

Union Pacific Corporation

Sustainability Metrics



Providing detailed, transparent, and accessible information on sustainability topics is an important component of our sustainability strategy. This webpage combines the sustainability-related data reported in our sustainability reports (Building America Report, Climate Action Plan, We Are One, and portions of our Proxy Statement) into one combined data table so that this information is more accessible to our stakeholders. Some of the figures and information in the following tables have been compiled and, where necessary, restated from previous sustainability reports to reflect changes in reporting. All currency-related values are reported in US dollars. The light blue boxes below indicate that data is currently unavailable for that year.

Reporting boundary: The sustainability data metrics reported for this section cover all activities consolidated for financial reporting purposes, as reported in our 10-K disclosure. Data is updated, at a minimum, on an annual basis to reflect any changes in activities, methodologies, frameworks, or data availability covered by this boundary.

Environmental Data						
Emissions ¹	Unit	2018	2019	2020	2021	2022
Direct (Scope 1) GHG Emissions	Metric Tons CO2Eq	11,313,933	10,083,282	8,896,946	9,236,750	9,266,469
Energy Indirect (Scope 2) GHG Emissions, Location-Based	Metric Tons CO2Eq	277,200	261,372	241,805	229,081	237,327
Energy Indirect (Scope 2) GHG Emissions, Market-Based	Metric Tons CO2Eq			308,714	237,403	245,798
Total Calculated Scope 3 Emissions	Metric Tons CO2Eq	6,243,210	3,811,990	3,488,151	3,593,621	5,812,587
Scope 3 Category 1: Purchased Goods and Services	Metric Tons CO2Eq	659,281				868,106
Scope 3 Category 2: Capital Goods	Metric Tons CO2Eq	559,287				682,196
Scope 3 Category 3: Fuel and Energy Related Activities	Metric Tons CO2Eq	3,824,960	3,344,223	2,949,702	3,076,747	3,025,471
Scope 3 Category 4: Upstream Transportation and Distribution	Metric Tons CO2Eq	697,657				556,190
Scope 3 Category 5: Waste Generated in Operations	Metric Tons CO2Eq	21,212	452,268	530,310	506,185	148,375
Scope 3 Category 6: Business Travel	Metric Tons CO2Eq	18,246	15,499	8,139	10,689	38,905
Scope 3 Category 7: Employee Commuting	Metric Tons CO2Eq	141,618				174,299
Scope 3 Category 13: Downstream Leased Assets	Metric Tons CO2Eq	8,470				4,530
Scope 3 Category 15: Investments	Metric Tons CO2Eq	312,479				314,515
Total Calculated Scope 1 & 2 Emissions	Metric Tons CO2Eq	11,591,133	10,344,654	9,138,751	9,465,831	9,503,796
Total Calculated Scope 1, 2 & 3 Emissions	Metric Tons CO2Eq	17,834,343	14,156,644	12,626,902	13,059,452	15,316,383
GHG Emissions Intensity (Scope 1 & Scope 2)	Metric Tons CO2Eq/MGTM	12.5	12.2	11.8	11.6	11.3

¹Restatement/Verification: Union Pacific works with independent organizations to develop an accurate estimate of its annual GHG emissions and continually evaluates its greenhouse gas and energy data to produce a calculation of its environmental footprint. In this report, some emissions data have been restated from previous sustainability reports to reflect changes in reporting

