

# Kill or Pursue

DJ Ack

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# List of Needs

Austin:

1. There is a need to decrease the amount of shoulder labrum/rotator cuff injuries involved in sports such as cheerleading, baseball, and others.
2. There is a need to control the humidity levels within houses to acceptable levels in all climates.
3. There is a need to make public transportation more convenient to utilize in university settings.
4. There is a need for more easily accessible parking spaces on college campuses.
5. There is a need to lower the amount of car-related pedestrian casualties.

Jordan:

1. There needs to be a way to motivate students to go to 8:30 classes when attendance isn't required.
2. There needs to be more parking for commuter students on the UF campus.
3. There needs to be a way for high school students to learn about filing taxes before becoming legal adults.
4. There needs to be a way for people to keep track of their AirPods.
5. There needs to be a way to improve the educational resources available to those with low socioeconomic status.

Kristin:

1. A way to address people's fears about receiving newly developed vaccines.
2. There is a need to increase the number of interactions between students of various engineering disciplines.
3. A way to address the quality of life for caregivers of people with Alzheimer's and Dementia.
4. A way to address the prevalence of imposter syndrome in first generation students.
5. A way to address the disparities created by the US medical school application system.

# List of Needs

Corey:

1. There is a need to improve the quality of life for NFL players dealing with CTE.
2. There is a need for companies to decrease emissions into the environment.
3. There is a need to improve the living conditions for on-campus housing at UF.
4. There is a need to increase the availability of vaccines in developing countries.
5. There is a need to decrease childhood obesity in the United-States

Drew:

1. There is a need to improve upon the writing skill level of engineering students.
2. There is a need to increase the number of people that have access to affordable healthcare.
3. There is a need to reduce the number of parking violations occurring on the UF campus.
4. There is a need to improve the emphasis on healthy dietary options for university students
5. There is a need to improve mental health among undergraduate students.

# Top Five Needs Statements

These were chosen by group discussion of each team member's needs statements and voting:

- There is a need to lower the amount of car-related pedestrian casualties.
- There is a need to improve the educational resources available for low socioeconomic populations.
- A way to address the quality of life for caregivers of people with Alzheimer's and Dementia.
- There is a need to improve the quality of life for NFL players dealing with CTE
- There is a need to improve the emphasis on healthy dietary options for university students

# Reasoning to get to Top 5

As a group we went through each person's need statements and chose the one that looked both promising and had a good amount of team interest. Each group member chose their favorite from a person's five need statements, and the statement with the most votes went into the top 5.

# Needs Filtering

**Need:** There is a need to lower the amount of car-related pedestrian casualties.

**Impact:** This would impact everyone who operates motor vehicles, everyone who walks near densely populated streets and crosses city streets as well as their families.

**Interest:** Florida highway statistics showed the Sunshine State alone had **708 pedestrian deaths** in 2020, compared to 745 in 2019 and 720 in 2018. [1]

**Feasibility:** This need poses a largely relevant issue and can be very feasibly tackled.

**Competition:** Very low competition unless implemented methods failed. Once a solution is put in place there is very little method of entry for potential competitors nor a large amount of interest for anyone to become newly involved at that phase of the process.

**Stakeholders:** Parents, state and university-wide legislatures, pedestrians and their families, operators of vehicles, road safety campaigns

**Total Market:** GHSA projects there were **6,721 pedestrian deaths (in the U.S.)** in 2020 – a 4.8% increase from the 6,412 fatalities reported by SHSOs the year before. Factoring in a 13.2% decrease in vehicle miles traveled (VMT) in 2020, the pedestrian fatality rate was 2.3 per billion VMT, a shocking and unprecedented 21% increase from 1.9 in 2019. [2]

[1] - <https://www.news-press.com/story/news/2021/05/20/southwest-florida-pedestrian-deaths-dont-follow-same-nationwide-trend/5180018001/>

[2] - <https://www.ghsa.org/resources/news-releases/ghsa/ped-spotlight-addendum21#:~:text=GHSA%20PROJECTS%20THERE%20WERE%206%2C721,INCREASE%20FROM%201.9%20IN%202019.>

# Needs Filtering

Need: There is a need to improve the educational resources available for low socioeconomic populations.

