Appendix
Authoritarian Ruling Parties'Mass Recruitment Dilemma: Evidence from China

Contents

A   Plots

Figure 1: Density Plot on CCP Recruited Members from National, CGSS 2010, 2015, and 2017 data
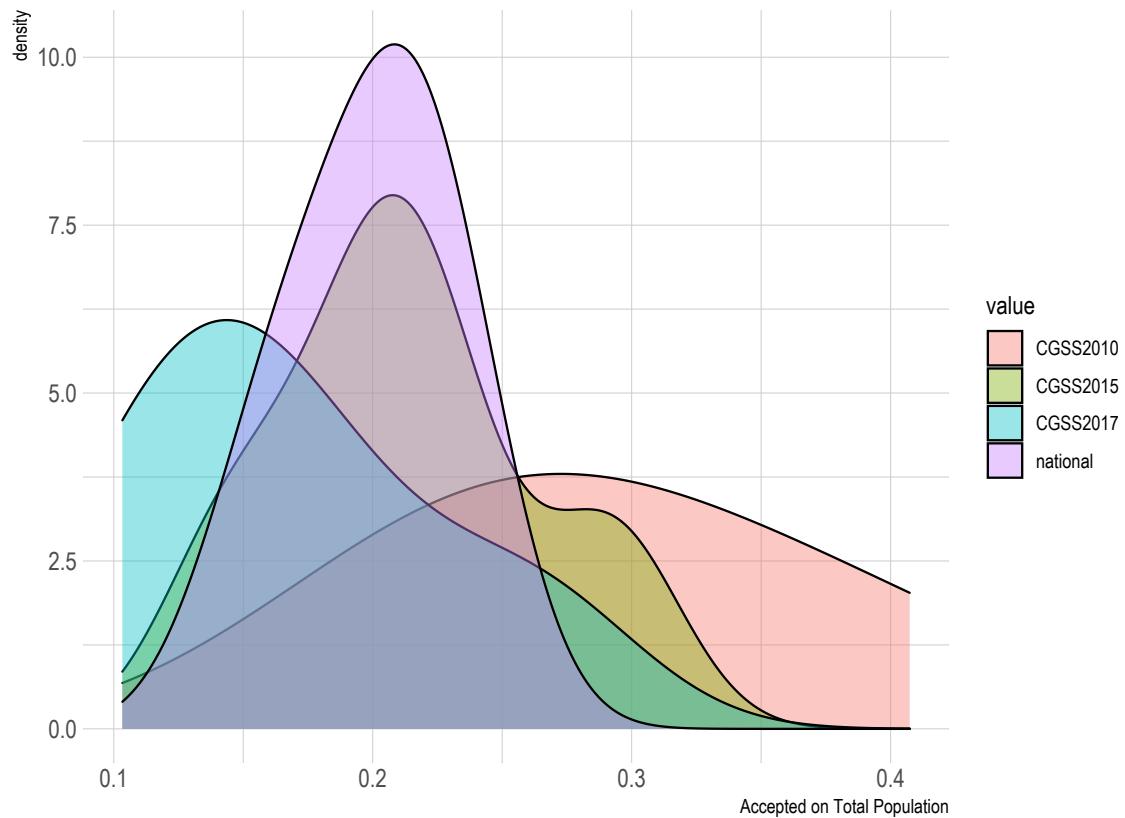
Note: This Figure represents three density plots to explore the small number of observations present in Tables 1-2 in the Main Models. As it is possible to see, the small number is due to the national small percentage of recruited per year (on average 0.20 percent). This is fairly represented by the CGSS 2010 and CGSS 2015 when analyzing the decade 2005-2015.

