regions



Network theory (1/2)

(Massey et al. 1994)

- Social capital refers to potential value that exists in social relationships between people
- Among people considering a trip to the U.S., ties to current or former U.S. migrants represent a valuable social asset
- These connections can be used to
 - Acquire information and assistance that reduce the costs and risks of entering the U.S.
 - Raise the odds of getting a good job



Network theory (2/2)

(Massey et al. 1994)

- Network connections strongly predict the likelihood of international migration
 - Even after controlling for predictors of neoclassical and new economics variables
- More research on non-Mexican samples is needed to confirm and generalize these findings

Cumulative causation

(Massey et al. 1994)

- Empirical evidence shows that people who migrate are likely to migrate again
- International migration perpetuates itself, regardless of the conditions that originally caused it
 - Evidence from Mexico indicates support for cumulative causation through changes in income distribution and land inequality in sending regions
- Theory involving networks and cumulative causation remains plausible, but empirical evidence is weak

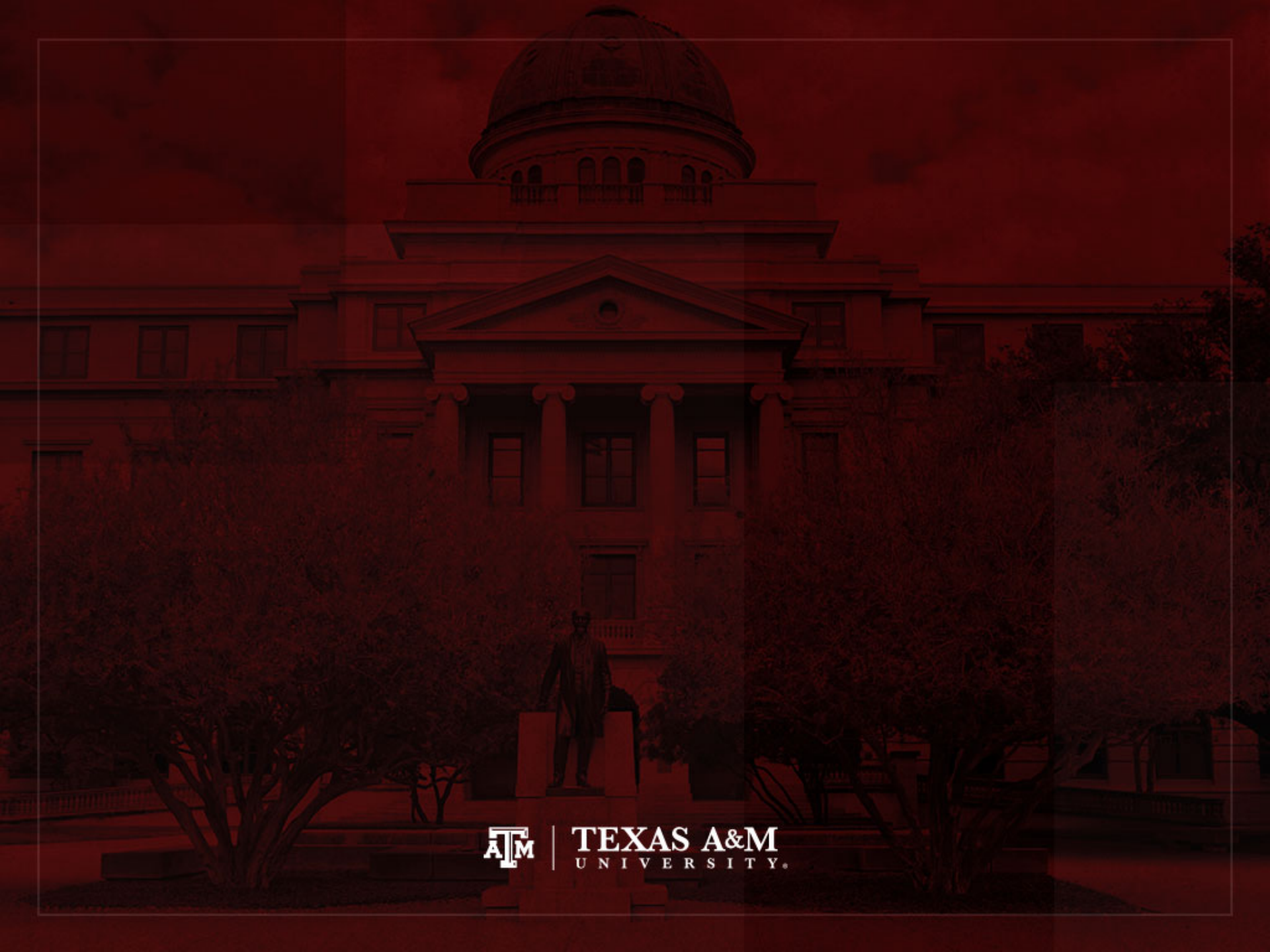


Empirical evidence

(Massey et al. 1994)

- There is little empirical evidence that would call for the rejection of any of the theories presented
- However, the problem is an absence of adequate empirical evidence
- Principle goals for future research
 - Integrate dual labor market theory and world systems theory with other models and systematically test the validity of competing propositions
 - Focus on additional countries other than Mexico to increase generalization





TEXAS A&M
UNIVERSITY.

