Table 1: Earnings Function Estimates, using Sample up to 64-year-old, including Non-regular Workers and Specialists, Variables of Occupation Tenure are not Controlled.

	OLS					
	(1)	(2)	(3)	(4)	(5)	(6)
Employer tenure	0.0117***	0.0116***	0.0193**	0.0061	0.0009	0.0086
	(0.0018)	(0.0040)	(0.0076)	(0.0051)	(0.0082)	(0.0129)
Emp.ten.^{2} × 100	-0.0083*	-0.0073	-0.0967	-0.0197	0.0217	-0.0805
	(0.0046)	(0.0235)	(0.0745)	(0.0136)	(0.0526)	(0.1374)
Emp.ten.^{3} × 100		-0.0000	0.0034		-0.0008	0.0034
		(0.0004)	(0.0027)		(0.0009)	(0.0052)
Emp.ten.^{4} × 1000			-0.0000			-0.0000
			(0.0000)			(0.0000)
Old job	0.0824***	0.0878***	0.0739**	0.0529	0.0650	0.0542
	(0.0252)	(0.0273)	(0.0304)	(0.0392)	(0.0402)	(0.0429)
Total experience	0.0257***	0.0032	0.0002	0.0458***	0.0220	0.0261
	(0.0024)	(0.0061)	(0.0126)	(0.0072)	(0.0152)	(0.0284)
Experience^2	-0.0004***	0.0006**	0.0009	-0.0007***	0.0003	0.0001
	(0.0000)	(0.0003)	(0.0009)	(0.0001)	(0.0006)	(0.0020)
Exp.^{3} × 100		-0.0014***	-0.0024		-0.0013	-0.0009
		(0.0003)	(0.0027)		(0.0008)	(0.0058)
N	9529	9529	9529	9529	9529	9529

Notes: Robust standard errors are in parentheses.
* , ** and *** Denote statistical significance at the 10%, 5% and 1% level, respectively.
The dependent variable is log real hourly wages. Other covariates include an intercept, education dummies, occupation and industry dummies, a union member dummy, a marital status dummy, firm size dummies, and regular employee dummy. Columns (1) and (2) denote the coefficients of earnings function (**??**) which is estimated by the OLS, and columns (3) and (4) denote those by AS's IV method.

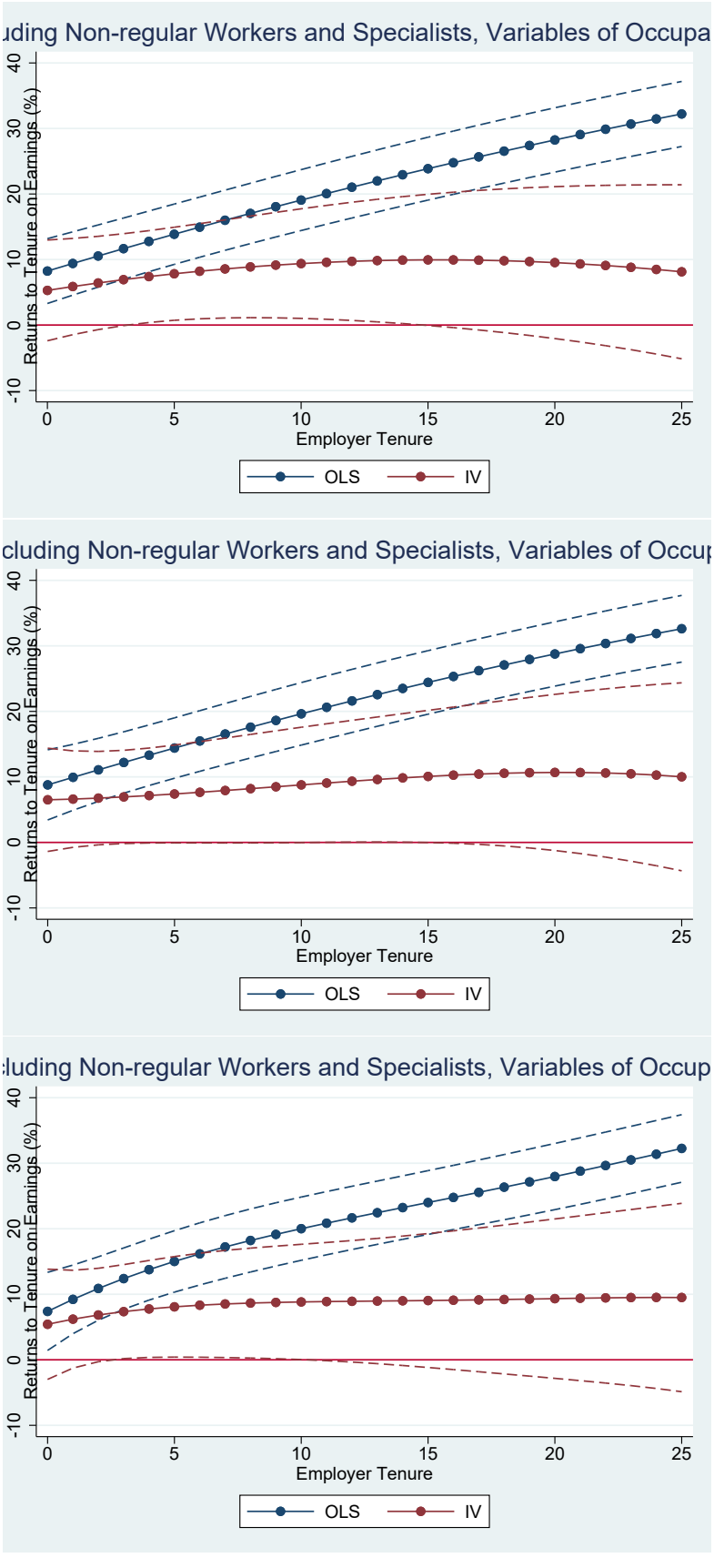
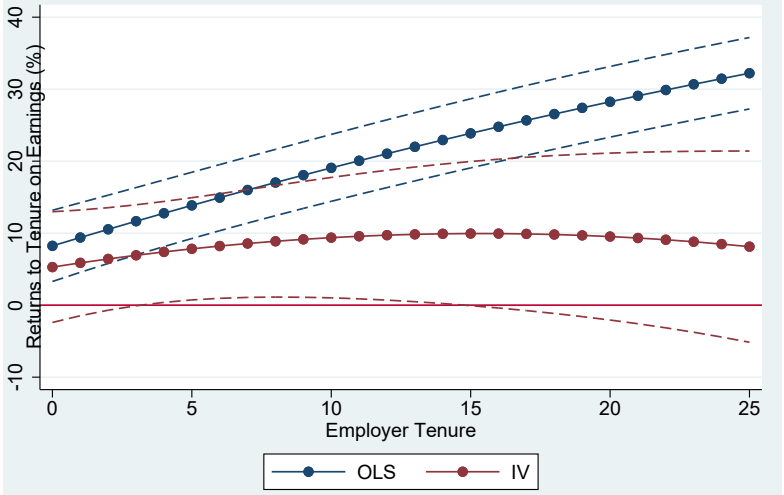

