ONLINE APPENDIX

Figure A.1: Mexican migration regions and entrance ports (1906–08)

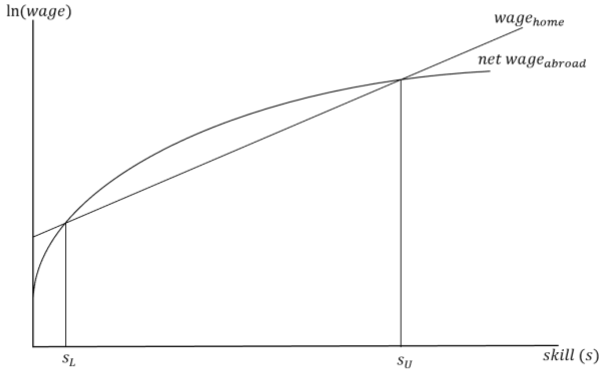
Notes: We classify the regions of birth following López-Alonso (2015, p. 127).

Figure A.2: Mexican economy during the Panic of 1907

Sources: GDP, Banco de México; Exports, El Colegio de México (1960); Textile industry, Barjau Martínez (1976); Manufactures, Robles (1960).

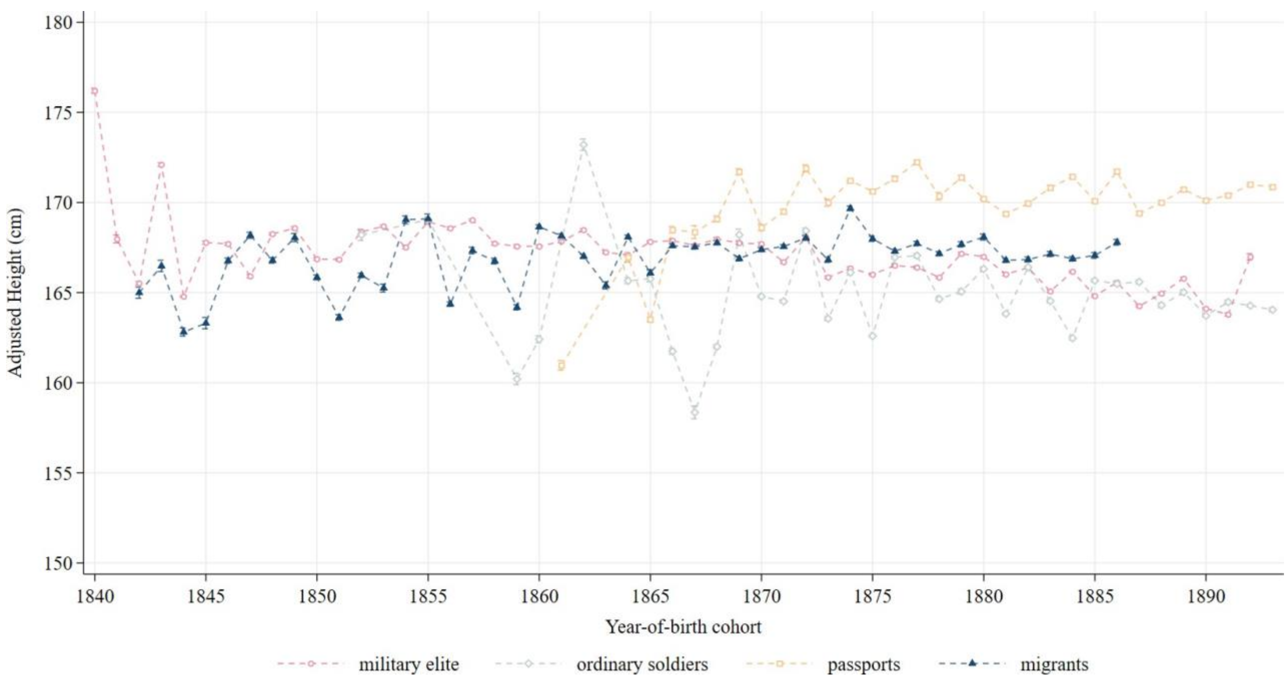
Notes: The US financial crisis of 1907 did not affect the production of manufactures nor the expansion of the textile industry—both are usually used to illustrate the economic growth and modernization of Mexico from 1890 to 1910 (Gómez-Galvarriato, 2009). The crisis depressed regional trade in 1907, but exports to the United States began to recover from 1908. In addition, there is no evidence of mass unemployment nor bankrupt companies in Mexico during or after the Panic of 1907.