Theories through time

(Massey et al. 1994)

- Initial phases of emigration are most influenced by market penetration (world systems theory), network theory, and cumulative causation
- World systems theory
 - International migration originates in processes of economic growth and political transformation within the context of a globalizing market economy



Theories through time

(Massey et al. 1994)

- Neoclassical economic theory
 - As sending regions become more industrialized, emigration becomes more dependent on wage differentials
 - Net migration ceases once sending regions become integrated into the international market as developed economies



Theories through time

(Massey et al. 1994)

- Neoclassical economics and the new economics of migration
- Penetration of markets into peripheral nations
 - Disrupts non-capitalist modes of social and economic organization
 - Causes widespread labor displacement
 - Creates a mobile population that actively searches for a mean of improving income, acquiring capital, or controlling risks



Theories through time

(Massey et al. 1994)

- Dual labor market theory
- In core nations, postindustrial development leads to a bifurcation of the labor market
- This process creates a secondary sector of jobs with low pay, unstable conditions, and few opportunities for advancement



Theories through time

(Massey et al. 1994)

- World systems theory
- Such bifurcation of the labor market is particularly acute in global cities
- A congregation of managerial, administrative, and technical expertise leads to a concentration of income and a strong ancillary demand for low-wage services



Theories through time

(Massey et al. 1994)

- Dual labor market theory
- Because natives avoid secondary sector jobs, employers rely on immigrant workers
- At times, this pattern initiates immigrant flows directly through recruitment

Recruitment often is not needed

(Massey et al. 1994)

- World systems theory
- Processes of economic globalization that create mobile populations in developing regions
 - Generate a demand for their services in global cities
 - Foment links of transportation, communication, and culture to make their movement possible

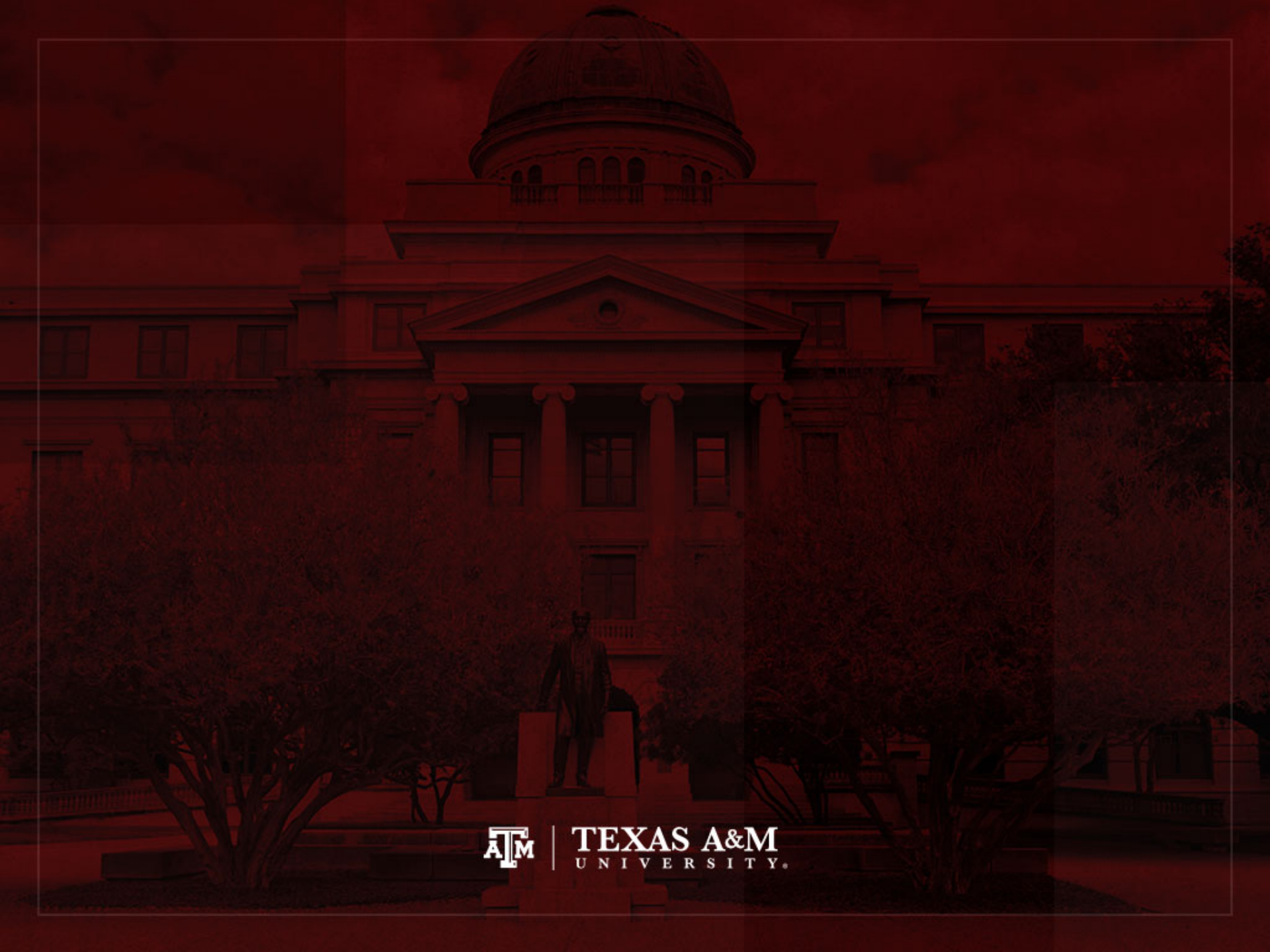


Recruitment often is not needed

(Massey et al. 1994)

- World systems theory
- International movement is further caused by **foreign policy and military involvements**
 - These actions reflect the need of core nations to maintain international stability and security
 - This process results in flows of refugees and military dependents





TEXAS A&M
UNIVERSITY.