Figure 2: White-collar, Laborers, and Peasants Share in National Workforce and CCP membership, 1978-2018
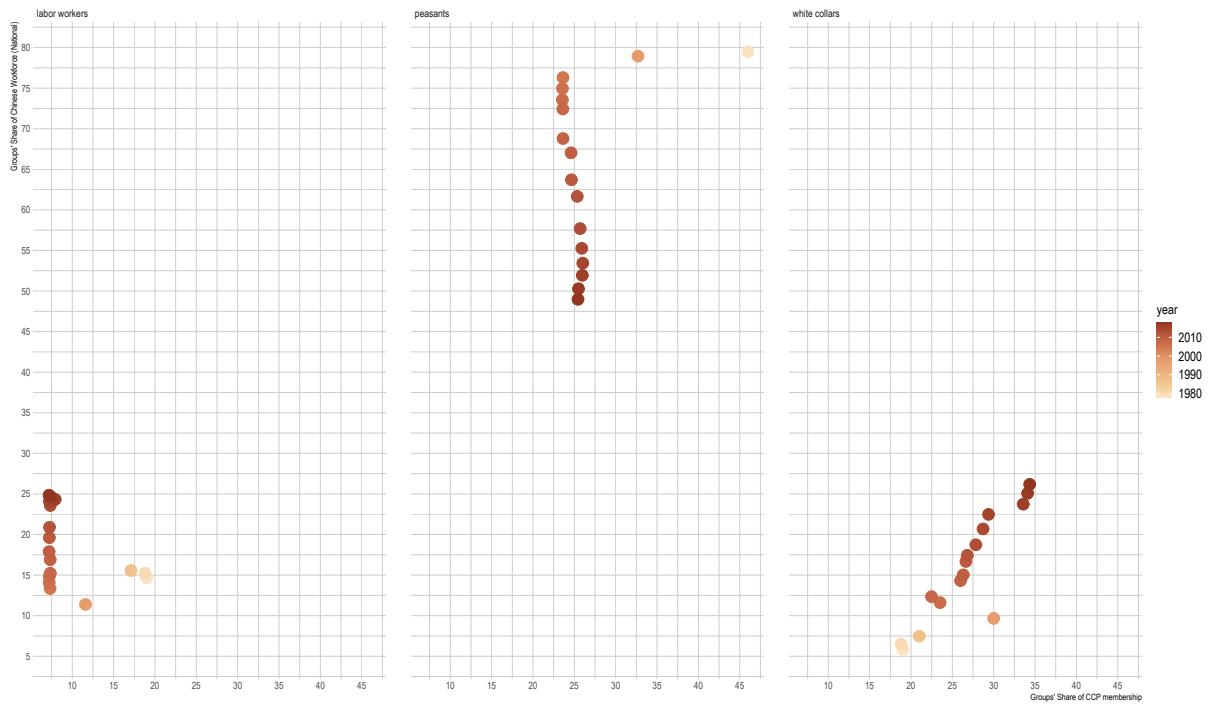
Note: This figure presents the development of CCP membership (x-axis) and national workforce (y-axis) by social group between 1978 and 2018. Each dot represents each social group's workforce and CCP membership shares during the year associated with it. *Data source*: CCP Central Organization Department, 2020; National Bureau of Statistics, 2020

