Online Appendix to Entrepreneurial Migration, Bryan and Guzman, Review of Economics and Statistics



Figure A1: Utility By Different Industries

Notes: We report the relationship between the estimated utility of all migrant Delaware corporations, and the utility estimates using only Delaware corporations with a name associated to a specific sector. To extract firms associated to specific sectors, we replicate the measures used in Guzman and Stern (2020) who use a different dataset of firms with tagged industries and then look for words in the firm name that are overarchingly associated with each industry. We focus on four broad industry groups: Healthcare, High Tech, IT, and Services.





Notes: This map represents the states whose business registrations are included in our data. Grey states are not included in our data.

Figure A3: Migration Rate by Age



This figure reports the average unconditional probability of moving by age for startups. Most startups move early, but many also do not survive to be considered in the later periods.

Table A1: Estimated	l Utility for Large US	Cities Based on LLCs	(Population over 1 million in 2010).

Log Utility	CBSA	CBSA Name	LLC Moves In	LLC Moves Out	2010 Pop.	LLC Rank	Log Utility LLC
-2.607	27260	Jacksonville, FL	49	19	1,345,596	1	-1.76
-2.793	41740	San Diego-Chula Vista-Carlsbad, CA	217	77	3,095,313	2	-1.817
-2.896	40900	Sacramento-Roseville-Folsom, CA	38	15	$2,\!149,\!127$	3	-1.885
-2.793	45300	Tampa-St. Petersburg-Clearwater, FL	88	42	2,783,243	4	-1.959
-3.28	40140	Riverside-San Bernardino-Ontario, CA	23	10	$4,\!224,\!851$	5	-1.965
-2.639	25540	Hartford-East Hartford-Middletown, CT	29	15	1,212,381	6	-2.012
-3.014	31080	Los Angeles-Long Beach-Anaheim, CA	663	374	$12,\!828,\!837$	7	-2.227
-2.4	12420	Austin-Round Rock-Georgetown, TX	96	74	1,716,289	8	-2.302
-2.384	38060	Phoenix-Mesa-Chandler, AZ	47	32	4,192,887	9	-2.309
-2.612	34980	Nashville-Davidson–Murfreesboro–Franklin, TN	86	61	$1,\!670,\!890$	10	-2.334
-2.552	16980	Chicago-Naperville-Elgin, IL-IN-WI	341	261	9,461,105	11	-2.365
-2.926	33100	Miami-Fort Lauderdale-Pompano Beach, FL	339	239	5,564,635	12	-2.366
-3.216	41860	San Francisco-Oakland-Berkeley, CA	242	154	$4,\!335,\!391$	13	-2.374
-2.739	39580	Raleigh-Cary, NC	33	24	$1,\!130,\!490$	14	-2.383
-3.049	41940	San Jose-Sunnyvale-Santa Clara, CA	53	35	$1,\!836,\!911$	15	-2.392
-2.245	19100	Dallas-Fort Worth-Arlington, TX	324	241	$6,\!426,\!214$	16	-2.404
-2.472	26420	Houston-The Woodlands-Sugar Land, TX	282	184	$5,\!920,\!416$	17	-2.407
-2.587	33460	Minneapolis-St. Paul-Bloomington, MN-WI	82	65	3,348,859	18	-2.437
-3.144	41180	St. Louis, MO-IL	8	9	2,787,701	19	-2.437
-2.947	36740	Orlando-Kissimmee-Sanford, FL	73	58	$2,\!134,\!411$	20	-2.472
-3.275	39300	Providence-Warwick, RI-MA	23	21	$1,\!600,\!852$	21	-2.521
-2.867	32820	Memphis, TN-MS-AR	43	41	$1,\!324,\!829$	22	-2.554
-2.735	40060	Richmond, VA	22	23	$1,\!208,\!101$	23	-2.691
-3.137	14460	Boston-Cambridge-Newton, MA-NH	253	253	$4,\!552,\!402$	24	-2.696
-2.582	41700	San Antonio-New Braunfels, TX	25	20	2,142,508	25	-2.699
-2.708	12060	Atlanta-Sandy Springs-Alpharetta, GA	217	239	$5,\!286,\!728$	26	-2.795
-3.002	26900	Indianapolis-Carmel-Anderson, IN	31	47	1,887,877	27	-2.842
-3.359	47900	Washington-Arlington-Alexandria, DC-VA-MD-WV	140	181	$5,\!636,\!232$	28	-2.878
-2.436	16740	Charlotte-Concord-Gastonia, NC-SC	65	83	2,217,012	29	-2.943
-2.757	19740	Denver-Aurora-Lakewood, CO	114	177	$2,\!543,\!482$	30	-2.966
-3.093	17460	Cleveland-Elyria, OH	39	50	$2,\!077,\!240$	31	-2.972
-2.503	42660	Seattle-Tacoma-Bellevue, WA	43	76	3,439,809	32	-3.13
-2.77	13820	Birmingham-Hoover, AL	36	51	1,128,047	33	-3.131
-3.841	40380	Rochester, NY	2	4	1,079,671	34	-3.136
-2.82	47260	Virginia Beach-Norfolk-Newport News, VA-NC	9	16	1,676,822	35	-3.171
-2.987	17140	Cincinnati, OH-KY-IN	24	43	2,114,580	36	-3.281
-3.248	38900	Portland-Vancouver-Hillsboro, OR-WA	46	100	2,226,009	37	-3.324
-2.991	18140	Columbus, OH	27	42	1,901,974	38	-3.345
-2.898	29820	Las Vegas-Henderson-Paradise, NV	33	78	1,951,269	39	-3.41
-3.462	41620	Salt Lake City, UT	22	47	1,087,873	40	-3.418
-3.236	31140	Louisville/Jefferson County, KY-IN	21	45	1,235,708	41	-3.47
-3.462	35620	New York-Newark-Jersey City, NY-NJ-PA	263	731	19,567,410	42	-3.557
-3.051	28140	Kansas City, MO-KS	18	36	2,009,342	43	-3.614
-3.656	15380	Buffalo-Cheektowaga, NY	1	4	1,135,509	44	-3.755
-3.559	35380	New Orleans-Metairie, LA	14	66	1,189,866	45	-3.941

Table A2: Estimated Utility. Full List.

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Log Utility	Rank	CBSA	CBSA Name	Moves In	Moves Out	2010 Pop.	LLC Rank	Log Utility LLC
-1.065	1	37900	Peoria, IL	12	2	$379,\!186$	NA	
-1.33	2	13980	Blacksburg-Christiansburg, VA	7	1	$178,\!237$	NA	
-1.444	3	13140	Beaumont-Port Arthur, TX	5	1	403,190	NA	
-1.546	4	39460	Punta Gorda, FL	4	1	159,978	NA	
-1.605	5 6	4/380	Waco, TX Burlington NC	4	1	252,772	NA	
-1.703	0 7	15500 21780	Evansville IN KV	15 19	4	101,101 311,559	IN A. 199	5.063
-1.807	8	40220	Roanoke, VA	8	3	308.707	NA	-0.000
-2.045	9	15940	Canton-Massillon, OH	7	3	404,422	NA	
-2.14	10	44420	Staunton, VA	2	2	118,502	NA	
-2.144	11	25860	Hickory-Lenoir-Morganton, NC	7	3	365, 497	NA	
-2.153	12	27740	Johnson City, TN	6	2	198,716	NA	
-2.172	13	49180	Winston-Salem, NC	12	6	$640,\!595$	108	-3.693
-2.175	14	24540	Greeley, CO	4	2	252,825	NA	0.00
-2.2	15	15260	Brunswick, GA	4	ļ	112,370	29	-2.33
-2.21	10	34940	Tueson AZ	11	0 6	321,320	20 N A	-2.304
-2.221 -2.241	18	20020	Dothan AL	15	3	145639	NA	
-2.245	19	19100	Dallas-Fort Worth-Arlington, TX	453	215	6.426.214	39	-2.404
-2.322	$\overline{20}$	48620	Wichita, KS	19	10	630,919	23	-2.299
-2.349	21	33740	Monroe, LA	5	3	176,441	96	-3.438
-2.353	22	23540	Gainesville, FL	9	4	$264,\!275$	52	-2.614
-2.384	23	38060	Phoenix-Mesa-Chandler, AZ	94	53	$4,\!192,\!887$	27	-2.309
-2.4	24	12420	Austin-Round Rock-Georgetown, TX	166	88	1,716,289	24	-2.302
-2.403	25	42340	Savannah, GA Dongo oolo, Formy, Dogo Bront, FI	10	6	347,611	86	-3.297
-2.41 2 411	$\frac{20}{27}$	10300	Daphne Fairhone Foley AL	ມ ຊ	0 9	440,991 182.265	N A	-1.000
-2.411	28	16740	Charlotte-Concord-Gastonia NC-SC	108	63	$2\ 217\ 012$	69	-2943
-2.441	20	19340	Davenport-Moline-Bock Island, IA-IL	100	3	379.690	NA	210 10
-2.46	30	45820	Topeka, KS	8	4	233,870	12	-1.981
-2.472	31	26420	Houston-The Woodlands-Sugar Land, TX	376	205	$5,\!920,\!416$	40	-2.407
-2.476	32	42100	Santa Cruz-Watsonville, CA	9	6	$262,\!382$	NA	
-2.483	33	15980	Cape Coral-Fort Myers, FL	21	12	$618,\!754$	17	-2.224
-2.503	34	42660	Seattle-Tacoma-Bellevue, WA	145	86	3,439,809	76	-3.13
-2.542	35	33860	Montgomery, AL	12	8	374,536	53	-2.65
-2.552	30 27	16980	Chicago-Naperville-Elgin, 1L-1N-WI	471	311	9,461,105	34 N A	-2.365
-2.000	38 38	$31340 \\ 41700$	San Antonio New Braunfels TX	4	ა 96	252,054 2142.508	N A 56	2 600
-2.582	39	33660	Mobile AL	40	20 6	412,992	114	-3.844
-2.587	40	33460	Minneapolis-St. Paul-Bloomington, MN-WI	90	59	3.348.859	41	-2.437
-2.607	41	27260	Jacksonville, FL	48	35	1,345,596	4	-1.76
-2.612	42	34980	Nashville-Davidson–Murfreesboro–Franklin, TN	96	72	$1,\!670,\!890$	30	-2.334
-2.62	43	12700	Barnstable Town, MA	11	9	$215,\!888$	123	-5.063
-2.639	44	35980	Norwich-New London, CT	6	4	$274,\!055$	NA	
-2.639	45	25540	Hartford-East Hartford-Middletown, CT	89	63	1,212,381	15	-2.012
-2.644	46	18880	Crestview-Fort Walton Beach-Destin, FL	5	3	235,865	26	-2.307
-2.644	41	27620	Athens Clarks County, CA	4	4	149,807	13 N A	-1.983
-2.040	40 40	36100	Athens-Charke County, GA	3 3	1	192,041 331.008	N A N A	
-2.702	50	41100	St. George, UT	3	2	138.115	NA	
-2.708	51	12060	Atlanta-Sandy Springs-Alpharetta, GA	363	$28\bar{6}$	5,286,728	62	-2.795
-2.72	52	44700	Stockton, CA	3	3	685,306	NA	
-2.735	53	40060	Richmond, VA	26	19	$1,\!208,\!101$	54	-2.691
-2.739	54	39580	Raleigh-Cary, NC	98	77	$1,\!130,\!490$	37	-2.383
-2.746	55	42200	Santa Maria-Santa Barbara, CA	11	12	423,895	20	-2.265
-2.753	50 57	10420	Akron, OH Denven Aurore Lekewood, CO	22	101	703,200	61 70	-2.791
-2.101	58	19740	Bridgeport Stamford Norwalk, CT	∠37 949	191	2,343,462	10	-2.900
-2.765	59	40420	Bockford II.	242	4	$349\ 431$	N A	-2.01
-2.766	60	10720 10740	Albuquerque, NM	51	42	887,077	110	-3.715
-2.77	61	13820	Birmingham-Hoover, AL	51	42	1,128,047	77	-3.131
-2.778	62	18580	Corpus Christi, TX	3	2	$428,\!185$	NA	
-2.793	63	45300	Tampa-St. Petersburg-Clearwater, FL	95	78	2,783,243	10	-1.959
-2.793	64	41740	San Diego-Chula Vista-Carlsbad, CA	153	134	$3,\!095,\!313$	6	-1.817
-2.804	65	22180	Fayetteville, NC	4	3	366,383	NA	0.044
-2.804	60 67	$21340 \\ 47960$	El Paso, TA Virginia Boach Norfolk Newport News, VA NC	6 10	4	804,123	31	-2.344
-2.02	68	22660	Fort Collins, CO	19	10	299.630	63	-3.171 2.814
-2.85	69	44060	Spokane-Spokane Valley, WA	4	2	527,050	57	-2.746
-2.866	70	43780	South Bend-Mishawaka, IN-MI	5	4	319.224	58	-2.749
-2.867	71	32820	Memphis, TN-MS-AR	35	35	1,324,829	50	-2.554
-2.869	72	34900	Napa, CÁ	7	8	$136,\!484$	1	-1.549
-2.87	73	24660	Greensboro-High Point, NC	26	22	$723,\!801$	73	-3.07
-2.873	74	12540	Bakersfield, CA	4	3	$839,\!631$	NA	
-2.875	75	31420	Macon-Bibb County, GA	2	3	232,293	NA	
-2.891	76	21140	Elkhart-Goshen, IN	5	6	197,559	NA	1 007
-2.890 ୨.୧୦୧	((78	40900 20820	Sacramento-noseville-roisoin, CA Las Vegas-Henderson Paradise NV	32 69	28 56	2,149,127 1 051 260	9 QD	-1.880 2.41
-2.090	70 79	25820 35840	North Port-Sarasota-Bradenton FL	02 28	50 20	1,351,209 702 981	92 16	-2.145
-2.917	80	40580	Rocky Mount, NC	23	4	152,392	ŇĂ	211 10
-2.917	81	29740	Las Čruces, NM	4	4	209,233	NA	
-2.921	82	44140	Springfield, MA	11	11	$621,\!570$	22	-2.296
-2.926	83	33100	Miami-Fort Lauderdale-Pompano Beach, FL	349	314	$5,\!564,\!635$	35	-2.366
-2.936	84	20500	Durham-Chapel Hill, NC	55	52	$504,\!357$	49	-2.55
-2.947	85	36740	Orlando-Kissimmee-Sanford, FL	75	68	$2,\!134,\!411$	43	-2.472

