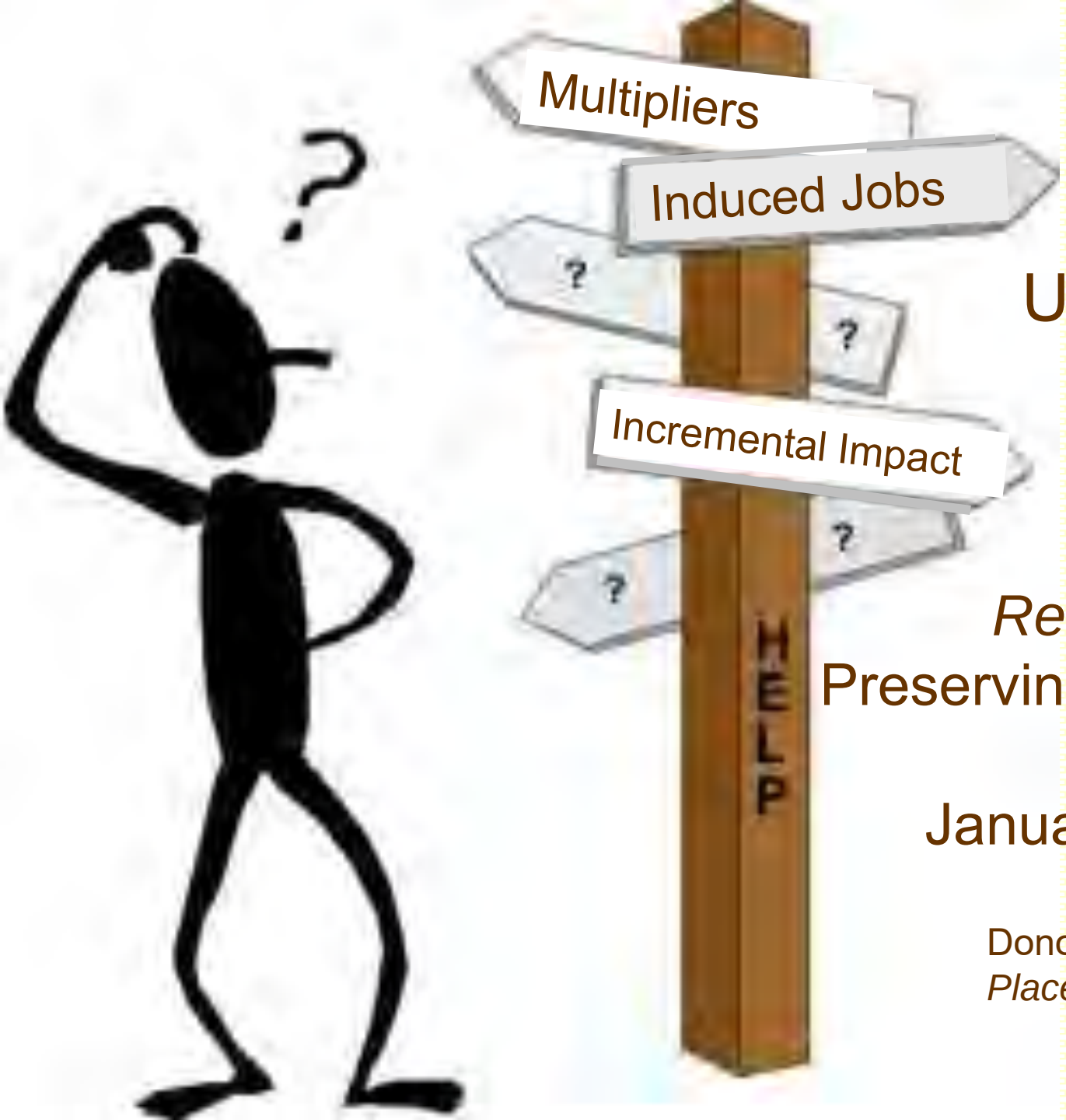
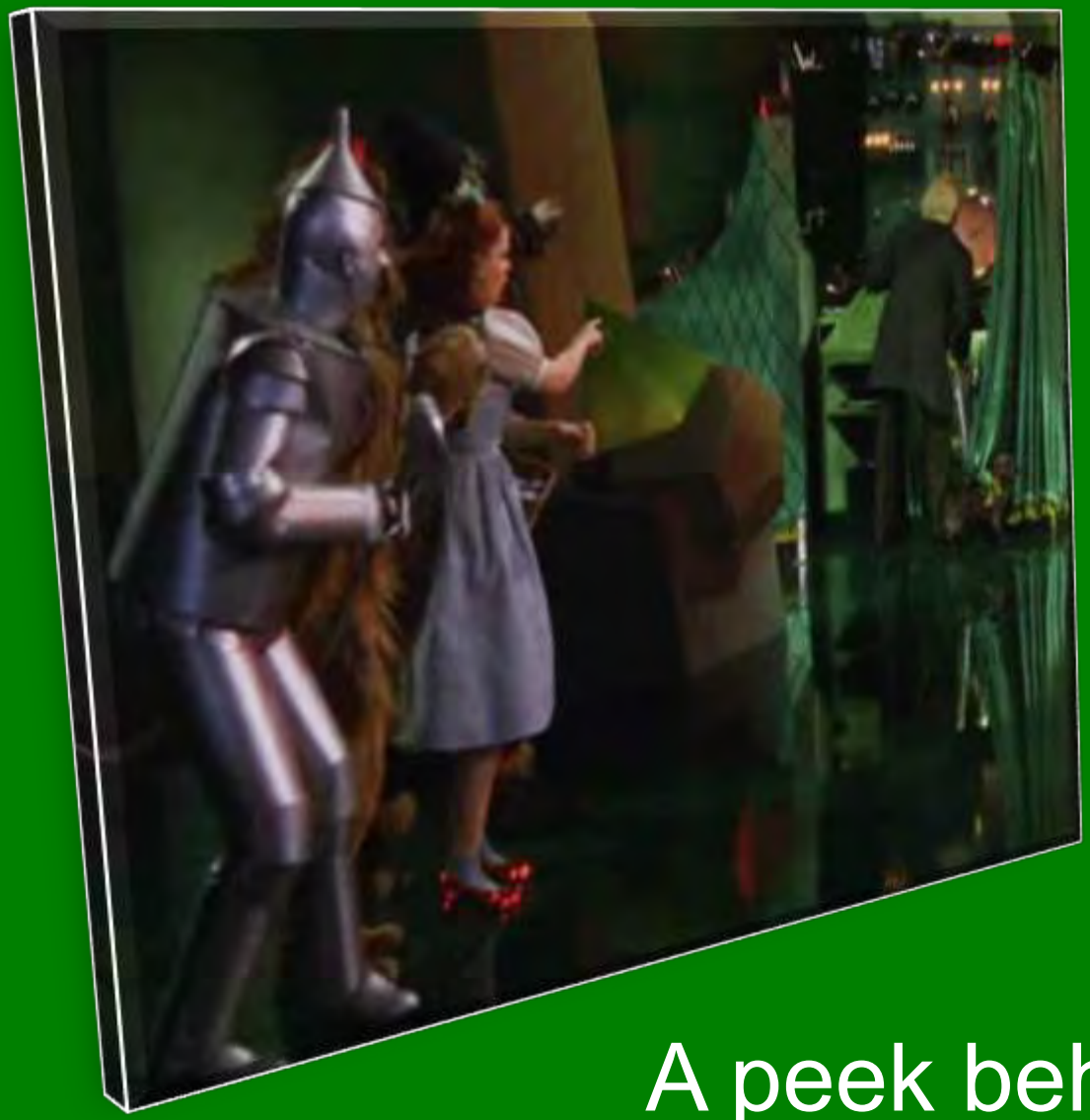


Understanding Economic Studies

Real Places
Preserving Historic Texas
Austin
January 11, 2018

Donovan Rypkema
PlaceEconomics



A peek behind the curtain

Basic Kinds of Studies

- **Economic Impact Studies**
  - **Statewide**
  - **City or Countywide**
- **Property Value Studies**
- **Catalytic Studies**
- **Sector/Institution Studies**
- **Tax Credit Studies**
- **Effectiveness of Program Studies**

Levels of Analysis

- Academic & Technical Professionals
- Practitioners
- Graduate Students
- “Do it Yourself”

Challenge 1

There is no such thing as a "historic preservation" industry

Challenge 2

Different Audiences

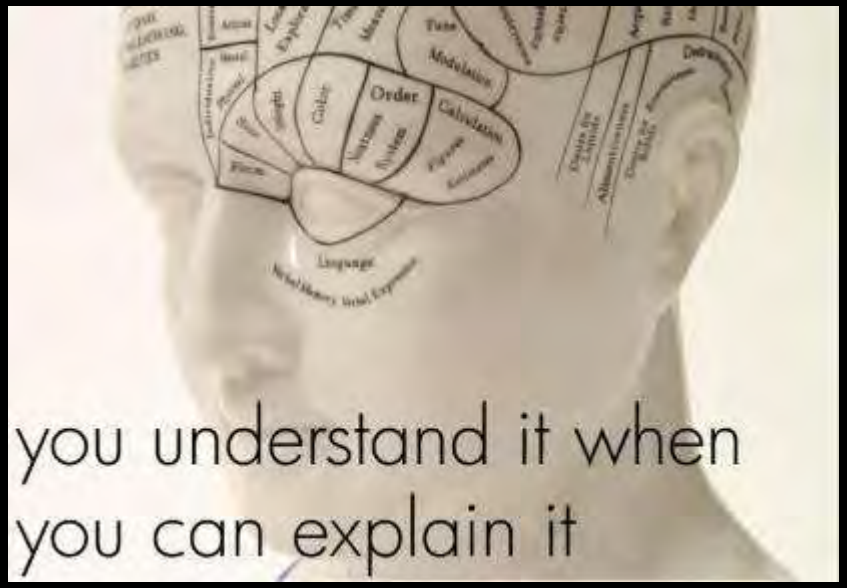


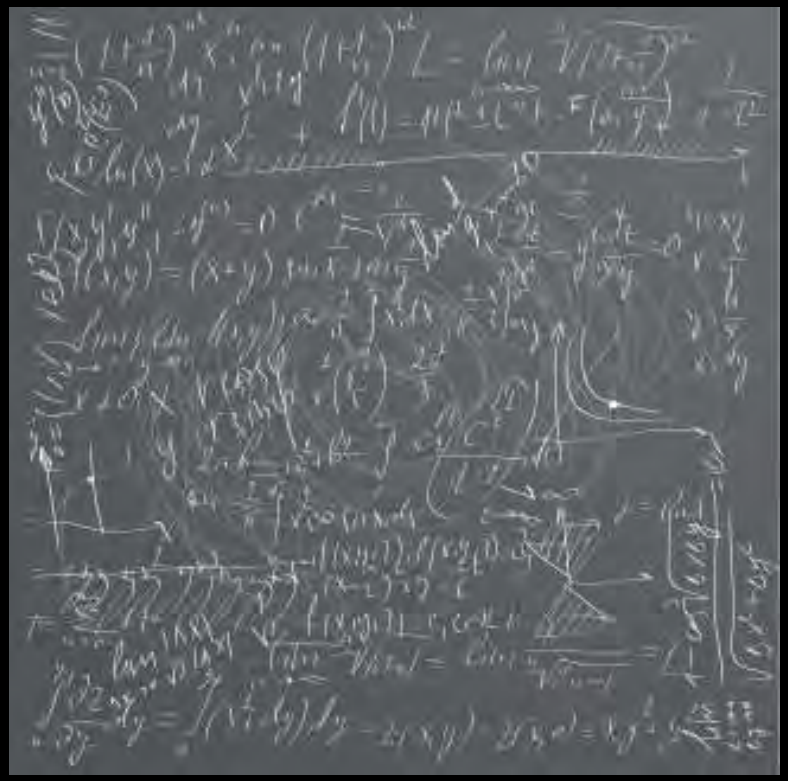

Challenge 3

Vastly Different Methodologies required for what typically has been measured

Challenge 4

Developing research methods and explanations that are credible to economists but understandable and usable by mere humans





