

# 3 Keys



To A Sustainable Future for Arizona

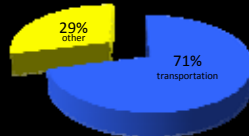
# 1



Reduce Petroleum Dependency

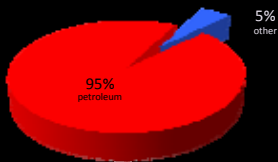


How petroleum is used in the US



EIA, 2008

Sources of energy for transportation in the US

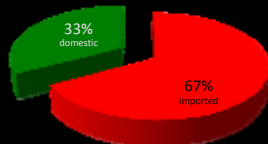


EIA, 2008

Our transportation systems are almost entirely dependent on oil



Where our oil comes from



2008 US Net Petroleum Trade Deficit: \$300 B

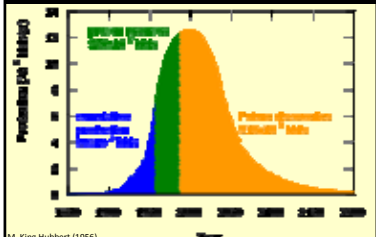
EIA, 2008

Our transportation systems are almost entirely dependent on oil **imported**

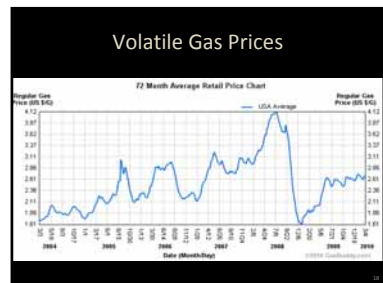
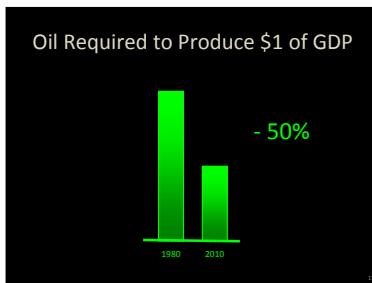
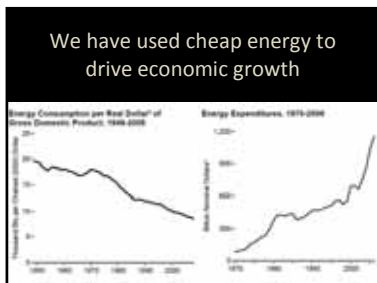
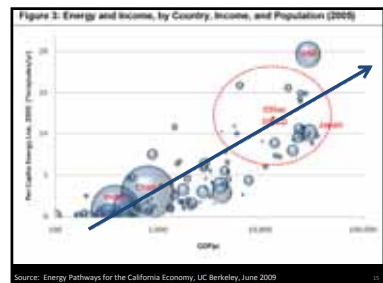
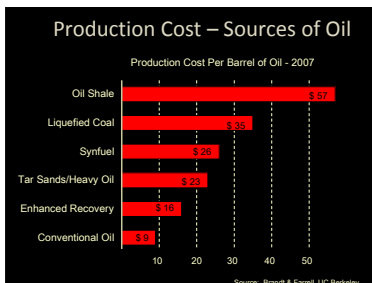
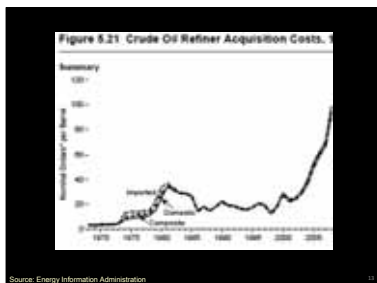
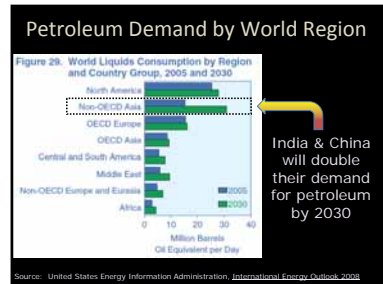
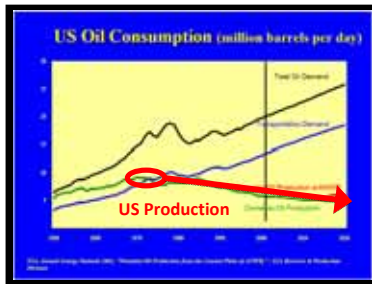
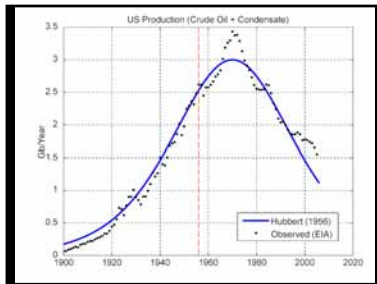


