




Race Car Driving

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(“FIRST LOOK: Mercedes unveil their 2024 F1
car ahead of Silverstone shakedown” 2024)

Introduction

1.55 Billion Viewers



(Medland 2024)





To what extent does the race car industry impact society?





Perspectives

01

Economic

02

Medical

03

Environmental

Economic

Table 3.6
Aggregate Motorsports Employment Impacts by Region

Planning Region	Direct	Indirect	Induced	Total
Advantage West	502	246	235	983
Carolinas Partnership	9,558	4,248	3,914	17,720
Piedmont Triad Partnership	1,710	1,048	918	3,676
Research Triangle Regional Partnership	289	127	129	545
North Carolina's Southeast	306	121	112	529
North Carolina's Eastern Region	300	115	116	531
North Carolina's Northeast Partnership	276	64	82	422
Totals	12,942	5,968	5,506	24,406

(Connaughton 2023)



Economic

*“Austin, Miami, Las Vegas
... \$3 billion.” (Johnson
2024)*



(Keating 2023)



Economic

ECONOMIC IMPACT & VISITOR SPENDING



SIGNIFICANCE OF THE UNDERLYING ECONOMICS

	RACE ATTENDEES	NON-RACE ATTENDEES	TOTAL
NUMBER OF VISITORS	117,700	28,200	+145,900
SPEND PER VISITOR	\$4,128	\$2,662	
TOTAL SPENDING	\$456 M	\$75 M	\$531 M
PLUS: SPENDING PREMIUMS IN BALANCE OF MARKET			\$52 M
LESS: DISPLACED SPENDING			(\$112 M)
NET VISITOR SPENDING			\$501 M
IMPACT MULTIPLIER			1.77 x
ECONOMIC IMPACT OF VISITOR SPENDING			\$884 M

12

(Snel 2024)



Cardiovascular and Respiratory Health Risks



(Riddles 2021)



Cardiovascular and Respiratory Health Risks



(Brophy 2024)






Cardiovascular and Respiratory Health Risks



("G-Force and Formula One:
Explained" 2024)





Neurological Concerns



("Why Am I Dizzy? 7 Causes of Dizziness and How to Treat It" 2020)



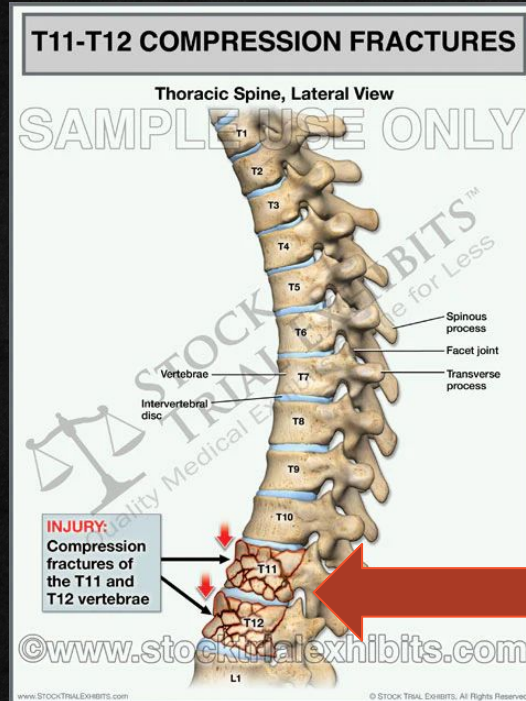
Neurological Concerns



("NeuroGrove Integrative Brain Wellness & Mental Health Services" 2023)



Neurological Concerns



("T11-T12 Compression Fractures of the Thoracic Spine" 2017)