Challenge 5

Many of the "values" of historic preservation are not economic values

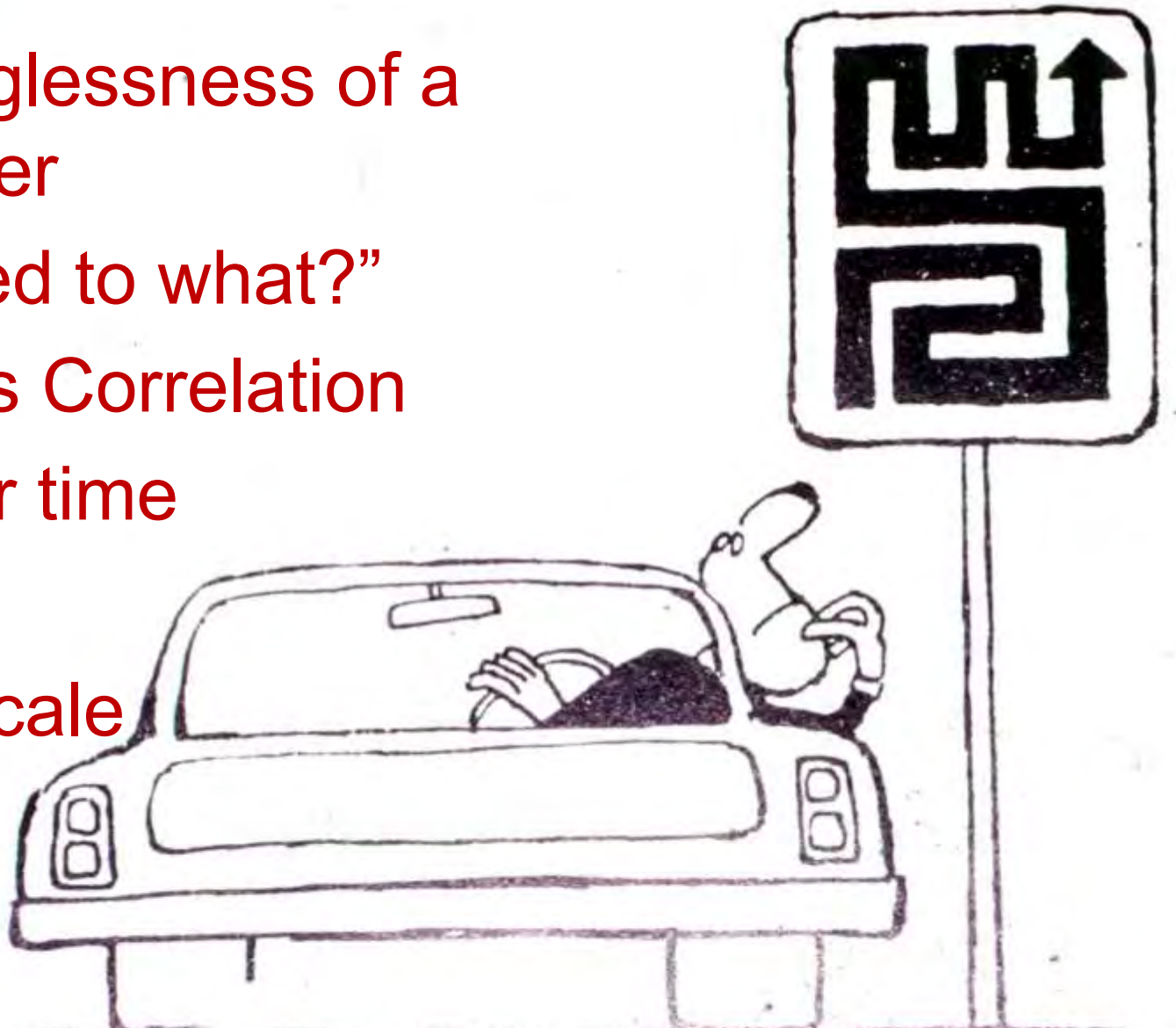

Cultural Value
Aesthetic Value
Social Value
Symbolic Value
Educa-tional Value
Environ-mental Value
Preservation has multiple values

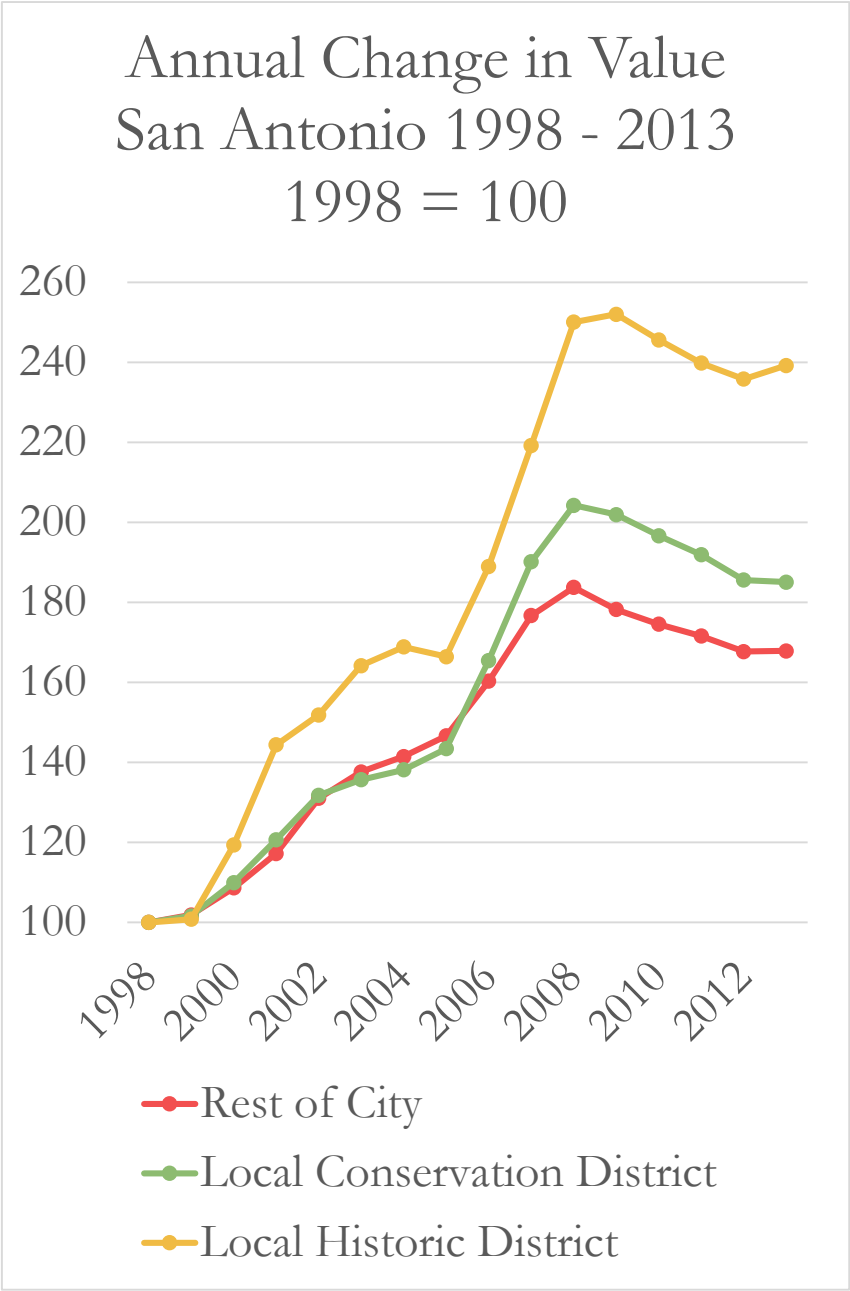
Historic Preservation also has economic value.

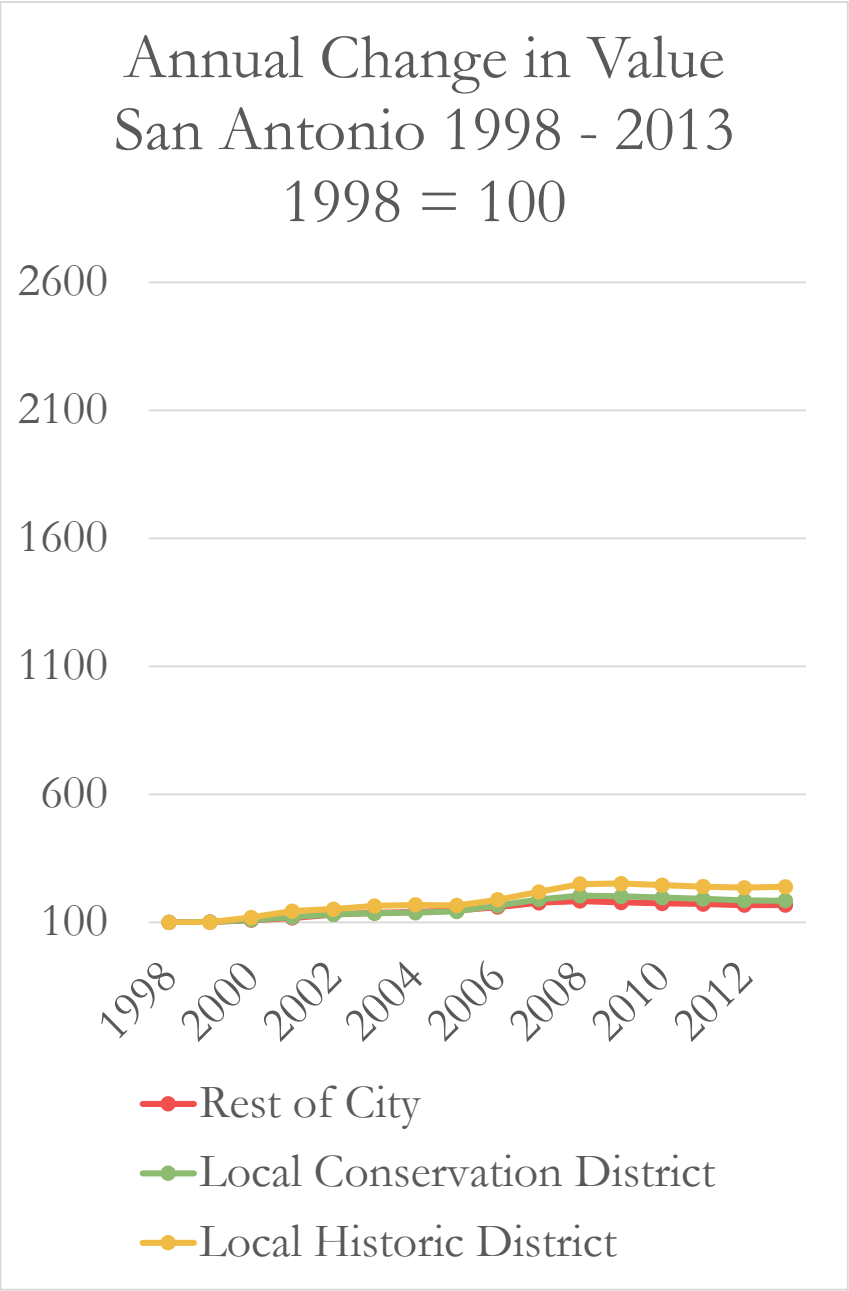
But the built heritage is fragile, therefore *all* of those values are at risk.