Summary of initiation

(Massey et al. 1994)

- World systems, neoclassical, new economics, dual labor market
 - Individuals and families respond to changing circumstances set in motion by structural transformations (political, economic...) of their societies of origin
- Migrants seek to raise incomes, accumulate capital, and control risk
 - They follow international routes of transportation and communication to global cities with secondary sector jobs



Summary of continuation

(Massey et al. 1994)

- Network theory
 - Flows display a strong tendency to become self-perpetuating
 - Each act of migration contributes to the expansion of migrant networks and sets off a process of social capital accumulation that makes additional movement more likely
 - Regional concentration of immigrants creates a “family and friends” effect that further encourages the channeling of immigrants to some places and not others



Summary of continuation

(Massey et al. 1994)

- Enclave theory
- If enough migrants arrive under the right conditions, it can also lead to the formation of an enclave economy
- This process further augments the demand for immigrant workers and creates a safe haven for their arrival



Summary of continuation

(Massey et al. 1994)

- Theory of cumulative causation
- The spread of migratory behavior within sending communities sparks other structural changes
 - It shifts distributions of income and land
 - It modifies local cultures in ways that promote additional migration



Summary of continuation

(Massey et al. 1994)

- During the **initial phases** of emigration from any particular sending country
 - Effects of market penetration, network formation, and cumulative causation predominate in explaining the flows
- As migration reaches **high levels** and development moves societies toward industrial economies
 - Costs and risks of movement drop to low levels and migration is increasingly determined by international wage differentials (neoclassical economics)



Summary of continuation

(Massey et al. 1994)

- As economic growth in sending regions occurs and emigration proceeds
 - International wage gaps gradually close
 - Markets for capital, credit, insurance, and futures become more accessible
 - This process **lowers the incentives for movement**

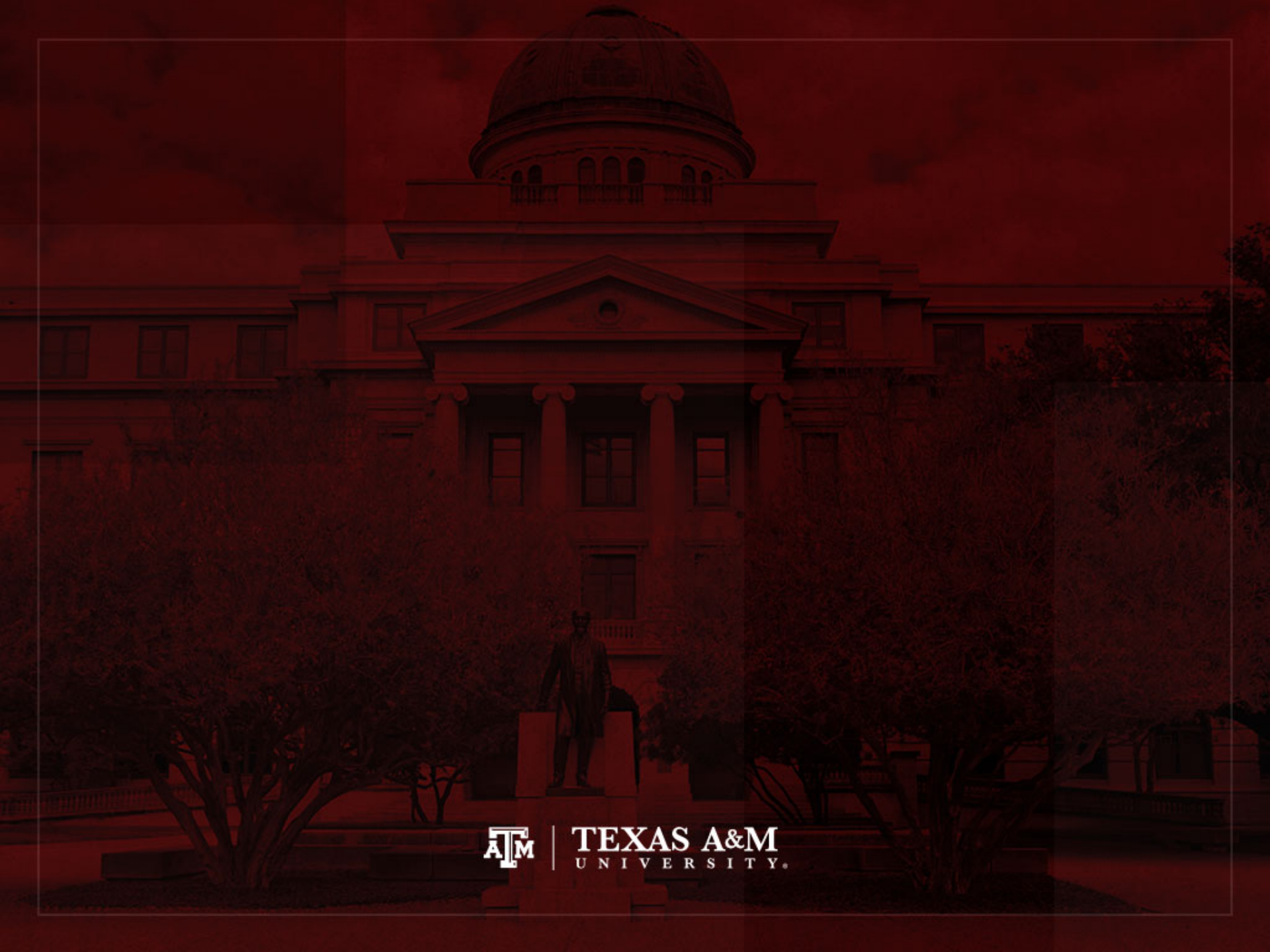


Summary of continuation

(Massey et al. 1994)

- **Net migration ceases**
 - If the sending country is ultimately integrated into the international market as a developed, urbanized economy
- Former sending country may itself become a net importer of immigrant labor





TEXAS A&M
UNIVERSITY.

