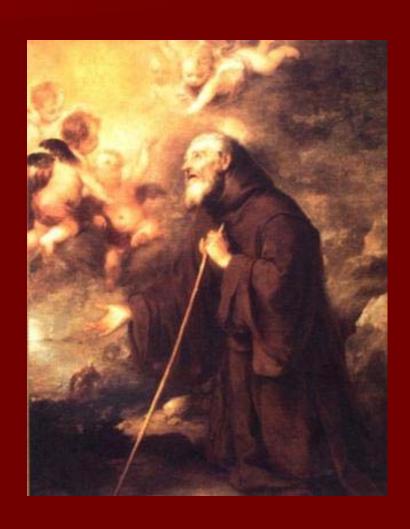
# PLANITULSA: Tulsa Comprehensive Plan Update





### What is Vision?

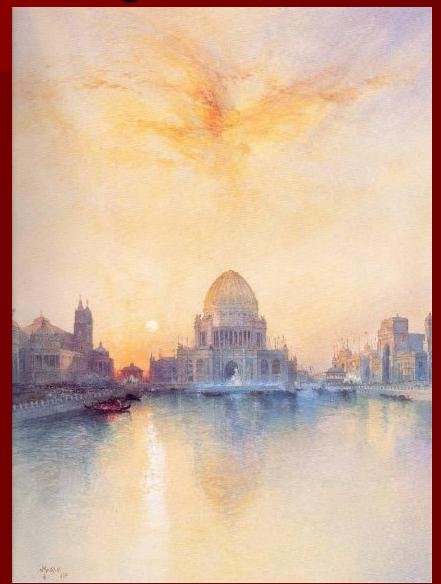




# Chicago

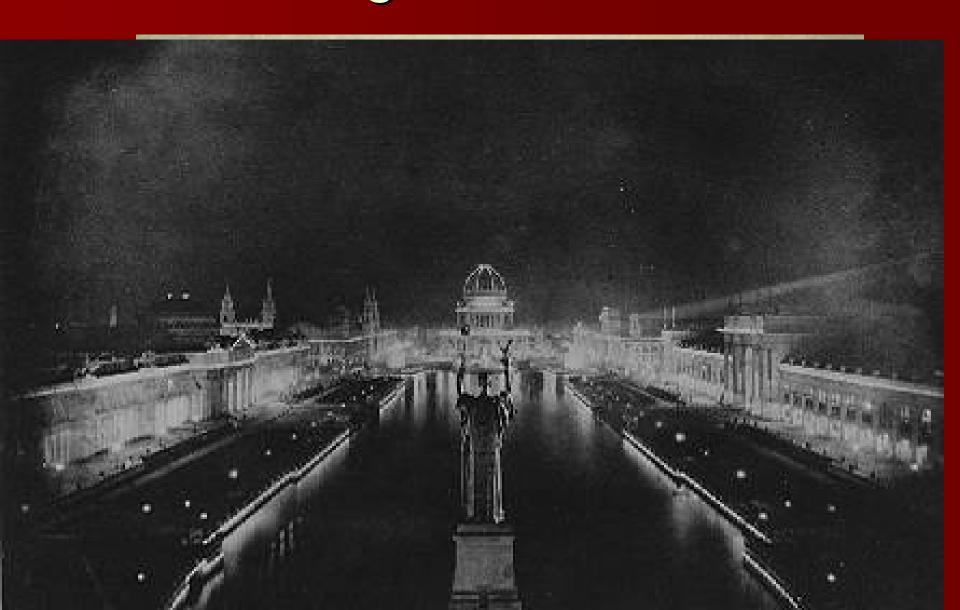


# Chicago World's Fair

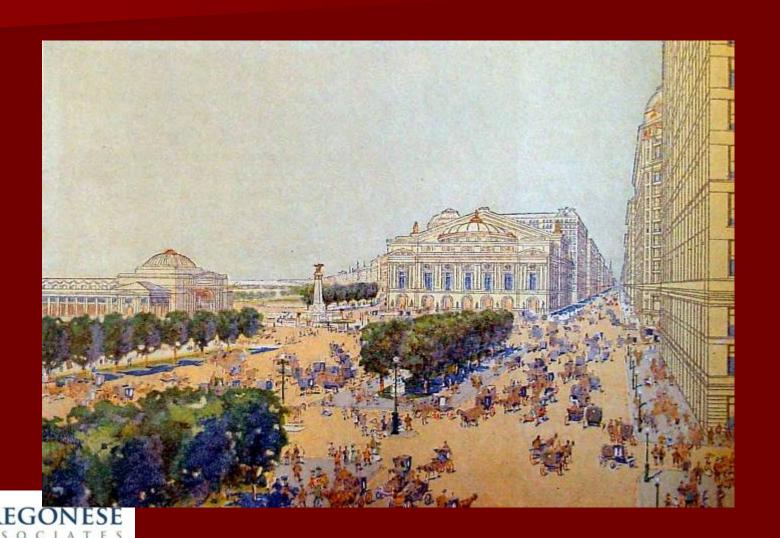




# Chicago World's Fair



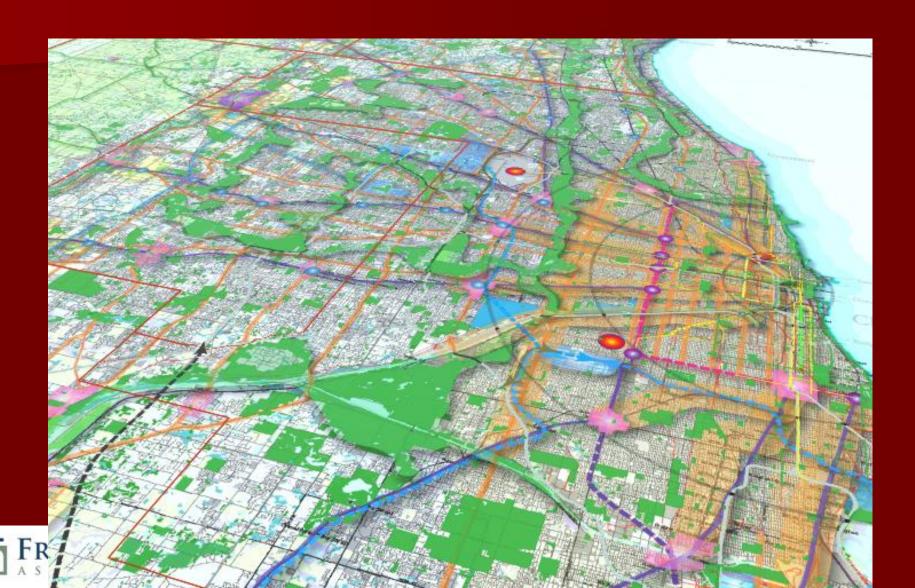
# The Plan of Chicago 1909







# The Metropolis Plan



# Chicago's Rules for a Great Plan

- Timing
- Vision
- Well Considered Plan
- Excellent Communication
- Direct Large Capital Investments
- Access to the Levers of Power
- Leadership and an Army of Supporters



### The future will not be like the past, nor the

present







### Demographic Shifts

- Growth concentrated in 55+ ages and 15-34 – Different housing demand
- These shifts will result in more multi family and mixed use growth.

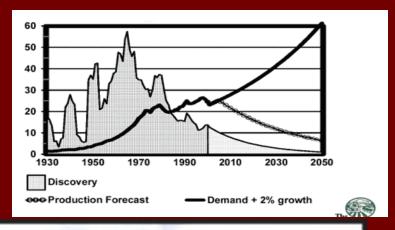






# What We Can Expect? Oil costs will continue to rise Concern for climate change will lead to scrutiny of carbon emissions







### **Trends**

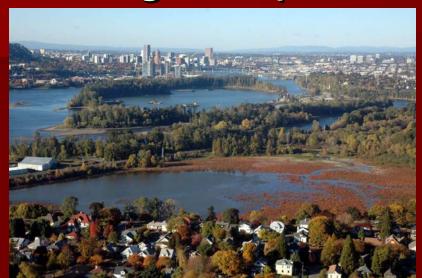
### Strong forces will put a premium on:

- 1. Energy Efficient, sustainable cities
- 2. Shorter Trips
- 3. Effective Transit
- 4. Great Livability
- 5. More Options fro Travel, Housing and Work





# Many Cities will compete to be great places to live & work









# Traditional Planning Approach

- Decide through analysis and research
- Educate the public about the solution
- ■Announce the plan
- ■Defend the plan

# Traditional Planning Approach

- E

# Improved Process

PLAN

**FUND** 

BUILD

# Improved Process

VALUES (What do people want?)

VISION (How will our City provide it?)

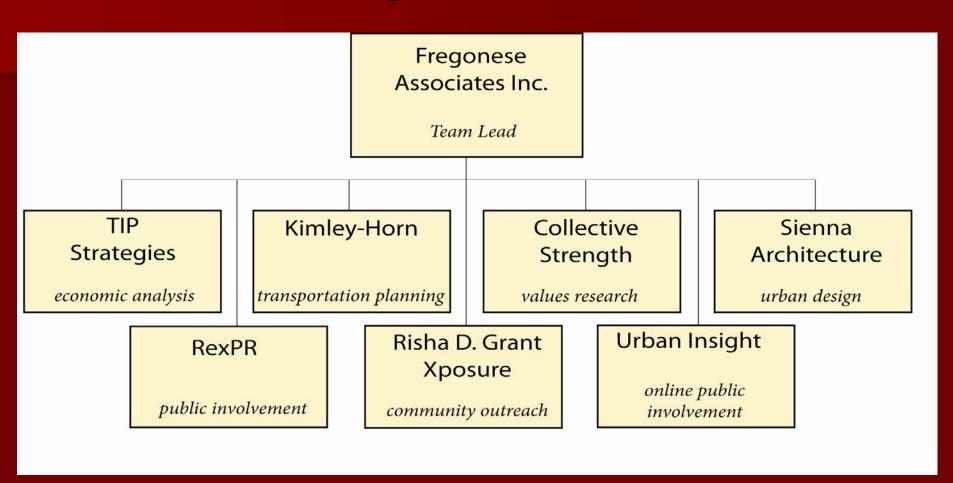
STRATEGY (How do we implement?)

PLAN

**FUND** 

BUILD

# Team Organization Chart



# Information Gathering and Kick-off Meeting

Get to know the city through the eyes of Tulsa residents.