-2.949	86	35300	New Haven-Milford, CT	37	33	862,477	59	-2.776
-2.957	87	45780	Toledo, OH	12	9	610.001	91	-3.377
2.001	88	14500	Boulder CO	80	70	204 567	60	2 7 8 5
2.50	80	45000	Tallahaggaa EI	6	6	254,007	10	-2.100
-2.913	89	45220		0	0	0 11 4 5 00	19	-2.201
-2.987	90	17140	Cincinnati, OH-KY-IN	52	55	2,114,580	85	-3.281
-2.988	91	37460	Panama City, FL	2	2	184,715	NA	
-2.99	92	16860	Chattanooga, TN-GA	14	14	528.143	95	-3.418
-2 991	93	18140	Columbus OH	52	49	1 901 974	88	-3 345
2.001	55	10140		02	-10	1,007,074	64	-0.040
-3.002	94	26900	Indianapolis-Carmel-Anderson, IN	47	49	1,887,877	64	-2.842
-3.01	95	38340	Pittsfield, MA	2	3	$131,\!219$	7	-1.847
-3.014	96	31080	Los Angeles-Long Beach-Anaheim, CA	507	544	12.828.837	18	-2.227
3 0 2 5	07	31700	Manchostor Nashua NH	30	21	400 721	100	3 7
-0.020	00	410.40		012	0.00	100,721	105	-0.1
-3.049	98	41940	San Jose-Sunnyvale-Santa Clara, CA	213	238	1,836,911	38	-2.392
-3.051	99	28140	Kansas City, MO-KS	74	78	2,009,342	104	-3.614
-3.074	100	14740	Bremerton-Silverdale-Port Orchard, WA	3	3	251,133	NA	
-3.074	101	28940	Knoxville TN	17	20	837571	33	-2.365
2 0 8 4	101	40660	Voungsteurn Wennen Deendman, OH DA	1	20	565 772	105	2.000
-3.084	102	49660	Youngstown-warren-Boardman, OH-PA	4	4	202,773	105	-3.000
-3.086	103	28700	Kingsport-Bristol, TN-VA	3	4	$309,\!544$	NA	
-3.093	104	17460	Cleveland-Elyria, OH	45	52	2,077,240	71	-2.972
-3.12	105	30340	Lewiston-Auburn, ME	3	3	107.702	NA	
3 1 2 5	106	38860	Portland South Portland ME	กกั	25	514.008	74	3 0 8 4
-3.120	100	14460	Politiand-South Folitiand, ME	407	Z.J	1559,409	14	-3.064
-3.137	107	14460	Boston-Cambridge-Newton, MA-NH	487	548	4,552,402	55	-2.696
-3.141	108	29180	Lafayette, LA	10	18	466,750	107	-3.69
-3.144	109	41180	St. Louis, MO-IL	80	90	2.787.701	42	-2.437
3 1 5 5	110	13780	Binghamton NV	0	ັ້	251 725	N A	2.101
-3.100	110	13780	Can'a ne ald II	2	2	201,720	IN ZA	
-3.173	111	44100	Springneid, IL	3	3	210,170	ΝA	
-3.203	112	29460	Lakeland-Winter Haven, FL	5	5	$602,\!095$	66	-2.902
-3.212	113	19430	Davton-Kettering, OH	9	15	799.232	113	-3.769
3 9 1 9	114	30000	Beno NV	17	10	425 417	100	3 504
2 2 1 6	115	41960	Con Francisco Ochland Dorholov, CA	226	422	4 225 201	26	-0.004
-0.210	110	41000	San Francisco-Oakialid-Derkeley, CA	330	433	4,000,091	30	-2.374
-3.228	116	41500	Salinas, CA	4	8	$415,\!057$	NA	
-3.236	117	31140	Louisville/Jefferson County, KY-IN	43	58	1.235.708	98	-3.47
-3 243	118	19660	Deltona-Davtona Beach-Ormond Beach, FL	10	10	590 289	21	-2 272
2 0 40	110	22000	Dertland Venserwen Hillshans, OD WA	100	194	0.00,200	21	-2.212
-3.248	119	38900	Portland-vancouver-Hillsboro, OR-WA	100	134	2,226,009	87	-3.324
-3.253	120	25060	Gulfport-Biloxi, MS	7	11	$370,\!702$	84	-3.232
-3.264	121	49340	Worcester, MA-CT	23	28	916.980	32	-2.359
3 274	122	16820	Charlottesville VA	-3		218 705	103	3.61
9.075	122	10020		10	1 4	1 600 050	100	-0.01
-3.273	123	39300	Providence-warwick, RI-MA	12	14	1,600,852	47	-2.321
-3.28	124	40140	Riverside-San Bernardino-Ontario, CA	27	38	$4,\!224,\!851$	11	-1.965
-3.294	125	14540	Bowling Green, KY	3	6	158,599	72	-3.007
-3 333	126	26380	Houma-Thibodaux LA	2	3	208'178	124	-5.063
0.000	107	27100	Ownerd Thousand Oaks Verture CA	19	10	200,110	20	0.000
-3.330	127	57100	Oxnard-Thousand Oaks-ventura, CA	15	19	023,310	00	-2.955
-3.357	128	11700	Asheville, NC	7	10	$424,\!858$	28	-2.313
-3.359	129	47900	Washington-Arlington-Alexandria, DC-VA-MD-WV	257	362	5,636,232	65	-2.878
-3.364	130	31740	Manhattan KS	2	4	92 719	NA	
2 27	191	496.80	Schootion Voya Doach EI	2		120,000	2	1 6 9 9
-3.37	151	42080	Sebastian-vero Beach, FL	3	5	130,020	3	-1.022
-3.428	132	46520	Urban Honolulu, HI	16	26	$953,\!207$	111	-3.751
-3.431	133	17980	Columbus, GA-AL	2	3	$294,\!865$	125	-5.063
-3.462	134	35620	New York-Newark-Jersey City, NY-NJ-PA	615	1038	19.567.410	101	-3.557
2 469	125	41620	Salt Lake City, UT	50	79	1 097 979	04	2 419
-3.402	130	41020	San Lake City, UI	52	12	1,007,073	94	-3,418
-3.478	136	13460	Bend, OR	5	8	157,733	106	-3.668
-3.481	137	24420	Grants Pass, OR	2	3	82,713	NA	
-3.512	138	17820	Colorado Springs, CO	16	27	645.613	121	-4.644
2 5 2 6	120	10460	Deestur AI	-0	2.	152 820	NA	1.0 1 1
-3.520	139	19400	Decatur, AL	2	J ()	100,029	IN A	0.0.11
-3.559	140	35380	New Orleans-Metairie, LA	35	63	1,189,866	117	-3.941
-3.623	141	21660	Eugene-Springfield, OR	7	10	351,715	81	-3.213
-3.624	142	27140	Jackson, MS	13	28	567.122	102	-3.601
3 6 3 1	1/13	14020	Bloomington IN	3	3	159 549	NΔ	
-0.001	140	14020		J 0	J	109,049		
-3.032	144	20080	Huntington-Ashland, WV-KY-OH	2	4	304,908	NA	
-3.639	145	45060	Syracuse, NY	2	3	$662,\!577$	NA	
-3.642	146	26620	Huntsville, AL	9	19	417,593	97	-3.462
-3.652	147	14260	Boise City, ID	18	33	616.561	46	-2.51
3 6 5 6	1.4.8	15380	Buffalo Chooktowaga NV	11	10	1 135 500	119	3 755
9.000	140	10000	Con Luis Obieno Dore Debler CA	11	13	1,100,000	114	-0.100
- 3.039	149	42020	San Luis Obispo-Paso Robles, CA	3	Э	209,031	2	-1.556
-3.665	150	37340	Palm Bay-Melbourne-Titusville, FL	10	15	$543,\!376$	48	-2.524
-3.669	151	44180	Springfield, MO	4	5	436.712	NA	
-3.732	159	39340	Provo-Orem. UT	22	43	526 810	93	-3 416
9 767	150	90700	Modford OP	22	-10	000,010	NT A	0.410
-3.707	153	32780	Mediora, OR	ა	4	203,200	NA	
-3.781	154	12260	Augusta-Richmond County, GA-SC	2	4	$564,\!873$	NA	
-3.799	155	16580	Champaign-Urbana, IL	3	9	231.891	NA	
3 8 / 1	156	40380	Bochester NV	5	11	1 079 671	78	3 1 3 6
0.041	150	20000	Millord TV	0	11	141 001	100	-0.100
-3.843	157	33260	Midland, TX	2	3	141,671	126	-5.063
-3.856	158	17660	Coeur d'Alene, ID	2	6	$138,\!494$	5	-1.816
-3.902	159	12940	Baton Rouge, LA	9	25	802.484	120	-4.34
-3 905	160	36260	Ogden-Clearfield UT	5	11	597 150	44	_9 /0
0.000	100	00200	Homogo gao Chringe DI	0	11	141 000	'I'I NT A	-2.43
-3.938	101	20140	nomosassa Springs, FL	2	2	141,236	IN A	-
-3.941	162	41420	Salem, OR	2	5	390,738	82	-3.215
-3.947	163	23060	Fort Wayne, IN	2	8	416,257	83	-3.225
-4.037	16^{-1}	48900	Wilmington NC	3	- 7	254 884	QQ	_3 /08
4 10	107	10500	Albany Schonostady Troy NV	0		270 710	115	9.50
4.12	105	10980	Albany-Scheneciauy- 1roy, NY	ð	29	010,110	110	-3.80
-4.149	166	29940	Lawrence, KS	1	4	$110,\!826$	NA	
-4.203	167	12620	Bangor, ME	1	3	153,923	NA	
-4216	168	42220	Santa Rosa-Petaluma, CA	3	19	483 878	45	-2 501
1 2 1 0	160	30460	Lovington Fountto VV	10	14 94	479.000	10	2.001
-4.220	109	30400	Dealington-Fayette, NI	10	34	412,099	90	-3.372
-4.228	170	23580	Gamesville, GA	1	4	$179,\!684$	ΝA	
-4.297	171	38940	Port St. Lucie, FL	3	13	424,107	67	-2.926
-4.359	172	15540	Burlington-South Burlington, VT	12	48	211.261	79	_3 155
1 1 27	179	17860	Columbia MO	±2 1	-10 E	169 6 49	N Å	0,100
-4.40/	113	1/000		1	5	102,042	IN PA	
-4.522	174	29200	Larayette-West Larayette, IN	1	5	201,789	ΝA	

-4.696	175	25620	Hattiesburg, MS	1	4	$142,\!842$	118	-4.083
-4.796	176	11260	Anchorage, AK	2	8	$380,\!821$	75	-3.088
-4.837	177	43340	Shreveport-Bossier City, LA	2	8	439,811	119	-4.116
-4.983	178	22140	Farmington, NM	1	4	$130,\!044$	NA	
-5.017	179	12100	Atlantic City-Hammonton, NJ	1	8	$274,\!549$	51	-2.575
-5.16	180	33700	Modesto, CA	1	6	$514,\!453$	NA	
-5.373	181	10540	Albany-Lebanon, OR	0	6	$116,\!672$	NA	
-5.373	182	23420	Fresno, CA	0	5	$930,\!450$	89	-3.357
-5.373	183	27060	Ithaca, NY	0	7	$101,\!564$	NA	
-5.373	184	27980	Kahului-Wailuku-Lahaina, HI	1	6	154,924	116	-3.891
-5.373	185	46220	Tuscaloosa, AL	0	4	$230,\!162$	NA	

Table A3: Number of new Delaware corporations and LLCs (firm births) by city.

