

BICYCLING IN DENMARK

Presentation for
American Society of Civil Engineers
Northwest Arkansas Chapter
Nathan Becknell PE, PTOE
November 2, 2016

CityBuilders
Symposium

June 6-11, 2016



peopleforbikes™

LANE
CT

ders
um

by Bicycle
n of the

Walton
Foundation

DENMARK

- Population **5.7 million**
 - AR 2.9 million
- Highest Elevation **560ft**
 - AR 2,753 ft (55 low)
- **16,641 sq. miles**
 - AR 53,179 sq. miles
- GDP **\$301 billion**
 - AR \$105 billion

■ Source: Wikipedia



COPENHAGEN/ODENSE

- **Population**
 - CPH 2.0 million
 - Odense 175 thousand
 - NWA 514 thousand
- **Highest Elevation**
 - CPH 299ft
 - Odense 43 ft
 - NWA ~1,400 ft
- **Land Mass**
 - CPH 237.7 sq. miles
 - Odense 117.5 sq. miles
 - NWA 1,836 sq. miles
- **GDP**
 - CPH \$100 billion
 - Odense \$10.6 billion
 - NWA \$ 23.8 billion





PROFESSIONAL ENGINEER

PE - AR, MO
PTOE

BSCE - UofA 2004
MSCE - UofA 2016

Mobley - 2004-05
Garver - 2005-13
Rogers - 2013 on

MOVITE Officer
TBP
XE



HUSBAND FATHER

Natalie - PE
Clara - 6 - K
Robert - 3
Jackson - Dog

Baseball
Floating
FCC DoC
Running

CITY OF **ROGERS**

— A R K A N S A S —

WHERE POSSIBLE LIVES



CITY OF ROGERS

~60,000 strong

Transportation:
405 centerline
Miles Road
40+ Miles Trail
93 signals

Comparison:
Fay. 75,000
Spring. 70,000
Bent. 40,000
B.Vista 30,000
Lowell 10,000

Tulsa 400,000
Sp. MO 170,000

PRE-CONFERENCE/FUN



DAY 1

■ Introduction

- 17 NWA
- 5 Denver
- 2 Portland
- 1 Newport, RI
- 1 Seattle
- 8 PeopleForBikes

■ Learn to ride

- Hand Signals
- Copenhagen Left

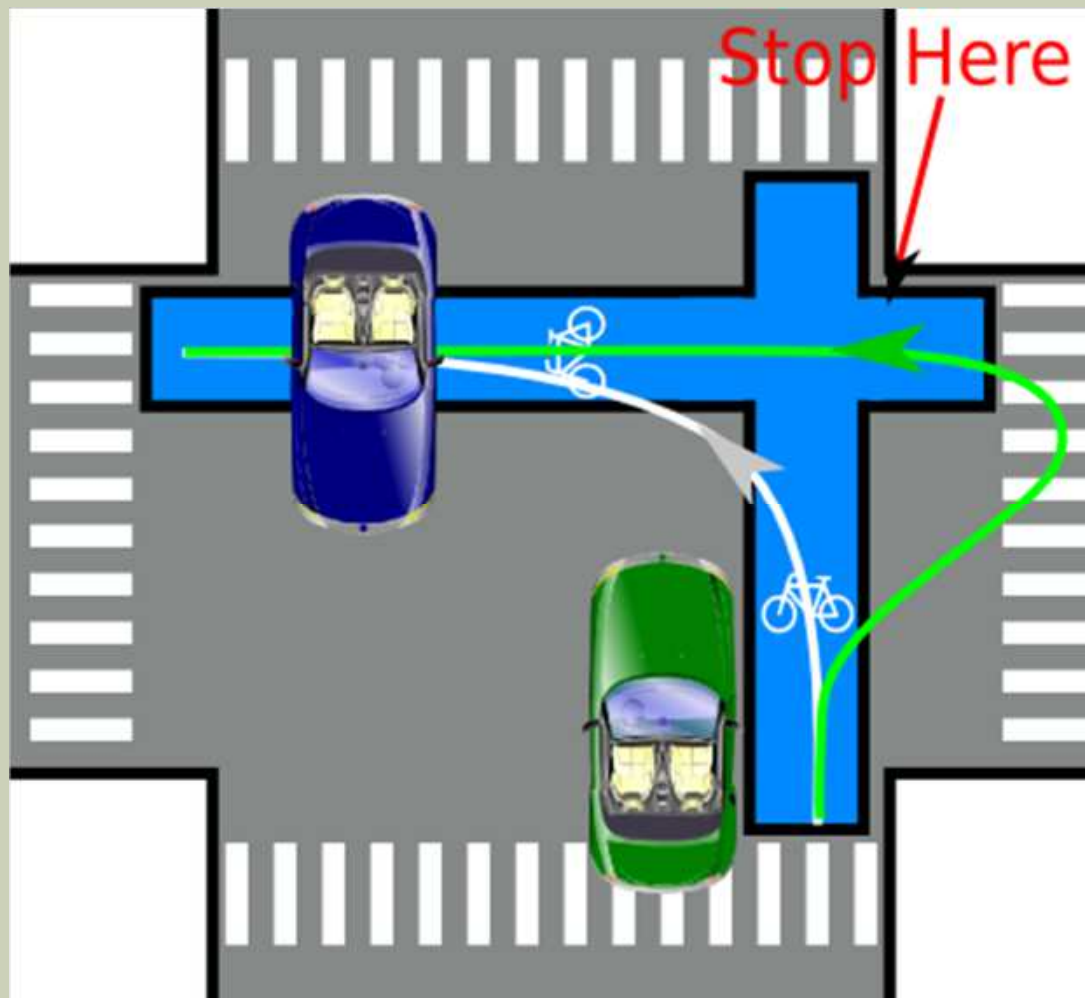


Frederiksberg Castle in Hillerød, Denmark

LEARN TO RIDE



LEARN TO RIDE



DAY 2

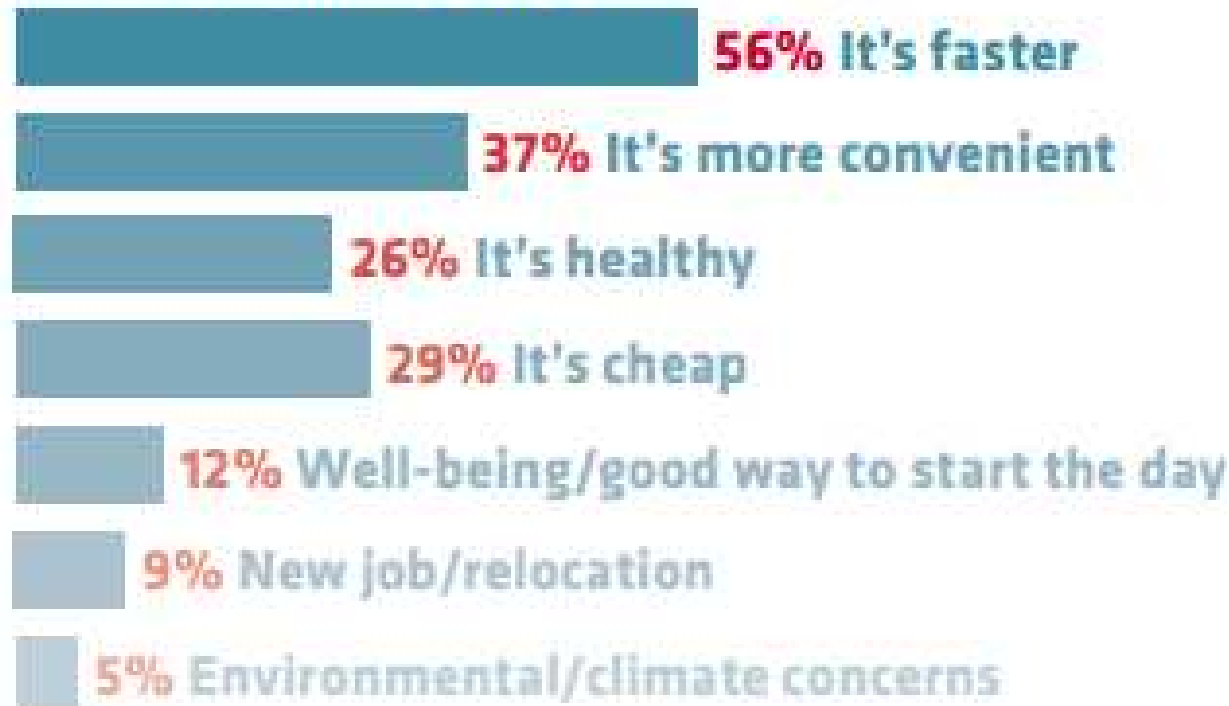
- Copenhagen Government – Klaus Bondam
