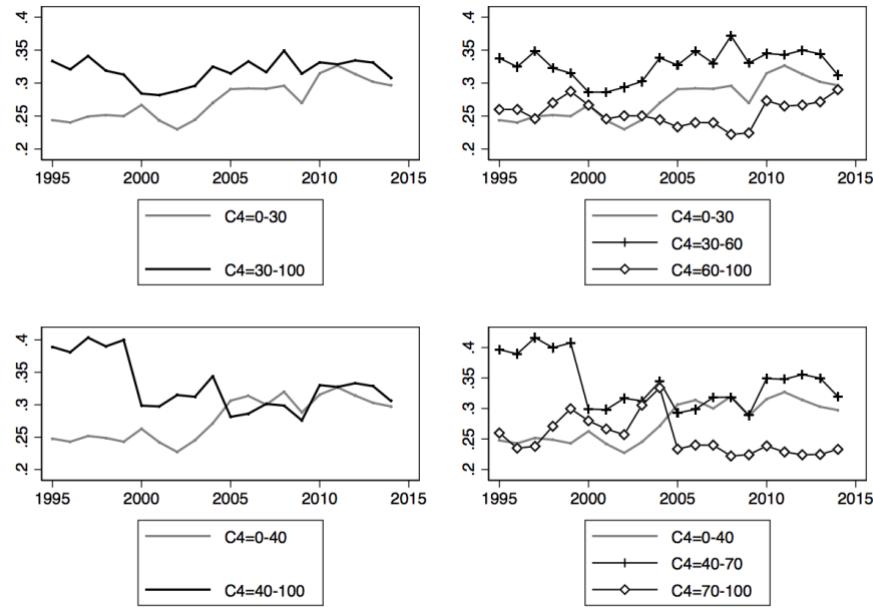


Online appendix for Davis & Orhangazi (2020) “Competition and monopoly in the U.S. economy: What do industrial concentration data show?” *forthcoming in Competition and Change*.

Appendix A: 3-digit calculations with alternative cutoffs

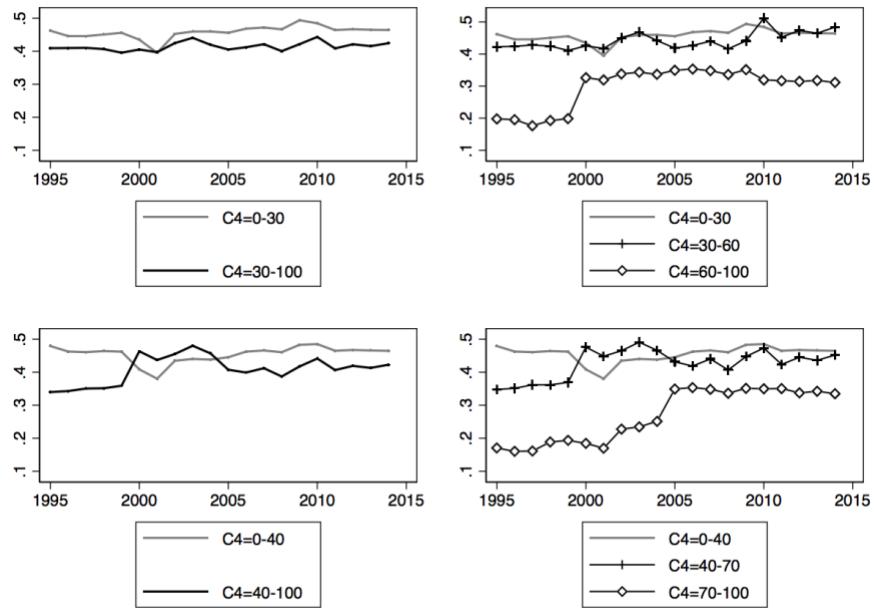
Figure A1: Average profit rate across firms, alternative cutoffs for low- mid- and high- concentration groups



Source: Authors' calculations from the Census Bureau.

Notes: The figure shows average after-tax profit rate across firms in different groupings of low-, mid-, and high-concentration industries. The profit rate is operating income before depreciation and after income taxes, relative to fixed capital. Each series is an average, weighted by firm-level capital stock. See Section 3 and Appendix Table A1 for variable definitions.

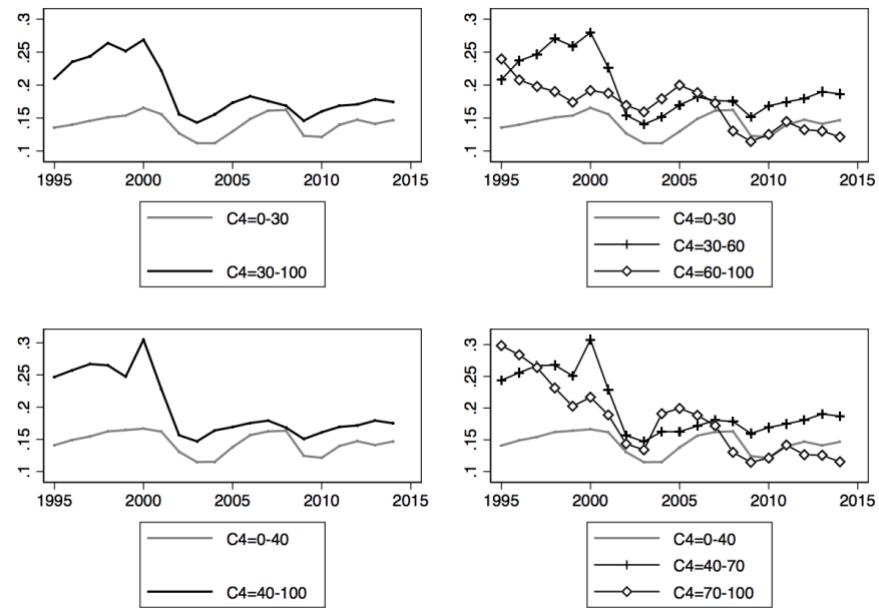
Figure A2: Average markups for alternative definitions of low-, mid-, and high-concentration industries



Source: Authors' calculations from Compustat and Census.

Notes: The figure shows average markups across firms in different groupings of low-, mid-, and high-concentration industries. The markup is sales minus the cost of goods sold, relative to the cost of goods sold. Each series is an average, weighted by firms' cost of goods sold. See Section 3 and Appendix Table A1 for variable definitions.

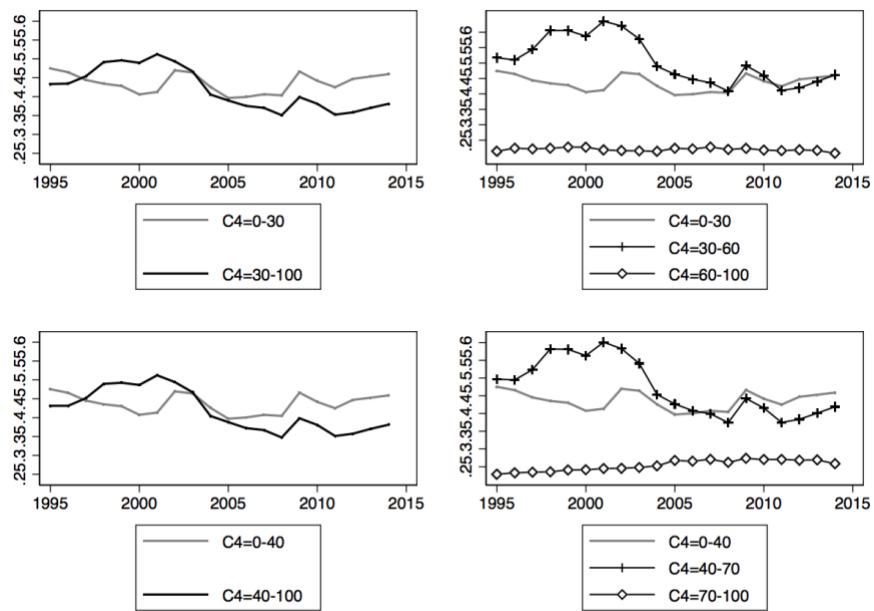
Figure A3: Average investment rates across firms, alternative cutoffs for low- mid and high-concentration groups



Source: Authors' calculations from Compustat and Census.