B Models Main full

Table A1: Main Model Applicants with full Education Age

	Model 1 2010	Model 2 2015	Model 3 2017
Education Level 2	0.158	3.760***	0.579*
	(0.107)	(0.225)	(0.291)
Education Level 3	0.621**	-0.244***	0.283
	(0.209)	(0.059)	(0.466)
Education Level 4	0.669***	4.107***	0.543+
	(0.136)	(0.137)	(0.310)
Education Level 5	0.414**	3.895***	0.644***
	(0.149)	(0.389)	(0.154)
Education Level 6	0.948***	3.966***	0.785+
	(0.273)	(0.454)	(0.463)
Education Level 7	1.241***	4.674***	1.375***
	(0.163)	(0.279)	(0.317)
Education Level 8	1.282***	4.577***	1.275***
	(0.144)	(0.201)	(0.293)
Education Level 9	1.538***	4.952***	1.322***
	(0.129)	(0.169)	(0.184)
Education Level 10	1.569***	5.138***	1.555***
	(0.191)	(0.208)	(0.310)
Education Level 11	1.834***	5.391***	1.600***
	(0.225)	(0.139)	(0.209)
Age 30s	-0.608***	-0.536***	-0.700***
	(0.103)	(0.047)	(0.092)
Age 40s	-0.898***	-0.720***	-0.769***
	(0.166)	(0.010)	(0.177)
Age 50s	-1.142***	-4.819***	-1.402***
	(0.109)	(0.139)	(0.135)
Age 60s+	-4.016***	-4.992***	-4.372***
	(0.145)	(0.163)	(0.215)
Num.Obs.	5548	5182	6624
AIC	1491.5	1160.4	1446.3
BIC	1650.4	1317.6	1609.4
Log.Lik.	-721.769	-556.188	-699.140

Table A2: Main Model Accepted with full Education Age

	Model 1 2010	Model 2 2015	Model 3 2017
Education Level 2	-0.099		4.353***
	(0.980)		(0.217)
Education Level 3	-0.737		10.353***
	(0.782)		(0.730)
Education Level 4	-1.266**		3.740***
	(0.485)		(0.403)
Education Level 5	0.391		4.086***
	(0.373)		(0.717)
Education Level 6	-1.275+		-0.526
	(0.701)		(0.401)
Education Level 7	-0.121		4.340***
	(0.329)		(0.404)
Education Level 8	-0.670		4.054***
	(0.480)		(0.499)
Education Level 9	-0.590		3.756***
	(0.429)		(0.456)
Education Level 10	-0.614		4.228***
	(0.505)		(0.369)
Education Level 11	-1.134		5.686***
	(0.942)		(0.136)
Age 30s	0.352	0.221*	0.419
	(0.269)	(0.098)	(0.387)
Age 40s	0.505***	0.230	0.310
	(0.143)	(0.764)	(0.451)
Age 50s	0.871		0.730**
	(0.930)		(0.231)
Num.Obs.	249	195	222
AIC	337.8	231.3	271.7
BIC	418.7	270.6	349.9
Log.Lik.	-145.896	-103.644	-112.841