4 840 1.836.011 Star DoceSturp vels-Starma Chen, CA 8.986 4.187 4.897 2.2784 4180 31.8429 Star Francisco-Daland Berlady, CA 10.331 16.771 3.24344 3.2434 3.243	CBSA	2010 Pop.	CBSA Name	Corporations	LLCs	Corps / Pop	LLCs / Pop
1480 915.429 Telefiguor. Samford: Novalk. C1 3.541 6.428 4.2384 <td>41940</td> <td>$1,\!836,\!911$</td> <td>San Jose-Sunnyvale-Santa Clara, CA</td> <td>8,996</td> <td>4,187</td> <td>4.8974</td> <td>2.2794</td>	41940	$1,\!836,\!911$	San Jose-Sunnyvale-Santa Clara, CA	8,996	4,187	4.8974	2.2794
1000 1.292.07 CALL Property of All Property Column Pr	14860	916,829	Bridgeport-Stamford-Norwalk, CT	3,854	6,428	4.2036	7.0111
1449 4,552,402 Descon-Cambridge Nervin, MANIII 12.683 15.721 2.7841 3.6264 31000 11,454 Dar Angele Log, Reach Anishim, CA 2.0842 1.3620 1.4263 3.846 31000 11,284,857 Mana Complet Log, Reach Anishim, CA 2.0842 1.4261 3.846 31000 11,284,857 Mana Complet Log, Reach Anishim, CA 2.0842 5.443 1.5483 2.2383 31248 1.716,289 Manine Round Rock Corgetosa, TX 2.238 5.431 1.2484 9.0964 15540 2.112,61 Burdings on Sorth Barill group, VV 7.20 1.43 1.2484 9.0766 12541 1.1261 Burdings on Sorth Barill group, VV 2.2 1.43 1.444 1.845 1.2484 1.8457 1.2484 1.4449 1.6459 1.2484 1.4449 1.6458 1.2484 1.6459 1.2484 1.6459 1.2484 1.6459 1.2484 1.4449 1.6458 1.2484 1.6459 1.2685 1.2484 1.6459 1.2685 1.2484 <t< td=""><td>$\frac{41860}{14500}$</td><td>4,335,391 294 567</td><td>San Francisco-Oakiand-Berkeley, CA Boulder CO</td><td>10,580</td><td>$18,748 \\ 685$</td><td>3.8243 3.7445</td><td>4.3244 2 3254</td></t<>	$\frac{41860}{14500}$	4,335,391 294 567	San Francisco-Oakiand-Berkeley, CA Boulder CO	10,580	$18,748 \\ 685$	3.8243 3.7445	4.3244 2 3254
20180 304,357 Darkster, Chappilli, NC 1.183 387 2.1828 1.3281 13180 12.263 1.1824 1.3281 1.3281 1.3281 1.3281 13180 12.264 1.718 Main son Dirgo, Chila Visia, Carisban, CA 4.734 8.445 1.5487 2.5381 1320 1.71629 Auscin Kound Rad, Carisban, CA 1.70 3.01 1.2863 2.2757 15340 2.412 Burlington-Attiggton-At	14460	4,552,402	Boston-Cambridge-Newton, MA-NH	12,685	15,571	2.7864	3.4204
31980 1282.83.81 Los Angetes-Lag Boand-Antonin, C.A. 20,422 13.389 1.02.80 3.381 10.626 3.381 11100 30.693.13 Minui-Round Rock-Gorgetorn, TX 2.330 3.431 1.337 1.646 5.2783 12120 Vesington-Attington-Mondial, DC V-MADDWY 7.00 5.278 1.349 0.846 55540 1.120.460 Raley, Carry, NC 1.120 8.41 1.2402 0.6766 5540 2.12.91 Burlington-South Burlington, VT 128 1.13 1.147 1.867 1.1474 1.867 1.1474 1.867 12000 2.15.88 Damery Americal Environ, CA 2.00 1 8.16 1.0143 1.0262 12100 2.21.843 Hertorock-King Hourn, CA 2.20 1 1.0104 0.607 12100 2.23.81 Hertorock-King Hourn, CA 2.20 1.114 0.6067 12100 2.23.81 Hertorock-King Hourn, CT 2.25 8.62 0.8061 0.626 12100 2.20.81 Hourocoro	20500	504,357	Durham-Chapel Hill, NC	1,055	587	2.0918	1.1639
1749 3.203.313 xmain Begwellnak Yang-Carlibad C.A. 7.733 8.443 1.3487 1.6901 17420 1.714.20 Anasik Round Rock-Corgroup, TX 2.300 3.441 1.3487 1.6901 17420 1.714.20 Anasik Round Rock-Corgroup, TX 2.300 3.441 1.3487 1.6901 17560 2.114.41 Barnington Korth Berlington, VT 202 1.44 1.2429 0.7402 17561 2.434.42 Dorote-Auron-Lakowod, CO 2.711 3.478 1.0491 1.9891 17700 2.543.42 Dorote-Auron-Lakowod, CO 2.711 3.478 1.0491 1.9891 1.9891 25541 1.712.341 Hardrone Tay Markane, NA 206 1.11 0.9101 0.423 31700 400.771 Markane Yon Markan, NA 206 1.613 0.9004 0.433 31700 400.771 Markane Yon Markan, NA 206 1.614 0.9014 0.432 31700 400.771 Markane Yon Markan, NA 1.628 1.6141 0.9014	31080	12,828,837	Los Angeles-Long Beach-Anaheim, CA Miami Fort Lauderdala Bempana Beach, FL	20,842	43,382	1.6246 1.5505	3.3816
12420 1.715.249 Assinction-Rington Cocceptione, TX 2.340 3.431 1.347 1.939 3400 1.334.43 Kupa, CA 1.77 400 1.249.2 1.349 3400 1.344 Rapa, CA 1.77 400 1.249.2 1.349 0.336.4 3400 1.341 Parting ros onth. Barling row, VT 2.22 1.14 1.417 1.856 3474 2.434.842 Desave Aurors Lakowo, CO 2.11 3.478 1.447 1.848 1.349 32540 1.212.81 Hardord East Hardord Michael Super Law, TX 2.22 8.46 1.010.4 8.48 1.848 1.849 32540 1.212.81 Hardord East Hardord Super Law, Ku, MI, MI, Super Law, MI, MI, Super	41740	3,095,313	San Diego-Chula Vista-Carlsbad, CA	4,793	$^{12,503}_{8,445}$	1.5395 1.5485	2.2409 2.7283
47360 5.535,232 Vashington Arlington Alexandria, DC VA MD WV 7.403 5.278 1.349 2.3817 15310 21.201 Burlington South Burlington, VT 202 1.43 1.2429 2.3817 15310 21.201 Burlington South Burlington, VT 202 1.43 1.2429 2.3817 16420 2.532,532 Santa Miris Fana Barbara, CA 4.00 8.16 1.633 1.6351 16710 2.533,542 Deurer-Aurora-Lakwood, CO 2.711 3.478 1.6639 1.3453 16710 2.534,542 Deurer-Aurora-Lakwood, CO 2.711 3.478 1.6639 1.3453 16210 2.52,517 Manclester Naskaa, NH 3.66 1.6387 0.4673 17100 4.06,721 Manclester Naskaa, NH 3.66 1.6387 0.4637 17100 4.06,721 Manclester Naskaa, NH 3.65 1.638 0.8687 0.4323 17100 4.213,411 Orlentok Kissermees Naskaaa, NH 3.66 0.6338 0.6456 0.6233 181	12420	1,716,289	Austin-Round Rock-Georgetown, TX	2,380	3,431	1.3867	1.9991
33388 1.162.463 Rates, Paper App, Col. 1.60 4.52 2.548 2.441 15540 1.21.261 Burlingroom, VT. 562 1.43 1.2462 0.6766 42580 154.028 Sebastian, Vero Beach, FL. 1.35 1.50 1.1477 1.0653 42500 422.885 Barto Manta, Vero Beach, FL. 1.35 1.3471 1.0654 42510 1.21.281 Hentroor Easthan Markesson, CO. 2.21 8.45 1.0104 0.057 42100 26.382 Stata Craze-Weissonrille, CA. 200 1.11 0.0499 0.423 5100 6.723.47 Manchester Naina, NII 305 6.3 0.6855 1.440 5100 6.72.47 Manchester Naina, NII 50.712 1.0478 0.8883 1.6904 5100 6.72.31 Dalas-Fort Worth Arlington, TX 5,712 1.0478 0.8811 0.5034 5100 6.72.31 Noth Fort-Earsander, HL 1.041 2.477 Noth Fort-Earsander, HL 1.041 1.473 1.4479 </td <td>47900</td> <td>$5,\!636,\!232$</td> <td>Washington-Arlington-Alexandria, DC-VA-MD-WV</td> <td>7,603</td> <td>5,278</td> <td>1.349</td> <td>0.9364</td>	47900	$5,\!636,\!232$	Washington-Arlington-Alexandria, DC-VA-MD-WV	7,603	5,278	1.349	0.9364
1554 21:241 Burlington Starth Borlington, YT 262 143 1:2402 0.1792 19780 23:63:482 Denver, Auroro, Lakewond, CO 2,711 3,478 1.0465 1.3447 19780 23:63:482 Denver, Auroro, Lakewond, CO 2,711 3,478 1.0459 1.3935 2100 23:63:482 Sana Artin, Watsonin, C.T. 1.225 845 1.0104 0.0597 2100 20:342 Sana Criz, Watsonin, R.C.T. 1.225 845 1.0104 0.0587 2100 400:721 Manchester, Neshas, MI 305 163 0.04857 0.04857 2120 5.201:16 Hontor, The Worlhack Singer, T.T. 5.368 6.398 0.04857 0.49805 0.3016 1910 6.422:14 Dallas, Fort Worlh, Arington, T.Y. 5.712 10.878 0.8887 1.3417 1910 6.422:14 Dallas, Fort Worlh, Arington, T.Y. 7.400 1.4237 0.7124 0.8868 0.1213 14580 7.1221 1.8749 0.8806 0.3014	$34900 \\ 39580$	136,484 1 1 30 4 90	Napa, CA Baleigh-Cary, NC	177 1 420	$400 \\ 852$	1.2969 1.2561	2.9307 0.7537
-12680 135,028 Sebastian-Vero Biach, FL 158 150 1.1477 1.4678 12740 2.45,452 Douver-Aarora-Lavourd, CO 2.711 3.478 1.0639 1.3374 12010 122,854 Santa Maris Santa Karbara, CA 4.60 8.60 1.0384 1.3374 12010 222,342 Hartford Santa Karbara, Maris Santa Craw Watsonville, CA 300 1.11 0.0399 0.4055 12010 5.292,4116 Houtton-The Woollande Sugar Land, TX 5.398 8.298 0.3932 0.0393 <	15540	211,261	Burlington-South Burlington, VT	262	143	1.2402	0.6769
19700 2,343,422 Deriver-Autoroa Lalorwood, CO 2,711 3,478 1,0633 1,3955 12501 4220 4236 4204 4236 4246 1,304 1,3955 12510 12,12,381 Hartford-East Hartfood Middlerown, CT 1,223 845 1,1014 0,5957 12100 20,2382 Santa Cruz Wiscowills, CA 260 1,11 0,0939 0,423 12100 420,721 Matchester-Nashas, MI 305 1,538 8,228 0,4435 1,416 12100 5,285,728 Atlanta-Sandy Springer-Mikaretta, CA 4,328 0,3431 0,5211 0,5211 0,5211 0,528 1,4393 1,4923 13100 2,134,411 Delater Ser Wissinger, TN 5,712 19,473 0,838 1,4923 13100 2,134,411 Delater Ser Wissinger, TN 1,1070 1,10 0,413 0,473 13100 1,2173 Karter Ser Wissinger, TN 1,1070 1,10 0,413 0,473 13100 2,2170 Natheeee	42680	$138,\!028$	Sebastian-Vero Beach, FL	158	150	1.1447	1.0867
12700 215,848 Cons. B. Barnachie Teorn, MA 1275 634 1.105 1.307 25340 1.2125 8.45 1.0104 0.057 42100 202,482 Bartford-East, Hardford-Kallekow, CT 1.225 8.45 1.0104 0.057 42100 202,482 Honton The Wondhod Sugar Land, TX 3.98 8.238 0.0483 1.400 5300 5.92,477 Matachsiert-Nathor, Karimer, Statt, Lard, TA 3.78 8.238 0.0435 1.400 19100 6.428,214 Dallas-Fort Work-Ardington, TX 5.712 10.847 0.8484 0.9486 0.8829 1.6966 19100 6.428,214 Dallas-Fort Work-Ardington, TK 5.712 10.847 0.8466 0.9213 30340 526,810 Orth-Ardington, TL, TM 7.400 14.257 0.7321 1.3073 30400 221,520 Naples Marro Island, FL 2.64 0.60 0.7344 0.0232 3040 322,521 Tampets Levercharg, Granwart, FL 2.04 0.0374 0.0338 0	19740	2,543,482	Denver-Aurora-Lakewood, CO Santa Maria Santa Barbara, CA	2,711	3,478	1.0659	1.3674
25540 1,212,381 Harfnod East Harfnod Kiedlesowille, CA 260 1.11 0.39657 0.4068 2100 202,382 Santa Cruz Wang Land, TX 660 1.11 0.39657 0.4068 2101 6,204,105 Honston-The Woollande's Supra Manceta, CT 7.6 5.39 0.39657 0.4068 2101 5,429,477 Allatta's Sandy Swings Alghaneta, CT 7.67 1.5 0.3965 0.4068 21010 5,429,477 Allatta's Sandy Swings Alghaneta, CT 7.72 1.0878 0.48985 1.606 25440 2,134,411 Orlando-Kissimmee-Sanford, FL 1.841 2.868 0.4827 1.3437 3100 Chicago-Naperrille Fight, TL, NW 1.010 647 0.8840 0.8311 1.0306 31440 321,220 Naples Marce Island, FL 2.154 3.60 0.7311 1.556 31440 2,754,243 Tampic-St. Petenoburg-Charwattor, FL 2.044 2.604 0.7314 0.3352 31580 6,3575 Sata Ross-Petaluma, CA 326 0.6665	$\frac{42200}{12700}$	215.888	Barnstable Town, MA	220	294	1.038 1.019	1.3618
42100 202.382 Santa Cray Watsonville, CA 206 111 0.909 0.423 26120 5.023.010 Honstorn-The Woodlande'sigar Land, TX 5.398 8.209 0.9455 1.4016 26120 5.023.010 Honstorn-The Woodlande'sigar Land, TX 5.398 8.209 0.9455 1.4016 26100 6.433.214 Dallae-Fort Work-Ariington, TX 5.712 0.878 0.8889 1.6023 26100 6.433.214 Dallae-Fort Work-Ariington, TX 5.712 0.878 0.8886 0.69213 26100 6.432.141 Orlande-Kissimmess Saniford, FL 1.844 2.868 0.8827 1.3431 0.7333 26301 1.312.19 Chicage-Napeurille MAA 101 1.479 0.7631 0.7344 26302 1.9567.410 New York-Newark-Jersey City, XY-N-PA 1.378 1.4470 0.7321 0.7344 26304 9.1253.43 Tampes-Tese City, XY-N-PA 1.3788 1.4370 0.6036 0.6335 26420 1.9567.41.0 New York-Newark-Lersey City, XY-N-PA	25540	$1,\!212,\!381$	Hartford-East Hartford-Middletown, CT	1,225	845	1.0104	0.697
31/10 400,721 Houston: The Mathematical Andr. XX 978 163 0.9857 0.4086 31/30 822,477 Atlata-Sandy New Haven Milford, CT 758 5.398 0.8415 0.8405 31/30 822,477 Atlata-Sandy New Haven Milford, CT 758 5.498 0.8485 0.8498 0.6405 35740 2,134,411 Orlando-Kissimme-Sanford, FL 1.844 2.8666 0.9213 31120 L.87,673 Salt Lake City, UT 964 947 0.831 0.8705 311219 L.87,673 Salt Lake City, UT 964 947 0.831 0.8471 31340 131219 Chicago-Naperille Bign, LL/NVIT 7.40 141,257 0.721 1.2524 31400 2.763,243 Tampa-St. Petersburg-Clearwater, FL 2.044 2.604 0.7711 0.3322 31406 472,090 Lexington-Fayette, KY 326 300 0.6305 0.6335 3140 6.480 Worcester, MA-CT 1.41 333 0.6696 0.6335 <t< td=""><td>42100</td><td>262,382</td><td>Santa Cruz-Watsonville, CA</td><td>260</td><td>111</td><td>0.9909</td><td>0.423</td></t<>	42100	262,382	Santa Cruz-Watsonville, CA	260	111	0.9909	0.423
12000 5.286,729 Atlanta-Sandy Springs-Alpharetta, QA 4.428 5.139 0.9321 0.9321 05400 6.246,714 Dallas-Fort, Worth-Arilngton, TX 5.718 0.439 0.8489 1.6022 05740 2.134,411 Orland-Kissimmee-Sanford, FL 1.834 2.668 0.8271 0.4323 05410 2.134,411 Orland-Kissimmee-Sanford, FL 1.844 2.668 0.8271 0.4331 0.8371 0.831 0.8371 0.831 0.8371 0.831 0.8371 0.831 0.8371 0.831 0.8371 0.831 0.8371 0.8371 0.7321 0.7321 0.7321 0.7321 0.7321 0.7321 0.7321 0.7321 0.7321 0.7324 0.7344 0.8331 0.7321 0.7324 0.7344 0.8366 0.6364 0.7221 0.7324 0.7344 0.8349 0.7231 0.7344 0.8349 0.6364 0.6257 0.2374 05400 1.355.940 Maxar Case-Carl-Drive Myers, FL 0.734 0.8349 0.6484 0.8424 0.8	$31700 \\ 26420$	400,721 5 9 20 4 16	Manchester-Nashua, NH Houston The Woodlands Sugar Land TX	395 5 598	163	0.9857 0.9455	0.4068 1.4016
35300 862,477 New Haven-Miford, CT 768 430 0.8015 0.502 36740 2,134,411 Orlando-Kissimme-Sailford, FL 1.844 2,868 0.8827 1.337 36740 712,281 North Port Sarasala Bradenion, FL 1.844 2,868 0.8827 1.337 31500 1.667,873 Sail Lake City, UT 901 9.47 0.836 0.3213 31500 1.667,873 Sail Lake City, UT 901 9.47 0.7831 0.6752 31500 526,810 Provo-Orem, UT 402 4.06 0.7721 1.2628 45500 2,783,243 Tampa-St. Peteroburg-Cleavater, H. 1 2,044 2,603 0.7344 0.338 45200 1.67541 New Yark-Nersey Cleavater, K. 2425 300 0.6345 0.6345 4540 916,930 Worceater, M. ACT 14 453 0.6666 0.6252 4141 70 Darasity, N. N. P. 4 305 0.1678 0.6346 0.6273 35262 14,5733	120420	5,286,728	Atlanta-Sandy Springs-Alpharetta, GA	4,928	5,139	0.9433 0.9321	0.9721
19100 6,426,214 Dallas-For Worth-Arlingtun, TX 5,712 10,874 0,8887 1,3437 3546 7,12,281 North Part-Sarason-Bradenion, PL 010 647 0,8886 0,221 3548 710,281 North Part-Sarason-Bradenion, PL 010 647 0,8886 0,221 3549 9,461,105 Chicago Naperville Elgin, IL, NWI 7,400 14,257 0,7721 1,509 39400 52,6810 Prove-Orem, UT 425 406 0,7722 1,0352 35420 19,587,410 New York-Newark-Jersey City, NYN-PA 13,735 1,373 0,6335 0,6335 0,6335 0,6344 0,6353 40460 472,109 New York-Newark-Jersey City, NYN-PA 13,735 1,435 0,6396 0,6733 127200 1,435,594 Cape C tackoaville, FL 360 0,6396 0,6733 12820 1,215,594 Cape C tackoaville, FL 361 0,6396 0,6733 12820 1,215,594 Cape C tackoaville, FL 361 0,6396 0	35300	862,477	New Haven-Milford, CT	768	439	0.8905	0.509
a6 (a) 2.134 atti Ornaho Rissimine Antonio, F. L. 1.84 2.868 0.882 (a) 1.347 35400 T. 2283 North Prof. Sarassin Pratemion, F. D. 101 6.17 0.868 (b) 1.2213 48340 1.31219 Firsfield, MA 107 13 0.8154 1.4599 5180 9.461,105 Chicago-Naperville, Figin, Lin, NW, 177 1.402 3.6 0.7521 1.5099 53400 2.753,243 Tampa-St. Petersburg, Clearwater, FE 2.444 2.663 0.7744 0.8354 53520 15.67(10 New York-Neark-Jersey Clearwater, FE 2.454 2.663 0.6696 0.63813 63400 427,199 Lexington-Faythe, KY 326 300 0.6696 0.63813 63740 1.345,566 Cape Coark-Park Myrs, FL 305 568 0.6484 0.831 63810 1.245,751 Cape Coark-Park Myrs, FL 305 5688 0.6484 0.831 7100 8.3376 Palm Bay, Mebourne Turnsville, FL 306 0.6178 0.6178	19100	6,426,214	Dallas-Fort Worth-Arlington, TX	5,712	10,878	0.8889	1.6928
11201.047.8731.0440.040.9470.8310.84510.845118340131.219Pitsfield, MA1071430.84541.4708193805.68.10Chicago Napeville Elgin, IL N. WI7.40014.250.67211.50934440321.520Naples-Marco Island, FL2.454060.7621.26283550015.567.410New York-Newark-Jersey City, NY N-PA13.7781.4370.77210.7344360015.567.410New York-Newark-Jersey City, NY N-PA13.7781.4370.70210.73443750013.5556Lexingtor Fayette, NY8253000.06900.63554726013.45566Lexingtor Fayette, NY8263000.06900.635547270013.45566Lackorville, FL801930.64860.622637340543.376Palm Bay-Melbourne-Titusville, FL3002.770.62570.508838201.226.477Birmingham-Hover, AL4984.6984.6980.50336.56223840424.107Charlette-Gonoord Gasotak, NC-SC1.4684.6900.50460.7294310082.0310Nashville-Davidsonak, NC-SC1.4684.654.65263840424.107Charlette-Gonoord Gasotak, NC-SC1.4684.650.50630.5046311012.55.708Lowiwile-Davidsonak, NC-SC1.4684.650.50730.504631202.236.009Portland-Vancouver-Hillsboro, OR-WA <td< td=""><td>$36740 \\ 35840$</td><td>2,134,411 702.281</td><td>North Port-Sarasota-Bradenton FL</td><td>1,884 610</td><td>2,808 647</td><td>0.8827</td><td>1.3437</td></td<>	$36740 \\ 35840$	2,134,411 702.281	North Port-Sarasota-Bradenton FL	1,884 610	2,808 647	0.8827	1.3437
38340 131,219 Pittsfield, MA 107 193 0.8164 1.4709 16800 9,461,105 Chicago-Naperville Eight, IL-1WW 7,400 14,257 0.7821 1.5069 39340 526,810 Naplee Marco Island, FL 245 406 0.7782 1.2628 45500 2,783,243 Tampa-St, Pettersburg-Clarwater, FL 2,044 2,603 0.7344 0.3352 36500 472,080 New York Nawat-L Greey City, NY, N-1A 13,734 14,370 0.6069 0.6334 37200 1,445,580 Jacksonville, FL 861 933 0.6069 0.733 37400 543,376 Palm Bay-Melbourne-Thussville, FL 306 0.6384 0.6232 37400 543,376 Palm Bay-Melbourne-Thussville, FL 308 425 0.6178 0.6398 38404 424,107 Charlott-Concord-Gastonia, NC-SC 1.388 4.30 0.617 1.0991 37400 543,376 Palm Bay-Melbourne-Thussville, PL 226 259 0.6178 0.6179 <	41620	1,087,873	Salt Lake City, UT	904	947	0.831	0.8705
16180 9,461,115 Chriago-Aperville / Egin, 1L/N-WI 7,400 1427 0.7821 1.308 31940 520,810 Provo-Orem, 1U 402 376 0.7631 1.07137 31440 321,320 Naples Marco Island, PL 245 406 0.7722 1.2023 3160 27,832,33 New York-NewarL-Jersey City, NY-N-PA 1.538 1.406 0.7344 0.7334 31700 1.945,59 New York-NewarL-Jersey City, NY-N-PA 1.538 1.60 0.7334 0.7334 0.7334 0.7334 0.7334 0.7334 0.7334 0.7334 0.7334 0.7334 0.7334 0.7334 0.7333 0.7334 0.7333 0.7334 0.6351 0.6351 0.6351 0.6353 0.6354 0.6426 0.6354 0.6426 0.6354 0.6426 0.6354 0.6426 0.6436 0.6226 0.6636 0.6353 0.7433 Hardson Andread An	38340	$131,\!219$	Pittsfield, MA	107	193	0.8154	1.4708
	16980	9,461,105	Chicago-Naperville-Elgin, IL-IN-WI Brove Orem UT	7,400	14,257	0.7821	1.5069 0.7127
	39340 34940	320,810 321.520	Naples Marco Island, FL	$\frac{402}{245}$	406	0.762	1.2628
35620 19,667,410 New York-Newark-Jersey City, NY-NJ-PA 13,738 14,370 0.7921 0.7344 49340 916,980 Worcester, MA CT 614 533 0.6696 0.5813 27260 1,345,596 Jacksonville, FL 816 993 0.6339 0.7343 2220 483,878 Santa Roa-Petaluma, CA 308 425 0.6366 0.6373 2220 483,876 Palm Bay-Mellopurne.Titusville, PL 265 260 0.6346 0.6226 37340 543,376 Palm Bay-Mellopurne.Titusville, FL 306 27 0.6088 38420 1,22,107 Charlotte Concord Gastonia, NC SC 1.368 2,430 0.617 1.0961 37100 823,318 Onder Thousand Oaks-Ventur, CA, 486 461 0.5003 0.5393 314800 1,670,890 Nashville-Davidson-Murfresebore-Franklin, TN 968 1,675 0.5173 0.5142 0.6464 31400 1,557 Louisville/Jefferson Coauny, rV+N 670 75 0.522 0.6168 31400 1,557 Louisville/Jefferson Coauny	45300	2,783,243	Tampa-St. Petersburg-Clearwater, FL	2,044	$2,\!603$	0.7344	0.9352
	35620	19,567,410	New York-Newark-Jersey City, NY-NJ-PA	13,738	14,370	0.7021	0.7344
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	30460	472,099	Lexington-Fayette, KY Worcostor, MA CT	326 614	300 533	0.6905	0.6355 0.5813
