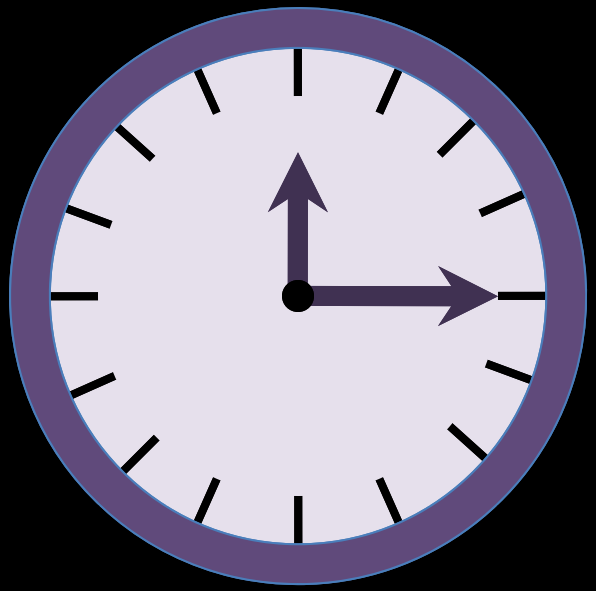
“The Pedestrian Opportunity: Solving the Challenges and Reaping the Benefits of Walkable Places”

the time is …



…NOW

communities should
invest in walkable places
now

the pedestrian

this is who we are:

- recently descended from nomadic hunter/gatherers…
- …who walked extensively… and burned lots of calories
- …who experienced the world @ 2 – 3mph
- …whose bodies were designed for collisions @ < 10 mph

we evolved as “walkers”

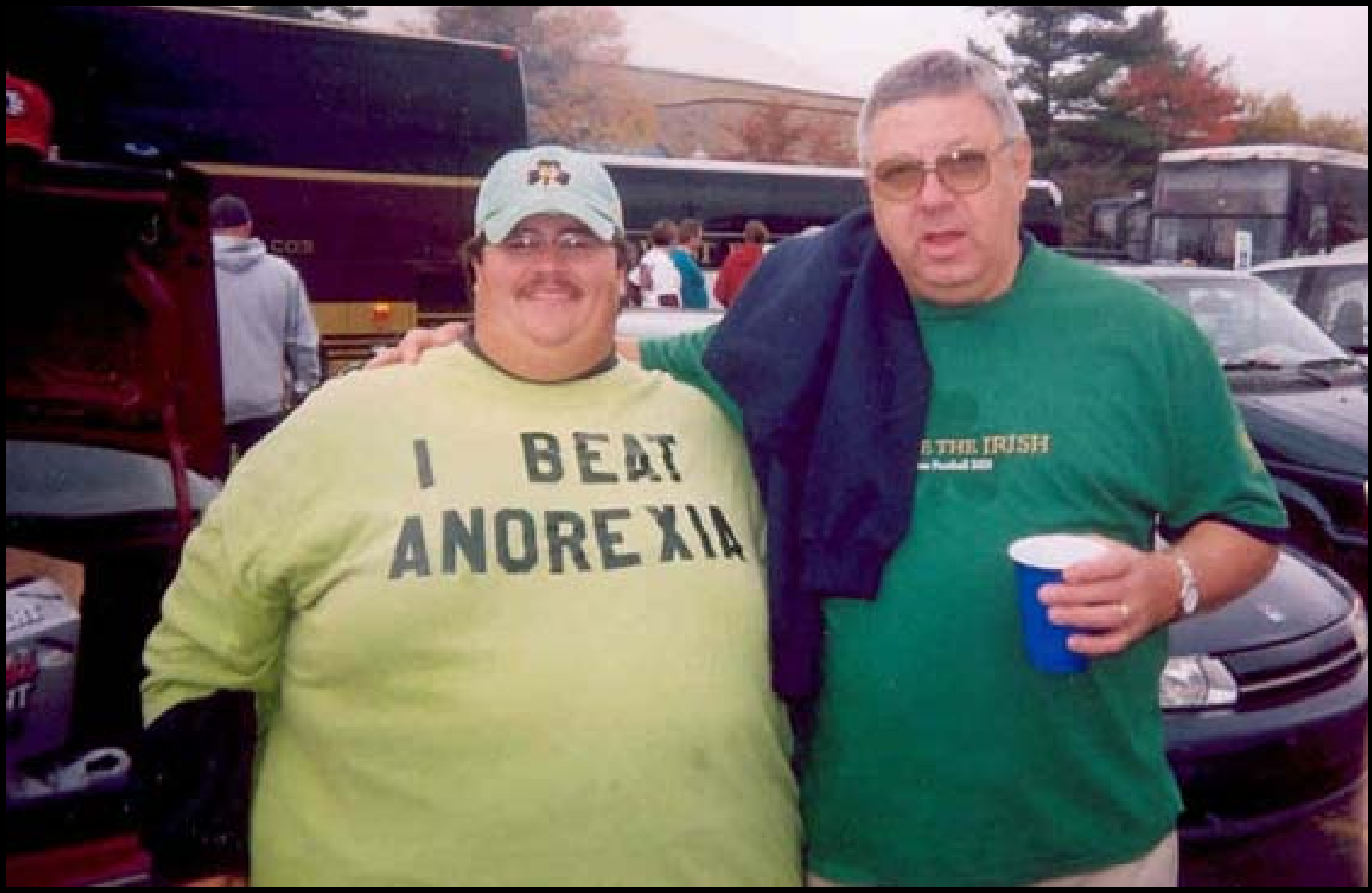
we are still “walkers”

human history

this is what we do…

…but it is not who we are.

we cannot escape our DNA…



…no matter how hard we try

why do we walk?

rambling


rambling
Redmond


rambling
Prospect, Longmont, CO

Upcountry Maui

rambling


Prospect
rambling

Prospect

rambling

accessing


Wailuku
First Hawaiian Bank
Enter
accessing


Kailua
57 KAILUA SEA LIFE PARK
319
accessing


accessing
Upcountry
Maui


accessing
METRO
232
268
Express
545
545 VIA SR-520
9526
K
Redmond

strolling


Boulder
strolling


Winter Park, FL
keybowl
Incorporated
MODA
Park Avenue
Ladies' Fine
Fashion
Apparel
strolling


Boulder
TIMBUKTU
STATION
Juanita's
MEXICAN
FOOD
Jägermeister
VOTED
BEST MEX
food in
Boulder!
strolling

promenade


promenade
BOOKSTORE
Boulder

Oxford (Cornmarket) promenade

where do we walk?

“pedestrian-friendly”


pedestrian place
great
OK
pedestrian supportive
convenient
continuous
pedestrian tolerant
safe
dangerous
pedestrian intolerant

pedestrian place


pedestrian place
Boulder


Miami Beach, FL
pedestrian place

pedestrian supportive


Mt. Vernon, IA
pedestrian supportive


Redmond
pedestrian supportive


Longmont
2:00 AM TO 5:00 AM
2 HR PARKING
8:00 AM TO 6:00 PM
pedestrian supportive

Longmont - Prospect

pedestrian tolerant


Redmond
pedestrian tolerant


Longmont
pedestrian tolerant

pedestrian tolerant

Kapalua, Maui


Wailuku, Maui
pedestrian tolerant

pedestrian tolerant

Boulder, CO

pedestrian intolerant


somewhere
MARTIN ST
ICE
pedestrian intolerant


somewhere
pedestrian intolerant

somewhere

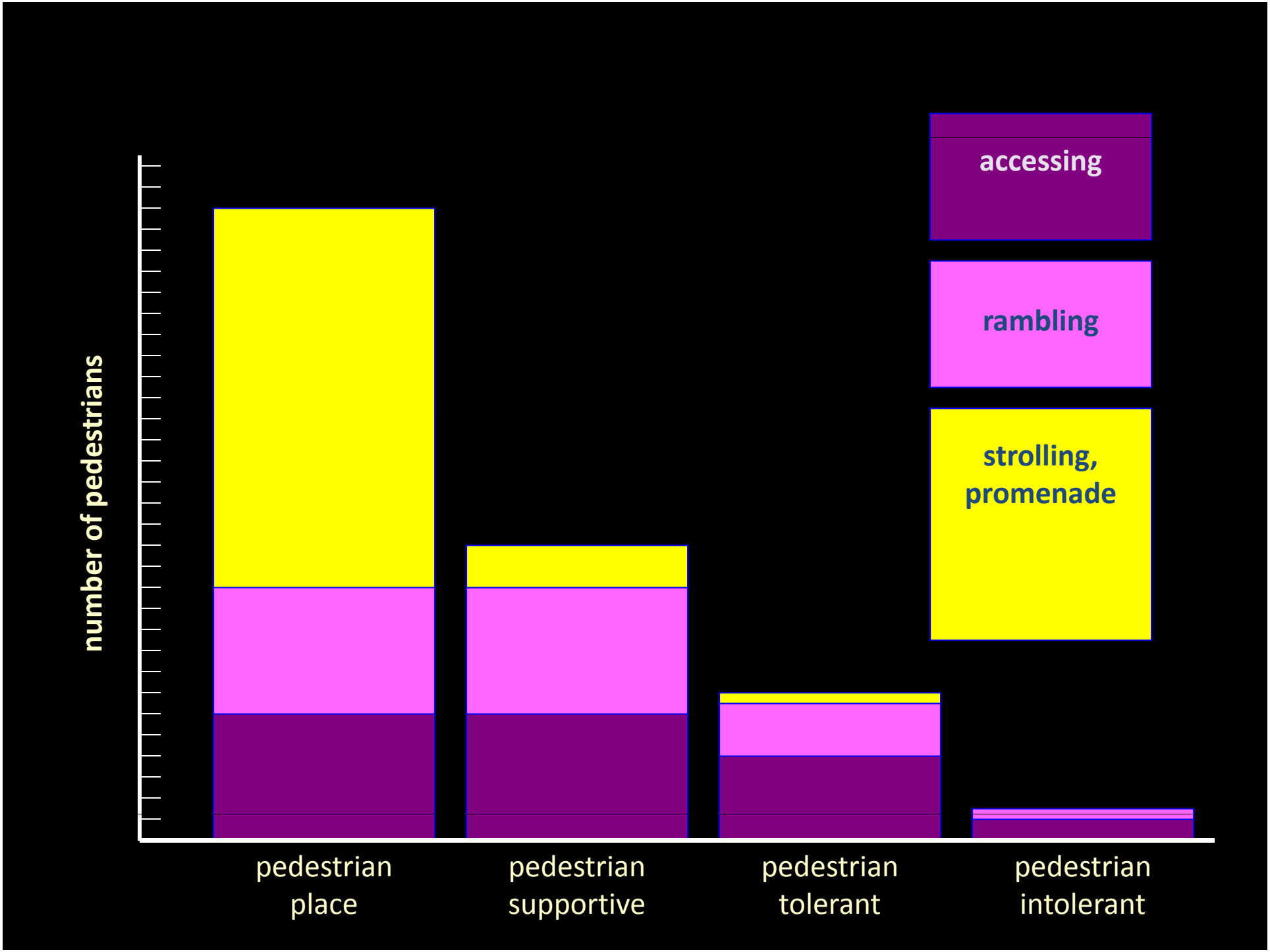
pedestrian intolerant


somewhere
STOP
pedestrian intolerant


somewhere
pedestrian intolerant


Flagstaff, AZ
UNIVERSITY DR
ONLY
pedestrian tolerant

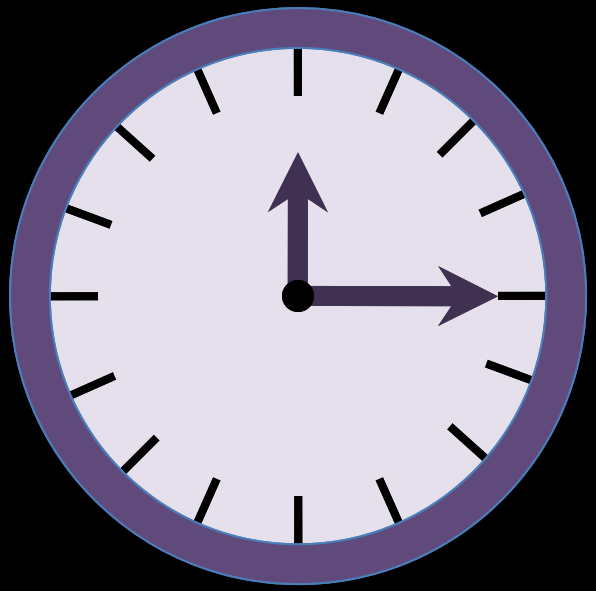

pedestrian intolerant
Flagstaff, AZ


accessing
rambling
strolling, promenade
number of pedestrians
pedestrian place
pedestrian supportive
pedestrian tolerant
pedestrian intolerant

there are no cities that are entirely “pedestrian friendly”

making progress requires setting priorities

the time is …



…NOW

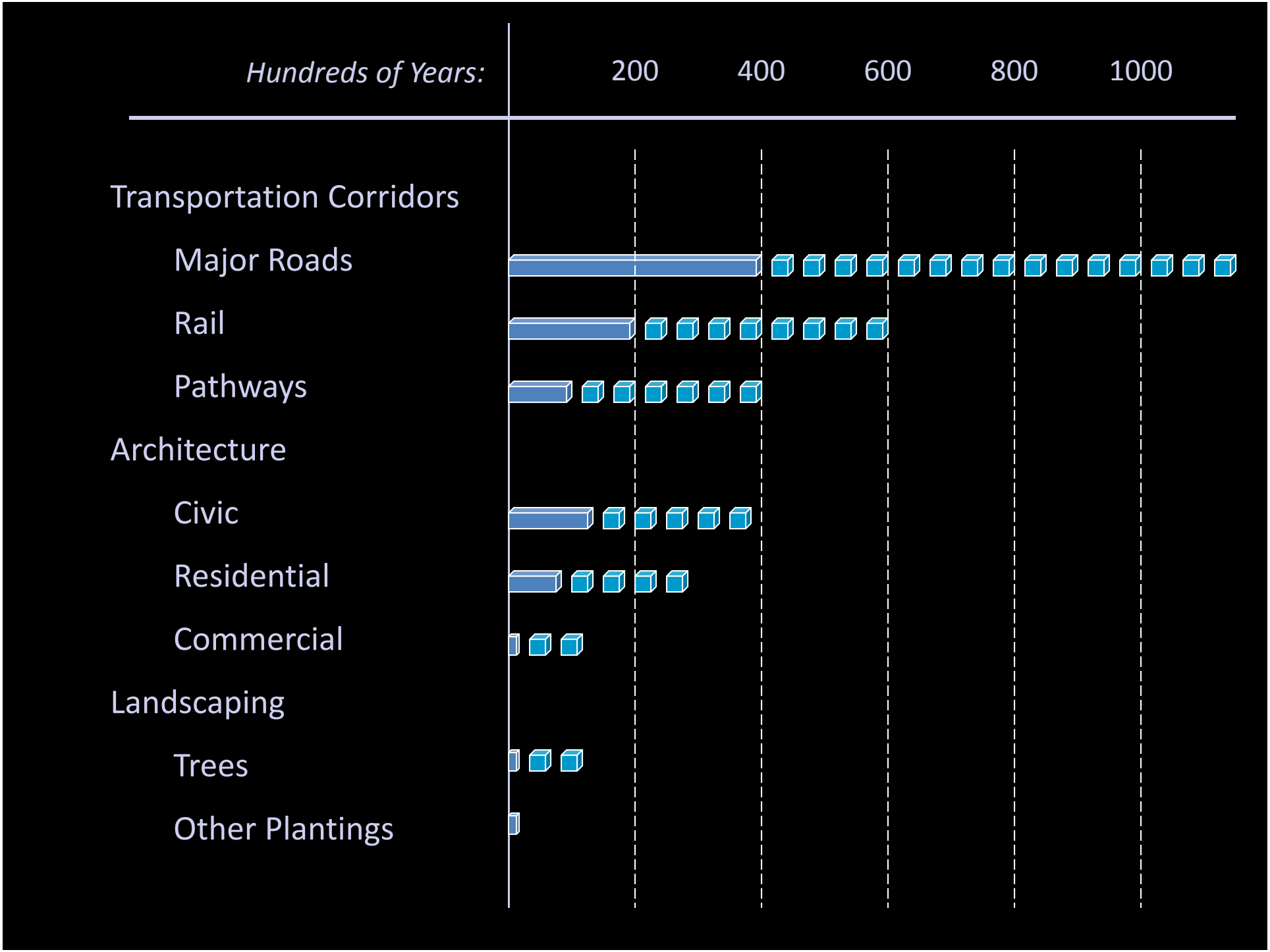
now is the time to invest
in walkable places

why?

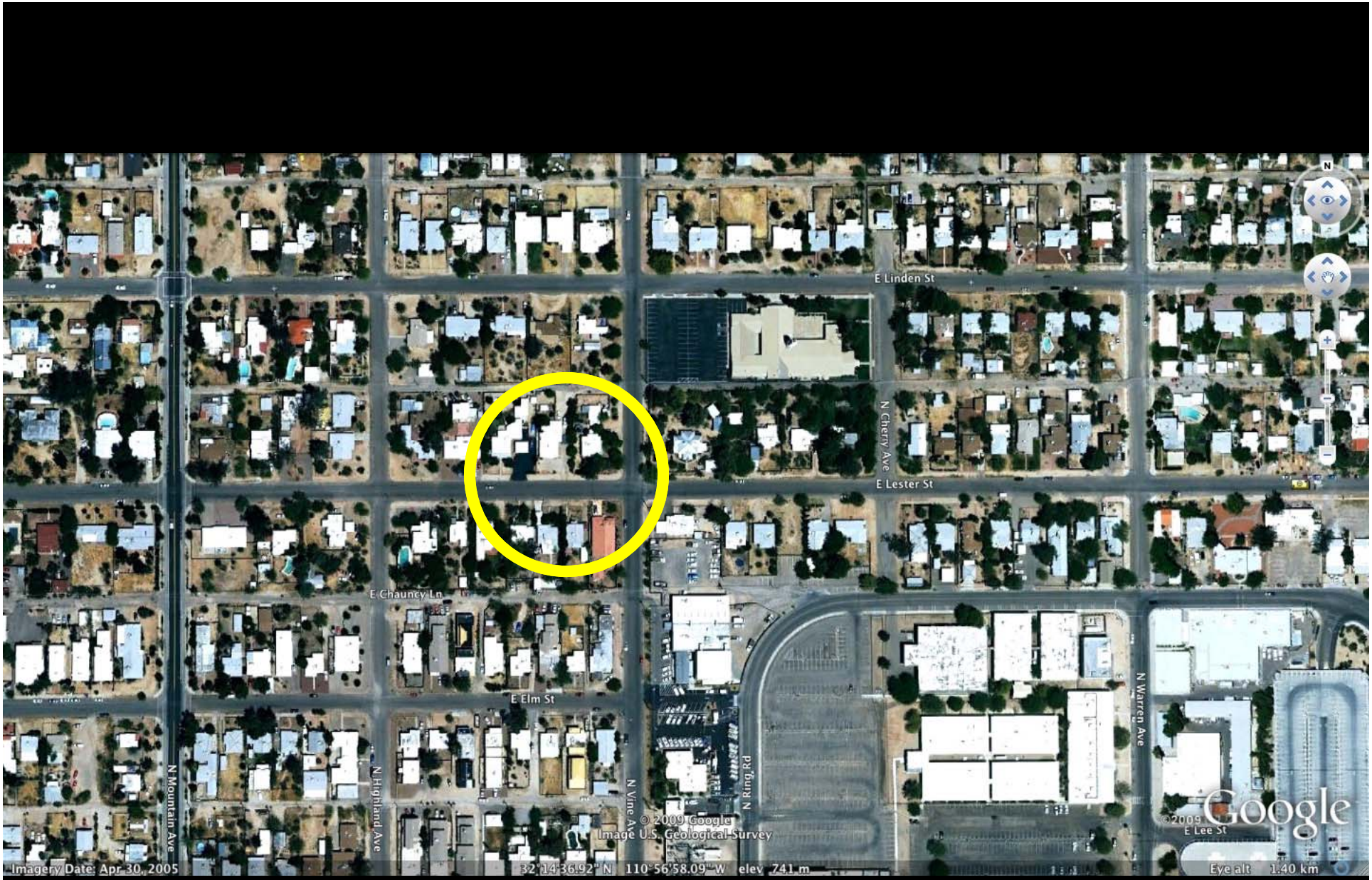
five reasons…

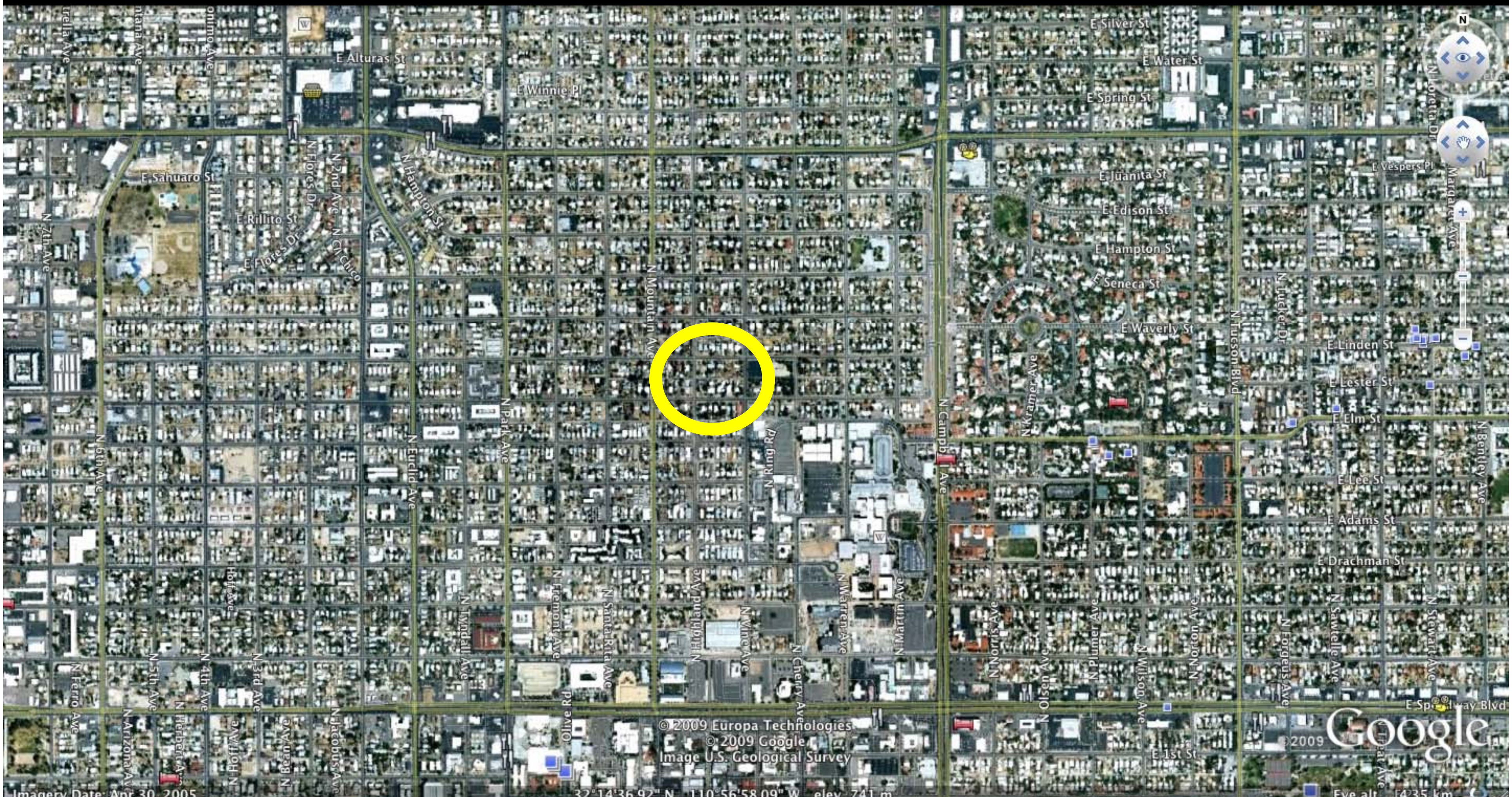
1

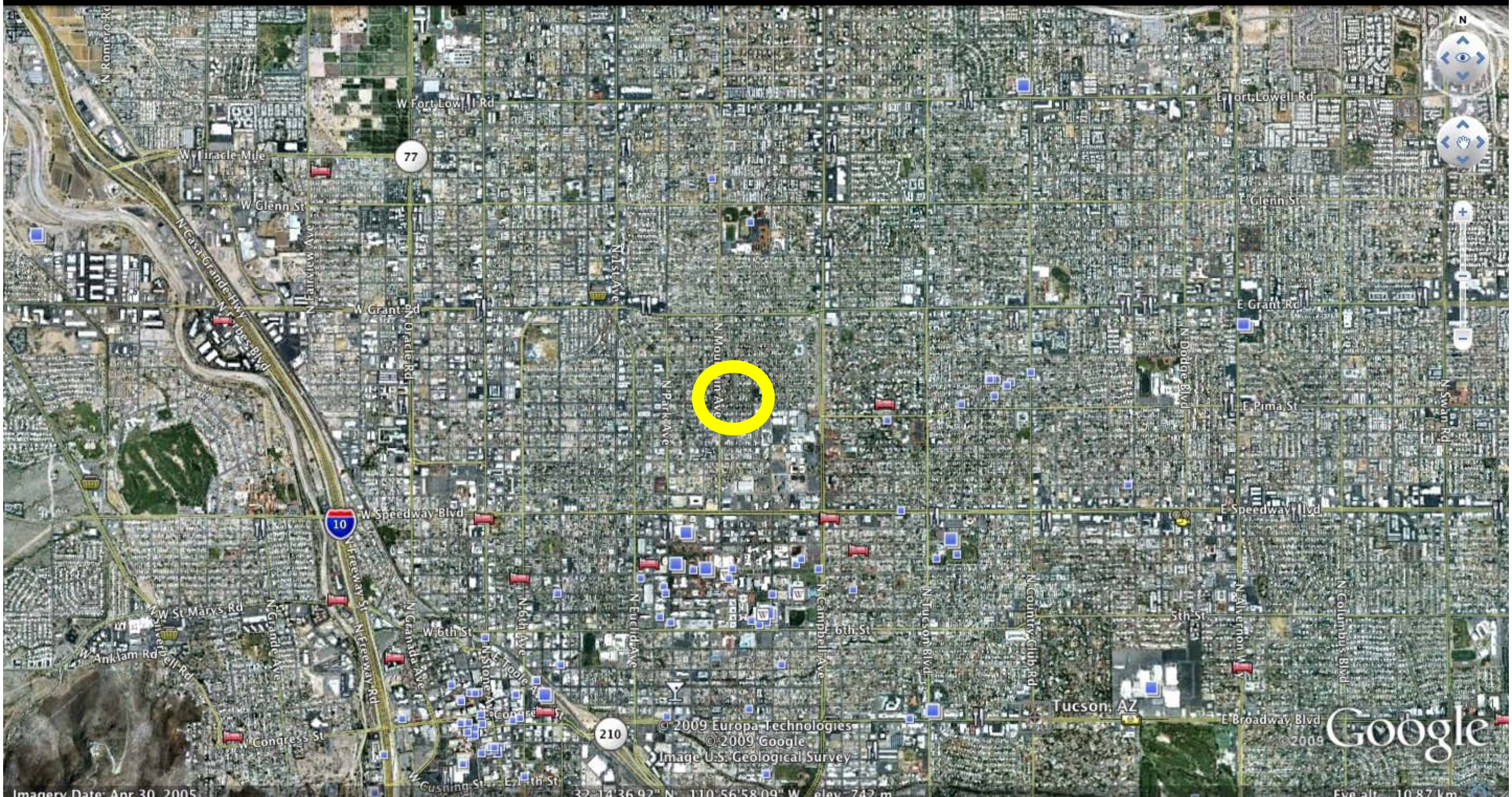
size of the challenge


Hundreds of Years:
200
400
600
800
1000
Transportation Corridors
Major Roads
Rail
Pathways
Architecture
Civic
Residential
Commercial
Landscaping
Trees
Other Plantings


Tucson, AZ


E Linden St
N Cherry Ave
E Lester St
E Chauncy Ln
E Elm St
N Mountain Ave
N Highland Ave
N Vine Ave
N Ring Rd
N Warren Ave
E Lee St
© 2009 Google
Image U.S. Geological Survey
Google
Imagery Date: Apr 30, 2005
32°14'36.92" N 110°56'58.09" W elev 741 m
Eye alt 1.40 km


E Alturas St
E Winnie Pl
E Silver St
E Water St
E Spring St
E Sahuaro St
E Rillito St
E Juanita St
E Edison St
E Hampton St
E Seneca St
E Waverly St
E Linden St
E Lester St
E Elm St
E Lee St
E Adams St
E Drachman St
E Speedway Blvd
E 1st St
N Mountain Ave
N Park Ave
N Euclid Ave
N 6th Ave
N 7th Ave
N Ring Rd
N Highland Ave
N Vine Ave
N Cherry Ave
N Warren Ave
N Martin Ave
N Fremont Ave
N Santa Rita Ave
N Tyndall Ave
Olive Rd
N Kramer Ave
N Tucson Blvd
N Tucker Dr
N Norris Ave
N Olsen Ave
N Plumer Ave
N Wilson Ave
N Norton Ave
N Forgeus Ave
N Sawtelle Ave
N Stewart Ave
N Bentley Ave
© 2009 Europa Technologies
© 2009 Google
Image U.S. Geological Survey
Imagery Date: Apr 30, 2005
32°14'36.92" N 110°56'58.09" W elev 741 m
Eye alt 4.35 km

