

Is Informality Good for Business?
The Impacts of IDP Inflows on Formal Firms
ONLINE APPENDIX

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Appendix I: Characterizing the Municipalities in the Manufacturing Sample

Mean Values of all Municipalities in Colombia vs. Municipalities in Manufacturing Sample

Variable (mean values)	All sample	Excluded from Manufacturing Sample	Within Manufacturing Sample
Rural Population	9,862.67	6,232.21	19,045.86
Urban Population	27,313.09	3,457.95	87,574.27
Total Population	37,038.08	9,645.72	106,599.10
Working Age Population	31,144.88	7,585.76	85,112.57
Infant Mortality	23.29	24.10	21.23
Municipal GDP	359,164.90	65,235.67	1,058,189.00
Poverty Rates	0.51	0.51	0.52
Individuals Received (IDPs)	347.74	577.70	1,885.52
N of Municipalities	1123	806	317

Appendix II: Sample Robustness

Table (II.1) Estimates for the Municipalities Available in the Labor Force Surveys: Intensive Margin of Production

Dependent Variables (in logs) Time Period	Production		Intermediate Consumption		Energy Consumption	
	1995-2010 (1)	2002-2010 (2)	1995-2010 (3)	2002-2010 (4)	1995-2010 (5)	2002-2010 (6)
Panel A. Reduced Form						
Predicted Inflows	-0.0111** (0.00480)	-0.0128** (0.00518)	-0.0150*** (0.00501)	-0.0182*** (0.00554)	-0.0204*** (0.00586)	-0.0205*** (0.00598)
R-squared	0.950	0.958	0.941	0.949	0.938	0.948
Observations	81,079	67,326	81,068	67,314	80,941	67,194
Panel B. OLS						
Share of IDP (%Pop in Working Age)	-0.000355 (0.00608)	-0.00786 (0.00749)	-0.00316 (0.00623)	-0.0129 (0.00815)	-0.00218 (0.00671)	-0.0103 (0.00957)
R-squared	0.950	0.958	0.941	0.949	0.938	0.948
Observations	81,079	67,326	81,068	67,314	80,941	67,194
Panel C. 2SLS						
Share of IDP (%Pop in Working Age)	-0.0298** (0.0126)	-0.0429** (0.0170)	-0.0402*** (0.0132)	-0.0609*** (0.0182)	-0.0545*** (0.0155)	-0.0684*** (0.0195)
Observations	81,079	67,326	81,068	67,314	80,941	67,194
Panel D. First Stage						
Predicted Inflows	0.373*** (0.0181)	0.299*** (0.0151)	0.373*** (0.0181)	0.299*** (0.0151)	0.373*** (0.0181)	0.299*** (0.0151)
First Stage F-statistic	425.73	392.41	425.69	392.37	424.46	391.73
Observations	81,083	67,326	81,083	67,326	81,083	67,326
Controls for all Panels						
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Additional Controls	Yes	Yes	Yes	Yes	Yes	Yes

Table (II.2) Estimates for the Municipalities Available in the Labor Force Surveys: Extensive Margin of Production

Dependent Variables (in logs)	Entry Firm		Exit Firm	
	1995-2010 (1)	2002-2010 (2)	1995-2010 (3)	2002-2010 (4)
Panel A. Reduced Form				
Predicted IDP Inflows	-0.00413** (0.00199)	0.000425 (0.00236)	0.00396* (0.00226)	0.00962*** (0.00218)
R-squared	0.611	0.346	0.275	0.230
Observations	119,886	67,326	67,326	119,886
Panel B. OLS				
Share of IDP (%Pop in Working Age)	-0.00327** (0.00139)	-0.00105 (0.00183)	0.00136 (0.00255)	0.00332** (0.00167)
R-squared	0.611	0.346	0.275	0.229
Observations	119,886	67,326	67,326	119,886
Panel C. 2SLS				
Share of IDP (%Pop in Working Age)	-0.00885** (0.00426)	0.00130 (0.00724)	0.0121* (0.00694)	0.0206*** (0.00485)
Observations	119,886	67,326	67,326	119,886
Panel D. First Stage				
Predicted Inflows	0.467*** (0.0236)	0.326*** (0.0176)	0.326*** (0.0176)	0.467*** (0.0236)
First Stage F-statistic	393.01	342.55	342.55	393.01
Observations	119,886	67,326	67,326	119,886
Controls for all Panels				
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Additional Controls	Yes	Yes	Yes	Yes