Figure A.3: Self-selection of migrants



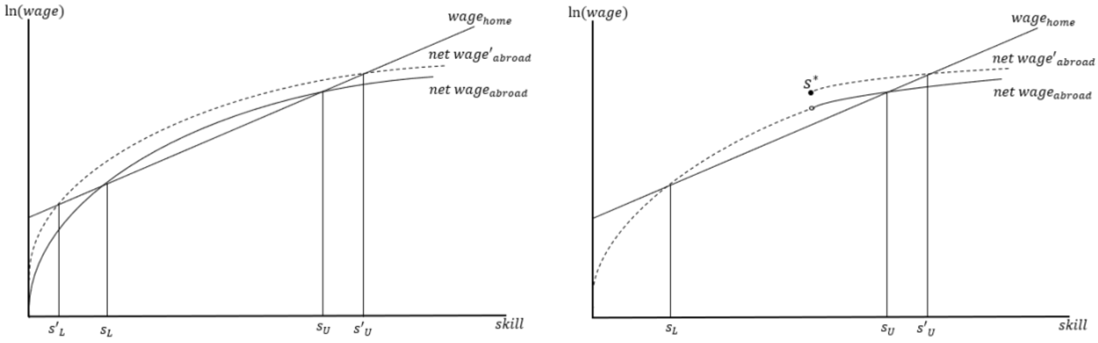
Source: Adapted from Chiquiar & Hanson (2005).
Notes: The diagram depicts the main implication of Chiquiar and Hanson's framework. If migration costs are large enough and credit constraints sufficiently biding, immigration from home countries with high earnings inequality can be characterized by an intermediate selection despite predictions of negative selection from the Borjas-Roy model. This is because high returns to skill at home dissuade the high skilled from migrating ($S > S_U$), and high migration costs price out the poor and low skilled from migrating ($S < S_L$). Mexican earnings data for the period are scattered and unreliable (López-Alonso, 2007). Available Gini coefficient estimates (United States: 0.54; Mexico: 0.51) may not be comparable and provide little information about differences in returns to skill between countries. Hence, predictions about the selection of Mexican immigration are ambiguous. See Lindert & Williamson (2016, p. 174) and Moatsos et al. (2014, p. 206) for income inequality estimations.

Figure A.4: Average height by birth cohort



Source: Mexican Border Crossing Records, Microfilm publication N° A3365. Military and Passport samples from López-Alonso (2015).
Notes: We estimate average height by year-of-birth cohort adjusting for region of birth.

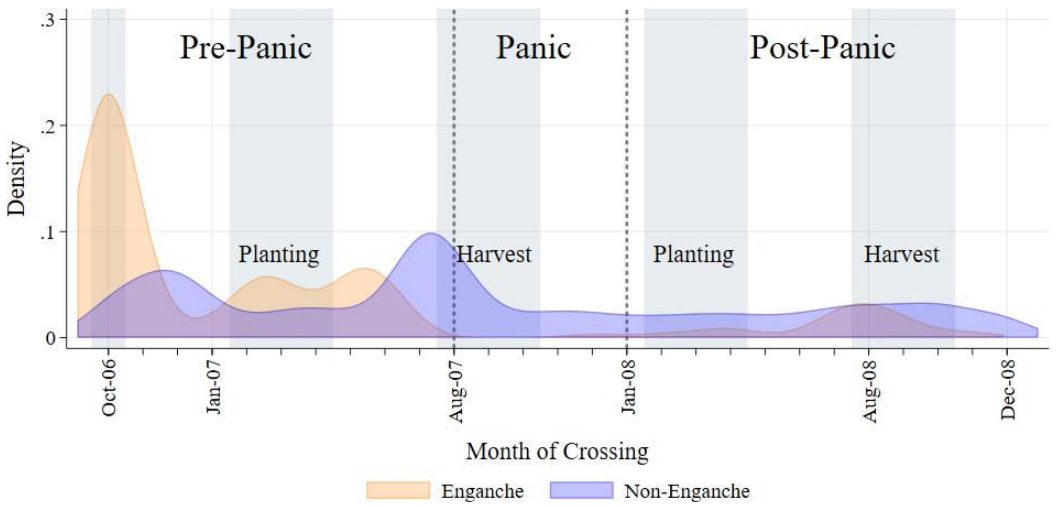
Figure A.5: Migrant self-selection and labor recruiting