Fuel & Energy Consumption	Unit	2018	2019	2020	2021	2022
Total Energy Usage	Megawatt Hours	45.3 Million	40.4 Million	36.4 Million	37.4 Million	37.4 Million
Non-Renewable Energy Consumption	Megawatt Hours	45,033,372	40,112,387	35,871,243	36,760,103	36,372,440
Renewable Energy Consumption	Megawatt Hours	316,422	327,309	479,185	677,481	1,036,814
Waste	Unit	2018	2019	2020	2021	2022
Total Waste Generated	Tons		1,433,365	2,107,755	1,077,503	1,182,181
Hazardous Waste Generated	Tons		2,246	1,603	114	2,221
Non-Hazardous Waste Generated	Tons		1,431,119	2,106,152	1,077,389	1,179,960
Total Waste Diverted	Tons		977,714	989,339	604,801	627,327
Total Hazardous Waste Diverted	Tons		561	401	0	0
Hazardous Waste Diverted: Preparation for Reuse	Tons		0	0	0	0
Hazardous Waste Diverted: Recycled	Tons		0	0	0	0
Hazardous Waste Diverted: Recovery for Energy	Tons		0	0	0	0
Total Non-Hazardous Waste Diverted	Tons		975,468	987,736	604,687	625,106
Non-Hazardous Waste Diverted: Preparation for Reuse	Tons		30,968	91,998	0	25,201
Non-Hazardous Waste Diverted: Recycled	Tons		665,815	592,942	287,648	333,274
Non-Hazardous Waste Diverted: Recovery for Energy	Tons		45,104	37,710	46,192	37,024
Total Waste Disposed	Tons		455,651	1,118,416	472,702	554,854
Hazardous Waste Disposed	Tons		1,685	1,202	114	2,221
Hazardous Waste Disposed: Incinerated	Tons		0	0	0	25
Hazardous Waste Disposed: Landfilled	Tons		0	0	114	2,197
Non-Hazardous Waste Disposed	Tons		453,405	1,116,813	472,588	552,633
Non-Hazardous Waste Disposed: Incinerated (With Energy Recovery)	Tons		235,265	266,282	242,386	231,829
Non-Hazardous Waste Disposed: Incinerated (Without Energy Recovery)	Tons		0	0	0	0
Non-Hazardous Waste Disposed: Landfilled	Tons		218,140	850,531	230,202	320,804
Environmental Management	Unit	2018	2019	2020	2021	2022
Amount of Fines/Penalties ^{1,2}	\$		\$146,608	\$0	\$23,100	\$0
Environmental Liability Accrued at Year End	\$		\$567,973	\$400,000	\$0	\$6,750

¹Only those fines/penalties amounting to over \$10,000 included

²The values refer to the year in which the incident occurred, not when the fine or penalty was paid

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Social Data						
Workforce ¹	Unit	2018	2019	2020	2021	2022
Total Workforce	#	44,312	36,855	32,204	32,124	33,359
Craft Professionals	#	38,279	31,353	26,893	26,835	27,881
Management Employees	#	6,033	5,502	5,311	5,289	5,478
Average Age	Years	44.5	46.1	46.8	46.4	46.5
Average Years of Service	Years	13.7	15.4	16.3	15.7	15.8
Employee Turnover Rate	%	9	11	12	12	10
Employee Voluntary Turnover Rate ²	%	63	68	66	59	58
Retention Rate	%	91	90	89	89	90
Retention Rate - Female	%	87	86	87	88	88
Retention Rate - People of Color	%	91	90	89	89	88

¹Includes Interns

²Voluntary quits and employee retirements

Retention Rate - People of Color, Management Employees ¹	Unit	2018	2019	2020	2021	2022
Asian	%			95	96	91
Black	%			86	90	90
Hispanic	%			91	93	93
Native American	%			94	94	94
2 or More	%			92	92	90
White	%			89	92	92

¹Breakout data was not available until 2020; reported data is self-reported

Retention Rate - People of Color, Craft Professionals ¹	Unit	2018	2019	2020	2021	2022
Asian	%			87	89	87
Black	%			90	88	86
Hispanic	%			88	88	90
Native American	%			91	92	91
2 or More	%			73	74	78
White	%			88	88	90

¹Breakout data was not available until 2020; reported data is self-reported

Retention Rate - Gender, Management Employees ¹	Unit	2018	2019	2020	2021	2022
Male	%			90	93	92
Female	%			87	90	90

¹Breakout data was not available until 2020; reported data is self-reported

Retention Rate - Gender, Craft Professionals ¹	Unit	2018	2019	2020	2021	2022
Male	%			89	88	89
Female	%			87	85	86

¹Breakout data was not available until 2020; reported data is self-reported

Gender	Unit	2018	2019	2020	2021	2022
Total Female	%	5.3	5.5	5.6	5.3	5.5
Total Male	%	94.7	94.5	94.4	94.7	94.5
Females in All Management Positions	%	23	23	21	21	21
Females in Junior Management Positions	%	23	23	21	21	21
Females in Top Management Positions	%	21	23	22	28	27
Females in Management Positions with Revenue Generating Functions	%	36	38	37	35	34
Females in Craft Positions	%	3	3	3	2	3
Females in STEM-Related Functions	%	20	18	16	16	16

