

## Supplementary Material

**Table S1.** Hazard ratios and 95% confidence intervals for leukemia by division and major level industry groups, stratified by sex.

Industry Group (SIC Code)	Leukemia <sup>a</sup>			
	Females (n = 1,810 Cases)		Males (n = 5,464 Cases)	
	Cases (Workers) <sup>b</sup>	HR (95% CI) <sup>c</sup>	Cases (Workers) <sup>b</sup>	HR (95% CI) <sup>c</sup>
Agriculture (1)	19 (9557)	1.14 (0.73-1.79)	67 (28,371)	0.90 (0.71-1.15)
Forestry, Fishing and Trapping (2/3)	<6 (499)	--	41 (10,240)	0.98 (0.72-1.33)
- Forestry	<6 (459)	--	41 (9823)	1.02 (0.75-1.38)
Mines, Quarries, and Oil Wells (4)	<6 (663)	--	145 (24,235)	1.27 (1.08-1.50)
- Metal Mines	<6 (279)	--	107 (13,987)	1.39 (1.15-1.68)
- Non-Metal Mines	<6 (158)	--	11 (1908)	1.25 (0.69-2.26)
- Quarries and Sandpits	<6 (125)	--	14 (4101)	1.00 (0.59-1.69)
- Services Incidental to Mining	<6 (102)	--	16 (4671)	0.99 (0.61-1.62)
Manufacturing Industries (5)	428 (172,174)	0.98 (0.88-1.09)	2064 (544,760)	0.99 (0.93-1.04)
- Food and Beverage	78 (29,220)	1.10 (0.87-1.38)	256 (63,977)	1.10 (0.97-1.25)
- Rubber and Plastics Products	43 (18,628)	1.01 (0.75-1.37)	92 (36,575)	0.79 (0.64-0.97)
- Leather and Allied Industries	8 (3522)	0.81 (0.40-1.62)	8 (2222)	0.88 (0.44-1.75)
- Textile	29 (9091)	1.15 (0.79-1.65)	31 (10,676)	0.79 (0.56-1.13)
- Clothing	23 (7504)	0.90 (0.59-1.35)	7 (2795)	0.60 (0.28-1.25)
- Wood	10 (4442)	1.12 (0.60-2.09)	79 (35,642)	0.76 (0.61-0.95)
- Furniture and Fixtures	26 (6581)	1.52 (1.03-2.23)	77 (27,045)	0.81 (0.65-1.02)
- Paper and Allied Industries	15 (5310)	1.06 (0.64-1.77)	81 (20,509)	0.94 (0.76-1.18)
- Printing, Publishing, and Allied Industries	20 (9006)	0.91 (0.59-1.42)	66 (17,691)	1.11 (0.87-1.41)
- Primary Metal Industries	<6 (2589)	--	198 (40,148)	1.05 (0.91-1.21)
- Metal Fabricating	44 (19,821)	0.96 (0.71-1.30)	353 (112,963)	0.94 (0.84-1.05)
- Machinery	<6 (294)	--	29 (6236)	1.00 (0.69-1.44)
- Electrical Product	41 (15,654)	0.91 (0.67-1.24)	79 (23,246)	0.84 (0.67-1.05)
- Transportation Equipment	66 (25,183)	1.21 (0.94-1.55)	529 (106,691)	1.20 (1.10-1.32)
- Non-Metallic Mineral Products	8 (2764)	1.06 (0.53-2.12)	81 (23,025)	0.93 (0.75-1.16)
- Chemical and Chemical Products	10 (6623)	0.60 (0.32-1.11)	52 (16,100)	0.90 (0.68-1.18)
- Miscellaneous Manufacturing	21 (11,956)	0.69 (0.45-1.06)	179 (45,854)	1.03 (0.89-1.20)
Construction (6)	21 (10,942)	1.16 (0.76-1.79)	712 (216,470)	1.03 (0.95-1.12)
- General Contractors	11 (4726)	1.24 (0.68-2.24)	259 (72,204)	1.01 (0.89-1.14)
- Special-Trade Contractors	10 (6256)	1.08 (0.58-2.02)	483 (153,392)	1.04 (0.95-1.14)
Transportation, Communication and Other Utilities (7)	73 (37,710)	1.09 (0.86-1.38)	681 (176,828)	1.11 (1.03-1.21)
- Transportation	38 (21,496)	1.11 (0.81-1.54)	465 (125,934)	1.09 (0.99-1.20)
- Communication	26 (12,220)	0.99 (0.67-1.46)	91 (22,058)	1.06 (0.86-1.31)
- Electric, Power, Gas, and Water Utilities	<6 (2425)	--	112 (21,677)	1.33 (1.10-1.61)
- Storage	6 (1745)	2.85 (1.28-6.37)	28 (9896)	1.11 (0.76-1.61)
Wholesale and Retail Trade (8)	324 (154,321)	1.12 (0.99-1.26)	854 (314,031)	0.99 (0.92-1.07)
- Wholesale Trade	51 (36,871)	0.88 (0.67-1.16)	346 (138,117)	0.93 (0.83-1.04)
- Retail Trade	275 (118,327)	1.17 (1.03-1.33)	524 (184,282)	1.04 (0.95-1.14)
Finance, Insurance and Real Estate (9)	30 (9691)	1.28 (0.89-1.83)	51 (16,309)	0.79 (0.60-1.04)
- Finance	<6 (1729)	--	6 (3388)	0.43 (0.19-0.95)
- Insurance Agencies and Real Estate	25 (7968)	1.35 (0.91-2.00)	45 (12,954)	0.89 (0.66-1.20)
Community, Business and Personal Service (10)	791 (396,744)	0.98 (0.89-1.07)	781 (271,399)	1.03 (0.95-1.11)
- Education and Related Services	158 (66,611)	1.02 (0.87-1.21)	206 (41,436)	1.13 (0.99-1.31)
- Health and Welfare Services	386 (168,105)	1.05 (0.94-1.18)	111 (31,701)	0.98 (0.81-1.18)
- Amusement and Recreation Services	9 (9999)	0.71 (0.37-1.37)	33 (13,221)	1.06 (0.75-1.49)
- Services to Business Management	62 (32,259)	1.26 (0.98-1.63)	177 (74,051)	1.06 (0.91-1.23)
- Personal Services	20 (7562)	1.15 (0.74-1.78)	20 (6507)	0.98 (0.63-1.52)
- Accommodation and Food Services	135 (97,781)	0.85 (0.71-1.01)	139 (73,287)	0.91 (0.77-1.08)
- Miscellaneous Services	51 (26,335)	0.90 (0.68-1.19)	116 (39,933)	1.07 (0.89-1.29)
Public Administration and Defense (11)	147 (75,093)	0.93 (0.78-1.10)	523 (127,816)	1.01 (0.93-1.11)
- Federal Administration	38 (15,635)	0.99 (0.72-1.37)	81 (18,665)	0.88 (0.70-1.09)
- Provincial Administration	39 (19,605)	0.87 (0.64-1.20)	118 (26,773)	1.12 (0.93-1.34)
- Local Administration	70 (39,133)	0.98 (0.77-1.25)	302 (78,489)	1.04 (0.93-1.17)
- Other Government Offices	<6 (2328)	--	64 (9843)	1.15 (0.90-1.47)