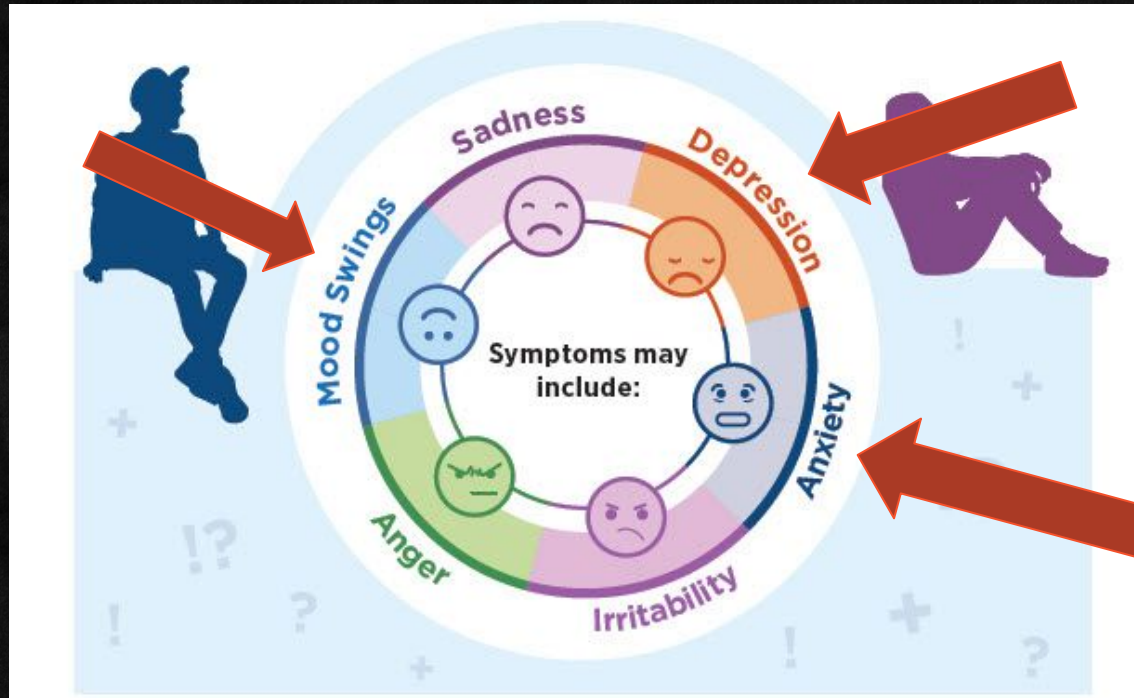
Mental Health



("I Blame Myself" Says Norris after Missing out on Win" 2024)



Mental Health



("Youth Concussions and
Mental Health" 2020)