uding Non-regular Workers and Specialists, Variables of Occupa
Returns to Tenure on Earnings (%)
-10
0
10
20
30
40
0
5
10
15
20
25
Employer Tenure
OLS
IV
cluding Non-regular Workers and Specialists, Variables of Occup
Returns to Tenure on Earnings (%)
-10
0
10
20
30
40
0
5
10
15
20
25
Employer Tenure
OLS
IV
luding Non-regular Workers and Specialists, Variables of Occup
Returns to Tenure on Earnings (%)
-10
0
10
20
30
40
0
5
10
15
20
25
Employer Tenure
OLS
IV

Table 2: Earnings Function Estimates, using Sample up to 64-year-old, including Non-regular Workers and Specialists, Variables of Occupation Tenure are Controlled.

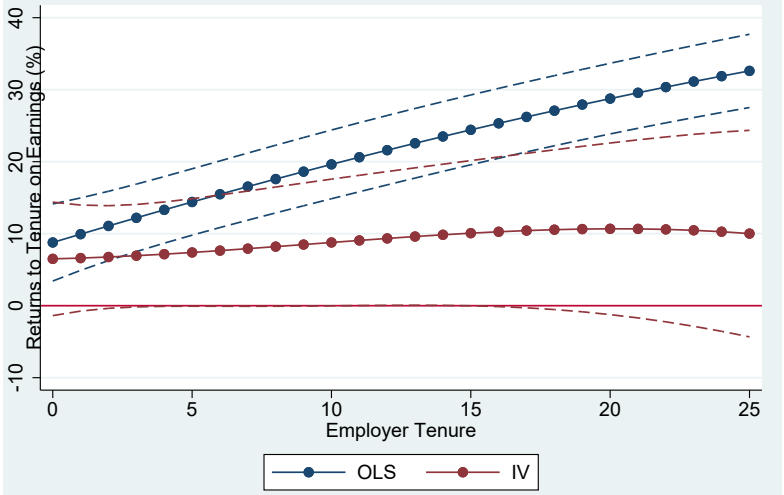
	OLS					
	(1)	(2)	(3)	(4)	(5)	(6)
Employer tenure	0.0117***	0.0118***	0.0198***	0.0066	0.0006	0.0083
	(0.0018)	(0.0040)	(0.0076)	(0.0051)	(0.0082)	(0.0129)
Emp.ten.^{2} × 100	-0.0083*	-0.0080	-0.1015	-0.0211	0.0260	-0.0756
	(0.0046)	(0.0235)	(0.0742)	(0.0138)	(0.0527)	(0.1381)
Emp.ten.^{3} × 100		-0.0000	0.0036		-0.0009	0.0033
		(0.0004)	(0.0027)		(0.0009)	(0.0053)
Emp.ten.^{4} × 1000			-0.0000			-0.0000
			(0.0000)			(0.0000)
Occupation tenure	-0.0025*	-0.0051	0.0034	-0.0069**	-0.0069	-0.0114
	(0.0015)	(0.0031)	(0.0050)	(0.0034)	(0.0064)	(0.0095)
Occ.ten.^{2} × 100	0.0064	0.0251	-0.0924*	0.0165*	0.0200	0.0844
	(0.0039)	(0.0197)	(0.0561)	(0.0087)	(0.0439)	(0.1154)
Occ.ten.^{3} × 100		-0.0003	0.0044**		-0.0001	-0.0027
		(0.0003)	(0.0021)		(0.0008)	(0.0045)
Old job	0.0843***	0.0900***	0.0736**	0.0562	0.0683*	0.0583
	(0.0253)	(0.0274)	(0.0305)	(0.0391)	(0.0401)	(0.0430)
Total experience	0.0267***	0.0051	-0.0001	0.0429***	0.0254	0.0303
	(0.0024)	(0.0063)	(0.0128)	(0.0076)	(0.0156)	(0.0292)
Experience^2	-0.0005***	0.0005*	0.0012	-0.0007***	0.0000	-0.0003
	(0.0000)	(0.0003)	(0.0010)	(0.0002)	(0.0007)	(0.0021)
Exp.^{3} × 100		-0.0013***	-0.0039		-0.0009	-0.0001
		(0.0004)	(0.0029)		(0.0009)	(0.0059)
N	9529	9529	9529	9529	9529	9529