What's driving Mexico-US migration?

(Massey, Espinosa 1997)

- Models estimated the effects of 41 variables and explored the validity of five theories of international migration
- Three fundamental forces are at work in promoting Mexican migration to the United States
 - Social capital formation
 - Human capital formation
 - Market consolidation



Social capital formation

(Massey, Espinosa 1997)

- Social capital is generally the most powerful factor predicting the odds of initial, repeat, and return migration
- People who are related to U.S. migrants are themselves more likely to migrate
- Each act of migration creates additional social capital capable of instigating and sustaining more migration
- About half of adult Mexicans are related to someone living in the United States (Camp 1993)



Human capital formation

(Massey, Espinosa 1997)

- For undocumented migrants, the most important element of human capital is migration experience itself
 - Crossing the border, living in the U.S., working in the U.S. labor market, negotiating U.S. housing markets
 - The more U.S. experience a migrant accumulates, the higher her/his likelihood of migrating again
- This process intersects with social capital formation
 - Migration experience makes a person more valuable as a resource for gaining entry to the U.S. and finding a job
 - The more experience a person has, the more likely her/his friends and relatives are to begin migrating and to continue migrating themselves
- One-third of all Mexicans have been to the U.S. at some point in their lives (Camp 1993)



Market consolidation

(Massey, Espinosa 1997)

- Over the past two decades, the economics of Mexico and the U.S. have become increasingly connected to each other and to the global capitalist economy
- **Rural Mexico**: displacement of manual workers, concentration of land, mechanization of production
- **Urban Mexico**: ending of import substitution industrialization has brought about important economic transformations that have displaced workers from enterprises and public bureaucracies

Development and migration

(Massey, Espinosa 1997)

- Growing economic insecurity coupled with a strong desire to participate in the new political economy
 - Stimulated Mexican households to search for ways to self insure against threats to family income and to gain access to scarce capital
- Given ready access to human and social capital connecting them to the U.S.
 - Household heads and other family members migrate internationally as part of a conscious strategy of risk diversification and capital accumulation
- Economic development goes hand in hand with international migration



Definition of variables

Variable	Operational Definition
Demographic background:	
Age	Age at last birthday
Married	Respondent in formal or informal union
No. of minors in household	No. of own children under age 18
General human capital:	
Labor force experience	No. of years since first job
Education	No. of years of school completed
Migration-specific human capital:	
Cumulative U.S. experience	Total months spent in United States
No. of prior U.S. trips	Total no. of trips taken to the United States
Unskilled urban job	Unskilled nonagricultural occupation in the United States
Skilled urban job	Skilled nonagricultural occupation in the United States
General social capital:	
Parent a U.S. migrant	Subject's parent was a U.S. migrant
No. of U.S. migrant siblings	No. of siblings with U.S. experience
% U.S. migrants in community	Proportion over age 15 with U.S. experience
Migration-specific social capital:	
Wife a U.S. migrant	Wife has begun migrating to the United States
No. of U.S. migrant children	No. of children who have begun migrating
U.S.-born children	Whether any children were born in the United States

Definition of variables

Variable	Operational Definition
Physical capital:	
Land	Household owns farmland
Home	Household owns home
Business	Household owns a business
Community infrastructure:	
Preparatory school	Preparatory school in municipio
Paved road	Paved road between community and highway
Bank	Bank office open in municipio
Community economic context:	
% earning twice minimum wage	Proportion of workers earning at least twice the legal minimum wage
% self-employed	Proportion of workers who are self-employed
% females in manufacturing	Proportion of female workers employed in manufacturing
Community agrarian context:	
Agrarian economy	"1" if more than 50% of male labor force is employed in agriculture, "0" otherwise
Agrarian population density	Population divided by arable land
Proportion of land that is arable	Cultivable land divided by total land base
<i>Ejido</i> established	"1" if community had <i>ejido</i> , "0" otherwise

Definition of variables

Variable	Operational Definition
Macroeconomic context:	
Expected wage ratio	Ratio of wages predicted from equations estimated from data on migrants to the United States and migrants within Mexico (United States/Mexico; in 1990 U.S. dollars)
Peso devaluation	Rate of change in dollar value of Mexican peso over prior year
Mexican inflation rate	Rate of change in Mexican consumer index over prior year
U.S. employment growth	Rate of change in total U.S. employment over prior year
Growth in foreign investment	Rate of change in direct foreign investment over prior year
Mexican real interest rate	Average cost of funds in Mexico – Mexican inflation
U.S. policy context:	
Availability of visas	Legal immigration divided by sum of legal immigration and gross illegal entries
Probability of apprehension	Likelihood of arrest while attempting to cross border without documents
Employer sanctions enacted	“1” if employer sanctions in force, “0” otherwise
Amnesty recipients in household	“1” if any member of household received amnesty under IRCA; “0” otherwise