C   Heckman Selection Model

Figure 3: Age of application and response to CCP membership
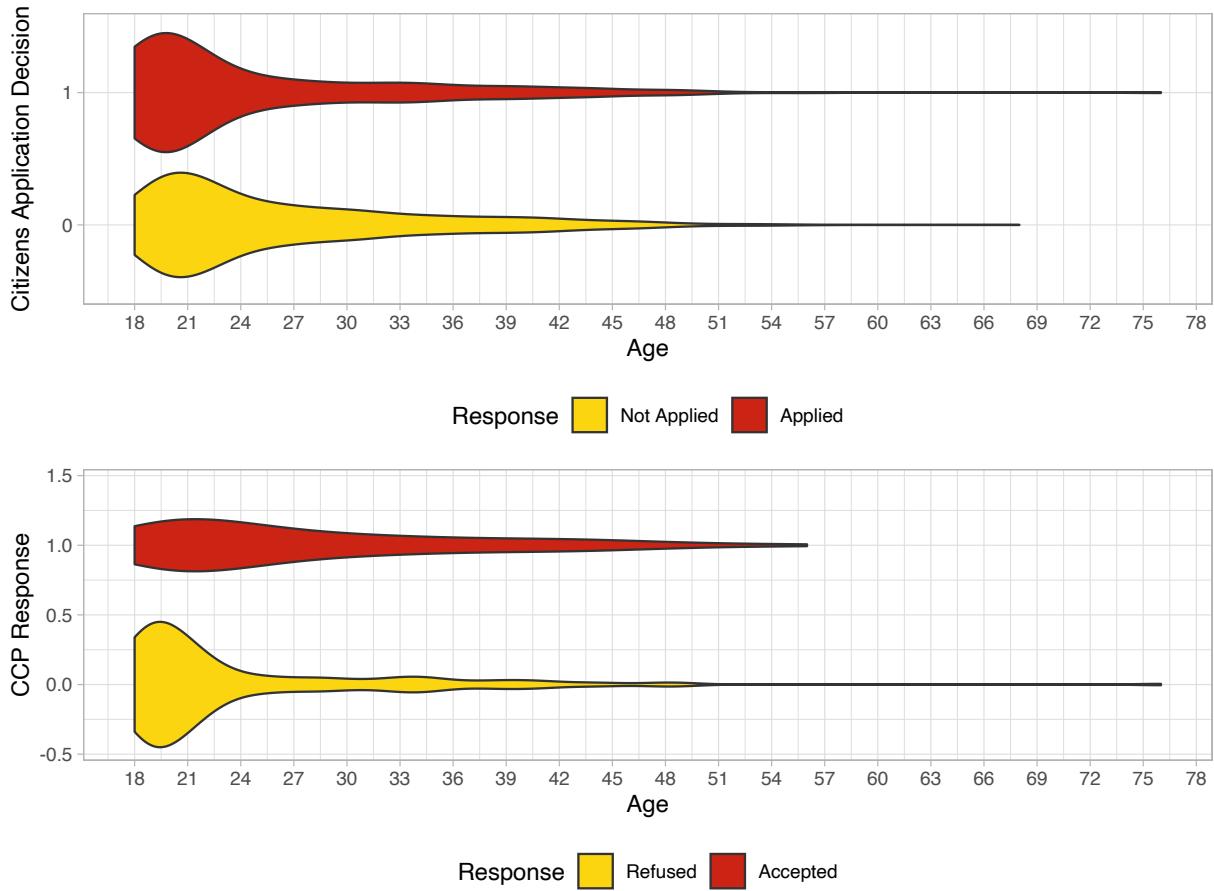
Note: This figure shows that Chinese citizens overwhelmingly apply to become CCP members during their 20s (upper plot). This time widely overlaps with their years in college. As the response (bottom plot) takes years, citizens can benefit from returns to party membership from around late 20s/early 30s.

Table A3: Testing whether Adding CCP parents dropping Education affects Recruitment Rates

	Model 1 2010	Model 2 2010	Model 3 2015	Model 4 2015	Model 5 2017	Model 6 2017
Laborers	-0.052***	0.015	-0.146	-0.281+	-0.980***	-1.066***
	(0.014)	(0.033)	(0.158)	(0.166)	(0.069)	(0.044)
Gender	-0.027	-0.034	-0.147	-0.136	-0.224***	-0.339**
	(0.236)	(0.269)	(0.234)	(0.296)	(0.039)	(0.128)
Parents' Higher Education	0.246*	0.385***	0.132	0.044	0.178	-0.061
	(0.124)	(0.065)	(0.314)	(0.318)	(0.229)	(0.218)
Han	-0.287+	-0.184	0.042	0.108	-0.248	-0.235
	(0.151)	(0.173)	(0.434)	(0.477)	(0.309)	(0.331)
Hukou	0.205	0.241	0.253	0.191	0.071	0.043
	(0.447)	(0.448)	(0.353)	(0.301)	(0.247)	(0.162)
Parents' CCP members		-0.045		0.124		0.259
		(0.092)		(0.221)		(0.188)
Education		X		X		X
Age	X	X	X	X	X	X
CCP Density Provinces	X	X	X	X	X	X
Laborers × CCP Provinces	X	X	X	X	X	X
Num.Obs.	249	248	195	194	223	221
AIC	336.7	338.1	231.3	234.2	278.8	272.4
BIC	382.4	422.4	270.6	302.9	323.1	353.9
Log.Lik.	-155.351	-145.040	-103.644	-96.125	-126.408	-112.184