A. Random recruiting **B. Positive selective recruiting**

Source: Adapted from Chiquiar & Hanson (2005).
Notes: Chiquiar & Hanson (2005) consider a nonlinear relationship between net wages (US wages minus migration costs, *net* $wage_{abroad}$) and skill. As a result, migrants from countries with relatively high earnings inequality will tend to be drawn from the intermediate ranks of the skill distribution. This is because the higher returns to skill at home dissuade the high skilled to migrate ($s > s_U$) and the high migration costs price out the poor and low skilled from migration ($s < s_L$). Random recruiting decreases migration costs at all skill levels (Panel A). This means an upward shift of the *net* $wage_{abroad}$ curve. As a result, more individuals will migrate from both ends of the skill distribution. Selective recruiting decreases migration costs only at some skill levels, resulting on more individuals migrating from a specific part of the skill distribution (Panel B). The effect of selective recruiting on the direction (degree) of migrant selection depends primarily on the chosen recruitment threshold (s^*), which reflects the employers' preferences. Panel B illustrates the case of positive selective recruiting, i.e., employers prefer migrant workers with above-average skills.

Figure A.6: Distribution of the migrant sample, 1906–1908



Source: Mexican Border Crossing Records, Microfilm publication N° A3365.
Note: The figure shows kernel density estimates of the migrant sample. Previous literature documents that Mexican immigration was more intense during the planting (February–April) and harvest (August–October) seasons. The density of *enganche* immigration (recruited migrant workers) increases during these periods. The evidence also suggests that the *enganche* operated throughout the year before the Panic of 1907, suggesting that labor recruiting could have also been practiced in sectors other than agriculture. The Panic of 1907 "broke" the existing seasonal immigration patterns and neither the *enganche* nor the *non-enganche* immigration returned to their pre-Panic levels during 1908.

Table A.1: Average height (cm) across regions (men)

	North	Bajio	Center	South
Migrant	169.2	167.0	167.9	165.4
	(6.0)	(5.9)	(7.2)	(5.4)
Rurales	167.4	166.8	166.0	166.3
	(6.39	(6.3)	(6.4)	(5.7)
Federales	166.8	165.2	163.7	161.3
	(6.9)	(6.6)	(5.9)	(5.7)
Passports	171.3	171.1	169.4	168.9
	(7.3)	(7.5)	(7.3)	(7.1)
Observations	2,208	5,850	2,978	461

Source: Mexican Border Crossing Records, Microfilm publication N° A3365. Military and Passport samples from López-Alonso (2015).
Notes: Standard deviations in parenthesis. We classify the regions of birth following López-Alonso (2015, p. 127). We limit the sample to males because the military data do not report geographic information for females. We consider individuals that had reached their terminal height: individuals between 22 and 65 years old.

Table A.2: Composition of Mexican immigration across periods

	Pre-Panic Oct 1906–Jul 1907	Panic Aug 1907–Jan 1908	Post-Panic Feb 1908–Dec 1908
Panel A. Complete Sample			
Average Height (cm)	168.1	167.3	168.4
Average Age (years)	30.5	31.8	32.3
Occupational Skill Class (%)			
Unskilled	91.6	88.3	83.8
Skilled	5.4	7.8	12.8
Professional	2.0	2.8	2.6
Enganche (%)	36.2	1.2	13.2
Observations (%)	58.0	16.0	25.8
Panel B. North			
Average Height (cm)	169.8	168.2	168.9
Average Age (years)	30.4	32.1	32.8
Occupational Skill Class (%)			
Unskilled	86.2	85.0	82.6
Skilled	9.5	11.1	14.0
Professional	2.5	2.2	2.1
Enganche (%)	27.3	1.8	15.5
Observations (%)	50.0	17.0	32.5
Panel C. Bajio			
Average Height (cm)	166.9	166.6	167.6
Average Age (years)	30.5	31.5	31.7
Occupational Skill Class (%)			
Unskilled	96.7	94.3	86.9
Skilled	2.2	3.6	10.7
Professional	0.7	1.4	2.1
Enganche (%)	42.7	0.7	10.2
Observations (%)	64.9	14.8	20.1