Definition of variables

Variable	Operational Definition
Expected value of U.S. services:	
Welfare	Estimated likelihood of using AFDC or food stamps if respondent were to migrate to United States \times average value of monthly AFDC and food stamp payments in states receiving Mexican immigrants
Medical care	Estimated likelihood of receiving unreimbursed medical services if respondent were to migrate to United States \times average value of Medicaid payments in states receiving Mexican immigrants
Education	Estimated likelihood of using public schools if respondent were to migrate to the United States \times average per pupil school expenditures in states receiving Mexican immigrants

MULTINOMIAL LOGISTIC REGRESSION OF SELECTED VARIABLES ON THE ODDS OF
TAKING A FIRST TRIP TO THE UNITED STATES IN YEAR $t + 1$

SITUATION OF SUBJECT IN YEAR t	WITHOUT DOCUMENTS		WITH DOCUMENTS	
	B	SE	B	SE
Demographic background:				
Age	-.004	.031	-.055	.119
Age ²	-.001*	.0004	.001	.001
Married	-.341*	.078	-.432	.444
No. of minors in household .....	.011	.020	-.005	.118
General human capital:				
Labor force experience .....	.013	.010	-.057	.040
Education	-.014	.008	-.002	.039
General social capital:				
Parent a U.S. migrant .....	.461*	.060	.720*	.263
No. of U.S. migrant siblings .....	.388*	.021	.676*	.073
% of U.S. migrants in community	5.016*	.817	-7.254	4.496
Physical capital:				
Land .....	.298*	.127	.759	.666
Home	-.446*	.093	-1.368	.759
Business	-.245*	.102	.400	.457
Community infrastructure:				
Preparatory school	-.249*	.075	-.061	.385
Paved road	-.107	.125	-.256	.527
Bank .....	.527*	.143	-.148	.549
Community economic context:				
% earning twice minimum wage	2.209*	.596	-7.730*	3.241
% self-employed	-.024	.412	-13.204*	2.490
% females in manufacturing	1.214*	.370	-6.337*	2.170
Community agrarian context:				
Agrarian economy .....	.480*	.078	2.034*	.765
Agrarian population density	-.001*	.0005	-.268	.155
Proportion of land that is arable	-.322*	.119	.214	.573
<i>Ejido</i> established .....	.321*	.221	-2.880*	.892

Note: Non-migrant as reference. Source: Massey, Espinosa 1997, p.960.

MULTINOMIAL LOGISTIC REGRESSION OF SELECTED VARIABLES ON THE ODDS OF
TAKING A FIRST TRIP TO THE UNITED STATES IN YEAR $t + 1$

SITUATION OF SUBJECT IN YEAR t	WITHOUT DOCUMENTS		WITH DOCUMENTS	
	B	SE	B	SE
Macroeconomic context:				
Expected wage ratio .....	.003*	.001	-.005	.008
Peso devaluation	-.115	.067	-.028	.376
Mexican inflation rate	-.702*	.298	2.744	1.472
U.S. employment growth	4.734*	1.938	11.637	10.220
Growth in foreign investment	-.228*	.067	.108	.351
Mexican real interest rate	2.264*	.531	-.842	2.490
U.S. policy context:				
Availability of visas	-2.828*	.511	-.568	1.965
Probability of apprehension	2.891*	.783	3.119	3.302
Employer sanctions enacted .....	.304*	.149	.135	.836
Amnesty recipients in household	2.561*	.353	4.656*	.874
Expected value of U.S. services:				
Welfare	-.019*	.006	.026	.017
Medical care .....	.019	.024	-.020	.066
Education .....	.002*	.0002	-.003	.015
Constant	-5.172*	.785	1.239	3.152
Log likelihood		6,648.100*		
χ^2		2,181.600*		
No. of person-years		55,762		

NOTE.—Event-history data gathered among male household heads from 25 Mexican communities.

* $P < .05$.

Initiation of migration

MULTINOMIAL LOGISTIC REGRESSION OF SELECTED VARIABLES ON THE ODDS OF
TAKING AN ADDITIONAL TRIP TO THE UNITED STATES IN YEAR $t + 1$

Continuation of migration

SITUATION OF SUBJECT IN YEAR t	WITHOUT DOCUMENTS		WITH DOCUMENTS	
	B	SE	B	SE
Demographic background:				
Age	-.156*	.021	-.005	.034
Age ² .....	.001*	.0003	-.001	.001
Married	-.207*	.057	.004	.107
No. of minors in household .....	.071*	.012	.041*	.020
General human capital:				
Labor force experience	-.076*	.008	-.041*	.014
Education	-.033*	.007	.029*	.011
Migration-specific human capital:				
Cumulative U.S. experience .....	.012*	.001	.012*	.001
No. of prior U.S. trips .....	.176*	.008	.226*	.008
Last U.S. job unskilled urban .....	.404*	.052	.919*	.093
Last U.S. job skilled urban .....	.093*	.005	.354*	.087
General social capital:				
Parent a U.S. migrant .....	.224*	.043	.452*	.076
No. of U.S. migrant siblings .....	.006	.013	.090*	.020
% of U.S. migrants in community	2.992*	.558	6.430*	.956
Migration-specific social capital:				
Wife a U.S. migrant	1.340*	.118	2.482*	.163
No. of U.S. migrant children .....	.075*	.031	.304*	.040
U.S.-born children	1.114*	.138	1.376*	.164

Note: Non-migrant as reference. Source: Massey, Espinosa 1997, p.971-972.