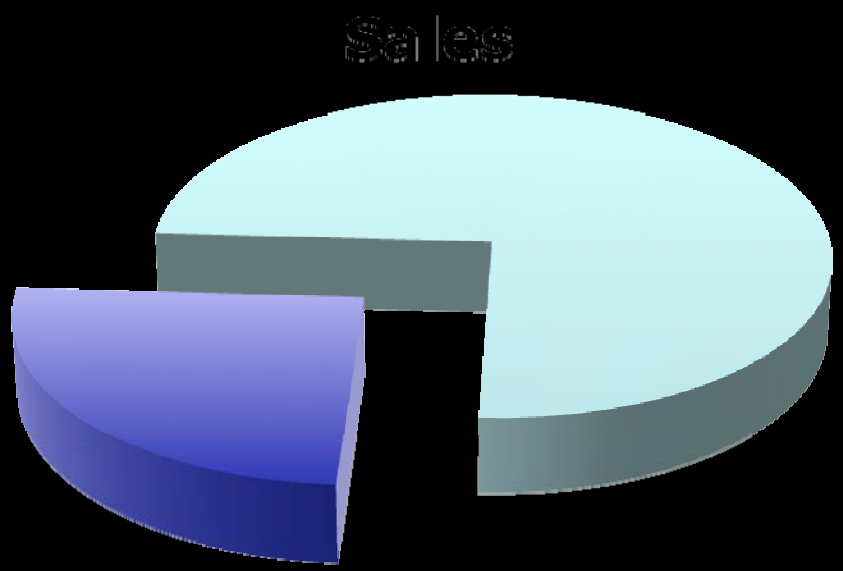

W Fort Lowell Rd
E Fort Lowell Rd
W Miracle Mile
77
W Glenn St
E Glenn St
N Casa Grande Hwy
W Grant Rd
E Grant Rd
N Oracle Rd
N 1st Ave
N Park Ave
N Dodge Blvd
E Pima St
N Swan Rd
10
W Speedway Blvd
E Speedway Blvd
W St Marys Rd
W Anklam Rd
N Grande Ave
N Freeway Rd
W 6th St
6th St
5th St
N Stone Ave
N Euclid Ave
N Campbell Ave
N Tucson Blvd
N Country Club Rd
N Alvernon
N Columbus Blvd
W Congress St
210
Tucson, AZ
E Broadway Blvd
© 2009 Europa Technologies
© 2009 Google
Image U.S. Geological Survey
Google
Imagery Date: Apr 30, 2005
32°14'36.92" N 110°56'58.09" W elev 742 m
Eye alt 10.87 km
N

put sidewalks on both sides of every street now

2

first and last mile

25% of all vehicle trips are less than one mile in length

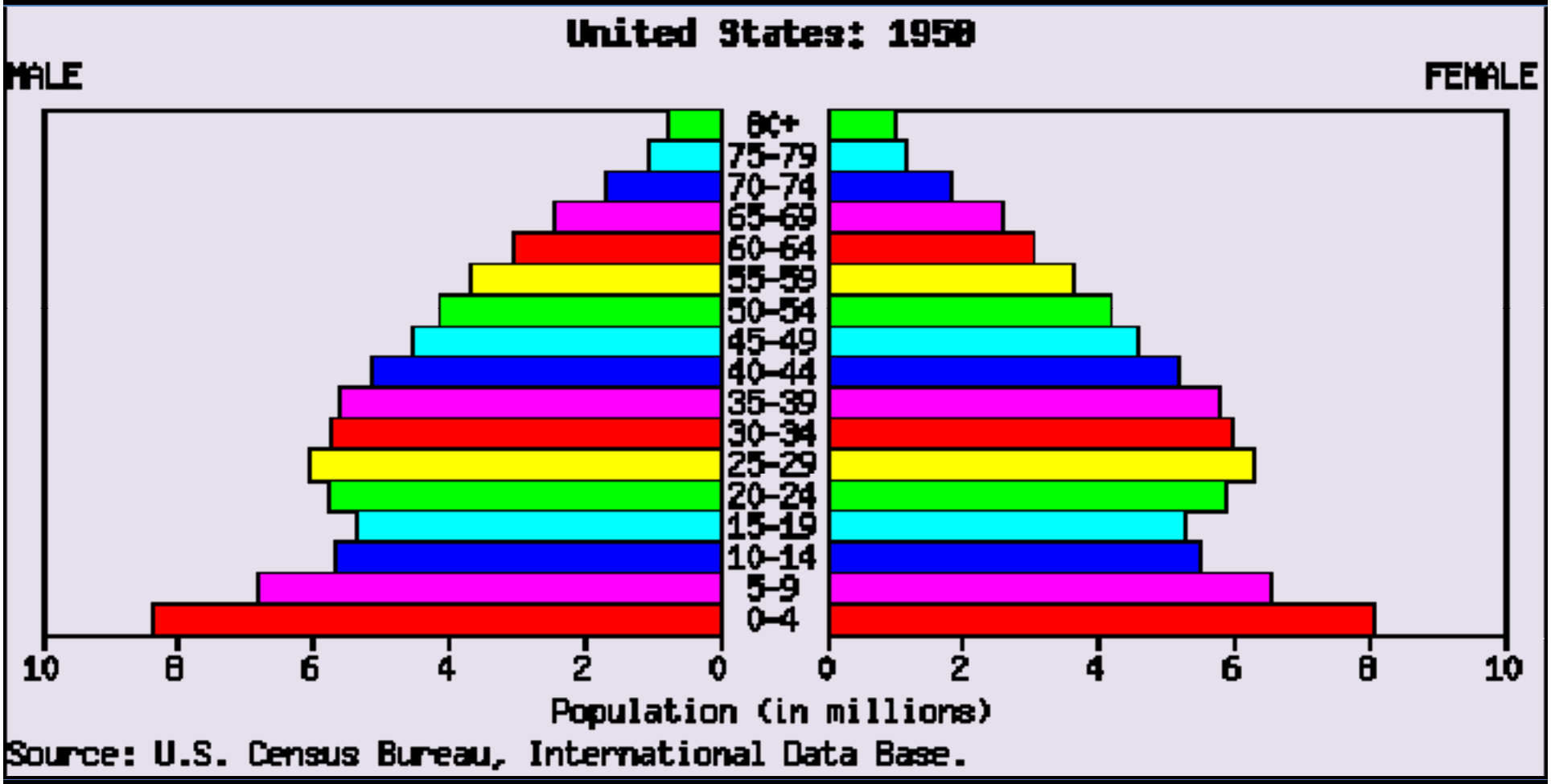


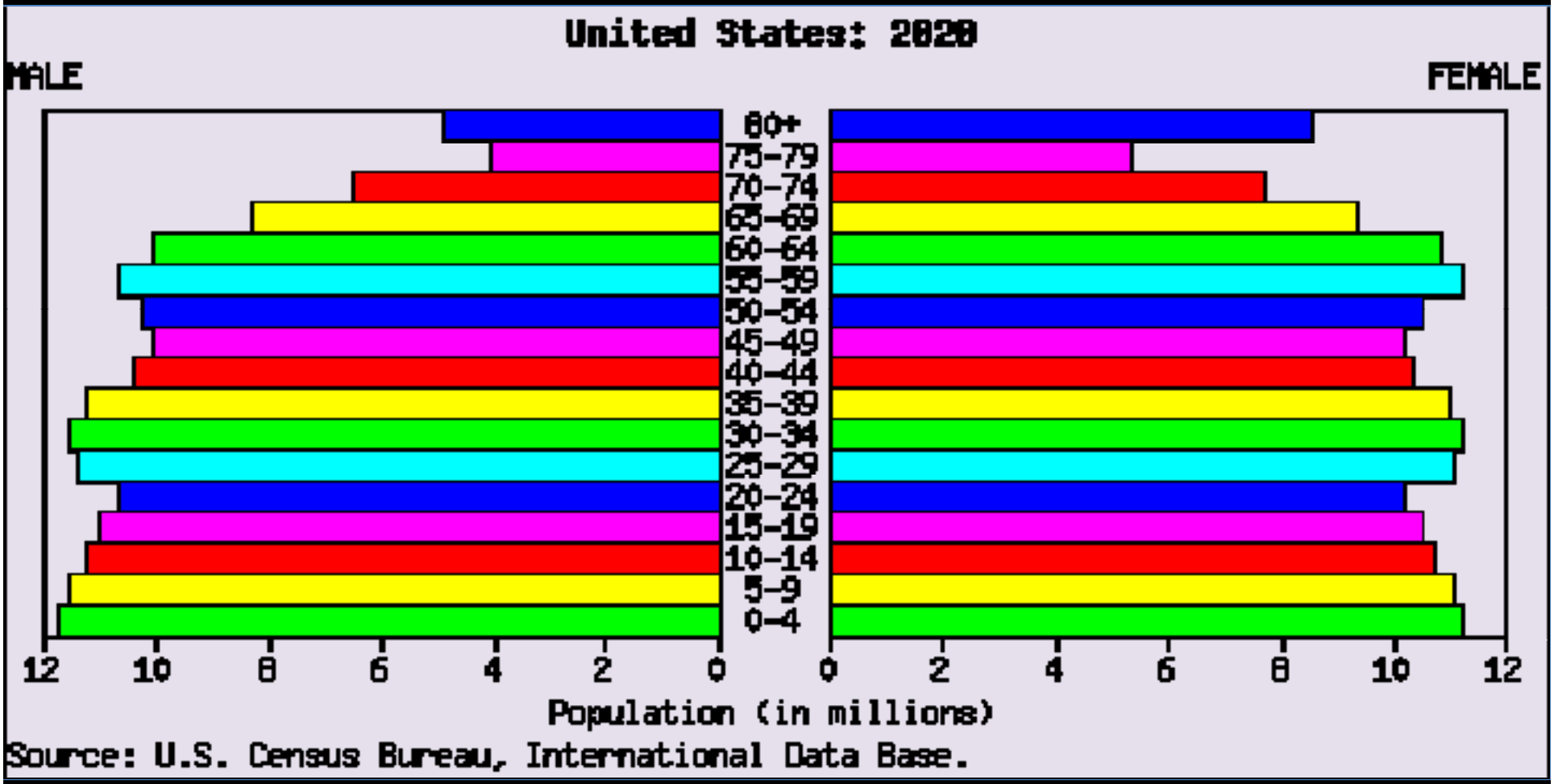

901 WARNER CTR
BURBANK
Liner


2035

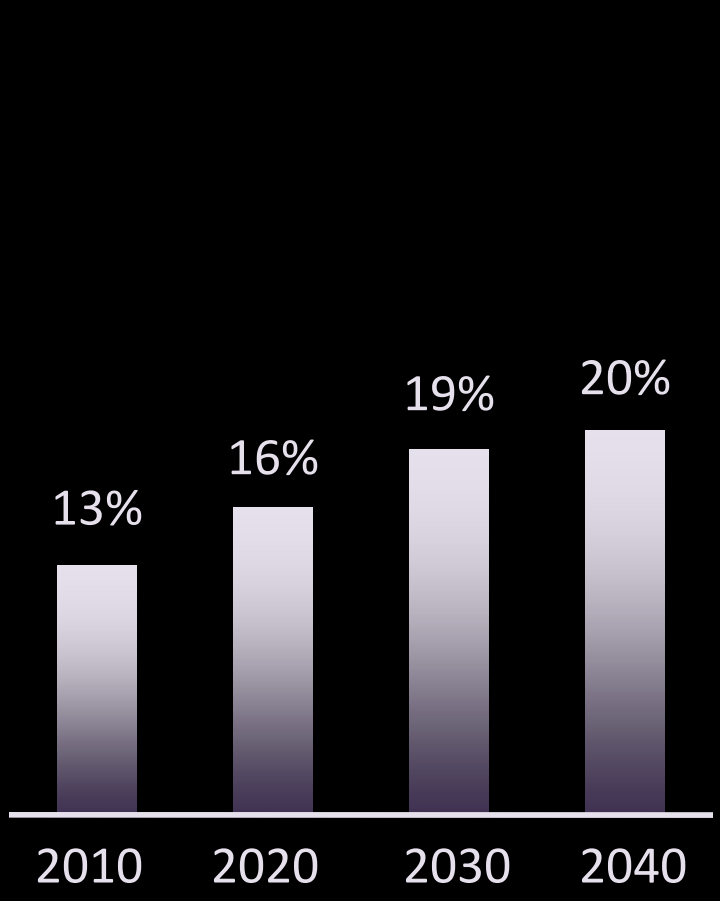
3

our elders will need
walkable neighborhoods

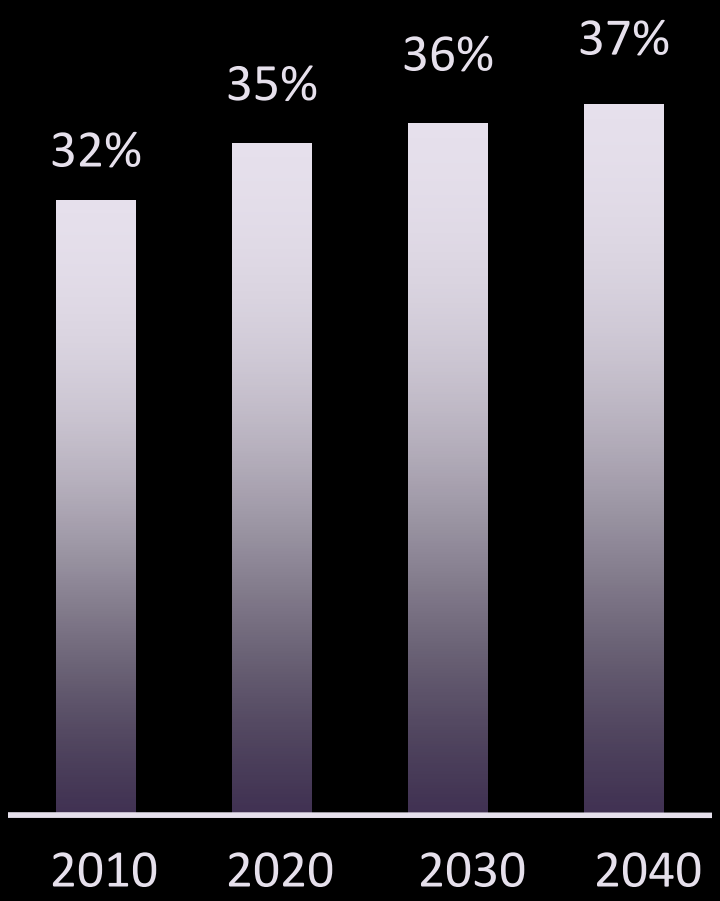

United States: 1950
MALE
FEMALE
80+
75-79
70-74
65-69
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
5-9
0-4
10
8
6
4
2
0
0
2
4
6
8
10
Population (in millions)
Source: U.S. Census Bureau, International Data Base.


United States: 2020
MALE
FEMALE
80+
75-79
70-74
65-69
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
5-9
0-4
12
10
8
6
4
2
0
0
2
4
6
8
10
12
Population (in millions)
Source: U.S. Census Bureau, International Data Base.

aging of the US population



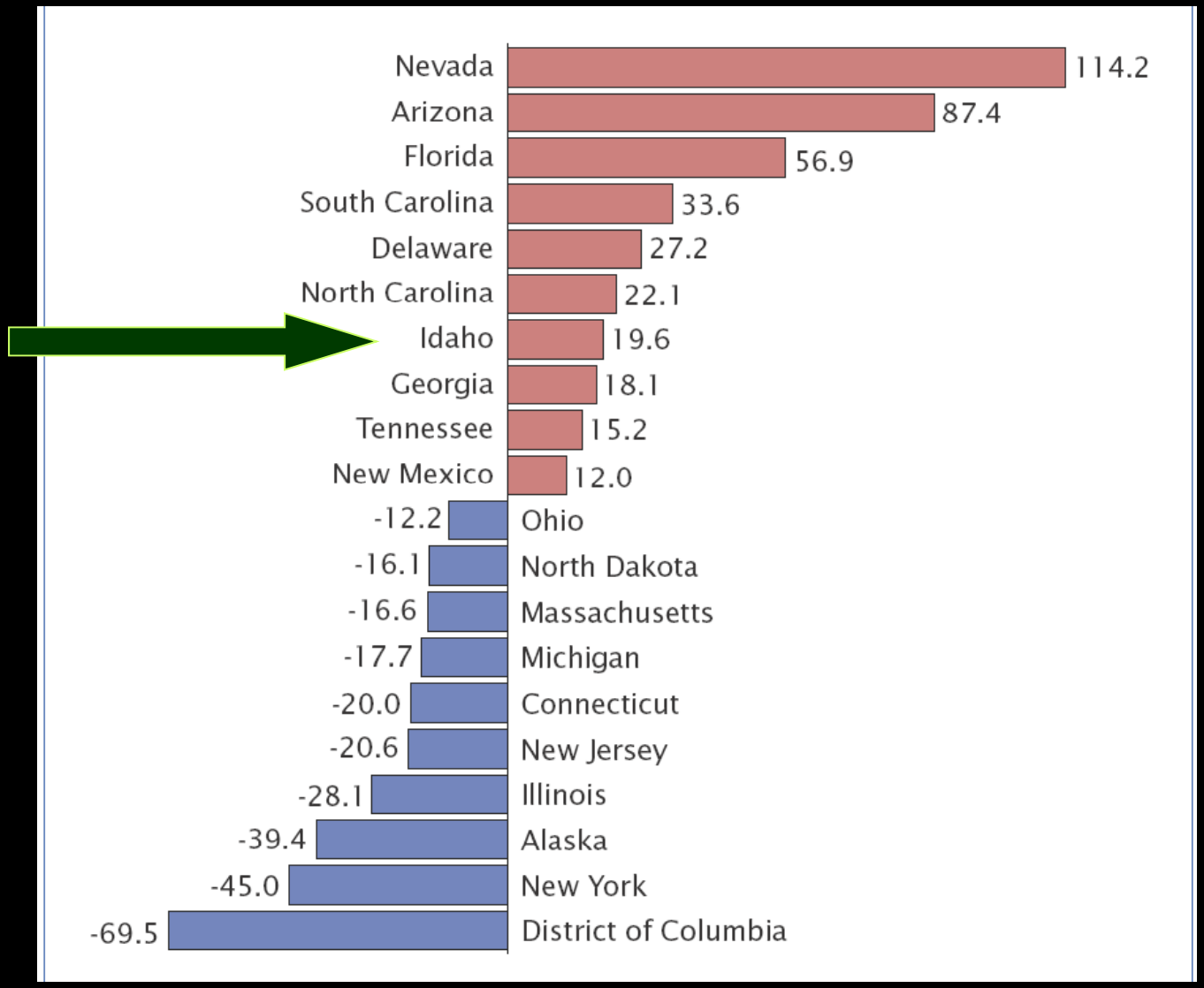
% over 65



% over 50

Source: Population Division, U.S. Census Bureau Release Date: August 14, 2008

In-Migration – Ages 65 +



Net In-Migration per 1,000 Population > 65

US Census Bureau

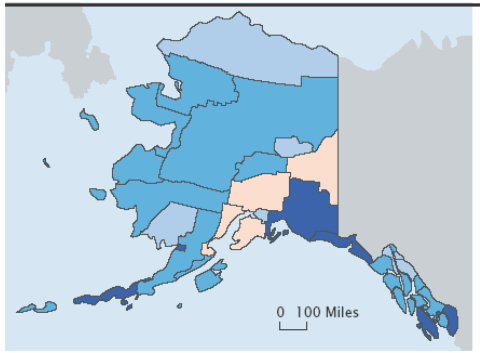
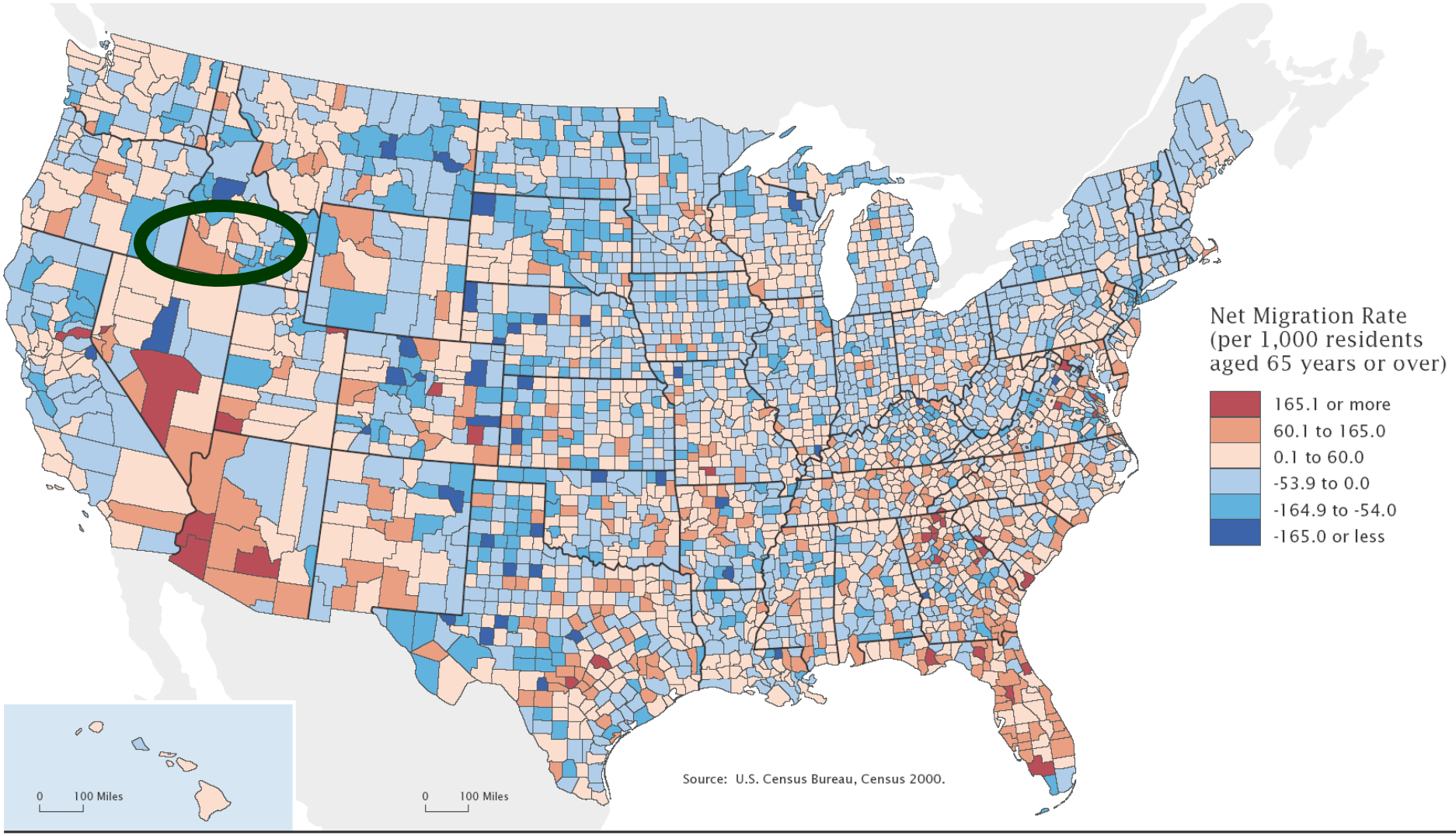


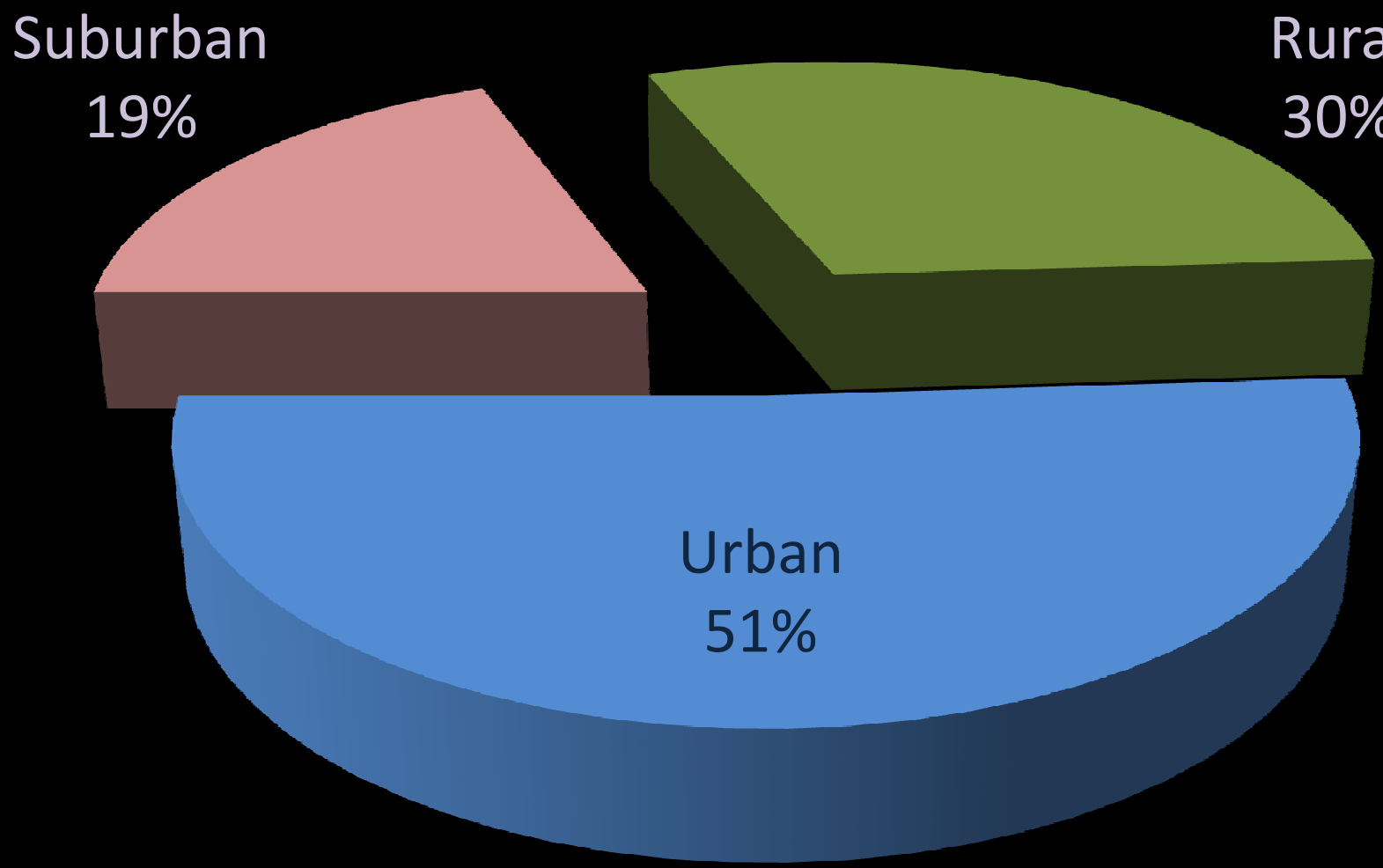
Figure 4.

Net Migration Rates for the Population 65 Years and Over: 1995 to 2000

(Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/prod/cen2000/doc/sf3.pdf*)



Retirement Preferences



Source: National Association of Realtors and Smart Growth America
American Preference Survey 2004

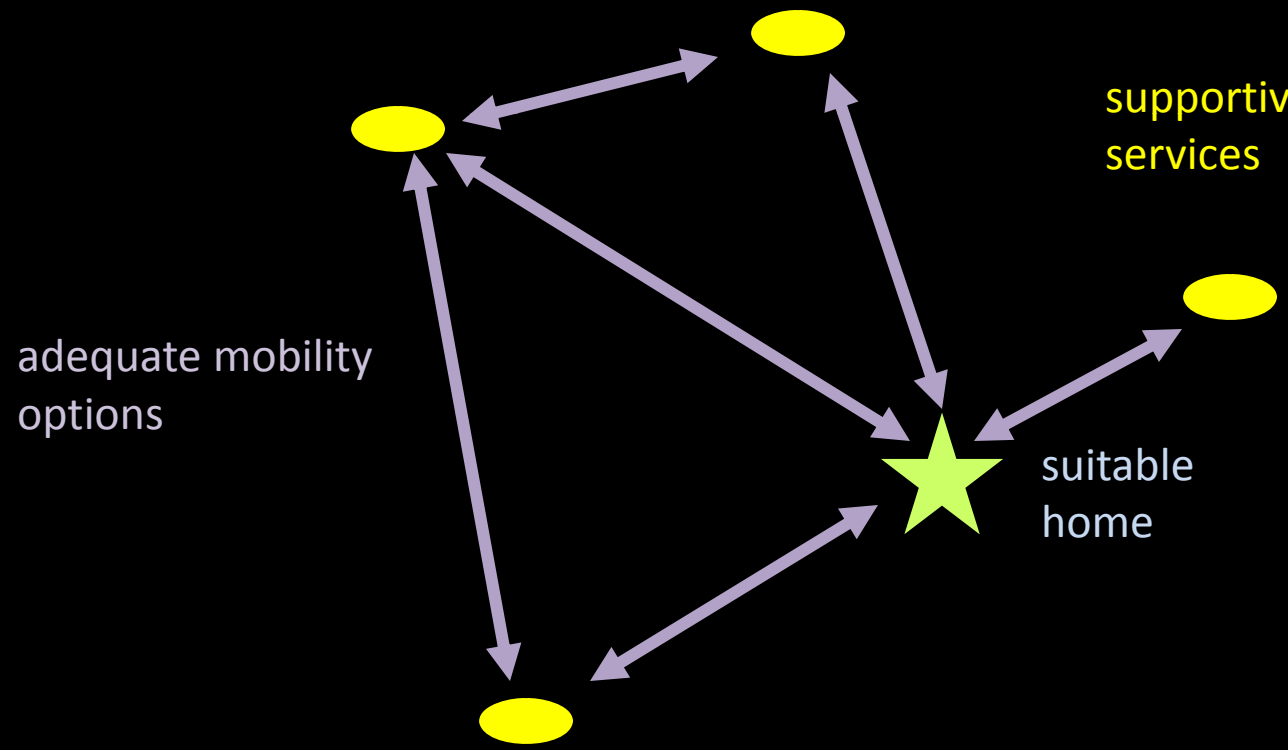
4 essentials: elder mobility

AARP: a livable community has…

- affordable & appropriate housing
- supportive community features & services
- adequate mobility options

…which together facilitate personal independence and the engagement of residents in civic and social life.

