Appendix Figure 10: Maps of the Municipality Enrolment Ratio by Implementation Phase
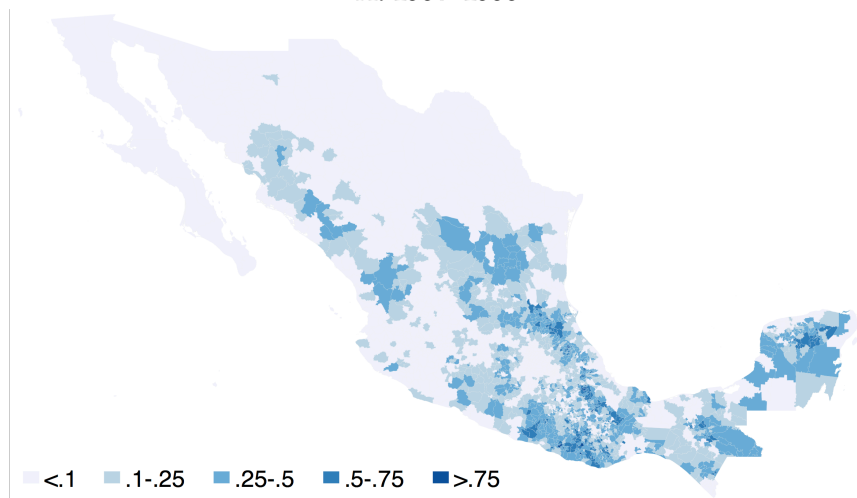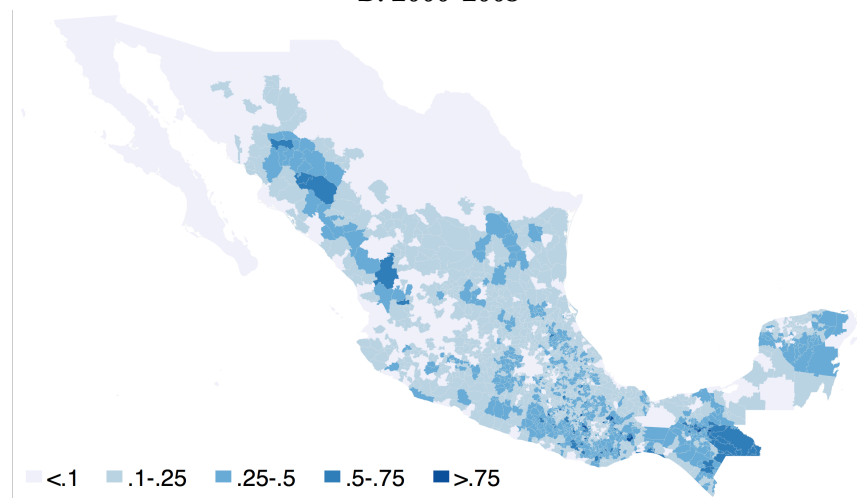
A. 1997-1999
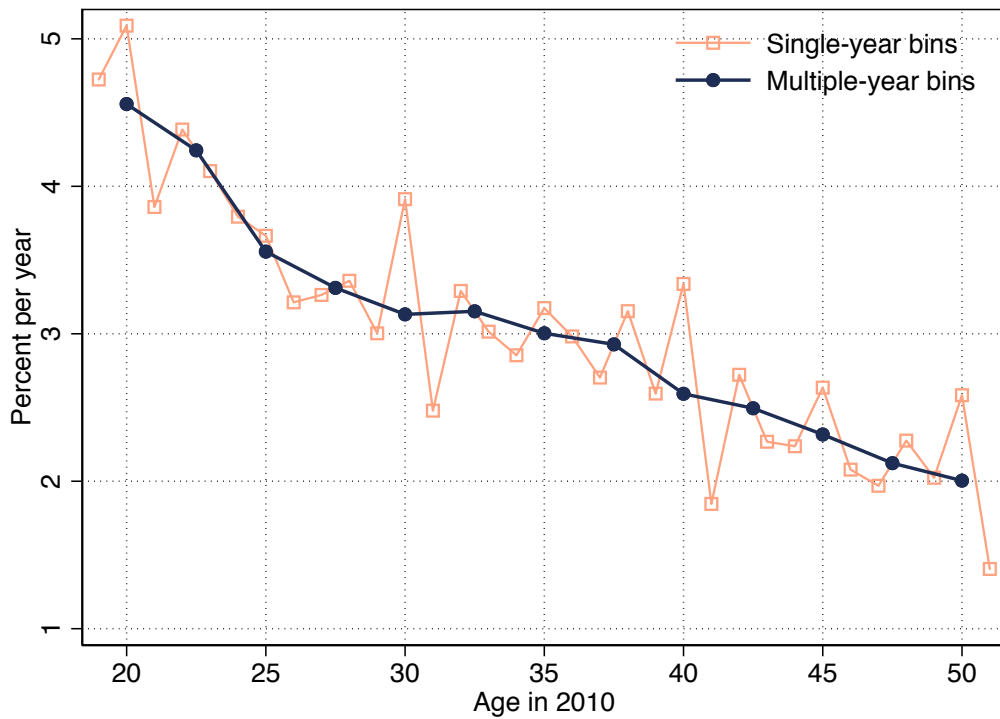

<.1   .1-.25   .25-.5   .5-.75   >.75

B. 2000-2005

<.1   .1-.25   .25-.5   .5-.75   >.75

Note: The municipality enrolment ratio is the count of new households enrolled divided by the estimated number of households 1997.

Appendix Figure 11: Age Heaping, 2010 Census

Note: Sample includes respondents who lived in sample municipalities in 2005 and reported ages between 19 and 51. Multiple-year bins centered on multiples of 5 are 3 years wide (19-21, 24-26, 29-31, etc.); those in between are 2 years wide (22-23, 27-28, 32-33, etc.).