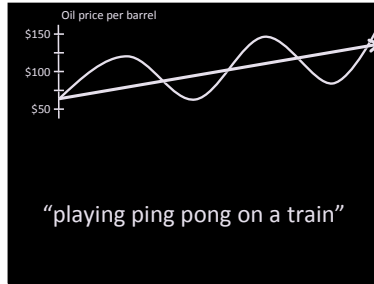
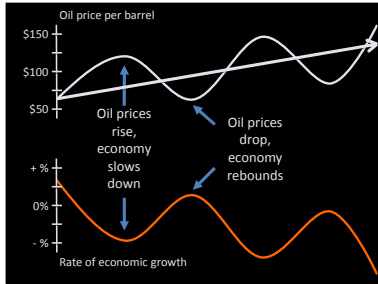
"Peak Oil" is about price, not supply

The Original Hubbert Curve



M. King Hubbert (1956)

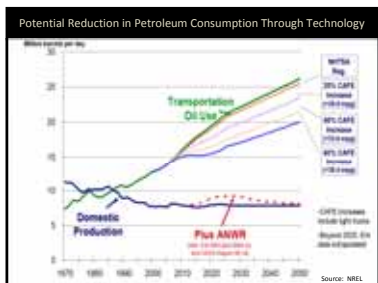
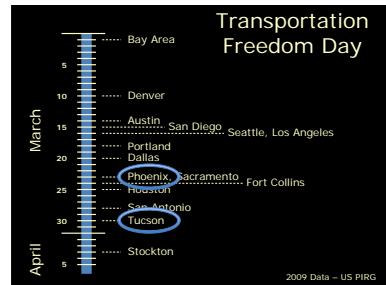
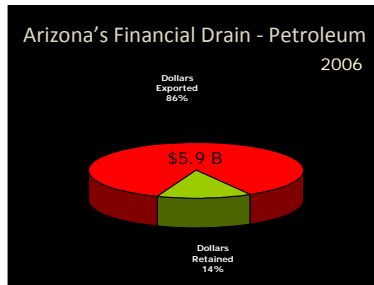




### EIA Summer Fuels Outlook

Crude Oil	\$80/barrel
Gasoline	\$3.00/gallon

Energy Information Administration - April 6, 2010



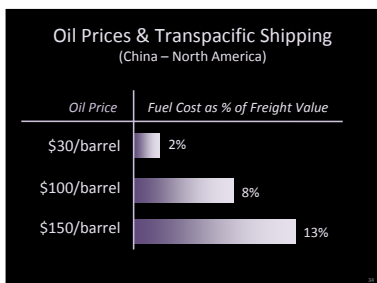
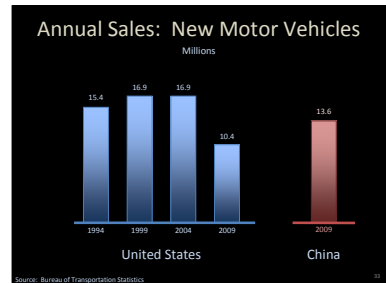
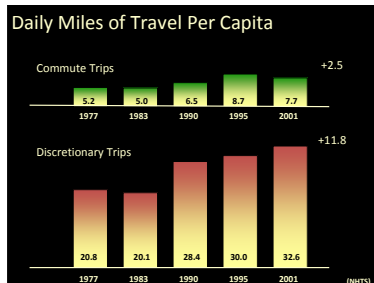
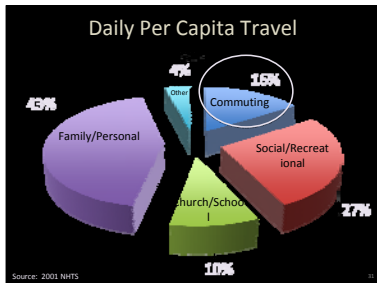
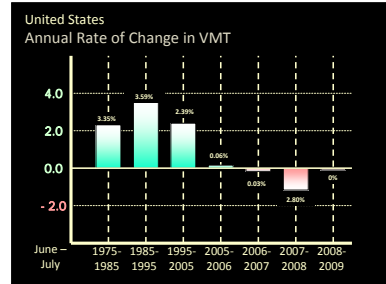
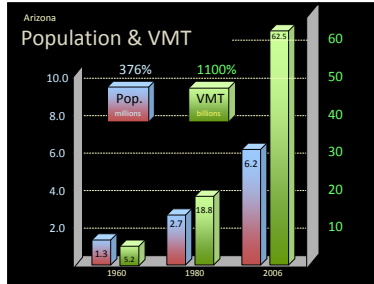
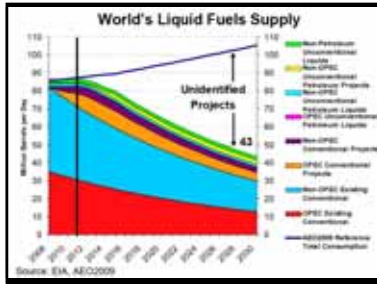
Electric cars have a role to play, but...

