

# Financial Incentives for Wheelchair Accessible Airplanes

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## ↑ INCREASED DEMAND

- 97% of surveyed wheelchair users and caregivers would fly more, and 70% with one or more people, with wheelchair spot
- The general population of wheelchair users is increasing with the aging population

## ✂ WHEELCHAIR REPAIRS

- Airlines are responsible for wheelchair repairs under Air Carrier Access Act (ACAA)
- Forecasted number of mishandled chairs from 2022-2031 using holt() method in R (damped double exponential smoothing)
- Average wheelchair repair costs ~\$4,600

## 👷 WORKER COMPENSATION

- Arm, shoulder, and back injuries can cost airlines \$35,000 - \$50,000 per employee
- 18% of injuries due to overexertion or bodily reactions from handling luggage
- Power wheelchairs weigh 5 times a suitcase or more (~250 lbs)

## ⌚ TARMAC TURN TIME

- Each minute a plane idles costs \$74
- Wheelchair user transfer time is ~8 minutes, which is \$1,100 per flight per wheelchair user
- Additional costs with any delay in returning wheelchair

## 👛 LEGAL FEES

- Multiple potential risks for injury for wheelchair users that fly
- A wheelchair user who was dropped in transfer was recently awarded nearly \$4 million [2]

## !! HALO EFFECT

- Customers reward company actions that have a positive effect on society
- Viral social media posts of damaged wheelchairs harm airline reputations

## 👉 VOUCHERS

- 18% of surveyed wheelchair users and caregivers received additional voucher of \$100-300 for damages

## BACKGROUND:

**CLIENT:** All Wheels Up is a not-for-profit organization crash testing wheelchairs and wheelchair securement spots\* for commercial flight

**PROBLEM:** Airlines perceive loss of revenue with implementing a wheelchair securement spot

- In 2019, airlines damaged ~29 wheelchairs daily [1]
- Currently, transferring wheelchair users to plane can lead to injury and/or death

**GOAL:** Write white paper for airlines on savings and revenue with implementing wheelchair spot

## RESULTS:



Number of wheelchair users increasing by **2 million** each year



Save over **\$45 million annually** on wheelchair repairs industry-wide



Save over **\$35,000 per worker injury**



Save over **\$1,000 per flight** with a wheelchair user in idling time



Save **\$4 million** on lawsuits

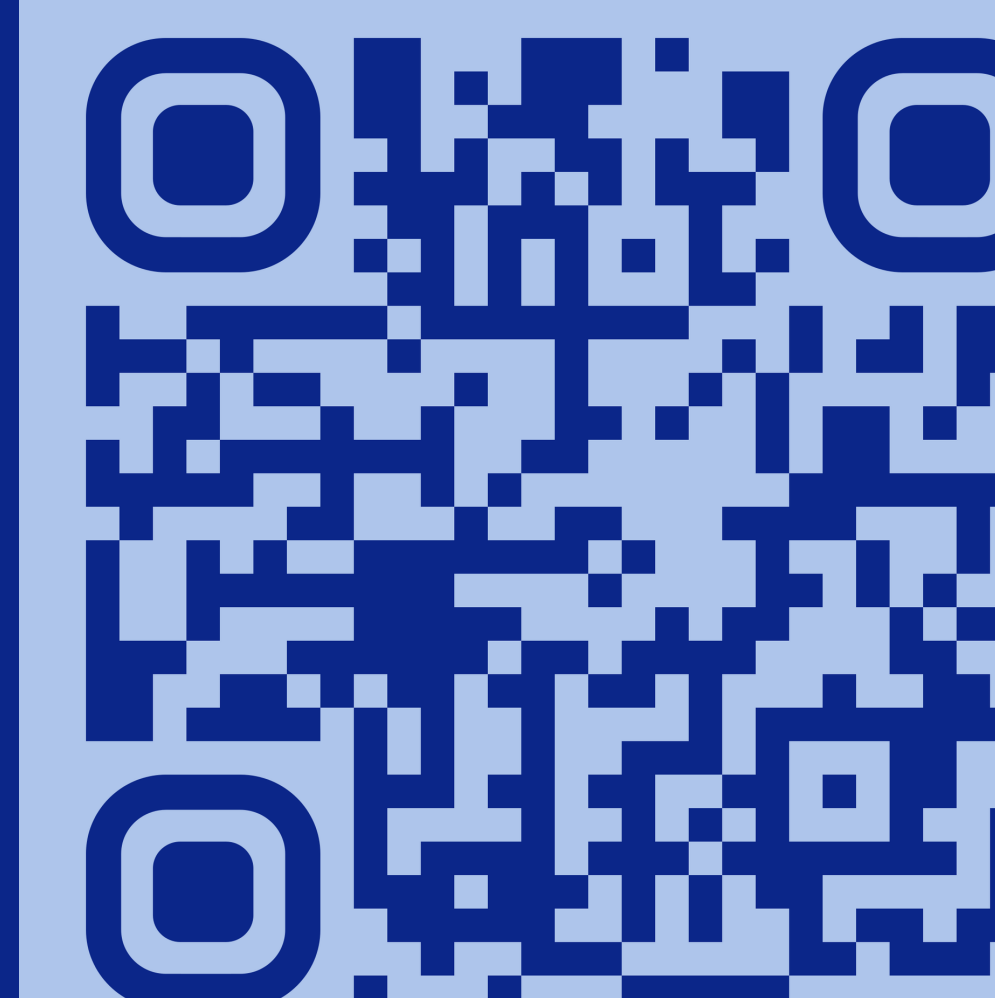


**91%** of our survey respondents ranked dedicated wheelchair spot as top priority



Save **\$350,000 annually** in vouchers industry-wide

SCAN FOR VIDEOS



[1] Kaji, M. (2021, July 21). Airlines keep losing and damaging wheelchairs at an alarming rate. ABC News. <https://abcnews.go.com/Politics/airlines-losing-damaging-wheelchairs-alarming-rate/story?id=78932492>

[2] Fulton v. United Airlines, Inc., No. 19-20140 (5th Cir. Jul. 26, 2021)

\*There are several proposed securement models under consideration. Two of which can be seen by scanning the QR code. Special thanks to Michele Erwin, the Wheelchair Advisory Committee, and Patty Buchanan for their continued support on our project.