Notes: Robust standard errors are in parentheses.
* , ** and *** Denote statistical significance at the 10%, 5% and 1% level, respectively.
The dependent variable is log real hourly wages. Other covariates include an intercept, education dummies, occupation and industry dummies, a union member dummy, a marital status dummy, firm size dummies, and regular employee dummy. Columns (1) and (2) denote the coefficients of earnings function (**??**) which is estimated by the OLS, and columns (3) and (4) denote those by AS's IV method.

cluding Non-regular Workers and Specialists, Variables of Occup



including Non-regular Workers and Specialists, Variables of Occ



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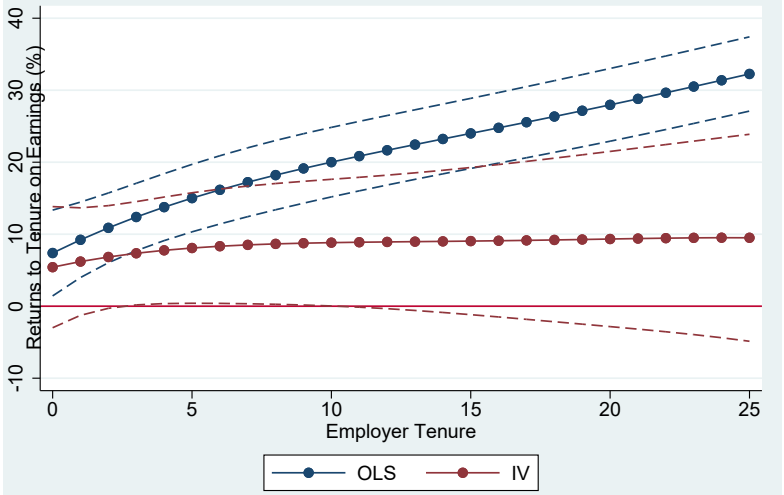

Table 3: Earnings Function Estimates, using Sample up to 64-year-old, including Non-regular Workers and Specialists.

	OLS			
	(1)	(2)	(3)	(4)
Employer tenure	0.0117***	0.0117***	0.0061	0.0066
	(0.0018)	(0.0018)	(0.0051)	(0.0051)
Emp.ten.$^2 \times 100$	-0.0083*	-0.0083*	-0.0197	-0.0211
	(0.0046)	(0.0046)	(0.0136)	(0.0138)
Occupation tenure		-0.0025*		-0.0069**
		(0.0015)		(0.0034)
Occ.ten.$^2 \times 100$		0.0064		0.0165*
		(0.0039)		(0.0087)
Occ.ten.$^3 \times 100$				
Old job	0.0824***	0.0843***	0.0529	0.0562
	(0.0252)	(0.0253)	(0.0392)	(0.0391)
Total experience	0.0257***	0.0267***	0.0458***	0.0429***
	(0.0024)	(0.0024)	(0.0072)	(0.0076)
Experience^2	-0.0004***	-0.0005***	-0.0007***	-0.0007***
	(0.0000)	(0.0000)	(0.0001)	(0.0002)
Exp.$^3 \times 100$				
N	9529	9529	9529	9529

Notes: Robust standard errors are in parentheses.
* , ** and *** Denote statistical significance at the 10%, 5% and 1% level, respectively.
The dependent variable is log real hourly wages. Other covariates include an intercept, education dummies, occupation and industry dummies, a union member dummy, a marital status dummy, firm size dummies, and regular employee dummy. Columns (1) and (2) denote the coefficients of earnings function (**??**) which is estimated by the OLS, and columns (3) and (4) denote those by AS's IV method.