People of Color ¹	Unit	2018	2019	2020	2021	2022
Asian Total	%	2	2	2	2	2
Black Total	%	12	12	12	12	13
Hispanic Total	%	14	14	14	14	15
Native American Total	%	1	1	2	2	1.5
White Total	%	71	71	70	69	67
2 or More Total ²	%			1	1	1

¹Reported data is self-reported. Numbers not adding to 100% are due to rounding

²This data was not reported until 2020

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People of Color: Management Employees ¹	Unit	2018	2019	2020	2021	2022
Asian Total	%	5	5	5	5	5
Black Total	%	8	8	8	8	9
Hispanic Total	%	9	9	10	10	10
Native American Total	%	<1	<1	<1	<1	<1
White Total	%	76	76	76	75	73
2 or More Total ²	%			1	2	2

¹Reported data is self-reported. Numbers not adding to 100% are due to rounding

²This data was not reported until 2020

People of Color: Craft Professionals ¹	Unit	2018	2019	2020	2021	2022
Asian Total	%	1	1	1	1	1
Black Total	%	13	12	13	13	14
Hispanic Total	%	15	14	15	15	14
Native American Total	%	2	2	2	2	2
White Total	%	69	70	69	67	66
2 or More Total ²	%			1	1	1

¹Reported data is self-reported. Numbers not adding to 100% are due to rounding

²This data was not reported until 2020

Generation ¹	Unit	2018	2019	2020	2021	2022
Traditionalists	%	<1	<1	<1	<1	<1
Baby Boomers	%	21	21	19	17	14
Generation X	%	52	55	57	58	56
Millennials	%	26	23	23	25	27
Generation Z	%	<1	<1	<1	1	3

¹Numbers that do not add up to 100% are due to rounding

Veterans	Unit	2018	2019	2020	2021	2022
Number of Veterans	#	8,628	6,985	6,040	6,038	6,073
Percent of Veterans	%	20	19	19	19	18

Self-Reported Information ¹	Unit	2018	2019	2020	2021	2022
LGBTQ+	%			<1	<1	<1
Individuals with Disabilities	%			2	<2	<2

¹This data was not reported until 2020; reported data is self-reported.

New Hires	Unit	2018	2019	2020	2021	2022
Total Workforce New Hires	#	4,679	953	310	1,314	4,170
Hires - Management	#	672	327	181	386	614
Hires - Craft Professionals	#	4,007	626	129	928	3,556
Positions Filled by Internal Candidates	#	1,237	690	805	978	1,262
Internal Hiring Rate	%	21	42	72	43	23
New Hires - POC	#	43	41	35	48	51
Management Hires - POC	#	2002	390	108	630	2193
Craft Professional Hires - POC	#	31	28	33	40	42
	%	207	93	59	156	264
	#	45	47	37	51	53
	%	1795	297	49	474	1929
	#	7	12	17	13	10
New Hires - Female	#	332	119	52	176	416
Management Hires - Female	#	31	31	23	35	33
Craft Professional Hires - Female	#	205	101	42	135	202
	%	3	3	8	4	6
	#	127	18	10	41	214
	%	93	88	83	87	90
New Hires - Male	#	4347	834	258	1146	3754
Management Hires - Male	#	69	69	77	65	67
Craft Professional Hires - Male	#	467	226	139	252	412
	%	97	97	92	96	94
	#	3,880	608	119	894	3,342
Average Hiring Cost	\$	1,401	3,708	9,386	3,028	2,579

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New Hires - Management ¹	Unit	2018	2019	2020	2021	2022
Asian Total	%			15	14	10
	#			27	56	64
Black Total	%			7	10	16
	#			13	40	101
Hispanic Total	%			10	12	11
	#			19	47	69
Native American Total	%			0	0	0
	#			0	1	0
White Total	%			67	60	57
	#			122	230	350
2 or More Total	%			0	3	4
	#			0	11	25
Unknown	%			0	0	1
	#			0	1	5

¹Breakout data was not available until 2020; reported data is self-reported

New Hires - Craft Professionals ¹	Unit	2018	2019	2020	2021	2022
Asian Total	%			1	1	1
	#			1	14	46
Black Total	%			16	22	25
	#			20	204	886
Hispanic Total	%			18	23	22
	#			23	216	782
Native American Total	%			2	1	1
	#			2	6	40
White Total	%			62	49	46
	#			80	454	1,627
2 or More Total	%			2	3	4
	#			3	31	128
Unknown	%			0	0	1
	#			0	3	47