a: Leukemia (excluding prevalent cases at cohort entry) is defined by the earliest date of diagnosis for any of the following SEER recode definitions: 35021, 35031, 35022, 35011, 35012, 35013, 35023, 35041, 35043.

b: Industry groups with case counts <6 for both sexes suppressed. c: Adjusted for age at start of follow-up and birth year.  
SIC: Standard Industrial Classification; ODSS, Occupational Disease Surveillance System; HR, Hazard Ratio; CI: Confidence Interval

**Table S2.** Hazard ratios and 95% confidence intervals for leukemia subtypes, by division and major level industry groups.

Industry Group (SIC Code)	Total Workers <sup>b</sup>	Acute Myeloid (n=1,888) <sup>a</sup>		Chronic Myeloid (n=999) <sup>a</sup>		Acute Lymphocytic (n=333) <sup>a</sup>		Chronic Lymphocytic (n=3,119) <sup>a</sup>	
		Cases	HR (95% CI) <sup>c</sup>	Cases	HR (95% CI) <sup>c</sup>	Cases	HR (95% CI) <sup>c</sup>	Cases	HR (95% CI) <sup>c</sup>
Agriculture (1)	37,852	18	0.76 (0.48-1.21)	11	0.86 (0.47-1.55)	6	1.27 (0.57-2.86)	37	0.96 (0.69-1.32)
Forestry, Fishing and Trapping (2/3)	10,736	7	0.66 (0.31-1.38)	7	1.21 (0.58-2.55)	<6	--	22	1.15 (0.76-1.76)
- Forestry	10,280	7	0.69 (0.33-1.45)	7	1.27 (0.60-2.66)	<6	--	22	1.20 (0.79-1.83)
Mines, Quarries, and Oil Wells (4)	24,898	31	1.09 (0.76-1.56)	21	1.39 (0.90-2.15)	6	1.43 (0.64-3.23)	77	1.48 (1.18-1.85)
- Metal Mines	14,266	19	1.00 (0.63-1.57)	19	1.92 (1.22-3.04)	<6	--	56	1.58 (1.21-2.06)
- Quarries and Sandpits	4226	<6	--	<6	--	<6	--	10	1.59 (0.86-2.97)
- Services Incidental to Mining	4773	<6	--	<6	--	<6	--	10	1.40 (0.75-2.61)
Manufacturing Industries (5)	716,893	623	0.96 (0.87-1.05)	367	1.12 (0.98-1.28)	112	0.99 (0.79-1.25)	1084	0.99 (0.92-1.07)
- Food and Beverage	93,181	81	1.03 (0.82-1.29)	48	1.16 (0.87-1.56)	19	1.38 (0.87-2.20)	144	1.10 (0.93-1.30)
- Rubber and Plastics Products	55,202	29	0.70 (0.48-1.01)	19	0.85 (0.54-1.34)	<6	--	58	0.87 (0.67-1.13)
- Textile	19,766	16	0.93 (0.57-1.53)	8	0.90 (0.45-1.81)	<6	--	22	0.81 (0.53-1.23)
- Clothing	10,299	10	0.95 (0.51-1.78)	<6	--	<6	--	12	0.77 (0.44-1.36)
- Wood	40,080	31	1.10 (0.77-1.57)	11	0.70 (0.38-1.26)	<6	--	34	0.70 (0.50-0.99)
- Furniture and Fixtures	33,624	33	1.16 (0.82-1.64)	20	1.31 (0.84-2.04)	<6	--	37	0.76 (0.55-1.06)
- Paper and Allied Industries	25,818	20	0.79 (0.51-1.23)	13	0.97 (0.56-1.68)	<6	--	47	1.07 (0.80-1.43)
- Printing, Publishing, and Allied Industries	26,694	20	0.94 (0.60-1.46)	10	0.89 (0.47-1.65)	<6	--	45	1.31 (0.98-1.76)
- Primary Metal Industries	42,737	43	0.89 (0.66-1.21)	34	1.34 (0.95-1.89)	<6	--	96	1.10 (0.89-1.34)
- Metal Fabricating	132,775	104	0.98 (0.80-1.19)	64	1.11 (0.86-1.44)	20	1.03 (0.65-1.62)	154	0.84 (0.71-0.98)