Table (II.3) Estimates for the Municipalities Available in the Labor Force Surveys

Dependent Variables (in logs) Time Period	Gross Investment		Total Employment		Nominal Wages	
	1995-2010 (1)	2002-2010 (2)	1995-2010 (3)	2002-2010 (4)	1995-2010 (5)	2002-2010 (6)
Panel A. Reduced Form						
Predicted Inflows	-0.00284 (0.0177)	-0.00192 (0.0193)	-0.00191 (0.00392)	-0.00237 (0.00408)	-0.00195 (0.00216)	-0.00116 (0.00216)
R-squared	0.690	0.703	0.932	0.941	0.862	0.860
Observations	47,728	40,452	81,025	67,286	80,604	66,891
Panel B. OLS						
Share of IDP (%Pop in Working Age)	-0.0177 (0.0175)	-0.0179 (0.0229)	0.00202 (0.00420)	-0.00142 (0.00533)	0.00203 (0.00236)	-0.000124 (0.00271)
R-squared	0.690	0.703	0.932	0.941	0.862	0.860
Observations	47,728	40,452	81,025	67,286	80,604	66,891
Panel C. 2SLS						
Share of IDPs (%Pop in Working Age)	-0.00725 (0.0452)	-0.00575 (0.0578)	-0.00512 (0.0105)	-0.00793 (0.0136)	-0.00521 (0.00576)	-0.00389 (0.00719)
Observations	47,728	40,452	81,025	67,286	80,604	66,891
Panel D. First Stage						
Predicted Inflows	0.373*** (0.0181)	0.299*** (0.0151)	0.373*** (0.0181)	0.299*** (0.0151)	0.373*** (0.0181)	0.299*** (0.0151)
First Stage F-statistic	213.41	296.56	422.22	392	42.69	390.33
Observations	47,728	40,452	81,025	67,286	80,604	66,891
Controls for all Panels						
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Additional Controls	Yes	Yes	Yes	Yes	Yes	Yes

Appendix III: Dynamic Analysis of IDP Impacts on Firm Performance

Table (III.1) Estimates for a lag of 1 period

Dependent Variables (in logs)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Production		Intermediate Consumption		Energy Consumption			
Panel A. Reduced Form									
Predicted Inflows ₋₁	-0.0118*** (0.00410)	-0.0281*** (0.00661)	-0.00730 (0.00458)	-0.0164*** (0.00480)	-0.0281*** (0.00763)	-0.00691 (0.00487)	-0.0173*** (0.00531)	-0.0274*** (0.00957)	-0.00926 (0.00645)
R-squared	0.937	0.938	0.951	0.926	0.927	0.942	0.923	0.924	0.939
Observations	114,217	114,191	82,666	114,181	114,155	82,655	114,073	114,047	82,527
Panel B. OLS									
Share of IDP (%Pop in Working Age) ₋₁	-0.0139*** (0.00429)	-0.0159** (0.00622)	-0.00869 (0.00542)	-0.0190*** (0.00483)	-0.0140* (0.00718)	-0.00916 (0.00560)	-0.00451 (0.00708)	-0.00460 (0.0126)	-0.00691 (0.00702)
R-squared	0.937	0.938	0.951	0.926	0.927	0.942	0.923	0.924	0.939
Observations	114,222	114,196	82,670	114,186	114,160	82,659	114,078	114,052	82,531
Panel C. 2SLS									
Share of IDP (%Pop in Working Age) ₋₁	-0.0269*** (0.00923)	-0.0720*** (0.0171)	-0.0169 (0.0105)	-0.0373*** (0.0108)	-0.0720*** (0.0197)	-0.0160 (0.0111)	-0.0394*** (0.0123)	-0.0705*** (0.0252)	-0.0215 (0.0148)
Observations	114,217	114,191	82,666	114,181	114,155	82,655	114,073	114,047	82,527
Panel D. First Stage									
Predicted Inflows ₋₁	0.439*** (0.0155)	0.390*** (0.0212)	0.431*** (0.0180)	0.439*** (0.0155)	0.390*** (0.0212)	0.431*** (0.0180)	0.439*** (0.0155)	0.390*** (0.0212)	0.431*** (0.0180)
First Stage F-statistic	802.03	340.59	575.08	802.25	340.53	575.07	809.65	347.7	573.26
Observations	114,217	114,191	82,666	114,181	114,155	82,655	114,073	114,047	82,527
Controls for all Panels									
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year × Department FE	No	Yes	No	No	Yes	No	No	Yes	No
Homicides Rates	No	Yes	No	No	Yes	No	No	Yes	No
Conflict Controls	No	Yes	No	No	Yes	No	No	Yes	No
Additional Controls	No	No	Yes	No	No	Yes	No	No	Yes