Table A4: Heckman Selection Model CGSS 2010

	Dependent variable:	
	CCP Recruitment	
	Main Probit Model	*Heckman*
	(1)	(2)
Laborers	0.051	−0.025
	(0.041)	(0.129)
Gender	X	X
Parents' Higher Education	X	X
Education	X	
Age	X	X
Han	X	X
Provinces by CCP density	X	X
Laborers * Provinces by CCP density	X	X
Hukou	X	X
Observations	249	5,510
Log Likelihood	−145.896	
Akaike Inf. Crit.	337.792	
ρ		0.260
Inverse Mills Ratio		0.124 (0.095)
Note:	*p<0.1; **p<0.05; ***p<0.01	

Table A5: Heckman Selection Model CGSS 2015

	Dependent variable:	
	CCP Recruitment	
	Main Probit Model	*Heckman*
	(1)	(2)
Laborers	−0.282+	−0.281**
	(0.157)	(0.130)
Gender	X	X
Parents' Higher Education	X	X
Age	X	X
Education	X	X
Han	X	X
Provinces by CCP density	X	X
Laborers * Provinces by CCP density	X	X
Hukou	X	X
Observations	195	5,136
Log Likelihood	−103.644	
Akaike Inf. Crit.	231.288	
ρ		−0.381
Inverse Mills Ratio		−0.173* (0.097)
Note:	*p<0.1; **p<0.05; ***p<0.01	

Table A6: Heckman Selection Model CGSS 2017

	Dependent variable:	
	CCP Recruitment	
	Main Probit Model	*Heckman*
	(1)	(2)
Laborers	−1.125***	−0.285**
	(0.067)	(0.139)
Genders	X	X
Parents' Higher Education	X	X
Education	X	
Age	X	X
Han	X	X
Provinces by CCP density	X	X
Laborers * Provinces by CCP density	X	X
Hukou	X	X
Observations	222	6,550
Log Likelihood	−112.841	
Akaike Inf. Crit.	271.682	
ρ		−0.398
Inverse Mills Ratio		−0.187 (0.135)
Note:	*p<0.1; **p<0.05; ***p<0.01	

D Further tests

D.1 OLS Models

Table A7: OLS Models Application to the CCP

	Model 1 2010	Model 2 2015	Model 3 2017
Laborers	-0.006	0.026***	0.010***
	(0.004)	(0.001)	(0.001)
Gender	0.007**	0.000	-0.005
	(0.003)	(0.006)	(0.003)
Parents' Higher Education	0.008	-0.007	0.000
	(0.021)	(0.021)	(0.024)
Han	0.006	0.010	-0.014*
	(0.007)	(0.012)	(0.007)
Hukou	0.008	-0.013+	-0.010**
	(0.008)	(0.007)	(0.003)
Light-Red Provinces	0.013***	0.009***	0.013***
	(0.000)	(0.001)	(0.000)
Pink Provinces	-0.007***	0.006**	0.011***
	(0.002)	(0.002)	(0.003)
Laborers × Light-Red Provinces	-0.010***	-0.013***	0.002
	(0.000)	(0.001)	(0.001)
Laborers × Pink Provinces	0.006***	-0.018***	-0.005**
	(0.001)	(0.002)	(0.002)
Education	X	X	X
Age	X	X	X
Num.Obs.	5548	5182	6624
R2 Adj.	0.137	0.137	0.102