Notes: The figure shows average investment rates across firms in different groupings of low-, mid-, and high-concentration industries. The investment rate is capital expenditures relative to lagged capital stock. Each series is an average, weighted by firm-level lagged capital stock. See Section 3 and Appendix Table A1 for variable definitions.

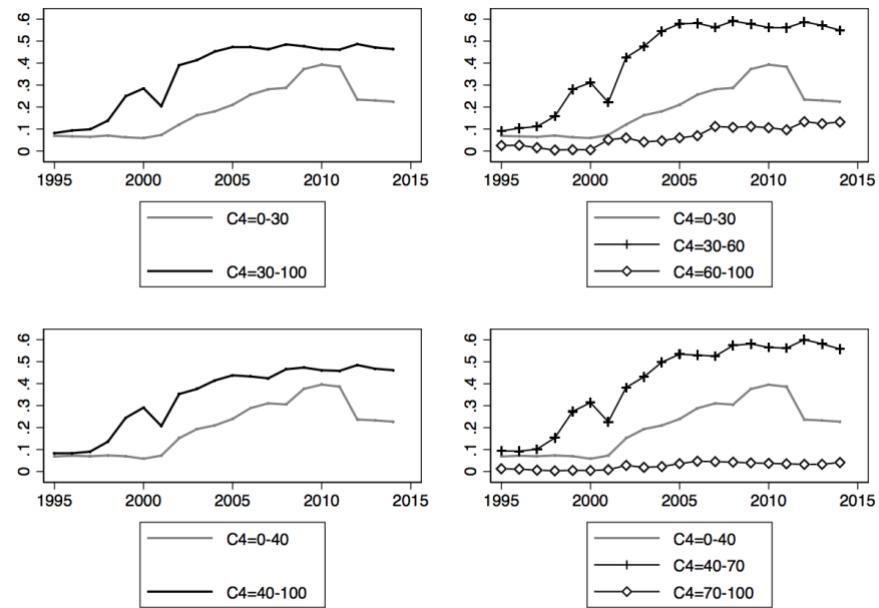
Figure A4: Average capital intensity in low-, mid-, and highly-concentrated industries



Source: Authors' calculations from Compustat and Census.

Notes: The figure shows average capital intensity across firms in different groupings of low-, mid-, and high-concentration industries. Capital intensity is capital stock relative to sales. Each series is an average, weighted by firm-level sales. Industries are classified based on their CR4 2012 ratio. See Section 3 and Appendix Table A1 for variable definitions.

Figure A5: Average intangible intensity in low-, mid-, and highly-concentrated industries



Source: Authors' calculations from Compustat and Census.

Notes: The figure shows average intangible intensity across firms in different groupings of low-, mid-, and high-concentration industries. Intangible intensity is intangibles less goodwill, relative to the capital stock. Each series is an average, weighted by firm-level capital stock. Industries are classified based on their 2012 CR4 ratio. See Section 3 and Appendix Table A1 for variable definitions.

Appendix B: Replications at 4-digit level

Table B1: Change in concentration ratios over time across 4-digit industries

	1997	2002	2007	2012	Percent change (1997–2012)
Median					
CR4	19.9	21.2	22.0	22.7	14.1
CR8	27.6	30.5	30.0	31.6	14.5
CR20	40.6	44.1	44.2	44.4	9.4
CR50	54.5	58.6	58.4	58.8	7.9
Weighted mean					
CR4	22.3	26.3	26.4	27.4	23.1
CR8	30.7	35.2	35.4	36.7	19.6
CR20	41.7	45.6	46.6	48.6	16.4
CR50	51.8	54.9	56.6	58.8	13.4

Source: Authors' calculations from the Census Bureau.

Note: Weighted means are across-industry averages weighted by industry revenue. For variable definitions, see Section 3.1.

Table B2: Low, high and mid concentration industries in 2012 and 2007, sorted by 2-digit sectors of activity
(Industries defined at 4-digit level)

NAICS	2-digit sector	(1) Low CR4		(2) Mid CR4		(3) High CR4		(4) Full sample	
		N	% of rev	N	% of rev	N	% of rev	N	% of rev
Panel A: 2012									
22	Utilities	2	2.1%	1	0.0%	0	—	3	2.2%
31-33	Manufacturing	43	8.9%	39	11.9%	4	2.2%	86	22.9%
42	Wholesale	15	19.7%	4	12.4%	0	—	19	32.1%
44-45	Retail	12	6.7%	11	6.7%	4	3.8%	27	17.2%
48-49	Transportation & warehousing	12	1.5%	13	0.5%	2	0.9%	27	3.0%
51	Information	2	0.9%	9	3.3%	1	0.9%	12	5.0%
54	Prof., sci. & technical services	9	5.9%	0	—	0	—	9	5.9%
56	Administrative & support services	9	2.5%	2	0.2%	0	—	11	2.7%
61	Educational services	4	0.2%	0	—	0	—	4	0.2%
62	Health care & social assistance	12	3.3%	4	0.5%	2	0.4%	18	4.1%
71	Arts, entertainment, recreation	7	0.6%	1	0.1%	1	0.1%	9	0.7%
72	Accommodation, food services	5	2.7%	1	0.2%	0	—	6	2.9%
81	Other services	8	0.9%	0	—	0	—	8	0.9%
Total, 2012		140	55.8%	85	35.8%	14	8.2%	239	100%
Panel B: 1997									
22	Utilities	1	2.0%	2	1.1%	0	—	3	3.1%
31-33	Manufacturing	41	12.7%	40	12.5%	3	2.8%	84	28.0%
42	Wholesale	17	26.3%	1	4.0%	0	—	18	30.2%
44-45	Retail	20	13.9%	5	1.9%	2	2.5%	27	18.3%
48-49	Transportation & warehousing	16	1.6%	8	0.4%	3	0.3%	27	2.4%
51	Information	0	—	8	3.8%	0	—	8	3.8%
54	Prof., sci. & technical services	8	4.1%	1	0.2%	0	—	9	4.3%
56	Administrative & support services	8	1.9%	3	0.3%	0	—	11	2.2%
61	Educational services	4	0.1%	0	—	0	—	4	0.1%
62	Health care & social assistance	12	2.6%	4	0.2%	2	0.3%	18	3.1%
71	Arts, entertainment, recreation	8	0.6%	1	0.1%	0	—	9	0.6%
72	Accommodation, food services	6	2.5%	1	0.1%	0	—	7	2.6%
81	Other services	8	1.2%	0	—	0	—	8	1.2%
Total, 1997		149	69.6%	74	24.5%	10	5.8%	233	100%

Source: Authors' calculations from the Census Bureau.

Notes: Columns 1-3 list the number (N) and revenue share (% of rev) of all 4-digit industries in each 2-digit economic sector for the high-, mid-, and low-concentration industries listed in Tables 2-3. Revenue share is total revenue of all 3-digit industries within both a particular concentration group and 2-digit sector relative to total sample revenue in 2012 (Panel A) and in 1997 (Panel B). Column 4 lists the total number of 3-digit industries and each sector's revenue share. The row totals for 'N' and '% of rev' in Columns 1-3 equal the values in Column 4. See Section 3.1 for variable definitions, and Section 3.3 (as also footnotes to Tables B4 and B5) for details on the classification of industry groups.