Appendix Figure 12: Differential Age Heaping by Educational Attainment, 2010 Census
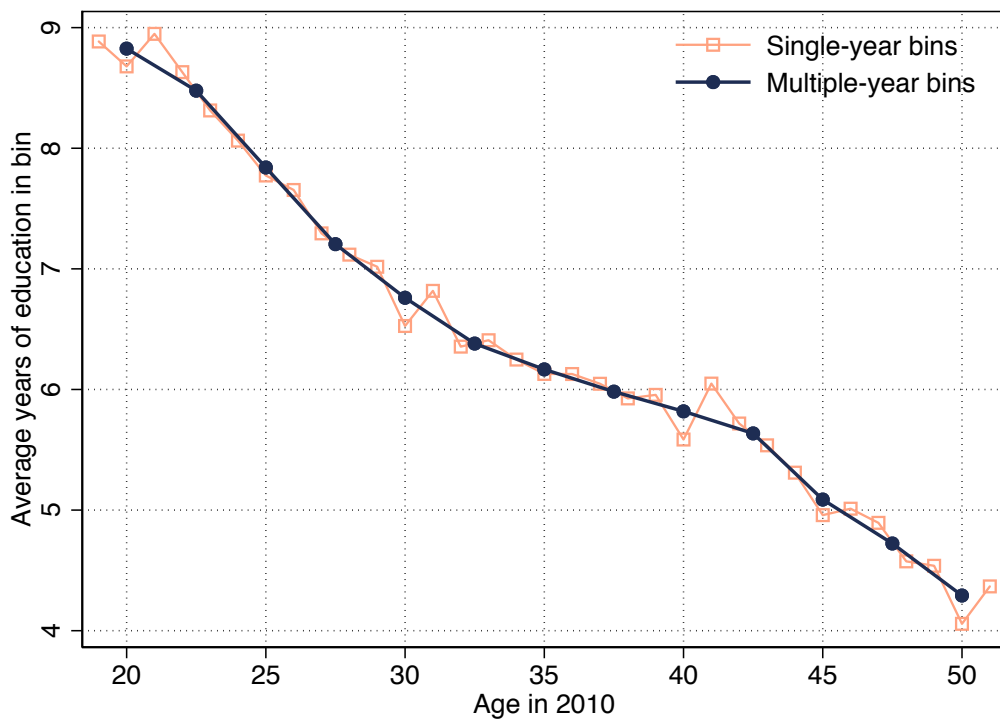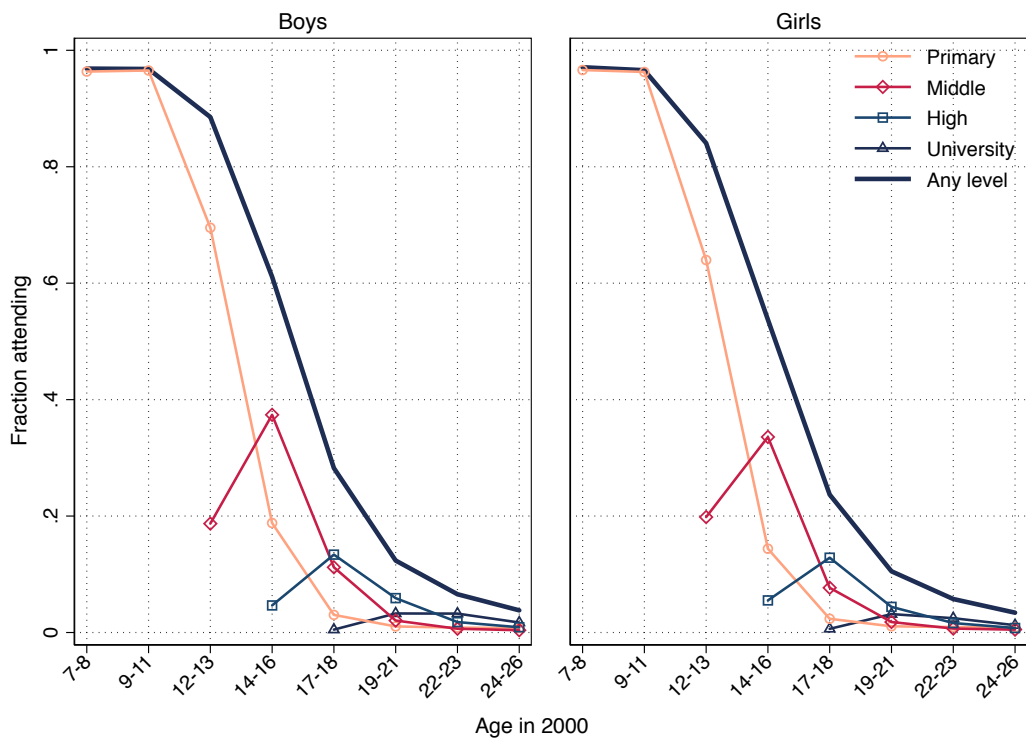

Note: Sample includes respondents who lived in sample municipalities in 2005 and reported ages between 19 and 51. Multiple-year bins centered on multiples of 5 are 3 years wide (19-21, 24-26, 29-31, etc.); those in between are 2 years wide (22-23, 27-28, 32-33, etc.).

Appendix Figure 13: School Enrolment by Age, 2000 Census

Note: School enrolment in sample municipalities in the 2000 Census. Cash transfer conditionality was limited to primary and middle school in the first program wave (1997-99).