Table 4: Estimated Returns to Employer Tenure, using Sample up to 64-year-old, including Non-regular Workers and Specialists.

	OLS			
	(1)	(2)	(3)	(4)
2 Years	0.1054***	0.1074***	0.0642*	0.0685*
	(0.0242)	(0.0243)	(0.0363)	(0.0363)
5 Years	0.1386***	0.1408***	0.0783**	0.0838**
	(0.0235)	(0.0236)	(0.0362)	(0.0364)
10 Years	0.1907***	0.1932***	0.0938**	0.1008**
	(0.0237)	(0.0238)	(0.0427)	(0.0430)
15 Years	0.2387***	0.2413***	0.0995*	0.1073**
	(0.0245)	(0.0246)	(0.0511)	(0.0515)
20 Years	0.2825***	0.2853***	0.0953	0.1032*
	(0.0250)	(0.0252)	(0.0591)	(0.0595)
25 Years	0.3222***	0.3251***	0.0813	0.0886
	(0.0253)	(0.0255)	(0.0678)	(0.0679)
N	9529	9529	9529	9529

Notes: Robust standard errors are in parentheses.
* , ** and *** Denote statistical significance at the 10%, 5% and 1% level, respectively.
The dependent variable is log real hourly wages. Other covariates include an intercept, education dummies, occupation and industry dummies, a union member dummy, a marital status dummy, firm size dummies, and regular employee dummy. Columns (1) and (2) denote the coefficients of earnings function (**??**) which is estimated by the OLS, and columns (3) and (4) denote those by AS's IV method.

Table 5: Estimated Returns to Employer Tenure, Employer Tenure is Treated as Dummy Variables

	OLS	
	(1)	(2)
$1 \leq T_{ij} < 2$	0.0079	0.0199
	(0.0304)	(0.0364)
$2 \leq T_{ij} < 5$	0.0299**	0.0198
	(0.0127)	(0.0175)
$5 \leq T_{ij} < 10$	0.0226***	0.0124
	(0.0051)	(0.0079)
$10 \leq T_{ij} < 15$	0.0161***	0.0084*
	(0.0026)	(0.0046)
$15 \leq T_{ij} < 20$	0.0123***	0.0054
	(0.0017)	(0.0035)
$20 \leq T_{ij} < 25$	0.0103***	0.0035
	(0.0013)	(0.0030)
$25 \leq T_{ij} < 30$	0.0127***	0.0057**
	(0.0012)	(0.0027)
$30 \leq T_{ij}$	0.0095***	0.0044*
	(0.0009)	(0.0025)
Total experience	0.0248***	0.0453***
	(0.0024)	(0.0069)
Experience^2	-0.0004***	-0.0008***
	(0.0000)	(0.0001)
N	9892	9892

Notes: Robust standard errors are in parentheses.
* , ** and *** Denote statistical significance at the 10%, 5% and 1% level, respectively.
The dependent variable is log real hourly wages. Other covariates include an intercept, education dummies, occupation and industry dummies, a union member dummy, a marital status dummy, firm size dummies, and regular employee dummy. Columns (1) and (2) denote the coefficients of earnings function (**??**) which is estimated by the OLS, and columns (3) and (4) denote those by AS's IV method.