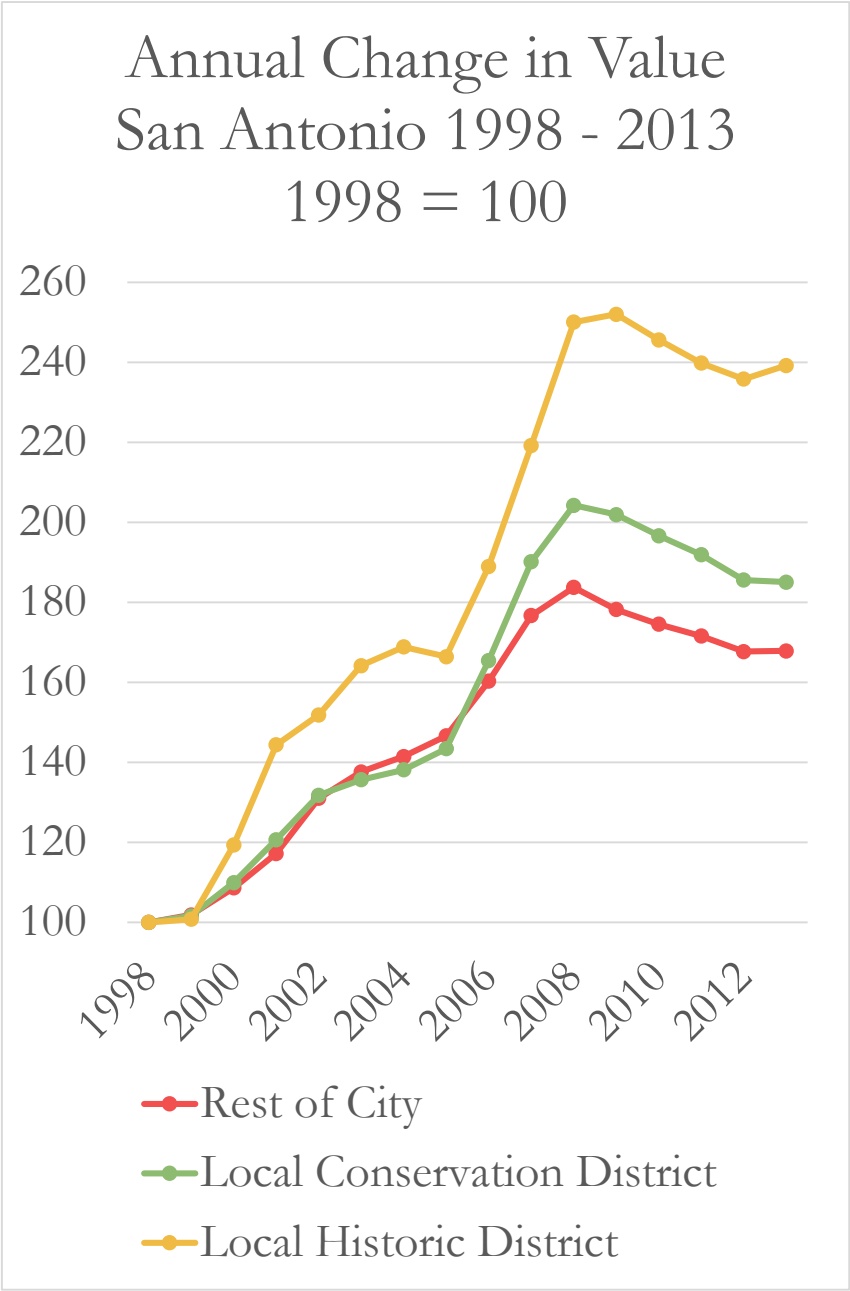
Some Basic Principles

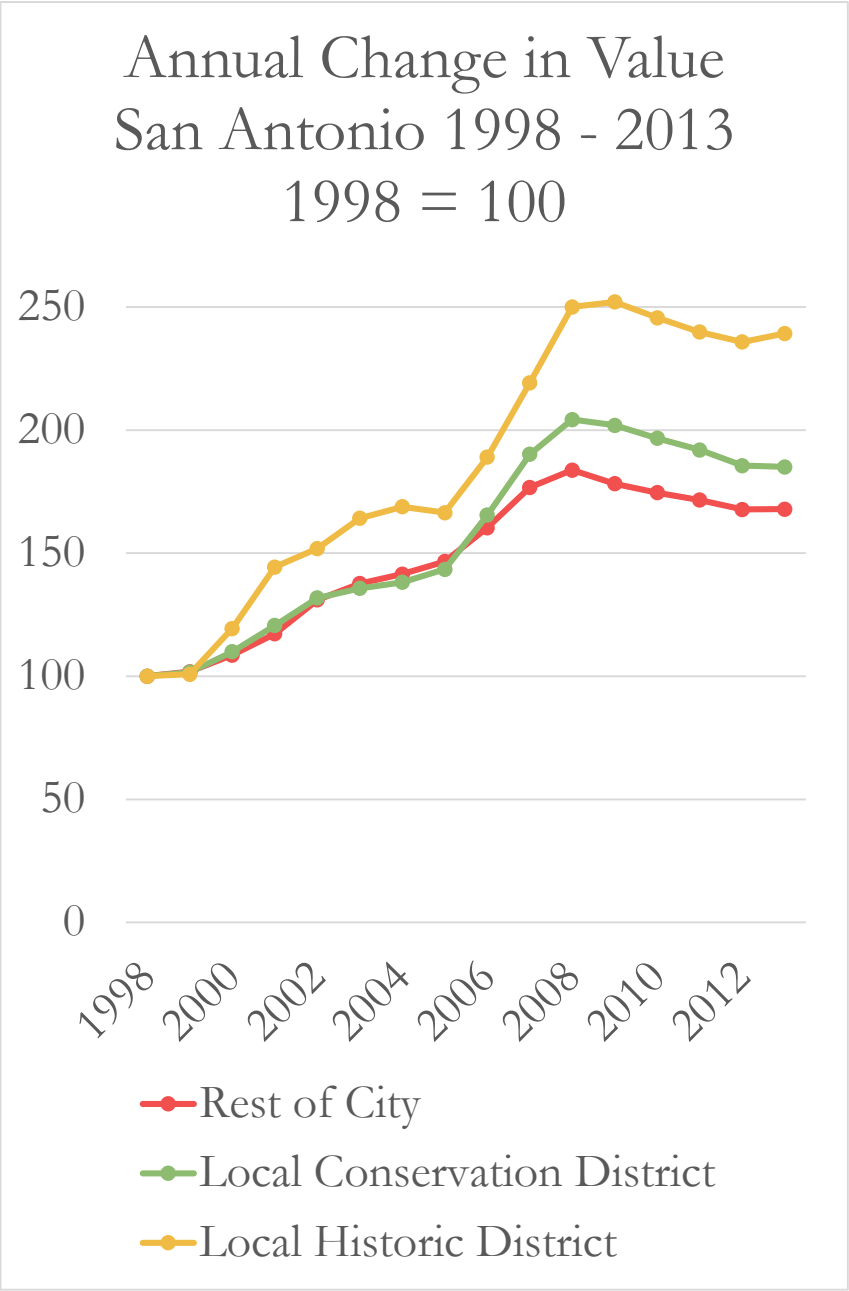
- The meaninglessness of a single number
- “As compared to what?”
- Causation vs Correlation
- Change over time
- Catalyst
- Change in scale



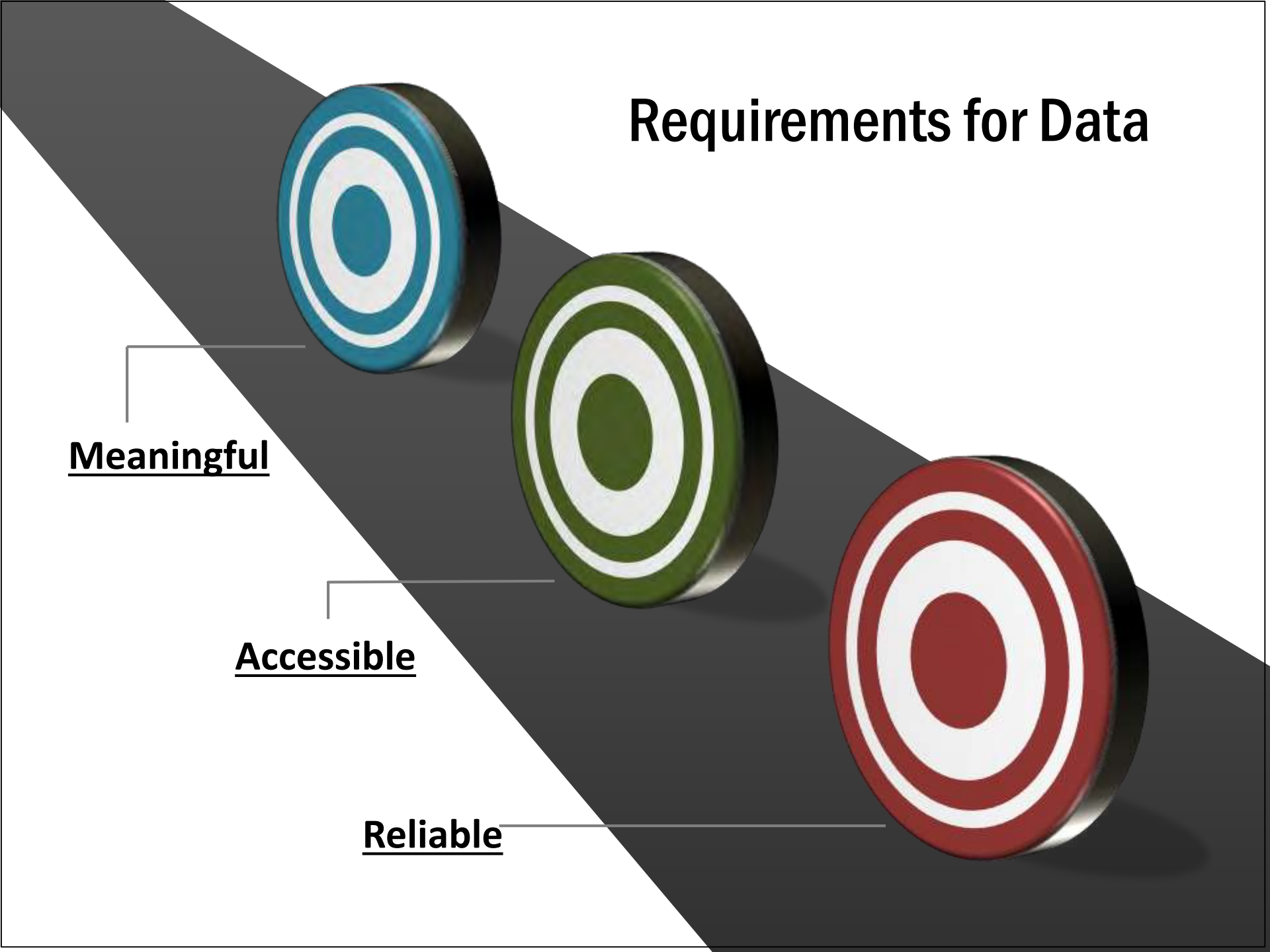

Annual Change in Value
San Antonio 1998 - 2013
1998 = 100
260
240
220
200
180
160
140
120
100
1998
2000
2002
2004
2006
2008
2010
2012
Rest of City
Local Conservation District
Local Historic District


Annual Change in Value
San Antonio 1998 - 2013
1998 = 100
2600
2100
1600
1100
600
100
1998
2000
2002
2004
2006
2008
2010
2012
Rest of City
Local Conservation District
Local Historic District

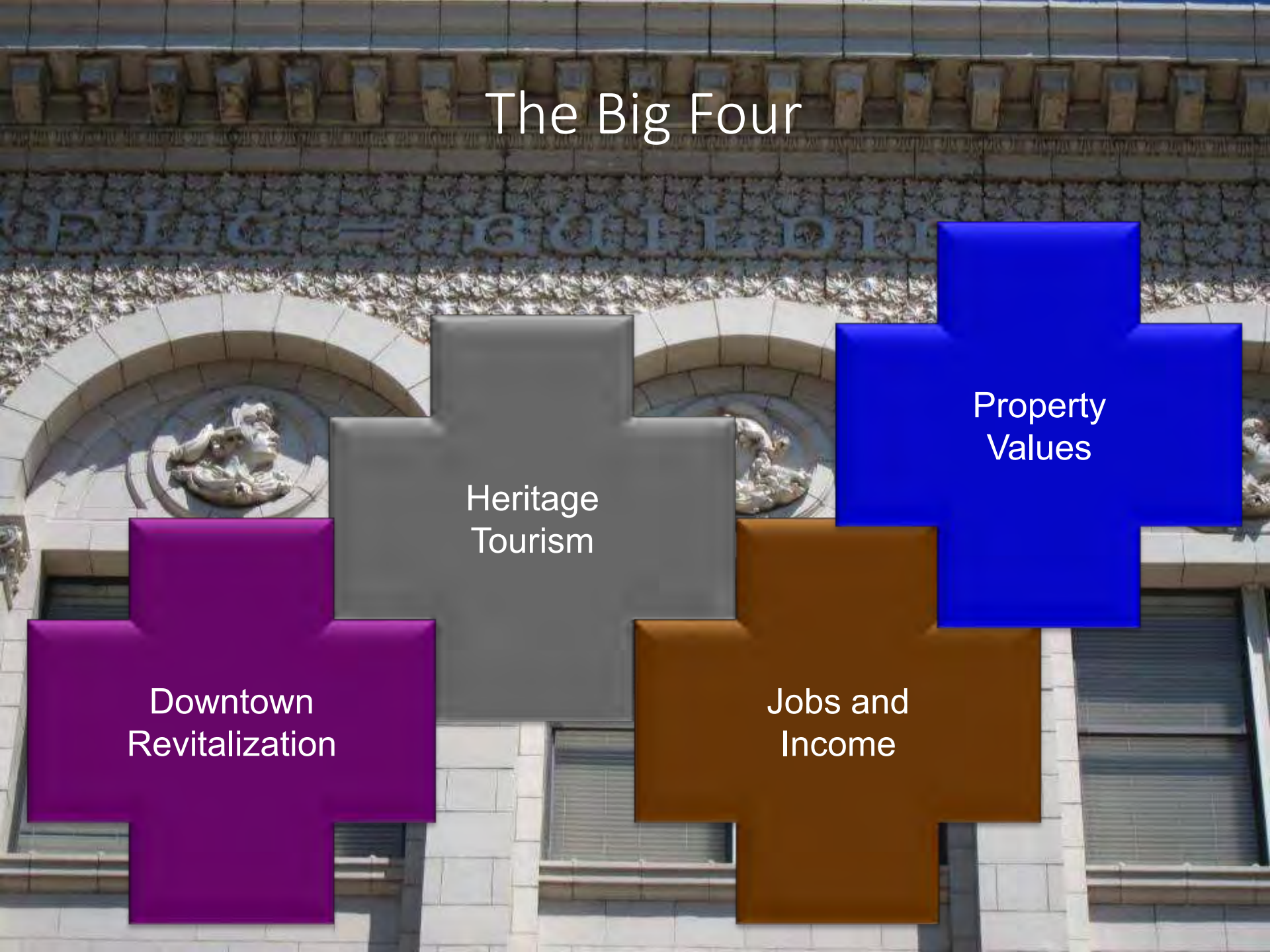

Annual Change in Value
San Antonio 1998 - 2013
1998 = 100
260
240
220
200
180
160
140
120
100
1998
2000
2002
2004
2006
2008
2010
2012
Rest of City
Local Conservation District
Local Historic District