Table B3: What sectors drive the increase in concentration?
(Evolution of CR4 ratio when sequentially dropping sectors of economic activity)

		Average CR4, 1997	Average CR4, 2012	Percent change (1997-2012)	(% change with sector excluded)/(overall % change)
Panel A	2-digit sector:				
1.	Utilities	21.1%	19.2%	-8.7%	—
2.	Manufacturing	30.0%	33.1%	16.0%	—
3.	Wholesale	17.6%	23.7%	25.4%	—
4.	Retail	21.8%	33.9%	54.5%	—
5.	Transportation & warehousing	25.9%	35.6%	43.6%	—
6.	Information	39.4%	48.3%	41.0%	—
7.	Prof., sci. & technical services	10.7%	12.1%	6.3%	—
8.	Administrative & support services	15.6%	17.5%	8.6%	—
9.	Educational services	10.8%	13.0%	10.1%	—
10.	Health care & social assistance	14.8%	15.9%	4.6%	—
11.	Arts, entertainment & recreation	14.4%	15.7%	5.6%	—
12.	Accommodation & food services	12.1%	11.5%	-2.5%	—
13.	Other services	9.7%	9.5%	-1.0%	—
Panel B	Excluded 2-digit sector:				
1.	Utilities	22.3%	27.6%	23.7%	1.03
2.	Manufacturing	19.2%	25.7%	33.6%	1.45
3.	Wholesale	24.3%	29.1%	19.9%	0.86
4.	Retail	22.4%	26.0%	16.4%	0.71
5.	Transportation & warehousing	22.2%	27.1%	22.5%	0.97
6.	Information	21.6%	26.3%	21.8%	0.94
7.	Prof., sci. & technical services	22.8%	28.3%	24.5%	1.06
8.	Administrative & support services	22.4%	27.7%	23.5%	1.02
9.	Educational services	22.3%	27.4%	23.1%	1.00
10.	Health care & social assistance	22.5%	27.9%	24.0%	1.04
11.	Arts, entertainment & recreation	22.3%	27.5%	23.2%	1.00
12.	Accommodation & food services	22.5%	27.9%	23.7%	1.03
13.	Other services	22.4%	27.6%	23.0%	1.00
All sectors		22.3%	27.4%	23.1%	

Source: Authors' calculations from the Census Bureau.

Notes: Panel A records the weighted average CR4 across 4-digit industries in each 2-digit sector in 1997 and 2012, and the percent change from 1997-2012. Panel B records the average CR4 ratio across 3-digit industries in all sectors, but *excluding* the listed sector, in 1997 and 2012, and the percent change from 1997-2012. The final column of Panel B records the ratio of the percent change from 1997-2012 when excluding the sector in question, to the percent change for all sectors. The bottom row shows weighted average CR4 across all 4-digit industries. See Section 3.1 for variable definitions.

Table B4: Industries with above-average levels of concentration ranked by CR4
(Industries at 4-digit level)

NAICS	Industry name	2-digit sector	CR4	CR8	% Δ	% Δ
					in CR4 (1997- 2012)	in CR8 (1997- 2012)
Panel A: High concentration industries						
1. 4921	Couriers & express delivery services	Transportation & warehousing	92.5	93.7	9.6	2.1
2. 5172	Wireless telecom carriers (except satellite)*	Information	89.1	95.2	44.4	16.5
3. 3122	Tobacco manufacturing	Manufacturing	87.8	93.6	5.3	0.3
4. 4529	Other general merchandise stores	Retail trade	82.7	92.8	24.2	17.6
5. 4521	Department stores	Retail trade	73.2	94.7	17.9	12.5
6. 4512	Book stores & news dealers	Retail trade	66.1	73.4	67.3	47.4
7. 3352	Household appliance manufacturing	Manufacturing	64.5	75.8	20.3	16.6
8. 6221	General medical & surgical hospitals	Health care & social assistance	64	79	-12.9	-4.2
9. 7131	Amusement parks & arcades	Arts, entertainment, recreation	63.7	77.9	10.4	11.0
10. 4811	Scheduled air transportation	Transportation & warehousing	62.7	79.3	145.9	116.7
11. 6222	Psychiatric & substance abuse hospitals	Health care & social assistance	62	68.8	42.5	20.7
12. 3364	Aerospace product & parts manufacturing	Manufacturing	61	73.9	-2.1	-5.4
13. 3361	Motor vehicle manufacturing	Manufacturing	60.8	81.1	-26.2	-11.7
14. 4461	Health & personal care stores	Retail trade	60	63.1	53.5	30.6
Panel B: Mid concentration industries						
15. 5152	Cable & other subscription programming*	Information	58.9	83.2	-7.8	7.1
16. 3365	Railroad rolling stock manufacturing	Manufacturing	58	72.5	1.4	0.8
17. 4869	Other pipeline transportation	Transportation & warehousing	56.7	80.4	23.0	13.1
18. 3161	Leather & hide tanning & finishing	Manufacturing	54.7	72.5	11.4	9.0
19. 7223	Special food services	Accommodation, food services	54.6	61.7	33.5	13.2
20. 4851	Urban transit systems	Transportation & warehousing	54.1	65.9	49.4	34.2
21. 4431	Electronics & appliance stores	Retail trade	54.1	60.6	44.7	41.6
22. 4441	Building material & supplies dealers	Retail trade	53.8	57.6	163.7	130.4
23. 6223	Specialty (exc. psychiatric/substance abuse) hospitals	Health care & social assistance	52	61.5	-28.2	-22.3
24. 4852	Interurban & rural bus transportation	Transportation & warehousing	51.5	60.8	-16.9	-13.6
25. 5171	Wired telecommunications carriers*	Information	51.3	72.9	-14.1	-9.9
26. 4832	Inl& water transportation	Transportation & warehousing	51.1	67.7	34.8	29.7
27. 5122	Sound recording industries	Information	51	69.8	-4.0	-7.4
28. 3369	Other transportation equipment manufacturing	Manufacturing	50.7	67	33.8	20.3
29. 3112	Grain & oilseed milling	Manufacturing	50.6	64	11.7	8.3
30. 3311	Iron & steel mills & ferroalloy manufacturing	Manufacturing	49	65.8	53.6	28.0
31. 3131	Fiber, yarn, & thread mills	Manufacturing	49	64.5	64.4	51.4
32. 3121	Beverage manufacturing	Manufacturing	48.9	59.6	19.6	14.4
33. 4532	Office supplies, stationery, & gift stores	Retail trade	48.8	55.2	13.2	19.0
34. 3366	Ship & boat building	Manufacturing	48.6	56.3	26.6	11.0
35. 5174	Satellite telecommunications	Information	48.1	61.2	39.0	24.4
36. 3346	Mfg., reproducing magnetic, optical media*	Manufacturing	47.3	55.6	87.7	35.3
37. 4831	Deep sea, coastal, & great lakes water transportation	Transportation & warehousing	46.9	61.7	36.7	33.5
38. 6243	Vocational rehabilitation services	Health care & social assistance	46.5	58.1	58.7	66.0
39. 4861	Pipeline transportation of crude oil	Transportation & warehousing	45.7	69.3	-5.8	-2.9
40. 3162	Footwear manufacturing	Manufacturing	45.1	65.3	62.8	54.0
41. 3241	Petroleum & coal products manufacturing	Manufacturing	45	68.6	73.1	55.2
42. 3379	Other furniture related product manufacturing	Manufacturing	45	56.6	30.8	27.2
43. 3274	Lime & gypsum product manufacturing	Manufacturing	44.6	69.9	-17.4	6.9
44. 3336	Engine, turbine, power transmission equipment mfg.	Manufacturing	44.4	56.9	4.5	-1.6
45. 4879	Scenic & sightseeing transportation, other	Transportation & warehousing	44.1	57.5	86.1	48.6
46. 4242	Drugs & druggists' sundries merchant wholesalers*	Wholesale trade	43.5	54.8	2.1	-4.9
47. 5622	Waste treatment & disposal	Administrative & Support	43.3	61.2	-9.8	12.1
48. 2213	Water, sewage & other systems	Utilities	42.8	54.4	45.6	35.7
49. 3313	Alumina & aluminum production & processing*	Manufacturing	42.6	56.2	-16.3	-8.3
50. 3116	Animal slaughtering & processing	Manufacturing	42.6	53.9	21.7	13.5
51. 5621	Waste collection	Administrative & Support	42.6	47.7	-5.3	-7.0
52. 3221	Pulp, paper & paperboard mills	Manufacturing	41.9	57.6	49.6	26.0
53. 5191	Other information services*	Information	41.9	53.1	36.5	18.3
54. 5112	Software publishers	Information	41.4	49	46.8	37.6
55. 4854	School & employee bus transportation	Transportation & warehousing	41.4	47.4	16.9	20.0
56. 3256	Soap, cleaning compound, toilet preparation mfg.	Manufacturing	41.3	53.2	22.6	16.4
57. 3253	Pesticide, fertilizer, other agricultural chemical mfg.	Manufacturing	40.9	57.1	49.3	24.7