1588 $618,754$ Cape Coral-Fort Myers, FL3955080.63840.82326220417,593Hantsville, AL2652600.63460.622837340543,376Palm Bay-Melourne Titswille, FL3402770.62570.5098382001,128,047Birmingham-Hoover, AL6981.8980.61881.88238400424,107Port SL, Laric, FL2622290.61780.6107167402,217,012Charlotte-Concord-Gastonia, NC-SC1.3682,4300.6171.0991349801,670,890Nashville-Davidson-Murfreesboro-Pranklin, TN9681,5750.57930.9426341801,670,890Nashville-Davidson-Murfreesboro-Pranklin, TN9681,5750.54670.9599341801,235,708Louiville/Jefferson Conury, KY:IN6707950.54220.6444389002,226,009Portland-Vancouver Hilbsboro, OR-WA1,2021,3830.540.6373325402,64,275Gainesville, FL1421340.53730.5472126603,439,869Scattle-Tacoma Bellevue, WA1,311,2250.53210.46412100274,549Atlantic City-Hamomoton, NJ1451690.52810.615642940203,00Karsa City, MO-KS1.0665350.53210.47412100274,549Atlantic City-Hamomoton, NJ1451690.52810.61564294002149,127Sacramento-Roseville Folsom,	27260	1.345.596	Jacksonville, FL	861	993	0.6399	0.5813 0.738
42220 483.878 Santa Rosa-Petaluma, CA 308 425 0.6365 0.8783 26620 417.593 Huntsville, AL 265 260 0.6346 0.6326 37340 543.376 Palm Bay-Melbourne. Tku cylle, FL 340 277 0.6257 0.6036 38490 1428.047 Port St. Lucie, FL 262 259 0.6178 0.618 16740 2217.012 Charlotte-Concord Gastonia, NC-SC 1.368 2.430 0.617 1.0961 37100 823.318 Oxnard-Thousand Oaks-Ventura, CA 486 461 0.5903 0.5469 41500 415.057 Saimas, CA 227 299 0.5469 0.2424 41500 415.057 Saimas, CA 227 299 0.5467 0.0423 38900 2.260.009 Portland-Vancouver Hilbborg, OR-WA 1.202 1.38 0.54 0.6213 17460 2.0472.40 Cleveland-Elyrin, OH 1.11 1.25 0.5321 0.466 18140 1.901.974 <td>15980</td> <td>618,754</td> <td>Cape Coral-Fort Myers, FL</td> <td>395</td> <td>508</td> <td>0.6384</td> <td>0.821</td>	15980	618,754	Cape Coral-Fort Myers, FL	395	508	0.6384	0.821
	42220	483,878	Santa Rosa-Petaluma, CA	308	425	0.6365	0.8783
138201.128.047Lam. Birmingham. Hoover, AL6981.8980.61881.682538940424.107Port St. Lorie, FL2622590.61780.610737100823.318Oxnard-Thousand Oaks-Ventura, CA4864610.50030.5599349801.670.890Nashville-Davidson-Murfeesbore-Franklin, TN9681.5750.57930.942641500415.037Abbujeeque, NM485850.54670.942610740887.077Abbujeeque, NM485850.54670.9958311401.235.708Louisville/Jefferson Cointy, KY-IN6707950.54220.6434389002.226.009Portland-Vancover Hillsboro, OR-WA1.2021.3830.5440.6213274602.077.240Cleveland-Elyria, OH1.1111.2570.53480.6051124603.439.809Scattle-Tacoma-Bellevue, WA1.8311.2850.53210.464281402.009.342Kansas City, MO-KS1.0615510.53220.27441040703.200Karon, OH3742110.53190.301012100274.549Atlantic City-Hammonton, NJ1451690.52110.6322218.705Charden-Coseville, Foisom, CA1.1331.4450.65270.457317820645.613Cloirado Spring, CO3312080.51270.322224660723.801Greensbore-Hilgh Point, NC36632.0,05770.4587 <trr><</trr>	20020	417,593 543,376	Palm Bay-Melbourne-Titusville, AL	200 340	$\frac{260}{277}$	0.0340 0.6257	0.6226 0.5098
38940 424,107 Port St. Lucie, FL 262 259 0.6178 0.6107 16740 2217.012 Charlotte-Concord-Gastonia, NC-SC 1,368 2,430 0.617 1.0961 37100 823.318 Oxnard-Thousand Oaks-Ventura, CA 486 461 0.5903 0.5469 41500 1.67.890 Nashville-Davidson-Murfreesboro-Franklin, TN 968 1.575 0.5469 0.7204 10740 887,077 Albuquerque, NM 485 85 0.5467 0.0958 31140 1,235,708 Louisville/Jefferson Contry, KY-IN 670 795 0.5422 0.6434 32540 264,275 Gainesville, FL 142 134 0.5373 0.507 17460 2,077,240 Cleveland-Elyria, OH 1,111 1,285 0.5323 0.373 18140 1,901,974 Columbus, OH 1,142 875 0.5321 0.466 12100 274,549 Atlantic City-Hamonton, NJ 145 169 0.5221 0.6724 1410	13820	1,128,047	Birmingham-Hoover, AL	698	1,898	0.6188	1.6826
16740 2,217,012 Charlotte Concord-Gastonia, NC-SC 1,368 2,30 0,617 1,1991 37100 823,318 Oxnard-Thousand Oaks-Ventura, CA 486 461 0.5073 0.9426 41500 415,057 Salinas, CA 227 299 0.5469 0.7204 10740 887,077 Albuquerque, NM 485 85 0.5467 0.0958 31140 1.235,708 Louisville/Jefferson County, KY-IN 670 795 0.5422 0.6443 32540 2.64.275 Gainesville, FL 142 1.34 0.537 0.5321 0.671 12660 3.439.890 Secattle-Tacoma-Bellevue, WA 1.831 1.285 0.5321 0.374 10420 703,200 Atlantic Cliy-Hammonton, NJ 151 169 0.5221 0.672 11210 274,549 Atlantic Cliy-Hammonton, NJ 145 169 0.5221 0.672 12100 274,549 Atlantic Cliy-Hammonton, NJ 35 0.5221 0.672 1240	38940	424,107	Port St. Lucie, FL	262	259	0.6178	0.6107
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$16740 \\ 37100$	2,217,012 823,318	Charlotte-Concord-Gastonia, NC-SC Oxnard-Thousand Oaks-Ventura, CA	1,368 486	$2,430 \\ 461$	0.617 0.5903	1.0961 0.5599
4150415.00415.057Salinas, CA2272990.54690.720410740887.077Alboquerque, NM485850.544670.0958311401.235.708Louisville/Jefferson County, KY-IN6707950.54220.6434389002.226,009Portland-Vancouver Hillsboro, OR-WA1.2021.3830.540.6213325402.64.275Calinesville, FL1421340.53730.507174602.077.240Cleveland-Elyria, OH1.1111.2570.53480.6621181401.901.974Columbus, OH1.0128750.53210.46281402.009.342Kansas City, MO. KS1.0695510.5320.274210420703.200Atlantic City-Hammonton, NJ1451690.52810.6156109002.149.127Sacramento-Roseville Folsom, CA1.1331.4450.52720.672421401.97.559Elkhart-Goshen, IN103570.52140.282517820645.613Colorado Springs, CO3312080.51570.322224660723.801Greensboro-High Point, NC3663320.50570.4587174102.114.580Cincinnati, OH-KY-IN1.0368630.48990.4081174402.114.580Portland-South Portland, ME2492980.44810.577174102.14.580Norwich-New London, CT131860.4770.564115500	34980	1,670,890	Nashville-Davidson-Murfreesboro-Franklin, TN	968	1,575	0.5793	0.9426
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	41500	415,057	Salinas, CA	227	299	0.5469	0.7204
38900 2.226,009 Portland-Varouver-Hillsboro, OR-WA 1,202 1,383 0.54 0.6213 23540 264,275 Gainesville, FL 142 134 0.5373 0.561 17460 2,077,240 Cleveland-Elyria, OH 1,111 1,225 0.5323 0.3736 18140 1,901,974 Cleveland-Elyria, OH 1,813 1,225 0.5323 0.3736 18140 1,901,974 Columbus, OH 1,012 875 0.5321 0.46 28140 2,009,342 Kansas City, MO-KS 1,069 551 0.532 0.2742 10420 703,200 Atlantic City-Hammonton, J 145 169 0.5281 0.6186 40900 2,149,127 Sacramento-Roseville-Folsom, CA 1,133 1,445 0.5272 0.6724 12100 273,801 Greensboro-High Point, NC 366 332 0.5057 0.4585 17820 645,613 Colorado Springs, CO 331 208 0.4484 1.0791 17140 2,1	$10740 \\ 31140$	887,077 1 235 708	Albuquerque, NM Louisville/lefferson County, KY-IN	485 670	85 795	$0.5467 \\ 0.5422$	0.0958 0.6434
23540264,275Gainesville, FL142134 0.5373 0.507 174602,077,240Cleveland-Elyria, OH1,1111,257 0.5348 0.6051 181401,901,974Columbus, OH1,012 875 0.5323 0.3736 181401,901,974Columbus, OH1,012 875 0.5321 0.46 281402,009,342Kansa City, MO-KS1,069 551 0.532 0.2742 12100274,549Atlantic City-Hammonton, NJ145169 0.5281 0.6156 409002,149,127Sacramento-Roseville-Folsom, CA1,133 $1,445$ 0.5272 0.6724 2140197,559Calcado Spring, CO331208 0.5127 0.3222 24660733,801Greensboro-High Point, NC366332 0.5057 0.4587 17820645,613Colorado Spring, CO331208 0.4984 1.0791 171402,114,580Cincinnati, OH-KY-IN 109 236 0.4984 0.4081 38860514,098Portland-South Portland, ME249298 0.4843 0.577 41440621,570Springfield, MA299300 0.481 0.4826 35980274,055Norwich-New London, CT13186 0.478 0.3138 19660590,289Deltona-Daytona Beach-Ormond Beach, FL282 333 0.4777 0.5614 15500151,131Burlington, NC7123 0.4695 <t< td=""><td>38900</td><td>2,226,009</td><td>Portland-Vancouver-Hillsboro, OR-WA</td><td>1,202</td><td>1,383</td><td>0.54</td><td>0.6213</td></t<>	38900	2,226,009	Portland-Vancouver-Hillsboro, OR-WA	1,202	1,383	0.54	0.6213
$\begin{array}{cccc} 1 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	23540	264,275	Gainesville, FL	142	134	0.5373	0.507
12100 1,201,974 Columbus, OH 1,012 375 0.5321 0.46 28140 2,009,342 Kansas City, MO-KS 1,069 551 0.532 0.274 10420 703,200 Akron, OH 374 211 0.531 0.635 12100 274,549 Atlantic City-Hammonton, NJ 145 169 0.5281 0.6156 40900 2,149,127 Sacramento-Roseville-Folsom, CA 1,133 1,445 0.5272 0.6724 218400 197,559 Elkhart-Goshen, IN 103 57 0.5214 0.2885 17820 645,613 Greensboro-High Point, NC 366 332 0.5057 0.4587 16820 218,705 Charlottesville, VA 109 236 0.4984 1.0791 17140 2,114,580 Cincinnati, OH-KY-IN 1,036 863 0.4899 0.4081 18860 514,098 Portland-South Portland, ME 249 298 0.4843 0.5797 44140 621,570 Norwich	$17460 \\ 42660$	2,077,240 3,439,809	Cleveland-Elyria, OH Seattle-Tacoma-Bellevue, WA	$1,111 \\ 1,831$	1,257 1,285	$0.5348 \\ 0.5323$	0.6051 0.3736
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	18140	1,901,974	Columbus, OH	1,012	875	0.5321	0.46
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	28140	$2,\!009,\!342$	Kansas City, MO-KS	1,069	551	0.532	0.2742
12100 $2143,49$ Attalute City Frammonton, NJ1491090.32810.613040900 $2149,127$ Sacramento-Roseville-Folsom, CA1,1331,4450.52720.672421140197,559Elkhart-Goshen, IN103570.52140.288517820645,613Colorado Springs, CO3312080.51270.322224660723,801Greensboro-High Point, NC3663320.50570.458718820218,705Charlottesville, VA1092360.49841.079117140 $2,114,580$ Cincinati, OH-KY-IN1,0368630.48990.408138860514,098Portland-South Portland, ME2492980.48430.579741140621,570Springfield, MA2993000.4810.482635980274,055Norwich-New London, CT131860.4780.313819660590,289Deltona-Daytona Beach-Ormond Beach, FL2823330.47770.564115580231,891Champaign-Urbana, IL109650.4780.31523260141,671Midland, TX662250.46591.588242020269,637San Luis Obispo-Paso Robles, CA1242220.45990.823318880235,865Crestview-Fort Walton Beach-Destin, FL1071590.43560.67411480278,701St. Louis, MO-IL1,2422390.44550.085714800<	10420	703,200	Akron, OH Atlantia City Hammantan, NH	374	211	0.5319	0.3001
21140197,559Elkhart-Goshen, IN103570.52140.288517820645,613Colorado Springs, CO3312080.51270.322224660723,801Greensboro-High Point, NC3663320.50570.458716820218,705Charlottesville, VA1092360.49841.0791171402,114,580Cincinnati, OH-KY-IN1,0368630.48990.408118860514,098Portland-South Portland, ME2492980.48430.579744140621,570Springfield, MA2993000.4810.48263980274,055Norwich-New London, CT131860.4780.313819660590,289Deltona-Daytona Beach-Ormond Beach, FL2823330.47770.564116580231,891Champaign-Urbana, IL109650.46880.152233260141,671Midland, TX662250.466591.588234200269,637San Luis Obispo-Paso Robles, CA1242220.45990.82331880235,865Crestview-Fort Walton Beach-Destin, FL1071590.45360.674114540158,599Bowling Green, KY71820.44470.51744200616,561Boise City, ID2562780.41520.4599353801,189,866New Orleans.Metairie, LA4934010.41430.33714260616,561Boise City, I	40900	2,14,549 2.149.127	Sacramento-Roseville-Folsom, CA	$140 \\ 1.133$	1.445	0.5281 0.5272	0.6724
17820 $645,613$ Colorado Springs, CO 331 208 0.5127 0.3222 24660723,801Greensboro-High Point, NC 366 332 0.5057 0.4587 16820218,705Charlottesville, VA 109 236 0.4984 1.0791 171402,114,580Cincinnati, OH-KY-IN $1,036$ 863 0.4899 0.4081 38860514,098Portland-South Portland, ME 249 298 0.4843 0.5797 44140621,570Springfield, MA 299 300 0.481 0.4826 $590,289$ Deltona-Daytona Beach-Ormond Beach, FL 282 333 0.4777 0.5641 16580 $231,891$ Champaign-Urbana, IL 109 65 0.478 0.3188 19660 $590,289$ Deltona-Daytona Beach-Ormond Beach, FL 282 333 0.4777 0.5641 15500 $151,131$ Burlington, NC 71 23 0.4668 0.1522 3260 $141,671$ San Luis Obispo-Paso Robles, CA 124 222 0.4599 0.8233 42020 $269,637$ San Luis Obispo-Paso Robles, CA 124 222 0.4455 0.8674 14540 $158,599$ San Luis Obispo-Paso Robles, CA 124 2239 0.4455 0.8674 1450 $258,865$ Crestview-Fort Walton Beach-Destin, FL 107 159 0.4536 0.6741 1450 $158,599$ Bowling Green, KY 71 82 0.4477 0.5	21140	197,559	Elkhart-Goshen, IN	103	57	0.5214	0.2885
24660 $723,801$ Greensboro-Hign Point, NC 366 332 0.3057 0.4387 16820 $218,705$ Charlottesville, VA 109 236 0.4984 1.0791 17140 $2,114,580$ Cincinnati, OH-KY-IN $1,036$ 863 0.4899 0.4081 38860 $514,098$ Portland-South Portland, ME 249 298 0.4843 0.5797 44140 $621,570$ Springfield, MA 299 300 0.481 0.482 35980 $274,055$ Norwich-New London, CT 131 86 0.478 0.3138 19660 $590,289$ Deltona-Daytona Beach-Ormond Beach, FL 282 333 0.4777 0.5641 16580 $231,891$ Champaign-Urbana, IL 109 65 0.478 0.3138 15500 $151,131$ Burlington, NC 71 23 0.4698 0.1522 33260 $141,671$ Midland, TX 66 225 0.4659 1.5822 42020 $269,637$ San Luis Obispo-Paso Robles, CA 124 222 0.4599 0.8233 42020 $269,637$ San Luis Obispo-Paso Robles, CA 124 222 0.4455 0.8673 41450 $158,599$ San Luis Obispo-Paso Robles, CA 124 222 0.4455 0.8673 41880 $235,865$ Crestview-Fort Walton Beach-Destin, FL 107 159 0.4536 0.8674 4450 $156,51$ Bowling Green, KY 71 82 0.4477 <td>17820</td> <td>$645,\!613$</td> <td>Colorado Springs, CO</td> <td>331</td> <td>208</td> <td>0.5127</td> <td>0.3222</td>	17820	$645,\!613$	Colorado Springs, CO	331	208	0.5127	0.3222
171402.10, 002.000.43041.017438860514,098Portland-South Portland, ME2492980.48430.579744140621,570Springfield, MA2993000.4810.482635980274,055Norwich-New London, CT131860.4780.313819660590,289Deltona-Daytona Beach-Ormond Beach, FL2823330.47770.564116580231,891Champaign-Urbana, IL109650.46980.152233260141,671Burlington, NC71230.46980.152233260141,671San Luis Obispo-Paso Robles, CA1242220.45590.823318880235,865Crestview-Fort Walton Beach-Destin, FL1071590.45360.674114540158,599Bowling Green, KY71820.44770.517411802,787,701St. Louis, MO-IL1,2422390.44550.085748900254,884Wilmington, NC110910.43160.35714260616,561Boise City, ID2562780.41520.4509353801,89,866New Orleans-Metairie, LA4934010.41430.367111700424,858Asheville, NC1611100.3790.258939900425,417Reno, NV1601770.37610.41514650152,392Rocky Mount, NC56420.366710.3777 <t< td=""><td>24660 16820</td><td>723,801 $218,705$</td><td>Greensboro-High Point, NC Charlottesvillo, VA</td><td>366 109</td><td>332 236</td><td>U.5057 N 1981</td><td>U.4587 1 0791</td></t<>	24660 16820	723,801 $218,705$	Greensboro-High Point, NC Charlottesvillo, VA	366 109	332 236	U.5057 N 1981	U.4587 1 0791
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	10020 17140	2,114,580	Cincinnati, OH-KY-IN	1,036	863	0.4899	0.4081
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	38860	$514,\!098$	Portland-South Portland, ME	249	298	0.4843	0.5797
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	44140	$621,\!570$	Springfield, MA	299	300	0.481	0.4826
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	19660	590.289	Deltona-Davtona Beach-Ormond Beach, FL	282	333	0.478 0.4777	0.5138 0.5641
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	16580	$231,\!891$	Champaign-Urbana, IL	109	65	0.47	0.2803
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	15500	151,131	Burlington, NC	71	23	0.4698	0.1522
12020 205,865 Crestview-Fort Walton Beach-Destin, FL 124 222 0.4536 0.6741 14540 158,599 Bowling Green, KY 71 82 0.4477 0.517 41180 2,787,701 St. Louis, MO-IL 1,242 239 0.4455 0.0857 48900 254,884 Wilmington, NC 110 91 0.4316 0.357 14260 616,561 Boise City, ID 256 278 0.4152 0.4509 35380 1,189,866 New Orleans-Metairie, LA 493 401 0.4143 0.337 22660 299,630 Fort Collins, CO 124 110 0.4143 0.337 11700 424,858 Asheville, NC 161 110 0.379 0.2589 39900 425,417 Reno, NV 160 177 0.3761 0.4161 40580 152,392 Rocky Mount, NC 56 42 0.3675 0.2756 26900 1,887,877 Indianapolis-Carmel-Anderson, IN 693 713 0.36611 0.3777 15260 112,370	$33260 \\ 42020$	141,671 269,637	Midland, 'I'X San Luis Obispo-Paso Robles, CA	66 124	$\frac{225}{222}$	0.4659 0.4599	1.5882 0.8233
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	18880	235,865	Crestview-Fort Walton Beach-Destin, FL	107	159	0.4536	0.6741
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	14540	$158,\!599$	Bowling Green, KY	71	82	0.4477	0.517
43500 23,834 Winnigton, NC 110 91 0.4310 0.337 14260 616,561 Boise City, ID 256 278 0.4152 0.4509 35380 1,189,866 New Orleans-Metairie, LA 493 401 0.4143 0.337 22660 299,630 Fort Collins, CO 124 110 0.4138 0.3671 11700 424,858 Asheville, NC 161 110 0.379 0.2589 39900 425,417 Reno, NV 160 177 0.3761 0.4161 40580 152,392 Rocky Mount, NC 56 42 0.3675 0.2756 26900 1,887,877 Indianapolis-Carmel-Anderson, IN 693 713 0.3671 0.3777 15260 112,370 Brunswick, GA 41 33 0.3649 0.2937 32820 1,324,829 Memphis, TN-MS-AR 477 904 0.366 0.6824 16860 528143 Chattenacera TN CA 180 0.2575 0.5741	41180	2,787,701	St. Louis, MO-IL Wilmington NC	1,242	239	0.4455	0.0857
35380 1,189,866 New Orleans-Metairie, LA 493 401 0.4143 0.337 22660 299,630 Fort Collins, CO 124 110 0.4143 0.3671 11700 424,858 Asheville, NC 161 110 0.379 0.2589 39900 425,417 Reno, NV 160 177 0.3761 0.4161 40580 152,392 Rocky Mount, NC 56 42 0.3675 0.2756 26900 1,887,877 Indianapolis-Carmel-Anderson, IN 693 713 0.36671 0.3777 15260 112,370 Brunswick, GA 41 33 0.3649 0.2937 32820 1,324,829 Memphis, TN-MS-AR 477 904 0.366 0.6824 16860 528142 Chattenaceae TN CA 180 0.2575 0.5741	14260	234,004 616.561	Boise City. ID	256	278	0.4310 0.4152	0.337 0.4509
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	35380	1,189,866	New Orleans-Metairie, LA	493	401	0.4143	0.337
11700424,858Asneville, NC1611100.3790.258939900425,417Reno, NV1601770.37610.416140580152,392Rocky Mount, NC56420.36750.2756269001,887,877Indianapolis-Carmel-Anderson, IN6937130.36710.377715260112,370Brunswick, GA41330.36490.2937328201,324,829Memphis, TN-MS-AR4779040.360.682416860528142Chattanacar, TN CA1802860.25700.5711	22660	299,630	Fort Collins, CO	124	110	0.4138	0.3671
40580 152,392 Rocky Mount, NC 56 42 0.3675 0.2756 26900 1,887,877 Indianapolis-Carmel-Anderson, IN 693 713 0.36671 0.3777 15260 112,370 Brunswick, GA 41 33 0.3649 0.2937 32820 1,324,829 Memphis, TN-MS-AR 477 904 0.366 0.6824 16860 528142 Chattanacar, TN-GA 180 286 0.2750 0.5711	11700 39900	424,858 425,417	Asheville, NC Beno NV	161 160	$110 \\ 177$	0.379 0.3761	0.2589 ∩⊿161
26900 1,887,877 Indianapolis-Carmel-Anderson, IN 693 713 0.3671 0.3777 15260 112,370 Brunswick, GA 41 33 0.3649 0.2937 32820 1,324,829 Memphis, TN-MS-AR 477 904 0.36 0.6824 16860 528142 Chattanacar, TN-GA 180 2870 0.2570 0.2571	40580	152,392	Rend, NV Rocky Mount. NC	56	42	0.3675	0.2756
15260 112,370 Brunswick, GA 41 33 0.3649 0.2937 32820 1,324,829 Memphis, TN-MS-AR 477 904 0.36 0.6824 16860 528142 Chattanacca TN CA 180 257 0.172	26900	1,887,877	Indianapolis-Carmel-Anderson, IN	693	713	0.3671	0.3777
10200 + 1023 + 023 = 0.0520	15260	112,370	Brunswick, GA	41 477	33		0.2937
10000 020,145 Unattanooga, 1N-GA 189 286 0.3579 0.5415	16860	528,143	Chattanooga, TN-GA	189	286	0.3579	0.5415