 - 9 political parties
 - 7 Mayors – Finance Committee highest
 - Income Tax
 - complex/high



DAY 2

■ Copenhagen Cycling – Klaus Bondam

THE BICYCLE IS EASY AND FAST



Copenhageners' reasons for cycling to and from work/education (%)

DAY 2 - FREDERIKSBURG

- Maintenance
 - Sweeping
 - Snow
- Construction
 - Widths
 - equipment
 - Soil transport
 - Disabilities



TYPICAL STREET



DAY 2

■ Summary

- Modes have their own maintenance crews.
- Same goal with different challenges.

DAY 3

- Gehl Architects
 - Design for Behavior
 - Bench/Pizza in Trash
 - Fast left to Slow right
 - Safe bikes/peds = safe cars
 - 5-10 minute radius
 - Danes no different
 - “The status quo is terrible but I know what I’m getting.”



DAY 3

■ Copenhagenize

- Not a fan of Traffic Engineers
- Traffic treated as a utility, Streets are public space
- Desire Lines
- 4 treatments for Cycles
 - 5-20 mph - nothing
 - 25 mph – painted lanes
 - 30-40 mph – curb separated
 - 45+ mph – separated cycle track



DAY 3

■ Summary

- Design for the way people use things.
- Engineers are people too.

DAY 4 - ODENSE

- College town
- 24% trips on bike
 - 50% in urban core
- Focus on children
 - PreK-4 58%
 - 5-10 73%
 - 81% cycle or walk
- Still trying to improve



ODENSE



BUSY INTERSECTION



DAY 5 - ORESTAD



DAY 5 - ORESTAD



DAY 5 - GOALS

■ What

- Downtown plan/downtown project
- Communicate with schools

■ When

- 1 week
 - Prepare this presentation
 - Talk to key people
- 3 months
 - Starting downtown plan
 - Scope a SRTS plan
 - Something on ground for downtown
- 12 months
 - Implementing downtown plan
 - Finalizing downtown project
 - Start building SRTS

GOING HOME



TAKEAWAY: KEEP UP THE GOOD WORK



Questions