58.	3331	Agriculture, construction, mining machinery mfg.	Manufacturing	40.2	48.7	6.3	6.6
59.	5151	Radio & television broadcasting*	Information	39.8	55.6	1.8	3.7
60.	4812	Nonscheduled air transportation	Transportation & warehousing	39.8	47.2	156.8	100.9
61.	4231	Motor vehicle/ parts, supplies merchant wholesalers*	Wholesale trade	38.5	52.6	-28.2	-22.0
62.	3141	Textile furnishings mills	Manufacturing	38.2	48.4	12.0	2.1
63.	3262	Rubber product manufacturing	Manufacturing	37.9	49.3	3.0	6.2
64.	3151	Apparel knitting mills	Manufacturing	37.1	51.9	63.4	56.8
65.	4422	Home furnishings stores	Retail trade	36.4	42.9	219.3	156.9
66.	5121	Motion picture & video industries	Information	34.9	48.4	7.4	8.0
67.	4862	Pipeline transportation of natural gas	Transportation & warehousing	34.5	58.7	-19.6	-10.4
68.	4482	Shoe stores	Retail trade	34.3	50.6	-9.3	3.1
69.	3159	Apparel accessories & other apparel manufacturing	Manufacturing	34.3	44.8	141.5	94.8
70.	6214	Outpatient care centers	Health care & social assistance	33	39	30.4	15.0
71.	5179	Other telecommunications*	Information	32.6	45.5	3.8	-3.8
72.	3324	Boiler, tank, & shipping container manufacturing	Manufacturing	32.4	42.5	6.6	-7.6
73.	4871	Scenic & sightseeing transportation, l&	Transportation & warehousing	32.1	42.1	27.9	4.5
74.	3322	Cutlery & h& tool manufacturing	Manufacturing	32	42.5	74.9	50.7
75.	3113	Sugar & confectionery product manufacturing	Manufacturing	31.6	43.1	-24.6	-23.6
76.	3341	Computer & peripheral equipment manufacturing	Manufacturing	31.5	46	-14.9	-11.7
77.	3254	Pharmaceutical & medicine manufacturing	Manufacturing	31.2	44.2	-3.4	-7.7
78.	4247	Petroleum products merchant wholesalers*	Wholesale trade	30.3	43.9	10.6	8.9
79.	4413	Automotive parts, accessories, & tire stores	Retail trade	30.3	40.7	138.6	112.0
80.	3343	Audio & video equipment manufacturing	Manufacturing	30.2	44.3	1.3	-15.5
81.	3111	Animal food manufacturing	Manufacturing	30.2	40.7	30.7	17.3
82.	4541	Electronic shopping & mail-order houses	Retail trade	30.2	37.8	23.8	18.1
83.	4451	Grocery stores	Retail trade	29.8	42.6	49.7	29.5
84.	4882	Support activities for rail transportation	Transportation & warehousing	29.8	41.9	-28.0	-22.3
85.	3342	Communications equipment manufacturing	Manufacturing	29.6	41.7	-18.9	-15.4
86.	3119	Other food manufacturing	Manufacturing	29.5	37.4	-15.0	-12.4
87.	3325	Hardware manufacturing	Manufacturing	29.4	43.6	69.0	57.4
88.	3255	Paint, coating, & adhesive manufacturing*	Manufacturing	29.3	44.3	-3.3	1.6
89.	4245	Farm product raw material merchant wholesalers*	Wholesale trade	29.3	41.6	-13.6	-3.3
90.	3252	Resin, synthetic rubber and fibers & filaments mfg.	Manufacturing	29	40.9	8.6	8.5
91.	3251	Basic chemical manufacturing	Manufacturing	28.5	40.1	82.7	39.7
92.	4542	Vending machine operators	Retail trade	28.2	32.6	45.4	39.9
93.	3353	Electrical equipment manufacturing	Manufacturing	27.9	39.7	8.6	-1.2
94.	7113	Promoters of performing arts, sports, similar events	Arts, entertainment, recreation	27.8	36.6	239.0	154.2
95.	3351	Electric lighting equipment manufacturing	Manufacturing	27.7	38.5	-21.5	-21.7
96.	4511	Sporting goods, hobby, & musical instrument stores	Retail trade	27.4	42.1	3.8	29.9
97.	6215	Medical & diagnostic laboratories	Health care & social assistance	27.1	31.1	-3.9	-4.0
98.	4883	Support activities for water transportation	Transportation & warehousing	27	37.8	23.9	24.8
99.	4481	Clothing stores	Retail trade	27	36.6	5.9	6.7

Source: Authors' calculations from the Census Bureau.

Notes: The table lists 4-digit industries with above-average levels of concentration, ranked in descending order by CR4 ratio. If two industries have identical CR4 ratios, they are ranked in descending order by CR8 ratio. As described in Section 3.3, average concentration is the weighted average across-industry CR4 ratio in 2012, with each industry weighted by total revenue (26.4%). High and mid CR industries are distinguished by the midpoint among above-average CR industries (59.75%). In addition to the name of the 4-digit industrial industry, the table lists the corresponding 2-digit sectors, the CR4 ratio, the CR8 ratio, and the percent change in both the CR4 and CR8 ratios between 1997 and 2002. Industries that do not exist in their current classification in 1997 are marked with an *, and their percent changes are calculated between 2002 and 2012. See Section 3.1 for variable definitions.

Table B2: 4-digit industries with below-average levels of concentration
(Industries at 4-digit level)