- Land Use: Visual analysis of land use types
- Housing: Housing market analysis
- Economic Assessment

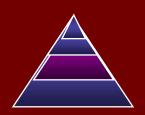


Photo: Daniel Jeffries



### Polling and Stakeholder Interviews

- 85 In Depth Interviews
- 1,000 Phone Interviews
- 1,000 Web Based Poll
- 20 "Person on the Street"





# Working with Stakeholders

- Advisors
- Partners





# Community Workshops





# Workshop Video



# Two Scales – City and Neighborhood

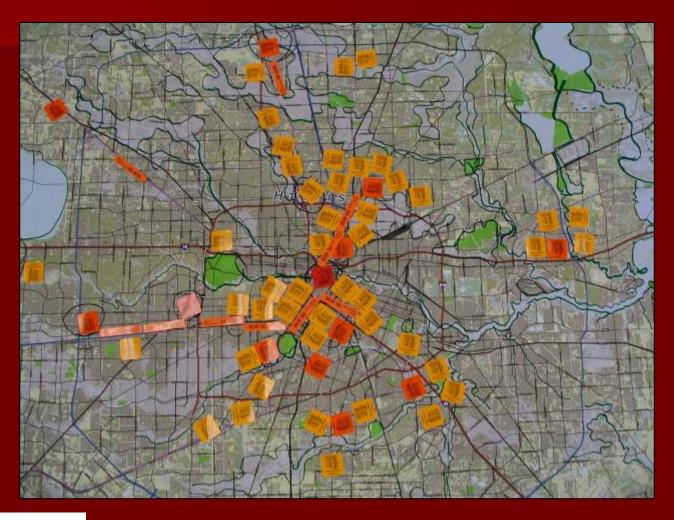






#### ╢

# Workshop Maps





Each table's plan is analyzed and recorded...





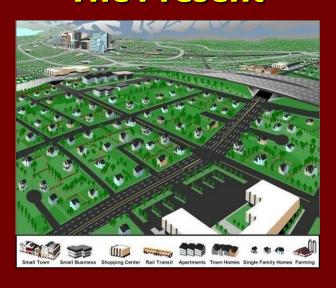
....and all notes and comments are recorded





# Traditional Approach

#### **The Present**



### **The Future**







## Scenario Approach

# Plausible stories about the future





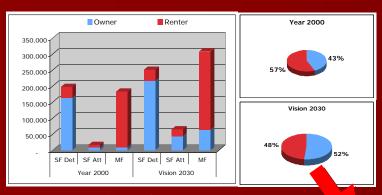








### Modeling the Scenarios



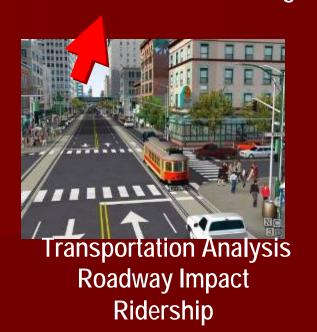
Market Constraints
Development Program
Commercial Demand
Housing Needs



Land Use Scenario Development

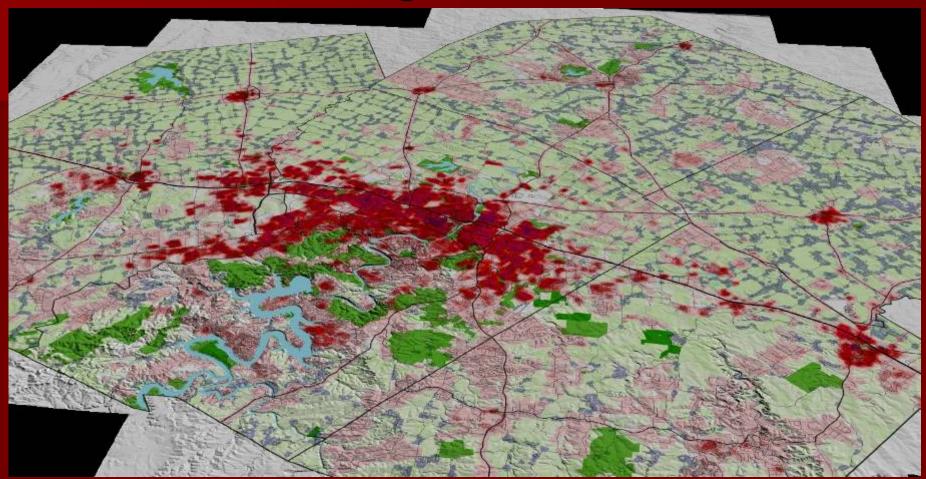


Sustainability Urban Design





# **Existing Conditions**





## Scenario A

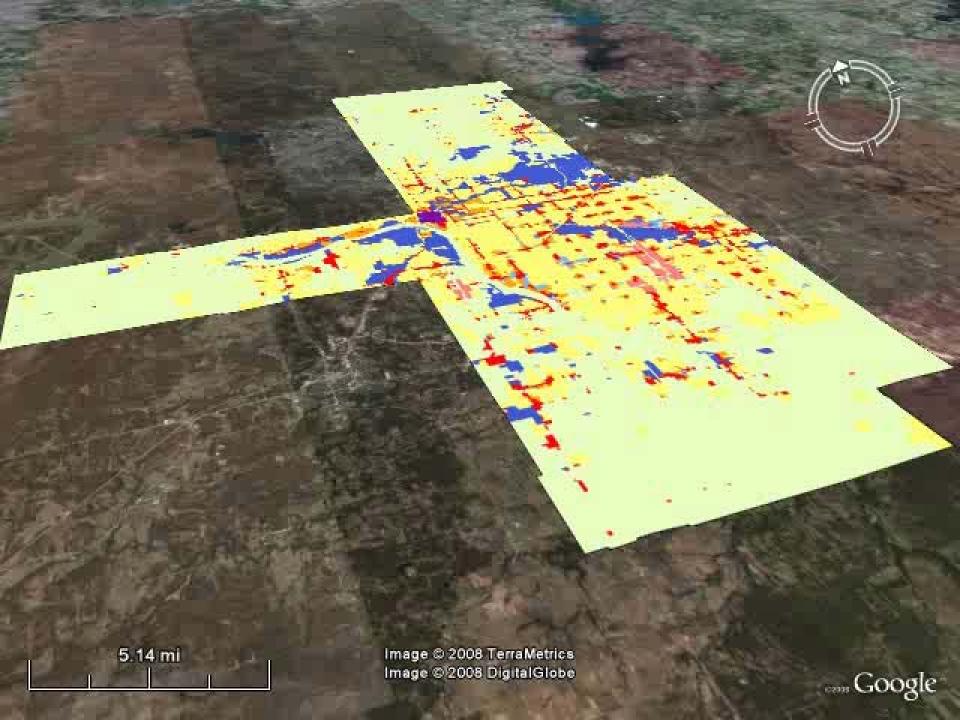


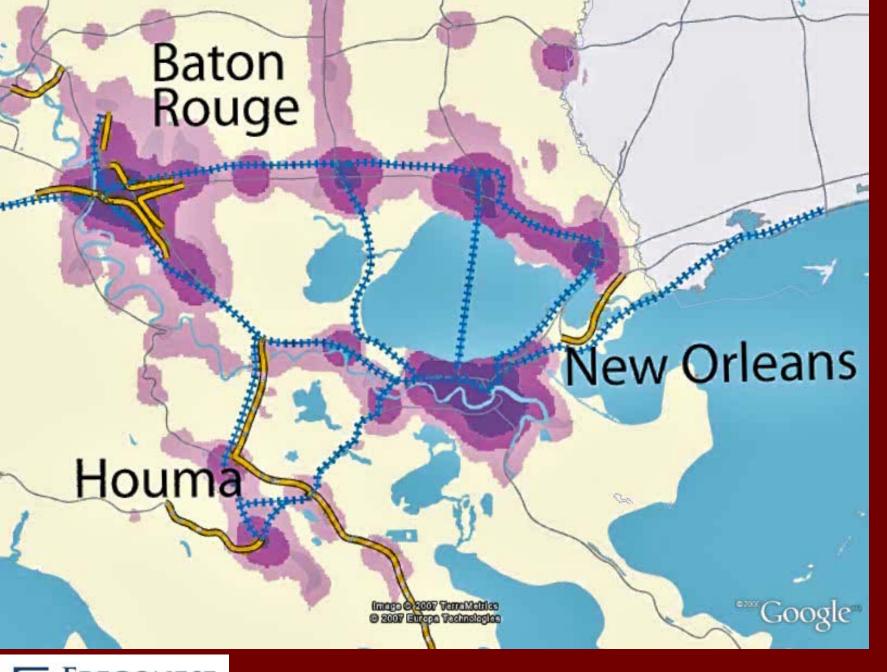


# Scenario D













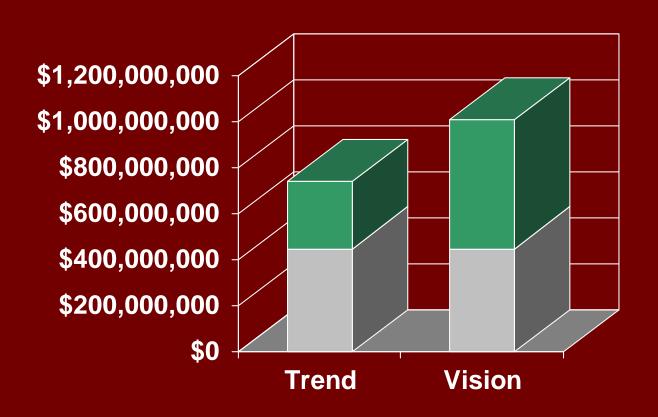
#### Indicators for Scenario Evaluation

Topic	Scenario A	Scenario B	Scenario C	Scenario D
Agricultural Land Consumed: 1998 - 2020	174 sq mi	143 sq mi	65 sq mi	43 sq mi
Topic	Scenario A	Scenario B	Scenario C	Scenario D
Infrastructure Cost 1998-2020 (Transportation, water, sewer, utilities)	\$\$\$\$\$\$\$	\$\$\$\$\$	\$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Teels	Compale	Connecte D	Connenia C	Connecto D
Topic Single Family Homes vs. Condos, Apts. & Townhomes	Scenario A SF Condos, etc. 77% 23%	Scenario B SF Condos, etc. 75% 25%	Scenario C SF Condos, etc. 68% 32%	Scenario D SF Condos, etc.
Topic	Scenario A	Scenario B	Scenario C	Scenario D
Transportation Choices	00 1 M 01	001 mol	₩ <del>••••••••••••••••••••••••••••••••••••</del>	<b>₹ ₹</b>



#### **Fiscal Model Results**

City Sales Tax Revenue Increase - 2000 Dollars



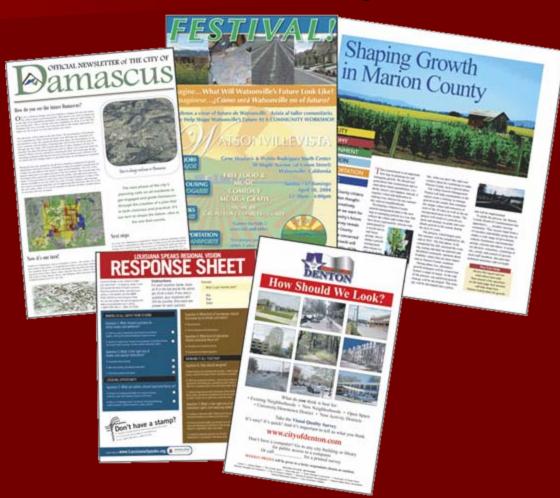
■ New Revenue

■ Existing Revenue



# Broad Outreach and Multiple Opportunities for Response







#### What We've Learned

- I Pision
- Without action
- Is Hallucination



## Lessons from Scenarios and Outreach Used to Develop Plan and Products

#### **Components**

Vision

Comprehensive Plan

Development Strategies

Implementation and Financial Strategy





### Upcoming Events

- July 2008 Community Values
- September 2008 City Wide Workshops
- January 2009 Community Workshops
- April 2009 Scenarios public response
- June 2009 Vision
- September 2009 Draft Plan & Implementation
- Adoption Hearings October December 2009