AARP livable communities model




MARCELLA MANOR

4 essentials: elder mobility

- land use mix
- pedestrian supportive environment
- connected street network
- high frequency transit service

4 essentials: elder mobility

- land use mix
- pedestrian supportive environment
- connected street network
- high frequency transit service

land use mix

4 essentials: elder mobility

supportive community features & services

1. active living
2. third places
3. convenience retail
4. provisions & services
5. family
6. shopping
7. medical
8. cultural

1. active living

- pedestrian-oriented environments
- trails, parks and open space
- gyms and exercise facilities

2. third places

- coffee shops, cafes
- bookstores, libraries
- churches
- bars
- plazas, parks
- senior centers

3. convenience retail

- corner market
- convenience store

4. provisions & services

- grocery
- bank
- cleaners

5. family

- grandchildren
- other family

6. shopping

- hardware
- clothing
- book store
- optical
- electronics

7. medical

- clinics, doctors
- hospitals
- pharmacy
- physical therapy
- opticians
- other specialists

8. cultural

- theater
- movie Theater
- museums
- symphony
- art gallery
- restaurants

destinations

	daily	weekly	monthly
1. active living	X		
2. third places	X		
3. convenience	X		
4. provisions		X	
5. family		X	
6. shopping		X	
7. medical			X
8. cultural			X

destinations

	daily	weekly	monthly
1. active living	X		
2. third places	X		
3. convenience	X		
4. provisions		X	
5. family		X	
6. shopping		X	
7. medical			X
8. cultural			X

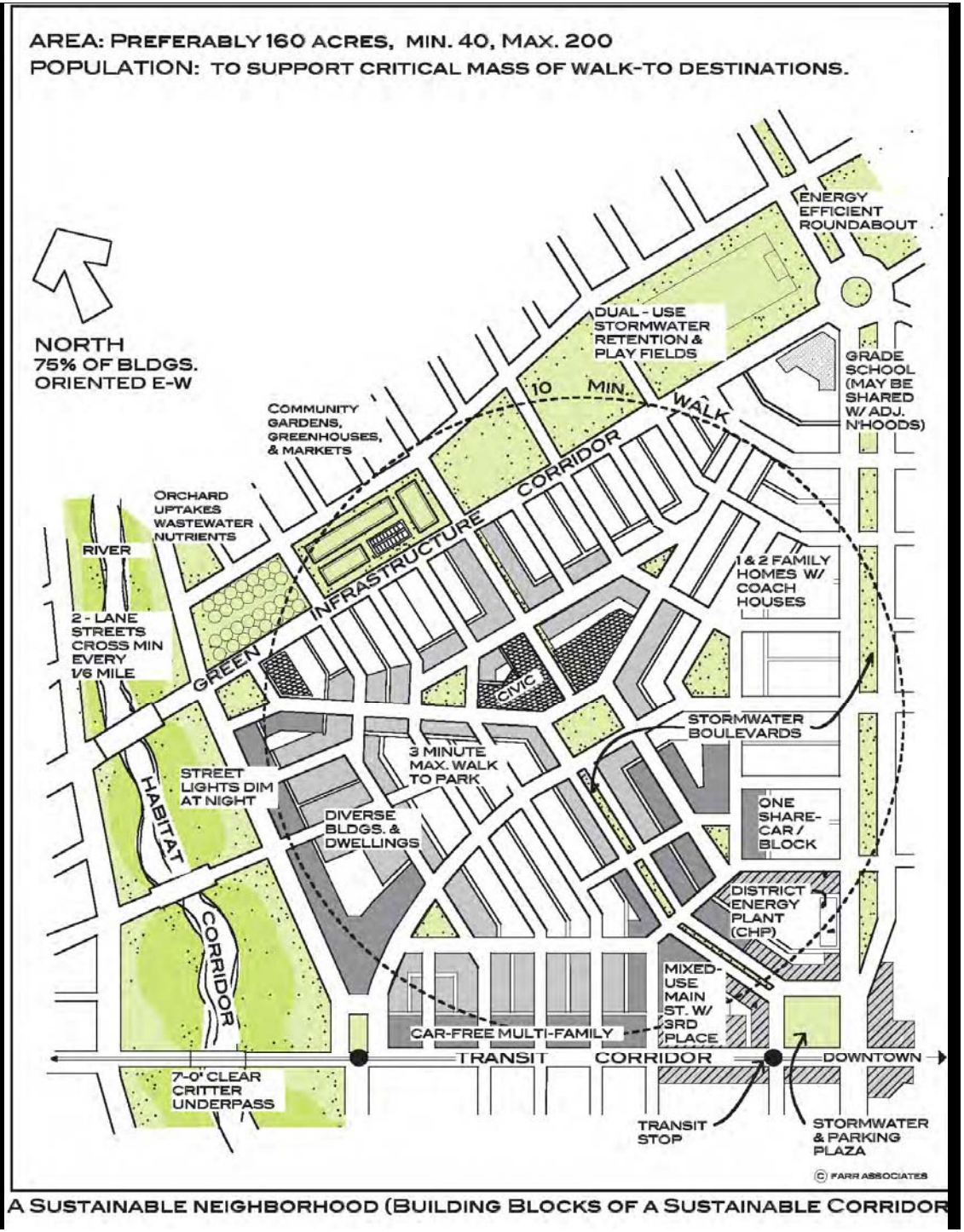
should be within walking distance

destinations

	daily	weekly	monthly
1. active living	X		
2. third places	X		
3. convenience	X		
4. provisions		X	
5. family		X	
6. shopping		X	
7. medical			X
8. cultural			X

should be accessible by fixed route transit

neighborhood completeness



A SUSTAINABLE NEIGHBORHOOD (BUILDING BLOCKS OF A SUSTAINABLE CORRIDOR

Portland “20-minute neighborhood”

4 essentials: elder mobility

- land use mix
- pedestrian supportive environment
- connected street network
- high frequency transit service

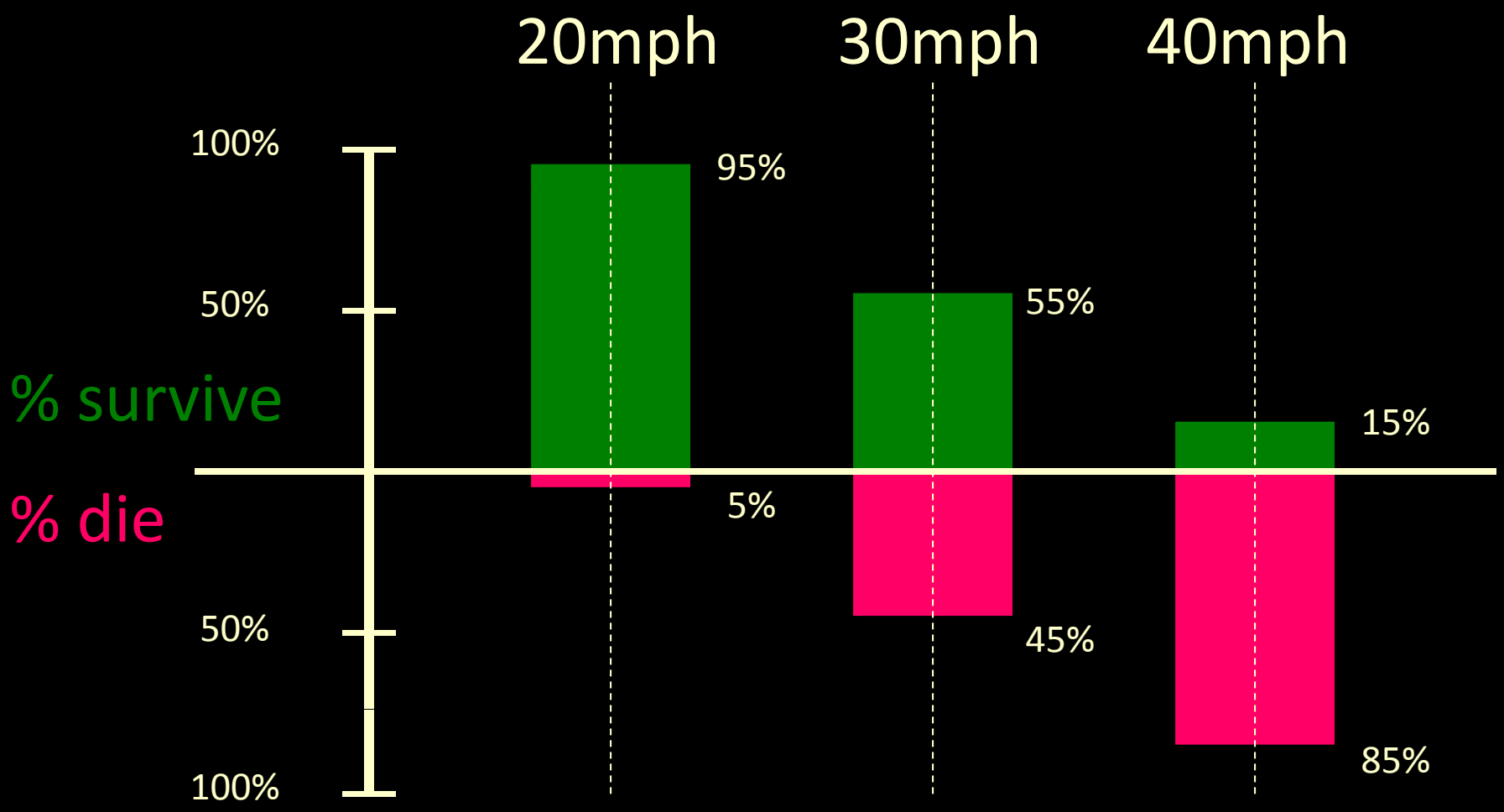
note: ADA & universal design

elderly walking environment factors

- safety & security
- street crossings
- universal access
- street design – scale, speed
- pedestrian realm – scale, layout
- urban design – street walls, building scale
- land use mix
- trees, canopies, awnings


ALOHA
Honolulu

pedestrian survival rates & vehicle speed

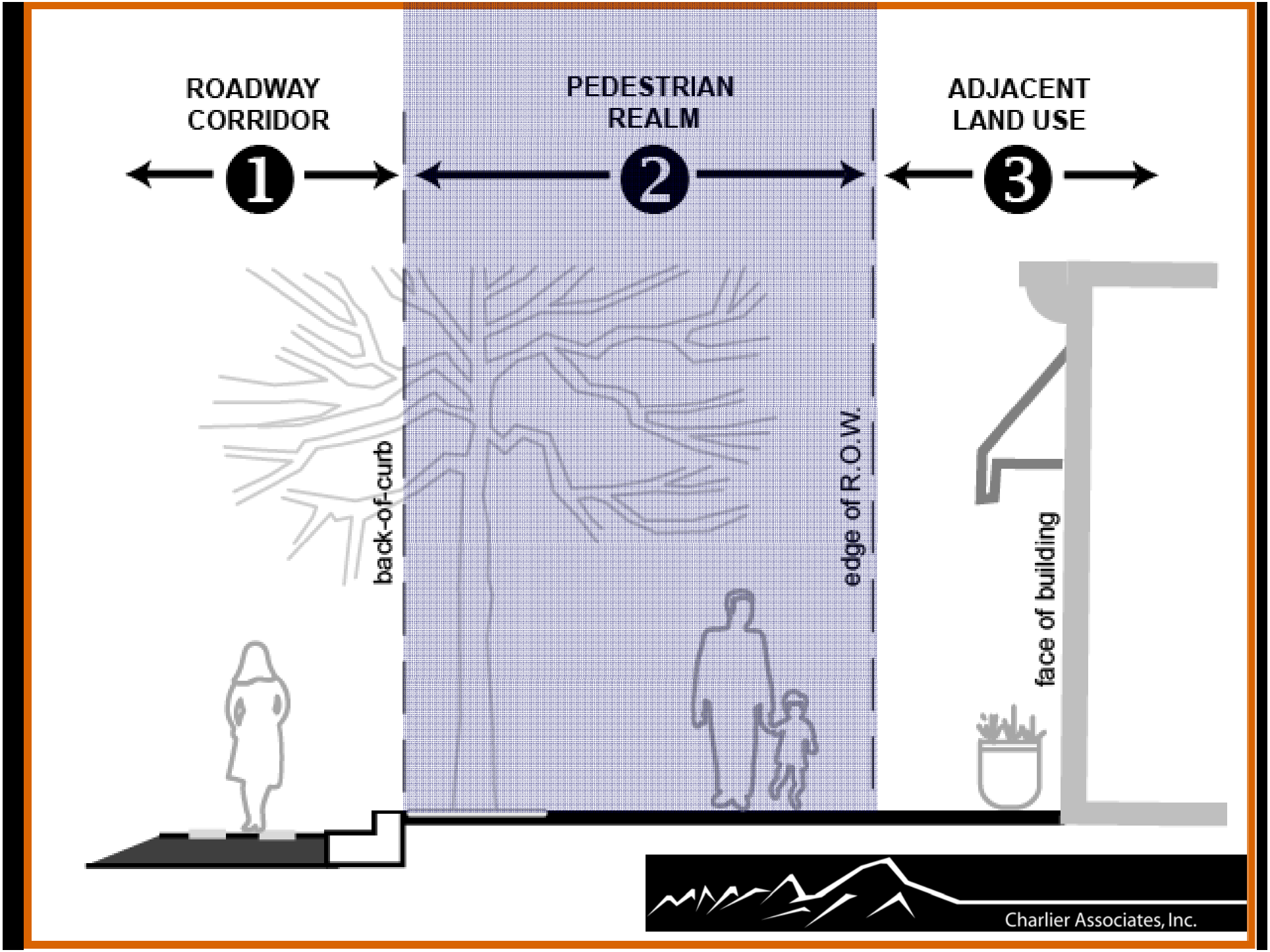


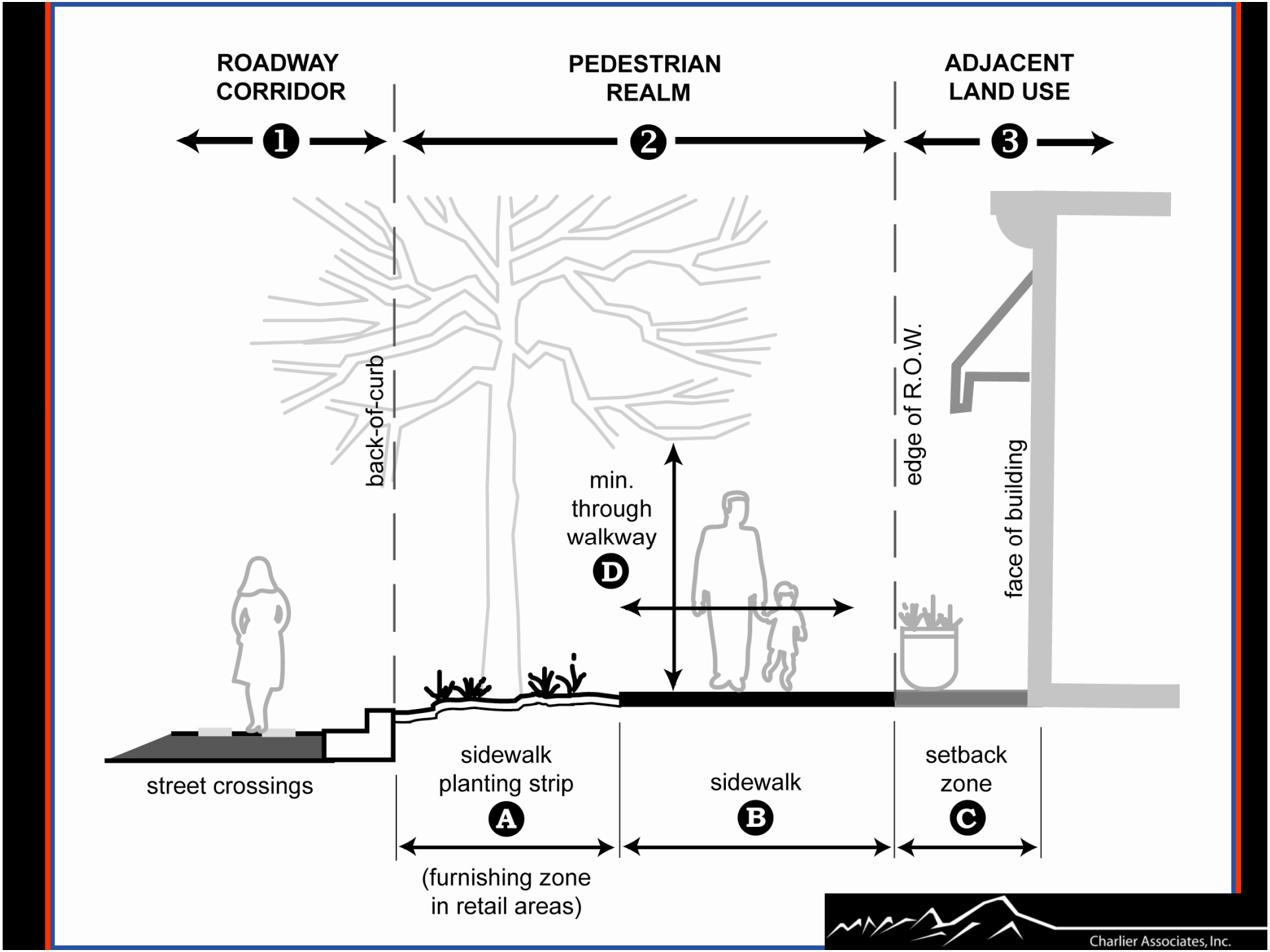

FATBOY'S
AMINA PIZZERIA
OPEN
MICHAEL'S
LIQUOR
Meadow Gold
www.usps.com

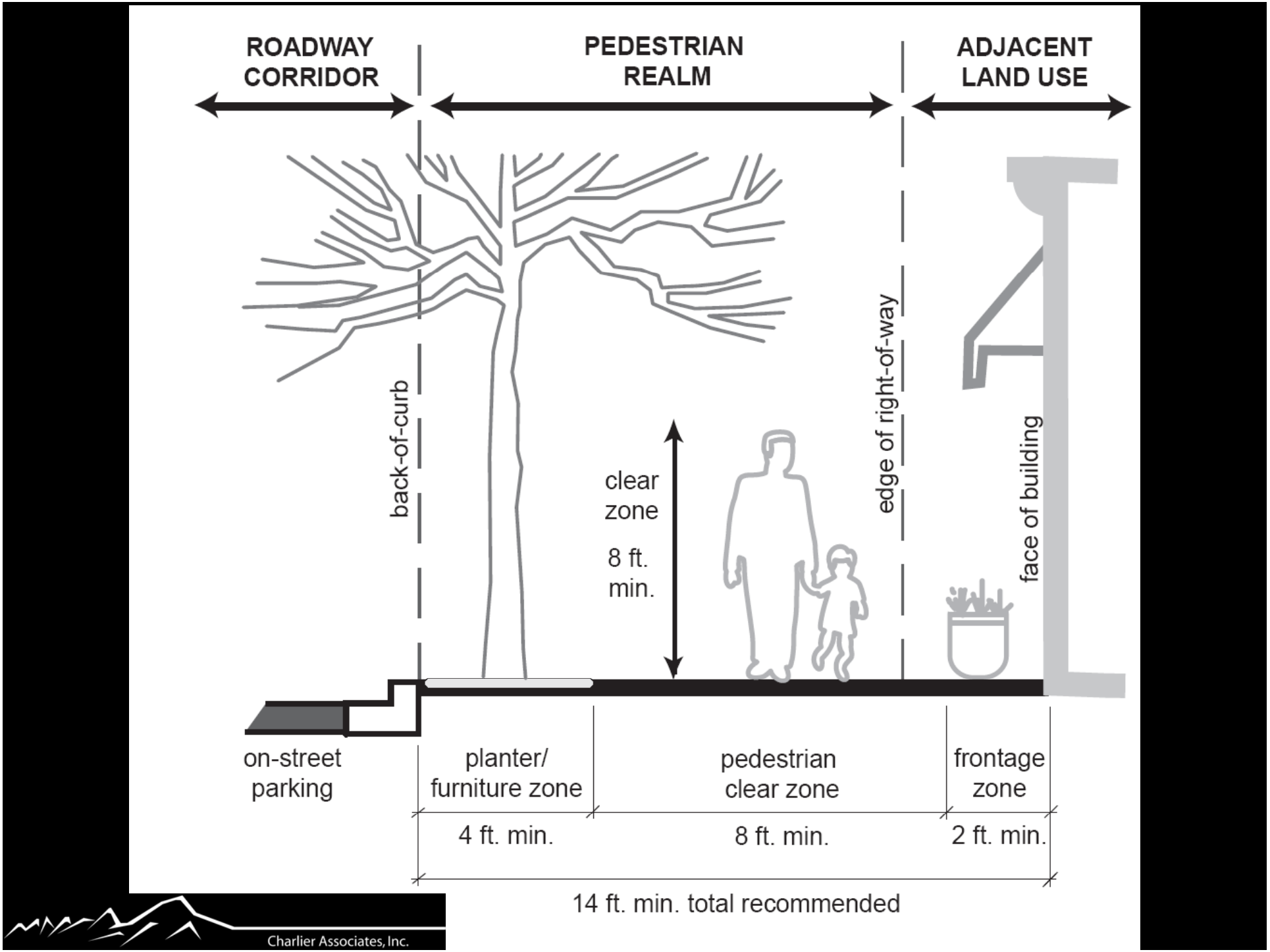

SPEED
LIMIT
45

Redmond, WA

St. Louis region


ROADWAY CORRIDOR
1
PEDESTRIAN REALM
2
ADJACENT LAND USE
3
back-of-curb
edge of R.O.W.
face of building
Charlier Associates, Inc.


ROADWAY CORRIDOR
1
PEDESTRIAN REALM
2
ADJACENT LAND USE
3
back-of-curb
edge of R.O.W.
face of building
min. through walkway
D
street crossings
sidewalk planting strip
A
sidewalk
B
setback zone
C
(furnishing zone in retail areas)
Charlier Associates, Inc.



Charlier Associates, Inc.

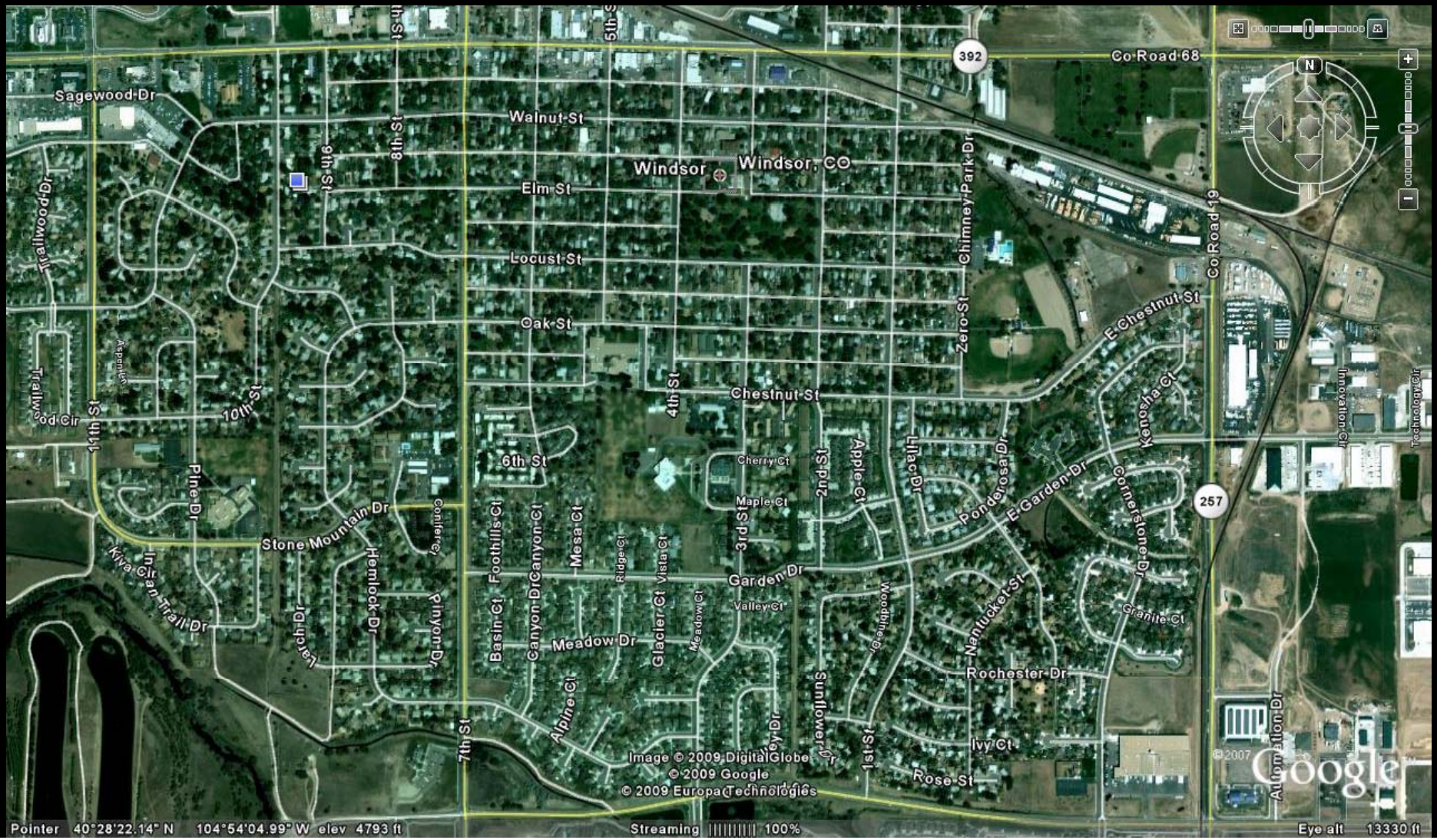

Patchington
Jaspers


The Ridge

4 essentials: elder mobility

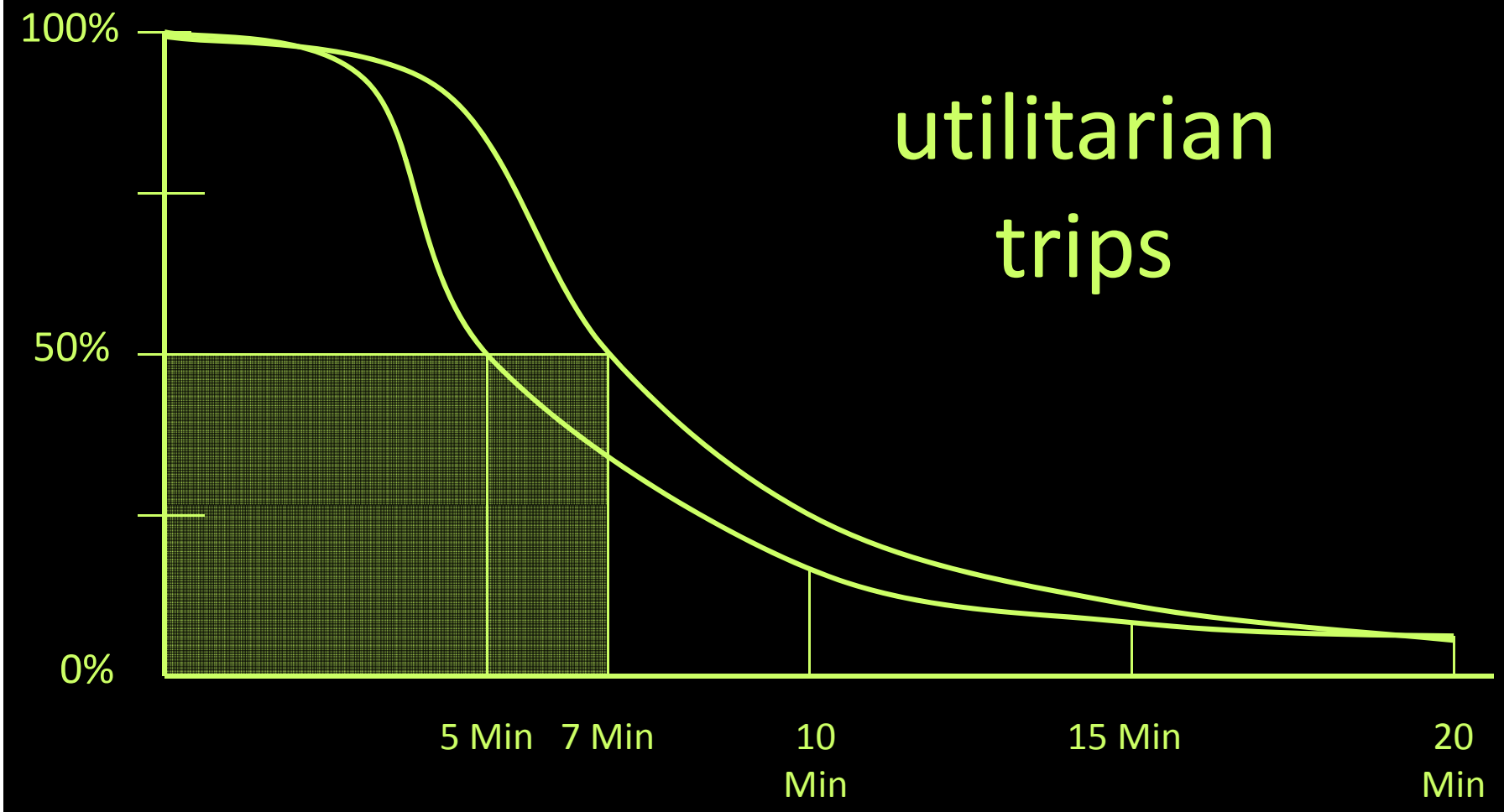
- land use mix
- pedestrian supportive environment
- connected street network
- high frequency transit service