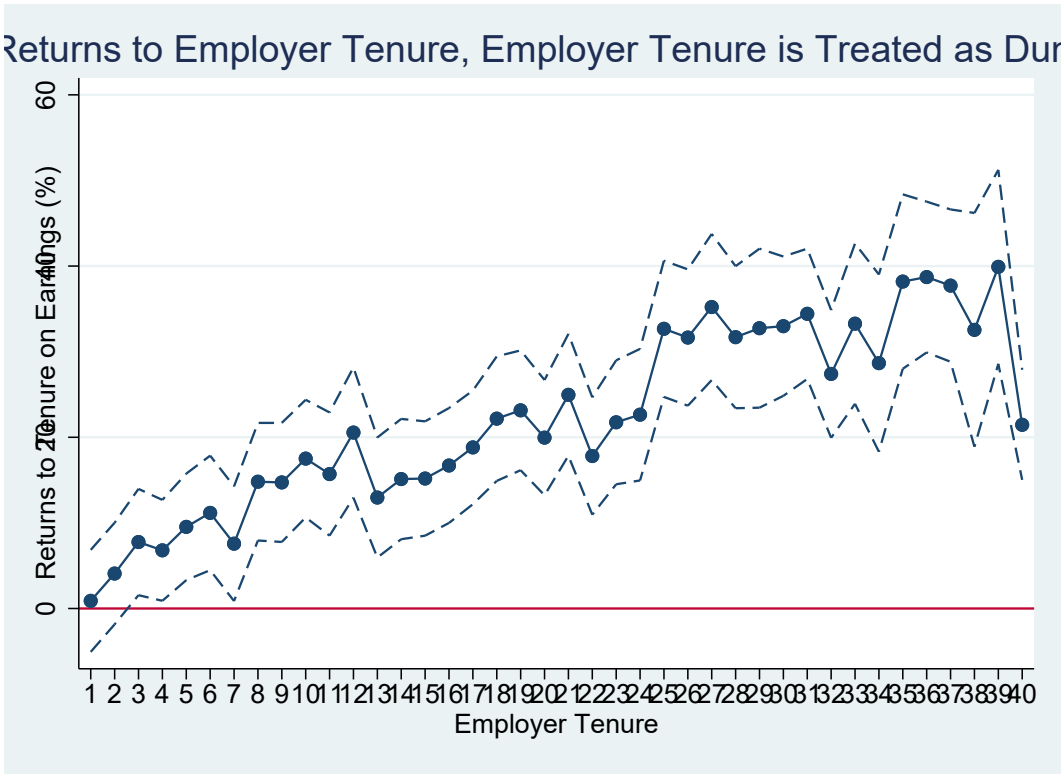
Returns to Employer Tenure, Employer Tenure is Treated as Dur
Returns to Tenure on Earnings (%)
0
20
40
60
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
Employer Tenure

Table 6: Earnings Function Estimates, using Sample up to 64-year-old, including Non-regular Workers and Specialists, the Interacti
of Employer Tenure and Proxies of Ability are Added to e.q. (1).

	(1)	(2)	(3)	(4)	(5)	(6)
Employer tenure	0.0083***	0.0058	0.0065***	0.0090*	0.0092***	0.0195**
	(0.0023)	(0.0142)	(0.0021)	(0.0052)	(0.0028)	(0.0097)
Emp.ten.^{2} $\times$ 100	-0.0082*	-0.0198	-0.0063	-0.0227	-0.0113**	-0.0001
	(0.0047)	(0.0136)	(0.0046)	(0.0140)	(0.0048)	(0.0146)
Old job	0.0841***	0.0526	0.0907***	0.0508	0.0849***	0.0499
	(0.0252)	(0.0393)	(0.0254)	(0.0392)	(0.0253)	(0.0411)
Total experience	0.0258***	0.0456***	0.0247***	0.0467***	0.0247***	0.0490***
	(0.0024)	(0.0073)	(0.0024)	(0.0073)	(0.0024)	(0.0078)
Experience^2	-0.0004***	-0.0007***	-0.0004***	-0.0007***	-0.0004***	-0.0008***
	(0.0000)	(0.0001)	(0.0000)	(0.0001)	(0.0000)	(0.0001)
Employer Tenure $\times$						
High School	0.0035**	-0.0006				
	(0.0016)	(0.0145)				
Some College	0.0064***	0.0071				
	(0.0020)	(0.0155)				
Undergraduate	0.0033*	-0.0004				
	(0.0017)	(0.0147)				
Above Undergraduate	-0.0033	0.0045				
	(0.0029)	(0.0177)				
Regular Employee			0.0052***	-0.0025		
			(0.0012)	(0.0024)		
$5 \leq$ size < 30					0.0020	-0.0086
					(0.0026)	(0.0085)
$30 \leq$ size < 100					0.0024	-0.0085
					(0.0026)	(0.0095)
$100 \leq$ size < 500					0.0027	-0.0133
					(0.0025)	(0.0096)
$500 \leq$ size					0.0055**	-0.0324***
					(0.0024)	(0.0097)
N	9529	9529	9529	9529	9529	9529

Notes: Robust standard errors are in parentheses.
* , ** and *** Denote statistical significance at the 10%, 5% and 1% level, respectively.
The dependent variable is log real hourly wages. Other covariates include an intercept, education dummies, occupation and industry dummie
union member dummy, a marital status dummy, firm size dummies, and regular employee dummy. Columns (1) and (2) denote the coefficient
earnings function (**??**) which is estimated by the OLS, and columns (3) and (4) denote those by AS's IV method.

Table 7: Estimated Returns to Employer Tenure, using Sample up to 64-year-old, including Non-regular Workers and Specialists, the Interactions of Employer Tenure and Proxies of Ability are Added to e.q. (1).