...will be expensive and...

...will create energy demand issues.

Total Motor Vehicles in Service in US in 2010	250,000,000
Total Electric Autos in Service by End of 2012	100,000

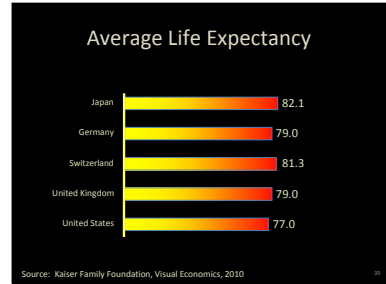
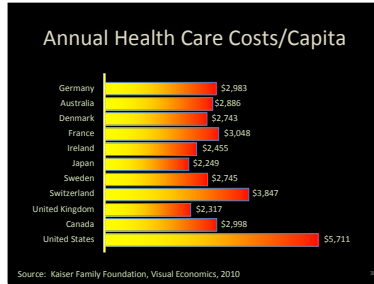
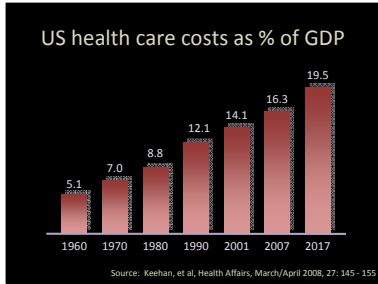
**0.04%**



Question #1:  
can Arizona adapt for the post petroleum era?

# 2

Improve Public Health



obesity costs the US economy  
\$147 billion annually

these costs vary widely by place

- ### Research
- US Centers for Disease Control
  - Robert Wood Johnson Foundation

### Research Conclusion #1:

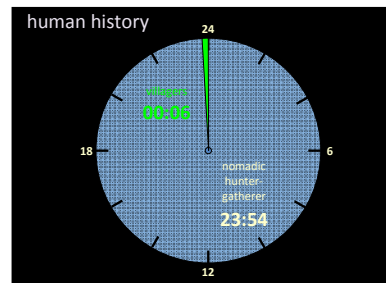
People who are active as part of a regular daily routine are less obese and are healthier

“Active Living...”

### Research Conclusion #2:


People who live where walking and bicycling are convenient, safe and comfortable are much more active.

“...by Design”





The urban design of our cities is one of the major factors causing the health care crisis...



...and there are significant differences between cities.

Question #2:  
 could Arizona improve public health and reduce health care costs?