Annual Change in Value
San Antonio 1998 - 2013
1998 = 100
250
200
150
100
50
0
1998
2000
2002
2004
2006
2008
2010
2012
Rest of City
Local Conservation District
Local Historic District

Requirements for Data



The Big Four


Property Values
Heritage Tourism
Downtown Revitalization
Jobs and Income

Major Measurables

1. Jobs and Household Income
2. Heritage Tourism
3. Downtown Revitalization
4. Property Values

Usually Based on Tax Credit Projects

- Data reliable
- Data available
- Data meaningful
- QREs
- Investment beyond QREs

1. Jobs & Household Income

Some basic vocabulary

Output

Impact

Multipliers

Econometric Models

Direct Effect

Indirect Effect

Induced Effect

1. Jobs & Household Income

OUTPUT is the amount of Goods or Services produced

For example:

$'s of automobiles manufactured, or

architectural services provided, or

restaurant meals served, or

rice grown

1. Jobs & Household Income

Impact is the set of consequences resulting from the *Output*

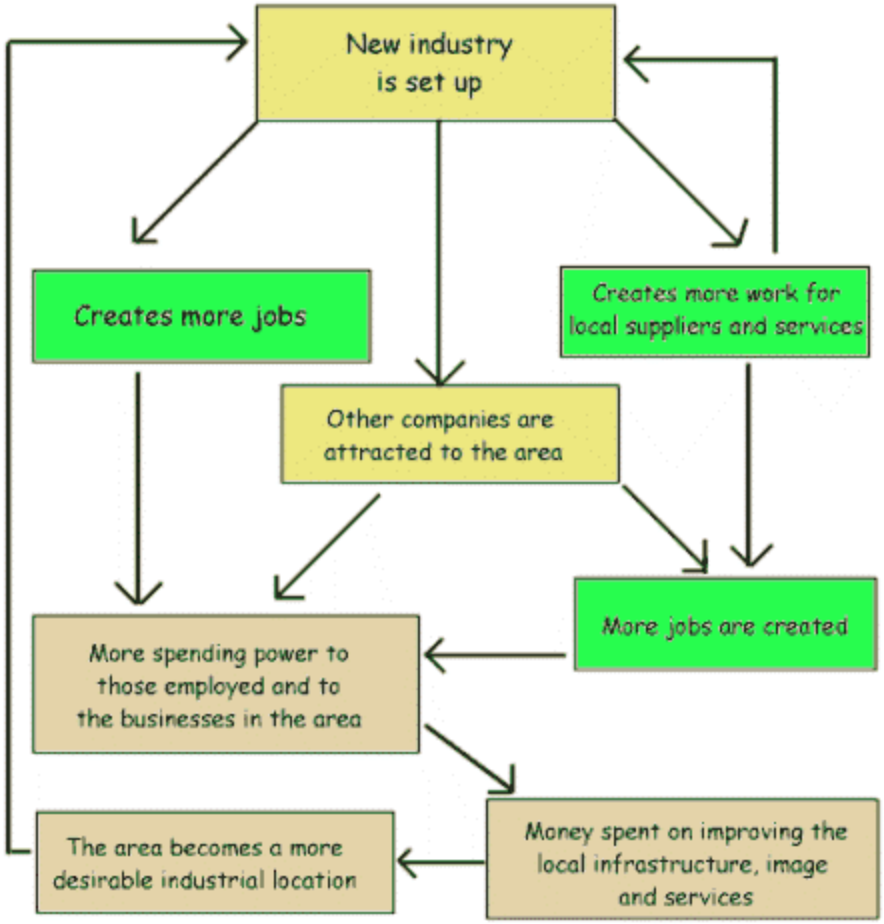
- Additional Output
- Jobs (Employment)
- Labor Income
- Effect on Other Industries

1. Jobs & Household Income

An *Econometric Model* is a mathematical assembly of millions of pieces of statistical data and using that data to identify patterns of relationships upon which reasonable predictions can be made.

One of the tools that can be developed from these models is *Multipliers*

1. Jobs & Household Income



A *Multiplier* is a mathematical representation of the economic effect of production beyond the production itself

Copyright © 2010 All Rights Reserved Barcelona Field Studies Centre S.L.

1. Jobs & Household Income

Direct/Indirect/Induced

Direct is within the project itself

(for example auto worker on assembly line)

1. Jobs & Household Income

Direct/Indirect/Induced

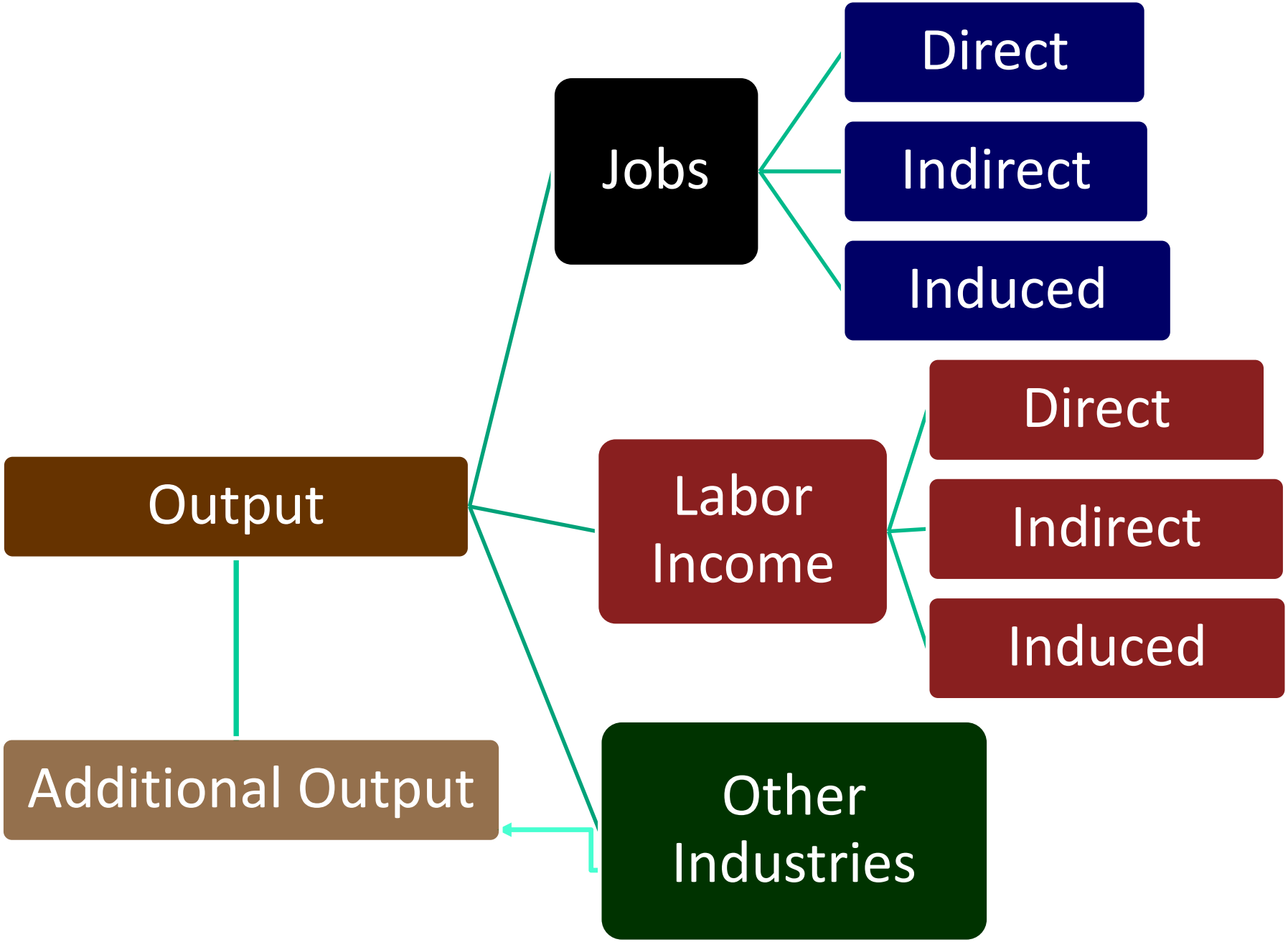
Indirect is supplied to the project itself (for example steel worker for steel sold to automobile manufacturer)

1. Jobs & Household Income

Direct/Indirect/Induced

Induced is activity resulting from the project

(for example haircut bought by auto worker)


Jobs
Direct
Indirect
Induced
Output
Labor Income
Direct
Indirect
Induced
Additional Output
Other Industries

For Historic Rehabilitation projects…

"Output" is the investment in the rehabilitation of the historic building.

IMPLAN Multipliers

Output – Louisiana

IndustryCode	Description	DirectEffects	IndirectEffects	InducedEffects	Total
52	Construction of new health care structures	1.000000	0.310963	0.355293	1.666256
53	Construction of new manufacturing structures	1.000000	0.217806	0.418470	1.636276
54	Construction of new power and communication structures	1.000000	0.271032	0.428285	1.699317
55	Construction of new educational and vocational structures	1.000000	0.364496	0.323383	1.687878
56	Construction of new highways and streets	1.000000	0.459595	0.358271	1.817866
57	Construction of new commercial structures, including farm structures	1.000000	0.268113	0.399539	1.667651
58	Construction of other new nonresidential structures	1.000000	0.318921	0.394781	1.713702
59	Construction of new single-family residential structures	1.000000	0.369854	0.397011	1.766865
60	Construction of new multifamily residential structures	1.000000	0.483936	0.390260	1.874196
61	Construction of other new residential structures	1.000000	0.530219	0.275338	1.805557
62	Maintenance and repair construction of nonresidential structures	1.000000	0.375596	0.375781	1.751378
63	Maintenance and repair construction of residential structures	1.000000	0.432858	0.376302	1.809159
64	Maintenance and repair construction of highways, streets, bridges, and tunnels	1.000000	0.460074	0.396469	1.856544

Therefore $1,000,000 in direct investment (output) spurs an additional $375,596 in Indirect output and $375,781 in Induced output or an additional $751,378 in Total output