Appendix Figure 14: Density of Residualized Early Program Exposure
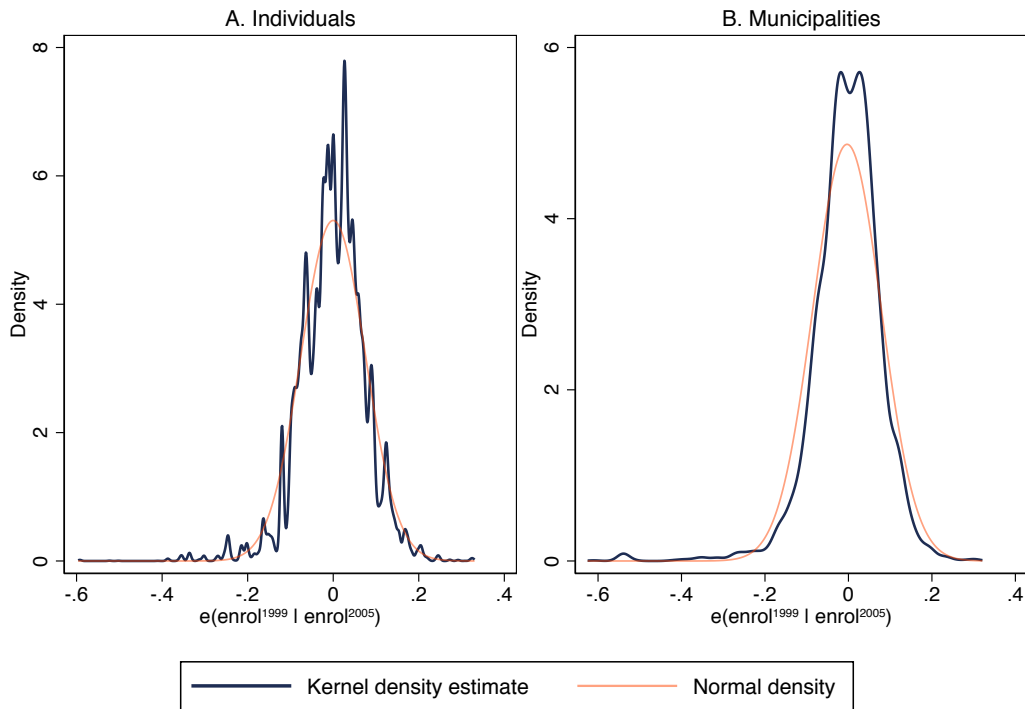
Note: Kernel density estimates use the Silverman bandwidth, which minimizes the mean integrated squared error if the underlying variable is normally distributed. Residualised early program exposure is obtained by computing residuals after regressing the 1999 cumulative enrolment ratio on the 2005 cumulative enrolment ratio in the individual-level (Panel A) or municipality-level (Panel B) datasets.

Appendix Figure 15: Effect of Early Program Exposure
on Municipal Cohort Size and Composition
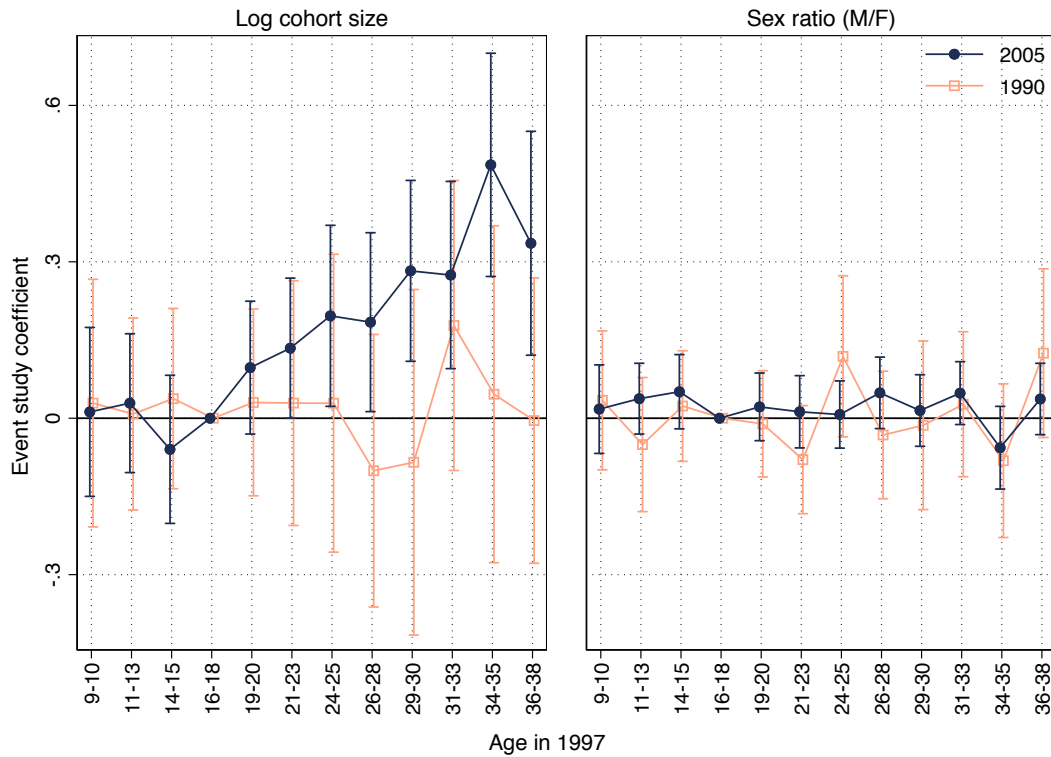
Note: Coefficients on interactions of cohort indicators with the cumulative enrolment ratio in 1999. Capped spikes represent 95% confidence intervals based on standard errors clustered at the state level. Regressions include cohort fixed effects, municipality fixed effects, and interactions of cohort indicators with the cumulative enrolment ratio in 2005. For consistency with our main event study graphs, the interaction for the cohort aged 16-18 in 1997 is omitted. 2005 results are based on the 2010 census; 1990 results are based on the 1990 census.