¹Breakout data was not available until 2020; reported data is self-reported

Management Promotions	Unit	2018	2019	2020	2021	2022
Promotions	#	1,108	1,095	1,168	994	1,155
	%	26	28	24	30	28
POC Promotions	#	288	306	284	293	325
	%	21	23	16	20	19
Female Promotions	#	233	252	187	199	219
	%	79	77	84	80	81
Male Promotions	#	875	843	981	795	936

Management Promotions - People of Color ¹	Unit	2018	2019	2020	2021	2022
Total People of Color Promotions	#			284	293	325
Asian Total	%			4	6	3
	#			43	58	32
Black Total	%			7	10	12
	#			81	102	140
Hispanic Total	%			11	10	10
	#			132	102	111
Native American Total	%			0	0	1
	#			5	3	9
White Total	%			76	70	72
	#			884	700	830
2 or More Total	%			2	3	3
	#			22	28	33
Unknown	%			0	0	0
	#			1	0	0

¹Breakout data was not available until 2020; reported data is self-reported

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Employee Development	Unit	2018	2019	2020	2021	2022
Employee Engagement (Favorability Index)	%		54	49	55	49
Management Employees who Receive Formal Performance Reviews	%	99	99	99	99	99
Management Employees with Individual Development Plans	%	13	15	39	93	94
Reported Employee Volunteer Hours ¹	Hours	9,309	6,532	4,028	3,821	3,907
Employees Involved in Employee Resource Groups	#	2,619	2,499	1,848	2,573	4,375

¹Only reflects employee volunteer hours greater than 40 hours per employee

Training	Unit	2018	2019	2020	2021	2022
Average Hours of Training per Employee ¹	Hours	71	33	23	29	47
Average Hours of Training for Male Employees ²	Hours	73	34	23	30	47
Average Hour of Training for Female Employees ²	Hours	39	22	14	24	43
Average Hours of Training for Diverse Employees ²	Hours	92	36	24	33	59
Ethics Training Participation ³	%	21	20	17	98	99
Online Training Courses Completed	#	1,188,360	1,045,872	921,907	860,365	972,252
Average Amount Spent per Employee on Training and Development ⁴	\$	2,205	1,362	696	959	2,037
Diversity & Inclusion Training Covered ⁵	%	<1	7	85	92	88

¹New hire training efficiencies and reduced skill enhancement training due to the pandemic

²Reflects varying proportions of craft and management positions

³Reflects changes in workforce during period

⁴Limited new hire training in 2020 with limited travel

⁵Revised to total workforce completing D&I Training; reflects changes in workforce during period

Governance Data	Unit	2018	2019	2020	2021	2022
Board of Directors						
Board Size ^{1,2,3}	#	11	12	12	12	12
People of Color	#	3	4	4	4	3
Female	#	2	2	2	3	4

¹Erroll B. Davis, Jr. retired at the 2020 Annual Meeting

²Bhavesh Patel completed his term in May 2021. Sheri Edison was elected effective Dec. 1, 2021

³Andrew Card, Jr. and Thomas McLarty III retired at the end of the 2022 Annual Meeting

Network Maintenance	Unit	2018	2019	2020	2021	2022
New Ties Installed	Thousands		3,475	4,671	4,058	3,712
Track Miles of Rail Replaced	#	700	534	468	502	542
Miles of Track Surfaced	#	9,466	7,741	10,414	10,441	9,502
Track Miles of Rail Capacity Expansion	#		55	83	70	44
Frequency of Internal Integrity Inspections	(weekly inspections x miles of track on which they took place) / (total main track miles)	6,123	5,496	5,655	5,574	6,027

Incidents	Unit	2018	2019	2020	2021	2022
Train-Related Incidents & Accidents	#	583	632	451	430	498
Train-Related Accidents Involving the Release of Hazardous Materials	#	3	11	15	7	5
Non-Accident Release of Hazardous Materials	#	170	148	128	130	118
Trespassing Accidents	#	288	319	336	415	434
Crossing Accidents	(per million train miles)	2.69	2.72	3.04	3.51	3.58
Reportable Personal Injury Rate	(per 200,000 employees)	0.82	0.90	0.90	1.13	1.13
Reportable Equipment Incident Rate	(# accidents/million train miles)	3.28	4.28	3.54	3.8	4.3
Number of Federal Railroad (FRA) Recommended Violation Defects ¹	#	1,118	1,385	1,335	1,817	1,472
Lost-Time Injury Frequency Rate (LTIFR) - Employees	(Number of lost time injuries/million hours worked)	0.6	0.67	0.71	0.88	0.88
Lost-Time Injury Severity Rate - Employees	(Number of days lost due to injury x 1,000 / total hours worked)	0.51	0.71	0.77	0.90	0.56