Table A8: OLS Models Recruited by the CCP

	Model 1 2010	Model 2 2015	Model 3 2017
Laborers	0.031*	-0.063	-0.357***
	(0.013)	(0.048)	(0.022)
Gender	-0.015	-0.035	-0.089*
	(0.105)	(0.087)	(0.037)
Parents' Higher Education	0.119***	0.048	-0.001
	(0.027)	(0.099)	(0.081)
Han	-0.079	0.039	-0.064
	(0.081)	(0.140)	(0.112)
Hukou	0.086	0.051	0.017
	(0.145)	(0.080)	(0.047)
Light-Red Provinces	0.054	0.357***	-0.087**
	(0.041)	(0.012)	(0.027)
Pink Provinces	0.030	0.024	-0.207***
	(0.040)	(0.029)	(0.025)
Laborers × Light-Red Provinces	-0.083	-0.275***	0.142***
	(0.067)	(0.027)	(0.040)
Laborers × Pink Provinces	-0.287***	-0.018	0.233***
	(0.019)	(0.021)	(0.027)
Education	X	X	X
Age	X	X	X
Num.Obs.	249	195	222
R2	0.163	0.196	0.188
R2 Adj.	0.082	0.109	0.098

D.2 Changing Measurements to Job Variable

Table A9: Applicants' Main Models but Laborers are also "Self-Employed"

	Model 1 2010	Model 2 2015	Model 3 2017
Laborers	-0.149***	0.256***	0.085***
	(0.015)	(0.034)	(0.003)
Gender	0.127**	0.045	-0.039
	(0.040)	(0.081)	(0.076)
Parents' Higher Education	0.129	0.028	0.065
	(0.136)	(0.105)	(0.185)
Han	0.030	0.108	-0.182+
	(0.098)	(0.182)	(0.094)
Hukou	-0.041	-0.235*	-0.208***
	(0.178)	(0.097)	(0.050)
Light-Red Provinces	0.138***	0.098***	0.201***
	(0.014)	(0.017)	(0.007)
Pink Provinces	-0.071***	0.134***	0.133***
	(0.017)	(0.020)	(0.027)
Laborers × Light-Red Provinces	-0.067***	-0.159***	0.023
	(0.002)	(0.017)	(0.020)
Laborers × Pink Provinces	0.042***	-0.372***	-0.031**
	(0.010)	(0.008)	(0.011)
Education	X	X	X
Age	X	X	X
Num.Obs.	5548	5182	6624
AIC	1491.6	1162.2	1451.8
BIC	1630.6	1299.8	1594.6
Log.Lik.	-724.788	-560.087	-704.899

Table A10: Recruited Main Models but Laborers are also "Self-Employed"

	Model 1 2010	Model 2 2015	Model 3 2017
Laborers	0.051**	-0.303+	-1.042***
	(0.018)	(0.171)	(0.083)
Gender	-0.052	-0.138	-0.341**
	(0.253)	(0.277)	(0.116)
Parents' Higher Education	0.365**	0.146	0.007
	(0.133)	(0.278)	(0.242)
Han	-0.196	0.131	-0.189
	(0.132)	(0.475)	(0.296)
Hukou	0.236	0.193	0.057
	(0.428)	(0.240)	(0.197)
Light-Red Provinces	0.146+	0.991***	-0.264***
	(0.085)	(0.013)	(0.061)
Pink Provinces	0.063	0.104	-0.499***
	(0.075)	(0.081)	(0.077)
Laborers× Light-Red Provinces	-0.196	-0.684***	0.429***
	(0.149)	(0.104)	(0.098)
Laborers × Pink Provinces	-0.972***	-0.234***	0.561***
	(0.023)	(0.070)	(0.117)
Education	X	X	X
Age	X	X	X
Num.Obs.	249	195	222
AIC	333.9	229.6	270.4
BIC	407.8	291.8	341.9
Log.Lik.	-145.958	-95.788	-114.205