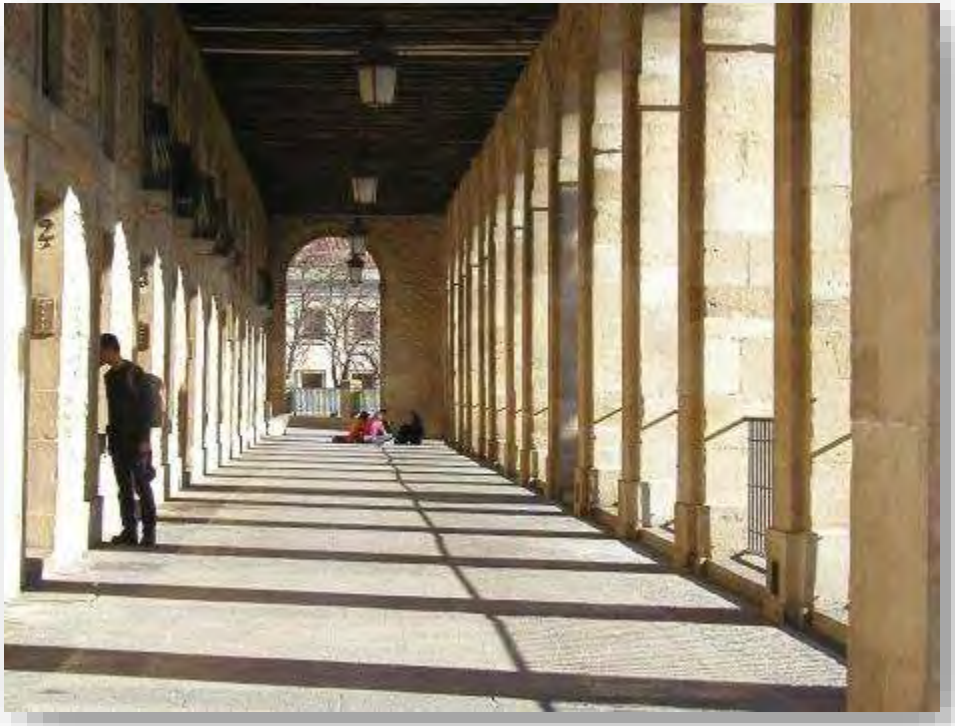
1. Jobs & Household Income

Issues

- Defensible methodology
- Common in industry
- Economic development standard
- Elected officials understand (or pretend to)
- Relatively easy to apply
- Not always so easy to explain
- **Good for measuring rehabilitation projects where construction cost is known**
- Can get multipliers on any geographic level
- Internationally, not all countries have such models

Major Measurables

1. Jobs and Household Income
2. Heritage Tourism
3. Downtown Revitalization
4. Property Values



2. Heritage Tourism

Types of Tourism Surveys

A. Survey of arriving/departing visitors
B. Random survey of population
C. Site visitor surveys
D. Vendor surveys

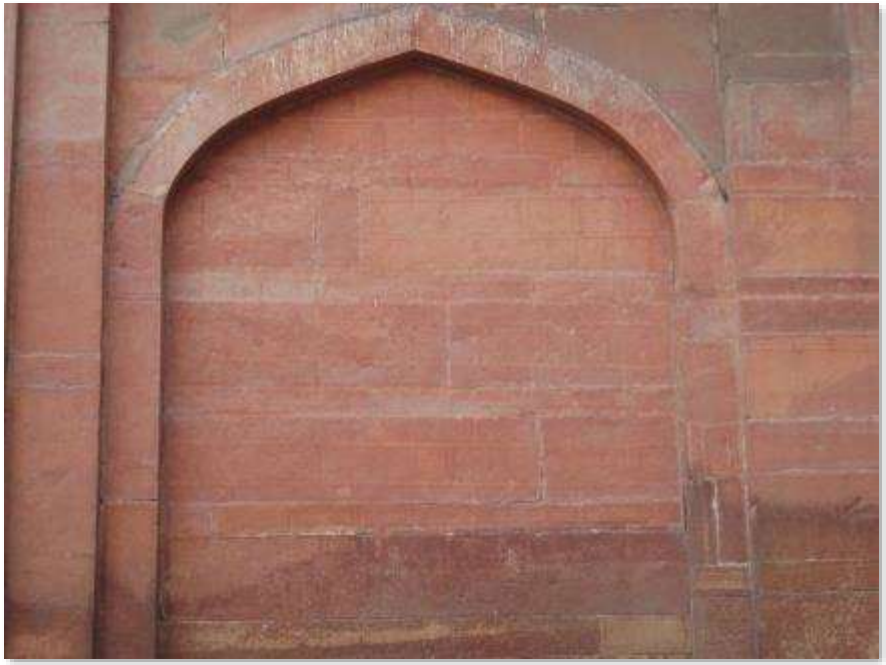
2. Heritage Tourism

Survey – Government Inbound/Outbound Travelers

Activities of Russian Visitors to US – 2009	
Shopping	91%
Dining in Restaurants	82%
Visiting Historical Places	65%
Sightseeing in Cities	65%
Amusement/Theme Parks	60%
Art Gallery/Museum	40%
Touring Countryside	38%
Cultural Historic Sites	36%
Visit Small Towns	32%
Nightclubs/Dancing	28%

http://tinet.ita.doc.gov/outreachpages/download_data_table/2009_Russia_Market_Profile.pdf

2. Heritage Tourism



Issues

- Usually survey based
- Accessible databases, sometimes sortable
- Difficulty in defining "historic tourist"
- Difficulty in what should count
- Difficulty in "historic one of several activities"
- Measure "impacts"
- Measure visitor activities
- Can be "localized"

Longwoods INTERNATIONAL

Quarterly Surveys

- **Who is traveling**
- **Who they traveled with**
- **How much they spent**
- **Main purpose of trip**
- **Transportation**
- **Accommodations**
- **Activities enjoyed trip (30+)**
- **Special Interests**

Rhode Island Data

Activities:		
Landmark/Historic Site		19.6%
Museum		15.1%
Particular interest:		
Cultural activities and attractions		28.5%
Historic places, sites and landmarks		35.7%

	Overnight		Day	Combined
Total RI State Person-Trips Heritage Visitors (million)	7.2		15.2	22.4

Expenditures by Heritage Visitors (million)	
Lodging	$326
Transportation within Rhode Island	$166
Food & Beveverage	$423
Retail	$265
Recreation, Entertainment, Admissions	$192
TOTAL	$1,371

Longwoods + IMPLAN

			JOBS	
Expenditures by Heritage Visitors (million)		Direct	Indirect/Induced	Total
Lodging	$326	3500	1569	5069
Transportation within Rhode Island	$166	1558	929	2487
Food & Beveverage	$423	6372	1828	8201
Retail	$265	4253	1512	5765
Recreation, Entertainment, Admissions	$192	3125	1111	4236

		Direct	Indirect/Induced	Total
Lodging	$326	$143,589,630	$79,263,141	$222,852,771
Transportation within Rhode Island	$166	$102,884,227	$47,273,451	$150,157,678
Food and Beveverage	$423	$152,826,782	$95,823,962	$248,650,744
Retail	$265	$122,631,367	$79,598,947	$202,230,314
Recreation, Entertainment, Admissions	$192	$80,082,860	$55,884,870	$135,967,730

Major Measurables

1. Jobs and Household Income
2. HeritageTourism
3. Downtown Revitalization
4. Property Values

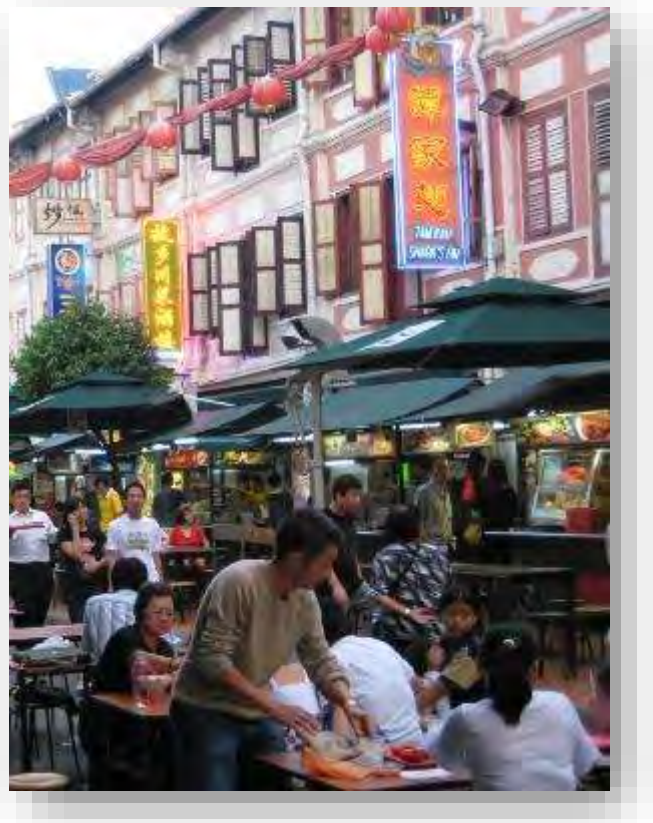
3. Center City Revitalization

What to measure

- Amount of investment
  - public sector
  - private sector
  - Institutions/other
- Amount of investment in historic buildings
  - public sector
  - private sector
  - Institutions/other
- Number of net new businesses
- Number of small businesses
- Number of business expansions
- Number of net new jobs

3. Center City Revitalization

What to measure



- Retail sales
- Sales tax collections
- Property tax collections
- Assessed value of property
- Number of hotel rooms
- Hotel room occupancy rate
- Square footage of office space
- Number of residential units
- Real estate sales transactions
- Rent levels (all types)
- Building permits issued
- Cultural institution attendance
- Special event attendance

Using Main Street Data

- Good
  - Available
  - Meaningful
- Not so good
  - Reliable
  - Comparible

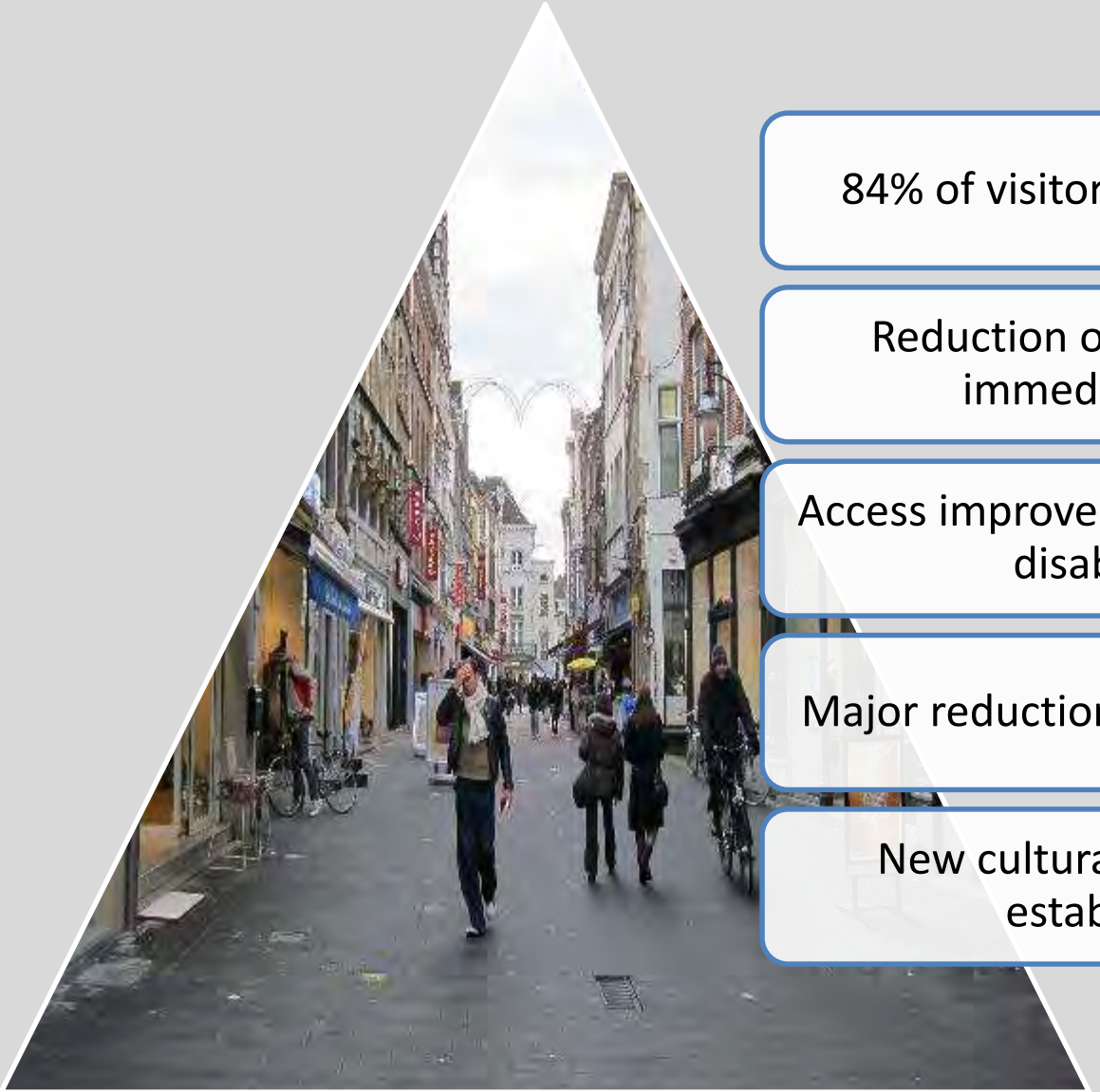
An Attempt at Comparability

- With State as a whole and/or National
  - Job growth
    - (but often don't have base number)
  - Business open to close ratio
  - Net new businesses
  - Sales tax growth
    - (indirect and estimated)