Windsor, CO – Old Town

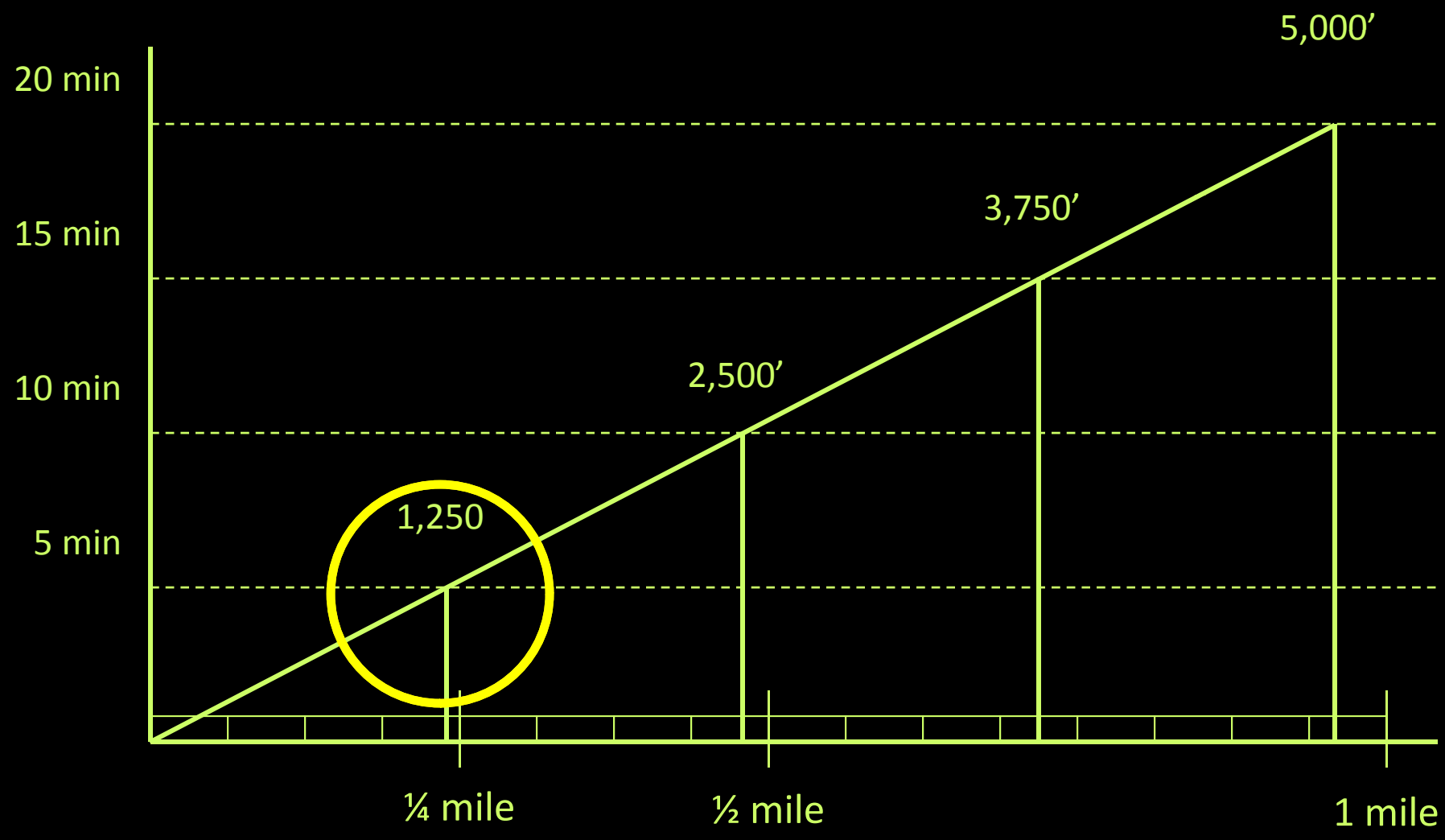


Windsor, CO – after 1990

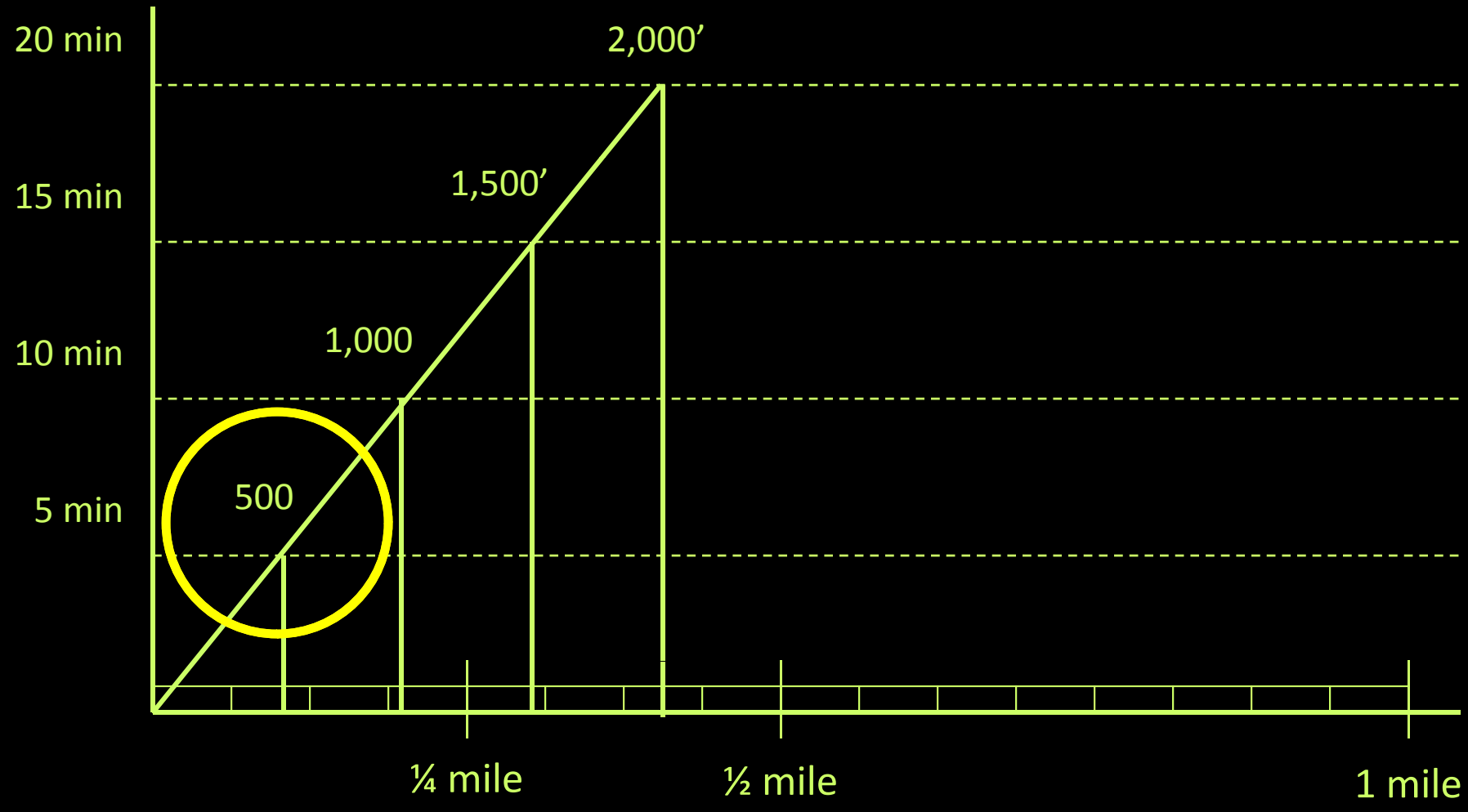
walk propensity



walk distances @ 250 fpm



walk distances @ 100 fpm



path index

shortest feasible route on streets & trails

÷

straight line distance (as the crow flies)


2100 feet
500 feet
Path Index: 4.2

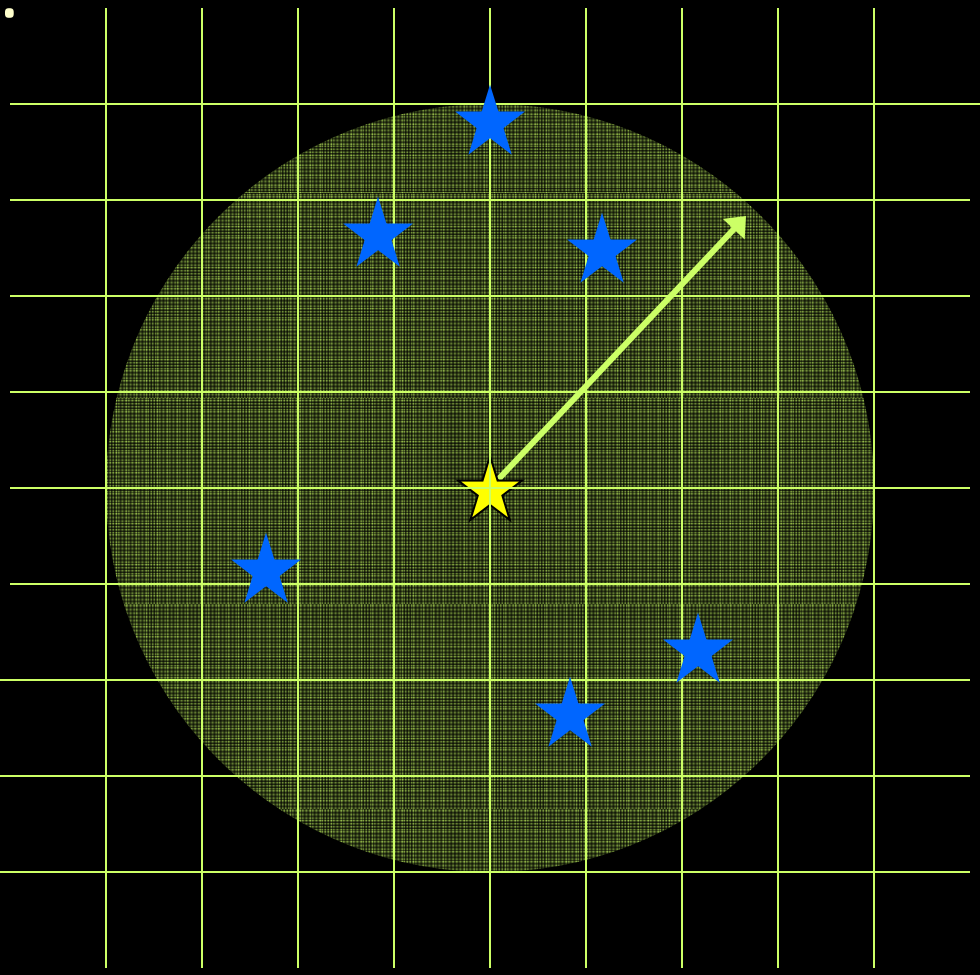
5 – 7 minute walk

home

1. active living
2. third places
3. convenience retail

5 – 7 minute walk

path index:
1.4



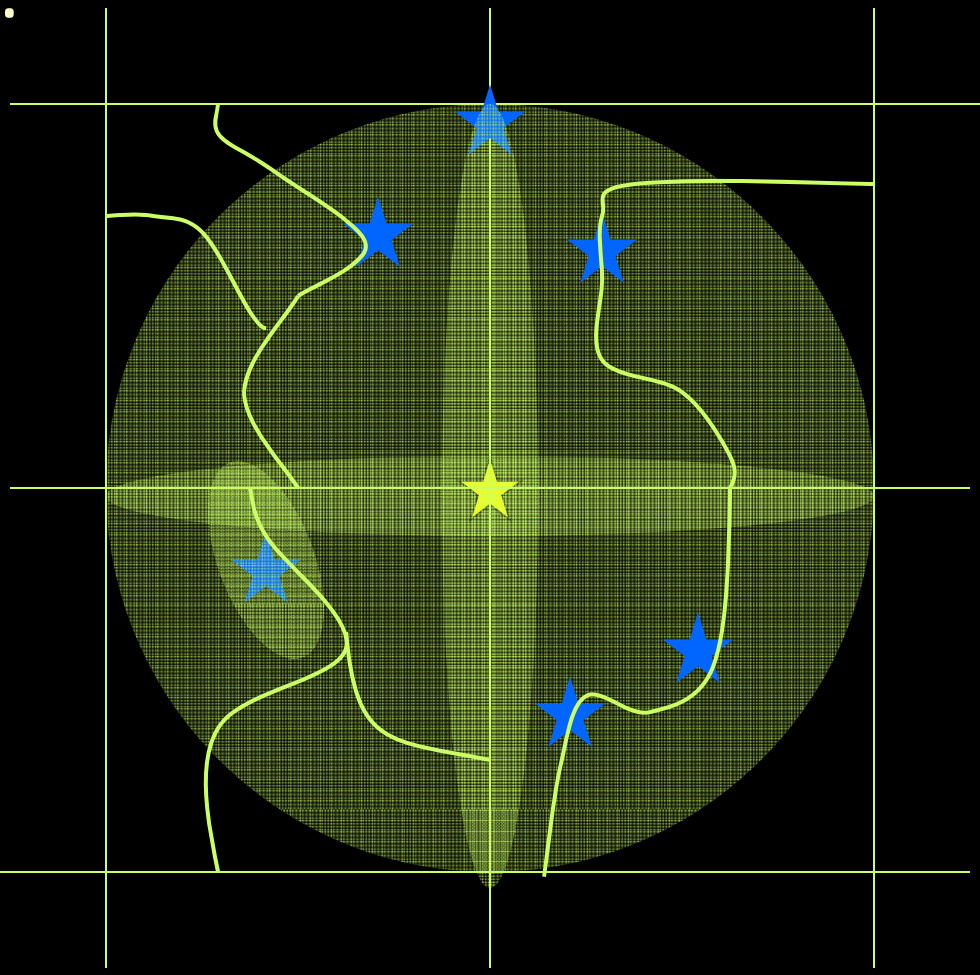
home

1. active living
2. third places
3. convenience retail

¼ mile

5 – 7 minute walk

path index:
4.5

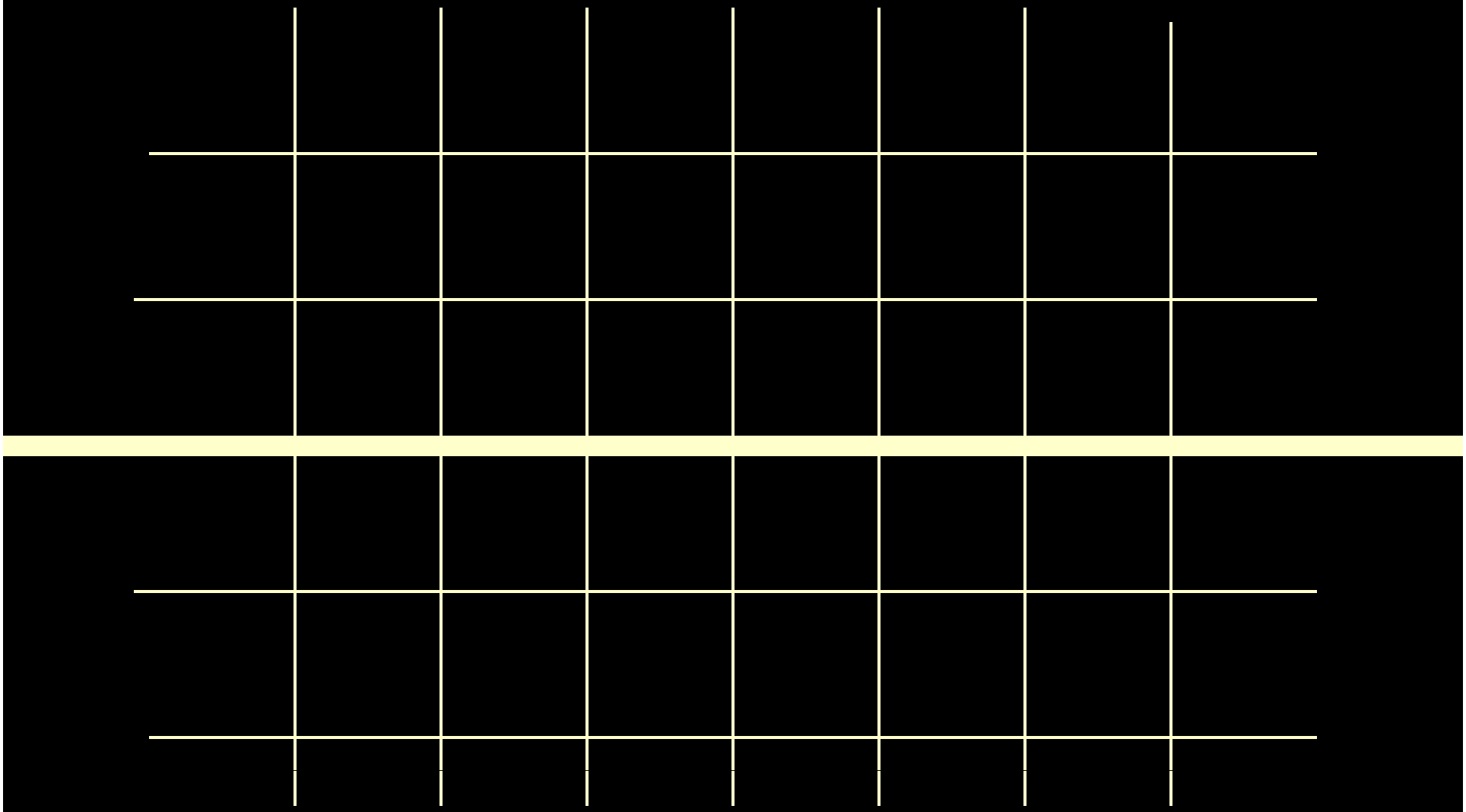


home

1. active living
2. third places
3. convenience retail

good connectivity expands the range of walking trips, increasing pedestrian activity

optimum block size for efficient traffic tlow



330’ to 528’

common connectivity standards

- intersections/square mile (min 200)
- maximum block perimeter (1400’ – 1800’)
- block length (330’ – 528’)
- links/nodes

4 essentials: elder mobility

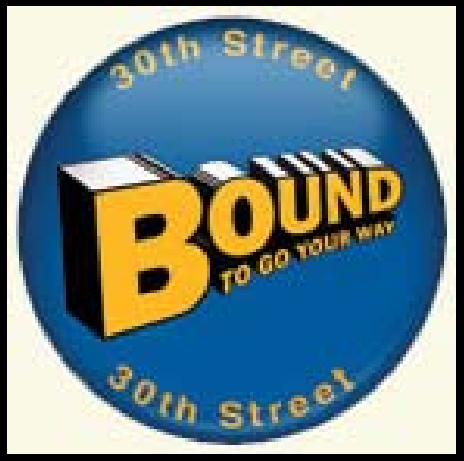
- land use mix
- pedestrian supportive environment
- connected street network
- high frequency transit service

high frequency transit networks

- peak service < 15 minute headways
- network of routes
- accessible vehicles
- easy access to stops and stations

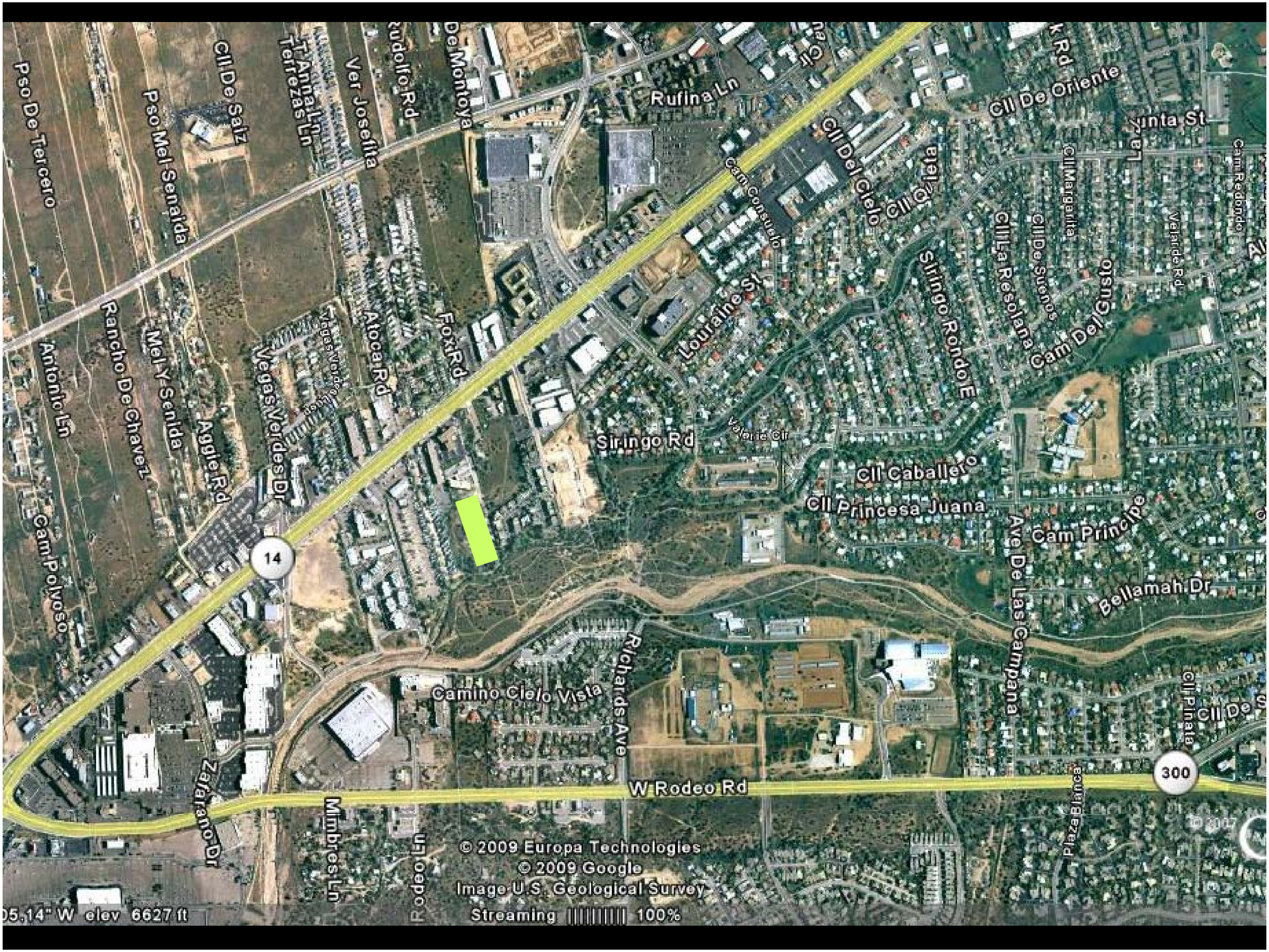
boulder community transit network

community transit network



Portland, Oregon

example: Santa Fe “Elder Grace”



Pso De Tercero
Cll De Saiz
Pso Mel Senaida
Terrezas Ln
Ver Josefita
Rudolfo Rd
De Montoya
Rufina Ln
Cll De Oriente
La Junta St
Cll Del Cielo
Cam Consuelo
Cll Margarita
Cam Redondo
Velarde Rd
Cll De Suenos
Cll La Resolana
Siringo Rondo E
Louraine St
Cam Del Gusto
Antonio Ln
Rancho De Chavez
Mel Y Senaida
Aggie Rd
Vegas Verdes Dr
Atoca Rd
Fox Rd
Siringo Rd
Valerie Cir
Cll Caballero
Cll Princesa Juana
Cam Principe
Ave De Las Campana
Bellamah Dr
Cam Polvoso
14
Richards Ave
Camino Cielo Vista
Cll Pinata
300
W Rodeo Rd
Zafarano Dr
Mimbres Ln
Rodeo Ln
Plaza Blanca
© 2009 Europa Technologies
© 2009 Google
Image U.S. Geological Survey
elev 6627 ft
Streaming 100%


Cerrillos Rd
© 2009 Europa Technologies
© 2009 Google
Image U.S. Geological Survey
00'17.09" W elev 6630 ft
Streaming 100%


© 2009 Google

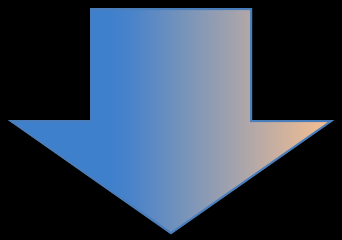
mobility criteria: ElderGrace

- mixed use development pattern – limited
- pedestrian supportive environment - no
- connected networks – no
- high frequency transit network - no

elders

- spend money
- cost money
- read newspapers
- vote
- belong to AARP

elder mobility



“universal mobility”