	Years of Education					
	(1)	(2)	(3)	(4)	(5)	(6)
2 Years	0.1005***	0.0634	0.1036***	0.0680*	0.1028***	0.0890**
	(0.0243)	(0.0457)	(0.0241)	(0.0365)	(0.0246)	(0.0410)
5 Years	0.1238***	0.0766	0.1219***	0.0903**	0.1280***	0.1475***
	(0.0245)	(0.0769)	(0.0235)	(0.0368)	(0.0258)	(0.0551)
10 Years	0.1593***	0.0907	0.1499***	0.1184***	0.1654***	0.2451***
	(0.0278)	(0.1415)	(0.0249)	(0.0435)	(0.0320)	(0.0926)
15 Years	0.1908***	0.0948	0.1748***	0.1351***	0.1971***	0.3425**
	(0.0327)	(0.2087)	(0.0278)	(0.0513)	(0.0408)	(0.1338)
20 Years	0.2182***	0.0891	0.1965***	0.1405**	0.2232***	0.4400**
	(0.0380)	(0.2767)	(0.0310)	(0.0579)	(0.0505)	(0.1758)
25 Years	0.2415***	0.0734	0.2150***	0.1346**	0.2437***	0.5374**
	(0.0435)	(0.3453)	(0.0344)	(0.0642)	(0.0606)	(0.2185)
N	9529	9529	9529	9529	9529	9529

Notes: Robust standard errors are in parentheses.
* , ** and *** Denote statistical significance at the 10%, 5% and 1% level, respectively.
The dependent variable is log real hourly wages. Other covariates include an intercept, education dummies, occupation and industry dummies, a union member dummy, a marital status dummy, firm size dummies, and regular employee dummy. Columns (1) and (2) denote the coefficients of earnings function (**??**) which is estimated by the OLS, and columns (3) and (4) denote those by AS's IV method.

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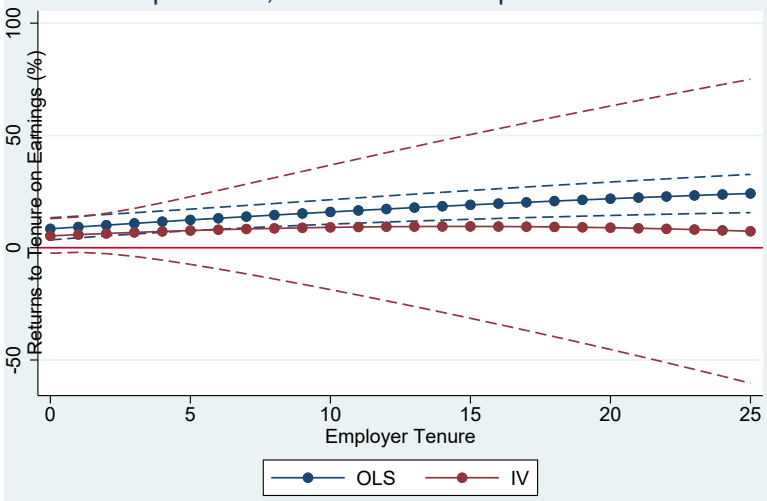
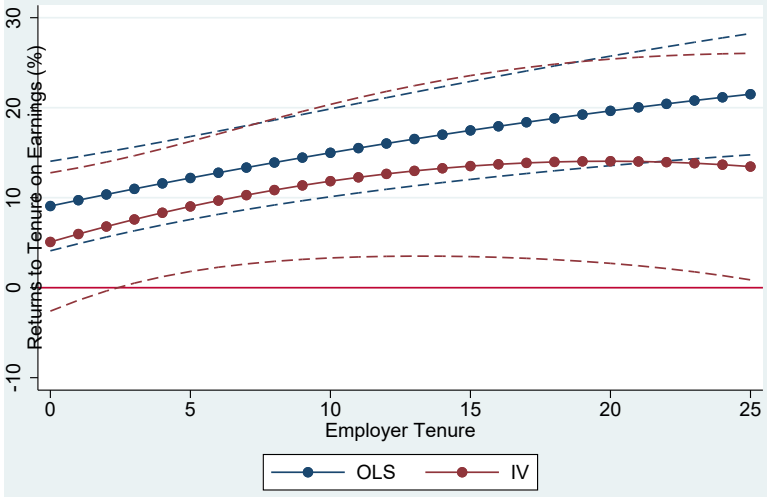


orkers and Specialists, Variables of Occupation Tenure are Cont



Workers and Specialists, Variables of Occupation Tenure are C

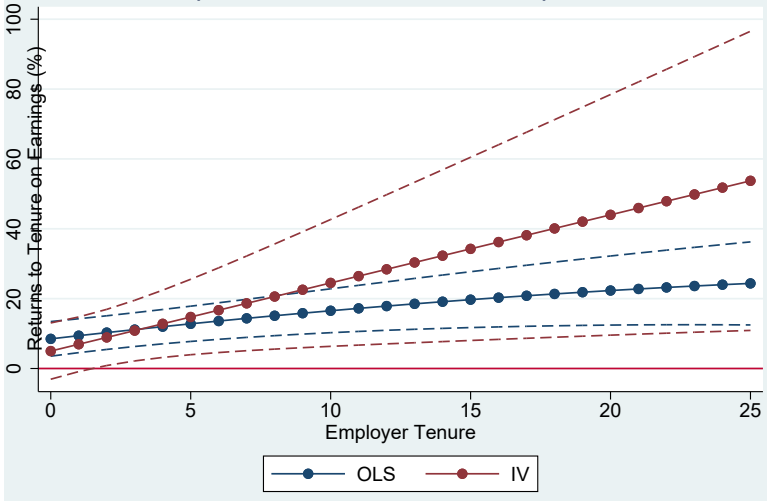


Table 8: Earnings Function Estimates, using Various Subsamples.