Appendix Figure 16: Effects on Educational Attainment by Grade, 2010 Census
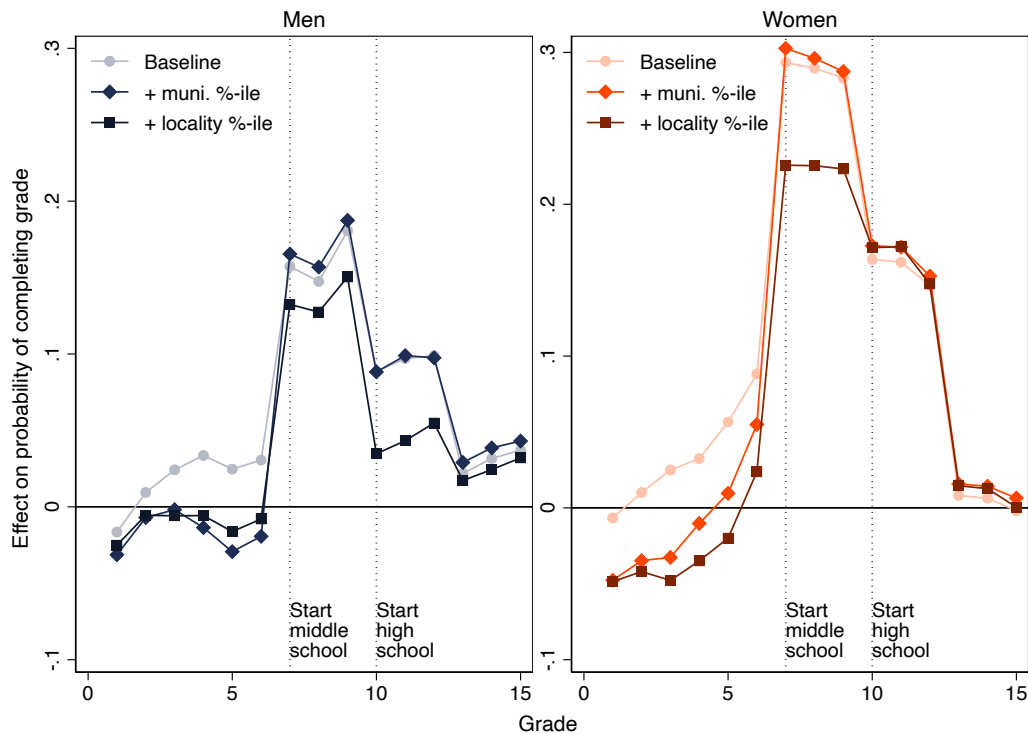
Note: Coefficients on the interaction of the post-cohort indicator with the cumulative enrolment ratio in 1999. Each point is from a different regression in which the dependent variable is an indicator for completing at least x years of schooling. All regressions include cohort fixed effects, municipality fixed effects, and the interaction of the post-cohort indicator with the cumulative enrolment ratio in 2005.

Appendix Figure 17: Falsification Test for Earnings Distribution Impacts, 1990 Census
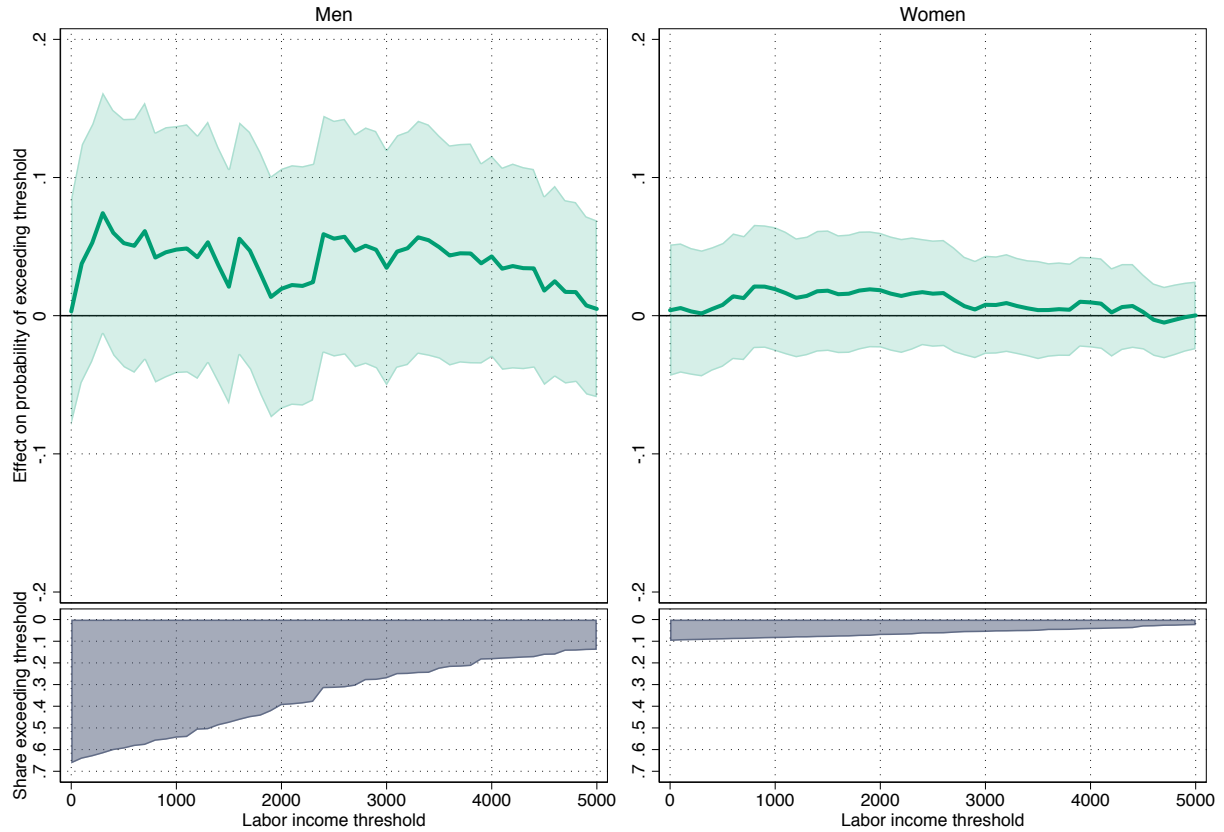
Note: Coefficients on interaction of the post indicator with the cumulative enrolment ratio in 1999. Dependent variable is an indicator for labour earnings exceeding the specified threshold, which increases in increments of 100. Earnings are denominated in 2010 Mexican pesos. Shaded areas represent 95% confidence intervals based on standard errors clustered at the municipality level. Regressions include cohort and municipality fixed effects, plus the interaction of the post indicator with cumulative enrolment in 2005.