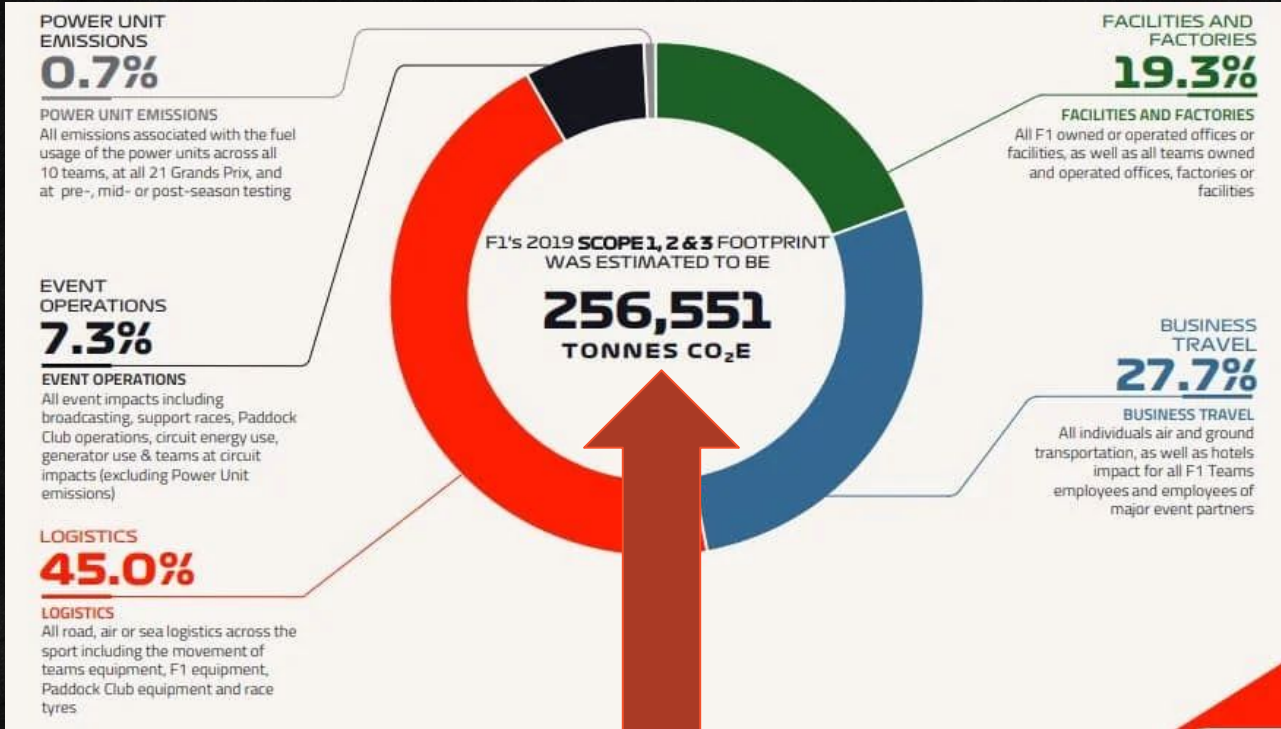
Mental Health



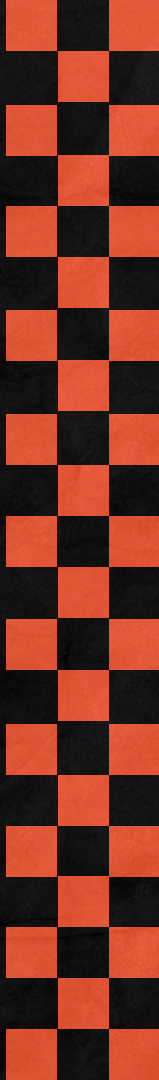
(Coxwell 2018)



Environmental - Issue

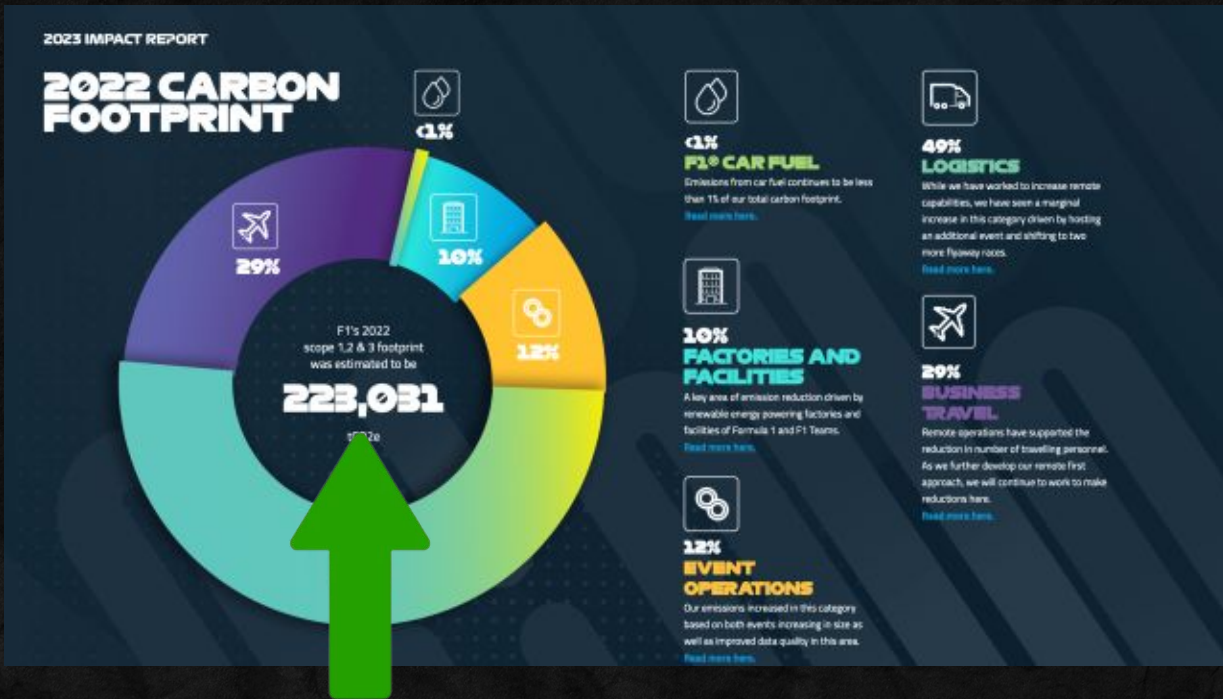


("F1 2019 Impact Report" 2019)



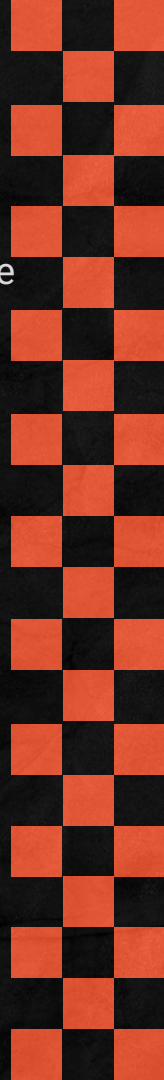


Environmental - changes made



In approximate 13% decrease in Carbon Emissions.

("F1 2023 Impact Report" 2023)





Environmental - continuous Issues



Photo: DHL

(Francks 2023)

Official Logistics Partner **DHL** **F1**

WHAT IT TAKES: THE 2021 F1® SEASON

EXTENSIVE EXPERTISE

FREIGHT TRANSPORTED INCLUDES...