D.3 Adding Rural Workers

Table A11: Applicants. Adding Rural Workers to Job Value

	Model 1 2010	Model 2 2015	Model 3 2017
Laborers	-0.128***	0.258***	0.097***
	(0.017)	(0.032)	(0.005)
Rural Workers	0.237**	0.114	0.390***
	(0.082)	(0.090)	(0.113)
Gender	0.192**	0.099	-0.006
	(0.067)	(0.098)	(0.045)
Parents' Higher Education	0.119	0.039	0.062
	(0.143)	(0.119)	(0.181)
Han	-0.046	0.063	-0.249*
	(0.060)	(0.163)	(0.114)
Hukou	-0.083	-0.260*	-0.230***
	(0.157)	(0.106)	(0.049)
Light-Red Provinces	0.137***	0.099***	0.187***
	(0.009)	(0.017)	(0.008)
Pink Provinces	-0.055**	0.125***	0.140***
	(0.018)	(0.014)	(0.026)
Laborers × Light-Red Provinces	-0.071***	-0.163***	0.046*
	(0.007)	(0.017)	(0.023)
Rural Workers × Light-Red Provinces	-0.163***	0.210***	-0.263***
	(0.006)	(0.029)	(0.018)
Laborers × Pink Provinces	0.013+	-0.337***	-0.051***
	(0.007)	(0.005)	(0.010)
Rural Workers × Pink Provinces	-0.312***	-4.084***	-3.653***
	(0.018)	(0.167)	(0.364)
Education	X	X	X
Age	X	X	X
Num.Obs.	8016	7320	8933
AIC	1745.0	1275.2	1565.8
BIC	1912.7	1440.8	1736.2
Log.Lik.	-848.485	-613.610	-758.920

Table A12: Recruited. Adding Rural Workers to Job Value

	Model 1 2010	Model 2 2015	Model 3 2017
Laborers	0.021	-0.250	-1.125**
	(0.025)	(0.400)	(0.406)
Rural Workers	-0.249	0.052	0.438
	(0.322)	(0.874)	(0.825)
Gender	0.039	-0.182	-0.310
	(0.275)	(0.215)	(0.202)
Parents' Higher Education	0.358**	0.138	0.025
	(0.137)	(0.360)	(0.301)
Han	-0.240*	0.146	-0.287
	(0.104)	(0.481)	(0.314)
Hukou	0.148	0.211	0.086
	(0.485)	(0.241)	(0.217)
Light-Red Provinces	0.112	0.984*	-0.224
	(0.072)	(0.402)	(0.371)
Pink Provinces	0.071	0.054	-0.554+
	(0.084)	(0.375)	(0.324)
Laborers × Light-Red Provinces	-0.117	-0.680	0.328
	(0.156)	(0.554)	(0.549)
Rural Workers× Light-Red Provinces	0.186	0.229	0.604
	(0.178)	(1.087)	(1.075)
Laborers × Pink Provinces	-0.927***	-0.029	0.646
	(0.047)	(0.532)	(0.513)
Rural Workers× Pink Provinces	-5.543***		
	(0.283)		
Education	X	X	X
Age	X	X	X
Num.Obs.	273	205	233
AIC	373.4	247.4	284.2
BIC	460.0	320.5	363.5
Log.Lik.	-162.677	-101.720	-119.083

D.4 Longer and Shorter Dependent Variable Times

Table A13: Testing Applicants' Main Models with Dependent Variable at 6 Years

	Model 1 2010	Model 2 2015	Model 3 2017
Laborers	-0.257***	0.263***	0.061***
	(0.044)	(0.036)	(0.011)
Gender	0.107+	0.052	-0.046
	(0.055)	(0.094)	(0.069)
Parents' Higher Education	0.155	-0.042	0.080
	(0.134)	(0.121)	(0.159)
Hukou	-0.056	-0.203**	-0.222***
	(0.169)	(0.076)	(0.037)
Light-Red Provinces	0.139***	0.193***	0.218***
	(0.008)	(0.012)	(0.007)
Pink Provinces	-0.116***	0.093***	0.154***
	(0.017)	(0.016)	(0.027)
Laborers × Light-Red Provinces	-0.077***	-0.292***	-0.006
	(0.010)	(0.009)	(0.021)
Laborers × Pink Provinces	0.062***	-0.308***	-0.021
	(0.007)	(0.001)	(0.016)
Education	X	X	X
Age	X	X	X
Num.Obs.	5579	5167	6624
AIC	1591.8	1282.3	1577.3
BIC	1744.2	1432.9	1713.3
Log.Lik.	-772.887	-618.137	-768.664