### What the partners will do

- Review preliminary data Help promote Citywide Workshops
- Review first results Help recruit best locations for community workshops
- Review workshop results and advise on scenarios to be tested
- Review scenario results and advise on Vision
- Review and advise on Plan
- Review and advise on Strategies



#### What the advisors will do

- Meet on a monthly basis
- Function as an executive committee for the partners
- Review and advise on more details



Questions and Discussion



### **Preliminary Data**

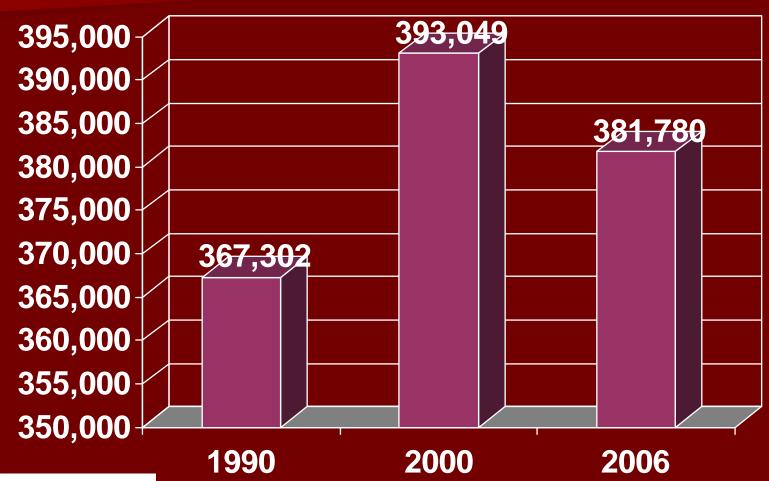
- Land Use and Population Forecasts
- Preliminary IDI and Survey Results
- Economics
- Transportation