- Broadcast equipment
- Car and team equipment
- Hospitality equipment
- Fuel & tyres

...AS WELL AS

("Paddock Magazine" 2021)

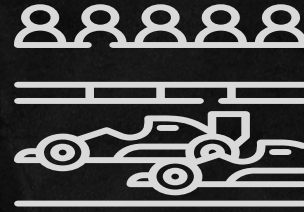
77,414 tonne





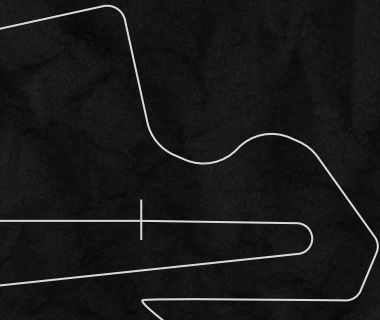
Pros

- Economic Outcome
- New Sustainable Fuels



Cons

- Health Concerns
- Carbon Emissions
- Construction



Solutions



The Right Approach

Fans, reporters, and emergency responders



Investment

Formula 1 must invest in SAF



Location

Relocated track into less populated areas near big cities

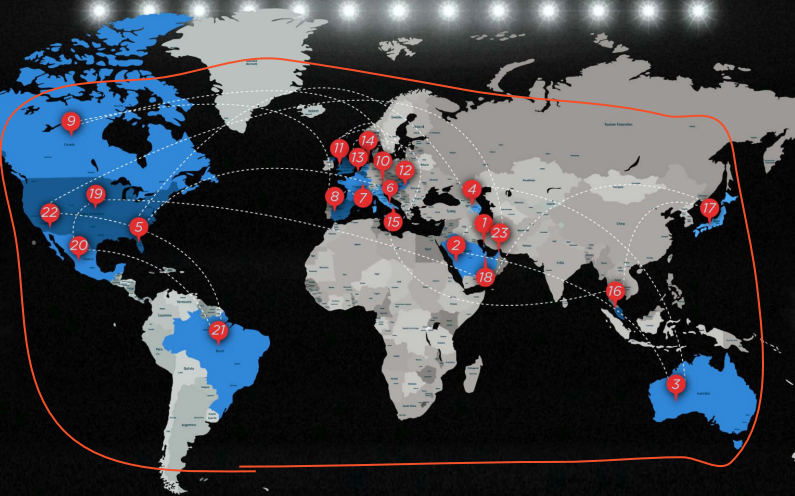


Limitations → “Not Athletes”

***“seldom the focus of scientific research”
(Potkanowicz and Mandel 2023)***



2023 Formula 1 Calendar



- | | | |
|----------------------|----------------------|----------------------|
| 1. Bahrain GP | 9. Canada GP | 17. Japan GP |
| 2. Saudi Arabi GP | 10. Austria GP | 18. Qatar GP |
| 3. Australia GP | 11. Great Britain GP | 19. United States GP |
| 4. Azerbaijan GP | 12. Hungary GP | 20. Mexico GP |
| 5. Miami GP | 13. Belgium GP | 21. Brazil GP |
| 6. Emilia Romagna GP | 14. Netherlands GP | 22. Las Vegas GP |
| 7. Monaco GP | 15. Italy GP | 23. Abu Dhabi GP |
| 8. Spain GP | 16. Singapore GP | |

Limitations - Schedule



2024 CALENDAR

02/03	BAHRAIN (BHR)		21/07	HUNGARY (HUN)	
09/03	SAUDI ARABIA (SAU)		28/07	BELGIUM (BEL)	
24/03	AUSTRALIA (AUS)		25/08	NETHERLANDS (NLD)	
07/04	JAPAN (JPN)		01/09	ITALY - MONZA (ITA)	
21/04	CHINA (CHN)		15/09	AZERBAIJAN (AZE)	
05/05	MIAMI (USA)		22/09	SINGAPORE (SGP)	
19/05	EMILIA ROMAGNA (ITA)		20/10	USA - AUSTIN (USA)	
26/05	MONACO (MCO)		27/10	MEXICO (MEX)	
09/06	CANADA (CAN)		03/11	BRAZIL (BRA)	
23/06	SPAIN (ESP)		23/11	LAS VEGAS (USA)	
30/06	AUSTRIA (AUT)		01/12	QATAR (QAT)	
07/07	UNITED KINGDOM (GBR)		08/12	ABU DHABI (ARE)	

("Are you ready for the longest Formula 1 season ever?" 2024)

(Hernández 2023)



***Why is all of this
so important?***



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