Case Study – Norwich, England
Heritage Based Revitalization Program

- Pedestrian flow up 60% to 300%
- 40% of pedestrians stay longer
- 24% of pedestrians come more often
- 80% of elderly and 98% of families with children support project
- Significant reduction in noise and air pollution

Case Study – Ghent, Belgium
Heritage Based Revitalization Program



- 84% of visitors are returning
- Reduction of accidents in immediate area
- Access improved for people with disabilities
- Major reduction of vehicle flows
- New cultural institutions established

Inter-American Development Bank

MIF - IIC

The Sustainability of Urban Heritage Preservation

Valparaiso, Chile

Oaxaca, Mexico

Porto, Portugal

Syracuse, Italy

Medinas of Morocco

Alleppo, Syria

Edinburgh, UK

Verona, Italy

Quito, Ecuador

Salvador, Brazil

Veracruz, Mexico

Measures of Success

- Private investment
- New middle class residents
- Increasing property values
- More businesses
- Higher tax generation
- Better property maintenance
- Lower vacancy

Major Measurables

1. Jobs and Household Income
2. Heritage Tourism
3. Downtown Revitalization
4. Property Values

Property Values

Ways to Measure Property Value Change

- Before and after designation
- Comparison with similar non-designated neighborhood
- Comparison with overall market
- Comparison with neighborhood with similar undesignated neighborhoods

Property Values

Ways to measure change in property values

- Re-sales of same property
- Hedonic pricing
- Increasing number of annual transactions (Malaysian study)

Property Values

Databases for changes in property values

- Actual transactions (small sample problem)
- Assessment data as proxy for rate of property value movement
- Census data (many MANY weaknesses)
- Zillow

Our Usual Property Values Approach

- Comparison over time
- Change in value, not value itself
- $/s.f.
- Compare all residential 4 units and less
- Compare Local Districts, National Register Districts, and rest of city

District	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Change
Savannah HD	$ 104.17	$ 106.30	$ 134.46	$ 136.22	$ 152.07	$ 166.08	$ 196.76	$ 221.99	$ 233.43	$ 233.00	$ 213.62	$ 179.45	$ 188.58	$ 202.45	$ 221.89	113.0%
Cuyler-Brownsville	$ 23.73	$ 27.71	$ 29.66	$ 35.87	$ 37.27	$ 41.46	$ 41.30	$ 59.98	$ 71.11	$ 51.64	$ 51.84	$ 43.21	$ 39.33	$ 40.74	$ 40.02	68.6%
Mid-City	$ 29.75	$ 31.97	$ 39.63	$ 47.19	$ 53.42	$ 58.66	$ 78.32	$ 103.20	$ 109.90	$ 104.07	$ 87.49	$ 68.58	$ 71.84	$ 70.23	$ 75.69	154.4%
Victorian	$ 33.05	$ 48.59	$ 58.05	$ 59.31	$ 71.54	$ 79.05	$ 96.40	$ 108.41	$ 136.51	$ 128.82	$ 117.79	$ 96.64	$ 100.59	$ 105.13	$ 105.44	219.0%
Rest of Savannah	$ 46.76	$ 49.39	$ 53.42	$ 55.61	$ 59.24	$ 55.04	$ 75.01	$ 82.74	$ 88.63	$ 82.89	$ 78.19	$ 69.79	$ 64.81	$ 64.40	$ 64.50	37.9%

Pros and Cons of Property Assessment Approach

Positives

- 100% data
- Neutrality of estimates
- In depth data
- Usually digitally accessible
- Numbers over time
- Consistency of errors

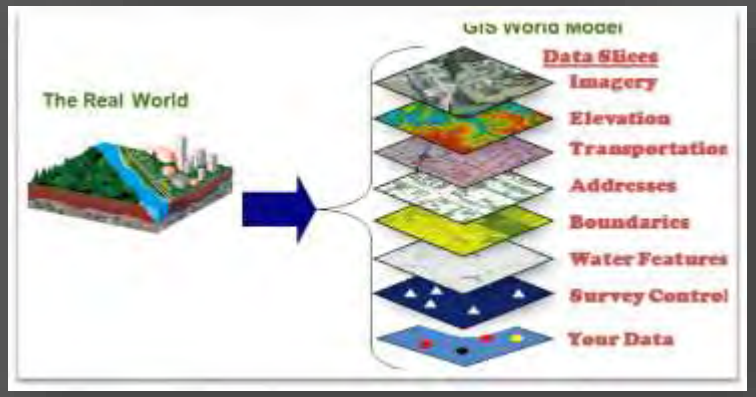
Negatives

- Often not “market value”
- Old assessments
- Cyclical assessments
- Often heavily rely on replacement cost rather than market

Why we've moved beyond the Big Four

- Smart clients

- GIS



- Big Data

Reasons for City Level Studies

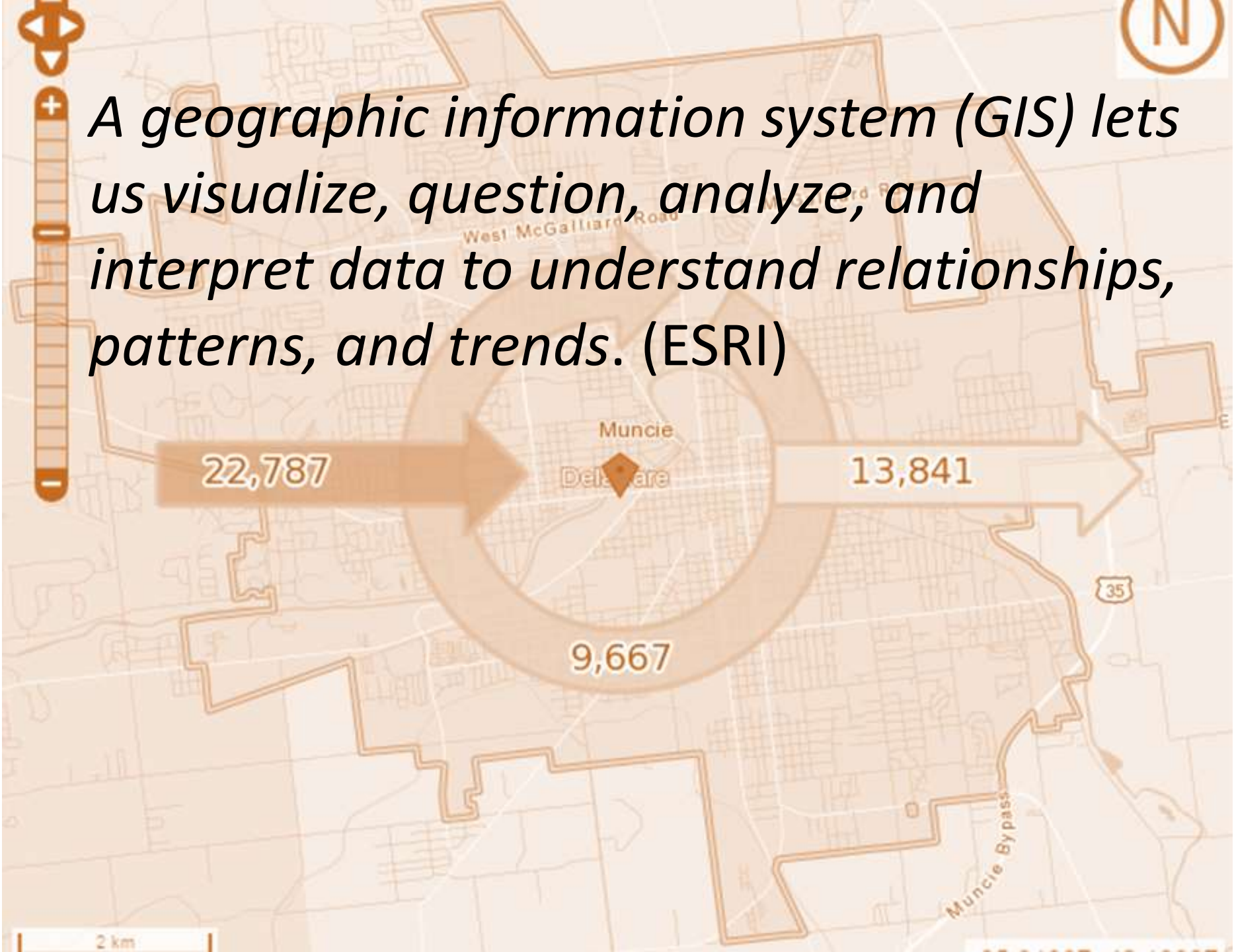
1. Get's rid of the "but that ain't here" argument
2. Familiar point of reference
3. Politicians see direct impact
4. Opportunity to tap local expertise
5. Can be put into consensus context
6. Study can be used for implementation

Most Important Reason

It is at the local level where the future of historic buildings is decided

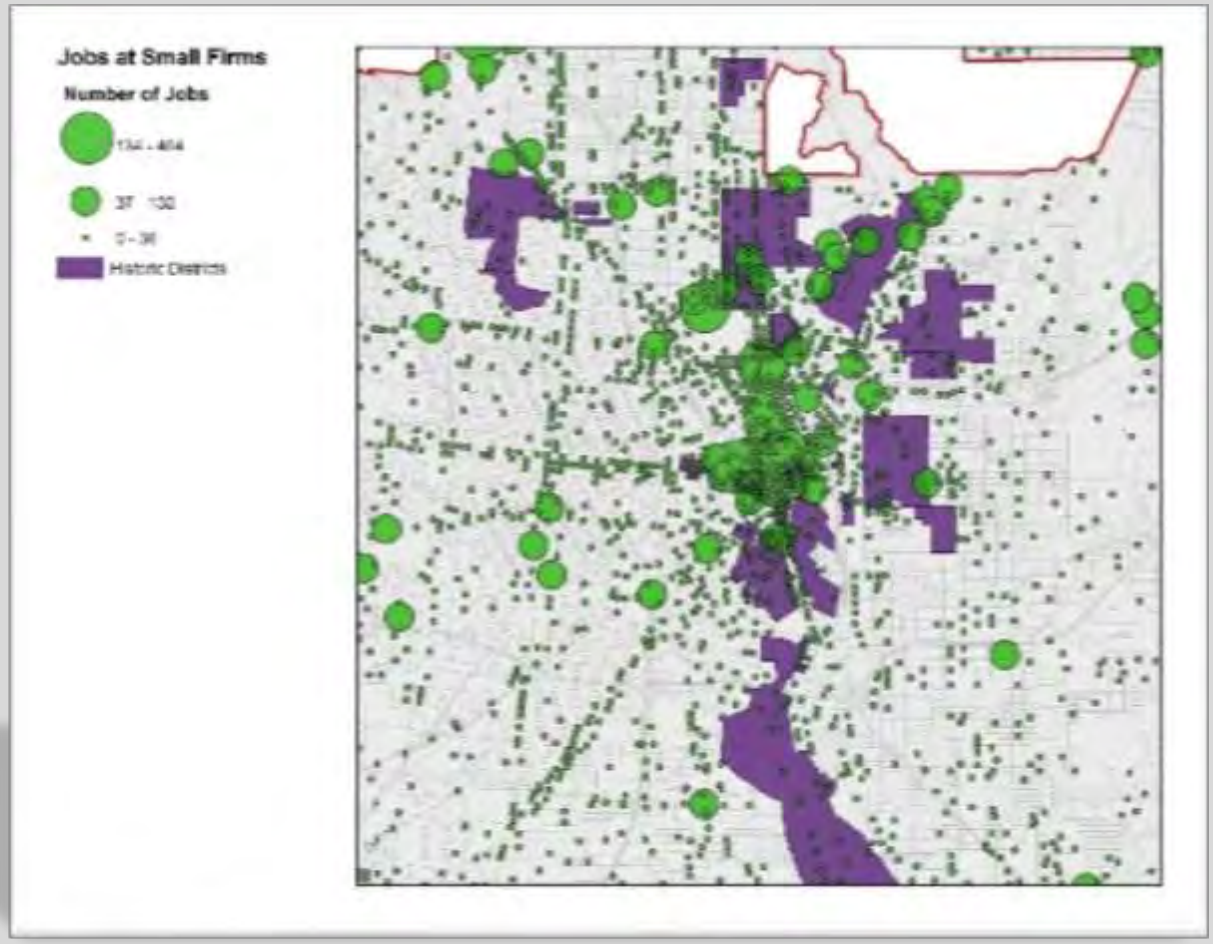
Recent City Level Historic Preservation Impact Studies