### Tulsa Population Trends

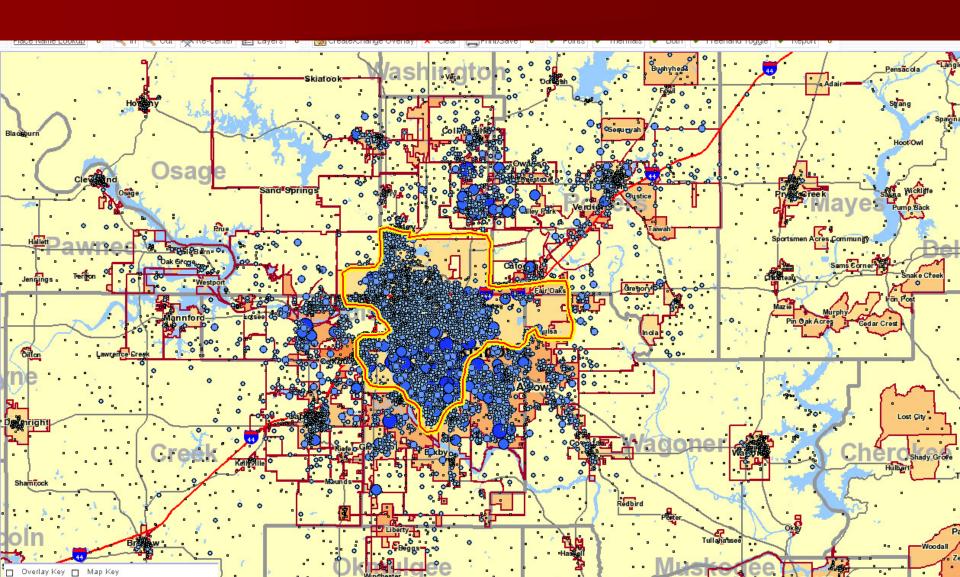


### Population – City of Tulsa

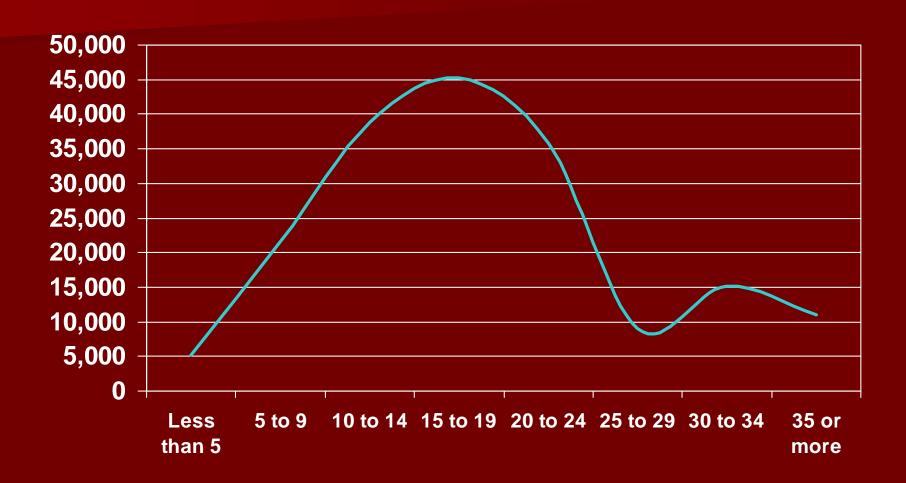




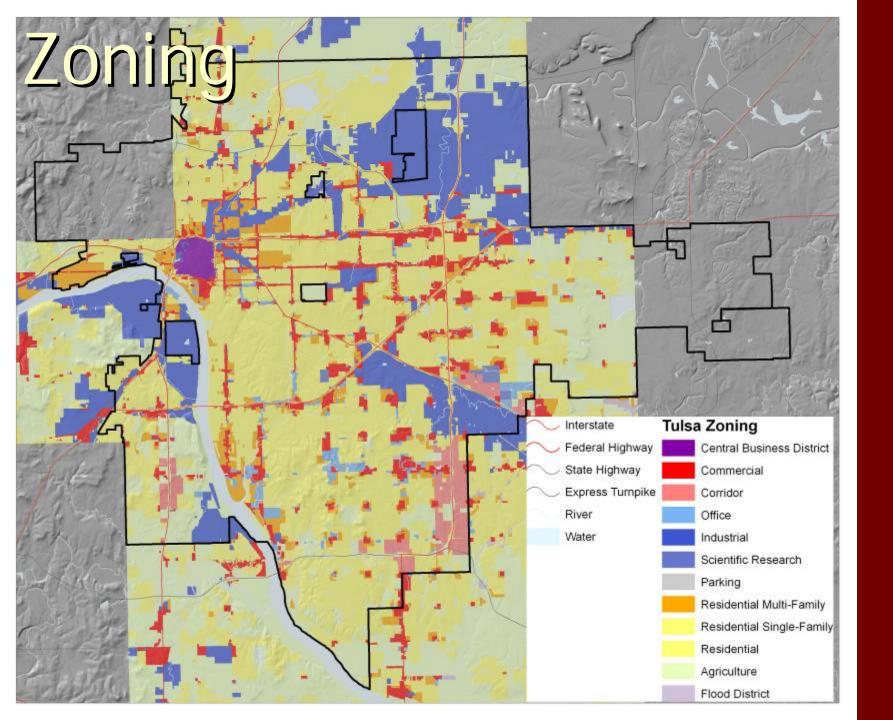
### Where People Work

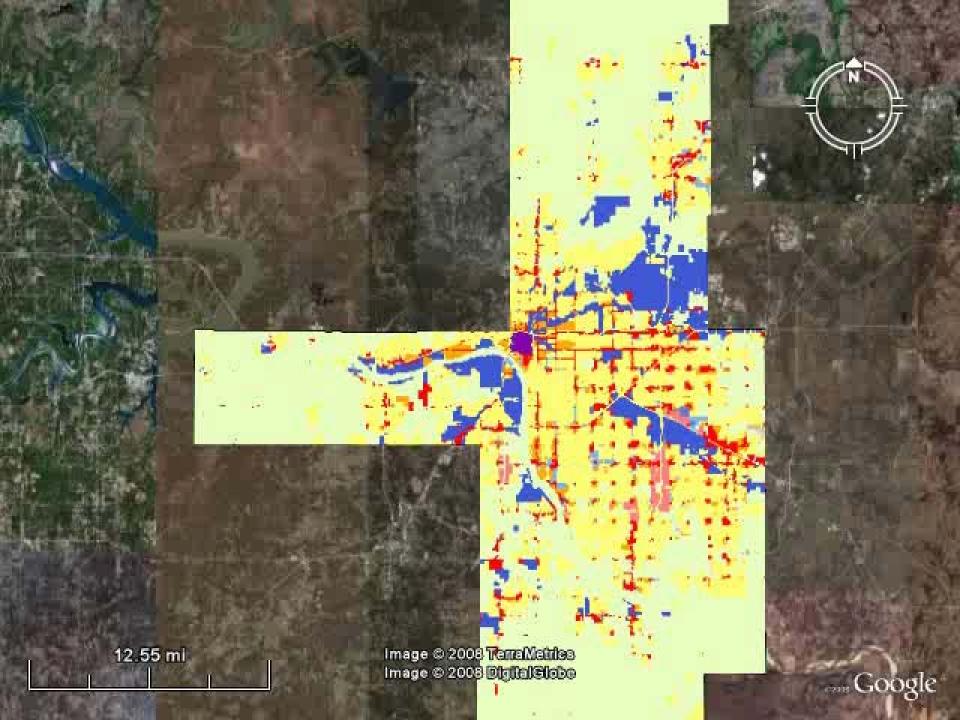


### Travel Time to Work

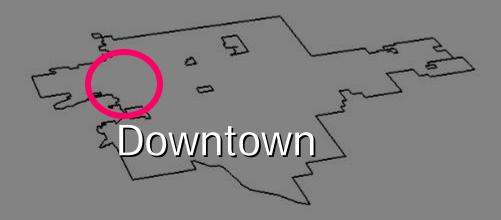




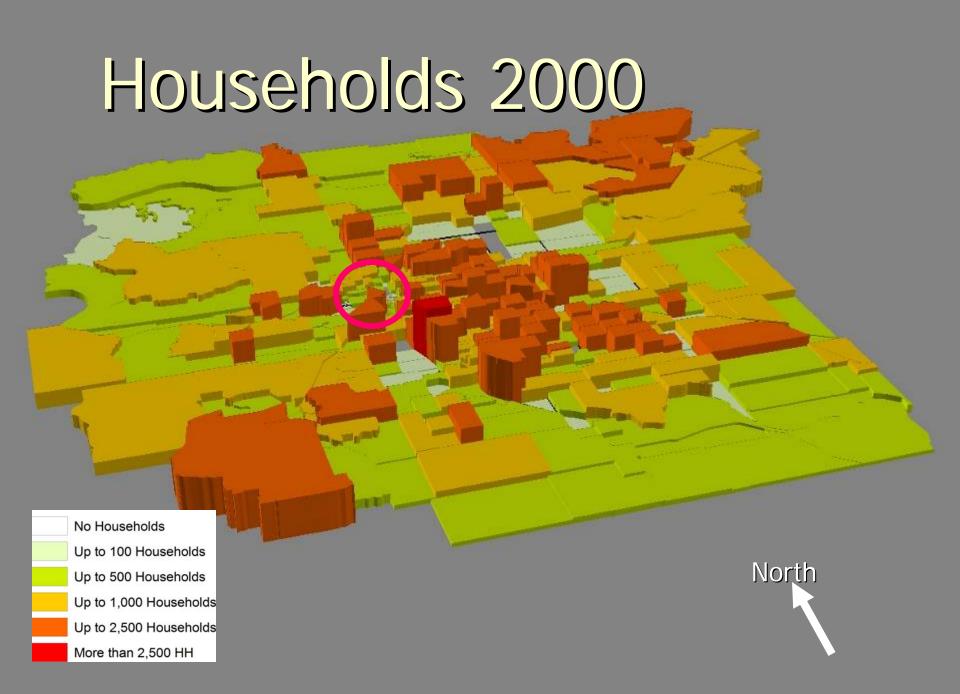


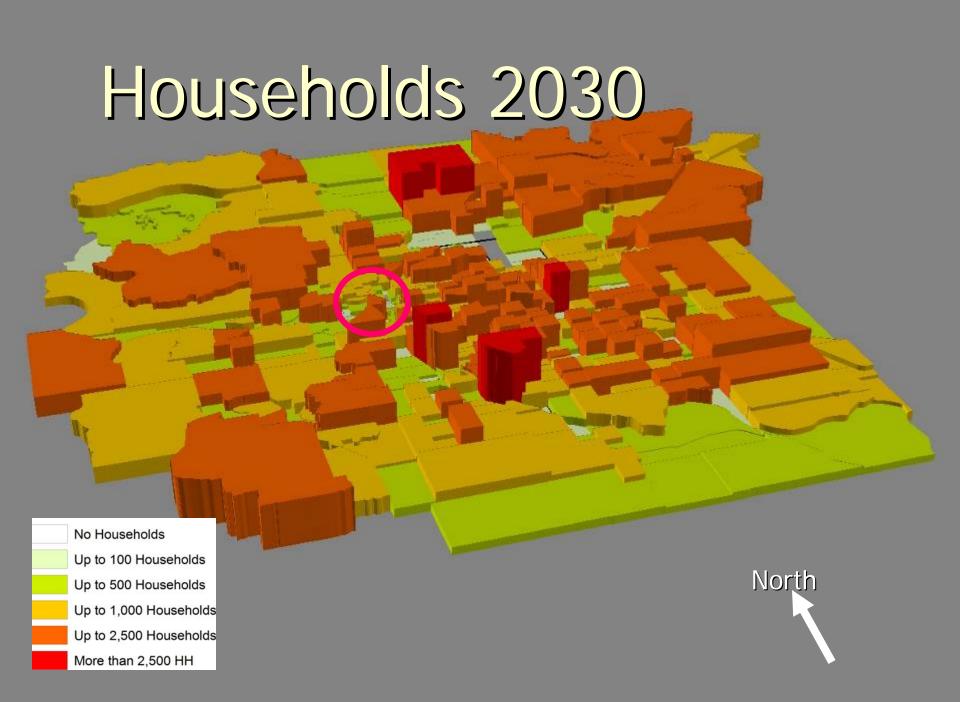


### 3D - TAZS





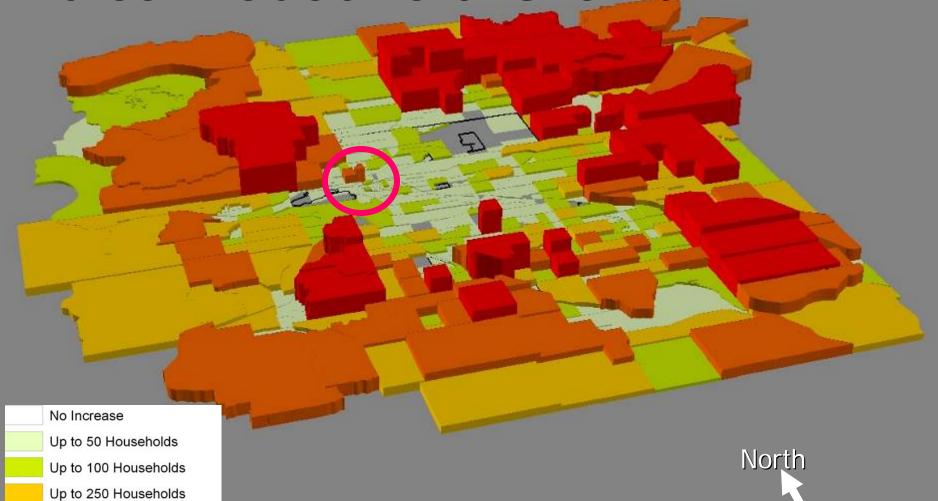




### Tulsa Household Growth

Up to 500 Households

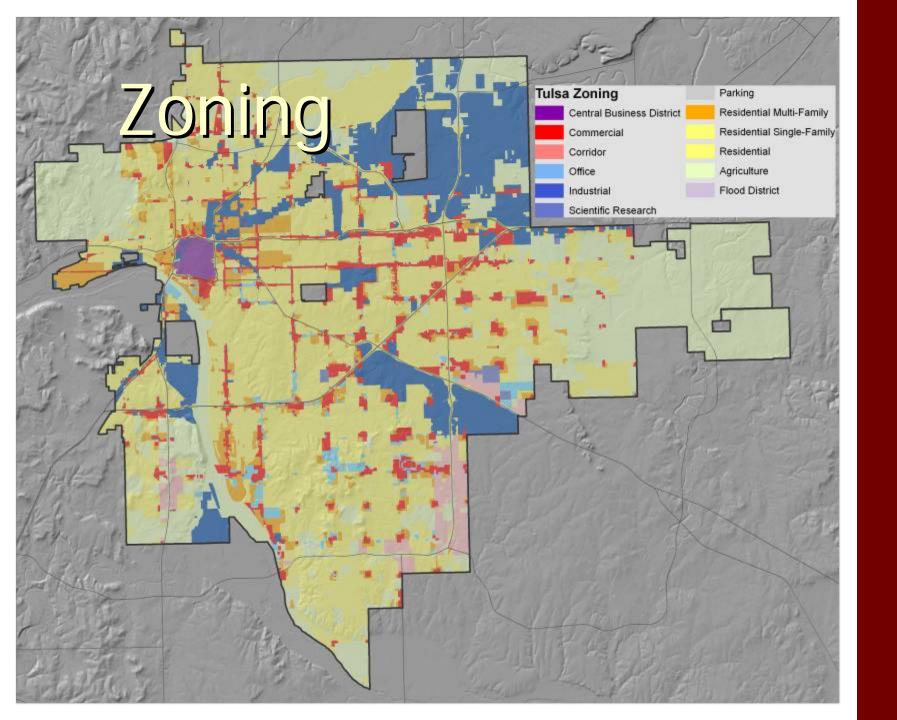
More than 500 Households

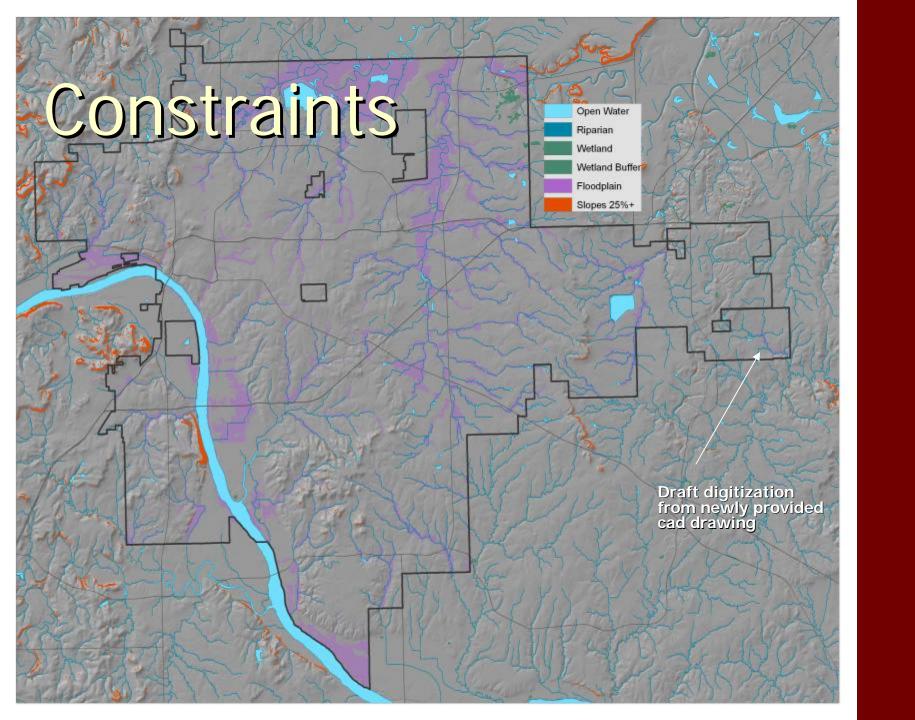


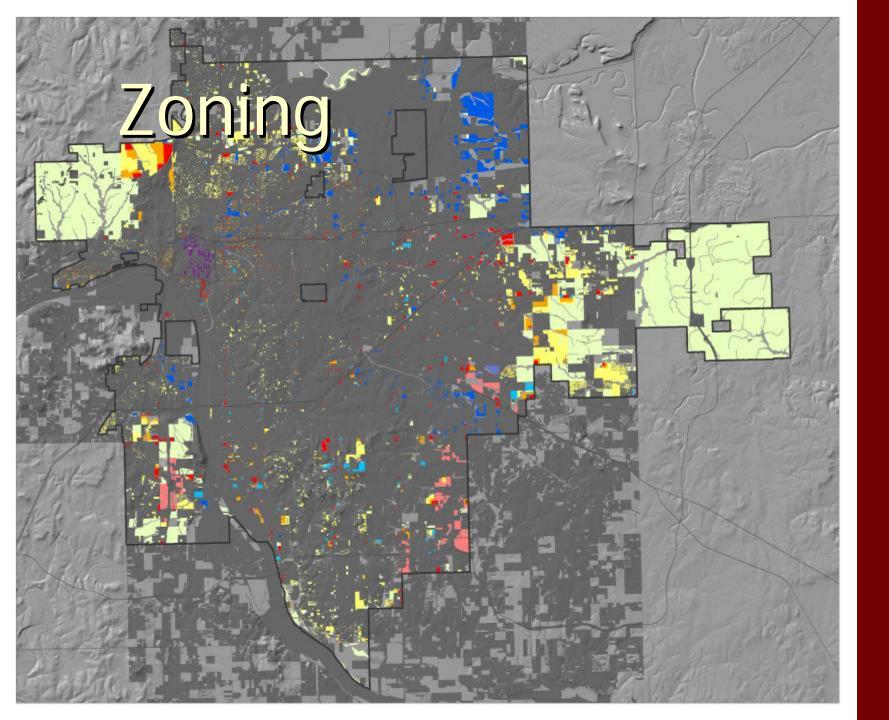
Employment 2000 No Jobs Up to 500 Jobs North Up to 1,000 Jobs Up to 2,500 Jobs Up to 5,000 Jobs More than 5,000