4

placemaking builds value

WHITE PAPER

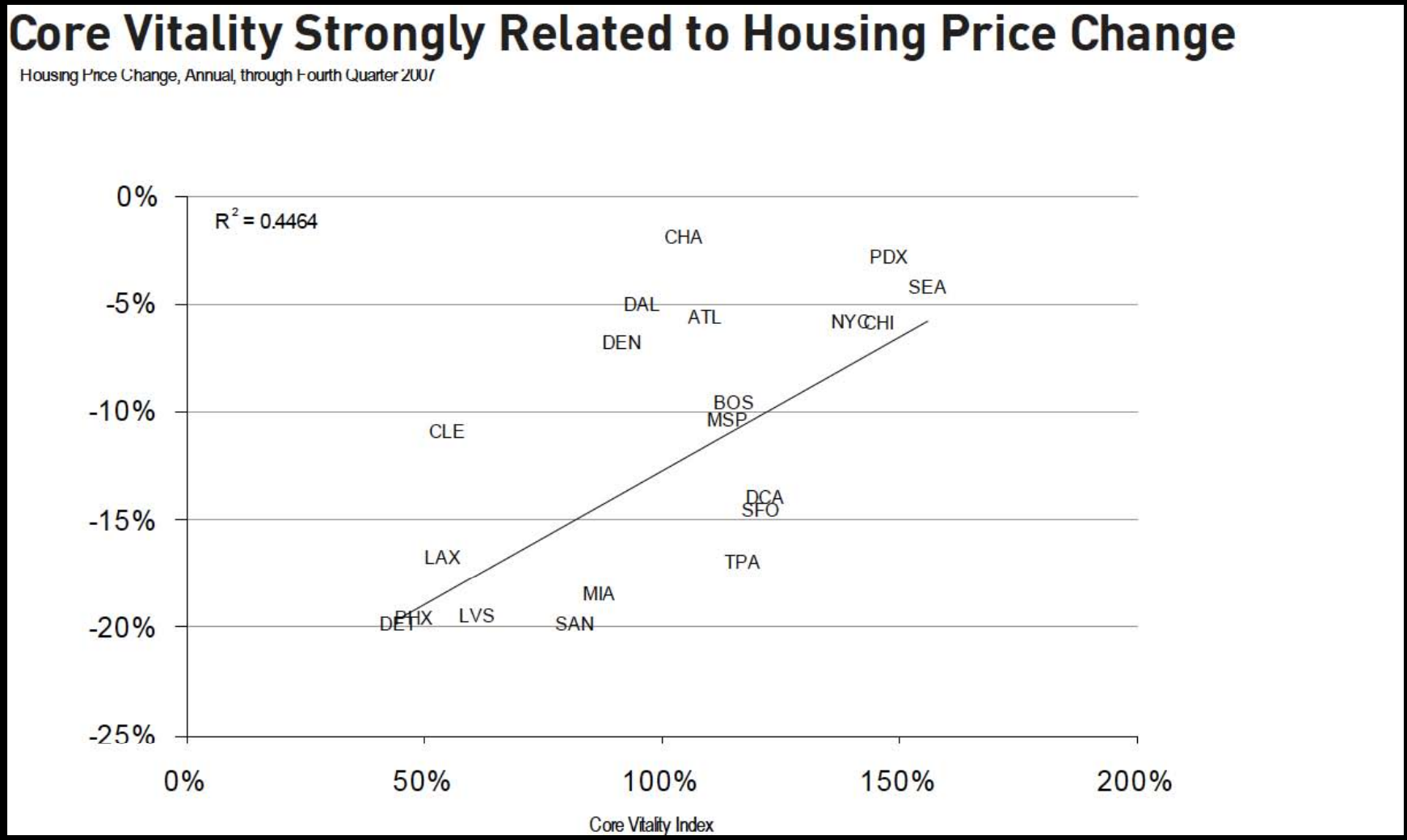
Driven to the **Brink**

How the Gas Price Spike Popped the Housing Bubble and Devalued the Suburbs

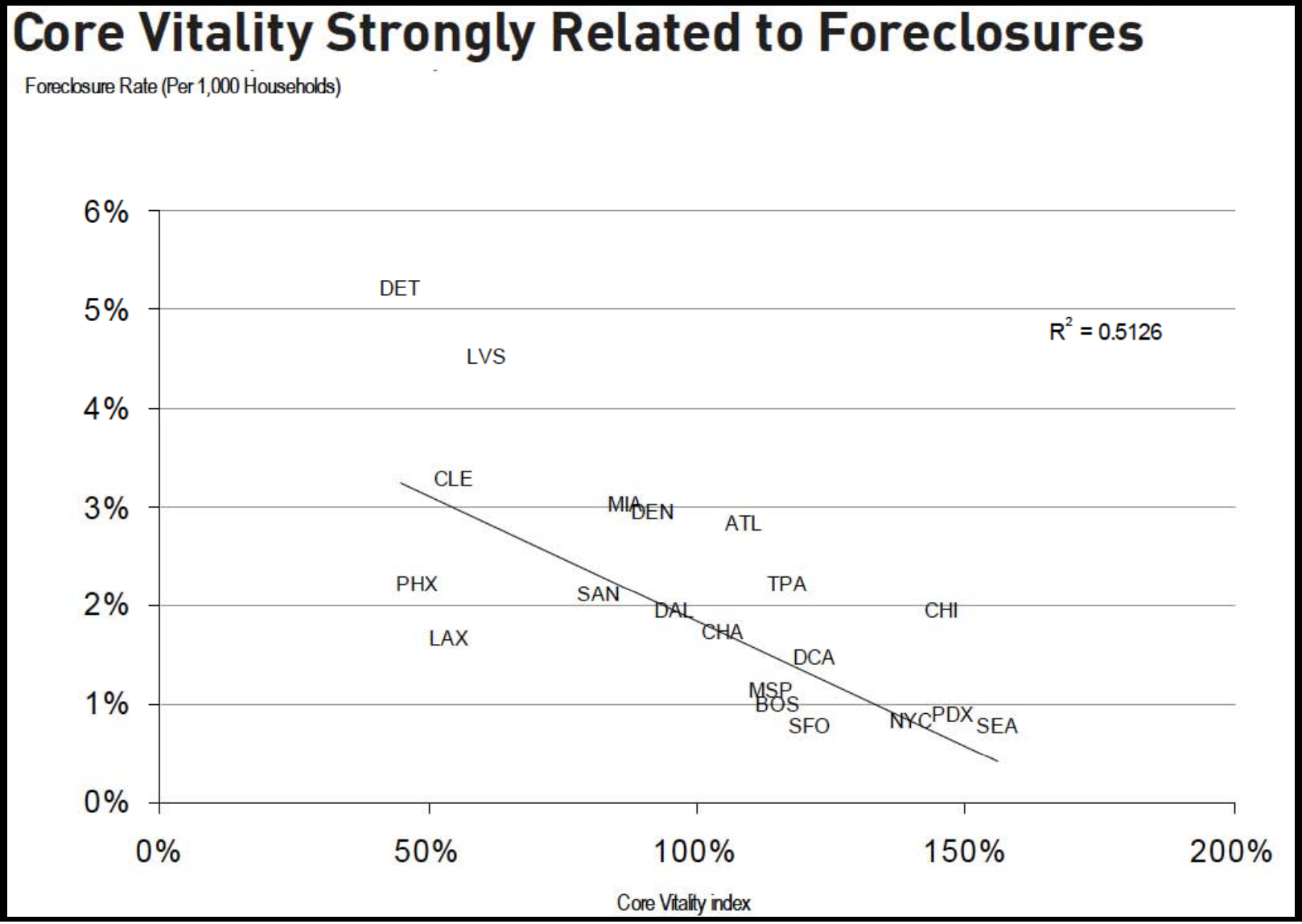
Joe Cortright, May 2008

CEOs for Cities

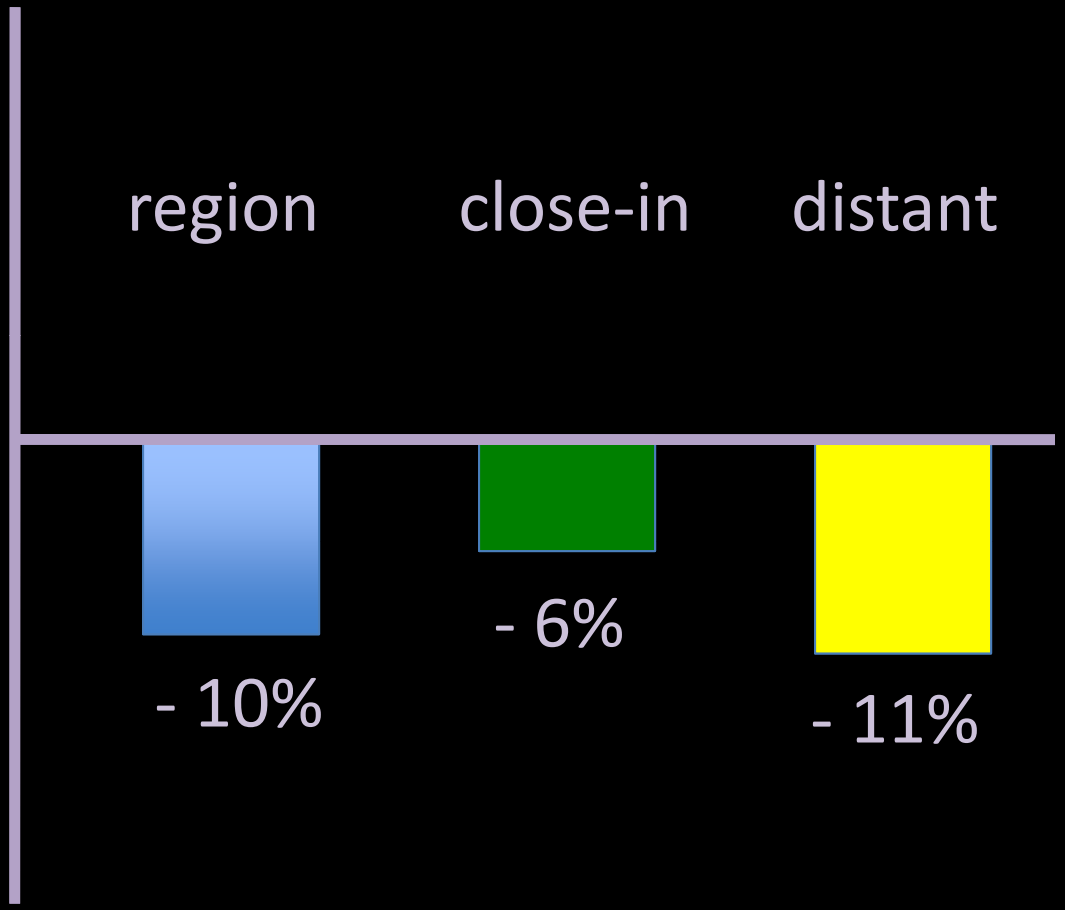
core vitality & annual housing price change



core vitality & foreclosures



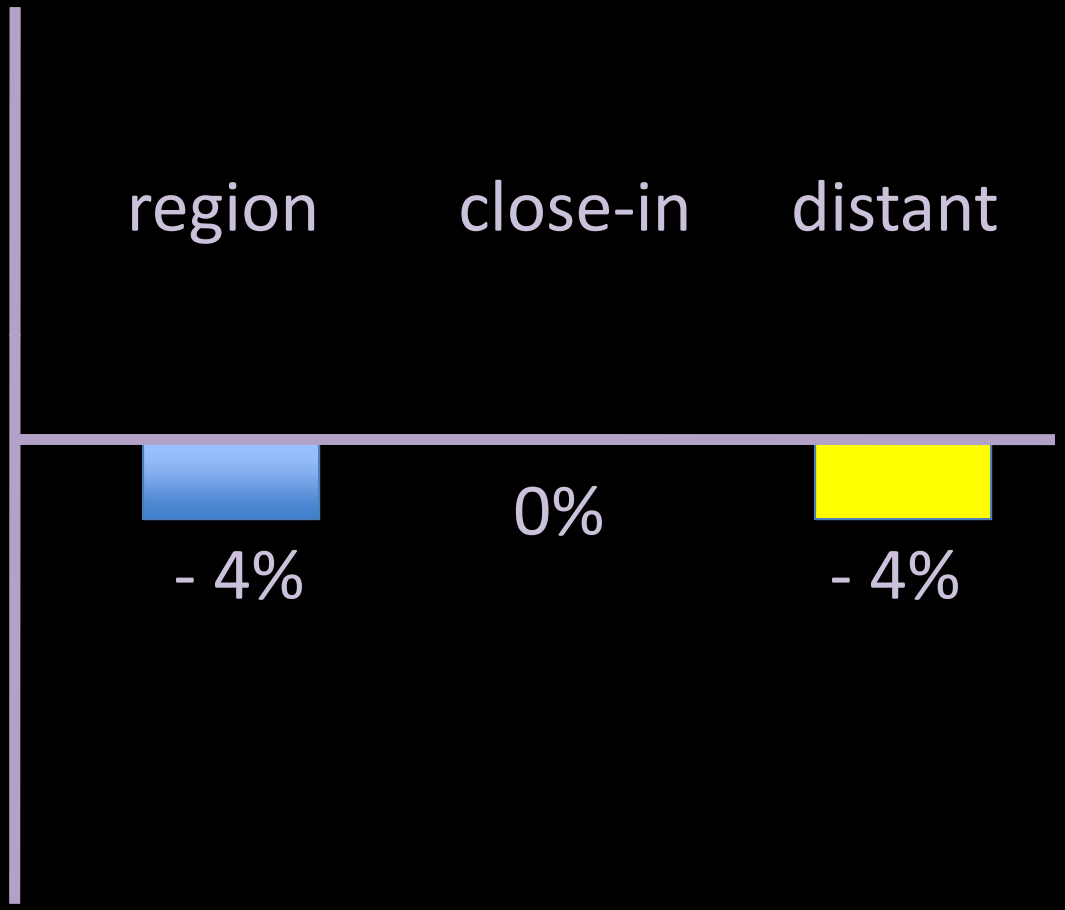
effect of location on housing value



Los Angeles

4th quarter 2006 – 4th quarter 2007

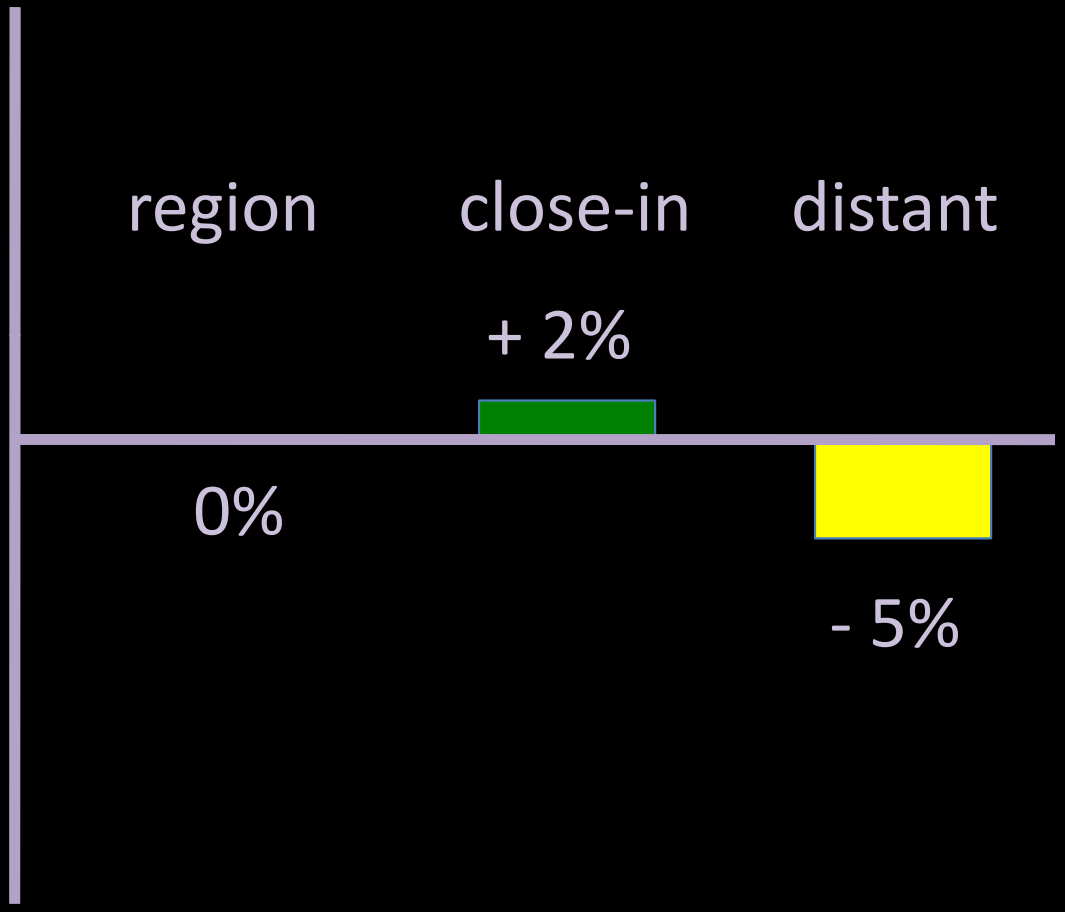
effect of location on housing value



Chicago

4th quarter 2006 – 4th quarter 2007

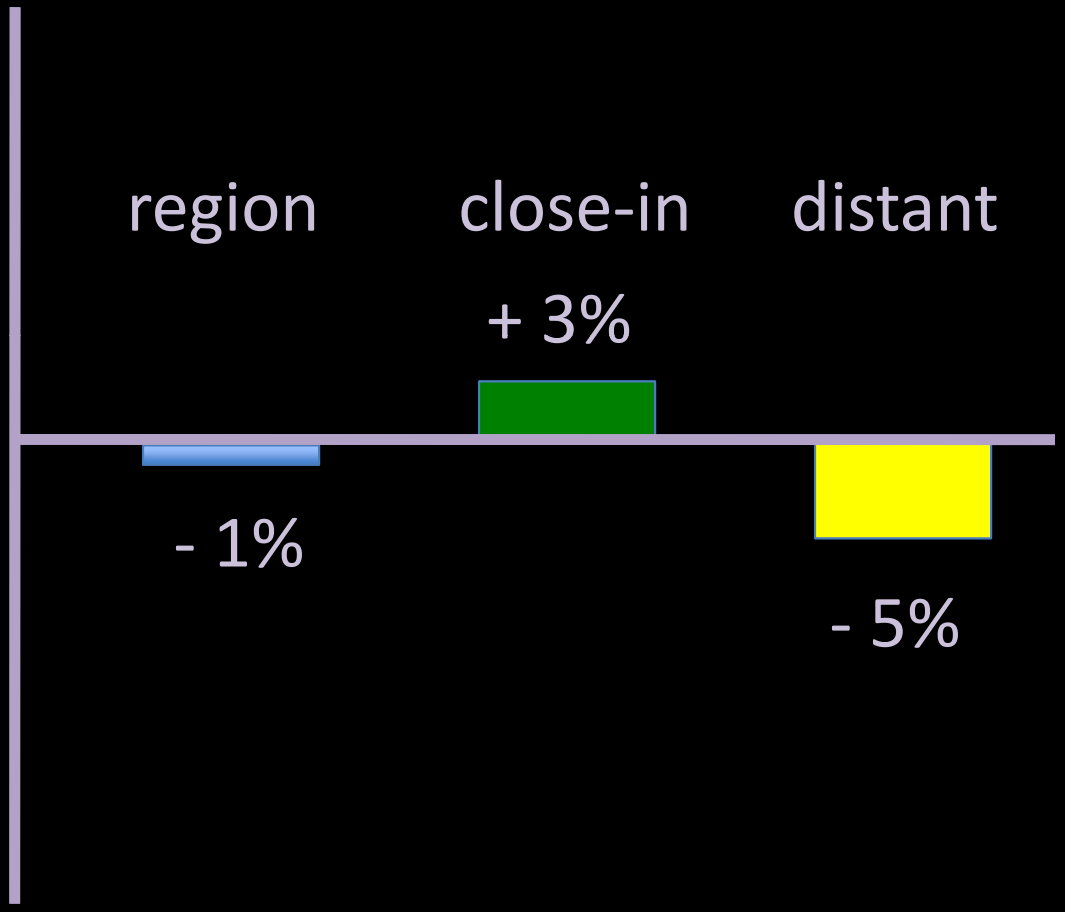
effect of location on housing value



Pittsburgh

4th quarter 2006 – 4th quarter 2007

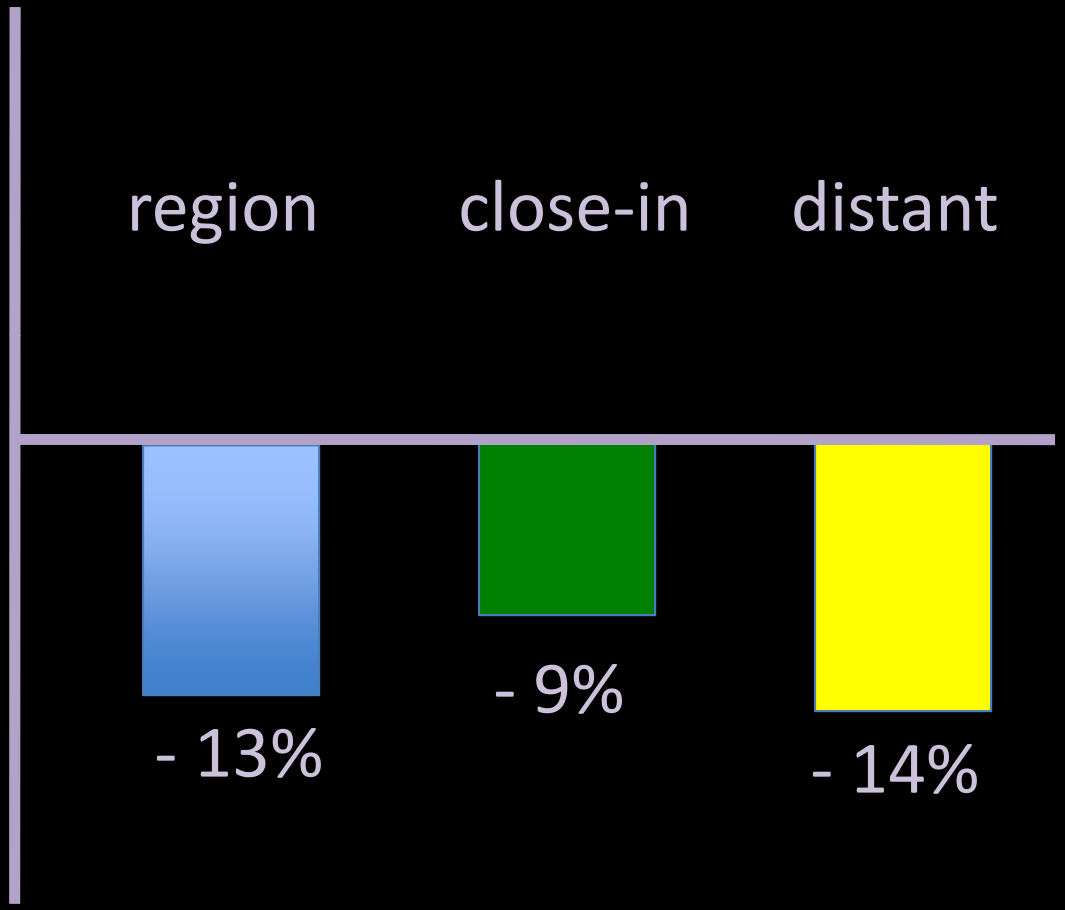
effect of location on housing value



Portland

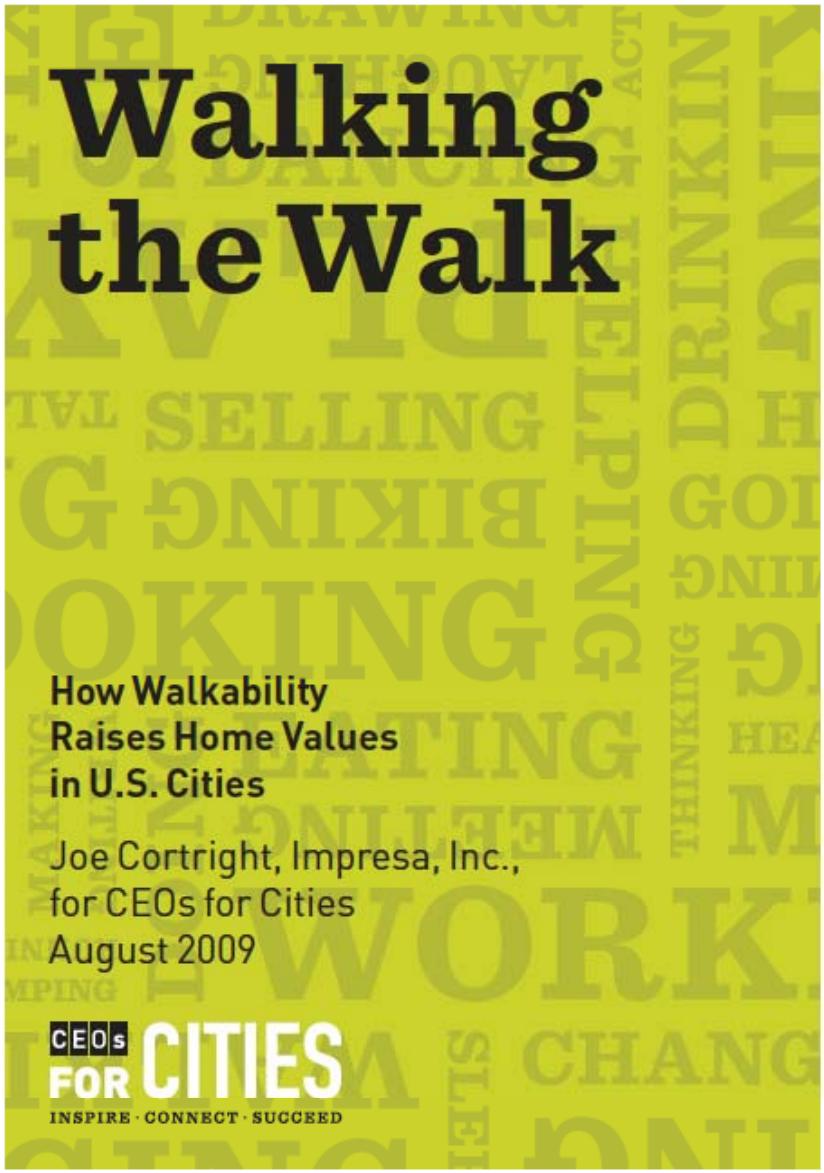
4th quarter 2006 – 4th quarter 2007

effect of location on housing value



Tampa

4th quarter 2006 – 4th quarter 2007


Walking the Walk
How Walkability Raises Home Values in U.S. Cities
Joe Cortright, Impresa, Inc., for CEOs for Cities
August 2009
CEOs FOR CITIES
INSPIRE · CONNECT · SUCCEED

Walkability and House Value*

City	Walkability Premium
Austin, TX	+ $24,871
Dallas, TX	+ $4,278
Fresno, CA	+ $7,427
Phoenix, AZ	+ $18,689
Sacramento, CA	+ $34,345
San Francisco, CA	+ $32,837
Seattle, WA	+ $19,789
Tucson, AZ	+ $10,841

* difference in house value: citywide median WalkScore compared to 75 percentile and above

elders

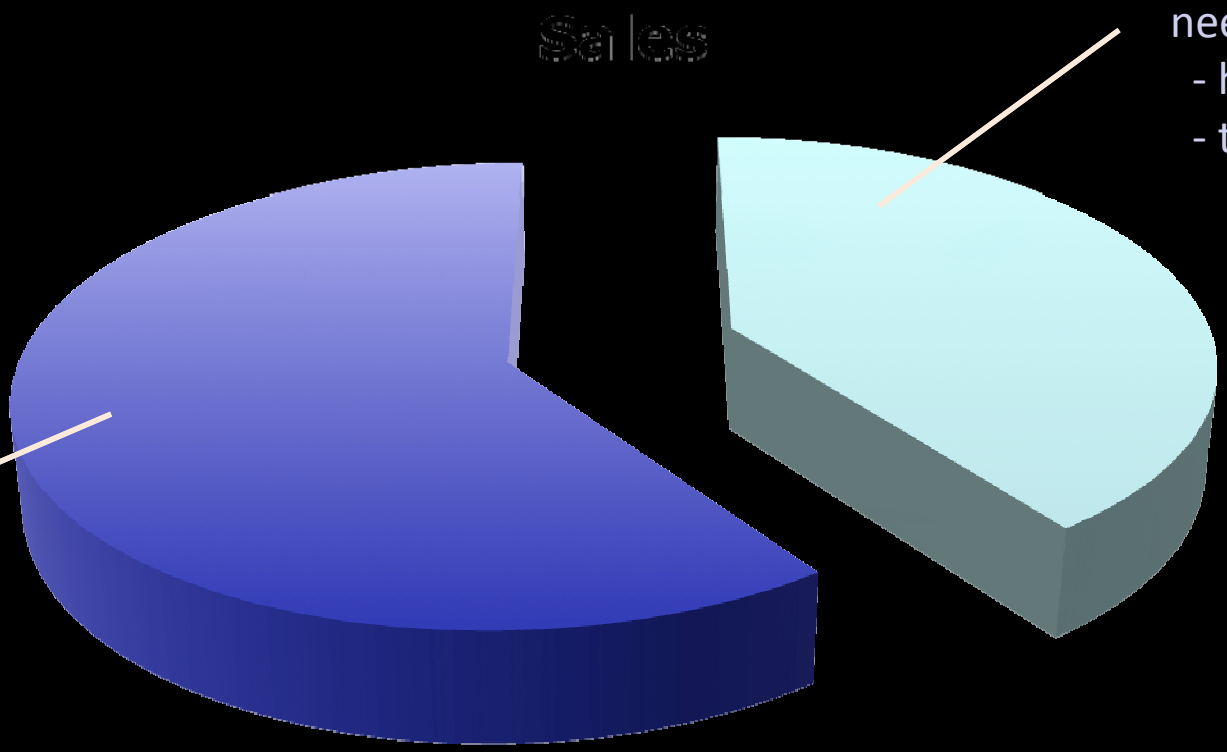
creative class

same housing market: mixed-use, transit-served, walkable neighborhoods with embedded pedestrian places

5

you cannot afford further delay

household economics

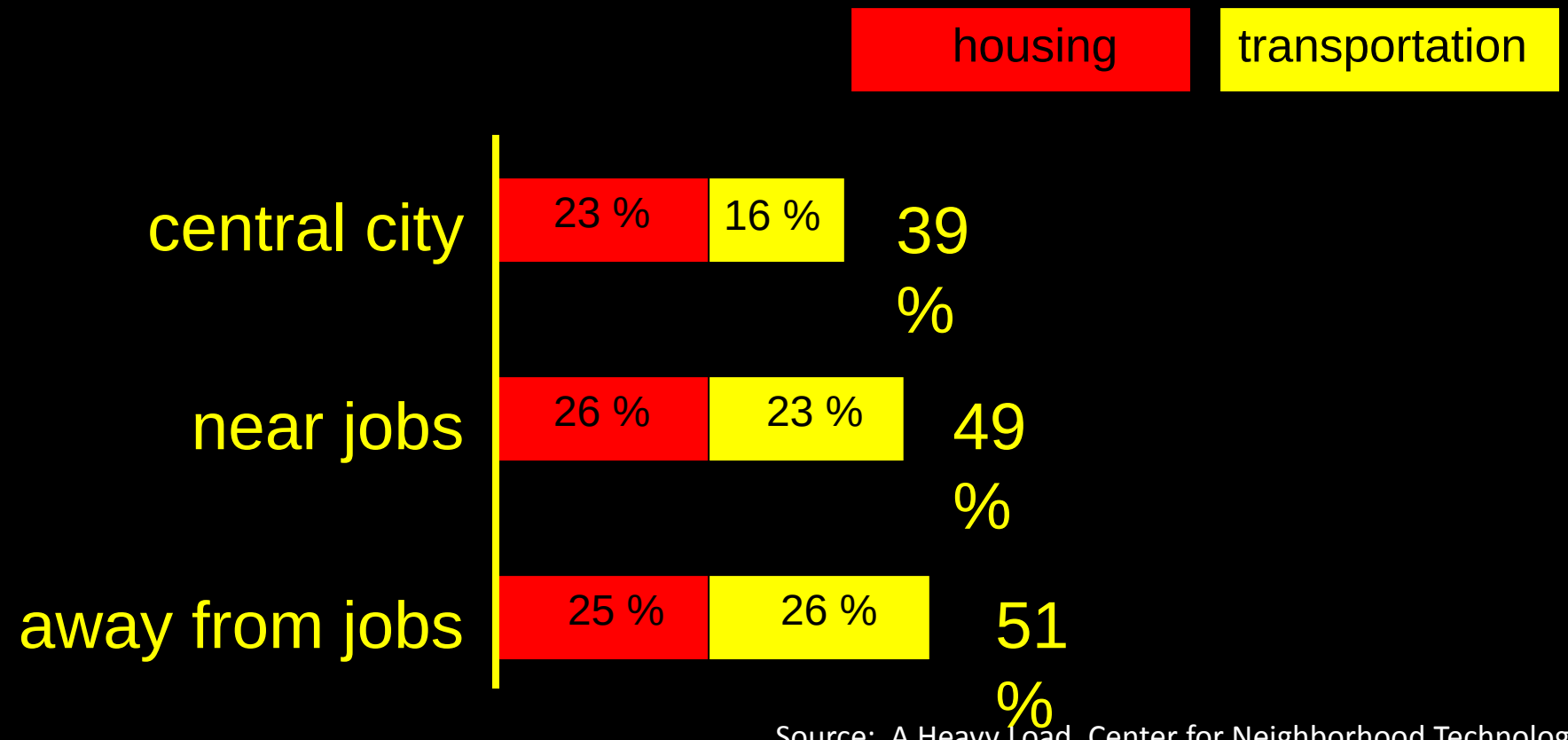


needed for:
- housing
- transportation

available for:
- food
- health care
- education
- consumer expenditures
- recreation
- savings