MULTINOMIAL LOGISTIC REGRESSION OF SELECTED VARIABLES ON THE ODDS OF
TAKING AN ADDITIONAL TRIP TO THE UNITED STATES IN YEAR $t + 1$

Continuation of migration

SITUATION OF SUBJECT IN YEAR t	WITHOUT DOCUMENTS		WITH DOCUMENTS	
	B	SE	B	SE
Physical capital:				
Land	-.134	.071	.382*	.095
Home	-.327*	.048	-.324*	.079
Business	-.611*	.064	-.500*	.100
Community infrastructure:				
Preparatory school .....	.158*	.060	-.236*	.102
Paved road	-.177	.101	-.537*	.173
Bank	-.078	.097	-.021	.156
Community economic context:				
% earning twice minimum wage .....	.618	.389	-5.066*	.677
% self-employed .....	.143	.305	-6.107*	.582
% females in manufacturing	-.211	.253	-.732	.440
Community agrarian context:				
Agrarian economy .....	.200*	.061	.346*	.107
Agrarian population density	-.001	.001	-.001	.002
Proportion of land that is arable	-.113	.099	.968*	.169
<i>Ejido</i> established .....	.088	.133	-1.317*	.180

MULTINOMIAL LOGISTIC REGRESSION OF SELECTED VARIABLES ON THE ODDS OF
TAKING AN ADDITIONAL TRIP TO THE UNITED STATES IN YEAR $t + 1$

Continuation of migration

SITUATION OF SUBJECT IN YEAR t	WITHOUT DOCUMENTS		WITH DOCUMENTS	
	B	SE	B	SE
Macroeconomic context:				
Expected wage ratio .....	.001	.001	-.012*	.002
Peso devaluation	-.023	.040	-.009	.008
Mexican inflation rate	-.883*	.191	-.004	.331
U.S. employment growth	4.344*	1.462	4.440	2.691
Growth in foreign investment	-.167*	.048	-.157*	.078
Mexican real interest rate	1.593*	.375	2.142*	.656
U.S. policy context:				
Availability of visas	-2.900*	.409	1.617*	.639
Probability of apprehension	-2.182*	.527	1.923*	.824
Employer sanctions enacted	-.364*	.096	.235	.160
Amnesty recipients in household	1.767*	.143	3.748*	.160
Expected value of U.S. services:				
Welfare	-.060*	.003	.043*	.020
Medical care .....	.186*	.011	-.190*	.012
Education	-.0003*	.0001	-.002*	.0001
Constant	3.892*	.558	-1.309	.000
Log likelihood		11,829.000*		
χ^2		18,059.000*		
No. of person-years		27,813		

NOTE.—Event-history data gathered among male household heads from 25 Mexican communities.
 * $P < .05$.

LOGISTIC REGRESSION OF SELECTED VARIABLES ON THE ODDS OF RETURNING TO MEXICO FROM THE UNITED STATES IN YEAR t

SITUATION OF SUBJECT IN YEAR t	WITHOUT DOCUMENTS		WITH DOCUMENTS	
	B	SE	B	SE
Demographic background:				
Age .....	.002	.047	-.002	.097
Age ²	-.0002	.0006	.001	.001
Married .....	.224*	.108	-.658*	.239
No. of minors in household	-.010	.027	.049	.055
General human capital:				
Labor force experience	-.007	.015	.042	.033
Education	-.048*	.013	-.087*	.029
Migration-specific human capital:				
Cumulative U.S. experience	-.025*	.002	-.035*	.002
Duration of trip in months	-.221*	.008	-.079*	.006
No. of prior U.S. trips .....	.270*	.022	.276*	.020
Holds unskilled urban job	-.607*	.096	-.124	.211
Holds skilled urban job	-.323*	.102	.289	.203
General social capital:				
Parent a U.S. migrant .....	.140	.087	.121	.170
No. of U.S. migrant siblings	-.039	.027	.065	.041
% of U.S. migrants in community .....	.653	1.115	-2.503	2.169
Migration-specific social capital:				
Wife a U.S. migrant	-.360	.198	-2.174*	.369
No. of U.S. migrant children	-.387*	.077	-.844*	.081
U.S.-born children .....	.050	.242	-1.326*	.367

Note: Non-migrant as reference. Source: Massey, Espinosa 1997, p.979-980.

Return migration

LOGISTIC REGRESSION OF SELECTED VARIABLES ON THE ODDS OF RETURNING TO MEXICO FROM THE UNITED STATES IN YEAR t

SITUATION OF SUBJECT IN YEAR t	WITHOUT DOCUMENTS		WITH DOCUMENTS	
	B	SE	B	SE
Physical capital:				
Land .....	.931*	.168	.994*	.221
Home .....	.241*	.109	.216	.182
Business	-.193	.148	-.046	.226
Community infrastructure:				
Preparatory school .....	.172	.119	.875*	.223
Paved road	-.063	.174	1.332*	.469
Bank .....	.414*	.207	-.387	.413
Community economic context:				
% earning twice minimum wage	-2.782*	.761	-3.883*	1.548
% self-employed	1.939*	.596	-1.012	1.397
% females in manufacturing	-2.424*	.525	-6.072*	1.235
Community agrarian context:				
Agrarian economy	-.200	.120	-.127	.235
Agrarian population density .....	.001	.001	.014	.005
Proportion of land that is arable .....	.097	.202	-.624	.364
<i>Ejido</i> established	-.326	.288	-1.158*	.507