- Machinery	6530	<6	--	<6	--	<6	--	17	1.26 (0.78-2.04)
- Electrical Product	38,900	44	1.22 (0.90-1.64)	10	0.53 (0.28-0.99)	<6	--	47	0.79 (0.59-1.05)
- Transportation Equipment	131,873	133	1.06 (0.89-1.26)	88	1.33 (1.07-1.66)	24	1.14 (0.75-1.73)	280	1.30 (1.15-1.47)
- Non-Metallic Mineral Products	25,787	21	0.89 (0.58-1.36)	17	1.34 (0.83-2.16)	<6	--	38	0.91 (0.66-1.25)
- Chemical and Chemical Products	22,723	15	0.78 (0.47-1.29)	7	0.69 (0.33-1.45)	<6	--	26	0.81 (0.55-1.19)
- Miscellaneous Manufacturing	57,809	41	0.79 (0.58-1.07)	33	1.20 (0.85-1.70)	9	1.01 (0.52-1.95)	96	1.08 (0.88-1.33)
Construction (6)	227,398	195	1.11 (0.96-1.30)	85	0.86 (0.68-1.07)	29	0.92 (0.62-1.36)	315	1.01 (0.89-1.13)
- General Contractors	76,924	66	0.99 (0.78-1.27)	29	0.80 (0.55-1.16)	8	0.71 (0.35-1.44)	121	1.03 (0.85-1.23)
- Special-Trade Contractors	159,640	136	1.16 (0.97-1.38)	58	0.87 (0.67-1.14)	21	0.99 (0.63-1.54)	211	1.01 (0.88-1.16)
Transportation, Communication and Other Utilities (7)	214,533	198	1.15 (0.99-1.34)	113	1.24 (1.02-1.52)	21	0.68 (0.44-1.06)	331	1.12 (1.00-1.26)
- Transportation	147,427	137	1.18 (0.99-1.41)	73	1.17 (0.92-1.49)	11	0.52 (0.29-0.96)	214	1.06 (0.92-1.22)
- Communication	34,278	24	0.82 (0.55-1.23)	25	1.67 (1.12-2.48)	6	1.23 (0.55-2.75)	47	0.98 (0.73-1.30)
- Electric, Power, Gas, and Water Utilities	24,101	34	1.53 (1.09-2.15)	9	0.75 (0.39-1.44)	<6	--	62	1.58 (1.23-2.04)
- Storage	11,640	6	0.86 (0.38-1.91)	8	2.09 (1.04-4.20)	<6	--	16	1.37 (0.84-2.24)
Wholesale and Retail Trade (8)	468,180	292	0.96 (0.84-1.09)	167	1.04 (0.88-1.23)	62	1.05 (0.79-1.39)	504	1.05 (0.95-1.16)
- Wholesale Trade	174,966	98	0.88 (0.72-1.08)	50	0.82 (0.62-1.09)	18	0.83 (0.52-1.35)	178	0.98 (0.84-1.14)
- Retail Trade	302,459	199	1.00 (0.87-1.16)	121	1.18 (0.97-1.43)	44	1.14 (0.83-1.57)	335	1.09 (0.97-1.22)
Finance, Insurance and Real Estate (9)	25,999	23	1.00 (0.66-1.50)	12	1.03 (0.58-1.83)	<6	--	31	0.80 (0.56-1.15)
- Insurance Agencies and Real Estate	20,921	19	1.05 (0.67-1.64)	10	1.10 (0.59-2.05)	<6	--	30	0.99 (0.69-1.43)
Community, Business and Personal Service (10)	667,741	444	1.05 (0.94-1.18)	221	1.04 (0.89-1.22)	86	1.08 (0.83-1.41)	618	0.95 (0.86-1.04)
- Education and Related Services	108,040	96	1.05 (0.85-1.29)	32	0.71 (0.50-1.01)	17	1.18 (0.72-1.93)	170	1.20 (1.03-1.40)
- Health and Welfare Services	199,796	140	1.01 (0.84-1.21)	73	1.12 (0.87-1.45)	27	1.05 (0.69-1.59)	194	1.00 (0.86-1.17)
- Amusement and Recreation Services	23,181	18	1.54 (0.97-2.46)	<6	--	<6	--	15	0.82 (0.50-1.37)
- Services to Business Management	106,302	59	1.03 (0.79-1.34)	42	1.39 (1.02-1.90)	14	1.22 (0.71-2.09)	92	1.02 (0.83-1.26)