NAICS	Industry name	2-digit sector	% Δ in		% Δ in
			CR4	CR8	CR4
(1997-2012)	(1997-2012)				
1. 3334	Ventilation, heating, air-condit, refrigeration mfg	Manufacturing	26.4	38.4	-11.1
2. 3372	Office furniture (including fixtures) manufacturing	Manufacturing	26.4	34.9	-8.0
3. 3362	Motor vehicle body & trailer manufacturing	Manufacturing	26	37.2	16.1
4. 8123	Dry cleaning & laundry services	Other services	26	33.8	92.6
5. 3132	Fabric mills	Manufacturing	25.8	34.8	62.3
6. 6117	Educational support services	Educational services	25.7	33.3	105.6
7. 5612	Facilities support services	Administrative & Support	25.6	38.2	19.6
8. 4483	Jewelry, luggage, & leather goods stores	Retail trade	24.9	30.9	44.8
9. 3212	Veneer, plywood, engineered wood product mfg.	Manufacturing	24.8	36.5	-7.8
10. 4251	Wholesale electronic markets & agents & brokers*	Wholesale trade	24.8	32.1	-8.1
11. 3114	Fruit & vegetable preserving, specialty food mfg.	Manufacturing	24.7	33.7	-7.1
12. 6233	Continuing care & assisted living facilities	Health care & social assistance	24.3	31.6	133.7
13. 3314	Nonferrous metal production & processing	Manufacturing	24.1	35.9	-0.8
14. 3118	Bakeries & tortilla manufacturing	Manufacturing	24.1	35.1	-15.7
15. 3272	Glass & glass product manufacturing	Manufacturing	23.9	40.8	-22.9
16. 5412	Accounting, tax preparation, payroll services	Prof., sci. & technical services	23.6	35.6	18.0
17. 6239	Other residential care facilities	Health care & social assistance	23.5	33.5	1.3
18. 3279	Other nonmetallic mineral product manufacturing	Manufacturing	23.1	34	-30.8
19. 3117	Seafood product preparation & packaging	Manufacturing	22.9	35.9	84.7
20. 4539	Other miscellaneous store retailers	Retail trade	22.9	25.6	112.0
21. 3222	Converted paper product manufacturing	Manufacturing	22.7	33.1	89.2
22. 7114	Agents/managers for artists, athletes, entertainers	Arts, entertainment, recreation	22.3	29	-5.1
23. 3115	Dairy product manufacturing	Manufacturing	22.2	33	34.5
24. 7111	Performing arts companies	Arts, entertainment, recreation	22.1	26.5	160.0
25. 6232	Residential mental health, substance abuse facilities	Health care & social assistance	21.9	25.5	148.9
26. 3332	Industrial machinery manufacturing	Manufacturing	21.6	26.2	60.0
27. 5613	Employment services	Administrative & Support	21.1	27.2	101.0
28. 7213	Rooming & boarding houses	Accommodation, food services	21	28.2	311.8
29. 4236	Household appliances, electronic goods merchants	Wholesale trade	21	27.6	56.7
30. 3344	Semiconductor, other electronic component mfg.	Manufacturing	20.9	30.2	-39.1
31. 6219	Other ambulatory health care services	Health care & social assistance	20.8	29.6	-32.5
32. 3169	Other leather & allied product manufacturing	Manufacturing	20.6	33.1	-22.3
33. 5616	Investigation & security services	Administrative & Support	20.6	28	5.6
34. 4931	Warehousing & storage	Transportation & warehousing	20.5	27.1	69.4
35. 4249	Miscellaneous nondurable goods wholesalers	Wholesale trade	20.3	27.7	37.2
36. 2212	Natural gas distribution	Utilities	20	33.3	-41.3
37. 6242	Community food/housing, emergency relief serv.	Health care & social assistance	19.6	31.2	-14.8
38. 3391	Medical equipment & supplies manufacturing	Manufacturing	19.3	29.3	18.4
39. 3315	Foundries	Manufacturing	19	28.3	41.8
40. 3345	Navigational, electromedical manufacturing	Manufacturing	18.8	31.6	-22.0
41. 4248	Beer, wine, distilled alcoholic beverage merchants	Wholesale trade	18.6	25.9	56.3
42. 4442	Lawn & garden equipment & supplies stores	Retail trade	18.4	21.4	68.8
43. 8122	Death care services	Other services	18.4	20.3	-24.0
44. 2211	Electric power gen, transmission & distribution	Utilities	18.3	31.6	29.5
45. 3271	Clay product & refractory manufacturing	Manufacturing	18.1	30.3	34.1
46. 3312	Steel product manufacturing from purchased steel	Manufacturing	17.7	27.7	6.0
47. 3371	Household, institutional furniture & cabinet mfg.	Manufacturing	17.7	24.9	28.3
48. 8112	Electronic, precision equip. repair & maintenance	Other services	17.7	24.8	46.3
49. 4237	Hardware, plumbing, heating equip., merchants	Wholesale trade	17.5	25	124.4
50. 4241	Paper & paper product merchant wholesalers	Wholesale trade	17.4	26.3	4.2
51. 6115	Technical & trade schools	Educational services	17.4	24.4	-8.4
52. 5418	Advertising, public relations, & related services	Prof., sci., & technical services	17.4	23.1	68.9
53. 4421	Furniture stores	Retail trade	17.3	24.9	86.0
54. 3329	Other fabricated metal product manufacturing	Manufacturing	16.7	27.5	70.4
55. 3273	Cement & concrete product manufacturing	Manufacturing	16.7	22.3	81.5
56. 4872	Scenic & sightseeing transportation, water	Transportation & warehousing	16.4	24.6	-18.0
57. 7211	Traveler accommodation	Accommodation, food services	16.2	24.2	-0.6
58. 3363	Motor vehicle parts manufacturing	Manufacturing	16.1	23.1	-61.3
59. 5182	Data processing, hosting, & related services*	Information	15.9	22.6	-52.8
60. 5615	Travel arrangement & reservation services	Administrative & Support	15.8	24.8	-22.9
61. 5415	Computer systems design & related services	Prof., sci., & technical services	15.6	22	0.6
62. 4889	Other support activities for transportation	Transportation & warehousing	15.3	24.5	-77.4
63. 3231	Printing & related support activities	Manufacturing	15.3	19.3	59.4

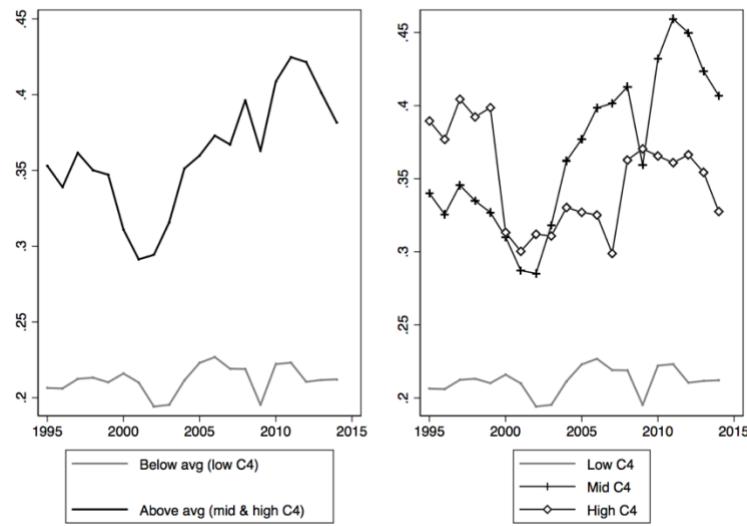
64.	4234	Prof., commercial equip., supplies wholesalers	Wholesale trade	15.2	22.5	5.6	8.2
65.	3149	Other textile product mills	Manufacturing	15	20.8	41.5	21.6
66.	3259	Other chemical product & preparation mfg.	Manufacturing	14.8	22.7	-41.7	-29.3
67.	4235	Metal & mineral (except petroleum) merchants	Wholesale trade	14.7	23	25.6	36.1
68.	4244	Grocery & related product merchant wholesalers	Wholesale trade	14.5	22.9	62.9	50.7
69.	7132	Gambling industries	Arts, entertainment, recreation	14.5	22.8	-8.2	-6.6
70.	4859	Other transit & ground passenger transportation	Transportation & warehousing	14.5	18.2	15.1	6.4
71.	8129	Other personal services	Other services	14.4	21.6	-32.4	-31.2
72.	4855	Charter bus industry	Transportation & warehousing	14.3	18.4	116.7	72.0
73.	3328	Coating, engraving, heat treating, & allied activities	Manufacturing	14.2	23.8	39.2	52.6
74.	4881	Support activities for air transportation	Transportation & warehousing	14.2	23.1	-38.8	-31.3
75.	6231	Nursing care facilities (skilled nursing facilities)	Health care & social assistance	14.2	20	-13.4	-18.4
76.	5111	Newspaper, periodical, book, directory publishers*	Information	14	24.2	2.9	-0.8
77.	3326	Spring & wire product manufacturing	Manufacturing	13.9	19.7	-4.8	-3.4
78.	5416	Management, sci., technical consulting services	Prof., sci., & technical services	13.9	18.4	24.1	18.7
79.	6244	Child day care services	Health care & social assistance	13.9	15.5	-6.7	-15.8
80.	4243	Apparel, piece goods, notions merchants	Wholesale trade	13.6	20	47.8	48.1
81.	4471	Gasoline stations	Retail trade	13.3	21.1	98.5	95.4
82.	3133	Textile & fabric finishing & fabric coating mills	Manufacturing	13.2	20.6	-24.1	-21.7
83.	4232	Furniture & home furnishing merchants	Wholesale trade	13.1	17.5	13.9	7.4
84.	3359	Other electrical equipment & component mfg.	Manufacturing	12.8	22.7	11.3	23.4
85.	3219	Other wood product manufacturing	Manufacturing	12.7	19.4	0.0	4.3
86.	4533	Used merchandise stores	Retail trade	12.7	16.3	32.3	43.0
87.	4246	Chemical & allied products merchant wholesalers	Wholesale trade	12.5	20.4	-6.0	5.2
88.	3321	Forging & stamping	Manufacturing	12.4	18.9	57.0	57.5
89.	4922	Local messengers & local delivery	Transportation & warehousing	12.4	17.4	-14.5	-3.3
90.	4841	General freight trucking	Transportation & warehousing	12.3	19.4	3.4	5.4
91.	4238	Machinery, equipment, & supplies merchants	Wholesale trade	11.9	14.8	50.6	48.0
92.	6216	Home health care services	Health care & social assistance	11.8	18	-31.8	-24.4
93.	4233	Lumber & other construction materials merchants	Wholesale trade	11.7	18.1	0.0	8.4
94.	5417	Scientific research & development services	Prof., sci. & technical services	11.5	18.6	-61.0	-46.4
95.	5629	Remediation & other waste management services	Administrative & Support	11.4	16.4	-58.2	-50.6
96.	3211	Sawmills & wood preservation	Manufacturing	11.3	18.4	-22.1	-8.5
97.	4543	Direct selling establishments	Retail trade	11.2	16.8	20.4	24.4
98.	3152	Cut & sew apparel manufacturing	Manufacturing	11.1	15.9	-45.0	-39.3
99.	4885	Freight transportation arrangement	Transportation & warehousing	11	16.5	71.9	63.4
100.	3333	Commercial & serv industry machinery mfg	Manufacturing	10.9	18.8	-63.9	-47.3
101.	5614	Business support services	Administrative & Support	10.9	17	-26.4	-21.3
102.	8121	Personal care services	Other services	10.9	12.3	39.7	29.5
103.	5413	Architectural, engineering, & related services	Prof., sci. & technical services	10.3	14.8	27.2	22.3
104.	5619	Other support services	Administrative & Support	10.3	13.7	110.2	73.4
105.	4453	Beer, wine, & liquor stores	Retail trade	10.1	15.2	40.3	34.5
106.	4239	Miscellaneous durable goods merchant wholesalers	Wholesale trade	10.1	14.9	-3.8	-5.1
107.	8114	Personal & household goods repair & maintenance	Other services	10.1	11.3	-46.3	-45.1
108.	3399	Other miscellaneous manufacturing	Manufacturing	9.4	14.3	64.9	43.0
109.	7139	Other amusement & recreation industries	Arts, entertainment, recreation	9.2	13.5	10.8	20.5
110.	3339	Other general purpose machinery manufacturing	Manufacturing	8.9	14.6	39.1	28.1
111.	4853	Taxi & limousine service	Transportation & warehousing	8.3	12.2	16.9	1.7
112.	5419	Other professional, scientific, & technical services	Prof., sci. & technical services	8.3	11.8	-31.4	-31.0
113.	3335	Metalworking machinery manufacturing	Manufacturing	8	12.1	9.6	13.1
114.	4884	Support activities for road transportation	Transportation & warehousing	8	11.6	31.1	41.5
115.	7121	Museums, historical sites, & similar institutions	Arts, entertainment, recreation	7.9	12.4	-66.4	-58.9
116.	6116	Other schools & instruction	Educational services	7.9	11.2	3.9	7.7
117.	5617	Services to buildings & dwellings	Administrative & Support	7.6	10.5	-13.6	-20.5
118.	6114	Business schools, computer, management training	Educational services	7.4	10.8	-5.1	-11.5
119.	3261	Plastics product manufacturing	Manufacturing	7.3	12.1	87.2	75.4
120.	4412	Other motor vehicle dealers	Retail trade	6.4	9.5	82.9	82.7
121.	7112	Spectator sports	Arts, entertainment, recreation	6.2	11.4	14.8	18.8
122.	3323	Architectural & structural metals manufacturing	Manufacturing	6	9.2	36.4	24.3
123.	4842	Specialized freight trucking	Transportation & warehousing	6	9.2	-10.4	-6.1
124.	4452	Specialty food stores	Retail trade	5.9	8.6	7.3	0.0
125.	4411	Automobile dealers	Retail trade	5.9	8.6	293.3	309.5
126.	6213	Offices of other health practitioners	Health care & social assistance	5.9	7.2	-10.6	-14.3
127.	7225	Restaurants & other eating places	Accommodation, food services	5.6	8		
128.	7212	RV (recreational vehicle) parks, recreational camps	Accommodation, food services	5.6	8	21.7	19.4
129.	6211	Offices of physicians	Health care & social assistance	5.4	7.2	45.9	60
130.	8113	Commercial & industrial machinery maintenance	Other services	4.9	8.8	-31.9	-11.1
131.	6241	Individual & family services	Health care & social assistance	4	5.8	-34.4	-34.1
132.	5411	Legal services	Prof., sci. & technical services	2.6	4.6	44.4	58.6
133.	5414	Specialized design services	Prof., sci. & technical services	2.5	3.8	4.2	5.6
134.	7224	Drinking places (alcoholic beverages)	Accommodation & food	2.5	3.6	316.7	260
135.	8111	Automotive repair & maintenance	Other services	2.4	3.6	4.3	12.5