Employment 2030 No Jobs Up to 500 Jobs North Up to 1,000 Jobs Up to 2,500 Jobs Up to 5,000 Jobs More than 5,000

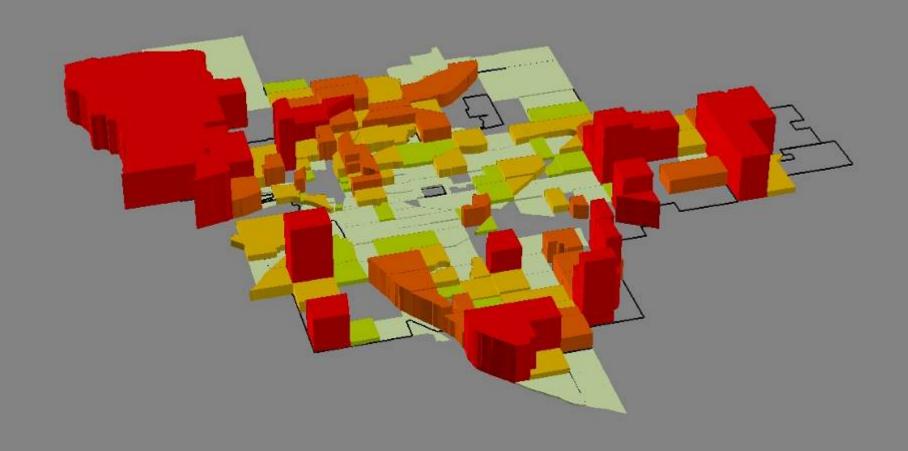
### Forecast Employment Growth No additional jobs Up to 50 additional jobs North Up to 100 additional jobs Up to 250 additiona jobs Up to a 1,000 additional jobs More than 1,000 additional jobs