¹These figures are based on FRA inspectors writing inspection reports with recommended violations, Union Pacific did not receive violations on all of these.

Fatalities	Units	2018	2019	2020	2021	2022
Employee Fatalities	#	3	2	1	2	5
Contractor Fatalities	#	3	1	1	4	3
Employee Fatality Rate	(employee work-related fatalities / total number of FTEs)	0.000068	0.000054	0.000031	0.000062	0.00015

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Cybersecurity		2018	2019	2020	2021	2022
Number of Information Security Breaches or Incidents ¹	#	0	0	0	0	0
Total Number of Customers and Employees Affected by Data Breach	#	0	0	0	0	0
Total Amount of Fines/Penalties Paid in Relation to Information Security Breaches or Other Cybersecurity Incidents	#	0	0	0	0	0
Number of Substantiated Complaints - Breaches of Customer Privacy	#	0	0	0	0	0

¹Union Pacific defines a breach as a penetration of the system in which the attacker obtains confidential information

Suppliers		2018	2019	2020	2021	2022
Number of Suppliers	#	8,126	5,314	4,672	4,828	4,937
Diverse Suppliers	#	541	330	286	287	363
Diverse Supplier Spend	millions	\$275	\$328	\$423	\$522	\$813
Minority-Owned Supplier Spend ¹	millions		\$99	\$56	\$74	\$166
Women-Owned Supplier Spend ²	millions		\$189	\$347	\$422	\$589
Veteran-Owned Supplier Spend ³	millions		\$35	\$14	\$13	\$43
Other Diverse Supplier Spend ⁴	millions		\$5	\$7	\$13	\$14
Local Supplier Spend	millions	16.7	\$107.80	\$88.10	\$103.20	\$114.30
Strategic Suppliers	#	18	21	19	16	17
Strategic Supplier Audits	%	100	96	41	100	100
In-State Purchasing	millions	\$7,413.00	\$6,766.00	\$5,427.00	\$6,192.00	\$8,696.00

¹Minority-Owned includes African-American, Asian-Indian American, Asian-Pacific American, Latino American, and Native American

²Women-Owned Includes Women-Owned Business and Women-Owned Small Business

³Veteran-Owned Includes Veteran-Owned and Service-Disabled Veteran-Owned

⁴Other Includes LGBT Business Enterprise, 8(a) Business Enterprise, Disadvantaged Business Enterprise, HubZone Business Enterprise, and Small Disadvantaged Business

Community Giving		2018	2019	2020	2021	2022
Investment in Capital Expenditures	millions	\$3,437.00	\$3,453.00	\$2,927.00	\$2,936.00	\$3,620.00
Community Ties Giving Program	millions	\$20.14	\$22.17	\$26.79	\$22.54	\$24.10

Ethics		2018	2019	2020	2021	2022
Total Values Line Reports	#	1,485	1,260	1,271	1,222	1,342
Substantiated Values Line Cases	%	27	29	26	27	27
Number of Confirmed Corruption Incidents	#	0	0	0	0	0
% of Employees Completing The How Matters Ethics Training	%	21	20	17	98	99
Number of Internally Published Compliance Connections	#	2	2	2	3	12
% of Required Employees Reporting Whether or not They Had a Conflict of Interest ¹	%				100	100
% of Required Employees Completing Gifts or Payments to Public Officials Disclosure ¹	%				100	100
% of Required Employees Completing Sexual Harassment Training ²	%				99	99
% of Required Employees Completing Foreign and Corrupt Practices Act Training (FCPA) ³	%				88	84
% of Required Employees Completing Anti-Trust Training ³	%				96	98

¹Required for management and American Railway and Airway Supervisors Association(ARASA) employees

²Required for specific location, not entire employee population (CA, NY, IL)

³Required for certain management employees only