3




Guide Urban Development

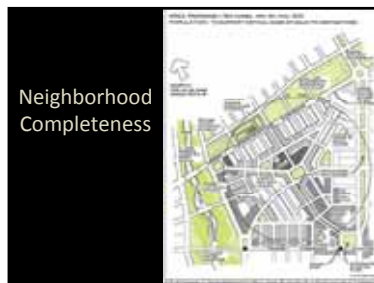
Land Use/Growth Management

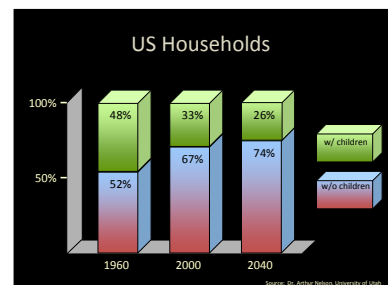
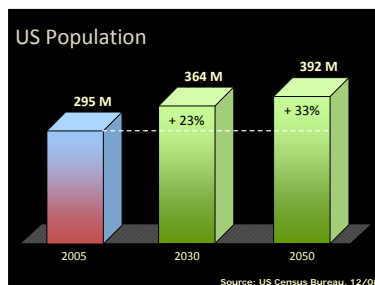
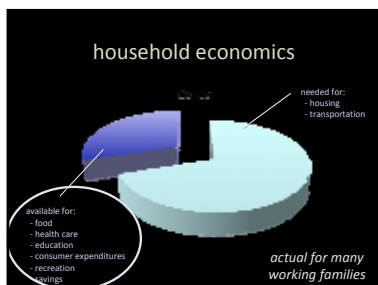
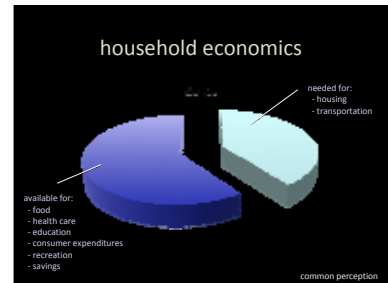
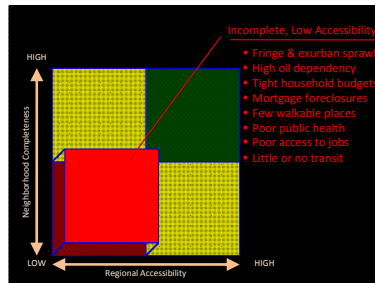
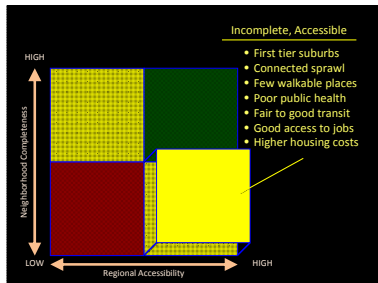
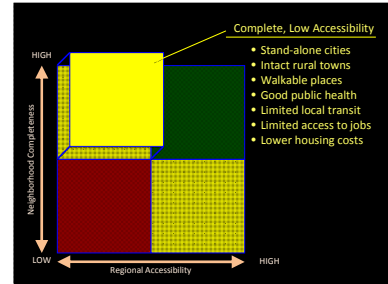
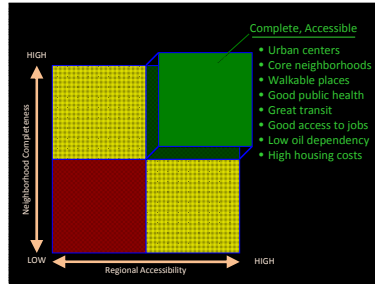
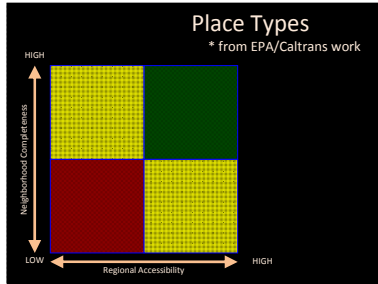
Compact Cities & Towns

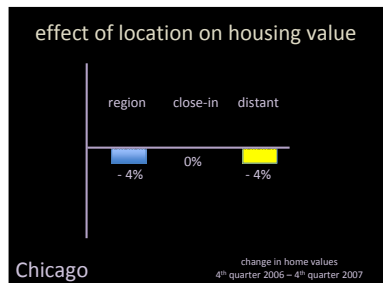
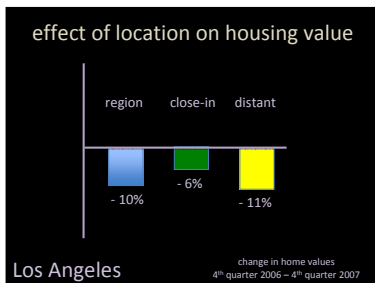
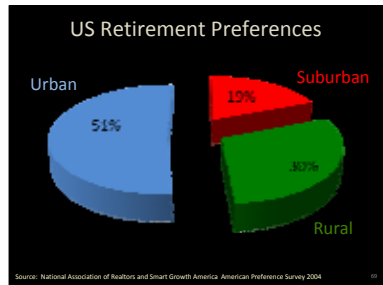
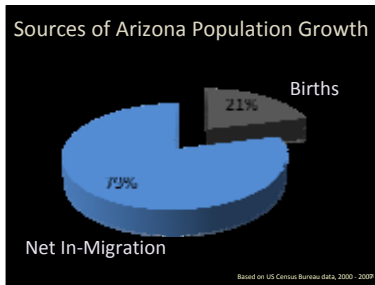
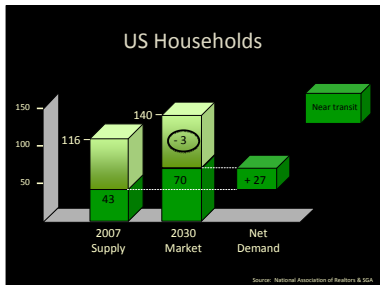
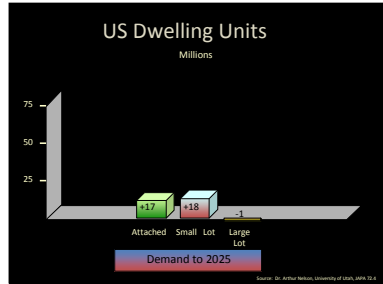
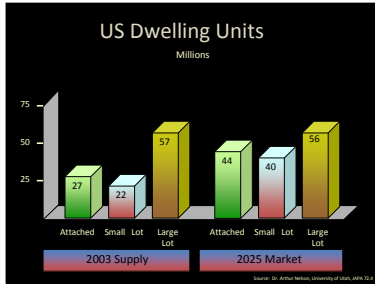
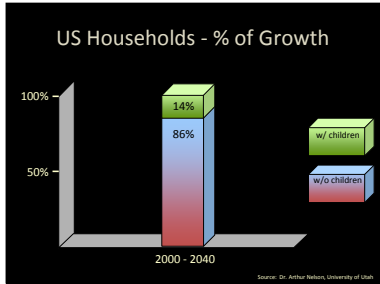
Mixed Use      Urban Design