share of family income spent on housing & transportation

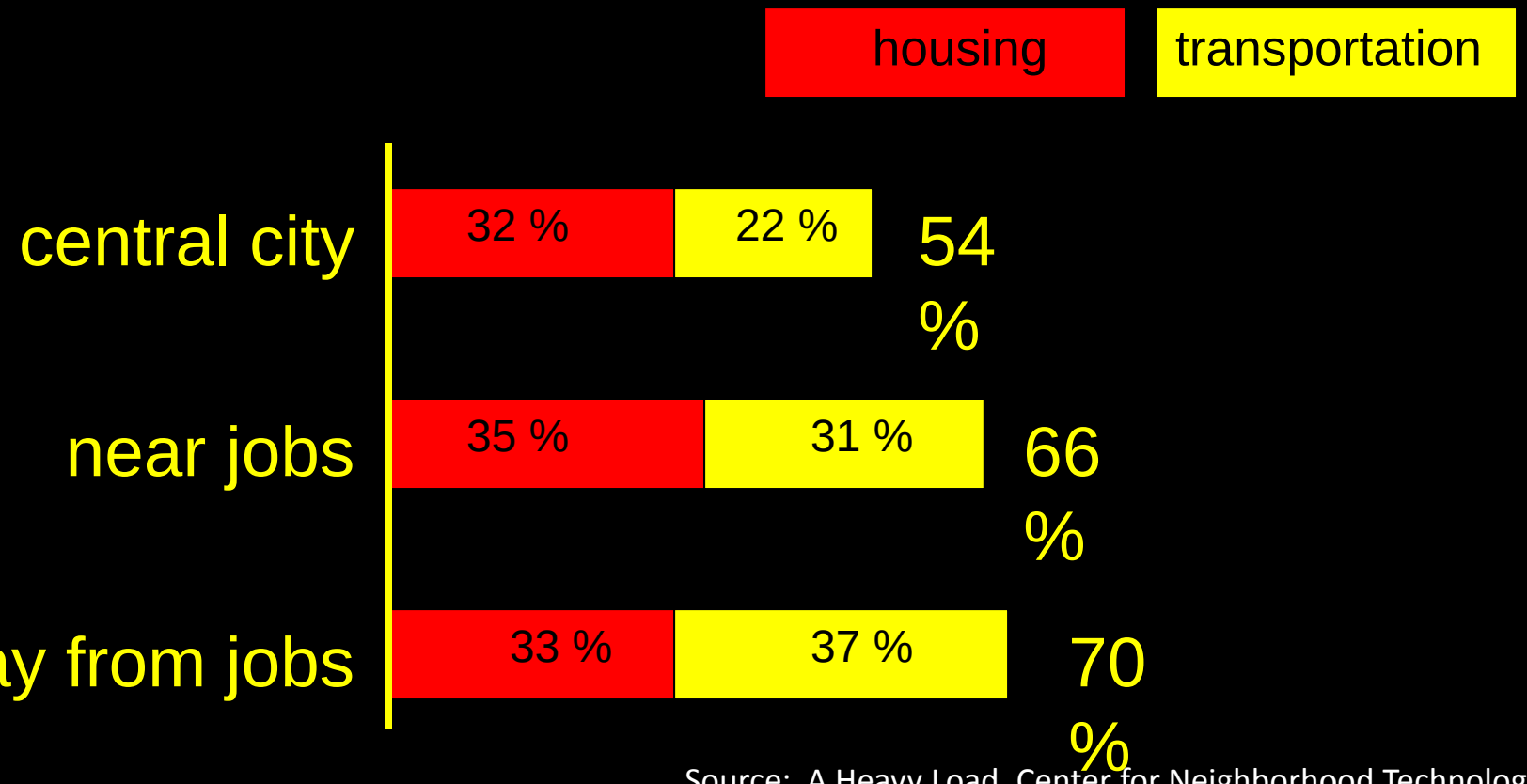
family income = $35,000 - $50,000



Source: A Heavy Load, Center for Neighborhood Technology

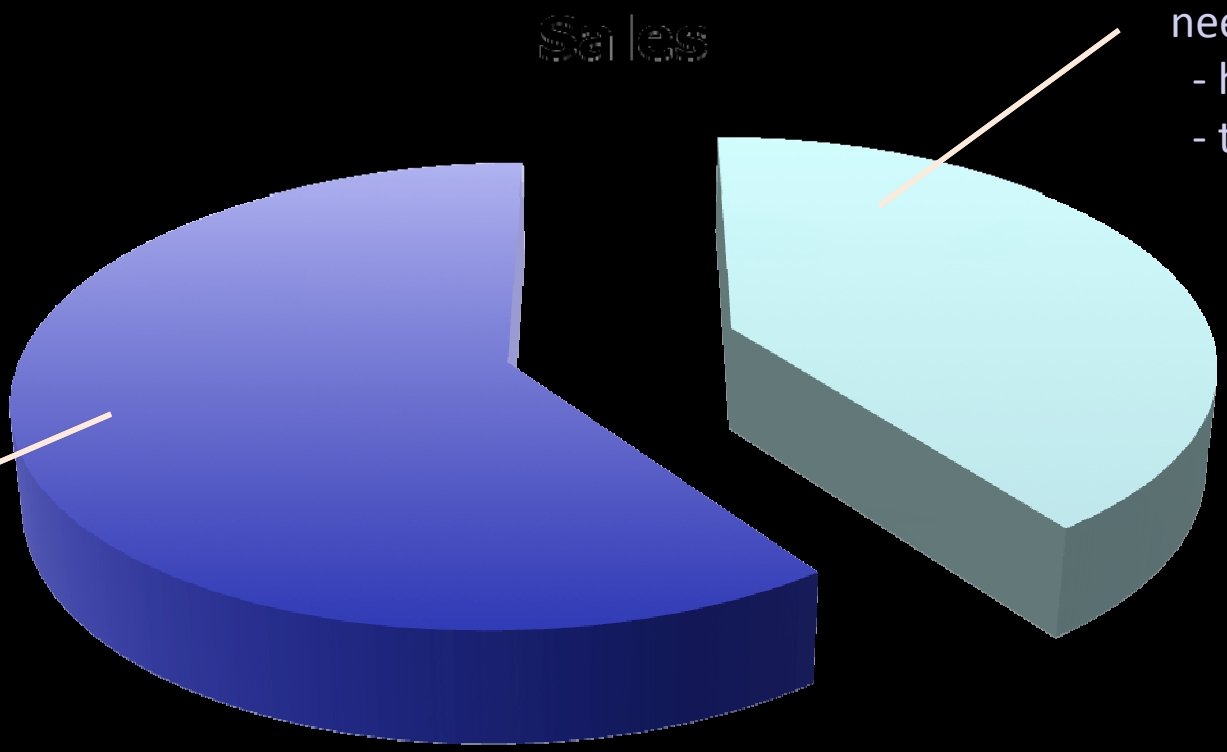
share of family income spent on housing & transportation

family income = $20,000 - $35,000



Source: A Heavy Load, Center for Neighborhood Technology

household economics



needed for:
- housing
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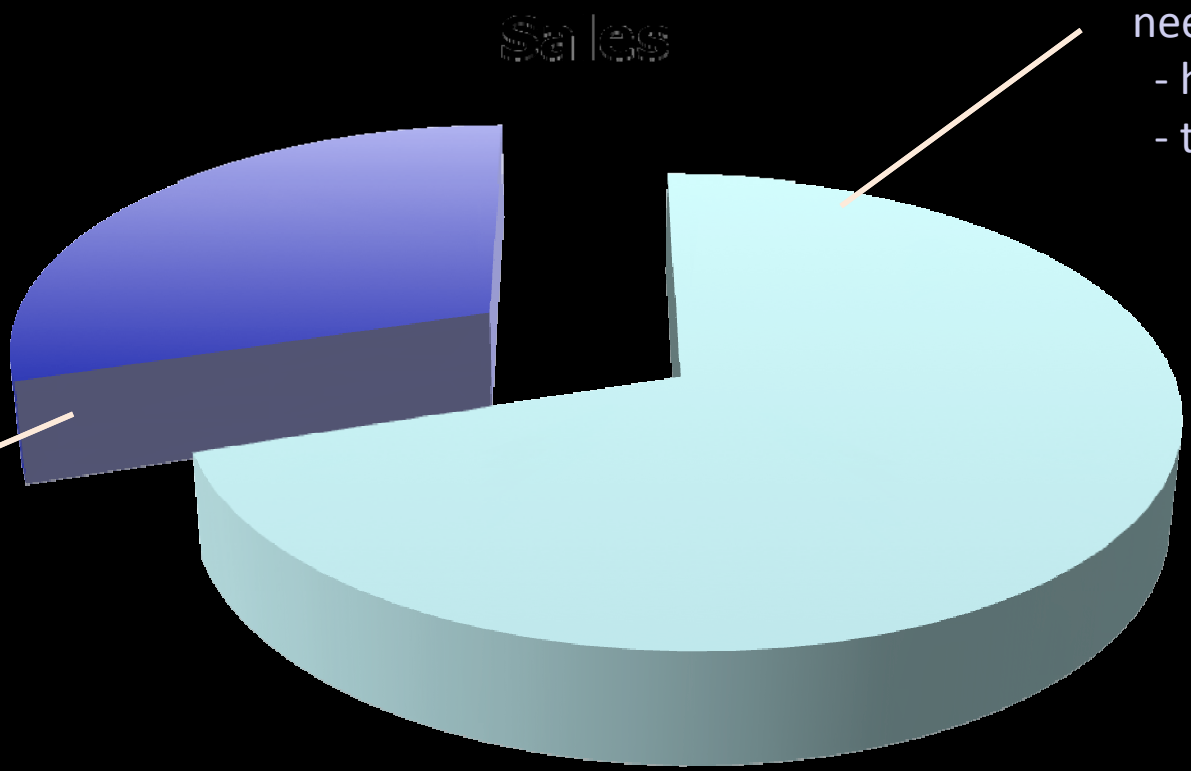
available for:
- food
- health care
- education
- consumer expenditures
- recreation
- savings

household economics



needed for:
- housing
- transportation

available for:
- food
- health care
- education
- consumer expenditures
- recreation
- savings

impact on local micro economics

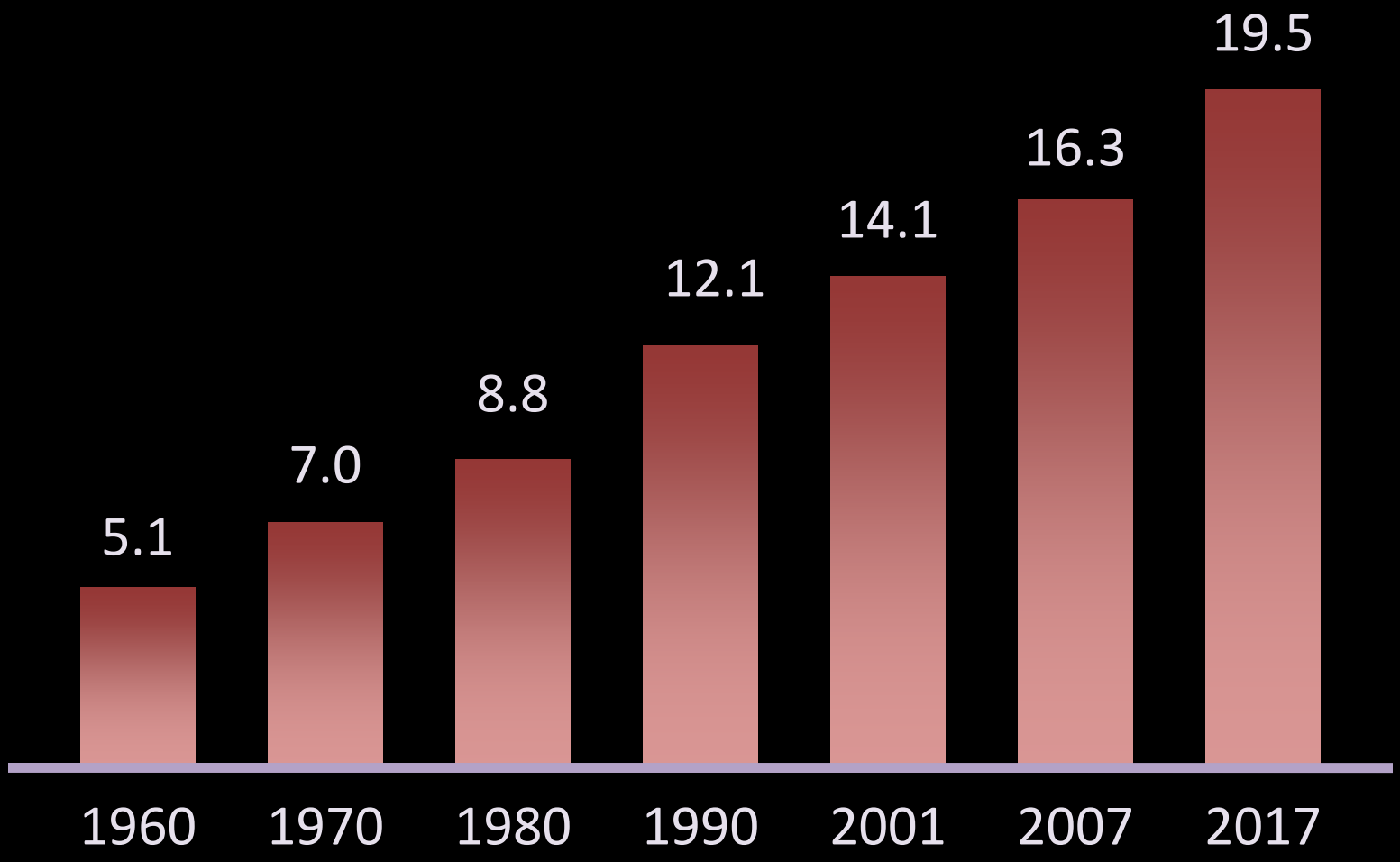
Available for:

- food …shop for cheaper, less nutritious foods
- health care …less insurance, less preventive care
- education …less higher education
- consumer expenditures …less shopping, sales tax
- recreation …less sports activity, less exercise
- savings …lower savings rate, higher cost of capital

available for:

- food
- health care
- education
- consumer expenditures
- recreation
- savings

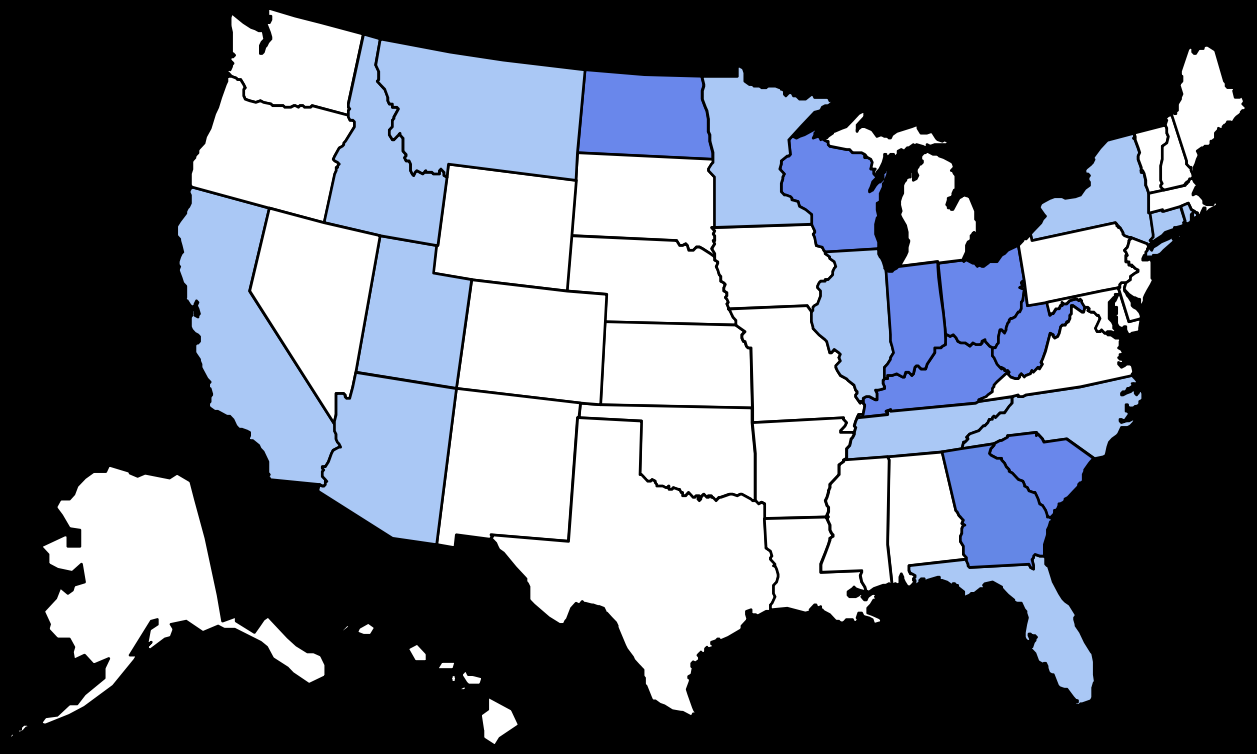
US health care costs as % of GDP



Source: Keehan, et al, Health Affairs, March/April 2008, 27: 145 - 155

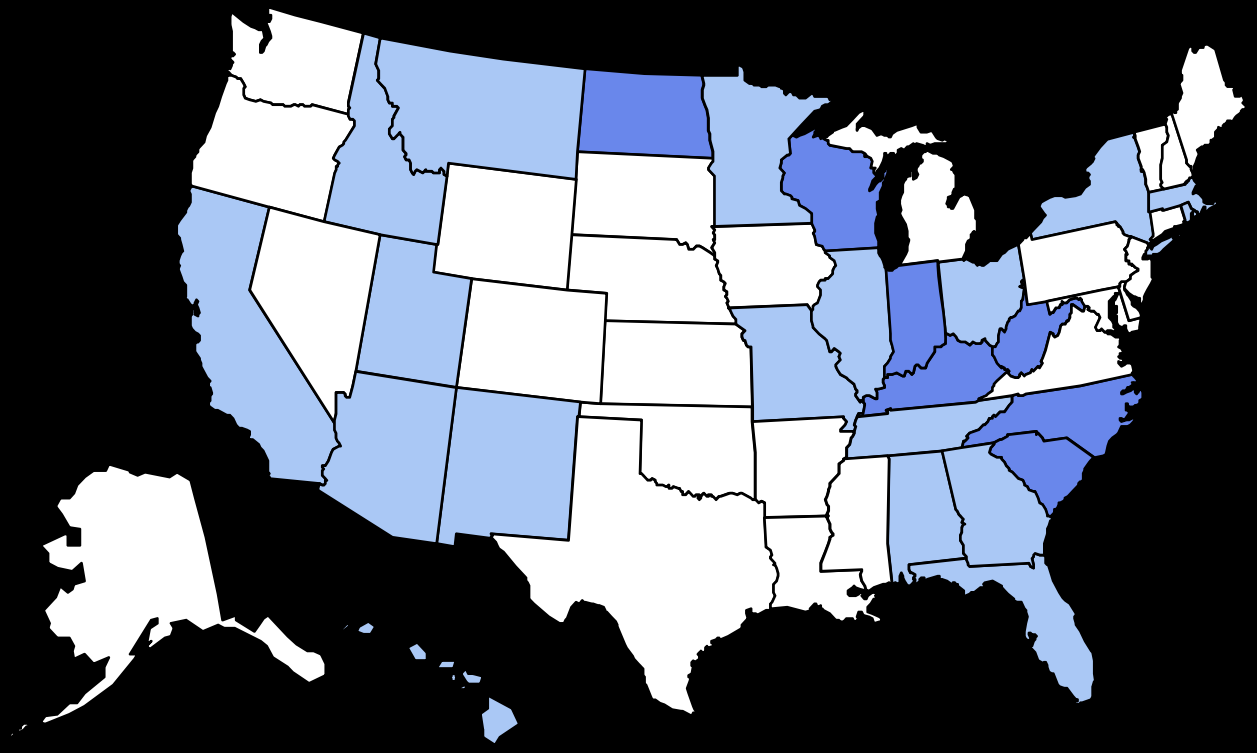
1985

Obesity Trends Among U.S. Adults



No Data <10% 10%–14%

1986



No Data <10% 10%–14%

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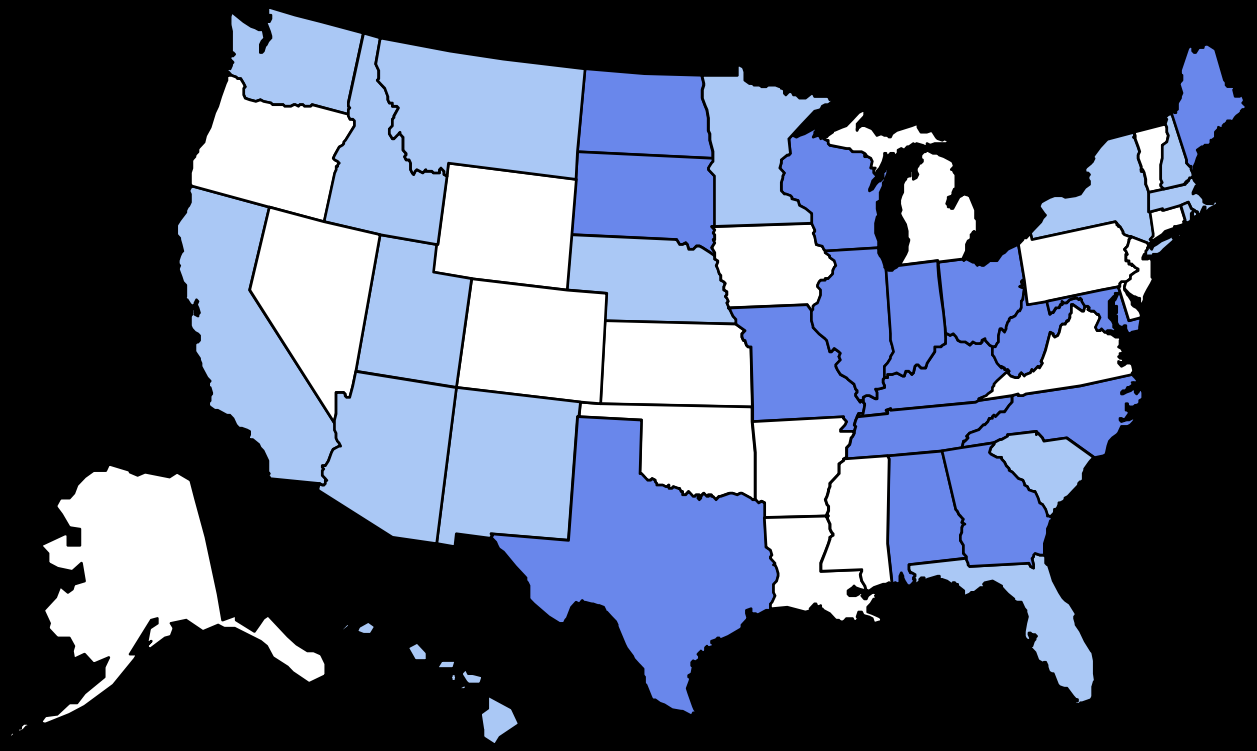

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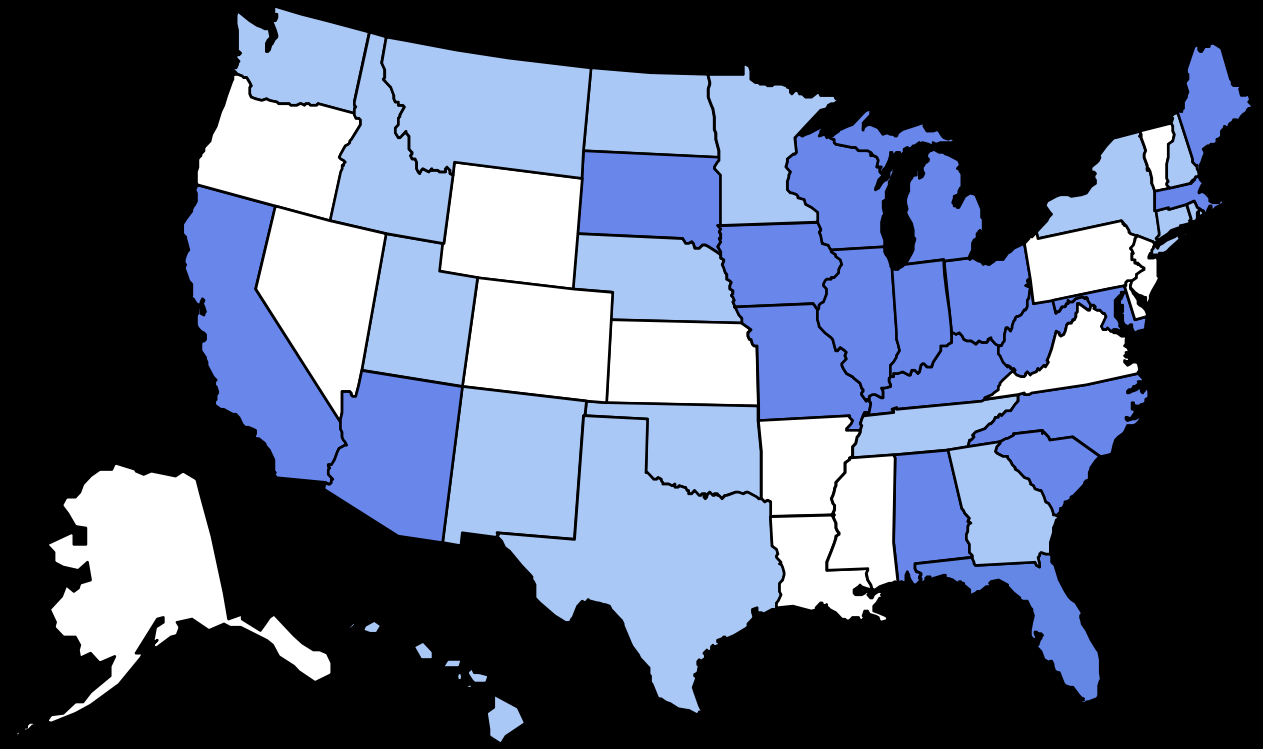
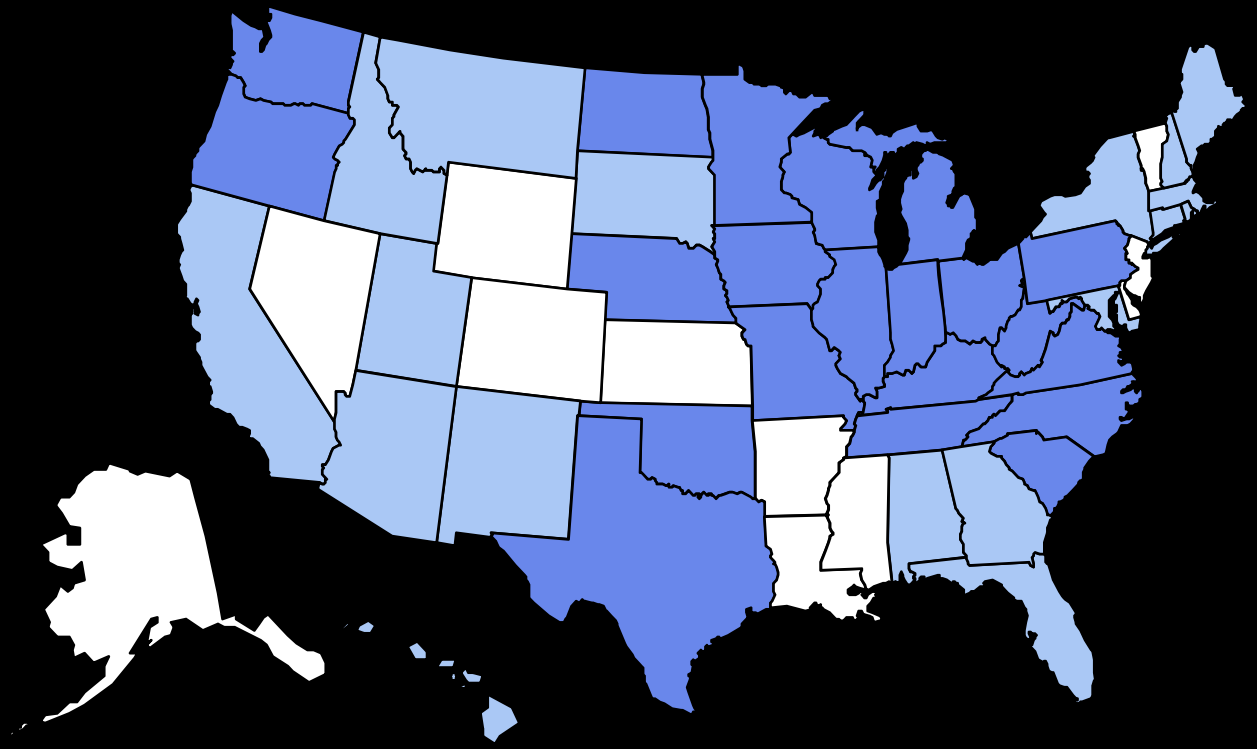
1988