136.	3327	Machine shops	Manufacturing	2.3	3.8	-39.5	-29.6
137.	5611	Office administrative services	Administrative & Support	2.1	3.8	-55.3	-38.7
138.	7115	Independent artists, writers, & performers	Arts, entertainment, recreation	2	3.5	-64.3	-53.9
139.	6212	Offices of dentists	Health care & social assistance	2	3.2	185.7	255.6
140.	4531	Florists	Retail trade	1.6	2.5	-30.4	-19.4

Source: Authors' calculations from the Census Bureau.

Notes: The table lists 4-digit industries with below-average levels of concentration, ranked in descending order by CR4 ratio. If two industries have identical CR4 ratios, they are ranked in descending order by CR8 ratio. As described in Section 3.3, concentration is the weighted average across-industry CR4 ratio in 2012, with each industry weighted by total revenue (26.4%). Industries are included in this table if their CR4 ratio in 2012 is less than this across-industry average. In addition to the name of the 4-digit industrial industry, the table lists the corresponding 2-digit sectors, the CR4 ratio, the CR8 ratio, and the percent change in both the CR4 and CR8 ratios between 1997 and 2002. Industries that do not exist in current classification in 1997 are marked with an *, and their percent changes are calculated between 2002 and 2012. See Section 3.1 for variable definitions.

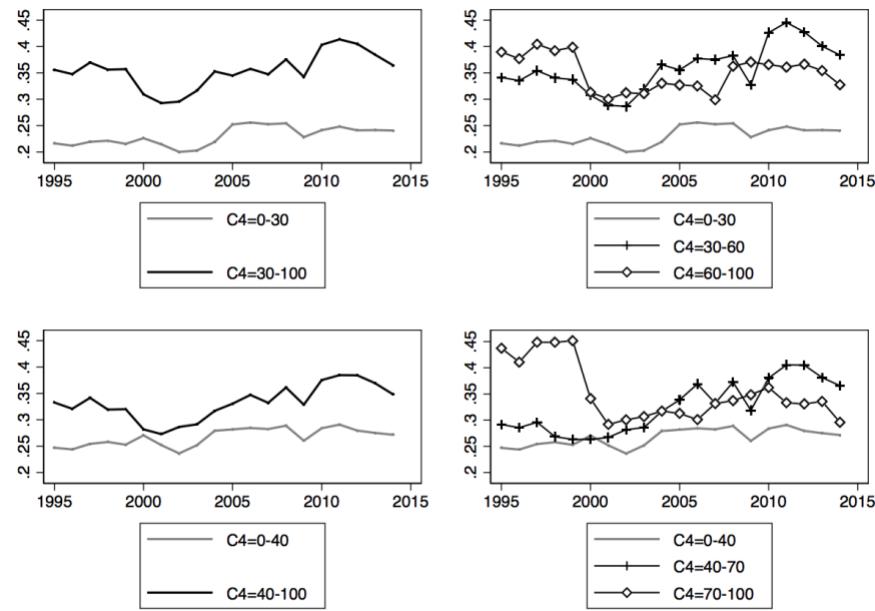
Figure B1: Average profit rate in low, mid and highly concentrated industries
(Industries defined at the 4-digit level)



Source: Authors' calculations from the Census Bureau.

Notes: The figure shows average after-tax profit rates across firms in low-, mid-, and high-concentration industries. The profit rate is operating income before depreciation and after income taxes, relative to fixed capital. Each series is an average, weighted by firm-level capital stock. See Section 3, Appendix Table A1, and the footnotes to Tables B4 and B5 for variable definitions, details describing the sample, and the classification of industry groups.

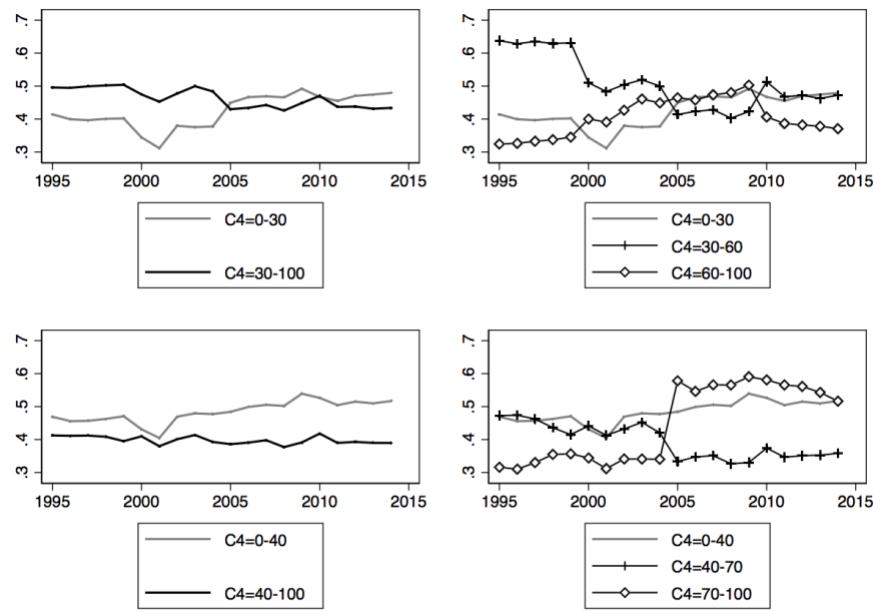
Figure B2: Average profit rate across firms, alternative cutoffs for low, mid, and high concentration groups
(Industries defined at the 4-digit level)



Source: Authors' calculations from the Census Bureau.