A geographic information system (GIS) lets us visualize, question, analyze, and interpret data to understand relationships, patterns, and trends. (ESRI)



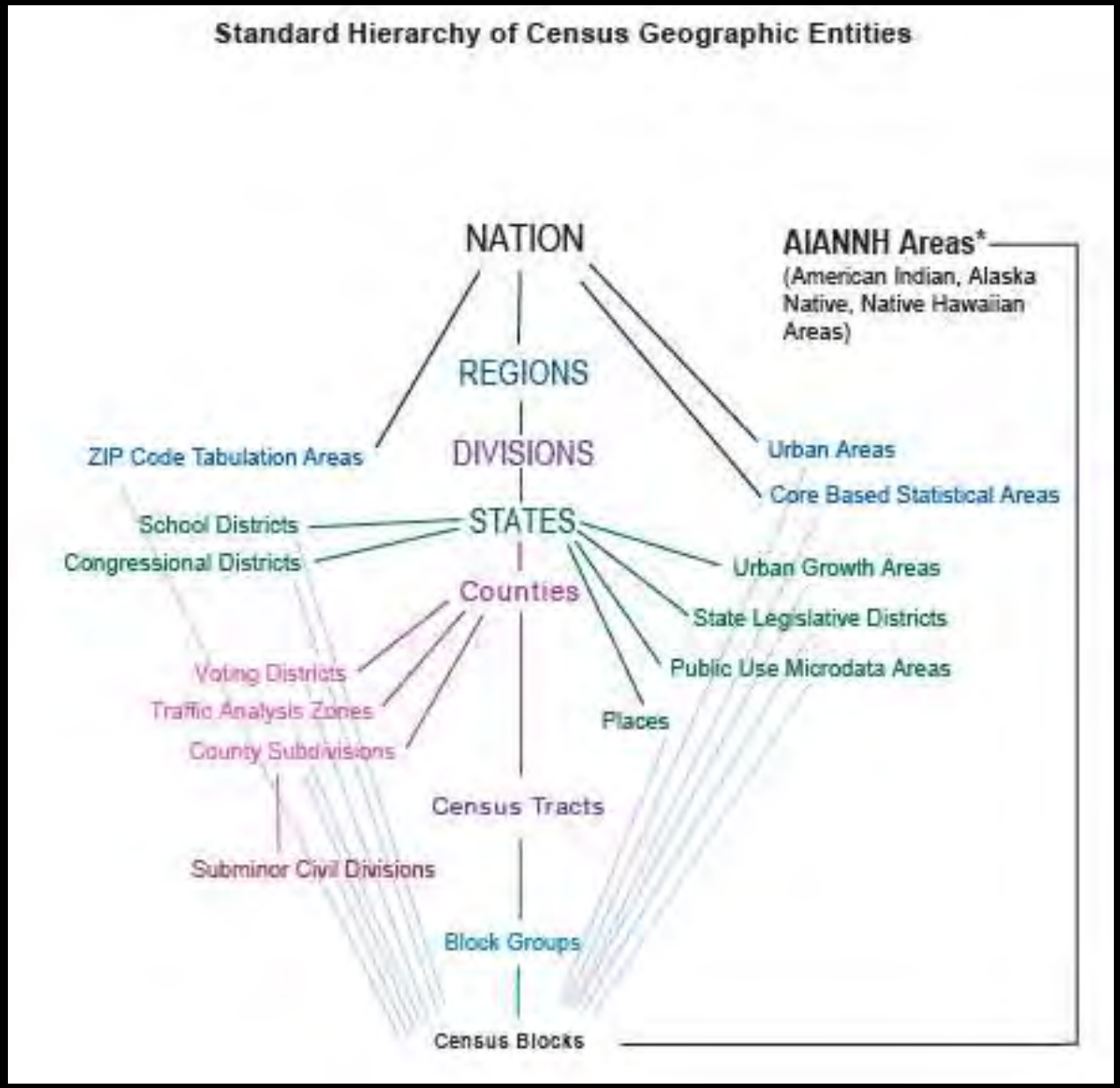
We use GIS to…

- Collect data by area
- Compare data
- Analyze data
- Map data

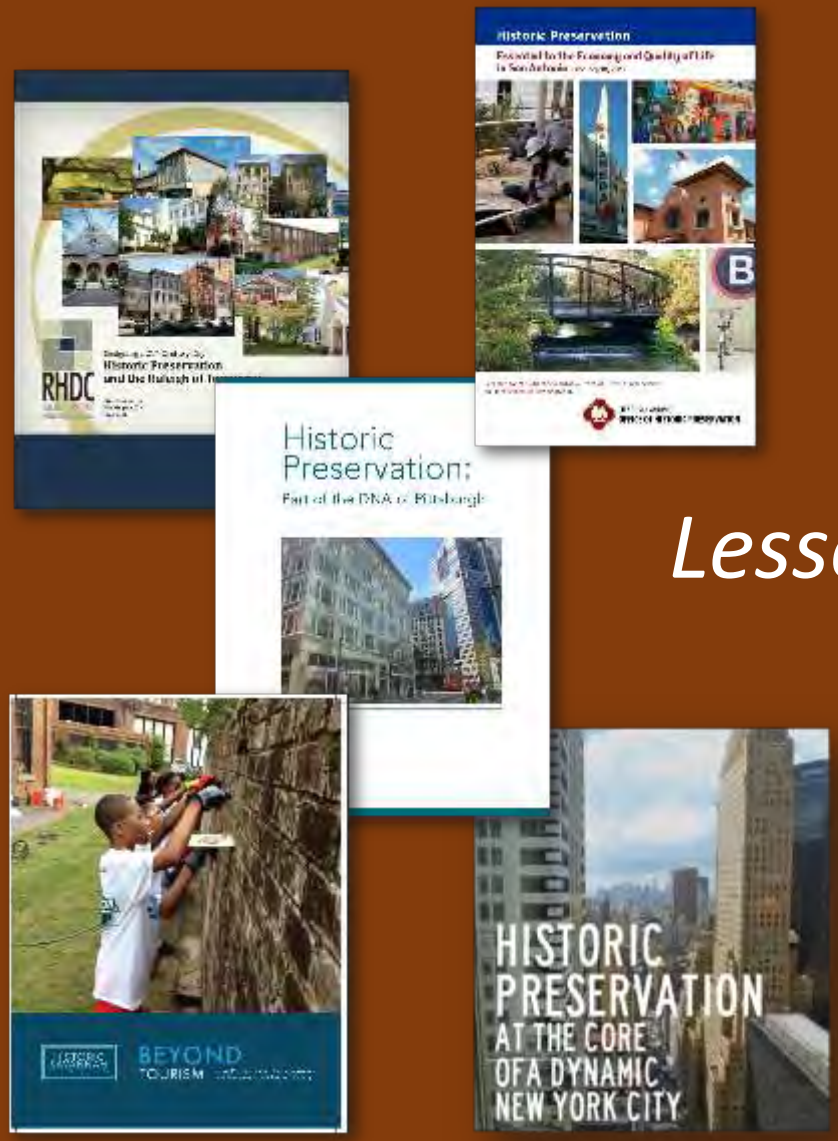


Where does the data come from?

Federal Government	State Government	Local Government	Non-Government	Private Sector Firms
• US Census • Consumer Expenditure Survey • LEHD – Longitudinal Employment Household Dynamics • Bureau of Labor Statistics • Other Department of Commerce	• SHPO for tax credit activity • State Main Street Office • State Department of Commerce • State Department of Labor • State Office of Economic Development	• Property tax records • Building permits • New business licenses • Crime statistics • Voter records • Planning documents & studies • Shape files	• Downtown organization • University research bureaus • Chamber of Commerce • Economic development organization • Foundations	• Foreclosure data • Tourism data • IMPLAN



- Lowest level for which data is available
- Make reasonable allocations when necessary



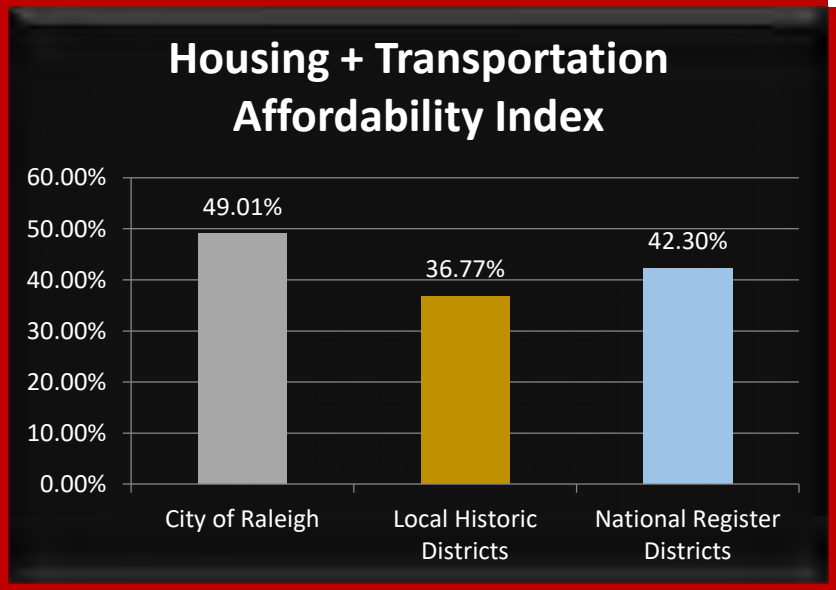
Lessons Learned for Making Studies Useful

Lessons Learned

Tell story in words, pictures and numbers

Relocal category	What it measures	North	Northeast	Northwest	Central	Southeast	Southwest
Real estate	Past disinvestment and prospective reinvestment	Below average	Average	Average	Average	Above average	Average
Stability	Population trends and related quality-of-life issues	Average	Below average	Below average	Below average	Above average	Average
Neighborhood character	Sense of place through the built environment	Below average	Below average	Above average	Average	Above average	Below average
Walkability	Proximity to community assets and condition of bike-ped infrastructure	Average	Average	Average	Average	Average	Below average
Fiscal	Economic costs and contributions of neighborhood elements to City	Below average	Average	Average	Below average	Above average	Above average
Economic opportunity	Wealth-generating opportunities for residents	Below average	Average	Below average	Below average	Above average	Below average
Engagement	Resident participation in neighborhood	Below average	Above average	Average	Below average	Average	Average
Environment	Past land uses, natural resources, and current quality-of-life factors	Below average	Average	Average	Average	Above average	Above average

Neighborhood score: Above average Average Below average



A throw-away society is not sustainable.