Appendix Figure 18: Trends in Secondary School Attainment by State of Birth, 2010 Census
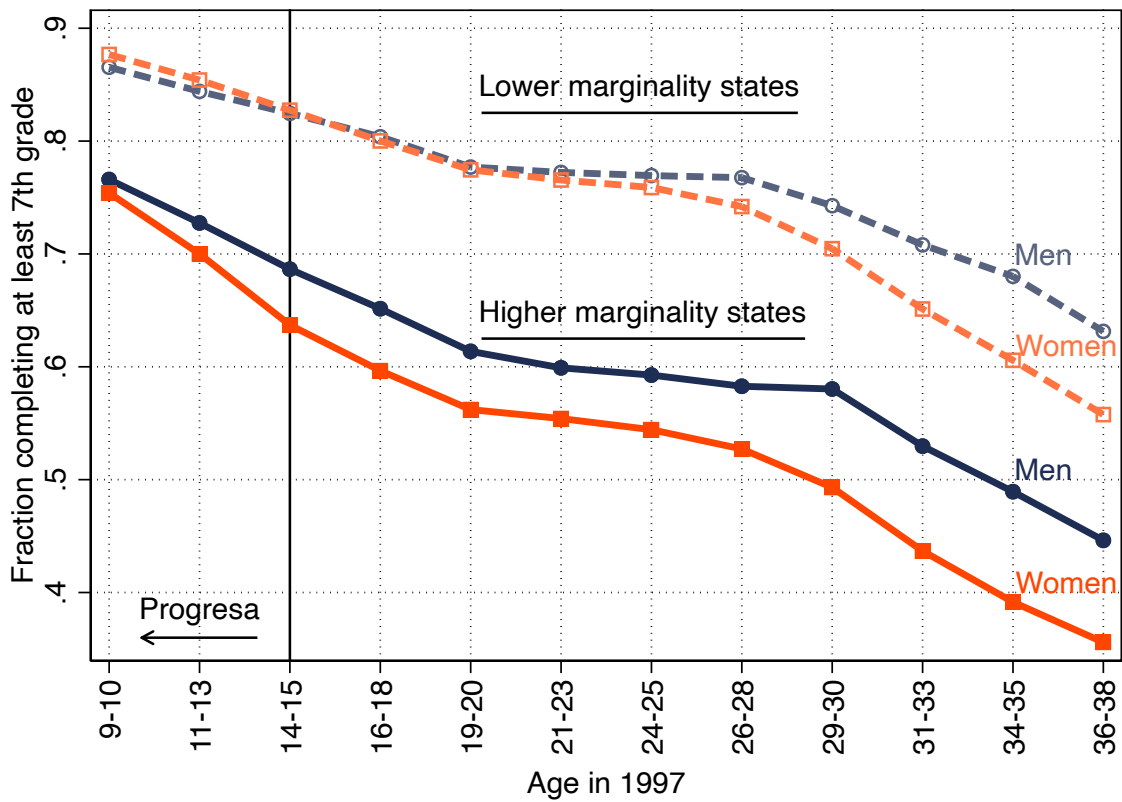
Note: We use state of birth instead of the 5-year lag of municipality to allow the inclusion of older cohorts without introducing concerns about migration. Because marginality classifications are not available for the period in which the oldest cohorts were children, we use the marginality classification from 2010.

Appendix Table 6: Monthly Amount of Schooling Grants, 1997 and 2003

	2nd semester 1997		2nd semester 2003	
	Boys	Girls	Boys	Girls
Primary school				
3rd year	60	60	105	105
4th year	70	70	120	120
5th year	90	90	155	155
6th year	120	120	210	210
Middle school				
1st year	175	185	305	320
2nd year	185	205	320	355
3rd year	195	225	335	390
High school				
1st year			510	585
2nd year			545	625
3rd year			580	660
Max HH amount without high-schooler	550		950	
Max HH amount with high-schooler			1635	

Note: Amounts in nominal pesos. The peso-to-dollar exchange rate was exchange rate was roughly 8 in 1997 and 11 in 2003. Source: www.prospera.gob.mx.

Appendix Table 7: Accounting for Municipality Variation in Early Program Intensity

	All municipalities	Sample municipalities
	(1)	(2)
R^2 from regression of 1999 enrolment ratio on:		
2005 enrolment ratio **(r)**	0.84	0.65
Municipality marginality %-ile dummies **(d)**	0.74	0.38
Locality marginality %-ile shares **(s)**	0.79	0.49
(r) and **(d)**	0.86	0.67
(r) and **(s)**	0.89	0.73
(r), **(d)**, and **(s)**	0.89	0.75
Number of municipalities	2382	1143

Note: Sample municipalities were classified as high or very high marginality in 1990.

Appendix Table 8: Program Impacts on Household and Family Structure

	Men				Women			
	2010			1990	2010			1990
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. # household members								
Enrolment ratio, 1999	0.046	-0.053	-0.042	0.314	-0.240	-0.082	0.072	0.570
× post cohort	[0.258]	[0.230]	[0.217]	[0.297]	[0.209]	[0.190]	[0.182]	[0.269]**,†
N	301,140	301,140	301,140	84,489	358,339	358,339	358,339	90,433
B. Living with parent								
Enrolment ratio, 1999	-0.110	-0.128	-0.114	0.027	0.000	0.011	0.042	0.005
× post cohort	[0.042]***	[0.038]***	[0.038]***	[0.043]†	[0.035]	[0.032]	[0.028]	[0.036]
N	301,140	301,140	301,140	84,489	358,339	358,339	358,339	90,433
C. Married								
Enrolment ratio, 1999	-0.022	-0.017	-0.008	-0.013	-0.045	-0.046	-0.037	0.013
× post cohort	[0.042]	[0.035]	[0.039]	[0.042]	[0.032]	[0.031]	[0.031]	[0.036]
N	300,735	300,735	300,735	83,698	357,825	357,825	357,825	89,719
D. # coresident kids born before age 22								
Enrolment ratio, 1999	—	—	—	—	-0.104	-0.065	-0.071	0.201
× post cohort					[0.079]	[0.075]	[0.080]	[0.130]†
N					358,339	358,339	358,339	90,433
Municipality FE, cohort FE	X	X	X	X	X	X	X	X
Cohort dummies ×								
Muni. marg. %-ile dummies		X	X			X	X	
Locality marg. %-ile shares			X				X	