Source: Mexican Border Crossing Records, Microfilm publication N° A3365.
Notes: We classify the regions of birth following López-Alonso (2015, p. 127). We consider individuals that had reached their terminal height: individuals between 22 and 65 years old. The Panic of 1907 affected both the scale and composition of Mexican immigration.

Table A.3: Impact of the enganche on migrant selection patterns.
Dependent variable: height (centimeters)

	1	2	3	4	5	6
A. Federales						
Migrant	2.066***	2.372***	2.117***	2.089***	2.089***	2.096***
	(0.444)	(0.501)	(0.522)	(0.555)	(0.555)	(0.654)
Migrant×Panic		−1.858***	−1.622***	−2.229***	−2.480***	−2.432**
		(0.218)	(0.295)	(0.752)	(0.840)	(0.932)
Migrant×Post Panic		0.068	0.328	0.702	0.560	0.306
		(0.250)	(0.294)	(0.482)	(0.494)	(0.491)
Enganche	0.665***		0.736**	0.919*	0.919*	0.916*
	(0.248)		(0.322)	(0.506)	(0.506)	(0.523)
Enganche×Panic			1.363	1.524	1.756	2.597
			(1.849)	(1.943)	(2.014)	(1.971)
Enganche×Post Panic			−0.786	−3.061**	−3.118**	−3.095**
			(0.874)	(1.300)	(1.319)	(1.395)
Observations	4,822	4,822	4,822	4,822	4,822	4,822
R-squared	0.119	0.137	0.139	0.140	0.141	0.184
B. Passports						
Migrant	−2.252***	−1.610***	−1.792***	−1.824***	−1.824***	−2.610***
	(0.456)	(0.574)	(0.593)	(0.604)	(0.604)	(0.807)
Migrant×Panic		−1.584***	−1.356***	−1.970***	−2.222***	−1.912**
		(0.212)	(0.292)	(0.703)	(0.796)	(0.836)
Migrant×Post Panic		0.342	0.593*	0.961*	0.818	0.776
		(0.268)	(0.312)	(0.516)	(0.523)	(0.554)
Enganche	0.652***		0.711**	0.967*	0.967*	0.820
	(0.239)		(0.318)	(0.501)	(0.501)	(0.547)
Enganche×Panic			1.388	1.475	1.707	2.107
			(1.843)	(1.931)	(2.001)	(2.040)
Enganche×Post Panic			−0.761	−3.110**	−3.167**	−3.101**
			(0.880)	(1.306)	(1.325)	(1.413)
Observations	4,901	4,901	4,901	4,901	4,901	4,901
R-squared	0.060	0.077	0.078	0.080	0.080	0.116
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Controls×Time period	No	Yes	Yes	Yes	Yes	Yes
Season×Time period	No	No	No	Yes	Yes	Yes
Season×Enganche×Time period	No	No	No	Yes	Yes	Yes
Droughts×Time period	No	No	No	No	Yes	Yes
Controls×Birth cohort	No	No	No	No	No	Yes

Source: Mexican Border Crossing Records–Microfilm publication N° A3365 and López-Alonso (2015).
Notes: * = Significant at 10% level; ** = Significant at 5% level; *** = Significant at 1% level. Robust standard errors, clustered by birth cohort, in parenthesis. Interactions in the control variables denote full sets of interactions.