- <i>Personal Services</i>	14,069	20	1.95 (1.26-3.03)	<6	--	<6	--	11	0.70 (0.38-1.26)
- <i>Accommodation and Food Services</i>	170,745	88	1.04 (0.84-1.30)	47	1.07 (0.79-1.43)	23	1.23 (0.80-1.89)	76	0.60 (0.48-0.76)
- <i>Miscellaneous Services</i>	66,253	43	0.97 (0.72-1.32)	23	1.01 (0.67-1.53)	<6	--	74	1.07 (0.85-1.35)
Public Administration and Defense (11)	202,885	171	0.98 (0.84-1.15)	74	0.80 (0.63-1.02)	27	0.92 (0.62-1.36)	306	1.05 (0.94-1.18)
- <i>Federal Administration</i>	34,297	35	1.02 (0.73-1.43)	13	0.75 (0.43-1.30)	<6	--	48	0.84 (0.63-1.12)
- <i>Provincial Administration</i>	46,376	36	0.91 (0.66-1.27)	15	0.74 (0.44-1.23)	<6	--	81	1.26 (1.01-1.57)
- <i>Local Administration</i>	117,602	96	1.03 (0.84-1.26)	43	0.87 (0.64-1.19)	16	1.00 (0.61-1.66)	167	1.07 (0.91-1.25)
- <i>Other Government Offices</i>	12,171	17	1.07 (0.66-1.73)	<6	--	<6	--	29	1.01 (0.70-1.46)

a: Cases defined by the earliest date of diagnosis for each leukemia subtype, based on the following SEER recode definitions: Acute Myeloid (35021, 35031), Chronic Myeloid (35022), Acute Lymphocytic (35011), Chronic Lymphocytic (35012); excluding prevalent cases at cohort entry.

b: Industry groups with case counts <6 for all subtypes suppressed. c: Adjusted for age at start of follow-up, birth year, and sex.

SIC: Standard Industrial Classification; ODSS, Occupational Disease Surveillance System; HR, Hazard Ratio; CI: Confidence Interval