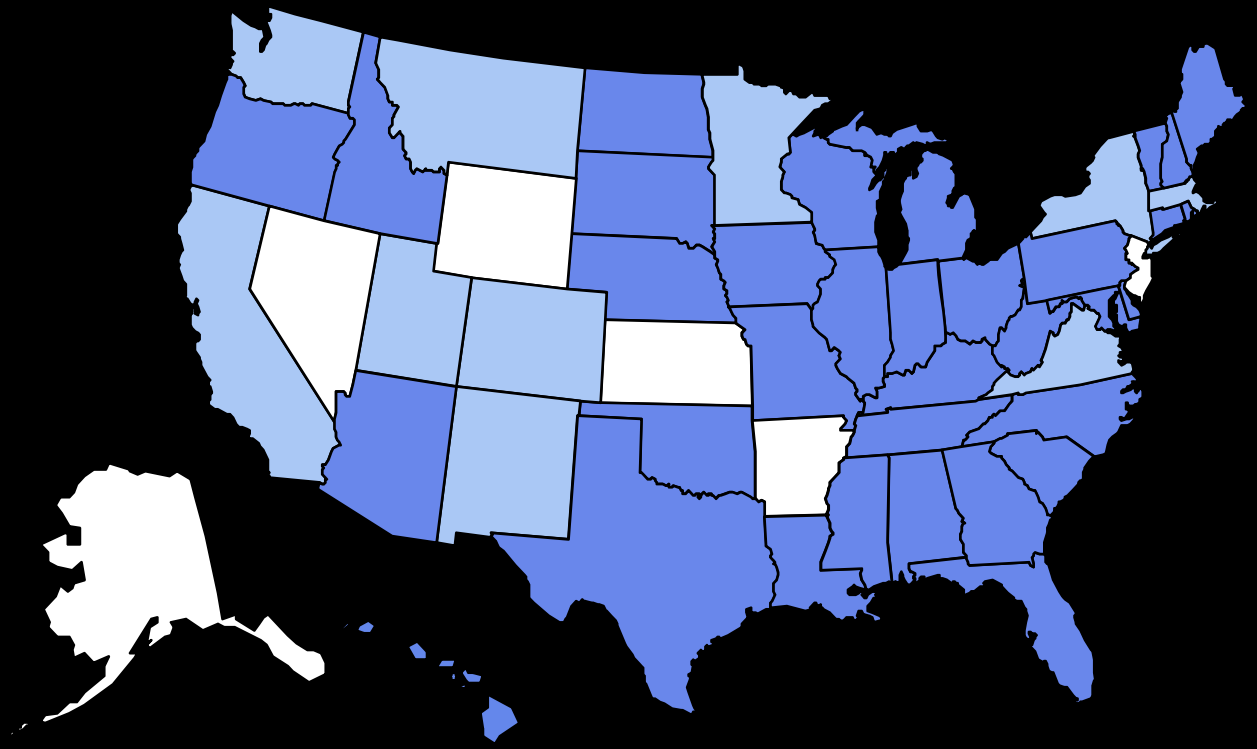
No Data <10% 10%–14%

1989



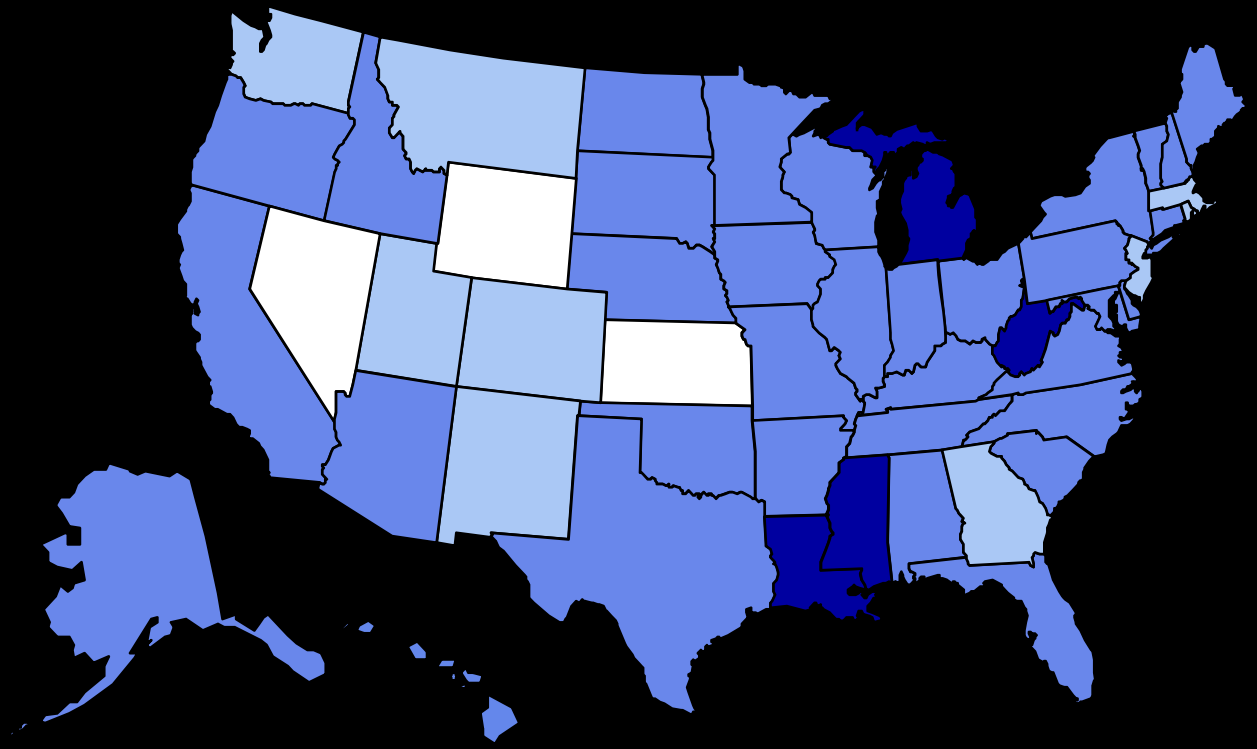
No Data <10% 10%–14%

1990



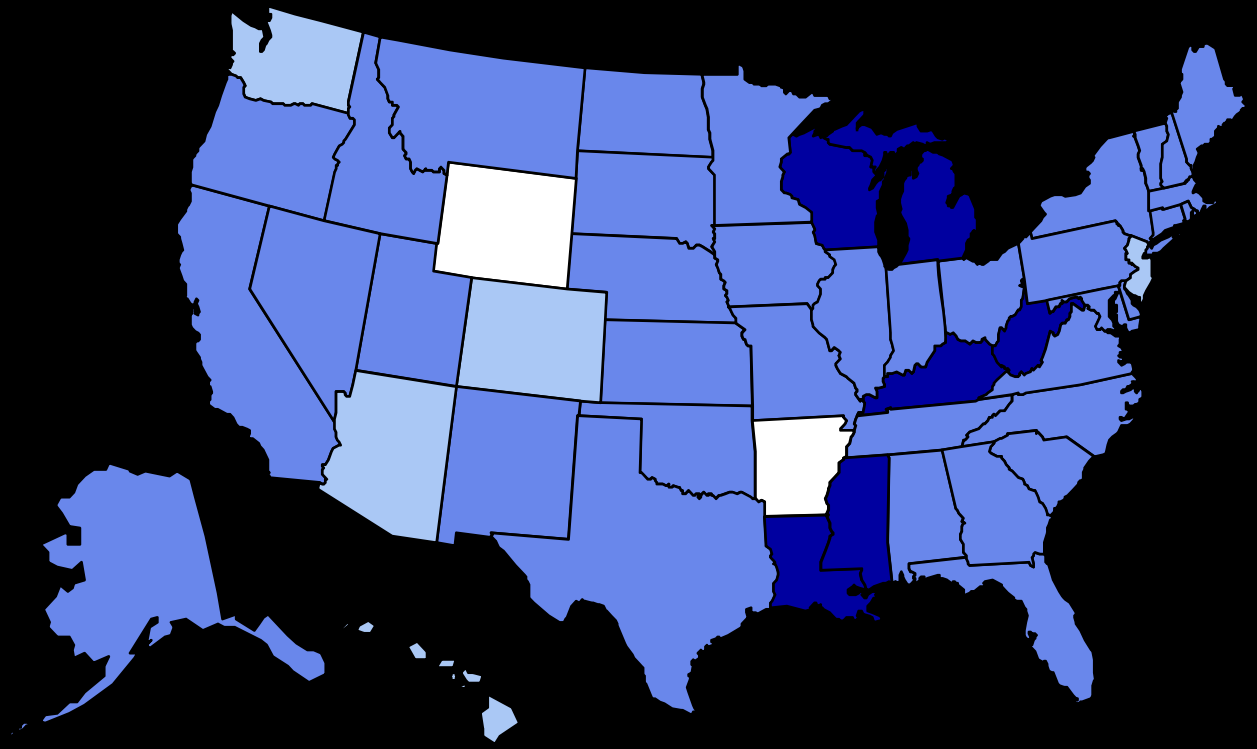
No Data <10% 10%–14%

1991



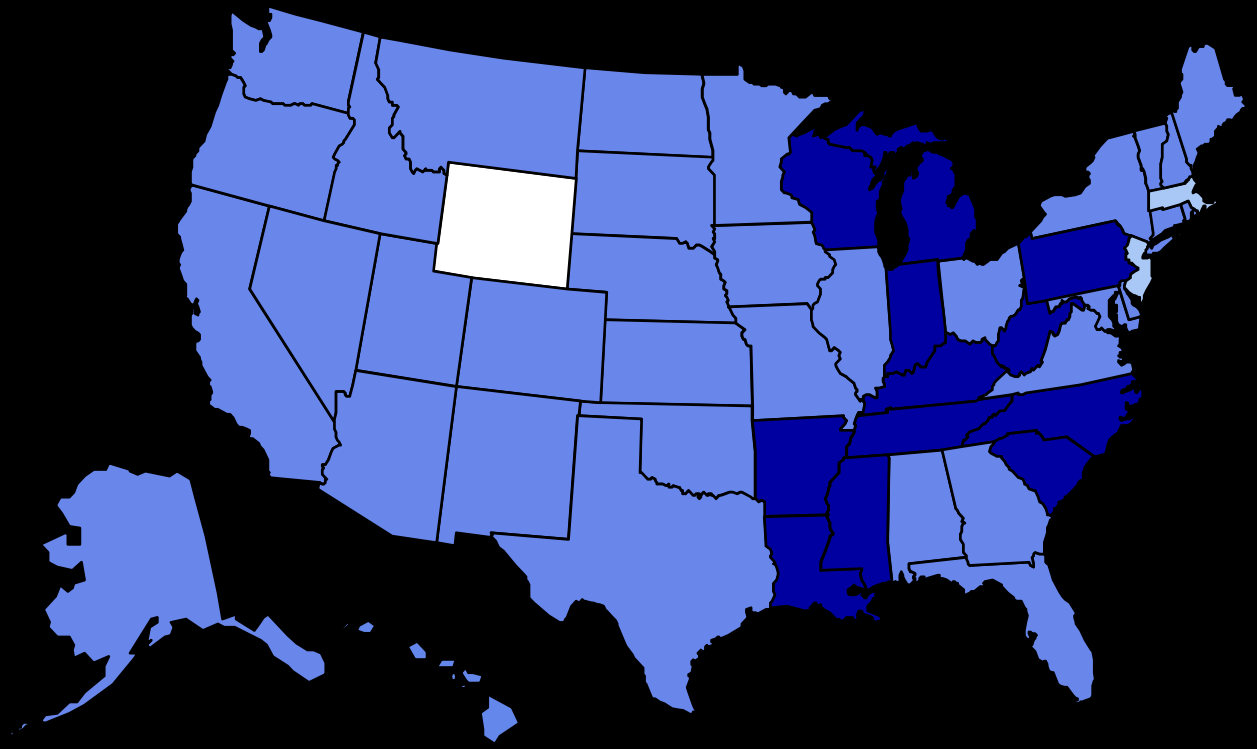
No Data <10% 10%–14% 15%–19%

1992



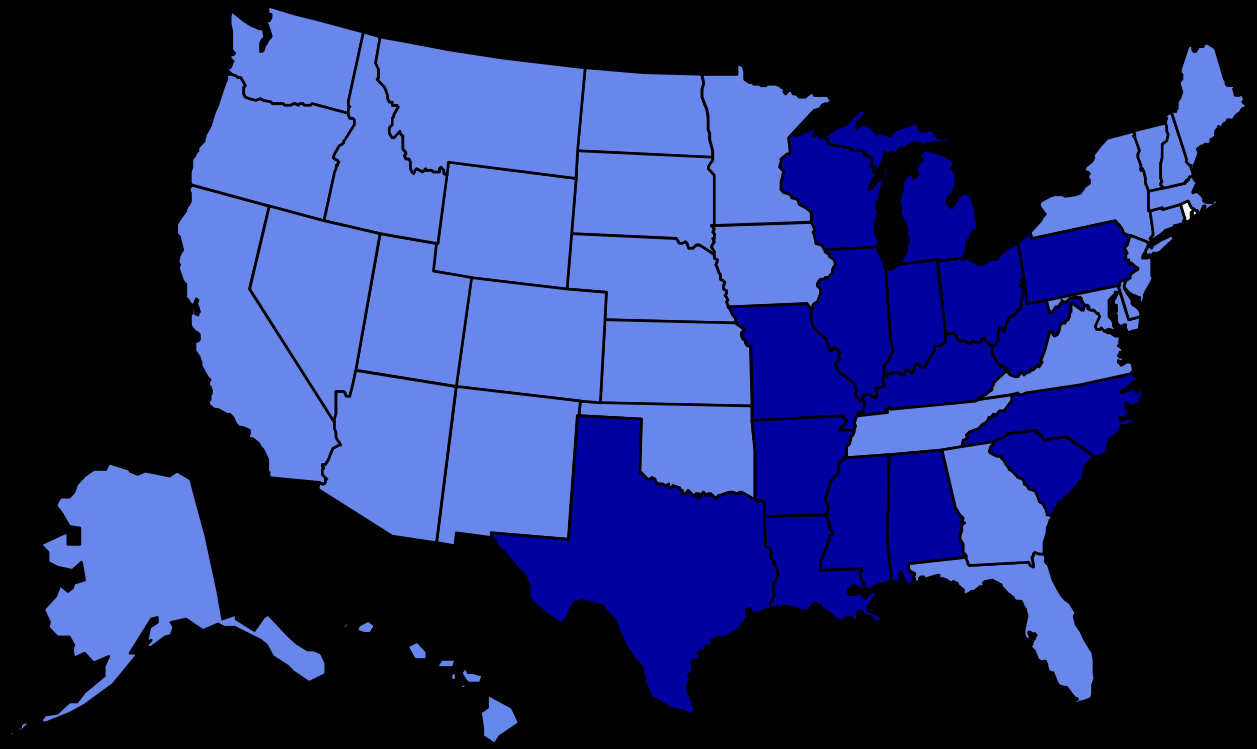
No Data <10% 10%–14% 15%–19%

1993



No Data <10% 10%–14% 15%–19%

1994



No Data <10% 10%–14% 15%–19%

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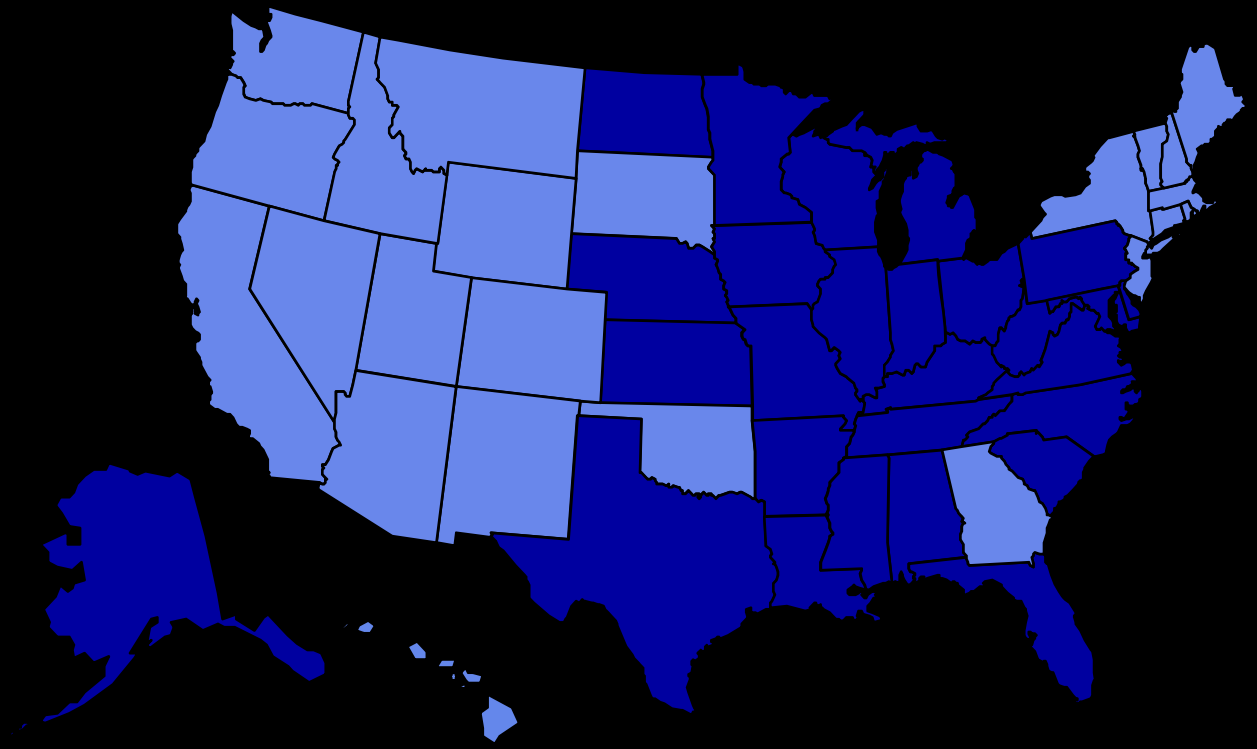
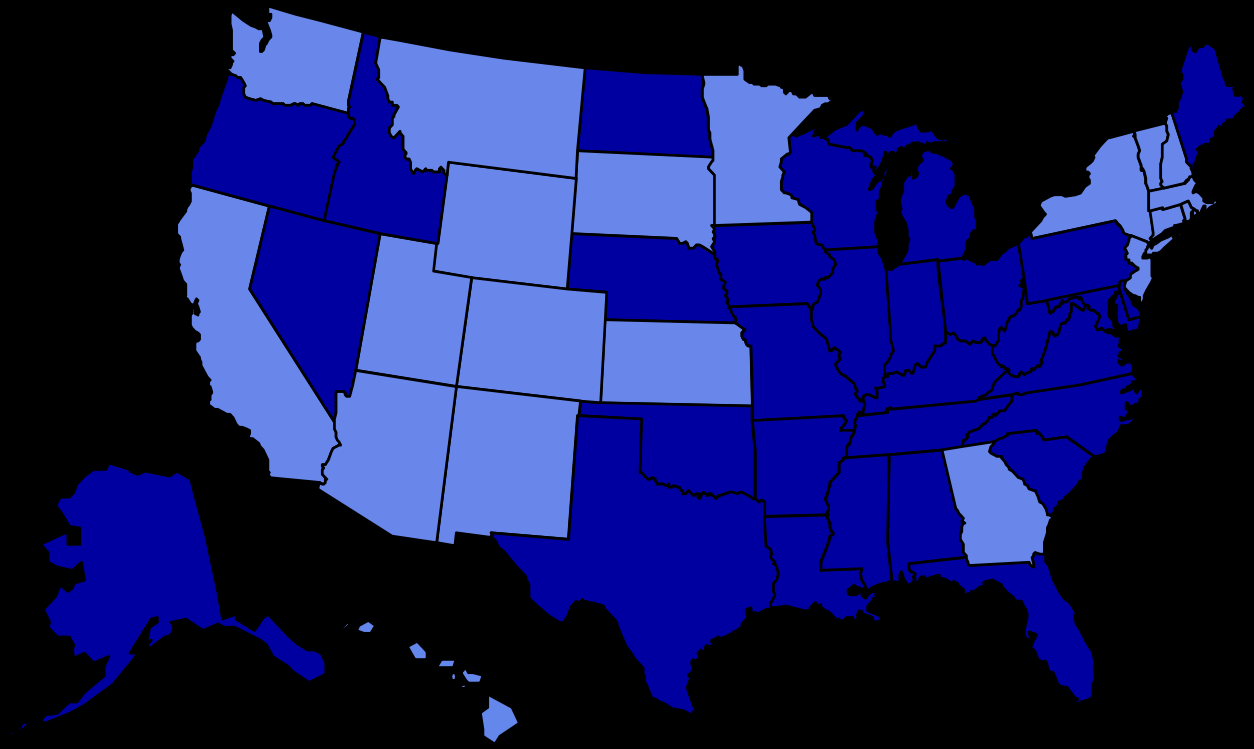


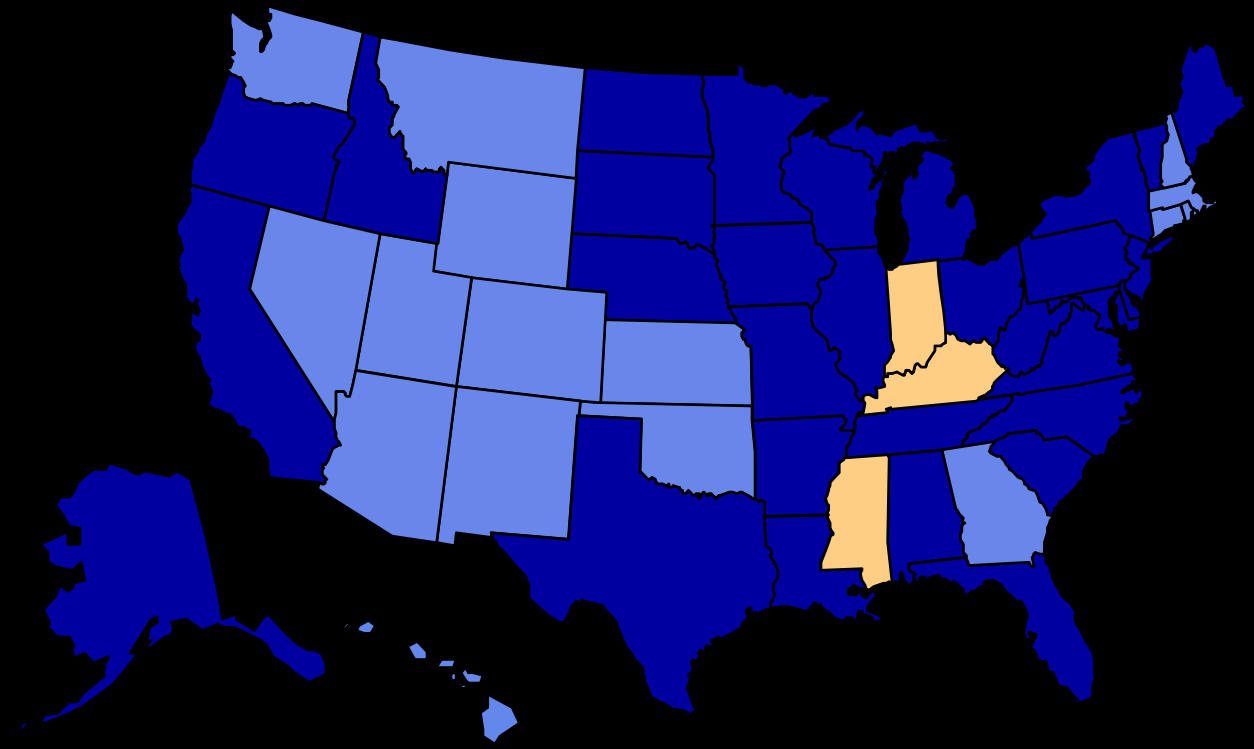
No Data <10% 10%–14% 15%–19%

1996



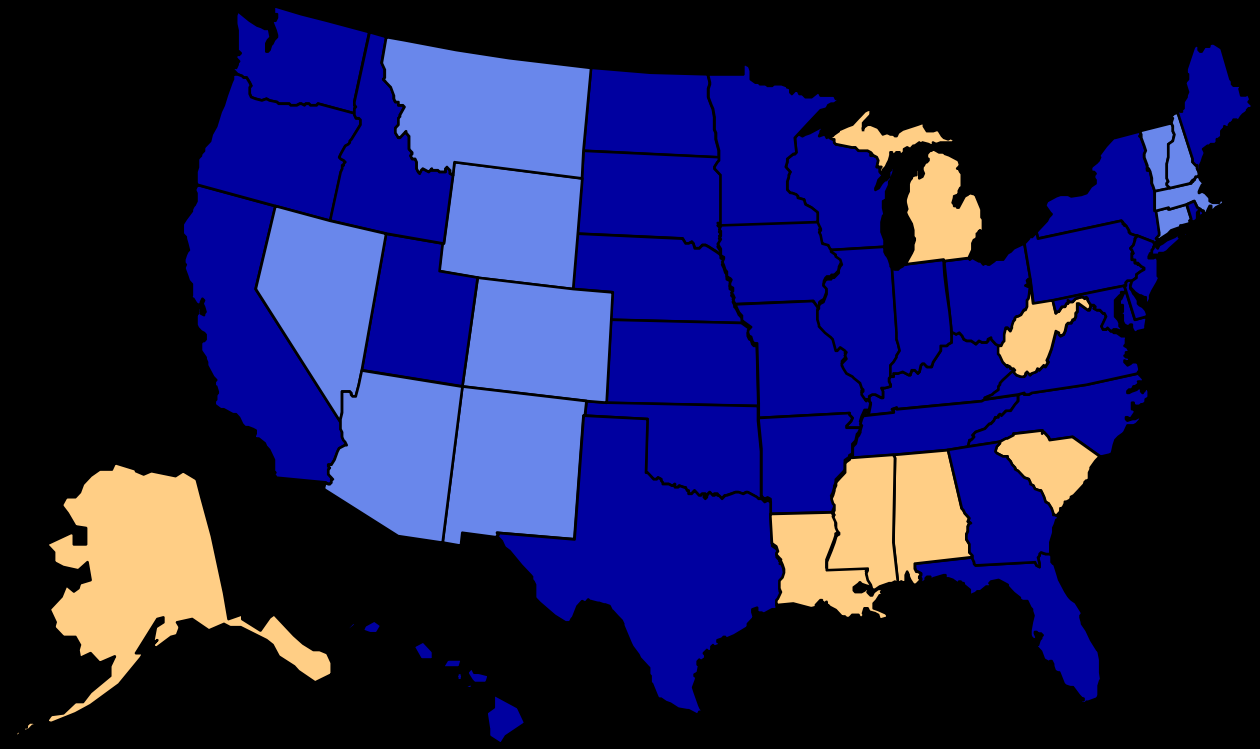
No Data <10% 10%–14% 15%–19%

1997



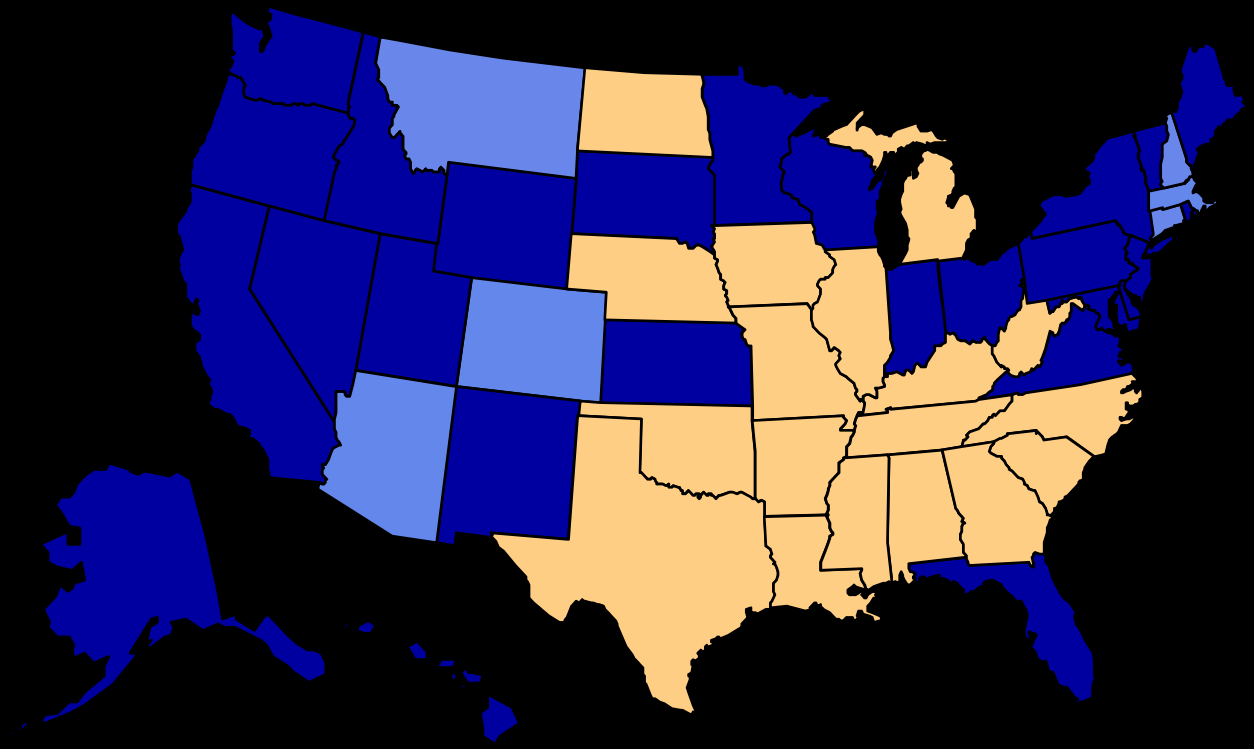
No Data <10% 10%–14% 15%–19% ≥20%

1998



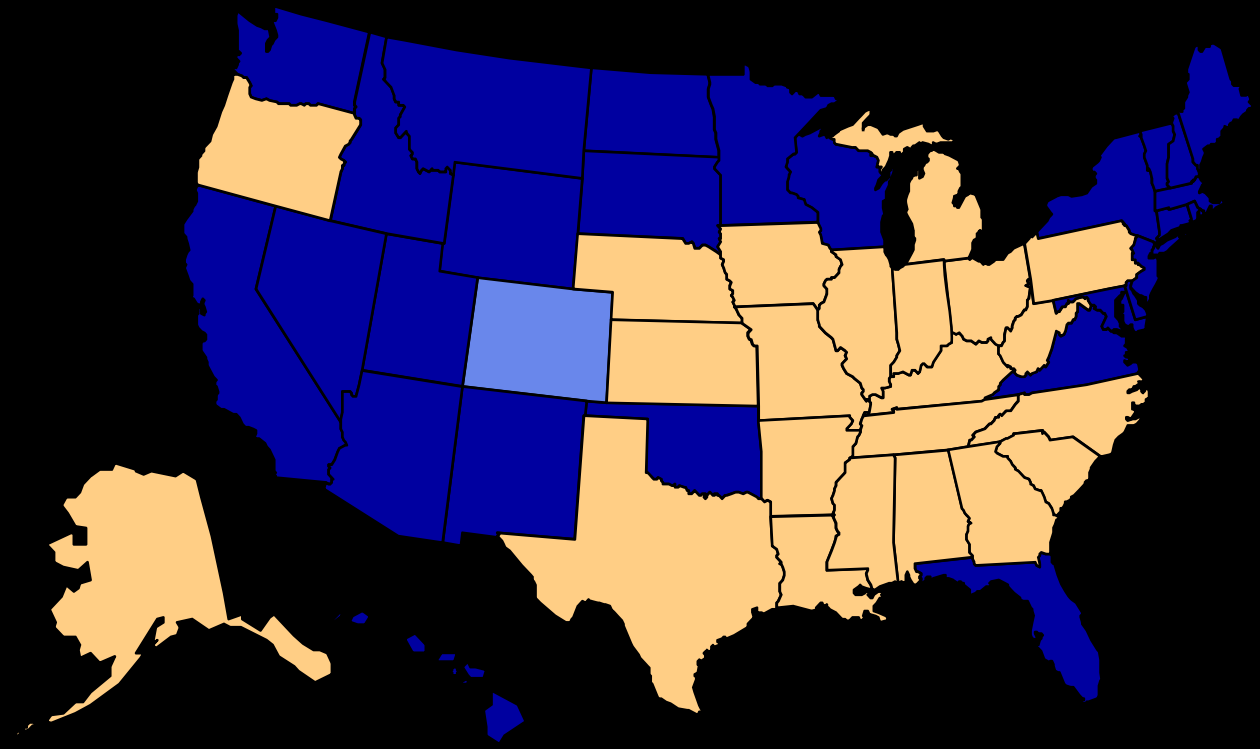
No Data | <10% | 10%–14% | 15%–19% | ≥20%