27980	$154,\!924$	Kahului-Wailuku-Lahaina, HI	53	91	0.3421	0.5874
46520	953,207	Urban Honolulu, HI	$326 \\ 116$	537	0.342	0.5634 0.2618
29180	466,750	Lafayette, LA	155	90	0.3321	0.1928
20020	$145,\!639$	Dothan, AL	48	48	0.3296	0.3296
$26140 \\ 45220$	141,236 367,413	Homosassa Springs, FL Tallabassee, FL	$\frac{46}{117}$	53 141	0.3257 0.3184	0.3753
41700	2,142,508	San Antonio-New Braunfels, TX	682	750	0.3183	0.3501
40140	4,224,851	Riverside-San Bernardino-Ontario, CA	$1,\!342$	1,527	0.3176	0.3614
$17860 \\ 39460$	162,642 159,978	Columbia, MO Punta Gorda, EL	51 50	6 35	$0.3136 \\ 0.3125$	0.0369
17660	138,494	Coeur d'Alene, ID	43	38	0.3125 0.3105	0.2744
21780	$311,\!552$	Evansville, IN-KY	96	75	0.3081	0.2407
$33860 \\ 13460$	374,536 157,733	Montgomery, AL Bend OB	$\frac{115}{47}$	314 87	$0.307 \\ 0.298$	$0.8384 \\ 0.5516$
19430	799,232	Dayton-Kettering, OH	237	164	0.2965	0.2052
29820	1,951,269	Las Vegas-Henderson-Paradise, NV	560	725	0.287	0.3716
$45780 \\ 17980$	610,001 294 865	Toledo, OH Columbus, GA-AL	175 84	242 106	0.2869 0.2849	$0.3967 \\ 0.3595$
29460	602,095	Lakeland-Winter Haven, FL	171	175	0.284	0.2907
37860	448,991	Pensacola-Ferry Pass-Brent, FL	127	110	0.2829	0.245
$33460 \\ 33660$	3,348,859 412.992	Minneapons-St. Paul-Bloomington, MN-WI Mobile, AL	942 114	3,250 108	0.2813 0.276	0.9705 0.2615
36100	$331,\!298$	Ocala, FL	91	86	0.2747	0.2596
33700	514,453	Modesto, CA Dank na Fairk and Falay, Al	141	118	0.2741	0.2294
41100	132,205 138,115	St. George, UT	$\frac{49}{37}$	30 31	0.2688 0.2679	0.2745 0.2245
27620	149,807	Jefferson City, MO	40	38	0.267	0.2537
37460	184,715	Panama City, FL	49	54	0.2653	0.2923
$\frac{28940}{49180}$	640,595	Winston-Salem, NC	$\frac{215}{164}$	125	0.2567 0.256	0.3110 0.1951
40060	$1,\!208,\!101$	Richmond, VA	308	570	0.2549	0.4718
40420	349,431	Rockford, IL	89	74	0.2547	0.2118
43780	319,224	South Bend-Mishawaka, IN-MI	144 81	142 59	0.2539 0.2537	$0.2304 \\ 0.1848$
44100	$210,\!170$	Springfield, IL	53	47	0.2522	0.2236
48620	630,919	Wichita, KS Johnson City, TN	151 47	120	0.2393	0.1902
$27740 \\ 23580$	179,684	Gainesville, GA	42	42 37	0.2303 0.2337	$0.2114 \\ 0.2059$
36260	$597,\!159$	${ m Ogden-Clearfield},~{ m UT}$	138	145	0.2311	0.2428
$45820 \\ 12620$	$233,\!870$ 153 923	Topeka, KS Bangor, ME	54 35	308	0.2309 0.2274	1.317
37900	379,186	Peoria, IL	86	20 55	0.2268	0.145
39300	1,600,852	Providence-Warwick, RI-MA	361	405	0.2255	0.253
$29200 \\ 32780$	201,789 203 206	Lafayette-West Lafayette, IN Medford, OB	$\frac{45}{45}$	40	0.223 0.2215	0.1982 0.2362
29740	209,233	Las Cruces, NM	46	12	0.2219 0.2199	0.0574
38060	4,192,887	Phoenix-Mesa-Chandler, AZ	920	882	0.2194	0.2104
$12940 \\ 29940$	802,484 110.826	Baton Rouge, LA Lawrence, KS	$\frac{175}{24}$	163	0.2181 0.2166	0.2031
30340	107,702	Lewiston-Auburn, ME	$\frac{2}{23}$	20	0.2136	0.1857
14020	159,549	Bloomington, IN	34	40	0.2131	0.2507
$\frac{21660}{40220}$	351,715 308.707	Eugene-Springheid, OR Boanoke, VA	72 63	104	0.2047 0.2041	0.2957 0.1069
14740	$251,\!133$	Bremerton-Silverdale-Port Orchard, WA	51	31	0.2031	0.1234
44420	118,502	Staunton, VA Fort Noune IN	24	12	0.2025	0.1013
23060 22180	410,257 366,383	Fort wayne, in Favetteville, NC	$\frac{84}{73}$	122 54	0.2018 0.1992	0.2931 0.1474
31420	$232,\!293$	Macon-Bibb County, GA	46	42	0.198	0.1808
12020	192,541	Athens-Clarke County, GA	37 25	42	0.1922	0.2181
10540	$130,044 \\ 116,672$	Albany-Lebanon, OR	$\frac{23}{22}$	$\frac{3}{27}$	0.1922 0.1886	0.0231 0.2314
10580	$870,\!716$	Albany-Schenectady-Troy, NY	160	266	0.1838	0.3055
44180 33740	436,712 176,441	Springfield, MO Monroe, LA	80 39	16 20	$0.1832 \\ 0.1814$	0.0366 0.1134
15940	404,422	Canton-Massillon, OH	72^{-52}	50^{20}	0.178	0.1236
19460	153,829	Decatur, AL	27	25	0.1755	0.1625
$\frac{31340}{23420}$	252,634 930,450	Lynchburg, VA Fresno, CA	$\frac{44}{159}$	23 274	$0.1742 \\ 0.1709$	0.091 0.2945
13980	178,237	Blacksburg-Christiansburg, VA	30^{100}	10	0.1683	0.2540 0.0561
28700	309,544	Kingsport-Bristol, TN-VA	52	53	0.168	0.1712
25860 31740	365,497 92,719	Manhattan, KS	15	69 2	0.1642 0.1618	$0.1888 \\ 0.0216$
12540	$839,\!631$	${f Bakersfield, CA}$	134	140	0.1596	0.1667
44060	527,753	Spokane-Spokane Valley, WA Vincinia Baach Norfolk Neuroart Neuro VA NC	83	57	0.1573	0.108
47200 44700	685,306	virginia beach-ivorioik-ivewport ivews, VA-NC Stockton, CA	∠00 106	$349 \\ 170$	0.1551 0.1547	0.2081 0.2481
43340	439,811	Shreveport-Bossier City, LA	67	76	0.1523	0.1728
25060 24540	370,702	Gulfport-Biloxi, MS	56 38	37	$0.1511 \\ 0.1502$	0.0998 0.1226
49660	565,773	Youngstown-Warren-Boardman, OH-PA	80	47	0.1414	0.0831
25620	$142,\!842$	Hattiesburg, MS	20	30	0.14	0.21
$24420 \\ 12260$	82,713 564 873	Grants Pass, OR Augusta-Richmond County, GA SC	$\frac{11}{75}$	14 49	0.133 0.1328	$0.1693 \\ 0.0744$
46220	230,162	Tuscaloosa, AL	30	59	0.1303	0.2563
26380	208,178	Houma-Thibodaux, LA	27	19	0.1297	0.0913
$26580 \\ 47380$	$364,\!908$ 252.772	Huntington-Ashland, WV-KY-OH Waco TX	$\frac{45}{31}$	30 39	$0.1233 \\ 0.1226$	$0.0822 \\ 0.1543$
15380	1,135,509	Buffalo-Cheektowaga, NY	130	46	0.1145	0.0405