Stakeholders: Students in low socioeconomic populations, teachers at schools in low socioeconomic areas, the government body responsible for providing educational funding.

Total market: Students and parents of students in low socioeconomic populations would be looking to improve their quality of life and increase the prospect of a successful future.

Feasibility: Addressing this problem would involve large-scale changes to a whole area, which could present challenges for implementation.

Impact: Students whose education are negatively affected by their socioeconomic status are more likely to have lower income and more health problems in adulthood. Addressing this issue could improve the quality of life for many people.

[3] <https://www.apa.org/pi/ses/resources/publications/education>

# Needs Filtering

Need: A way to address the quality of life for caregivers of people with Alzheimer's and Dementia.

Stakeholder: Caregivers, people with Alzheimer's or Dementia, families of people with the Alzheimer's or Dementia, doctors, social services, aid workers, nursing homes and their investors

Total Market:

- More than 6 million Americans have Alzheimer's and will need a caregiver [4]
- 16 million Americans act as caregivers for people with Alzheimer's or Dementia [5]

Impact:

- Decrease caregiver's stress
- Create a safer environment for people with Alzheimer's or Dementia
- Reduce the possibility of negligence of people with Alzheimer's or Dementia

Feasibility:

Solutions can include:

- support groups
- funding to cover lost time working

[4] [Alzheimer's Disease Fact Sheet | National Institute on Aging \(nih.gov\)](#)

[5] [Caregiving for Person with Alzheimer's Disease or a related Dementia | Alzheimer's Disease and Healthy Aging | CDC](#)



# Needs Filtering

Need: There is a need to improve the quality of life for NFL players dealing with CTE.

Stakeholder: NFL player and their loved ones.

Total Market: Football players from high school to college

Impact: Improve the quality of life of football players and their loved ones. CTE can change not only the players that have them but shift their personality to hurt those around them.

Feasibility: The NFL is currently more transparent with CTE than they have been. Additionally, more people are knowledgeable of this issue as it has become more public in recent years. There are multiple different ways to address this issue, and all the solutions seem feasible with the current technology and public support available. [6]

Marketability: This is currently a hot topic issue, and new solutions are currently being pursued. The most current player that is assumed to be struggling with mental health from football is Antonio Brown. [7]

[6] <https://sports-entertainment.brooklaw.edu/nfl-concussion-settlement-five-years-later/>

[7] <https://www.si.com/extra-mustard/2022/01/07/antonio-brown-asked-cte-question-full-send-podcast-vincent-jackson-buccaneers>

# Needs Filtering

**Need:** There is a need to improve the emphasis on healthy dietary options for university students.

**Stakeholder:** Students, universities, restaurant owners, employees of restaurants, students' families

**Total Market:**

35% of college students may be overweight or obese [8].

**Impact:**

Obesity rates have increased amongst college students due to time constraints, unhealthy snacking, and high costs of healthy food [9].

**Feasibility:** Feasible options include:

Raising awareness of healthy food options on campus

[8] <https://diabetesjournals.org/care/article/27/12/3000/26591/Overweight-and-Components-of-the-Metabolic>

[9] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6315356/>

# Needs Filtering – Decision Criteria

Feasibility

Team Interest

Competition

Impact

Severity of Problem

# Decision Matrix

Criteria	Weight	Car-related pedestrian casualties	Educational resources for standardized testing	Caregivers for Alzheimer's/Dementia	NFL players and CTE	Dietary eating in university students
Feasibility	5	4(20)	2(10)	2(10)	3(15)	4(20)
Team Interest	5	4(20)	2(10)	4(20)	4(20)	3(15)
Competition	2	5(10)	3(6)	5(10)	4(8)	3(6)
Impact	5	4(20)	4(20)	4(20)	3(15)	4(20)
Severity of problem	3	5(15)	4(12)	4(12)	4(12)	5(15)
Total:	1-5 (weight) 1-5 (scale)	85	58	72	70	76

# Rationales for Pursuing

Need: There is a need to lower the amount of car-related pedestrian casualties.