1999



No Data <10% 10%–14% 15%–19% ≥20%

2000



No Data <10% 10%–14% 15%–19% ≥20%

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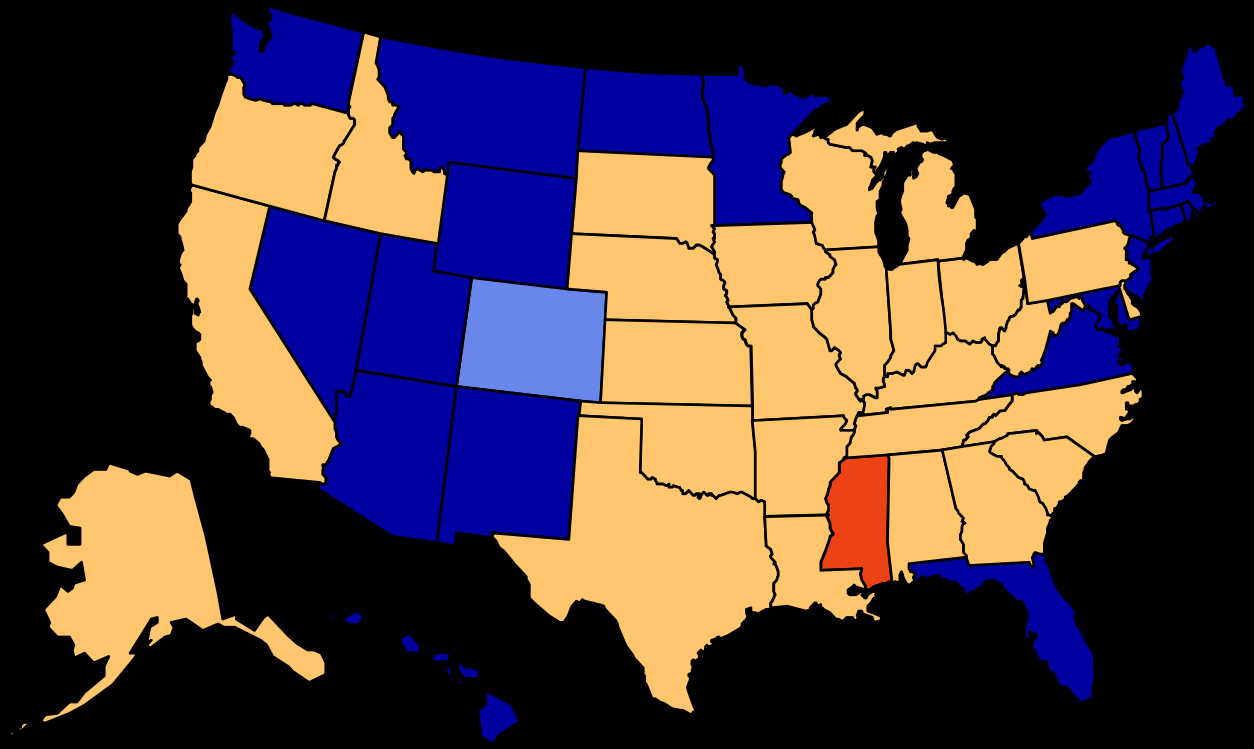

No Data | <10% | 10%–14% | 15%–19% | 20%–24% | ≥25%

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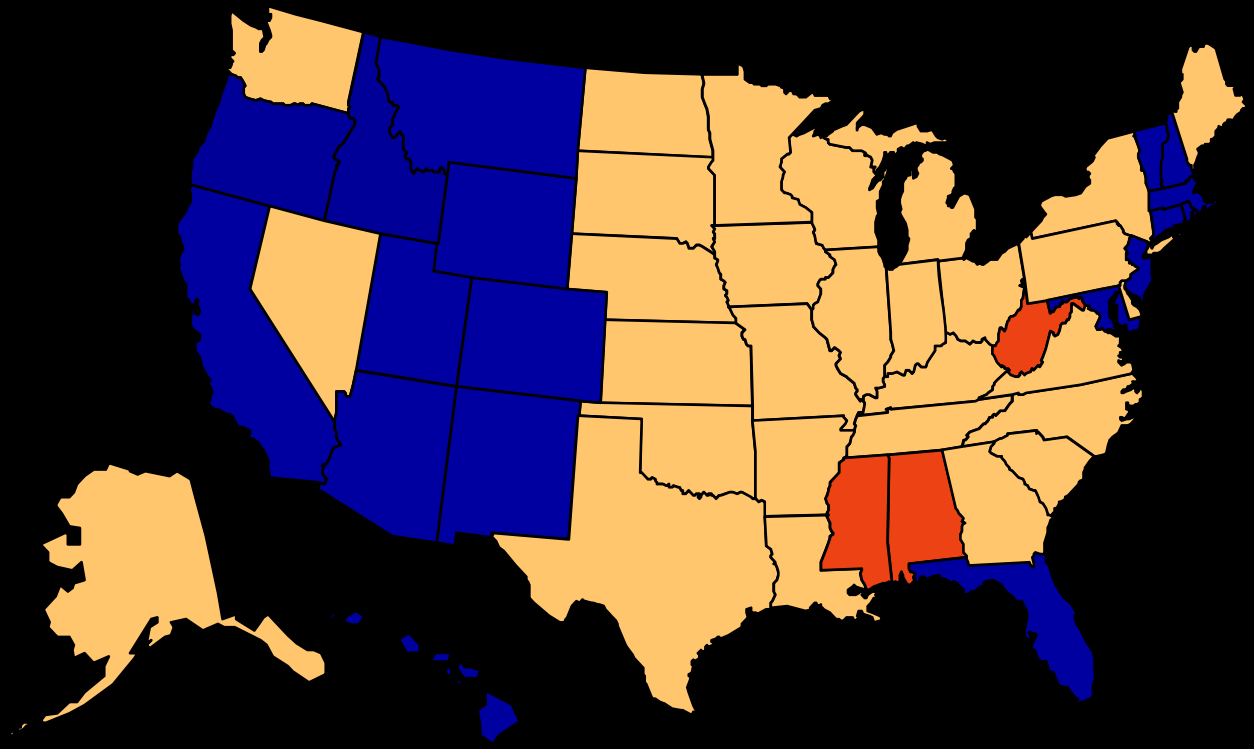

No Data | <10% | 10%–14% | 15%–19% | 20%–24% | ≥25%

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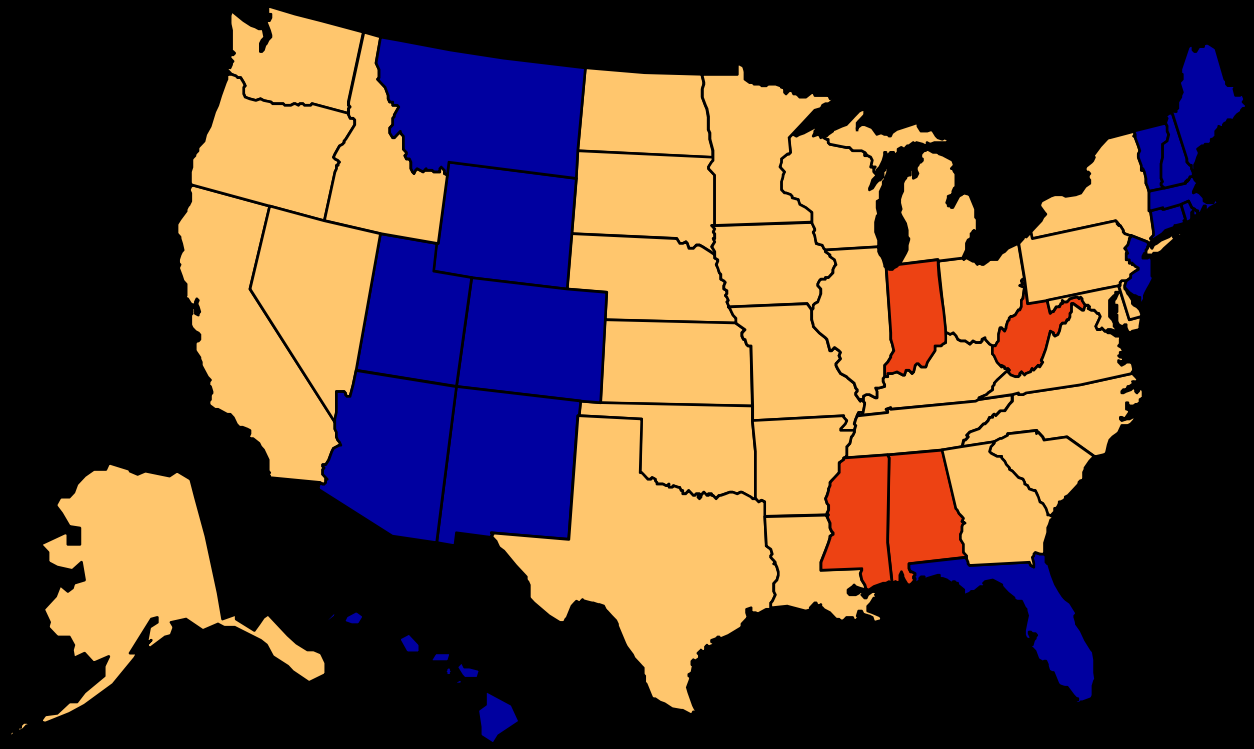
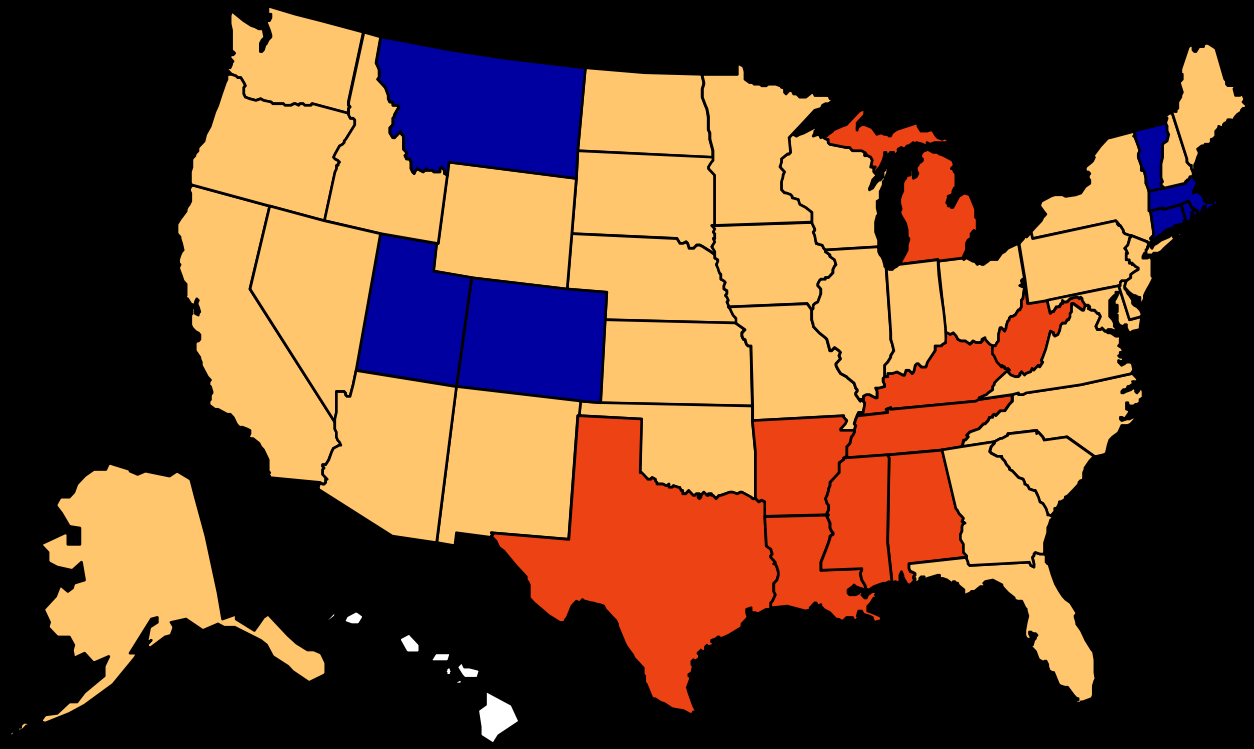


No Data <10% 10%–14% 15%–19% 20%–24% ≥25%

2004



No Data | <10% | 10%–14% | 15%–19% | 20%–24% | ≥25%

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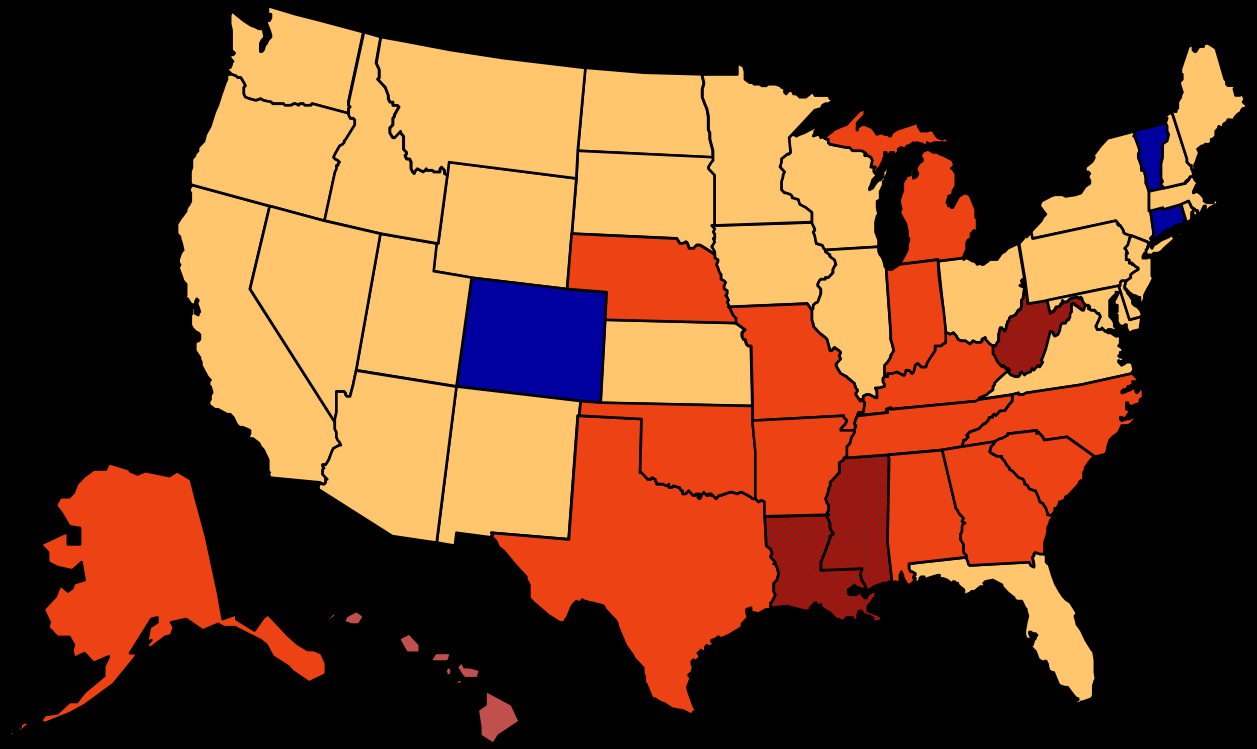


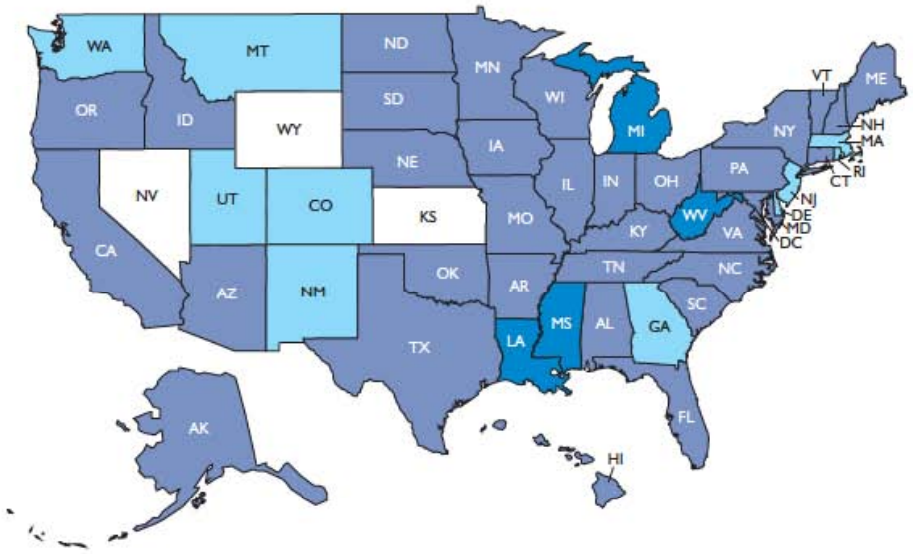
No Data | <10% | 10%–14% | 15%–19% | 20%–24% | 25%–29% | ≥30%

OBESITY TRENDS* AMONG U.S. ADULTS

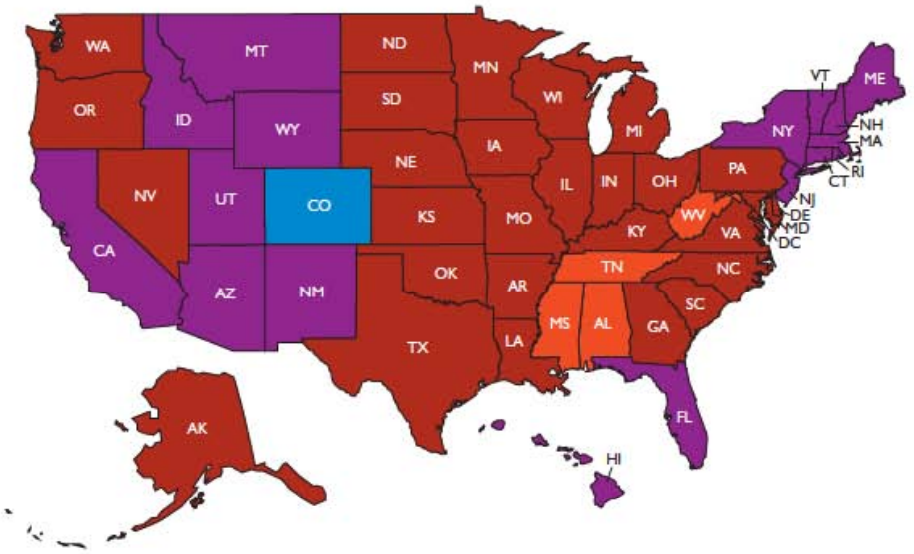
BRFSS, 1991 and 2006-2008 Combined Data

(*BMI >30, or about 30 lbs overweight for 5' 4" person)

1991



2006-2008 Combined Data

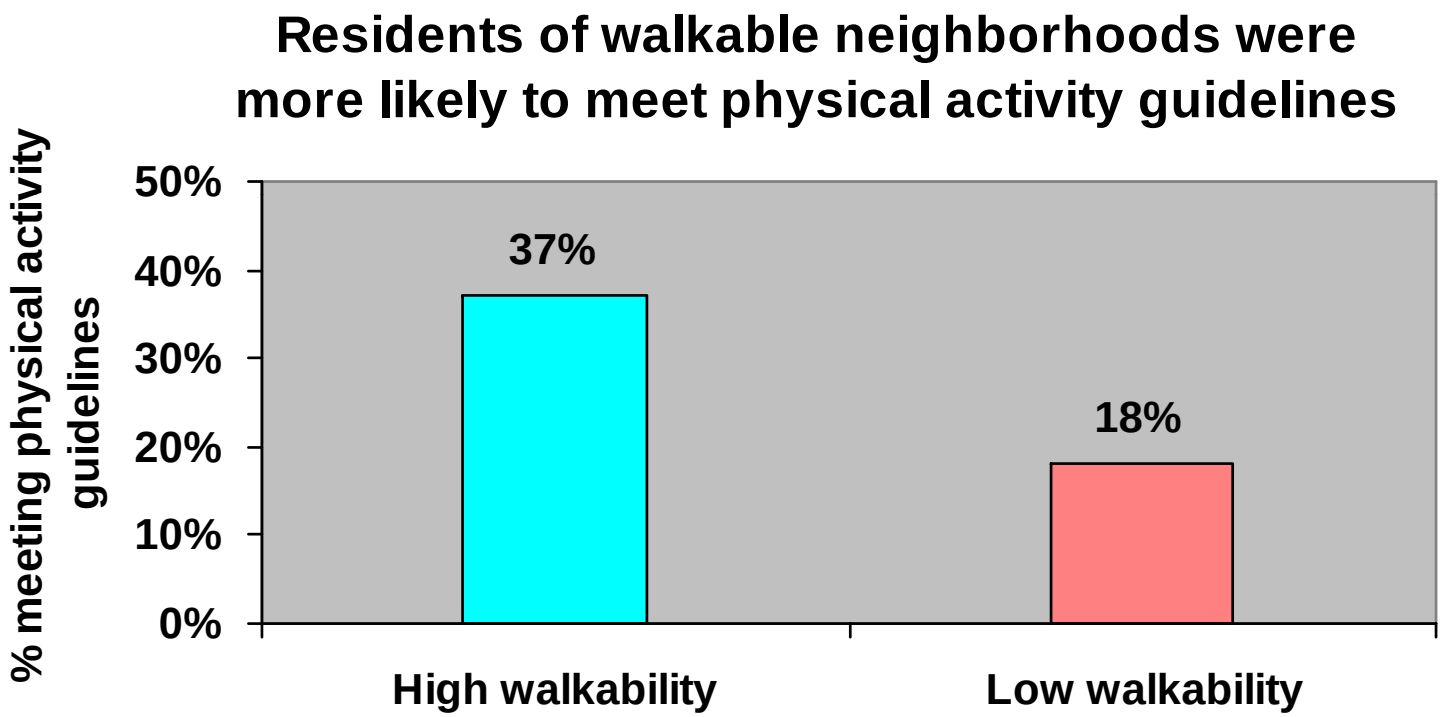


No Data | <10% | ≥10% and <15% | ≥15% and <20% | ≥20% and <25% | ≥25% and<30% | ≥30%

Source: Behavioral Risk Factor Surveillance System, CDC.

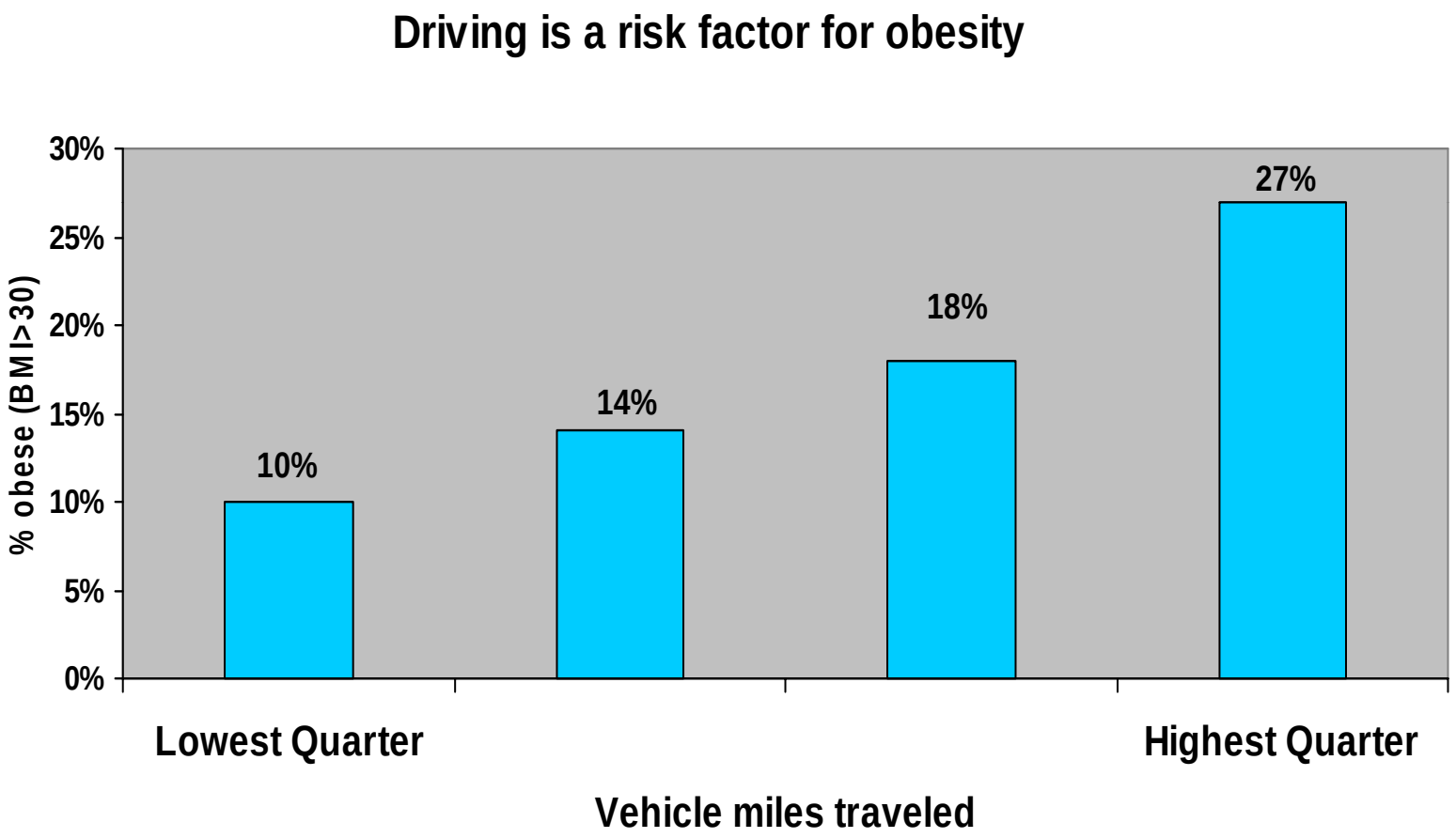
obesity costs the US economy $147 billion annually

ongoing research



Frank, Schmid, et al., Am J Prev Med, 2005

ongoing research



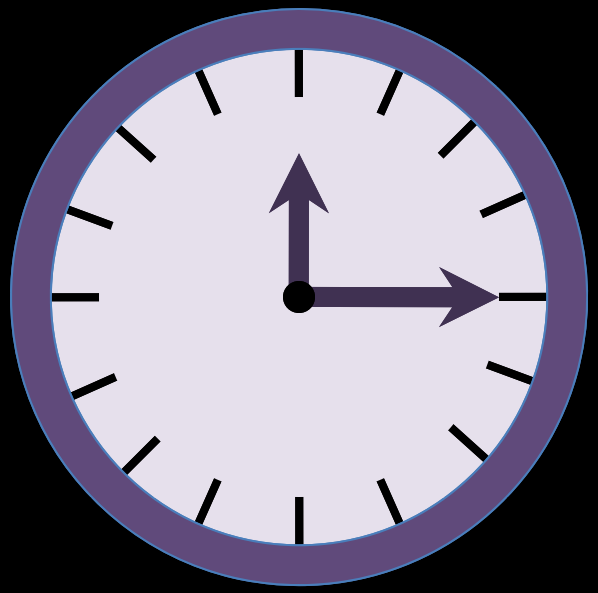
Lopez-Zetina, Health and Place, 2006

ongoing research

States with the Highest Rates of Physical Inactivity			
Rank	**State**	**Percentage of Adult Physical Inactivity (Based on 2006-2008 Combined Data, Including Confidence Intervals)**	**Obesity Ranking**
1	Mississippi	31.8% (+/-0.9)	1
2	Kentucky	30.4% (+/-1.0)	7
3 (tie)	Louisiana	30.3% (+/-0.9)	8
3 (tie)	Oklahoma	30.3% (+/-0.8)	6
5	Tennessee	29.8% (+/-1.2)	4
6	Alabama	29.5% (+/-1.0)	2
7	Arkansas	28.8% (+/-0.9)	10
8	Texas	28.4% (+/-0.9)	14
9	West Virginia	28.3% (+/-1.0)	3
10	New Jersey	26.7% (+/-0.8)	42

*Note: For rankings, 1 = Worst Health Outcome. 1 = Highest Rates of Physical Inactivity.

the urban design of US cities is one of the major factors causing the health care crisis



…NOW

communities should invest in walkable places now

why

1. size of the challenge
2. first and last mile
3. our elders will need walkable neighborhoods
4. placemaking builds value
5. you cannot afford further delay

questions for you

- what is the WalkScore of your home?
- does your city/town have pedestrian level of service criteria? are they used?
- how much of Idaho's federal STP (surface transportation program funding) is dedicated to improving pedestrian facilities?
- what are your city's/town's five highest priority pedestrian projects?
- where will the mixed-use, transit-served, walkable neighborhoods be located in your city/town?
- what % of grade school children in your city/town walk or ride bikes to school?

thanking you

www.charlier.org

Charlier Associates, Inc.