Identification of enganche migrants

To identify *enganche* migrants, we first collapse the migrant sample by source municipality (*s*), destination county (*d*), year-month of crossing (*t*), and port of entrance (*p*):

$$w_{sdtp} = \sum i_{sdtp}. \tag{5}$$

We then standardize the size of each migration flow (w_{sdtp}) using the mean (μ_{sdp}) and standard deviation (σ_{sdp}) of the corridor (source-destination-port combination) to which the flow belongs:

$$z_{sdtp} = (w_{sdtp} - \mu_{sdp})/\sigma_{sdp}. \tag{6}$$

Note that the *z-scores* (z_{sdtp}) allow us to identify unusual, large migration flows relative to mean size of the flows belonging to the same migration corridor. Previous literature documents that labor contractors commonly hired between 30 and 400 migrants depending on the nature of the jobs and season of the year (Clark, 1908; Durand, 2016). *Enganche* advertisements of the time confirm this information (advertisements available upon request). Hence, we identify as *enganche* flows those migration flows of at least 30 migrants and whose size falls at least one standard deviation above the average size of the flows in each migration corridor:

$$enganche_{sdtp} = \begin{cases} 1 \; if \; w_{sdtp} \geq 30 \text{ and } z_{sdtp} \geq 1 \\ 0 \; if \; otherwise. \end{cases} \tag{7}$$

Finally, all individuals belonging to an *enganche* flow are considered *enganche* migrants.

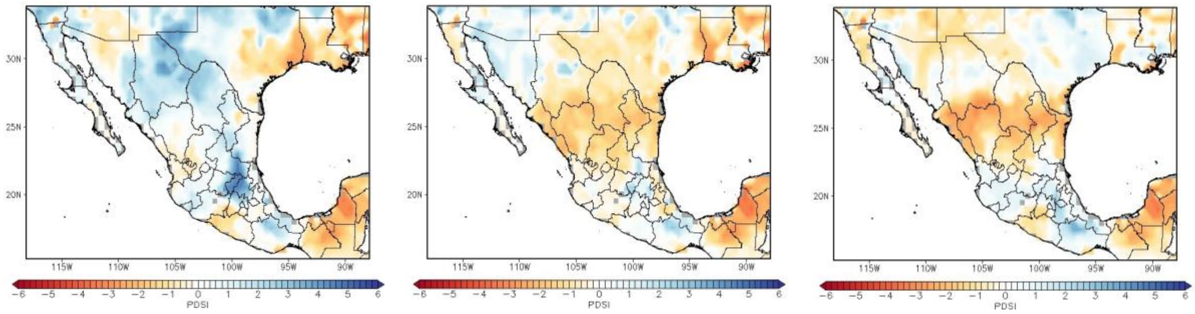
Identification of Mexican locations affected by droughts

We identify droughts at the municipality level using the Mexican Drought Atlas, which reports reconstructions of a self-calibrating Palmer Drought Severity Index (PDSI) on a 0.5° latitude/longitude grid centered over Mexico from AD 1400-2012 (Stahle et al., 2016). The PDSI uses temperature and precipitation data to calculate a standardized dryness index that spans from -6 (dry) to +6 (wet), with values below -2.0 (+2.0) representing moderate droughts (wet spells) (Wells et al., 2004). Figure A.7 shows that moderate droughts affected specific regions of the country, namely the central plateau, northeast, and Yucatan peninsula. This evidence coincides with historical literature documenting regional droughts from 1906 to 1910 in Mexico (Clark, 1908; Contreras, 2005; Mayet et al., 1980).

To identify migrants whose decision to move was potentially driven by the presence of droughts, we first classify the migrants' reported localities of origin into municipalities using the 1910 Mexican census. We then consider that migrant i was affected by droughts if she comes from a municipality m with an estimated PDSI value of -2.0 or lower:

$$drought_{im} = \begin{cases} 1 \; if \; PDSI_{im} \leq -2.0 \\ 0 \; if \; otherwise. \end{cases} \quad (8)$$

Figure A.7: Droughts in Mexico, 1906-1908



Jan - Dec 1906 *Jan - Dec 1907* *Jan - Dec 1908*

Source: Stahle et al. (2016).
Notes: The maps display Palmer Drought Severity Index (PDSI) values at the local level. The PDSI uses temperature and precipitation data to estimate relative dryness. It is a standardized index that spans from -6 (dry) to +6 (wet). PDSI values below -2.0 represent moderate droughts, while values above +2.0 represent moderate wet spells. The panel shows the presence of droughts in specific regions during 1908; particularly, in the states of Chihuahua, Coahuila, Durango, Nuevo León, Sinaloa, and Tamaulipas (see Figure A.1 for guidance). In these states, the average local PDSI value ranges from -2.2 to -2.7.