SUPPLEMENTARY ONLINE APPENDIX

"Risky Transportation Choices and the Value of a Statistical Life"

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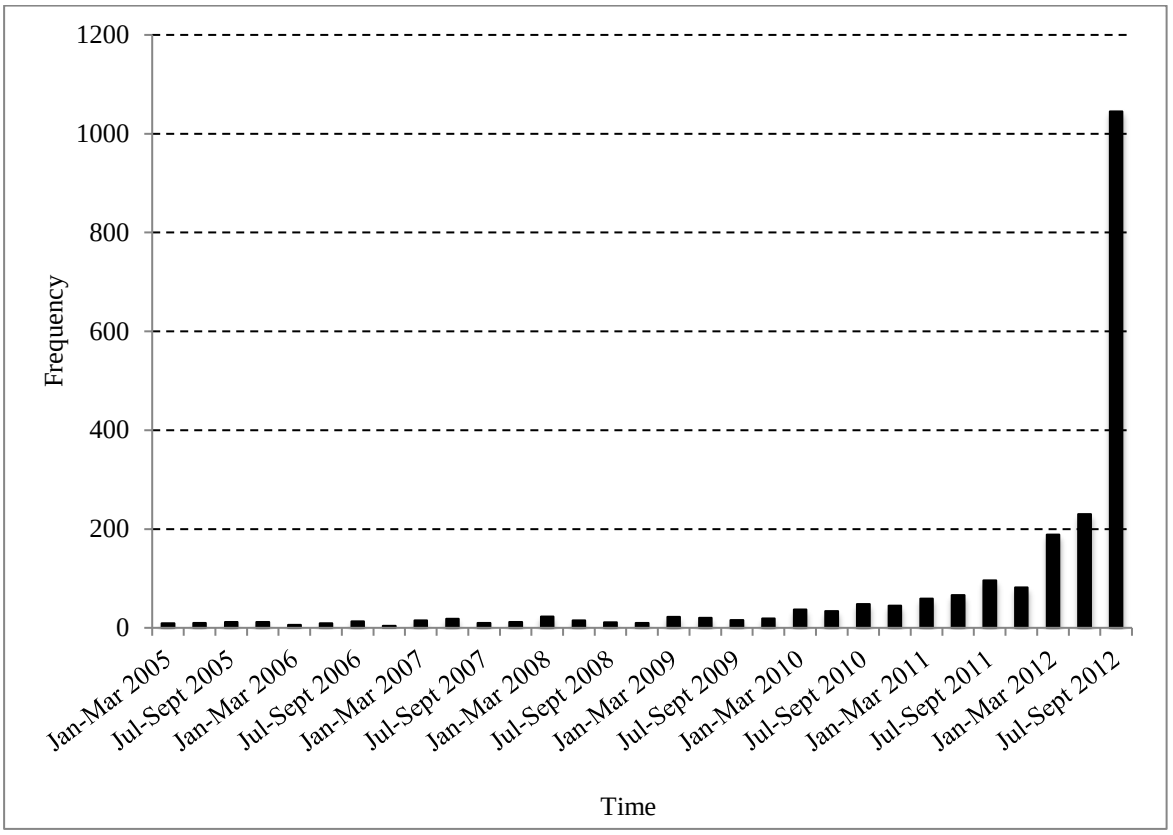
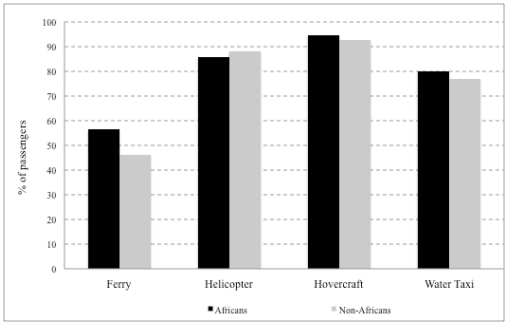
Figure A.1: Timing of the trips available in the dataset



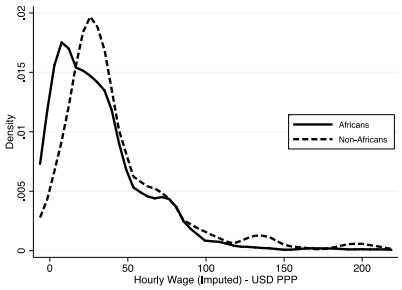
Notes: The figure shows the frequency of the timing of all the trips available in the analysis period (Jan 2005-Sept 2012), covering a total of 2,197 trips.