18580	428, 185	Corpus Christi, TX	49	49	0.1144	0.1144
21340	804, 123	El Paso, TX	92	226	0.1144	0.2811
46060	980,263	Tucson, AZ	112	92	0.1143	0.0939
19340	$379,\!690$	Davenport-Moline-Rock Island, IA-IL	43	42	0.1133	0.1106
41420	390,738	Salem, OR	38	56	0.0973	0.1433
13780	251,725	Binghamton, NY	21	3	0.0834	0.0119
13140	403, 190	Beaumont-Port Arthur, TX	29	25	0.0719	0.062
11260	380,821	Anchorage, AK	23	79	0.0604	0.2074
40380	1,079,671	Rochester, NY	59	42	0.0546	0.0389
45060	662,577	Syracuse, NY	26	26	0.0392	0.0392
27060	101,564	Ithaca, NY	3	6	0.0295	0.0591

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CBSA	CBSA Name	Rank	Log Utility	Rank	Log Utility	2010 Pop.
		1988-2001	1988-2001	2002-2015	2002-2015	r
33460	Minneapolis-St. Paul-Bloomington, MN-WI	1	-1.9262	36	-3.0842	$3,\!348,\!859$
38060	Phoenix-Mesa-Chandler, AZ	2	-2.2819	10	-2.4936	$4,\!192,\!887$
19100	Dallas-Fort Worth-Arlington, TX	3	-2.3107	2	-2.269	6,426,214
26420	Houston-The Woodlands-Sugar Land, TX	4	-2.4337	17	-2.697	5,920,416
13820	Birmingham-Hoover, AL	5	-2.437	42	-3.3728	1,128,047
16740	Charlotte-Concord-Gastonia, NC-SC	6	-2.4726	5	-2.3897	2,217,012
27260	Jacksonville, FL	7	-2.5551	20	-2.7311	1,345,596
42660	Seattle-Tacoma-Bellevue, WA	8	-2.5588	7	-2.443	3,439,809
12420	Austin-Round Rock-Georgetown, TX	9	-2.5902	3	-2.2703	1,716,289
40060	Richmond, VA	10	-2.6473	23	-2.7795	1,208,101
16980	Chicago-Naperville-Elgin, IL-IN-WI	11	-2.6939	8	-2.4478	9,461,105
25540	Hartford-East Hartford-Middletown, CT	12	-2.7258	12	-2.5434	1.212.381
39580	Raleigh-Carv NC	13	-2 741	25	-2.8148	1 130 490
19740	Denver-Aurora-Lakewood CO	14	-2 7469	26	-2 8554	2543482
12060	Atlanta-Sandy Springs Alpharetta GA	15	-2 7548	19	-2 7289	5 286 728
3/080	Nashville Davidson-Murfreesboro-Franklin TN	16	2.1040	6	2.1205	1 670 890
40000	Sacramento Reseville Felsom CA	10	2.1340	24	2,4000	2 1 40 197
40300	San Antonio New Proupfold TV	19	-2.0313	24	-2.0007	2,149,127
41700	Tampa St. Detersburg Clearwater, FI	10	-2.0731	1 91	-2.2407	2,142,000
22100	Miami Fort Loudordolo Dompono Dooch El	19	-2.0199	21	-2.7554	2,103,243
30300	Dress' lener Wermiel, DIMA	20	-2.0004	04 47	-5.0475	0,004,000
39300	Providence- warwick, RI-MA	21	-2.9009	40	-3.5449	1,000,852
41940	San Jose-Sunnyvale-Santa Clara, CA	22	-3.0083	32	-3.0196	1,836,911
37980	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	23	-3.0425	29	-2.9675	5,965,343
41740	San Diego-Chula Vista-Carlsbad, CA	24	-3.0455	13	-2.5813	3,095,313
26900	Indianapolis-Carmel-Anderson, IN	25	-3.0854	39	-3.1449	1,887,877
36740	Orlando-Kissimmee-Sanford, FL	26	-3.1364	18	-2.7127	$2,\!134,\!411$
17460	Cleveland-Elyria, OH	27	-3.1628	40	-3.1828	2,077,240
14460	Boston-Cambridge-Newton, MA-NH	28	-3.1989	38	-3.1268	4,552,402
31080	Los Angeles-Long Beach-Anaheim, CA	29	-3.2004	28	-2.9034	$12,\!828,\!837$
28140	Kansas City, MO-KS	30	-3.2846	15	-2.6864	2,009,342
17140	Cincinnati, OH-KY-IN	31	-3.3161	16	-2.6879	2,114,580
47260	Virginia Beach-Norfolk-Newport News, VA-NC	32	-3.3195	9	-2.4791	1,676,822
32820	Memphis, TN-MS-AR	33	-3.3248	4	-2.3439	1,324,829
41180	St. Louis, MO-IL	34	-3.3349	27	-2.8741	2,787,701
47900	Washington-Arlington-Alexandria, DC-VA-MD-WV	35	-3.3666	43	-3.3733	5,636,232
18140	Columbus, OH	36	-3.3711	14	-2.6254	1.901.974
29820	Las Vegas-Henderson-Paradise, NV	37	-3.3853	11	-2.5171	1,951,269
41860	San Francisco-Oakland-Berkeley, CA	38	-3.4039	35	-3.0725	4.335.391
31140	Louisville/Jefferson County, KY-IN	39	-3.4439	33	-3.0238	1,235,708
38900	Portland-Vancouver-Hillsboro OB-WA	40	-3 508	31	-2.9896	2 226 009
35620	New York-Newark-Jersey City NV-NLPA	41	3 5265	44	-3 4603	19567410
15380	Buffalo-Cheektowaga NV	40	2 5819	46	4 6425	1 135 500
35380	Now Orleans Motairie I A	42	3 6496	40	3 3697	1 180 866
41620	Solt Lake City UT	40	- 3,0420 3 0019	90	- 3, 3037 2 0796	1 087 879
40140	Bivorsido San Bornardino Ontario. CA	44	- 3, 30 13	30 99	-2.3100	4.007,073
40140	Poshostor NV	40	- 3, 90 93	22	-2.1140	4,224,001
40300	Rochester, NY	40	-4.0001	37	-3.1010	1,079,071

Year of Migration	Count	Corporation	Patent Application at Founding	Patent Assignment at Founding	Trademark at Founding	High Tech	Short Name	Eponymous	Patent Application in 6 Years	Patent Assignment in 6 Years	Trademark in 6 Years	A cquired	IPO
Did not move	400645	0.427	0.029	0.022	0.016	0.066	0.469	0.074	0.47	0.617	0.068	0.013	0.002
1	6256	0.574	0.018	0.015	0.013	0.078	0.477	0.03	1.221	1.328	0.14	0.03	0.005
2	4296	0.609	0.026	0.02	0.018	0.085	0.528	0.035	1.328	1.554	0.161	0.038	0.009
3	2981	0.628	0.033	0.024	0.019	0.087	0.543	0.027	2.539	2.946	0.162	0.033	0.011
4	2124	0.636	0.039	0.028	0.018	0.099	0.532	0.027	1.541	2.014	0.198	0.041	0.011
5	1606	0.65	0.033	0.026	0.014	0.098	0.554	0.025	1.62	1.607	0.162	0.039	0.015
T-Tests													
Years 3-5 vs 1-2		-6.236***	-5.161***	-3.719 ***	-1.163	-2.915^{***}	-5.69***	2.054 * *	-1.85*	-2.192**	-3.373***	-1.194	-3.427***
Years 1-5 vs Did not move		-47.343***	1.693*	1.009	0.112	-8.947^{***}	-11.76^{***}	32.447^{***}	-6.092***	-6.484***	-25.38^{***}	-15.764***	-9.699***

 Table A5:
 Summary Statistics of Firms Across Mover Age

Table A6: Summary Statistics of Firms Hubs vs Non Hubs

category	Count	Corporation	Patent Application at Founding	Patent Assignment at Founding	Trademark at Founding	High Tech	Short Name	Eponymous
Born in Startup Hub	106073.00	0.48	0.05	0.03	0.02	0.08	0.53	0.08
Born outside Startup Hub	294572.00	0.41	0.02	0.02	0.01	0.06	0.45	0.07
Moved to Hub: 0-2	2060.00	0.66	0.04	0.03	0.02	0.09	0.57	0.03
Moved to Hub: 3-5	1248.00	0.69	0.05	0.04	0.02	0.12	0.60	0.02
Moved to Non Hub: 0-2	8492.00	0.57	0.02	0.01	0.01	0.08	0.48	0.03
Moved to Non Hub: 3-5	5463.00	0.62	0.03	0.02	0.02	0.09	0.53	0.03

Notes: Startup hubs are defined as the top 5 MSAs in the data in terms of venture capital: San Francisco-Oakland-Berkley, CA MSA; San Jose-Sunnyvale-Santa Clara, CA MSA; Boston-Cambridge-Newton, MA-NH MSA; Austin-Round Rock-Georgetown, TX MSA; and New York-Newark-Jersey City, NY-NJ-PA MSA.

	Dependent variable:				
	Baseline Corporate Taxes City Entrepreneurship City Utility City Utility City Utility City				City Utility
	(1)	(2)	(3)	(4)	(5)
Corporate Income Taxes	20.543^{***} (4.734)	-5.606^{*} (2.987)	$egin{array}{c} 0.857 \ (3.496) \end{array}$	-1.570 (4.029)	$\begin{array}{c} 4.892 \\ (3.269) \end{array}$
Corporate Income Taxes \times Later Movers (Years 3-5)			-12.925^{**} (4.440)		-12.925^{***} (3.801)
Personal Income Tax at 95th Percentile				-6.567^{**} (3.202)	-6.567^{**} (2.193)
Observations R ²	$\begin{array}{c} 138 \\ 0.230 \end{array}$	$\begin{array}{c} 138 \\ 0.053 \end{array}$	$\begin{array}{c} 138 \\ 0.243 \end{array}$	$\begin{array}{c} 138 \\ 0.115 \end{array}$	$\begin{array}{c} 138 \\ 0.305 \end{array}$

Table A7: Corporate Taxes and Estimated City Utility

City utility is our estimated measure from the underlying graph of moves across cities in the United States. Corporate tax estimates are taken from Moretti and Wilson (2017), who estimate state-level taxes for all U.S. at different points of the income distribution. Robust standard errors in parenthesis. Significance denoted as *p<0.1; **p<0.05; ***p<0.01

	Dependent variable:							
	Baseline Nursery					Income Tax	ies	
	Migrant City Utility	City Entrepreneurship	Migrant City Utility	<i>Migrant</i> City Utility	City Entrepreneurship	City Ent repreneurship	Migrant City Utility	<i>Migrant</i> City Utility
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Growth Startups per Capita	$egin{array}{c} 0.359^{***} \ (0.079) \end{array}$							
Growth Startups per Capita \times Later Movers (Years 3-5)	$\begin{array}{c} 0.010 \\ (0.128) \end{array}$							
Industry Concentration (HHI)		-0.087 (0.054)	-0.056 (0.051)					
Industry Concentration (HHI) \times Later Movers (Years 3-5)			$\begin{array}{c} 0.017 \\ (0.076) \end{array}$					
Patenting per Capita		$0.493^{***} \\ (0.064)$		$\begin{pmatrix} 0.094 \\ (0.066) \end{pmatrix}$				
Patenting per Capita \times Later Movers (Years 3-5)				$\begin{array}{c} 0.198 \\ (0.126) \end{array}$				
Personal Income Tax (95th)					$5.136 \\ (3.527)$		-5.012^{*} (2.867)	
Personal Income Tax (95th) \times Later Movers (Years 3-5)							-4.846 (6.466)	
Personal Income Tax (50th)						-9.569 (5.893)		-14.905^{***} (4.230)
Personal Income Tax (50th) \times Later Movers (Years 3-5)								-6.103 (8.466)
Observations R ²	118 0.289	118 0.399	$\begin{array}{c}118\\0.140\end{array}$	$\begin{array}{c} 118 \\ 0.207 \end{array}$	118 0.019	118 0.030	118 0.181	$\begin{array}{c} 118 \\ 0.258 \end{array}$

Table A8: Predictors of City Utility : LLC data

OLS regression with city utility as the dependent variable. City utility is our estimated measure from the underlying graph of moves across cities in the United States. Columns 1-3 use the utility estimated through the moves of corporations registered under Delaware jurisdiction (but domiciled anywhere in the U.S.). Columns 4-6 use the utility estimated through the moves of LLCs registered under Delaware jurisdiction. Personal income tax estimates are taken from Moretti and Wilson (2017), who estimate state-level taxes for all U.S. at different points of the income distribution. Robust standard errors in parenthesis. Significance denoted as *p<0.1; **p<0.05; ***p<0.01

Model:	(1)	(2)	(3)
Variables			
Constant	-0.0333		
	(0.0348)		
Log10(Distance)	0.0087	-0.0003	-0.0115**
	(0.0060)	(0.0050)	(0.0057)
Fixed-effects			
Source CBSA FE		Yes	Yes
Dest CBSA FE			Yes
Fit statistics			
Observations	$424,\!452$	424,452	424,452
\mathbb{R}^2	3.49×10^{-5}	0.03527	0.06494
Within R ²		2.91×10^{-8}	4.35×10^{-5}

Table A9: Distance and migration rates. Dep. Var. $\log(migrants+1)$.