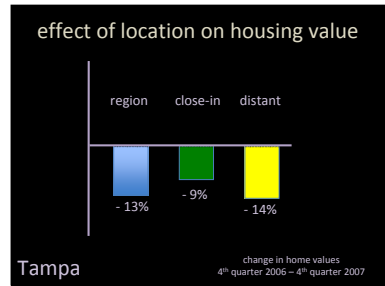
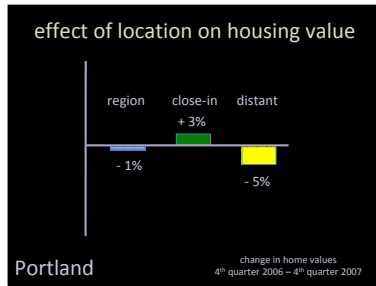
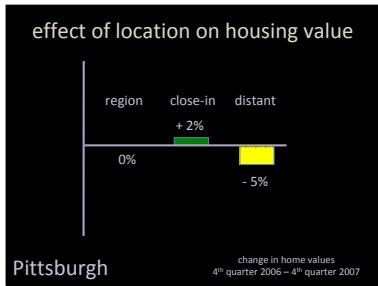
Compact Cities & Towns

Location Efficiency =  
 Complete Neighborhoods + Regional Access

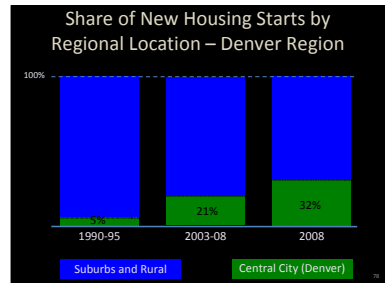








this is beginning to affect developers and housing starts



### 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

### the complete neighborhood

- ¼ mile radius
- 160 – 200 acres
- schools
- local retail
- services
- parks
- diverse

**the complete neighborhood**

- walkable
- mixed-use
- transit-served
- urbanism



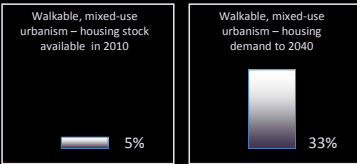
**URBAN!**

**the complete neighborhood**

- stable
- increasing value
- less VMT/capita
- in demand
  - ✓ boomers
  - ✓ millennials



**Walkable, mixed-use urbanism will be the primary market for new housing**



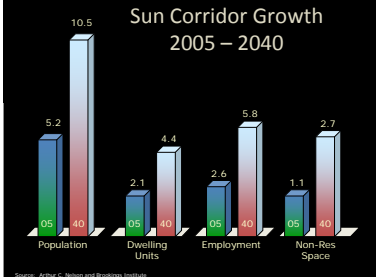
Chris Lennberger, Brookings Institution

**elders millennials**



two groups, same housing market:  
mixed-use, transit-served, walkable neighborhoods

**Sun Corridor Growth 2005 – 2040**



Source: Arthur C. Nelson and Brookings Institute

**Question #3:**  
could Arizona use urban design to leverage economic growth?