Notes: The figure shows average after-tax profit rate across firms in different groupings of low-, mid-, and high-concentration industries. The profit rate is operating income before depreciation and after income taxes, relative to fixed capital. Each series is an average, weighted by firm-level capital stock. See Section 3 and Appendix Table A1 for variable definitions.

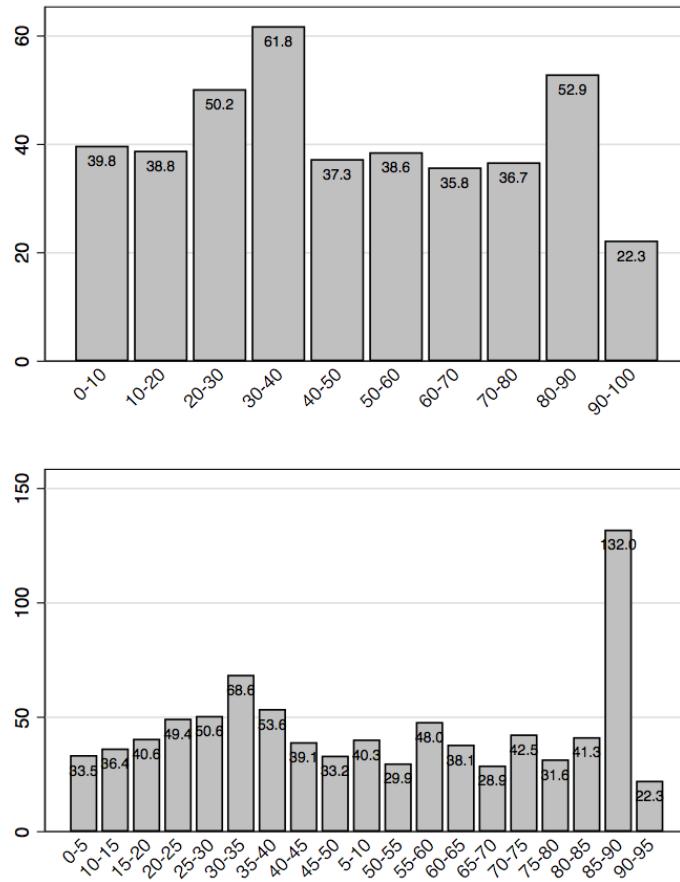
Figure B3: Average markups across firms, for alternative definitions of low, mid, and high concentration groups
(Industries defined at the 4-digit level)



Source: Authors' calculations from Compustat and Census.

Notes: The figure shows average markups across firms in different groupings of low-, mid-, and high-concentration industries. The markup is sales minus the cost of goods sold, relative to the cost of goods sold. Each series is an average, weighted by firms' cost of goods sold. See Section 3 and Appendix Table A1 for variable definitions.

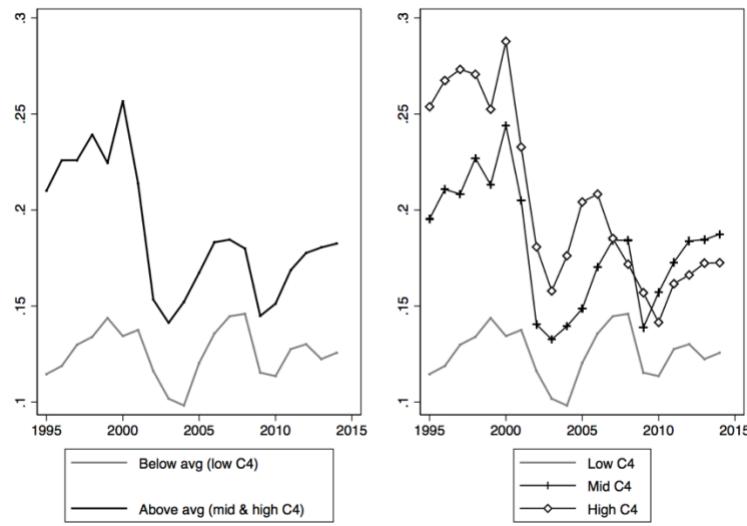
Figure B4: Average markups across firms in deciles of the CR4 ratio
(Industries defined at the 4-digit level)



Source: Authors' calculations from Compustat and Census.

Notes: The figure shows the average markup by five and ten percentage point intervals of CR4. The markup is sales minus the cost of goods sold, relative to the cost of goods sold. Each bar is the average markup across firms in industries with CR4 in that interval, weighted by firms' cost of goods sold. The figure includes all firm-year observations for 1995-2014, with industries classified according to their CR4 in each census year, and CR4 from each census applied to the census year and a +/- 2-year band. See Section 3 and Appendix Table A1 for variable definitions, and details describing the sample.

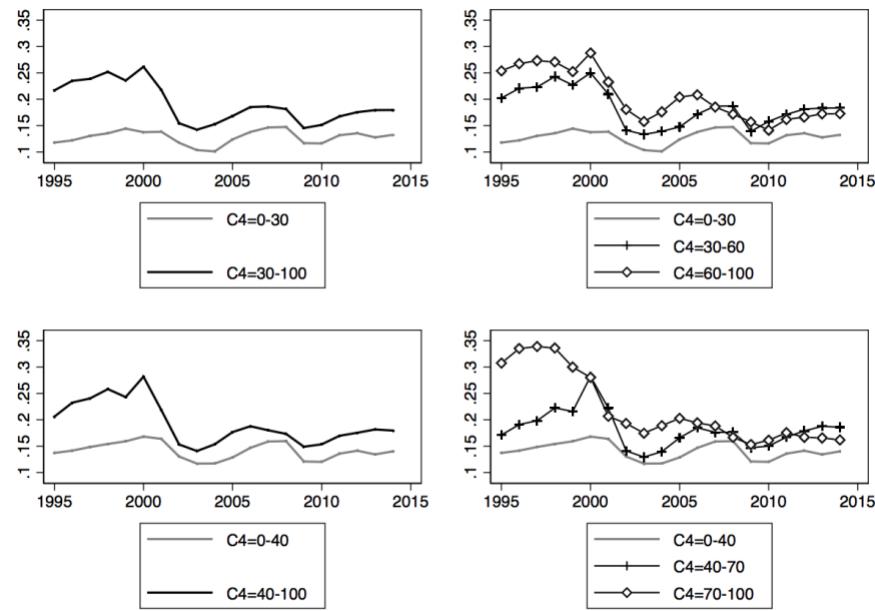
Figure B5: Average investment rates across firms in low, mid, and highly concentrated industries
(Industries defined at the 4-digit level)



Source: Authors' calculations from Compustat and Census.

Notes: The figure shows average investment rates across firms in low-, mid-, and high-concentration industries. The investment rate is capital expenditures relative to lagged capital stock. Each series is an average, weighted by firm-level lagged capital stock. See Section 3, Appendix Table A1, and the footnotes to Tables B4 and B5 for variable definitions, details describing the sample, and the classification of industry groups.