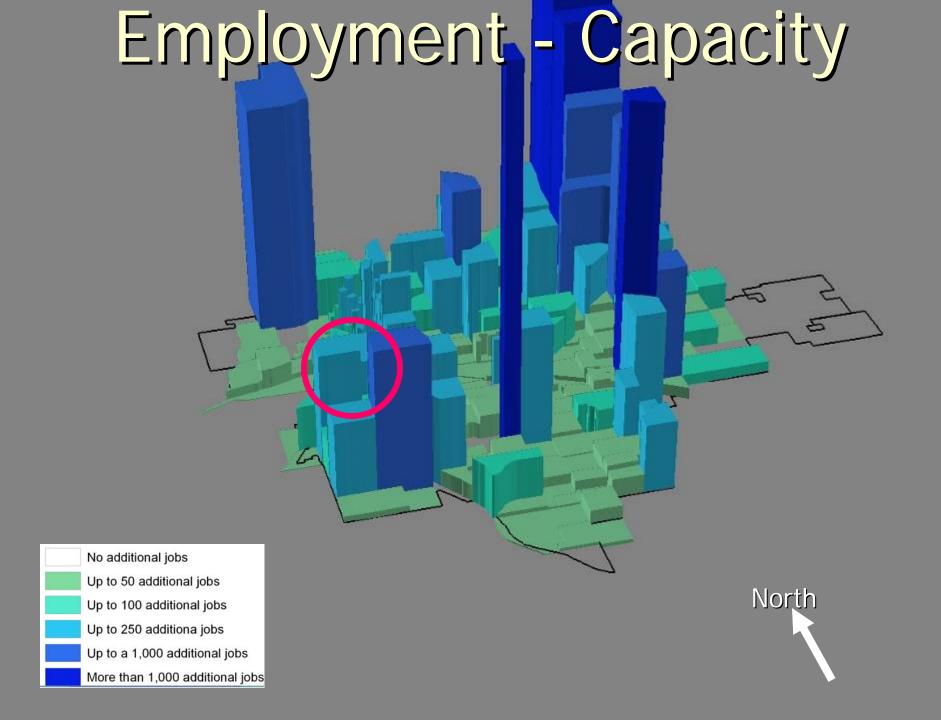




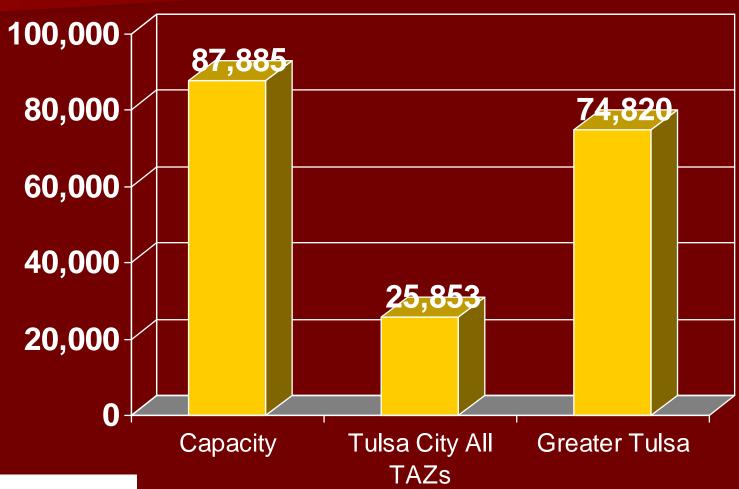


### Zoning Capacity



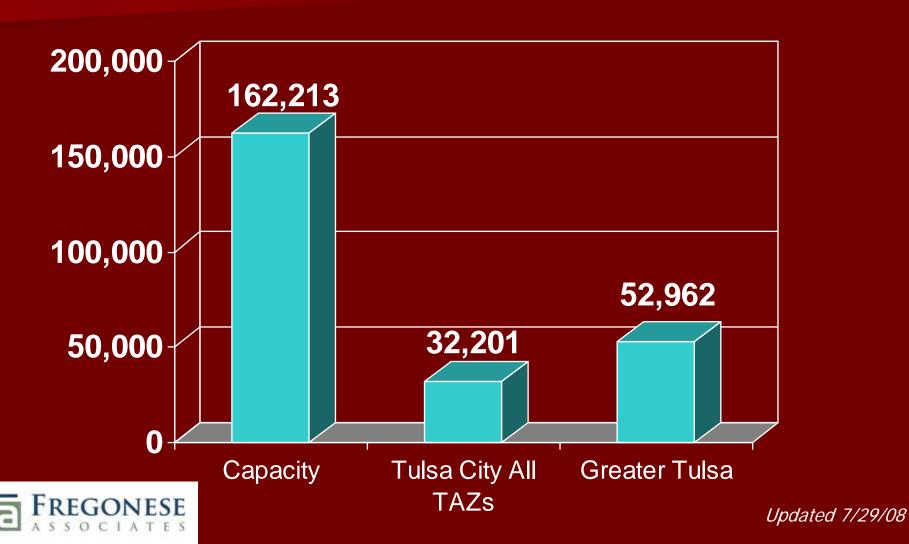


### Housing Forecast - Units

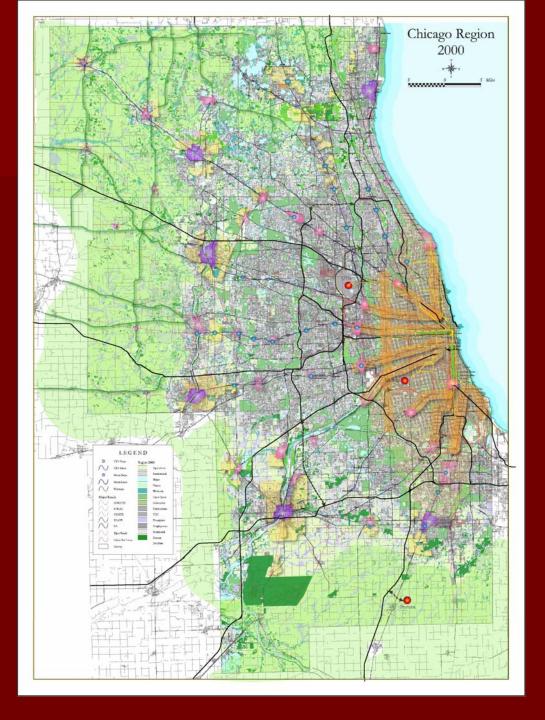




### Jobs

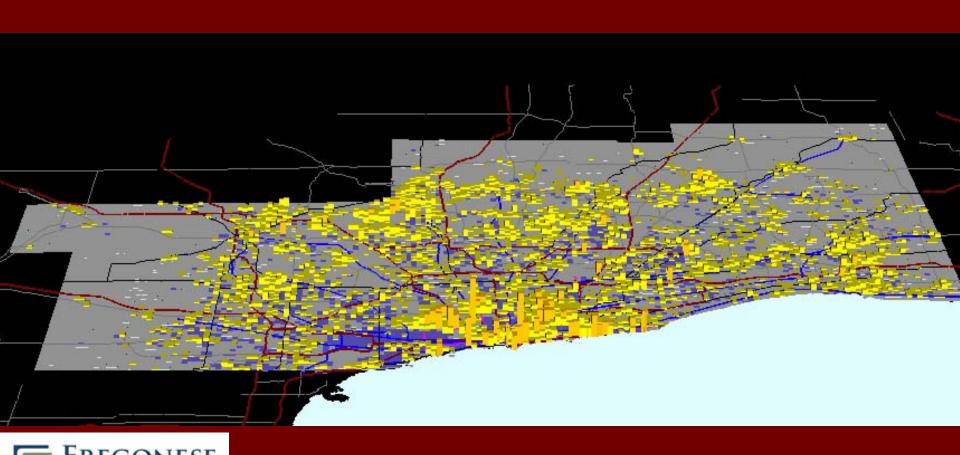


### Chicago Metropolis





## Chicago Metro Population Change 1990-2000

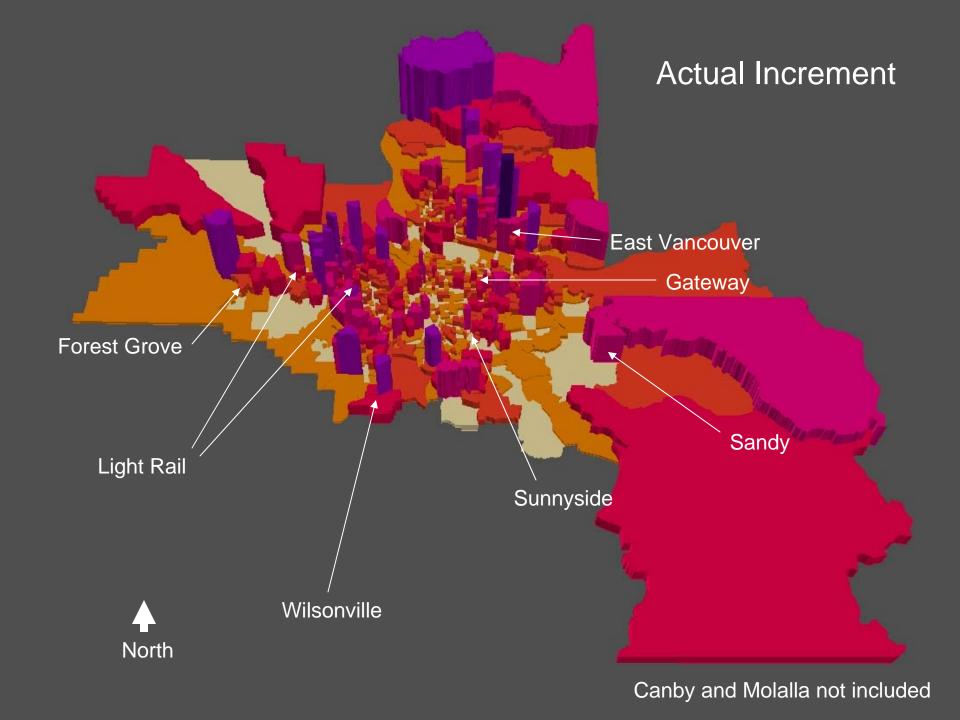


## Forecast Population Change 2000-2030

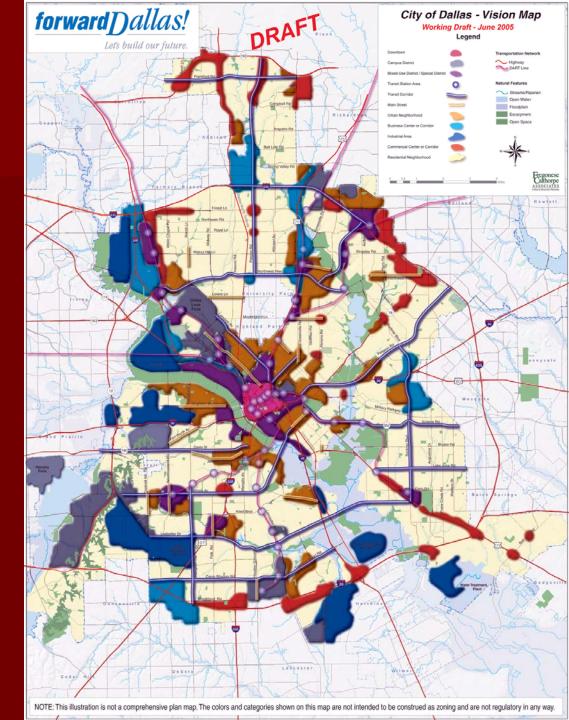






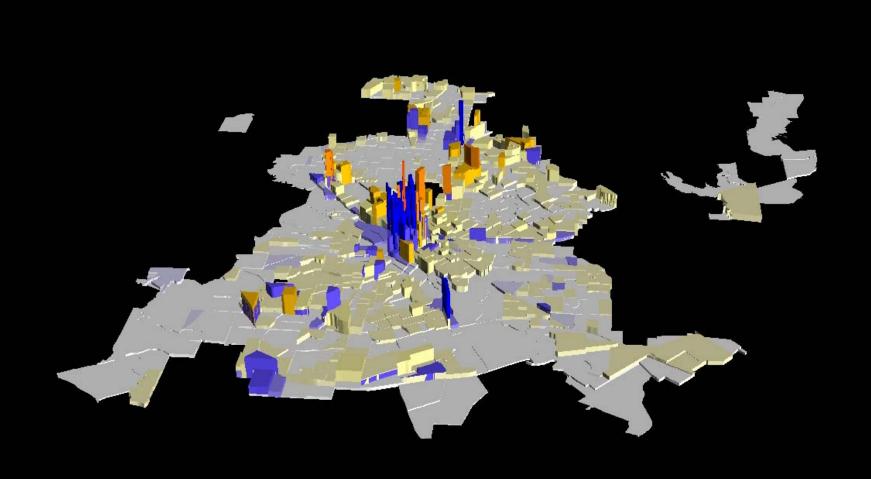


#### Dallas

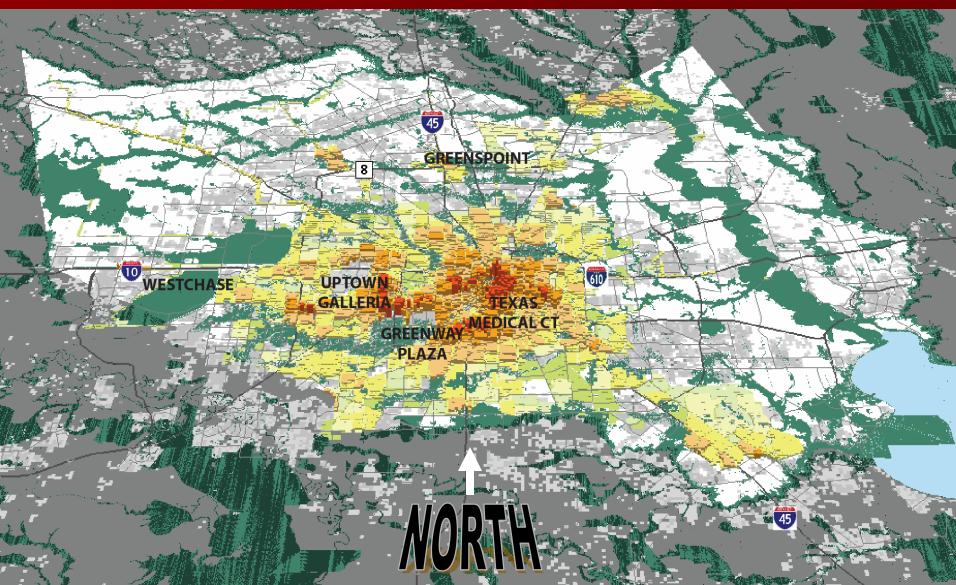




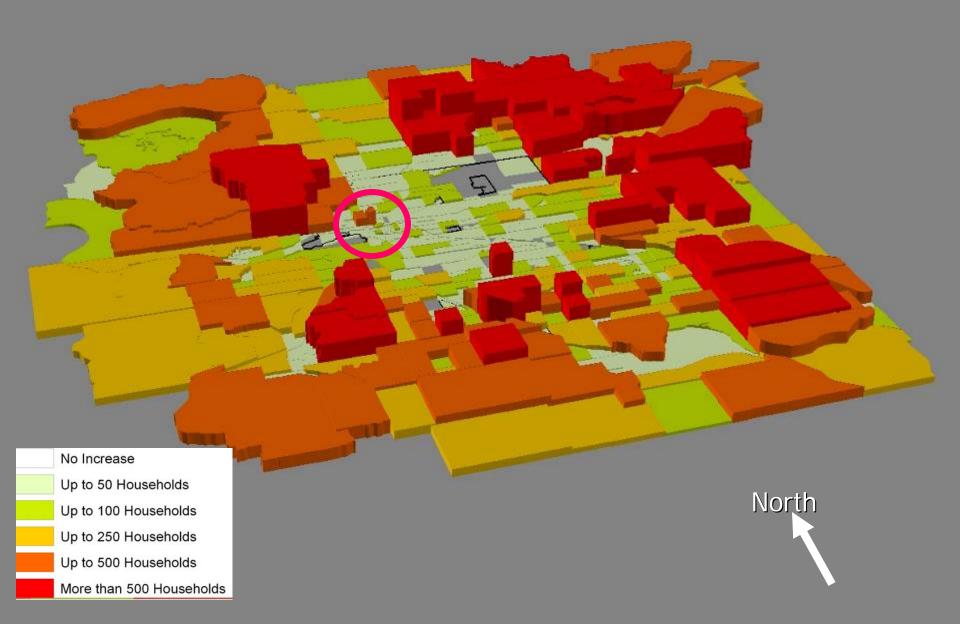
### Dallas Forecast 2000-2030



### Houston Region



### Tulsa Household Growth



# Economic Competitiveness Strategy

for the City of Tulsa

June 16, 2008

Jon Roberts





# TIP agenda

- Background
- Update
- Economic framework
- Themes







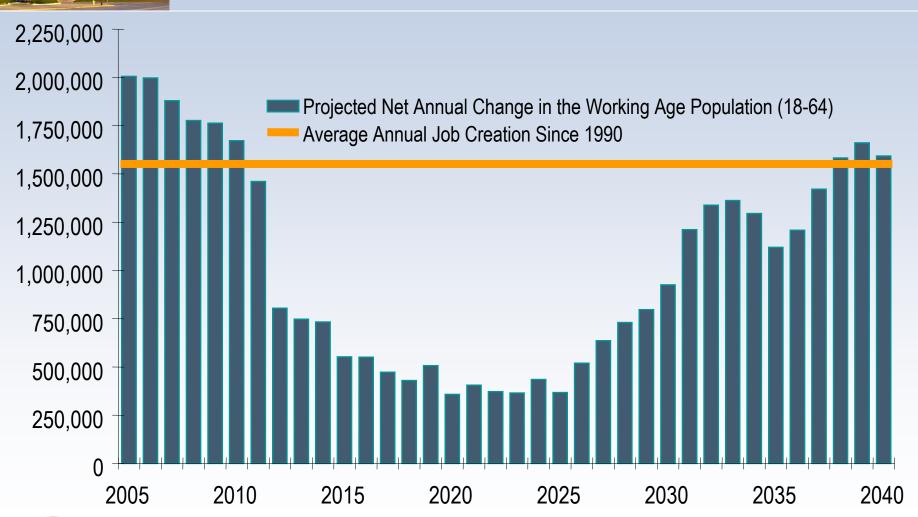
### TULSA evolution of ED goals





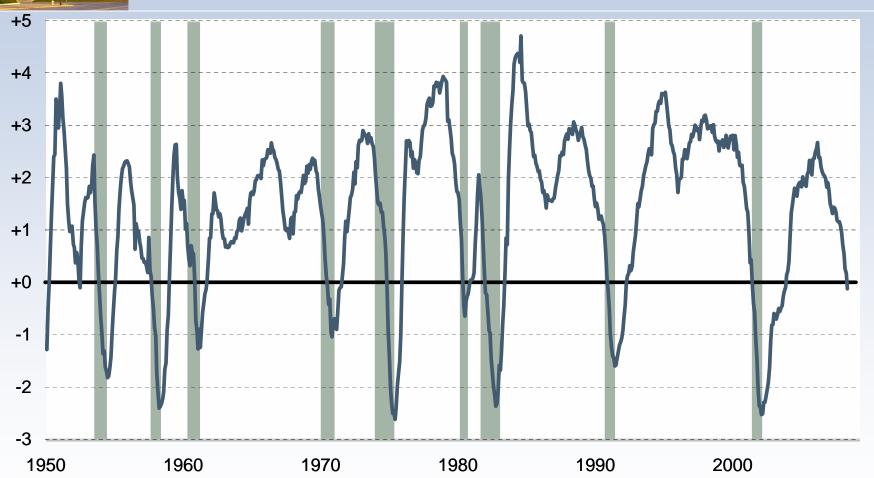


#### us a labor crisis approaches





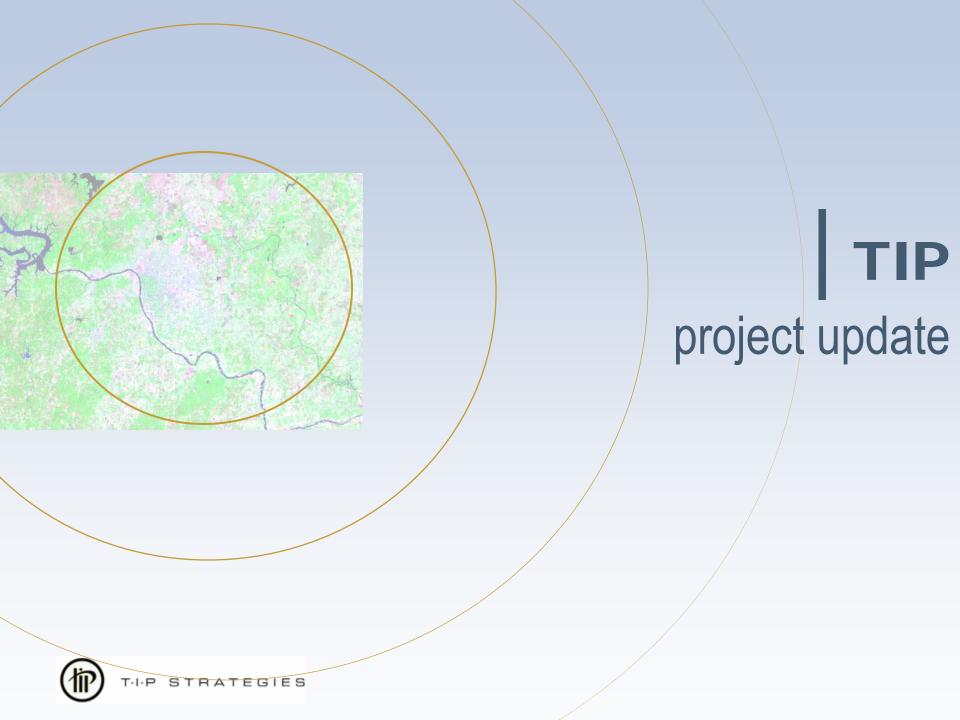
### us private sector employment



NOTE: Year-over-year change on data that are not seasonally adusted SOURCE: U.S. Bureau of Labor Statistics (accessed via Moody's Analytics); National Bureau of Economic Research



T-I-P STRATEGIES





# **UPDATE** existing reports

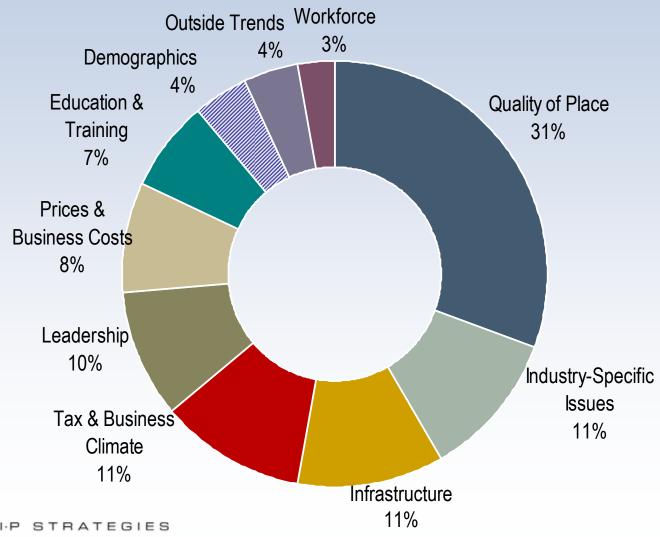
The team has reviewed numerous reports from a variety of sources. From these TIP has:

- noted dozens of issues raised by past observers of challenges, strengths, weaknesses, opportunities.
- catalogued relevant recommendations, strategies, goals, and objectives that organizations within the region have been advised to pursue.





### **UPDATE** existing reports





# UPDATE highlights

#### workforce

- demographics
- education
- skills

#### business climate

- tax policy
- land-use planning
- quality of place

#### competitiveness

- region vs. others
- city's role in the region

- energy
- healthcare
- finance
- aerospace
- call centers/back office





energy healthcare finance aerospace back office

#### HIGHLIGHTS

























#### > 1000

#### HIGHLIGHTS

- AAON -HEAT EXCHANGERS
- ALORICA INC CUSTOMER TECH
- AMERICAN AIRLINES- MAINTEN.
- AT&T COMM SERVICES
- AVIS BUDGET GROUP RES CTR
- BANK OF OKLAHOMA FINANCIAL SERVICES
- BLUE CROSS & BLUE SHIELD INSURANCE
- DIRECTV CUSTOMER SERVICE
- DOLLAR THRIFTY AUTOMOTIVE -AUTO RENTAL
- ECHOSTAR CUSTOMER SERVICE
- EDS DATA SERVICES
- HILLCREST HEALTHCARE SYSTEM - HEALTH CARE
- HSBC FINANCE CORP CREDIT CARD SERVICES
- IBM ACCOUNTING

- IC OF OKLAHOMA SCHOOL BUS MFG
- NORDAM GROUP AEROSPACE
- PUBLIC SERVICE CO OF OKLA ELECTRIC UTILITY
- QUIKTRIP CORP CONVENIENCE STORES
- REASOR'S FOODS GROCERS
- SAINT FRANCIS HEALTH SYSTEM
- SPIRIT AEROSYSTEMS INC.