Figure A.2: Observable Differences between African Travelers and non-African Travelers

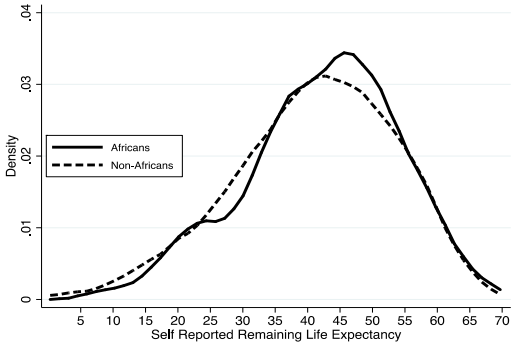
Panel A: Overall Quality: Good or Excellent



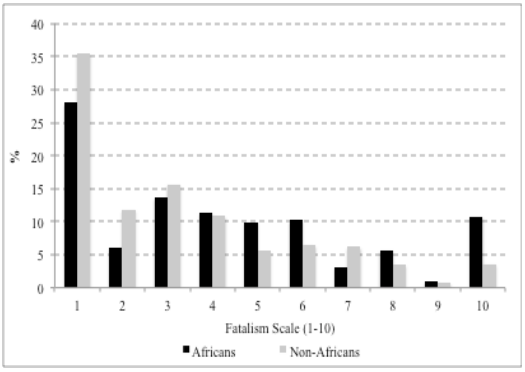
Panel B: Hourly Wage



Panel C: Remaining Life Expectancy

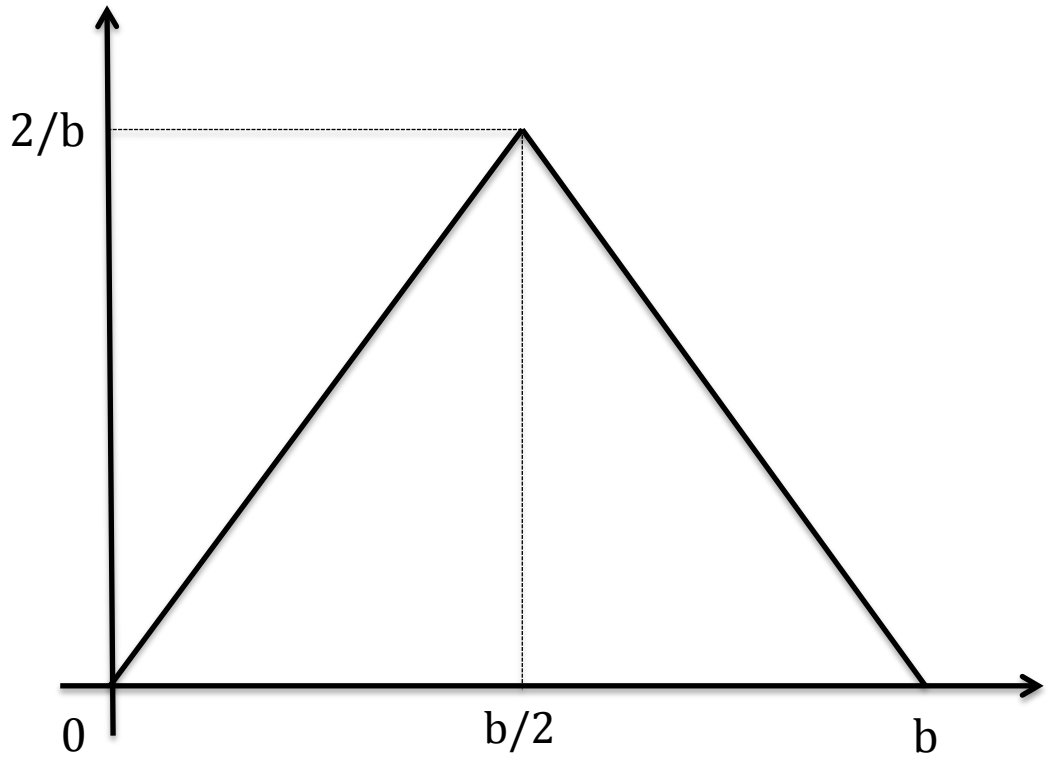


Panel D: Fatalism (Scale 1-10)



Notes: Panel A reports the percentage of Non-Africans and Africans who rank the overall quality of each of the modes of transport as “Good” or “Excellent”.
Panel B shows the kernel density estimates of the self-reported hourly wage for Africans and non-Africans.
Panel C presents the kernel density estimates for the self-reported remaining life expectancy for the two groups; the variable is the difference between self-reported age until the age at which the respondent reports to expect to live.
Panel D portrays the frequency of responses to a fatalism question for Non-Africans and Africans. Each respondent was asked the following question: “Some people feel they have completely free choice and control over their lives, while other people feel that what they have no real effect on what happens to them. Please use this scale where 1 means "no choice at all" and 10 means "a great deal of choice" to indicate how much freedom of choice and control you feel you have over the way your life turns out”. This original scale was then inverted so that 10 denotes “no choice at all” to capture fatalism.