Return migration

LOGISTIC REGRESSION OF SELECTED VARIABLES ON THE ODDS OF RETURNING TO MEXICO FROM THE UNITED STATES IN YEAR t

SITUATION OF SUBJECT IN YEAR t	WITHOUT DOCUMENTS		WITH DOCUMENTS	
	B	SE	B	SE
Macroeconomic context:				
Expected wage ratio	-.0003	.001	.0003	.002
Peso devaluation	-.027	.083	-.245	.151
Mexican inflation rate	1.098*	.396	3.032*	.724
U.S. employment growth	2.936	2.797	-5.879	5.616
Growth in foreign investment	-.136	.100	.530*	.168
Mexican real interest rate	1.560*	.760	-.326	1.443
U.S. policy context:				
Availability of visas	-1.990*	.848	-2.549	1.517
Probability of apprehension	-.090	1.126	-4.761*	1.937
Employer sanctions enacted .....	.232	.228	-1.133*	.332
Amnesty recipients in household .....	.092	.295	-.198	.281
Expected value of U.S. services:				
Welfare	-.010	.008	-.028*	.008
Medical care	-.014	.030	.297*	.045
Education .....	.0002	.0002	.0009*	.0002
Constant	3.565*	1.191	5.620	.225
Log likelihood	2,147.800*		743.340*	
χ^2	6,169.900*		2,963.300*	
No. of person-years	8,394		4,733	

NOTE.—Event-history data gathered among male household heads from 25 Mexican communities.

* $P < .05$.

Return migration

Probabilities

EFFECT OF INDEPENDENT VARIABLES ON UNDOCUMENTED MIGRATION

INDEPENDENT VARIABLE	PROBABILITY OF FIRST MIGRATION		PROBABILITY OF REPEAT MIGRATION		PROBABILITY OF RETURN TO MEXICO DURING FIRST YEAR OF MIGRATION	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Demographic background:						
Married .....	.050	.036	.477	.425	.280	.328
No. of minors in household .....	.039	.043	.378	.517	.317	.300
General human capital:						
Education .....	.043	.036	.465	.377	.379	.249
Migration-specific human capital:						
Cumulative U.S. experience .....			.321*	.746*	.524*	.035*
No. of prior U.S. trips .....			.312*	.841*	.181*	.880*
Unskilled urban job .....			.414	.514	.361	.236
Skilled urban job .....			.428	.450	.335	.267
General social capital:						
Parent a U.S. migrant .....	.037*	.057*	.416	.471	.299	.329
No. of U.S. migrant siblings .....	.035*	.073*	.431	.438	.326	.285
% U.S. migrants in community .....	.027*	.062*	.366	.538	.299	.331
Migration-specific social capital:						
Wife a U.S. migrant .....			.381*	.702*	.345	.268
No. of U.S. migrant children .....			.423	.498	.348*	.143*
U.S.-born children .....			.410	.548	.310	.321
Physical capital:						
Land .....	.039	.052	.437	.405	.298*	.519*
Home .....	.045	.030	.468	.388	.302	.355
Business .....	.041	.032	.460	.316	.316	.276

Note: Range of probabilities refer to when variable goes from its 5th percentile (minimum) to its 95th percentile (maximum) while holding all other variables constant at their means. Age and labor force experience are hold constant at 18 and 3 years, respectively.

Probabilities

EFFECT OF INDEPENDENT VARIABLES ON UNDOCUMENTED MIGRATION

INDEPENDENT VARIABLE	PROBABILITY OF FIRST MIGRATION		PROBABILITY OF REPEAT MIGRATION		PROBABILITY OF RETURN TO MEXICO DURING FIRST YEAR OF MIGRATION	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Community infrastructure:						
Preparatory school .....	.044	.035	.421	.459	.298	.335
Paved road .....	.044	.040	.474	.430	.325	.312
Bank .....	.025	.042	.450	.431	.234	.316
Community economic context:						
% earning twice minimum wage .....	.028*	.058*	.408	.456	.426*	.235*
% self-employed .....	.040	.040	.427	.441	.257*	.424*
% females in manufacturing .....	.036*	.060*	.438	.412	.359*	.144*
Community agrarian context:						
Agrarian economy .....	.028*	.049*	.402	.451	.340	.297
Agrarian population density .....	.040	.039	.434	.432	.312	.313
Proportion of land that is arable .....	.047	.036	.445	.422	.304	.321
<i>Ejido</i> established .....	.029	.040	.430	.433	.384	.311
Macroeconomic context:						
Expected wage ratio .....	.039	.044	.429	.443	.313	.311
Peso devaluation .....	.042	.035	.435	.420	.315	.300
Mexican inflation rate .....	.047	.029	.495	.325	.250*	.425*
U.S. employment growth .....	.035	.044	.401	.454	.294	.327
Growth in foreign investment .....	.049	.032	.475	.389	.342	.281
Mexican real interest rate .....	.028*	.056*	.368	.493	.261	.368
U.S. policy context:						
Availability of visas .....	.048*	.022*	.472	.280	.330	.252
Probability of apprehension .....	.030	.049	.480	.390	.314	.311
Employer sanctions enacted .....	.039	.052	.446	.359	.308	.359
Amnesty recipients in household .....	.040*	.350*	.416*	.806*	.311	.331
Expected value of U.S. services:						
Welfare .....	.055*	.020*	.753*	.022*	.405	.190
Medical care .....	.037	.045	.271*	.786*	.341	.266
Education .....	.032	.051	.460	.353	.341	.253
Mean .....		.040		.433		.312