- ST JOHN MEDICAL CENTER
- STATE FARM INSURANCE
- UNIVERSITY OF TULSA
- VERIZON COMM SERVICES
- WAL-MART
- WHIRLPOOL ELEC & GAS RANGES
- WILLIAMS COMPANIES INC OIL & GAS





#### HIGHLIGHTS

#### major employers

500-999

- BAMA COS WHOLESALE BAKERY
- CAPITAL ONE AUTO FINANCE LOAN SERVICING
- CENTRILIFT PUMPS
- DILLARD'S RETAIL
- FORD GLASS
- HILTI FASTENER MFG
- HOME DEPOT RETAIL
- JC PENNEY RETAIL
- JOHN ZINK CO INDUSTRIAL BURNERS
- METLIFE INSURANCE
- NATIONAL STEAK & POULTRY WHOLESALE MEAT
- ONEOK INC NATURAL GAS

- PENLOYD OFC CABINET MAKERS
- SAMSON INVESTMENT CO OIL & GAS
- SINCLAIR REFINER Y OIL & GAS
- SOUTHCREST HOSPITAL HEALTH CARE
- SUNOCO INC OIL & GAS
- UNITED STATES CELLULAR CELLULAR SERVICE
- VANGUARD CAR RENTAL HEADQUARTERS
- WARREN CLINIC HEALTH CARE
- WILTEL COMMUNICATIONS COMMUNICATION SERVICES
- WORLD PUBLISHING NEWSPAPER PUBLISHER





#### 250 - 500

#### HIGHLIGHTS

- AG EQUIPMENT GAS COMPRESSORS
- AMERICAN FOUNDRY GROUP METAL PRODUCTS
- AMERISTAR FENCING
- ARVEST STATE BANK
- BAKER OIL TOOLS
- BURLINGTON NORTH SANTA
- CANCER TREATMENT CENTER
- CASE & ASSOCIATES PROPERTY MGMT
- CAVALRY PORTFOLIO SVCS COLLECTIONS
- CLAREMORE REG HOSPITAL
- COCA-COLA ENTERPRISES CUSTOMER DEV. CTR.
- COMMUNITYCARE HMO INSURANCE
- COX COMMUNICATIONS CABLE TV & PHONE

- CRANE CARRIER CO INDUSTRIAL TRUCKS
- CROWNE PLAZA HOTEL
- DELOITTE & TOUCHE ACCOUNTING
- DELPHI CATALYSTS AUTOMOBILE PARTS
- DMI INDUSTRIES WIND TOWERS
- FABRICUT DRAPERIES
- FINANCIAL MGMT SERVICES COLLECTIONS
- FINTUBE TECHNOLOGIES INC HEAT EXCHANGERS
- FLIGHT SAFETY FLIGHT SIMULATORS
- GANNETT CTR OF EXCELLENCE CUSTOMER SERVICE
- GEA RAINEY CORP HEAT EXCHANGERS
- H & R BLOCK INC TAX PREPARATION
- HANOVER CO COMPRESSORS
- KIMBERLY-CLARK TISSUE MFG



#### 250 - 500

#### HIGHLIGHTS

- K-MAC ENTS/DBA TACO BELL RESTAURANTS
- LAUREATE PSYCHIATRIC CLINIC HEALTH CARE
- LINDE BOC GAS PROCESSING EQUIP
- MACY'S
- MAGELLAN MIDSTREAM PETROLEUM
- MAYS DRUG STORES
- MAZZIO'S CORP RESTAURANTS
- NCO FINANCIAL INC
- PACCAR WYNCH WINCH MFG
- PENNWELLPUBLISHING
- PEPSI-COLA BOTTLING
- RAMSEY WINCH CO
- RES-CARE OKLAHOMA HEALTH CARE
- SAM'S CLUB
- SEARS ROEBUCK & CO

- SEMGROUP ENERGY
- SHAW PIPE MFG
- SHEFFIELD STEEL STEEL FABRICATORS
- ST. GOBAIN CONTAINERS GLASS
- T D WILLIAMSON INC PIPE LINE EQUIPMENT
- TCIM SERVICES TELEMARKETING
- TPI BILLING SOLUTIONS FINANCIAL SERVICES
- UNARCO INDUSTRIES INC SHOPPING CARTS
- UNITED PARCEL SERVICE UNITED RECOVERY FINANCIAL SERVICES
- WEBCO INDUSTRIES INC STEEL PIPE & TUBES
- WEST TELESERVICES TELEMARKETING
- WONDER BREAD & HOSTESS CAKE BAKERS
- YUBA HEAT TRANSFER HEAT EXCHANGERS





immigration land uses

#### HIGHLIGHTS | business climate

- factors you don't control:
  - state tax policy
  - immigration (1804)
- and those you do:
  - land uses
  - infrastructure investment