Note: Brackets contain standard errors clustered at the municipality level. All regressions additionally control for the interaction of the post indicator with the cumulative enrolment ratio in 2005. Test versus 0: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Test versus 2010 coefficient: ^ $p < 0.1$, † $p < 0.05$, ‡ $p < 0.01$.

Appendix Table 9: Program Impacts on Spousal Characteristics, Conditional on Marriage

	Men				Women			
	2010			1990	2010			1990
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. Spouse's education								
Enrolment ratio, 1999	0.744	0.883	0.782	1.208	0.748	0.458	0.368	0.607
× post cohort	[0.475]	[0.315]***	[0.298]***	[0.637]*	[0.414]*	[0.325]	[0.318]	[0.712]
N	195,112	195,112	195,112	55,942	229,128	229,128	229,128	63,669
B. Spouse's age								
Enrolment ratio, 1999	0.599	0.495	0.064	-1.087	-0.561	-0.629	-0.489	0.862
× post cohort	[0.457]	[0.413]	[0.429]	[0.719]†	[0.469]	[0.467]	[0.485]	[0.749]
N	195,968	195,968	195,968	55,882	230,168	230,168	230,168	63,607
C. Spouse works								
Enrolment ratio, 1999	0.083	0.075	0.067	-0.009	-0.013	-0.029	-0.032	0.032
× post cohort	[0.033]**	[0.035]**	[0.037]*	[0.025]^	[0.024]	[0.024]	[0.025]	[0.034]
N	195,450	195,450	195,450	55,511	229,390	229,390	229,390	63,420
D. Spouse's monthly earnings								
Enrolment ratio, 1999	150	184	-15	783	778	732	599	249
× post cohort	[173]	[147]	[149]	[528]	[250]***	[249]***	[238]**	[2,526]
N	194,753	194,753	194,753	55,569	220,161	220,161	220,161	61,369
Municipality FE, cohort FE	X	X	X	X	X	X	X	X
Cohort dummies ×								
Muni. marg. %-ile dummies		X	X			X	X	
Locality marg. %-ile shares			X				X	

Note: Brackets contain standard errors clustered at the municipality level. All regressions additionally control for the interaction of the post indicator with the cumulative enrolment ratio in 2005. Test versus 0: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Test versus 2010 coefficient: ^ $p < 0.1$, † $p < 0.05$, ‡ $p < 0.01$.

Appendix Table 10: Program Impacts on Outcome Indices

	Men			Women		
	(1)	(2)	(3)	(4)	(5)	(6)
A. Education index (Table II)						
Enrolment ratio, 1999	0.225	0.226	0.145	0.364	0.372	0.310
× post cohort	[0.083]***	[0.073]***	[0.073]**	[0.070]***	[0.068]***	[0.067]***
N	299,237	299,237	299,237	355,986	355,986	355,986
B. Labour market index (Table III)						
Enrolment ratio, 1999	0.104	0.167	0.095	0.095	0.115	0.131
× post cohort	[0.079]	[0.061]***	[0.064]	[0.065]	[0.060]*	[0.059]**
N	281,033	281,033	281,033	350,290	350,290	350,290
C. Household economic wellbeing index (Table IV)						
Enrolment ratio, 1999	0.064	0.113	0.072	0.187	0.173	0.118
× post cohort	[0.113]	[0.094]	[0.095]	[0.060]***	[0.058]***	[0.058]**
N	282,720	282,720	282,720	344,441	344,441	344,441
D. Domestic migration index (Table V)						
Enrolment ratio, 1999	0.335	0.502	0.361	0.362	0.361	0.284
× post cohort	[0.248]	[0.189]***	[0.196]*	[0.136]***	[0.129]***	[0.129]**
N	301,140	301,140	301,140	358,339	358,339	358,339
Municipality FE, cohort FE	X	X	X	X	X	X
Cohort dummies ×						
Muni. marg. %-ile dummies		X	X		X	X
Locality marg. %-ile shares			X			X

Note: Brackets contain standard errors clustered at the municipality level. All regressions additionally control for the interaction of the post indicator with the cumulative enrolment ratio in 2005. Indices are computed by averaging standardized outcomes within each family. Standardisation involves subtracting the mean and dividing by the standard deviation within each sex-specific sample. For the labor market index, the "working in agriculture" variable is reversed to be "working outside agriculture" so that better outcomes are assigned higher values. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table 11: Unadjusted and Adjusted *p*-values for Main Outcomes

Men			Women		
Outcome	Unadj. *p*-value	Adjusted p-value	Outcome	Unadj. *p*-value	Adjusted p-value
At least some middle	0.002	0.035	At least some middle	< 0.001	< 0.001
Cross-state migration	0.038	0.286	At least some high	< 0.001	< 0.001
Housing index	0.053	0.266	Grades completed	0.004	0.001
Grades completed	0.059	0.219	Working	0.012	0.003
Urban residence	0.074	0.221	Working for a wage	0.023	0.008
Cross-muni migration	0.076	0.190	Housing index	0.023	0.009
Working in agriculture	0.152	0.326	Cross-state migration	0.034	0.016
Working for a wage	0.153	0.287	Durable goods index	0.036	0.019
At least some high	0.369	0.615	Cross-muni migration	0.051	0.030
At least some university	0.497	0.746	Monthly earnings	0.099	0.066
Monthly earnings	0.303	0.413	Urban residence	0.245	0.180
Durable goods index	0.605	0.756	Working in agriculture	0.410	0.328
HH monthly earnings p.c.	0.820	0.946	At least some university	0.448	0.388
Intra-state migration	0.892	0.956	HH monthly earnings p.c.	0.481	0.449
Working	0.968	0.968	Intra-state migration	0.948	0.948

Note: Includes all outcomes in Tables II-V. Uses the most exacting regression specification, which includes cohort dummies interacted with municipality maginality percentile dummies and locality marginality percentile shares. Adjusted *p*-values are computed using the Benjamini-Hochberg (1995) step-up procedure. Outcomes are ordered by unadjusted *p*-values.