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Table A14: Testing Recruited Main Models with Dependent Variable at 6 Years

	Model 1 2010	Model 2 2015	Model 3 2017
Laborers	-0.074***	0.007	-0.973***
	(0.015)	(0.074)	(0.056)
Gender	-0.104	-0.116	-0.361***
	(0.161)	(0.164)	(0.086)
Parents' Higher Education	0.221*	-0.075	0.041
	(0.088)	(0.458)	(0.263)
Hukou	0.336	-0.082	0.212
	(0.312)	(0.134)	(0.195)
Light-Red Provinces	0.031	0.766***	-0.223***
	(0.066)	(0.013)	(0.029)
Pink Provinces	-0.085	0.167*	-0.472***
	(0.074)	(0.080)	(0.065)
Laborers × Light-Red Provinces	-0.085	-0.462***	0.259*
	(0.091)	(0.020)	(0.115)
Laborers × Pink Provinces	-0.704***	0.035	0.458***
	(0.049)	(0.076)	(0.134)
Education	X	X	X
Age	X	X	X
Num.Obs.	282	426	252
AIC	382.6	406.4	296.2
BIC	462.7	495.6	366.8
Log.Lik.	-169.280	-181.182	-128.094

Table A15: Testing Applicants' Main Models with Dependent Variable at 4 Years

	Model 1 2010	Model 2 2015	Model 3 2017
Laborers	-0.084**	0.334***	0.166***
	(0.029)	(0.040)	(0.020)
Gender	0.150**	0.048	-0.030
	(0.054)	(0.099)	(0.033)
Parents' Higher Education	0.110	-0.027	0.088
	(0.142)	(0.106)	(0.192)
Hukou	-0.049	-0.287**	-0.182***
	(0.169)	(0.098)	(0.039)
Light-Red Provinces	0.117***	-0.034	0.223***
	(0.022)	(0.023)	(0.013)
Pink Provinces	-0.054**	0.047**	0.159***
	(0.020)	(0.018)	(0.022)
Laborers × Light-Red Provinces	-0.052***	-0.063***	-0.014
	(0.012)	(0.016)	(0.030)
Laborers × Pink Provinces	0.022	-0.329***	-0.041**
	(0.014)	(0.006)	(0.015)
Education	X	X	X
Age	X	X	X
Num.Obs.	5505	5102	6624
AIC	1334.5	991.7	1281.6
BIC	1486.6	1142.0	1417.6
Log.Lik.	-644.242	-472.840	-620.807

Table A16: Testing Recruited Main Models with Dependent Variable at 4 Years

	Model 1 2010	Model 2 2015	Model 3 2017
Gender	0.066	-0.312	-0.123
	(0.353)	(0.338)	(0.188)
Parents' Higher Education	0.446**	0.217	0.198
	(0.154)	(0.412)	(0.193)
Laborers	0.164***	-0.357***	-0.914***
	(0.017)	(0.027)	(0.060)
Hukou	0.252	0.306	0.029
	(0.441)	(0.379)	(0.181)
Light-Red Provinces	0.311+	1.170***	-0.471***
	(0.181)	(0.066)	(0.133)
Pink Provinces	0.210*	0.081	-0.487***
	(0.101)	(0.216)	(0.113)
Laborers × Light-Red Provinces	-0.381+	-0.770***	0.180
	(0.217)	(0.122)	(0.184)
Laborers × Pink Provinces	-1.080***	-0.203	0.412***
	(0.092)	(0.266)	(0.108)
Education	X	X	X
Age	X	X	X
Num.Obs.	208	158	190
AIC	278.4	177.9	233.1
BIC	351.8	236.1	294.8
Log.Lik.	-117.208	-69.960	-97.545