Table (III.2) Estimates for a lag of 2 periods

Dependent Variables (in logs)	Production		Intermediate Consumption			Energy Consumption			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A. Reduced Form									
Predicted Inflows ₋₂	-0.0124*** (0.00454)	-0.0249*** (0.00719)	-0.000743 (0.00515)	-0.0169*** (0.00539)	-0.0262*** (0.00846)	0.000404 (0.00597)	-0.0167*** (0.00540)	-0.0258*** (0.00977)	-0.00514 (0.00618)
R-squared	0.940	0.940	0.951	0.929	0.930	0.942	0.927	0.928	0.939
Observations	105,776	105,751	82,618	105,740	105,715	82,607	105,632	105,607	82,479
Panel B. OLS									
Share of IDP (%Pop in Working Age) ₋₂	-0.0121*** (0.00445)	-0.0117* (0.00644)	-0.00277 (0.00522)	-0.0178*** (0.00507)	-0.0122* (0.00740)	-0.00439 (0.00580)	-0.00641 (0.00837)	-0.00587 (0.0165)	-0.00325 (0.00809)
R-squared	0.940	0.940	0.951	0.929	0.930	0.942	0.927	0.928	0.939
Observations	105,780	105,755	82,622	105,744	105,719	82,611	105,636	105,611	82,483
Panel C. 2SLS									
Share of IDP (%Pop in Working Age) ₋₂	-0.0263*** (0.00962)	-0.0564*** (0.0166)	-0.00168 (0.0117)	-0.0359*** (0.0114)	-0.0594*** (0.0194)	0.000914 (0.0135)	-0.0355*** (0.0117)	-0.0588** (0.0228)	-0.0116 (0.0140)
Observations	105,776	105,751	82,618	105,740	105,715	82,607	105,632	105,607	82,479
Panel D. First Stage									
Predicted Inflows ₋₂	0.471*** (0.0148)	0.441*** (0.0231)	0.442*** (0.0175)	0.471*** (0.0148)	0.441*** (0.0231)	0.442*** (0.0175)	0.471*** (0.0148)	0.441*** (0.0231)	0.442*** (0.0175)
First Stage F-statistic	1013.79	367.4	640.25	1013.79	367.39	640.17	1027.74	373.68	640.24
Observations	105,776	105,751	82,618	105,740	105,715	82,607	105,632	105,607	82,479
Controls for all Panels									
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year × Department FE	No	Yes	No	No	Yes	No	No	Yes	No
Homicides Rates	No	Yes	No	No	Yes	No	No	Yes	No
Conflict Controls	No	Yes	No	No	Yes	No	No	Yes	No
Additional Controls	No	No	Yes	No	No	Yes	No	No	Yes

Table (III.3) Full Dynamic Analysis for 1 and 2 periods (Only IV is presented due to space restrictions)