Appendix Table 12: Robustness Check for Key Outcomes:
Assigning Exposure for Out-of-State Migrants

	Men		Women	
	2005 muni	Birth state	2005 muni	Birth state
	(1)	(2)	(3)	(4)
A. Years of education	1.138	1.524	1.626	1.906
	[0.372]***	[0.332]***	[0.378]***	[0.379]***
N	299,237	303,151	355,986	358,237
B. At least some middle school	0.169	0.218	0.298	0.336
	[0.051]***	[0.037]***	[0.039]***	[0.046]***
N	299,906	303,831	356,801	359,062
C. Working	-0.011	-0.007	0.060	0.095
	[0.036]	[0.038]	[0.046]	[0.052]*
N	299,515	303,411	357,018	359,234
D. Working for wage	0.061	0.070	0.066	0.086
	[0.042]	[0.041]*	[0.039]	[0.039]**
N	293,165	297,017	354,440	356,612
E. Monthly labour earnings	735	984	225	432
	[455]	[354]**	[182]	[198]**
N	288,431	291,988	354,156	356,187
F. Housing index	0.265	0.260	0.267	0.293
	[0.147]*	[0.147]*	[0.131]*	[0.135]**
	294,969	298,754	351,077	353,219
G. Durable goods index	0.152	0.200	0.264	0.335
	[0.072]**	[0.083]**	[0.107]**	[0.133]**
N	295,927	299,722	352,337	354,492
H. Cross-municipal migration	0.085	0.128	0.082	0.079
	[0.074]	[0.068]*	[0.063]	[0.067]
N	301,140	305,036	358,339	360,565
I. Urban residence	0.082	0.115	0.090	0.113
	[0.076]	[0.070]	[0.069]	[0.073]
N	301,140	305,039	358,339	360,565

Note: Coefficients on the post indicator interacted with the cumulative enrolment ratio in 1999, with standard errors clustered at the state level in brackets. All regressions control for the post indicator interacted with the cumulative enrolment ratio in 2005, cohort indicators, and the main effects of the 1999 and 2005 enrolment ratios. The main effects of these variables are included instead of municipality fixed effects because no municipality is assigned to out-of-state migrants in columns (2) and (4). Columns (1) and (3) apply this regression specification to the original 2010 sample, assigning program exposure based on municipality of residence in 2005. Columns (2) and (4) add to the sample out-of-state migrants whose birth state average marginality index exceeds the municipal threshold for high or very high marginality, assigning program exposure based on state of birth. An out-of-state migrant is defined as an individual whose birth state differs from her state of residence in 2005.

Appendix Table 13: Specifications Check for Key Outcomes: Men

	Main results			Specification checks				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. Years of education	1.026	0.866	0.596	0.696	0.621	0.597	0.500	0.571
	[0.360]***	[0.327]***	[0.315]*	[0.322]**	[0.321]*	[0.315]*	[0.314]	[0.314]*
N	299,237	299,237	299,237	299,237	299,212	299,237	299,237	299,227
B. At least some middle	0.156	0.163	0.130	0.138	0.141	0.137	0.108	0.117
	[0.050]***	[0.043]***	[0.043]***	[0.045]***	[0.043]***	[0.043]***	[0.040]***	[0.042]***
N	299,906	299,906	299,906	299,906	299,881	299,906	299,906	299,896
C. Working	-0.015	-0.008	0.001	0.021	-0.007	0.002	-0.009	0.002
	[0.030]	[0.028]	[0.030]	[0.030]	[0.031]	[0.031]	[0.030]	[0.030]
N	299,515	299,515	299,515	299,515	299,490	299,515	299,515	299,505
D. Working for wage	0.032	0.072	0.059	0.059	0.056	0.059	0.044	0.061
	[0.040]	[0.039]*	[0.042]	[0.042]	[0.042]	[0.041]	[0.041]	[0.041]
N	293,165	293,165	293,165	293,165	293,140	293,165	293,165	293,155
E. Monthly labour earnings	494	729	268	250	225	258	194	232
	[383]	[256]***	[261]	[255]	[258]	[260]	[269]	[261]
N	288,431	288,431	288,431	288,431	288,406	288,431	288,431	288,421
F. Housing index	0.209	0.239	0.199	0.151	0.212	0.194	0.142	0.180
	[0.114]*	[0.099]**	[0.103]*	[0.097]	[0.108]**	[0.101]*	[0.085]*	[0.100]*
N	294,969	294,969	294,969	294,969	294,944	294,969	294,969	294,959
G. Durable goods index	0.105	0.098	0.050	0.005	0.065	0.045	0.003	0.040
	[0.110]	[0.094]	[0.097]	[0.096]	[0.101]	[0.094]	[0.081]	[0.096]
N	295,927	295,927	295,927	295,927	295,903	295,927	295,927	295,918
H. Cross-muni migration	0.067	0.104	0.072	0.063	0.078	0.069	0.069	0.066
	[0.052]	[0.039]***	[0.041]*	[0.039]	[0.041]*	[0.040]*	[0.040]*	[0.040]
N	301,140	301,140	301,140	301,140	301,115	301,140	301,140	301,130
I. Urban residence	0.066	0.081	0.077	0.067	0.082	0.074	0.061	0.068
	[0.050]	[0.043]*	[0.043]*	[0.042]	[0.044]*	[0.042]*	[0.040]	[0.042]
N	301,140	301,140	301,140	301,140	301,115	301,140	301,140	301,130
Municipality FE, cohort FE	X	X	X	X	X	X	X	X
Cohort dummies ×								
Muni. marg. %-ile dummies		X	X	X	X	X	X	X
Locality marg. %-ile shares			X	X	X	X	X	X
Muni. marg. components				X				
1994 PRI vote share					X			
Δ schools p.c., 95-00 & 00-05						X		
Δ homicide rate, 06-10							X	
Study pop. growth, 90-05								X