Clustered (Source CBSA FE & Dest CBSA FE) standard-errors in parentheses Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

The impact of distance on the migration counts across locations conditional on region fixed-effects is statistically positive but not economically meaningful. The range of the Log10(Distance) variable is from 4.5 to 7. Going from the closest to the furthest pair only increases mgiration rates by 0.03%.

	Corporations			LLCs				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Cooling Degree Days /1000	0.0203				-0.0352			
	(0.0958)				(0.0978)			
Heating Degree Days $/1000$	0.0350				-0.1502*			
	(0.0860)				(0.0811)			
Sunshine Percentage	0.5300				1.6837^{**}			
	(0.8106)				(0.6494)			
Inverse Dist. from Water	0.0131				0.1701^{**}			
	(0.0682)				(0.0781)			
Latitude	-0.0295				0.0531			
	(0.0373)				(0.0326)			
Average Home Value		-0.0714				0.2274^{**}		
		(0.0690)				(0.0892)		
Quality of Life Index			-1.4970				3.0219^{*}	
			(1.0807)				(1.5449)	
Bohemia				-0.4037				0.8907^{*}
				(0.4042)				(0.5090)
Num.Obs.	185	185	185	185	126	126	126	126
Log.Lik.	-215.899	-218.685	-218.194	-218.567	-139.059	-142.924	-143.765	-144.640
F	0.838	1.070	1.919	0.998	4.260	6.499	3.826	3.062

Table A10: Amenities: Do Local Amenties Correlate to Estimated City Utility?

* p < 0.1, ** p < 0.05, *** p < 0.01

Statistic	Mean	St. Dev.	N
Population	$978,\!560.467$	1,935,880.581	185
Log(HHI)	-24.272	2.353	184
Patents per Thousand Pop	0.006	0.009	185
Income Tax			
Income Tax at 50th Perc.	0.107	0.016	185
Income Tax at 95th Perc.	0.236	0.023	185
Startup Cartography Project			
Delaware Corporations	952.568	$2,\!699.156$	185
Delaware LLCs	1,238.449	4,181.380	185

 Table A11:
 Summary Statistics for Metropolitan Areas

	log(Avg.	log(Avg. In Mover Quality)		
	log(m	love_in_qu	uality)	
	(1)	(2)	(3)	
log(Avg. Out Mover Quality)	$\begin{array}{c} 0.412^{***} \\ (0.102) \end{array}$	$\begin{array}{c} 0.102 \\ (0.076) \end{array}$	$\begin{array}{c} 0.114 \\ (0.081) \end{array}$	
Log(Delaware Startups Per Capita)		0.808^{***} (0.078)	$\begin{array}{c} 0.840^{***} \\ (0.077) \end{array}$	
$\begin{array}{c} \text{Observations} \\ \text{R}^2 \end{array}$	$\begin{array}{c} 182 \\ 0.103 \end{array}$	$\begin{array}{c} 182\\ 0.468\end{array}$	$\begin{array}{c} 182 \\ 0.489 \end{array}$	

Table A12: How Does the Estimated Quality of Movers that Leave and Arrive to a City Correlate?

OLS regression. Average quality estimated by replicating the measure of Guzman and Stern (2020) in the data. Specifically, for all non-movers born before 2012, we run a logit model with a binary measure of equity events as the dependent variable, and observables for whether a firm, close to founding and in its birth location, is a corporation, has a short name, is eponymous, has a patent, has a trademark, has both a patent and a trademark, and five industry characteristics based on firm name. Predictions from this model report an out of sample ROC score or 0.80. Estimated quality is the predicted out of sample probability of this model. We average this value for all movers in and out of a city, and firms born in a city that do not move. Robust standard errors in parenthesis. Column (3) is weighted by the total movers in or out of each city. Significance denoted as *p<0.1; **p<0.05; ***p<0.01

Appendix B Data Appendix To: Entrepreneurial Migration

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1 Introduction

This appendix overviews the construction and development of the data in our paper *Entrepreneurial Migration*. The appendix is divided into four sections. First, we cover the conceptual goal and need for measuring entrepreneurial migration. Then, we outline the key challenges in doing so, particularly around firm heterogeneity, defining migration, and observability. Then, we explain the data — business registration records for Delaware registered companies — and the overall approach to constructing our dataset. We also review the key summary statistics of the full set of firms. Finally, we compare our data to other potential datasets. Abridged fragments of this appendix are also included in the main text.

2 Why Measure Migration of High Growth Startups?

The importance of understanding the role of location on startup performance has been of interest at least since Marshall (Marshall, 1890; Jacobs, 1970; Saxenian, 1994; Glaeser, Kerr, & Kerr, 2015). A growing literature documents a number of localized economic benefits for regions that have more startups, the most important one being economic growth (Glaeser, Kerr, & Ponzetto, 2010). Over the last decade, an important formalization of this relationship has emphasized that it is one group of startups in particular — high growth startups — that account for the bulk of this economic impact (Schoar, 2010; Guzman & Stern, 2020). High growth startups are firms that have a disproportionate likelihood of growth. In particular, a number of studies have documented that this growth intent is reflected in founding choices entrepreneurs take in the early stages of their business activities (Guzman & Stern, 2020).

In direct contrast to the importance of the location where firms locate is the possibility of migration. While most startups are born and develop in the city where their founders lived prior to founding (Michelacci & Silva, 2007), this pattern is not universal. Anecdotes abound of good entrepreneurs who chose to start a company in one location only to see it grow in a different one. For example, while Marc Andreesen had all the initial ideas and training for what would become Netscape at the University of Illinois Urbana-Champaign, he moved to California to build the company itself. Similarly, Bill Gates and Paul Allen wrote the original Microsoft programs while Gates was a student at Harvard, but they eventually grew the company in the Seattle area after an interlude in New Mexico. The impact of these entrepreneurial migrations on their destination regions has been substantial. A series of policies has emerged to motivate high talent entrepreneurs to move to a region with the goal of replicating some version of this story, the most notable of these being Startup Chile. Other policies, most notably in Israel, instead encourage entrepreneurs to 'move out' of their home region to a richer destination with the goal that the spillovers from future growth benefit back into the region (Conti & Guzman, 2023).

Yet, whether migration of high growth startups actually happens, and what are the characteristics that drive it, appear so far unexplored.

Understanding the economic phenomenon of entrepreneurial migration poses a number of both conceptual and measurement challenges. Migration has been studied substantially in economic theory (e.g. Roback) as a choice problem over some maximization function for either people or firms. Absent principal-agent issues, this maximization should be over the weighted utility of the equity-holders of the firm. Yet, because entrepreneurs also tend to be the managers, the maximization cannot simply be done on the role of location on increasing firm value, but also on the utility costs for managers to relocate to one of these regions, independent of the startup. For example, relocating might require being away from loved ones, losing an additional personal income source (e.g. the income of a spouse), or simply living in a location that is not personally desirable. Furthermore, these same personal connections also constitute valuable local relationships, that in and of themselves are likely to impact firm performance.

To date, a series of studies has emerged understand the differences between personal connections and locational benefits as drivers to startup firm performance (Dahl & Sorenson, 2012; Michelacci & Silva, 2007; Guzman, 2023), as well as how changes in the 'appeal' of a city influence would-be migrants on their choice of hiring a manager or moving themselves (Kulchina, 2014). However, a systematic measurement of entrepreneurial migration for high growth startups does not yet exist, leaving many critical questions unanswered.

3 The Difficulty in Measuring Startup Migration

Measuring entrepreneurial migration itself represents a few unique challenges, including accounting for firm quality, observing firms in their original location, and observing the migration of the firms in a timely fashion. We review each in turn.

Accounting for firm quality in migration is particularly important. One reason is the growing sense of importance assessed in the literature to the significant heterogeneity in firm potential (Schoar, 2010; Guzman & Stern, 2020) – with a few 'high growth' firms accounting for the majority of the economic impact of entrepreneurship. Understanding the migration patterns of all firms might explain little about economic growth, while finding the few firms that do have the potential to grow might be much more informative. A second, equally important, reason is that the motivations for migration, or the behaviors that lead to them, might be different across the entrepreneurship of high growth and non high growth startups. Recent evidence finds ample variation on the personality of high growth entrepreneurs versus other types of actors (Kerr, Kerr, & Xu, 2017), and studies on the motivations of these shows that it is not only profit or productivity that defines

their choices (Guzman, Oh, & Sen, 2020). In short, a clear focus on measurement of high growth startups is critical to understand the phenomenon of entrepreneurial migration and its performance.

The remaining concerns reflect challenges in the observability of entrepreneurial migrations. Because some founders move before starting a company, while other migrants might become entrepreneurs only years after arriving in an entrepreneurial region (Saxenian, 2007), there is no obvious breakpoint on which to define a migration as 'entrepreneurial'. A different, narrower approach, and the one we focus on in this paper, focuses on simply studying the migration of newly born startups. The unique advantage of using this definition is that it circumvents vexing questions about how location influences the choice of entrepreneurial entry. That is, if individuals migrate before becoming entrepreneurs, would they have been entrepreneurs before migrating?

Finally, there remains a question of how to observe the changes in the location of firms. That is, restricting 'entrepreneurial migration' to mean a firm that moves its headquarters to a new location, the problem involves defining "firm", "headquarters", and tracking these moves in a consistent way. We take advantage of institutional details in the United States that allow this tracking.

4 Data

Our analysis is focused on the founding and geographic reallocation of companies registered under Delaware jurisdiction. These are not companies headquartered in Delaware — they are headquartered across the United States. Instead, being under Delaware jurisdiction reflects the fact that when a firm is founded it has the freedom to choose where to register.¹ This choice of jurisdiction is consequential to a large number of corporate legal aspects of the firm, including labor disputes, shareholder disputes, and the legality and enforceability of certain contracts. Since the early twentieth century, two broad choices of jurisdiction have emerged for new U.S. firms.

¹This feature of multiple jurisdictions appears to be an unusual feature of the United States. In most other countries, corporate law is overarchingly similar across all regions of the country.

Most startups (about 96%) initially register under only the local jurisdiction of their own state. There are several benefits to registering in the local jurisdiction, including a simplicity in translating between corporate law and the local law, and the need to pay for only one registration. In general, being in the local jurisdiction is simply cheaper.

A few companies (most of the remaining 4%), however, choose instead to register under Delaware jurisdiction and then operate as a foreign (out of state) company in the state in which they are headquartered. This process is more expensive, as it requires more legal work to maintain both registrations, and the firms need to pay fees to both states. However, it also creates certain benefits that accrue particularly well to entrepreneurs that intend to scale the company. First, corporate law is mostly case-based in the United States, and Delaware is the state with the largest canon of corporate law. This means that precedent on the enforceability of different clauses and contracts has been tested and developed in detail. Venture capitalists, for example, are usually reluctant to extend contracts to firms in other jurisdictions due to the uncertainty of knowing whether and how a contract would hold. Second, Delaware Corporate Law is commonly taught in law schools nationwide. Finally, Delaware has a reputation for fairness in dealing with corporate disputes, through its specialized Court of the Chancery. Together, these benefits have become significant for many firms in the United States, and are particularly valuable for those firms that intend to be large. The additional costs of Delaware registration create a separating equilibrium of sorts: firms with high growth intention choose Delaware, while the rest choose the local law (Catalini, Guzman, & Stern, 2019). Accordingly, while Delaware represents less than 0.5% of the U.S. population, over half of all U.S. publicly listed firms are registered here. In empirical estimates, firms registered in Delaware at founding are over 45 times more likely to achieve an equity growth outcome (such as an IPO or acquisition) (Guzman & Stern, 2020).

We obtained data on all the Delaware jurisdiction firms registered between 1988 and 2014 in each of these states through the Startup Cartography Project (Fazio, Guzman, Liu, & Stern, 2022). The Startup Cartography Project (SCP) is a project focused on the measurement of firm formation through business registration across time and location.

The data included the name of each company, the registered address of the principal office, and the date in which it registered in each state. We also obtained all observables used in the SCP to measure entrepreneurial quality – an estimate of the founding potential of companies based on the predicted probability of growth based on founding characteristics.

To track the migration of Delaware firms in their location choices, we take advantage of unique institutional rules in state-level corporate laws, requiring firms to register in every state in which they engage in meaningful business activity.² These registrations are required to use exactly the same official firm name, down to the comma, in each state where they do business. Because firms register in a state only at the time of entering the state, we can use the registration date to assess when a firm expands location to another state. In most cases, this is a subsidiary expansion while the headquarters of the company remain in the home location. Yet, sometimes, it will represent (or will eventually become) an entrepreneurial migration — i.e. the relocation of the company headquarters.

Differentiating between these two modes of expansion is difficult as it would require a firm to state separately the location of the principal office and the location of the statebased office. Through a manual check of the information in each state, we identified 35 U.S. states, and the District of Columbia, in which the process of registration distinctly requires firms to separately document the local state office and the principal office through one of two modes: either requiring the primary corporate address explicitly in the registration form, or by requesting the address of the president, CEO, or main manager of the firm. In the latter case, we assume that if the majority of officers live in the same MSA, then the corporate headquarters is located in that MSA. These 36 jurisdictions form the basis of our analysis.³

Specifically, we use primary corporate addresses in most states. In AL, AZ, RI, MN, FL, GA, NM, firms often list their Delaware registration address or the address of a local

 $^{^2\}mathrm{Broadly},$ this occurs when a firm has hired employees in a state, opened a bank account, or is renting an office.

³Our states are Alaska, Alabama, Arizona, California, Colorado, Connecticut, DC, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Massachusetts, Maine, Minnesota, Missouri, Mississippi, North Carolina, New Hampshire, New Jersey, Nevada, New York, Ohio, Oregon, Rhode Island, Tennessee, Texas, Utah, Virginia, Vermont, Washington, and West Virginia.

corporate agent as their "headquarters address". If a corporation is registered in Delaware, is in one of those states, and has Delaware as their headquarters or an agent address as their mailing address, we consider it headquartered in an MSA only if at least one director address is local. In Texas, many corporations use a lawyer address as their headquarters location. We therefore use the majority of director addresses to identify the MSA of the firm. In Maine, hand-checking shows that the "Additional Addresses" is most likely to include the actual firm address, hence we use that field rather than the business address field.

In all states, if the registered headquarters address has the name of a registering agent in the address field ("National Registered Agents", "CT Corporation", "Corporate Service Corporation", "The Corporation Trust", "Corporation Service Company", "c/o" or "Prentice Hall") or has a commonly-repeated address (generally a lawyer address), we only consider it local to that MSA if at least one director is in the state. Note that we still only consider the firm local if the agent or lawyer address is in the state in question, and the firm to have registered in that state.

Using this information, we matched the Delaware-registered companies across each state in our sample. To do this, we tracked the initial state registration date of each firm in each state, as well as the registered zip code (either of the "primary" company address, or the broader MSA in the case of states where director addresses were used). Using this data, we operationalize a measure of migration through the following algorithm:

- 1. The first state in which the firm is registered is the founding state.
- 2. If a firm name is registered in Delaware in year X, and that same name had been registered in another state in a prior year, we treat the firm's year of birth as the earliest registration date. This pattern often occurs prior to mergers or other legal changes involving firms that were not actually Delaware-registered-at-birth.
- 3. If a firm changes its principal office to another state, and the destination MSA does not include the source state, we consider this a migration.
- 4. The date in which it first registers in the destination state is the migration date.

This allows us to track well the relocation of startup companies across state-lines. In our main analysis, a startup migration is a firm that moves within five years of the first time they appear in our data. We drop all moves within 3 months of the initial founding date as these tend to conflate moves with firms who register in many states on founding. For instance, a restaurant chain that spins out one of its brands as an independent firm will be registered in many states nearly simultaneously. The fact that one state processes the registration a few days before another does not mean that the firm was "founded" in the earlier state.

4.1 Examples of Movers

Figures B1 and B2 provide tangible examples of migrations and the associated business registration records.

Figure B1 presents the *California* business registration records for two MIT startups founded in 2010, Ginger.io and Sociometric Solutions (later Humanyze). Both startups were founded at the MIT Media Lab by Ph.D. students of Professor Alex (Sandy) Pentland based on work done during their dissertations. Both startups focused on the application of analytics to handheld devices to understand social dynamics. However, Ginger.io decided to move early on to Silicon Valley, while Sociometric did not. Accordingly, Ginger.io shows a business registration with a Principal Executive Office in Silicon Valley. We also see the address of the Chief Executive Office (which is often used as validation in the measurement) is also in Silicon Valley. In contrast, Sociometric Solutions shows a Principal Executive Office in Boston, and a CEO office in Boston. The only address in California is the Address of Principal Office in California, indicating that Sociometric Solutions's role in California is only a satellite office. In this case, Ginger.io would be considered a migration, but Sociometric Solutions would not.