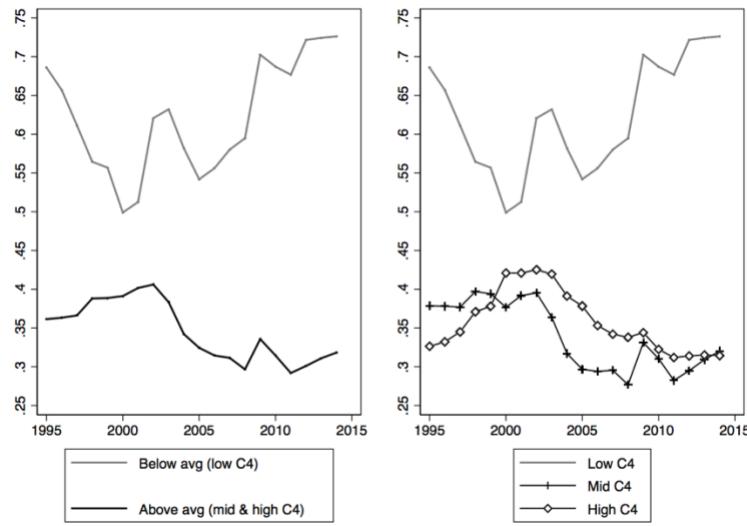
Figure B6: Average investment rates across firms, alternative cutoffs for low, mid, and high concentration groups
(Industries defined at the 4-digit level)



Source: Authors' calculations from Compustat and Census.

Notes: The figure shows average investment rates across firms in different groupings of low-, mid-, and high-concentration industries. The investment rate is capital expenditures relative to lagged capital stock. Each series is an average, weighted by firm-level lagged capital stock. See Section 3 and Appendix Table A1 for variable definitions.

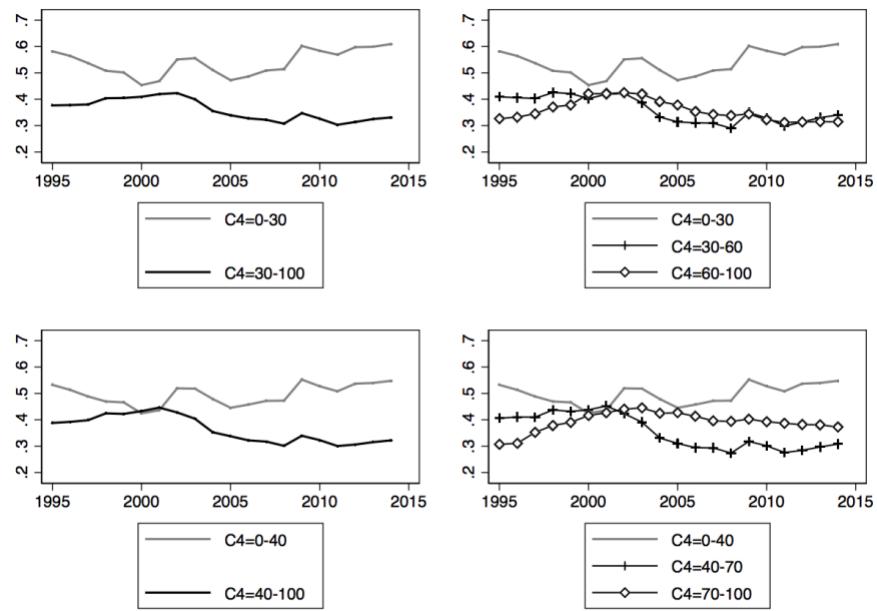
Figure B7: Average capital intensity across firms in low, mid, and highly concentrated industries
(Industries defined at the 4-digit level)



Source: Authors' calculations from Compustat and Census.

Notes: The figure shows average capital intensity across firms in low-, mid-, and high-concentration industries. Capital intensity is capital stock relative to sales. Each series is an average, weighted by firm-level sales. Industries are classified as low-, mid-, or high-concentration based on their 2012 CR4 ratio. See Section 3, Appendix Table A1, and the footnotes to Tables B4 and B5 for variable definitions, details describing the sample, and the classification of industry groups.

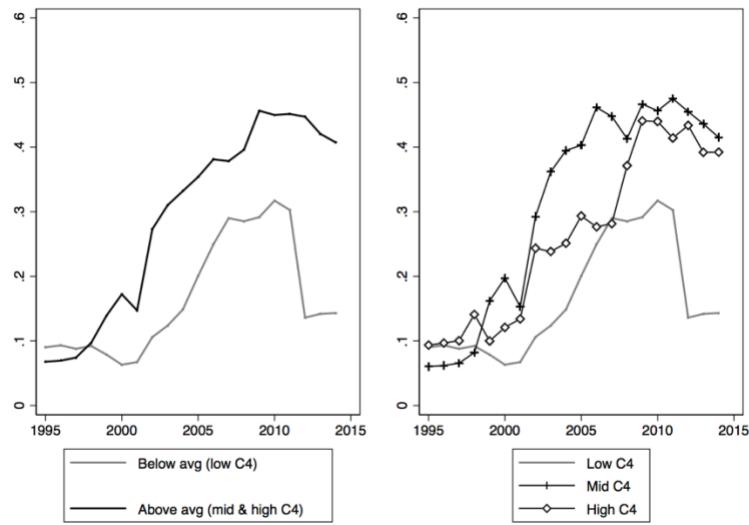
Figure B8: Average capital intensity across firms for alternative definitions of low, mid, and high concentration groups
(Industries defined at the 4-digit level)



Source: Authors' calculations from Compustat and Census.

Notes: The figure shows average capital intensity across firms in different groupings of low-, mid-, and high-concentration industries. Capital intensity is capital stock relative to sales. Each series is an average, weighted by firm-level sales. Industries are classified based on their CR4 2012 ratio. See Section 3 and Appendix Table A1 for variable definitions.

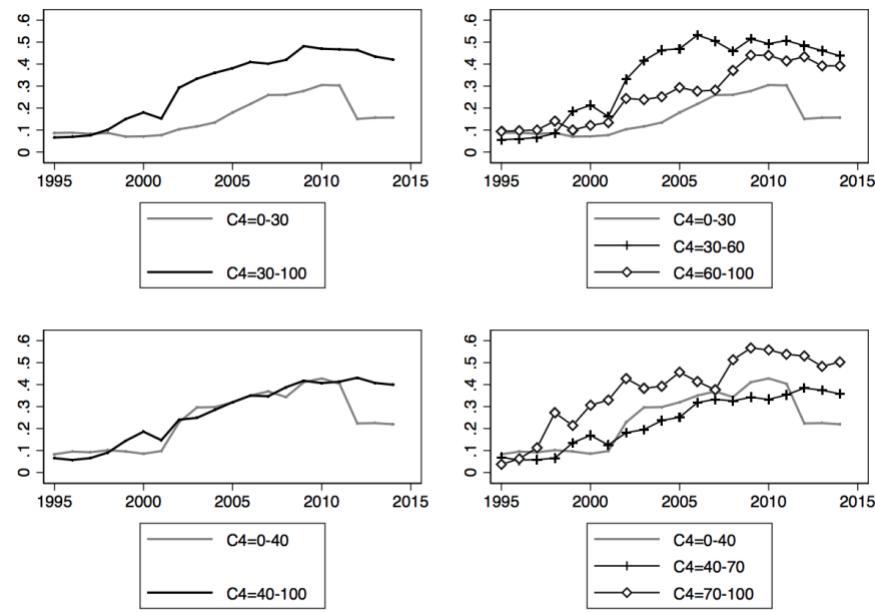
Figure B9: Average intangible intensity in low, mid, and highly concentrated industries
(Industries defined at the 4-digit level)



Source: Authors' calculations from Compustat and Census.

Notes: The figure shows average intangible intensity across firms in low-, mid-, and high-concentration industries. Intangible intensity is intangibles less goodwill relative to capital stock. Each series is an average, weighted by firm-level capital stock. Industries are classified as low-, mid-, or high-concentration based on their 2012 CR4 ratio. See Section 3, Appendix Table A1, and the footnotes to Tables B4 and B5 for variable definitions, details describing the sample, and the classification of industry groups.

Figure B10: Average intangible intensity across firms for alternative definitions of low, mid, and high concentration groups
(Industries defined at the 4-digit level)



Source: Authors' calculations from Compustat and Census.

Notes: The figure shows average intangible intensity across firms in different groupings of low-, mid-, and high-concentration industries. Intangible intensity is intangibles less goodwill, relative to the capital stock. Each series is an average, weighted by firm-level capital stock. Industries are classified based on their 2012 CR4 ratio. See Section 3 and Appendix Table A1 for variable definitions.