Figure A.3: Example and definition of a Restricted Triangular Distribution



The restricted triangular distribution is symmetric and continuous distribution with lower limit *0*, upper limit *b*, where b>0. The probability density function is given by:

$$f(x|b)\begin{cases} 0 \text{ for } x < 0, \\ \frac{4x}{b^2} \text{ for } 0 \le x \le {}^{b}/_{2}, \\ \frac{4(b-x)}{b^2} \text{ for } {}^{b}/_{2} < x \le b, \\ 0 \text{ for } b < x, \end{cases}.$$

The mean (and mode) for this distribution is *b*/2.

Table A.1: Descriptive Statistics, by mode of transportation

	Ferry		Water Taxi		Hovercraft	
	Mean	s.d.	Mean	s.d.	Mean	s.d.
Panel A: Reasons for choosing this mode						
Safer	0.84	0.37	0.43	0.50	0.80	0.40
Cheaper	0.65	0.48	0.03	0.17	0.02	0.12
Faster	0.02	0.15	0.85	0.35	0.73	0.45
More Comfortable	0.53	0.50	0.49	0.50	0.71	0.46
Panel B: Respondent Characteristics and Attitudes						
Gender (1=Male)	0.78	0.42	0.72	0.45	0.78	0.42
Age	39.76	10.71	41.31	10.56	41.02	12.80
Educational level: less than completed university	0.21	0.41	0.10	0.31	0.20	0.40
Educational level: complete university or more	0.79	0.41	0.90	0.31	0.80	0.40
Personally affected by civil conflict (Yes=1)	0.55	0.50	0.30	0.46	0.23	0.43
Have children? (1=Yes)	0.81	0.39	0.69	0.46	0.71	0.46
Knows how to swim?	0.45	0.50	0.58	0.49	0.54	0.50
Nationality: Sierra Leonean	0.47	0.50	0.25	0.43	0.23	0.42
Nationality: Other African	0.29	0.46	0.25	0.44	0.24	0.43
Nationality: Non-African	0.24	0.43	0.50	0.50	0.53	0.50
Hourly wage (PPP)	29.59	42.85	43.43	39.79	40.26	40.68
Hourly wage (PPP) – Imputed	31.32	39.90	43.37	36.33	40.57	36.71
Self-reported belief of remaining life expectancy	82.27	4.86	81.75	5.11	81.68	6.88
Self-reported fatalism (scale 1 to 10)	42.50	11.63	40.44	10.90	40.66	13.52

Notes: In this table, each observation represents a single passenger observation. All statistics are weighted to represent the true proportions of the population taking each mode of transport. The PPP exchange rates used correspond to 2011 (2012 are still not available), from the World Bank's World Development Indicators. The conversion to PPP uses the country of residence of the respondent. Wage imputations are based on three education categories (high school or less, some or completed university, and post graduate), region of residence (African / non-African), and job status (Government, international organization or private business outside Sierra Leone; Local NGO, local business, academic/research/education; Student/Unemployed). 447 out of 562 respondents reported their wages (270 of 337 Africans, 177 of 225 Non-Africans).

Table A.2: Transportation Choices and the Value of a Statistical Life: Robustness Checks

	Sierra Leoneans	Africans, non-Sierra Leoneans	Full Sample, excluding first trip	Full Sample, paid for the trip
Random coefficients				
Prob. of completing the trip ($1-p_j$)	8.284	13.004	8.085	10.188
	(2.642)***	(4.064)***	(1.552)***	(2.064)***
Total transportation cost ($Cost_{ij}$)	-0.024	-0.016	-0.018	-0.022
	(0.004)***	(0.004)***	(0.002)***	(0.003)***
Controls for Perceived attributes	Yes	Yes	Yes	Yes
Observations (respondent-alternative options)				
Number of trips	186	150	560	335
Num. of decision makers	575	508	1489	1101
Log-Likelihood	-430.752	-419.534	-1299.576	-883.234
Mean Value of a statistical life (in '000 US$ PPP)	411.924	856.559	490.930	521.349
2.5% percentile	286.093	526.720	368.584	366.147
97.5% percentile	990.665	1281.698	794.655	1003.541

Notes: The data comes from a survey applied to travelers in August-September 2012. The probability of completing the trip is defined as the one minus the probability of being in an accident and dying (x1000). Each observation in is a unique traveler-transportation mode pair in the current choice. The dependent variable is an indicator equals to one if the traveler chose the transportation mode represented in the traveler-transportation mode pair. In every choice situation, we consider only the transportation modes available (i.e., the hovercraft is often unavailable), and limit the sample to trips that took place in January 2005 of later. All regressions are weighed to be representative to the actual share of travelers taking each individual mode of transport. The coefficients associated with the probability of completing the trip, and the total transportation cost are assumed to follow a restricted triangular distribution, while the other coefficients are assumed to be fixed (not shown). Standard errors below each point estimate, significantly different than zero at 90% (*), 95% (**), 99% (***) confidence. The VSL is the ratio of the coefficient estimates on the probability of completing the trip term over the total cost term, and its standard error is estimated using the delta method.