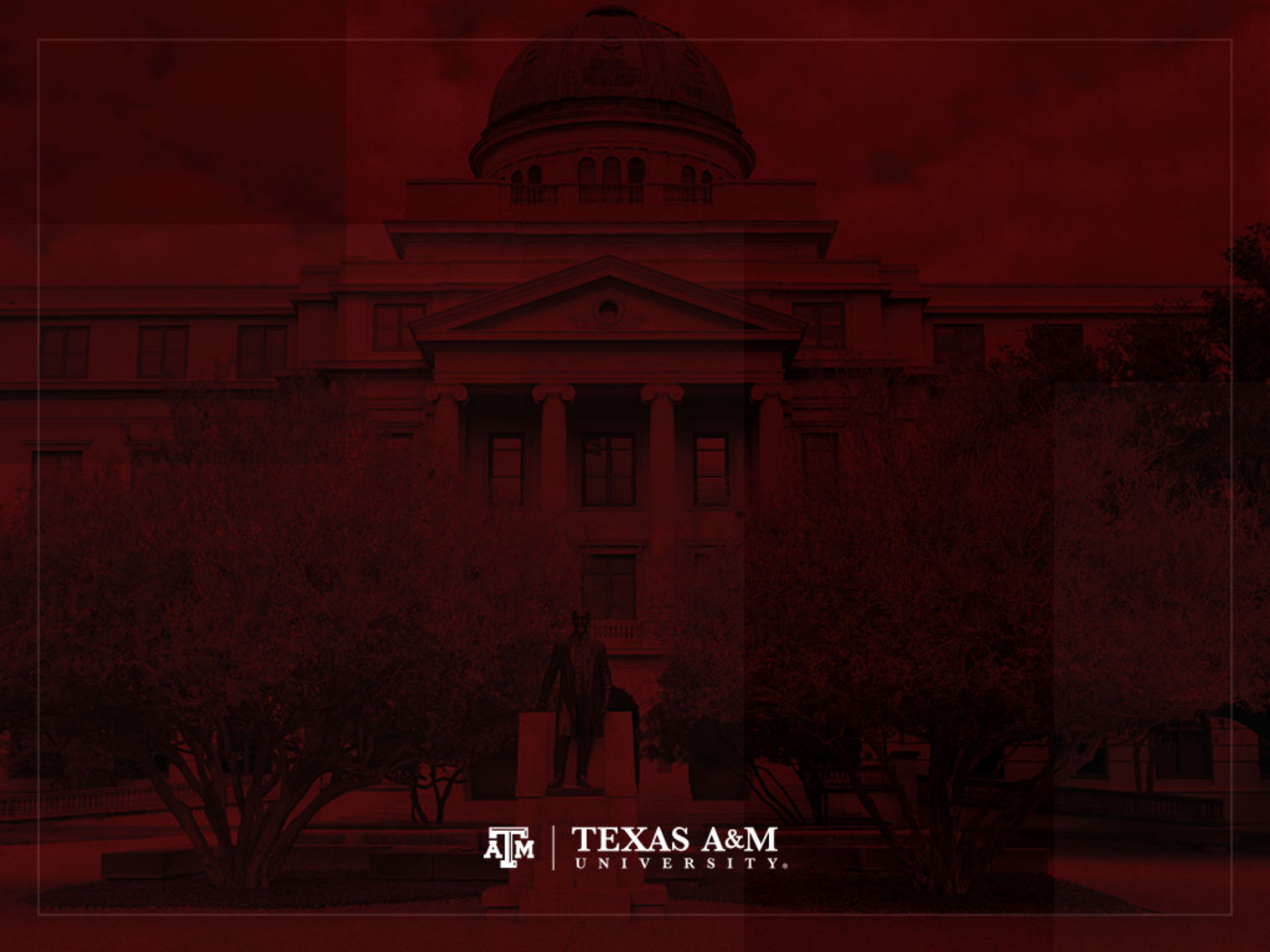
NOTE.—Probability of first migration at age 18, probability of repeat migration at age 25, and probability that a 25-year-old will return to Mexico during the first year of migration.

* Ranges greater than 50% of mean probability.

References

- Brettell CB, Hollifield JF. 2014. Migration Theory: Talking across Disciplines. Hoboken: Taylor & Francis. Introduction (pp. 1–36).
- Camp R. 1993. Politics in Mexico. New York: Oxford University Press.
- Hirschman C. 1999. “Theories of international migration and immigration: A preliminary reconnaissance of ideal types.” In C Hirschman, J DeWind, P Kasinitz (eds.). International Migration and the Remaking of America. New York: Russell Sage Foundation. Chapter 6 (pp.120–126).
- Massey DS, Arango J, Hugo G, Kouaouci A, Pellegrino A, Taylor JE. 1994. “An evaluation of international migration theory: The North American case.” Population and Development Review, 20(4): 699–751.
- Massey DS, Espinosa KE. 1997. “What’s driving Mexico-US migration? A theoretical, empirical, and policy analysis.” American Journal of Sociology, 102(4): 939–999.
- Portes A. 1997. “Immigration theory for a new century: Some problems and opportunities.” International Migration Review, 31(4): 799–825.





TEXAS A&M
UNIVERSITY.