Note: Coefficients on the post indicator interacted with the cumulative enrolment ratio in 1999, with standard errors clustered at the state level in brackets. Marginality components include the share living in communities with less than 5000 inhabitants, the share earning less than twice the minimum wage, the share illiterate, and the shares with less than primary school, without a toilet, without electricity, without running water, with crowding, and with a dirt floor, all in 1990. All regressions additionally control for the interaction of the post indicator with the cumulative enrolment ratio in 2005. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table 14: Specification Checks for Key Outcomes: Women

	Main results			Specification checks				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. Years of education	1.570	1.374	1.032	1.207	1.073	1.041	0.818	1.000
	[0.307]***	[0.311]***	[0.309]***	[0.316]***	[0.316]***	[0.311]***	[0.304]***	[0.308]***
N	355,986	355,986	355,986	355,986	355,933	355,986	355,986	355,970
B. At least some middle	0.293	0.302	0.225	0.229	0.226	0.231	0.207	0.206
	[0.038]***	[0.039]***	[0.039]***	[0.041]***	[0.039]***	[0.039]***	[0.040]***	[0.038]***
N	356,801	356,801	356,801	356,801	356,748	356,801	356,801	356,785
C. Working	0.053	0.062	0.093	0.107	0.078	0.091	0.098	0.081
	[0.032]*	[0.031]**	[0.031]***	[0.033]***	[0.032]**	[0.031]***	[0.032]***	[0.031]***
N	357,018	357,018	357,018	357,018	356,965	357,018	357,018	357,000
D. Working for wage	0.063	0.077	0.073	0.078	0.063	0.072	0.069	0.07
	[0.029]**	[0.027]***	[0.027]***	[0.029]***	[0.028]**	[0.027]***	[0.028]**	[0.027]**
N	354,440	354,440	354,440	354,440	354,387	354,440	354,440	354,423
E. Monthly labour earnings	236	268	255	303	212	252	252	206
	[137]*	[135]**	[139]*	[142]**	[139]	[139]*	[141]*	[136]
N	352,835	352,835	354,156	354,156	354,103	354,156	354,156	354,138
F. Housing index	0.243	0.253	0.187	0.177	0.182	0.185	0.158	0.156
	[0.065]***	[0.070]***	[0.072]***	[0.069]**	[0.071]**	[0.072]**	[0.074]**	[0.069]**
N	351,077	351,077	351,077	351,077	351,024	351,077	351,077	351,059
G. Durable goods index	0.229	0.194	0.146	0.130	0.146	0.148	0.115	0.126
	[0.073]***	[0.062]***	[0.062]**	[0.063]**	[0.062]**	[0.062]**	[0.063]*	[0.061]**
N	352,337	352,337	352,337	352,337	352,284	352,337	352,337	352,319
H. Cross-muni migration	0.073	0.076	0.062	0.051	0.059	0.061	0.056	0.055
	[0.031]**	[0.029]***	[0.029]**	[0.028]*	[0.029]**	[0.029]**	[0.030]*	[0.029]*
N	358,339	358,339	358,339	358,339	358,286	358,339	358,339	358,321
I. Urban residence	0.110	0.086	0.044	0.031	0.043	0.044	0.035	0.035
	[0.034]***	[0.032]***	[0.033]	[0.031]	[0.033]	[0.033]	[0.034]	[0.033]
N	358,339	358,339	358,339	358,339	358,286	358,339	358,339	358,321
Municipality FE, cohort FE	X	X	X	X	X	X	X	X
Cohort dummies ×								
Muni. marg. %-ile dummies		X	X	X	X	X	X	X
Locality marg. %-ile shares			X	X	X	X	X	X
Muni. marg. components				X				
1994 PRI vote share					X			
Δ schools p.c., 95-00 & 00-05						X		
Δ homicide rate, 06-10							X	
Study pop. growth, 90-05								X

Note: Coefficients on the post indicator interacted with the cumulative enrolment ratio in 1999, with standard errors clustered at the state level in brackets. Marginality components include the share living in communities with less than 5000 inhabitants, the share earning less than twice the minimum wage, the share illiterate, and the shares with less than primary school, without a toilet, without electricity, without running water, with crowding, and with a dirt floor, all in 1990. All regressions additionally control for the interaction of the post indicator with the cumulative enrolment ratio in 2005. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table 15: Aggregate Program Benefits and Costs: Lower Bound Estimates

	All transfers		Education transfers only	
	Deadweight loss		Deadweight loss	
	0.2	0.4	0.2	0.4
Benefits 2010 pesos per woman	72,706	72,706	72,706	72,706
Total benefits (millions of pesos) *	26,423	26,423	26,423	26,423
Total costs (millions of pesos) **	13,115	18,176	9,266	11,793
a. Opportunity costs	5,429	5,429	5,429	5,429
b. Direct costs (admin + DWL)	7,686	12,747	3,837	6,364
B/C Ratio	**2.01**	**1.45**	**2.85**	**2.24**

Note: Discount rate = 0.02, work life = 45 years, annual earnings growth = 0.

* Total benefits assume positive earnings impacts only for females.

** Total costs reflect costs for females and males.