Table A.3: Transportation Choices and the Value of a Statistical Life (conditional logit)

	(1)	(2)	(3)	(4)	(5)	(6)
	Africans		Non-Africans		All	
Prob. of completing the trip ($1-p_j$)	6.668	8.996	10.408	10.524	7.641	9.391
	(1.371)***	(1.741)***	(1.952)***	(2.202)***	(1.114)***	(1.453)***
Total transportation cost ($Cost_{ij}$)	-0.021	-0.012	-0.004	-0.004	-0.016	-0.010
	(0.002)***	(0.003)***	(0.005)	(0.004)	(0.003)***	(0.003)***
Controls for Perceived attributes	No	Yes	No	Yes	No	Yes
Observations (respondent-alternative options)	3,281	3,281	2,124	2,124	5,405	5,405
Number of trips	1083	1083	710	710	1793	1793
Num. of decision makers	336	336	225	225	561	561
Log-Likelihood	-997.15	-941.28	-616.02	-609.84	-1,647.31	-1,596.27
Mean VSL (in '000 US$ PPP)	319.985	778.492	2,586.708	2,960.968	482.687	984.261
2.5% percentile	155.781	235.181	-3,658.309	-4,674.640	242.983	198.428
97.5% percentile	484.189	1321.803	8,831.725	10,596.570	722.391	1770.095

Notes: The data comes from a survey applied to travelers in August-September 2012. The probability of completing the trip is defined as the one minus the probability of being in an accident and dying (x1000). Each observation is a unique traveler-transportation mode pair in the current choice. The dependent variable is an indicator equals to one if the traveler chose the transportation mode represented in the traveler-transportation mode pair. In every choice situation, we consider only the transportation modes available (i.e., the hovercraft is often unavailable), and limit the sample to trips that took place in January 2005 of later. All regressions are weighed to be representative to the actual share of travelers taking each individual mode of transport. Standard errors below each point estimate are clustered at the passenger level, significantly different than zero at 90% (*), 95% (**), 99% (***) confidence. The VSL is the ratio of the coefficient estimates on the probability of completing the trip term over the total cost term, and its standard error is estimated using the delta method.

Table A.4: Transportation Choices and the Value of a Statistical Life – Mixed logit estimates

	(1) Trips After 2006	(2) Trips After 2007	(3) Trips After 2008	(4) Trips After 2009	(5) Trips After 2010	(6) Trips After 2011	(7) Drop trips after an accident
Prob. of completing the trip ($1-p_j$)	13.531	15.762	16.138	18.847	21.819	17.755	10.581
	(2.104)***	(2.492)***	(2.263)***	(3.077)***	(3.696)***	(3.823)***	(1.677)***
Total transportation cost ($Cost_{ij}$)	-0.019	-0.020	-0.020	-0.020	-0.020	-0.020	-0.019
	(0.002)***	(0.002)***	(0.002)***	(0.002)***	(0.002)***	(0.002)***	(0.002)***
Controls for Perceived attributes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations (respondent-alternative options)	5,214	5,095	4,957	4,768	4,366	3,519	5,175
Number of trips	1725	1682	1635	1573	1437	1192	1718
Num. of decision makers	561	561	561	560	559	554	561
Log-Likelihood	-1484.042	-1443.516	-1413.291	-1362.647	-1259.273	-1040.302	-1498.188
Mean VSL (in '000 US$ PPP)	791.643	893.852	914.730	1,070.152	1,226.952	943.784	612.993
2.5% percentile	550.504	616.565	639.629	740.795	871.272	700.064	437.395
97.5% percentile	1,386.380	1,596.850	1,610.911	1,871.207	2,068.454	1,560.273	1,074.393

Notes: The data comes from a survey applied to travelers in August-September 2012. The probability of completing the trip is defined as the one minus the probability of being in an accident and dying (x1000). Each observation is a unique traveler-transportation mode pair in the current choice. The dependent variable is an indicator equals to one if the traveler chose the transportation mode represented in the traveler-transportation mode pair. In every choice situation, we consider only the transportation modes available (i.e., the hovercraft is often unavailable), and limit the sample to trips that took place in January 2005 of later. Columns (1)-(6) exclude certain retrospective observations by year, as indicated in the column header. Column (7) excludes all trips that took place the month of any accident, and all trips during the subsequent two months following the accident. All regressions are weighed to be representative of the actual share of travelers taking each individual mode of transport. Standard errors below each point estimate, significantly different than zero at 90% (*), 95% (**), 99% (***) confidence. The VSL is the ratio of the coefficient estimates on the probability of completing the trip term over the total cost term, and its standard error is estimated using the delta method.