Criteria	Weight	Score	Rationale for Pursuing "Car related pedestrian casualties"
Feasibility	5	4(20)	Many stakeholders involved with similar motivation. This problem would be very feasible to tackle especially in a university setting where many individuals have sadly lost their lives due to traffic-related accidents.
Team Interest	5	4(20)	We agreed that this topic held high interest for all of us.
Competition	2	5(10)	There is very little competition or window of entry for other parties.
Impact	5	4(20)	Everyone who operates vehicles and who crosses the street is impacted by this problem. Anyone could be that unfortunate person hit while crossing.
Severity of problem	3	5(15)	Far too many people die from getting hit by cars each year, not just at UF, but at many other universities country-wide.
Total:	1-5 (weight) 1-5 (scale)	85	

# Rationales for Killing

Need: Educational resources for low socioeconomic areas

Criteria	Weight	Score	Rationale for Killing "Educational resources for low socioeconomic areas"
Feasibility	5	2(10)	Very broad scope, likely difficult to implement a solution that will rectify the issue.
Team Interest	5	2(10)	Not many members were interested in this topic.
Competition	2	3(6)	Government forces opposing increases in budget for education in such areas would likely present an issue.
Impact	5	4(20)	The impact would be high, as there are currently many students who could be made better off.
Severity of problem	3	4(12)	This issues has been shown to have longstanding effects on those affected, so the severity is relatively high.
Total:	1-5 (weight) 1-5 (scale)	58	

# Rationales for Killing

Need: A way to address the quality of life for caregivers of people with Alzheimer's and Dementia.

Criteria	Weight	Score	Rationale for Killing "Quality of Life for Caregivers"
Feasibility	5	2(10)	Very expensive and time-intensive to create programs that could have a significant effect on their quality of life.
Team Interest	5	4(20)	While interest is high, and there is some personal ties, we are not in the age demographics of interest and may not relate to/understand stakeholders enough.
Competition	2	5(10)	Not much competition. Other criteria had a more significant effect on decision matrix.
Impact	5	4(20)	High possible impact since number of Americans acting as caregivers is very high. Impact was more or less decreased by feasibility.
Severity of problem	3	4(12)	The problem is severe due to amount of people affected by the diseases, and the large time commitment and stress caregivers endure. <b>Other criteria had a more significant effect on decision matrix.</b>
Total:	1-5 (weight) 1-5 (scale)	72	

# Rationales for Killing

Need: There is a need to improve the quality of life for NFL players dealing with CTE

Criteria	Weight	Score	Rationale for Killing ""
Feasibility	5	3(15)	The team felt creating a solution that would work and be accepted by the NFL would be difficult.
Team Interest	5	4(20)	Some members were very interested in pursuing this topic while others were very unexcited about it.
Competition	2	4(8)	We agreed that there was low competition, but the low competition didn't increase make up for the other areas this project was lacking in.
Impact	5	3(15)	In the greater scheme of things, we found that addressing this problem at the NFL level would have a low impact on society as a whole.
Severity of problem	3	4(12)	The team agreed that this a rather severe problem with not only players, but how NFL players with CTE effect those outside of football.
Total:	1-5 (weight) 1-5 (scale)	70	



# Rationales for Killing

Need: There is a need to improve the emphasis on healthy dietary options for university students.

Criteria	Weight	Score	Rationale for Killing "Healthy Dietary Options for University Students."
Feasibility	5	4(20)	Reasonably high feasibility but some students may be unwilling to change their eating habits.
Team Interest	5	3(15)	The team was not as interested in addressing this issue as some other needs.
Competition	2	3(6)	There is some competition in the form of fast-food restaurants that do not want to lose profits.
Impact	5	4(20)	This need has a high level of impact as many students suffer from a poor diet, but it does not affect all students on the campus.
Severity of problem	3	5(15)	This need has a high degree of severity as poor diet has an extremely negative effect on overall health. However, other criteria had a higher level on effect on the decision matrix.
Total:	1-5 (weight) 1-5 (scale)		

# Final Need Statement

There is a need to lower the amount of car-related pedestrian casualties.