California State Senator Alex Padilla

VETO

Economic Dev tate Historic Tax Credit Act
sembly – 75 to 0
ia Senate – 30 to 0

Getting rid of **all** the plastic bags in California for a year reduces impact on landfills by 123,000 tons

Reusing rather than razing forty-nine 50,000 square foot warehouses reduces impact on landfills by 122,500 tons

End all use of plastic bags in California and reduce CO^2 emissions by 468.1 tons/year

Reuse rather than build new five 50,000 square foot warehouses – travel related CO^2 is reduced by 537.5 tons


X all plastic bags X
entire life =

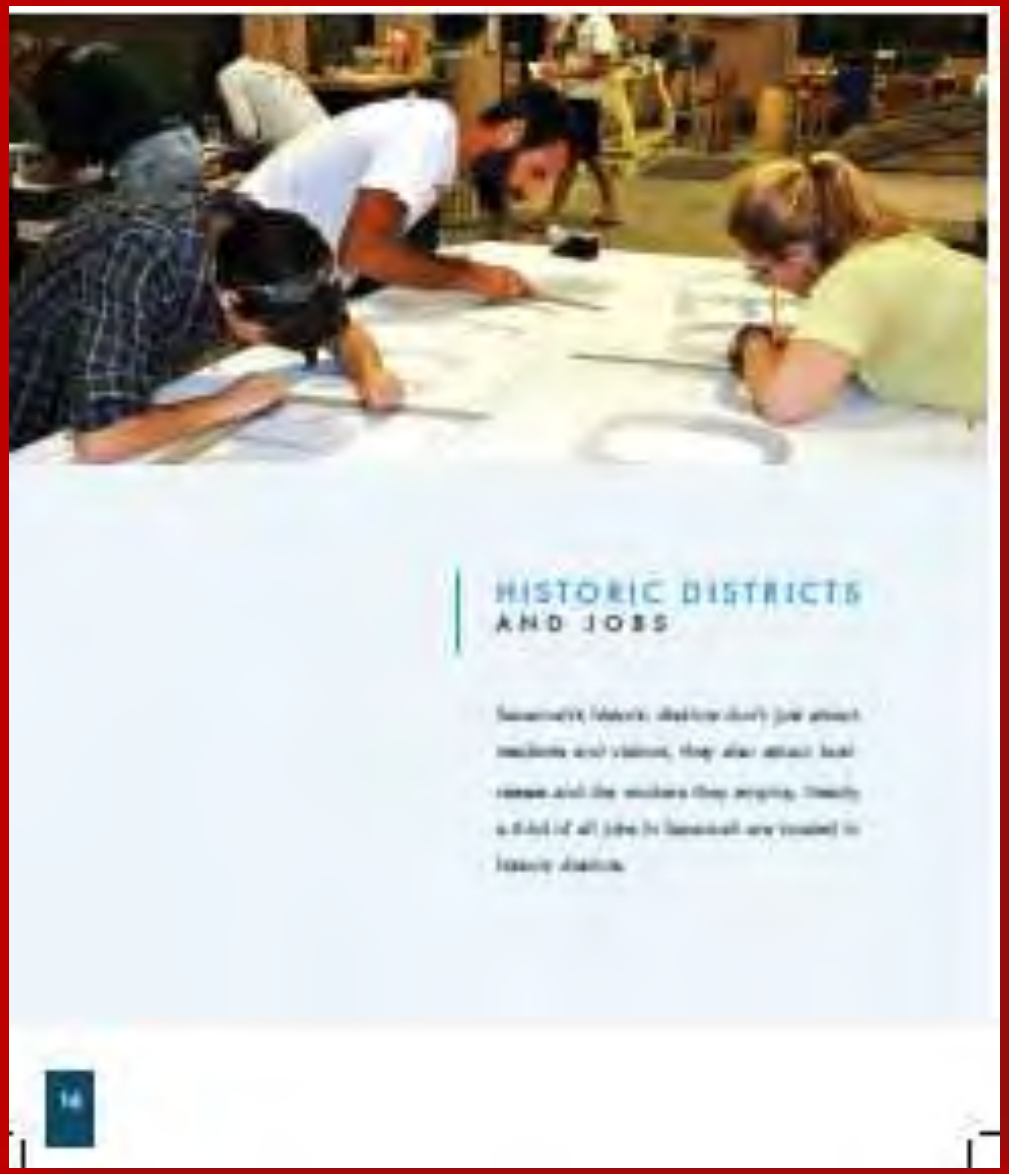
Lessons Learned

Actively distribute information through multiple channels

Lessons Learned

Lessons Learned

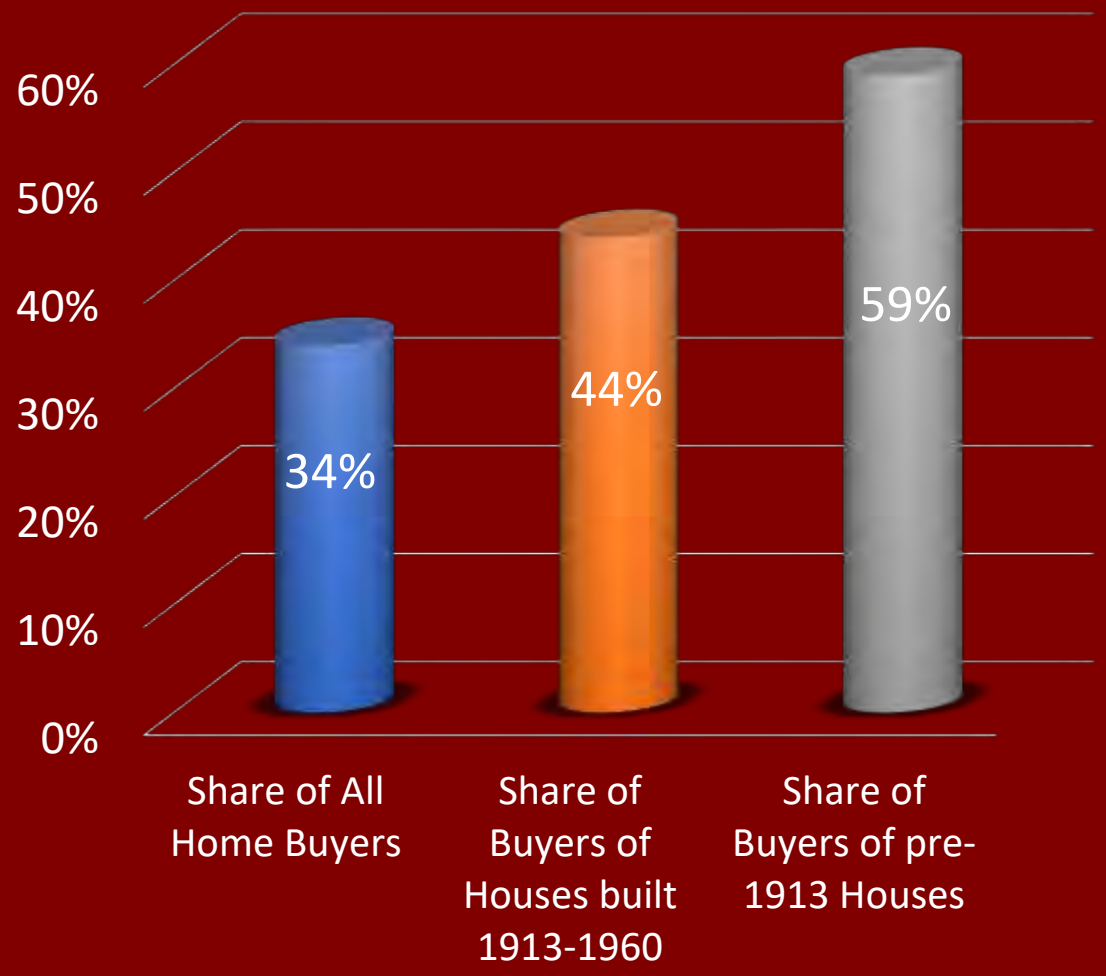
Make publication attractive and reader friendly



Lessons Learned

Use other people's data

Millennials as Home Buyers
US -- 2016



National Association of Realtors

Lessons Learned

Use qualitative vignettes as well as quantitative data

Courtney Williams and Michael Shoriak were both born and raised in Louisiana, and both went to on to obtain master's degrees in historic preservation and architectural conservation out of state. They met in Philadelphia at graduate school and subsequently returned home to New Orleans to found Cypress Conservation in 2013.

While their first projects came by word of mouth, they have since built an impressive resume of building conservation projects, including Gallier Hall and the Louisiana Governor's Mansion. Not only do they rehabilitate some of Louisiana's most well known landmarks, they've taken on their own renovation project as well.

Shortly after founding Cypress Conservation, Williams convinced her father to purchase a long-vacant pair of buildings on Gravier Street in New Orleans' Central Business District. These 1840s former warehouses are now being rehabbed by Cypress into one connected mixed-use building. Hiring local talent and highlighting as much original detail as possible in the design, Shoriak and Williams are using the State Commercial Tax Credit and federal historic tax credit to make the project feasible.

The Cypress team is driven by their appreciation and passion for the impact historic buildings have on New Orleans' landscape and economy. Shoriak said, "1600-year-old cypress joists in a 200-year-old building coming alive again in 2017 is what makes me love this work."

MICHAEL SHORIAK AND COURTNEY WILLIAMS

Photo: Deymah Gaither

Lessons Learned

Convert numbers to understandable example

What could be done with that much money?

- The School District could pay the salaries of 86 teachers
- The City could provide a $200/month rental subsidy every month for 1,283 families
- The County could pay a fourth of the total budget of the Sheriff's Office

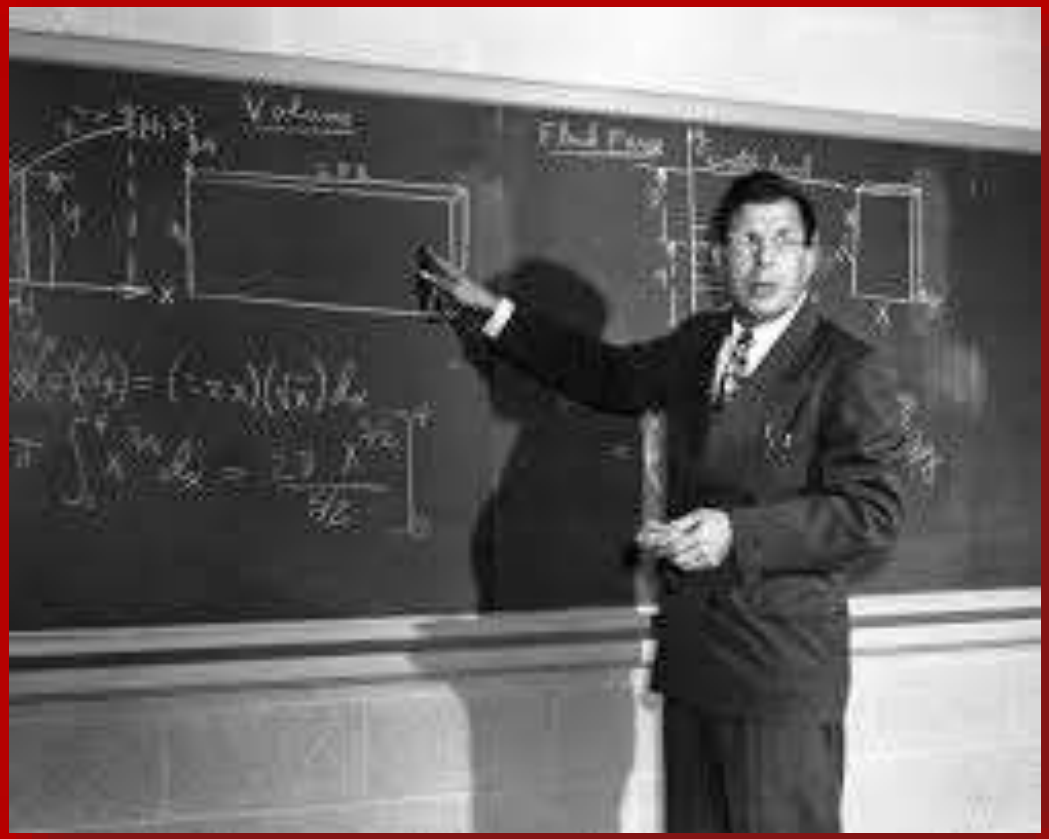
Every $1 the Historic Tax Credit costs the Federal Treasury ultimately generates $1.22 to the Federal Treasury

Lessons Learned

Actively involve potential influencers during research process

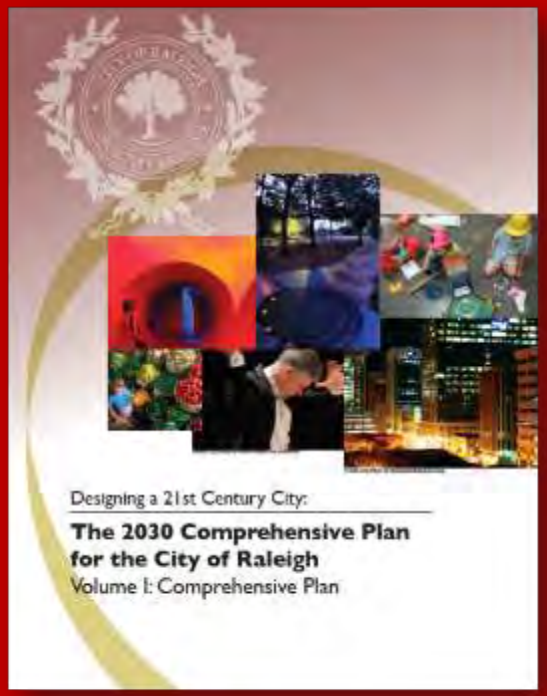
Lessons Learned

Make sure research is robust and academically defensible



Lessons Learned

Frame argument to advance someone else's priorities




And that, dear friends, is how
Economic Impact Studies are made


Thank you very much
Donovan Rypkema
PlaceEconomics