	Under 59-year-old		Large firms (≥ 500)		Small Firms (< 500)		Non-Professional	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Employer tenure	0.0098***	0.0020	0.0156***	0.0145	0.0106***	0.0049	0.0162***	0.0066
	(0.0020)	(0.0057)	(0.0031)	(0.0089)	(0.0022)	(0.0068)	(0.0018)	(0.0057)
Emp.ten.$^2 \times 100$	0.0000	-0.0064	-0.0151**	-0.0421*	-0.0088	-0.0055	-0.0185***	-0.0206
	(0.0055)	(0.0163)	(0.0075)	(0.0239)	(0.0062)	(0.0185)	(0.0048)	(0.0148)
Old job	0.0983***	0.0585	0.0212	0.0293	0.1130***	0.0521	0.0540**	0.0366
	(0.0283)	(0.0449)	(0.0506)	(0.0672)	(0.0294)	(0.0475)	(0.0274)	(0.0437)
Total experience	0.0227***	0.0411***	0.0248***	0.0545***	0.0250***	0.0401***	0.0205***	0.0447***
	(0.0028)	(0.0081)	(0.0040)	(0.0123)	(0.0030)	(0.0101)	(0.0026)	(0.0081)
Experience^2	-0.0004***	-0.0006***	-0.0004***	-0.0008***	-0.0004***	-0.0007***	-0.0003***	-0.0007***
	(0.0001)	(0.0002)	(0.0001)	(0.0002)	(0.0001)	(0.0002)	(0.0000)	(0.0001)
N	8579	8579	3646	3646	5883	5883	8090	8090

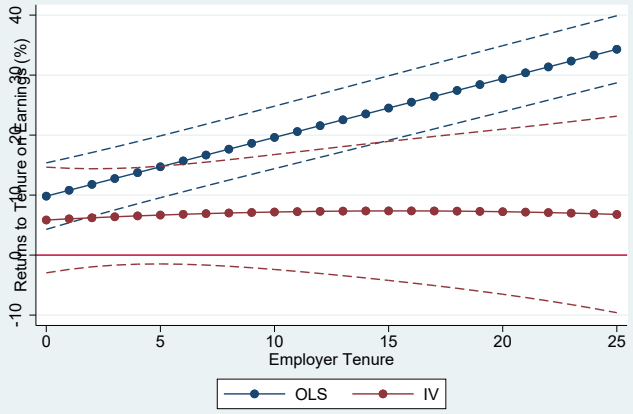
Notes: Robust standard errors are in parentheses.
* , ** and *** Denote statistical significance at the 10%, 5% and 1% level, respectively.
The dependent variable is log real hourly wages. Other covariates include an intercept, education dummies, occupation and industry dummies, a union member dummy, a marital status dummy, firm size dummies, and regular employee dummy. Columns (1) and (2) denote the coefficients of earnings function (**??**) which is estimated by the OLS, and columns (3) and (4) denote those by AS's IV method.

Table 9: Estimated Returns to Employer Tenure, using Various Subsamples.