Dep. Variables (in logs)	Production			Intermediate Consumption			Energy Consumption		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A. 2SLS									
Share of IDP (%Pop in Working Age)	-0.0212** (0.00832)	-0.0368*** (0.0141)	-0.0265** (0.0116)	-0.0261*** (0.00916)	-0.0389** (0.0166)	-0.0379*** (0.0121)	-0.0304*** (0.00987)	-0.0301 (0.0187)	-0.0492*** (0.0141)
Share of IDP (%Pop in Working Age) ₋₁	-0.00735 (0.00580)	-0.0365*** (0.00907)	-0.0114 (0.00780)	-0.0122* (0.00712)	-0.0357*** (0.00985)	-0.00847 (0.00877)	-0.000222 (0.00725)	-0.0288** (0.0140)	-0.00701 (0.0110)
Share of IDP (%Pop in Working Age) ₋₂	-0.0230** (0.00960)	-0.0438*** (0.0153)	-0.00227 (0.0113)	-0.0307*** (0.0117)	-0.0471*** (0.0180)	-0.00162 (0.0135)	-0.0345*** (0.0109)	-0.0491** (0.0204)	-0.0158 (0.0130)
Observations	0.940	0.940	0.951	0.929	0.930	0.942	0.927	0.927	0.939
Panel B. First Stage									
Predicted IDP Inflows	0.345*** (0.0137)	0.349*** (0.0238)	0.371*** (0.0186)	0.345*** (0.0137)	0.349*** (0.0238)	0.371*** (0.0186)	0.345*** (0.0137)	0.349*** (0.0238)	0.371*** (0.0186)
First Stage F-statistic	856.39	305.35	448.22	856.63	305.45	448.12	856.86	302.63	447.09
Predicted IDP Inflows ₋₁	-0.173*** (0.00754)	-0.167*** (0.0132)	-0.0896*** (0.0118)	-0.173*** (0.00754)	-0.167*** (0.0132)	-0.0896*** (0.0118)	-0.173*** (0.00754)	-0.167*** (0.0132)	-0.0896*** (0.0118)
First Stage F-statistic	589.42	321.84	529.23	859.64	321.82	529.19	862.58	322.99	527.97
Predicted IDP Inflows ₋₂	-0.0406*** (0.00660)	-0.0453*** (0.0103)	0.0148 (0.0113)	-0.0406*** (0.00660)	-0.0453*** (0.0103)	0.0148 (0.0113)	-0.0406*** (0.00660)	-0.0453*** (0.0103)	0.0148 (0.0113)
First Stage F-statistic	860.45	232.31	618.81	860.44	232.31	618.68	871.11	235.09	619.21
Observations	105,776	105,751	82,618	105,740	105,715	82,607	105,632	105,607	82,479
Controls for all Panels									
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year × Department FE	No	Yes	No	No	Yes	No	No	Yes	No
Homicides Rates	No	Yes	No	No	Yes	No	No	Yes	No
Conflict Controls	No	Yes	No	No	Yes	No	No	Yes	No
Additional Controls	No	No	Yes	No	No	Yes	No	No	Yes

Appendix IV: Restricting Sample to Balanced Panel

Table (IV.1) Estimates For Firms Which do not Exit

Dependent Variables (in logs)	Production (1)	Intermediate Consumption (2)	Energy Consumption (3)	Gross Investment (4)	Employment (5)	Nominal Wages (6)
Panel A. Reduced Form						
Predicted Inflows	0.022 (0.034)	0.016 (0.034)	-0.030 (0.038)	0.371* (0.215)	-0.013 (0.024)	0.026 (0.017)
R-squared	0.982	0.980	0.977	0.877	0.975	0.949
Observations	6,376	6,376	6,376	1,342	6,376	6,376
Panel B. OLS						
Share of IDP (% Working Age Pop)	-0.034 (0.046)	-0.022 (0.044)	0.030 (0.053)	0.136 (0.189)	0.011 (0.037)	-0.021 (0.036)
R-squared	0.982	0.980	0.977	0.876	0.975	0.949
Observations	6,376	6,376	6,376	1,342	6,376	6,376
Panel C. 2SLS						
Share of IDP (% Working Age Pop)	0.047 (0.094)	-0.003 (0.117)	0.085 (0.122)	-0.616 (0.455)	0.018 (0.903)	-0.023 (0.049)
Observations	6,376	6,376	6,376	1,342	6,376	6,376
Panel D. First Stage						
Predicted Inflows	0.274*** (0.065)	0.274*** (0.065)	0.274*** (0.065)	0.274*** (0.065)	0.274*** (0.065)	0.274*** (0.065)
First Stage F-statistic	19.06	19.06	19.28	28.96	19.06	19.3
Observations	6,376	6,376	6,376	1,342	6,376	6,376
Controls (for all panels)						
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Additional Controls	Yes	Yes	Yes	Yes	Yes	Yes