We use the time of initial registration at the destination as the migration date. To guarantee the firm was established in the origin region first, I require that the time elapsed between registration in the origin state and destination is at least three months. Furthermore, I exclude all migrations where the origin state is also part of the destination MSA to avoid cross-state migrations within the same metro area. Finally, I focus only on migrations within the first two years of founding, the early stages of the firm, to allow time to experience outcomes after founding.

In Figure B2 we instead show the information of the *Washington* registration for a California based company, Tableau Software. Three elements are appreciable in this setup. First, the address of the principal office for Tableau is now 2517 East Helen Street, Seattle, WA, which suggests the company has moved into the state. Interestingly, this address is a residential address, and the CEO, Christian Chabot, initially ran the business from his home. Second, in the list of offices, two of the officers have addresses in Washington state. However, not all officers do: Pat Hanrahan, the Chief Technology Officer (and also a Stanford faculty member), is still located in California. In this case, we would consider this a migration given that both the majority of directors is in the destination state, and the address of the firm is in the destination state.

5 Drawbacks and Risks of Measurement Approach

Our approach does come with several drawbacks and potential risks. We review each of the main ones in turn.

The timing of migration. In the process of migration, timing is important. Our data does not allow us to know precisely the date a company changes the official main location for a company. Indeed, this "precise date" is not particularly well-defined. A Seattle-based startup may open an office in Phoenix in 2007, slowly move various corporate tasks to that office in 2008, then begin referring to Phoenix as its "headquarters" publicly in 2009. However, for the analyst it is not conceptually obvious when the headquarters "move" began. We therefore define the date of a move as the first date a firm registers business in any state where it eventually refers to that state as housing its "principal address".

We believe this is a relatively minor concern because it does not affect *who* we code as migrants, nor *where* do they move to, but only *when* they move. The timing of migration itself is not a main area of analysis in our paper.

Relocation within states. The strength of our data is in identifying migration across state lines to different MSAs. Our data, however, does not allow us to track migrations within the same state such as moving from San Diego, CA to San Francisco, CA or from Rochester, NY to New York City. Although restricting to cross-state migrations limits the total number of HQ moves, it does not bias the results of our utility-based approach. Recall that the utility-based approach depends on the relative number of moves between cities, and omitting within-state moves means the omitted moves are bi-directional for any city pair. Note also that when tracking MSA moves, we also drop moves if the firm moves from one MSA to a different state which also makes up the origin MSA. For instance, the New York City MSA includes zip codes in New Jersey, so a New York City firm that moved to New Jersey will not be counted as a cross-state move in our data. This is due to issues with interpolating origin MSAs when only the state of origin can be observed, as noted below. Again, this omission does not bias our results.

What (and who) moves? Another limitation of our data is that it does not allow us to go into the organizational structure of each migration beyond the relocation of headquarters. Naturally, some firms will not move fully and might leave someone in the original location, or might choose other work arrangements. Future datasets would do well to improve upon this margin.

Definition of a startup. We define startup, as discussed, to mean a new business entity. Spinouts and subsidiaries of existing firms, which may be quite large at "founding", therefore count as startups. Hand-investigation of the data suggests that the vast majority of data points are "true startups", meaning small, de novo firms. That said, utility estimates for some cities are affected by this distinction. For example, Peoria, Illinois is the highest utility small city, based largely on having 12 startups move in while only 2 move out. Many of these 12 moves are the result of agricultural acquisitions, whereby a novel corporate entity was created to help facilitate the sale, and the headquarters was then integrated into Peoria the next year. Moves of this type are, however, quite rare in the data at large.

6 Industry Classification

While the bulk of our analysis does not depend on firm industry, we do incorporate heterogeneity on industry in some robustness tests (such as Appendix Figure A1). The business registration data does not have industry codes. We use a name-based algorithm to incorporate industry in our data. Building on the same implementation in (Andrews, Fazio, Guzman, Liu, & Stern, 2022) and (Guzman & Stern, 2020), our broader approach (including the industry categorization used here and elsewhere) proceeds as follows.

We create four measures based on how the firm name reflects the industry or sector that the firm within which the firm is operating. To do so, we take advantage of two features of the US Cluster Mapping Project (Delgado, Porter, and Stern, 2016), which categorizes industries into (a) whether that industry is primarily local (demand is primarily within the region) versus traded (demand is across regions) and (b) among traded industries, a set of 51 traded clusters of industries that share complementarities and linkages. We augment the classification scheme from the US Cluster Mapping Project with the complete list of firm names and industry classifications contained in Reference USA, a business directory containing more than 10 million firm names and industry codes for companies across the United States. Using a random sample of 1.5 million Reference USA records, we create two indices for every word ever used in a firm name. The first of these indices measures the degree of localness, and is defined as the relative incidence of that word in firm names that are in local versus non-local industries. We then define a list of Top Local Words, defined as those words that are (a) within the top quartile of this distribution and (b) have an overall rate of incidence greater than 0.01% within the population of firms in local industries (see Guzman and Stern, (2015, Table S10) for the complete list). Finally, we define local to be equal to one for firms that have at least one of the Top Local Words in their name, and zero otherwise. We then undertake a similar exercise for the degree to which a firm name is associated with a traded name. It is important to note that there are firms which we cannot associate either with traded or local and thus leave out as a third category. Just more than 19% of firms have local names, though only 5% of firms for whom growth equals one, and while 54% of firms are associated with the traded sector,

59% of firms for whom growth equals one do.

We additionally examine the type of traded cluster a firm is associated with, focusing in particular on whether the firm is in a high-technology cluster or a cluster associated with resource intensive industries. For our high technology cluster group (Traded High Technology), we draw on firm names from industries include in ten USCMP clusters: Aerospace Vehicles, Analytical Instruments, Biopharmaceuticals, Downstream Chemical, Information Technology, Medical Devices, Metalworking Technology, Plastics, Production Technology and Heavy Machinery, and Upstream Chemical. From 1988 to 2008, while only 5% firms are associated with high technology, this rate increases to 16% within firms that achieve our growth outcome. For our resource intensive cluster group, we draw on firms names from fourteen USCMP clusters: Agricultural Inputs and Services, Coal Mining, Downstream Metal Products, Electric Power Generation and Transmission, Fishing and Fishing Products, Food Processing and Manufacturing, Jewelry and Precious Metals, Lighting and Electrical Equipment, Livestock Processing, Metal Mining, Nonmetal Mining, Oil and Gas Production and Transportation, Tobacco, Upstream Metal Manufacturing. While 14% of firms are associated with resource intensive industries, and 13% amongst growth firms.

Finally, we also repeat the same procedure to find firms associated with more narrow sets of clusters that have a closer linkage to growth entrepreneurship in the United States. We specifically focus on firms associated with Biotechnology, E-Commerce, Information Technology, Medical Devices and Semiconductors. It is important to note that these definitions are not exclusive and our algorithm could associate firms with more than one industry group. For Biotechnology (Biotechnology Sector), we use firm names associated with the US CMP Biopharmaceuticals cluster. While only 0.19% of firms are associated with Biotechnology, this number increases to 2.2% amongst growth firms. For E-commerce (E-Commerce Sector) we focus on firms associated with the Electronic and Catalog Shopping sub-cluster within the Distribution and Electronic Commerce cluster. And while 5% of all firms are associated with e-commerce, the rate is 9.3% for growth firms. For Information Technology (IT Sector), we focus on firms related to the USCMP cluster Information Technology and Analytical Instruments. 2.4% of all firms in our sample are associated with IT, and 12% of all growth firms are identified as IT-related. For Medical Devices (Medical Dev. Sector), we focus on firms associated with the Medical Devices cluster. We find that while 3% of all firms are in medical devices, this number increases to 9.6% within growth firms. Finally, for Semiconductors (Semiconductor Sector), we focus on the sub-cluster of Semiconductors within the Information Technology and Analytical Instruments cluster. Though only 0.04% of all firms are associated with semiconductors, 0.5% of growth firms are.

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Figure B1: Comparison of Business Registration Records for two Massachusetts Firms. Ginger.io (a migrant to Silicon Valley) and Sociometric Solutions (a non-migrant).

F State of California Secretary of State Statement of Information (Foreign Corporation) FEES (Filing and Disclosure): \$25.00. If this is an amendment, see instructions.	F State of California Secretary of State Statement of Information (Foreign Corporation) FEES (Filling and Disclosure): \$25.00. If this is an amendment, see instructions.
IMPORTANT - READ INSTRUCTIONS BEFORE COMPLETING THIS FORM 1. CORPORATE NAME GINGER.IO, INC.	1. CORPORATE NAME SOCIOMETRIC SOLUTIONS, INC.
CALIFORNIA CORPORATE NUMBER C3479101 No Change Statement (Not applicable if agent address of record is a P.O. Box address. See ins of State, or no statement of information contained in the last Statement of Info of State, or no statement of information has been previously filed, this form must be corr of State, check the box and proceed to Item 13.	CALIFORNIA CORPORATE NUMBER C3470662 No Change Statement (Not applicable if agent address of record is a P.O. Box address. See instruct If there have been any changes to the information contained in the last Statement of Information for State, or no statement of information has been previously filed, this form must be comple If there has been no change in any of the information contained in the last Statement of Information for State, check the box and proceed to Item 13.
Complete Addresses for the Following (Do not abbreviate the name of the city. Items 4 and 5 ca 4. STREET ADDRESS OF PRINCIPAL EXECUTIVE OFFICE CITY 332 PINE STREET SUITE 800, SAN FRANCISCO, CA 94104 5. STREET ADDRESS OF PRINCIPAL BUSINESS OFFICE IN CALIFORNIA. IF ANY CITY	Complete Addresses for the Following (Do not abbreviate the name of the city. Items 4 and 5 cannol 4. STREET ADDRESS OF PRINCIPAL EXECUTIVE OFFICE CITY 100 CAMBRIDGE STREET SUITE 1310, BOSTON, MA 02114 CONSTRUCT DEPEndent of the processor of the procesor of the processor of the processor of the processor of the
6. MAILING ADDRESS OF THE CORPORATION, IF DIFFERENT THAN ITEM 4 CITY	So Frace in Address of Prencinka Bosiness of Price in CALIFORNIA, IF ANT CITY 450 RAMONA STREET, PALO ALTO, CA 94301 6. MAILING ADDRESS OF THE CORPORATION, IF DIFFERENT THAN ITEM 4 CITY
Names and Complete Addresses of the Following Officers (The corporation must list these officer may be added; however, the preprinted titles on this form must not be altered.) 7. CHEF EXECUTIVE OFFICER/ ANMOL MADAN 332 PINE STREET SUITE 800, SAN FRANCISCO, CA 94104	Names and Complete Addresses of the Following Officers (The corporation must list these the officer may be added; however, the preprinted titles on this form must not be altered.) 7. CHIEF EXECUTIVE OFFICER/ ADDRESS CITY
8. SECRETARY ADDRESS CITY ANMOL MADAN 332 PINE STREET SUITE 800, SAN FRANCISCO, CA 94104 9. CHIEF FINANCIAL OFFICER/ ADDRESS CITY	BENJAMIN WABER 100 CAMBRIDGE STREET SUITE 1310, BOSTON, MA 02114 8. SECRETARY ADDRESS CITY DANIEL OLGUIN OLGUIN 100 CAMBRIDGE STREET SUITE 1310, BOSTON, MA 02114

Notes: An example of the business registration record of two Massachusetts companies founded in 2010 by PhD students at MIT. Ginger.io moved to California, and shows both the address of the principal executive and the address of the chief executive in California. Sociometric Solutions did not move to California, but did open a branch. Correspondingly, the principal office and chief executive are still in Massachusetts, and only the address of the office in California has a California address.

Figure B2

	STATE		FEE	: \$17	5	
Nease PRINT or TYPE in black ink	.2004 IN	DITED (2 ICLUDE FI	HOUR) SERVI		ABLE - \$20 P E" IN BOLD I	ER ENTITY ETTERS
CORPORATIONS DIVISION SECONDA SECONDA SOUTH + PO BOX 40234 OCT	HOW OFFERALSE	OWLY			07112	8.4117
BE SURE TO INCLUDE FILING FEE. Checks should be made payable to "Secretary of State" STATE OF	CORPORATIO	NUMB	ER:		00042	
PORTANTI Person to contact about this filing		C	aytime Phone N	lumber (w	th area code	,
HOMAS E. WALKER JR			650)6	78	9698	Ì
AME OF CORPORATION (As Recorded in the State/Country of in TABICALL SUFFLAARC INC	ncorporation)					7/19/04
NOTE: If the name tisted above is unavailable in Washington s	state or does not mee	t the requ	inements of 23B.	15 RCW.	blease provid	e the name the
corporation adopts for use in Washington State. You must a	ilso atlach a Board of	Directors	Resolution appr	oving the i	ise of an alte	mate name.
AME THE CORPORATION ADOPTS FOR USE IN WASHINGTON	N STATE				APPROVE) BY DIRECTORS
RINCIPAL OFFICE ADDRESS OF CORPORATION (Street Addre	ess Required - Please	Do Not L	Ise PO Box)			
adress 2517 EAST Helen STI	reeT					
N SEATTLE	State or C	ountry	WA	ZIP of P	ostal Code	98112
FECTIVE DATE (Specified effective date may be up to 90 days	s AFTER receipt of th	e docume	nt by the Secret	ary of Stat	ə)	
F AUTHORITY Specific Date:	🕱 Upor	n filing by	the Secretary	of State		
ERIOD OF Z Perpetual URATION Check one onlyYears (indicate number of years)	ars) Date 0	ORATION	BEGAN DOING	BUSINE	ss in wash	INGTON STATE
ERTIFICATE F EXISTENCE Attached is an original Certificate of E cated by the Secretary of State or other or	xistence, issued no fficial having custor	more the	an 60 days pric orate records i	or to this a n the stat	e or country	fuly authenti- of incorporation.
AME AND ADDRESS OF WASHINGTON STATE REGISTERED	AGENT			•		
ame CHRISTIAN CHABOT						
ireet Address (Required) _2517 EAST Helen S	TRACT City 5	CATIL	e	_ State _	NA ZIP_	98112
O Box (Optional – Must be in same city as street address)			ZIP (If diffe	eent than	street ZIP)	
consent to serve as Registered Agent in the State of Was. Nity to accept Service of Process on behalt of the corporat he Secretary of State II i resign or change the Registered	hington for the ab- tion; to forward m Office Address.	ove name all to the	d corporation corporation; e	. I under Ind to im	stand it will nediately n	be my responsi- >dfy the Office of
	CHRISTIAN Printed Name	<u> </u>	HABOT		// 	4/2004
						J
AMES AND ADDRESSES OF ALL CURRENT OFFICERS AND D	DIRECTORS (If noce	ssary, atta	ch additional na	mes and a	ddresses)	
^{ame}	HD-					
ddress	City			_ State _	ZIP	

10/19/2004 497169 \$216.00 Check #241 Tracking ID: 795909 Doc No: 497169-001

CORPORATIONS INFORMATION AND ASSISTANCE - 360/763-7115 (TDD - 360/753-1485)

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010-001 (9/00)

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List of Officers

Christian Chabot Chief Executive Officer 2517 E Helen Street Seattle, WA 98112

Pat Hanrahan Chief Technology Officer 40 Minoca Road Portola Valley, CA 94028

Chris Stolte Vice President 4035 49th Avenue SW Seattle, WA 98116

NO DIRECTORS AT THIS TIME

Tableau Software Inc - Phone (206) 633-3400 - Fax (206) 260-9115

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The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "TABLEAU SOFTWARE, INC." IS DULY INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL CORPORATE EXISTENCE SO FAR AS THE RECORDS OF THIS OFFICE SHOW, AS OF THE FOURTEENTH DAY OF OCTOBER, A.D. 2004.

AND I DO HEREBY FURTHER CERTIFY THAT THE FRANCHISE TAXES HAVE NOT BEEN ASSESSED TO DATE.



Darriet Smith Windson

AUTHENTICATION: 3412603

Harriet Smith Windsor, Secretary of State

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DATE: 10-14-04