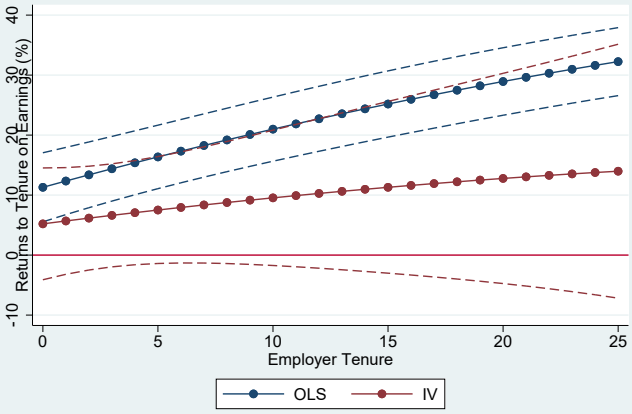
	Under 59-year-old		Large firms ($\geq$ 500)		Small Firms ($<$ 500)		Non-Professional	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2 Years	0.1179***	0.0622	0.0518	0.0566	0.1338***	0.0616	0.0856***	0.0489
	(0.0271)	(0.0417)	(0.0493)	(0.0633)	(0.0280)	(0.0441)	(0.0264)	(0.0404)
5 Years	0.1472***	0.0668	0.0953**	0.0914	0.1637***	0.0751*	0.1303***	0.0642
	(0.0263)	(0.0416)	(0.0485)	(0.0647)	(0.0270)	(0.0455)	(0.0258)	(0.0403)
10 Years	0.1961***	0.0718	0.1617***	0.1325*	0.2099***	0.0954*	0.1973***	0.0816*
	(0.0266)	(0.0489)	(0.0493)	(0.0766)	(0.0273)	(0.0575)	(0.0261)	(0.0479)
15 Years	0.2451***	0.0737	0.2207***	0.1526*	0.2518***	0.1130	0.2552***	0.0886
	(0.0274)	(0.0591)	(0.0510)	(0.0892)	(0.0282)	(0.0730)	(0.0269)	(0.0581)
20 Years	0.2940***	0.0723	0.2720***	0.1516	0.2893***	0.1278	0.3037***	0.0854
	(0.0281)	(0.0702)	(0.0523)	(0.0983)	(0.0287)	(0.0894)	(0.0275)	(0.0682)
25 Years	0.3430***	0.0678	0.3158***	0.1296	0.3225***	0.1398	0.3431***	0.0718
	(0.0285)	(0.0836)	(0.0530)	(0.1055)	(0.0289)	(0.1080)	(0.0278)	(0.0787)
N	8579	8579	3646	3646	5883	5883	8090	8090

Notes: Robust standard errors are in parentheses.
* , ** and *** Denote statistical significance at the 10%, 5% and 1% level, respectively.
The dependent variable is log real hourly wages. Other covariates include an intercept, education dummies, occupation and industry dummies, a union member dummy, a marital status dummy, firm size dummies, and regular employee dummy. Columns (1) and (2) denote the coefficients of earnings function (**??**) which is estimated by the OLS, and columns (3) and (4) denote those by AS's IV method.

timates, using Sample up to 60-year-old, including Non-regular V



Sample up to 64-year-old, including Non-regular Workers and S



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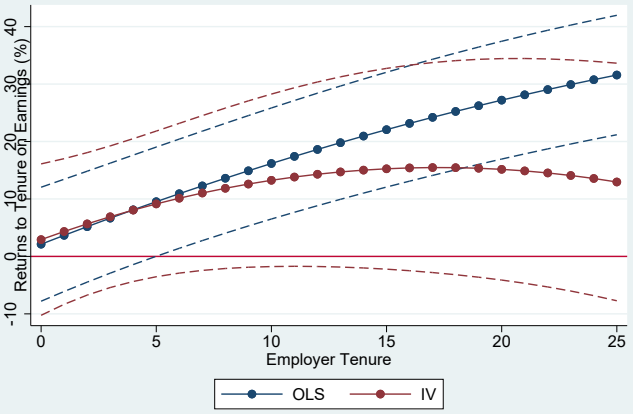

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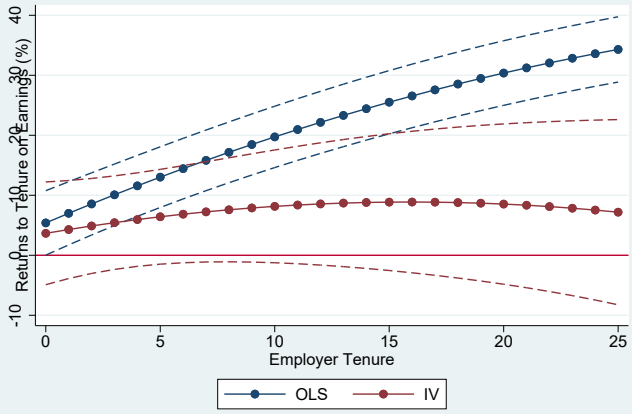

Table 10: Estimation Results, using the Method of 2SFD Estimation.

	(1)	(2)	(3)
_cons	0.1084***	0.1584***	0.1407***
	(0.0213)	(0.0247)	(0.0354)
Emp.ten.$^2 \times 100$		-0.0098	0.0468
		(0.0272)	(0.0953)
Emp.ten.$^3 \times 1000$			-0.0114
			(0.0174)
Experience$^2 \times 100$		-0.0982***	-0.0485
		(0.0285)	(0.1357)
Experience$^3 \times 1000$			-0.0055
			(0.0176)
N	6942	6696	6696

Notes: Robust standard errors are in parentheses.
* , ** and *** Denote statistical significance at the 10%, 5% and 1% level, respectively.
The dependent variable is log real hourly wages. Other covariates include an intercept, education dummies, occupation and industry dummies, a union member dummy, a marital status dummy, firm size dummies, and regular employee dummy. Columns (1) and (2) denote the coefficients of earnings function (**??**) which is estimated by the OLS, and columns (3) and (4) denote those by AS's IV method.