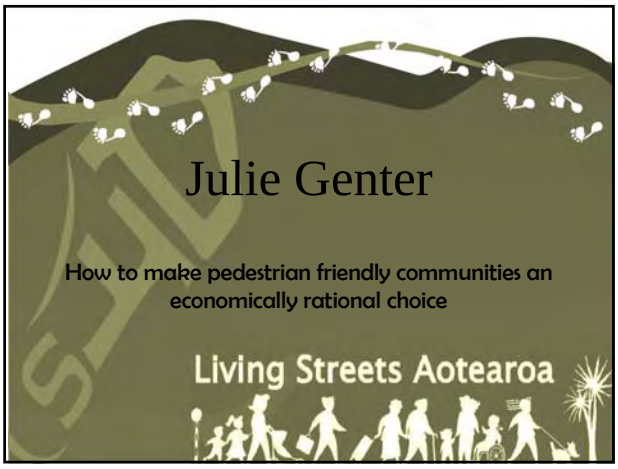


The economics of car dependence

How to make pedestrian friendly communities an economically rational choice

Julie Anne Genter 4 August 2008

McCormickRankinCagney

Prepared by:
McCormickRankinCagney
www.mrcagney.com

Introduction

Lens of economics : the study of the allocation of scarce resources.

Consumers and businesses make choices under constraints, i.e. trade offs

In transport modelling, trade offs are used to explain mode choices → The generalised cost = $cost + (time x $V)

Land use modelling, trade offs are used to explain location decisions → accessibility , transport costs, rents

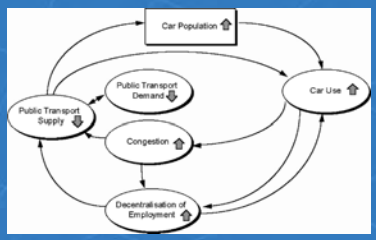
Introduction

Car dependence: When you have to use a car to get to most places (Peter Newman, *Sustainability and Cities,* 1999)

Car dependence is the antithesis of walkable communities:

1. Development is spread out over greater distances, too far for walking
2. Walking environment is perceived as unsafe, unpleasant
3. Reduces economic viability of passenger transport

What underpins car dependence?



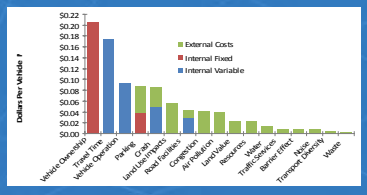
What underpins car dependence?

1. Price factors directly influence mode choice
2. Regulatory factors directly influence price of mode choice and urban form
3. Transport planning influences value of land and thereby urban form and mode choice

The History: How did we get here?

1. Price factors directly influence mode choice:

Many costs of car use have been indirect and external



The History: How did we get here?

2. Regulatory factors directly influence price of mode choice and urban form:

a) Minimum Parking Requirements

The High Cost of Free Parking (Shoup, 2005)

City plans mandate the provision of car parks in most parts of NZ.
Demand based on 85th – 95th percentile demand for free parking.

Huge impact on affordability of development.
Highly subsidises single occupant vehicle trips.

The History: How did we get here?

2. Regulatory factors directly influence price of mode choice and urban form:

b) Single use zoning

Creates areas that are solely residential or commercial, thereby increases need to travel longer distances to access goods and services.

The History: How did we get here?

3. Transport planning influences value of land and thereby urban form and mode choice

→ Increasing vehicle mobility reduces accessibility.

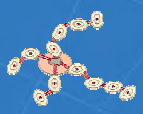
Impact on property values (Levinson and Krisek, 2008)

→ Arterials and motorways reduce property values immediately adjacent, but increase values further out.

Induced development effect (Cervero, 2002)

The walking city: human scale

The transit city: human scale extended



The automobile city: motor vehicle scale

How do we get from the car city back to the walking or transit city?

1. Price factors directly influence mode choice	Direct and efficient pricing Full internalisation of vehicle costs – direct charging
2. Regulatory factors directly influence price of mode choice and urban form	Remove minimum parking requirements and single use zoning. Requires better parking management including parking pricing
3. Transport planning influences value of land and thereby urban form and mode choice	Change transport planning and funding priorities to privilege access over mobility

If we do what we always did, we'll get what we always got…

Research suggests that mixed use zones and transit oriented development will not be enough to create truly accessible communities in the current situation.

Infrastructure provision is a necessary step as it affects land values and economic development.

Un-subsidising private vehicles will be necessary to support economic development that favours accessibility. Increasing the perceived costs of private car use will create opportunities

consultants in transportation www.mrcagney.com

McCormickRankinCagney
GPO Box 187 Canberra
ACT 2601 Australia
+61 2 6207 4752 : tel
enquiry@mrcagney.com