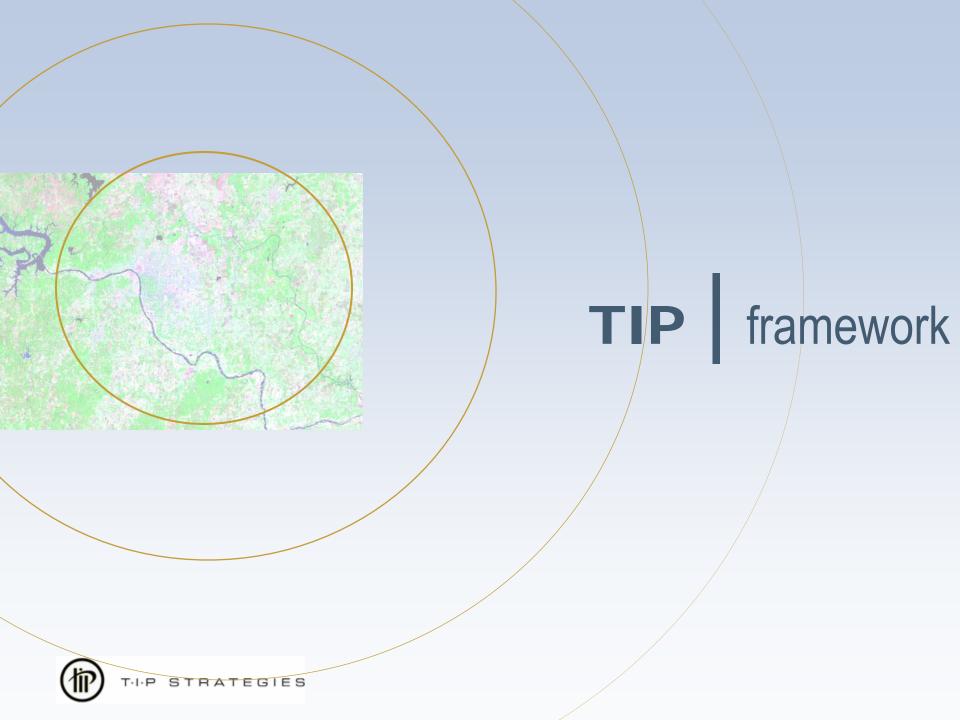
#### HIGHLIGHTS

#### business climate

#### quality of place

- different perceptions of what this means
- riverfront and downtown redevelopment have risen as priorities in recent years
- region maintains strong pull for existing residents and those who leave (and these connections are key to drawing people back to the area and retaining them)
- Same challenges as others in fostering growth of "next generation" workers







#### TULSA demographics

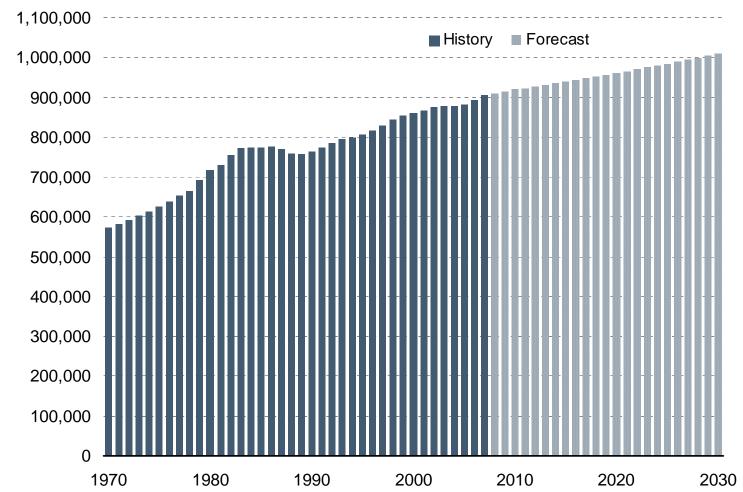
key findings

- Like the U.S., the population of Tulsa is aging and this has implications for the workforce.
- The balance of net migration between Tulsa and Oklahoma City has reversed from Tulsa's favor 10 years ago to OKC's favor today.
- Migration both to and from Pulaski County, AR (Little Rock) has accelerated.
- Migration outflow to big cities in Texas (Houston, Dallas, and Fort Worth) has declined in the past 10 years.





# Population Projections Tulsa MSA

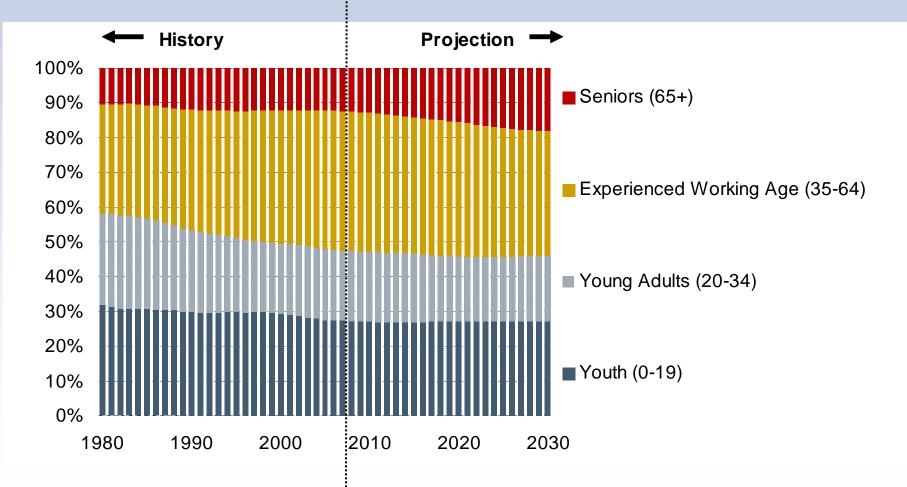




SOURCE: US Census Bureau (history) & Moody's Analytics (projections)



# Distribution by Age Cohort, Tulsa MSA

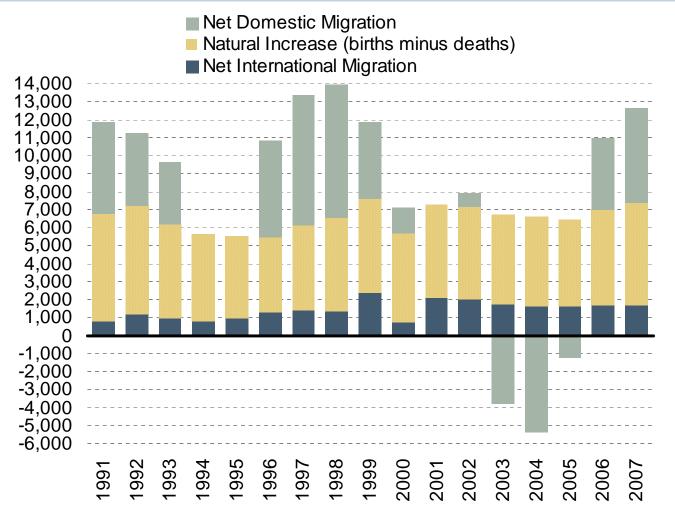




SOURCE: US Census Bureau (history) & Moody's Analytics (projections)



# Components of Population Change, Tulsa MSA







# TULSA industry patterns

key findings

 The manufacturing and administrative services larger than expected for similar MSAs

but . . .

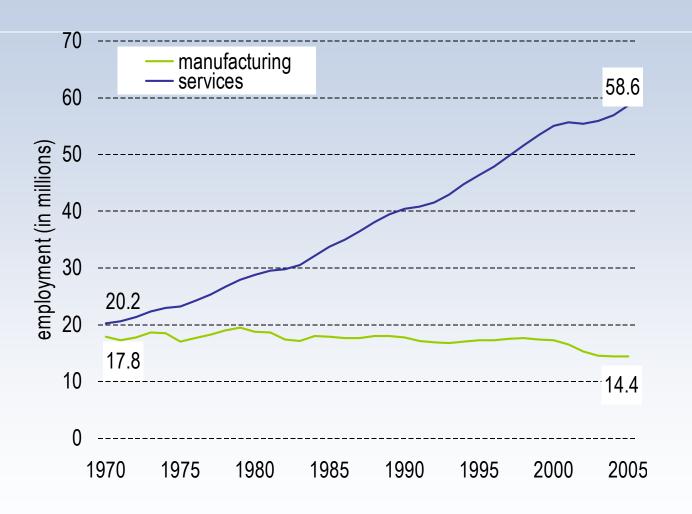
educational services and arts/entertainment sectors are smaller than might be expected.

 Within the city itself, job growth is concentrated on the outer fringes to the east and southeast. Meanwhile, the CBD has lost jobs in the past 10 years.





### **US** manufacturing vs. services







# Manufacturing employment, Tulsa MSA







#### Tulsa MSA industry patterns, 2006

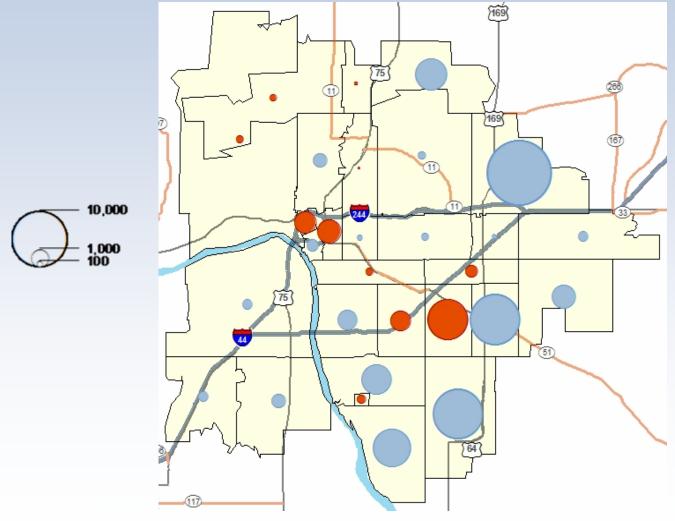
Industry Sector	Total Jobs in MSA	Tulsa County % of MSA	MSA Location Quotient
Retail trade	59,750	78%	0.98
Health care & social assistance	53,580	86%	0.96
Manufacturing	52,541	76%	1.12
Administrative & waste services	46,379	88%	1.36
Local government	40,529	67%	0.91
Construction	36,816	67%	1.00
Accommodation & food services	35,448	84%	0.93
Personal & miscellaneous services	32,707	71%	1.01
Professional & technical services	32,076	92%	0.86
Finance & insurance	25,124	84%	0.93
Real estate	23,783	78%	0.97
Transportation & warehousing	22,441	83%	1.23
Wholesale trade	21,391	86%	1.03
Oil, gas, & mining	18,892	49%	6.70
Information	12,178	92%	1.06
Farms	9,669	12%	1.06
Educational services	9,280	92%	0.79
Arts, entertainment, & recreation	7,871	75%	0.69
State government	7,540 📉	70%	0.46
Corporate & regional offices	6,348	98%	1.06
Federal government (civilian)	4,700 ■	74%	0.53
Federal government (military)	3,890 ■	64%	0.60
Utilities	3,030 ■	85%	1.67
Forestry & fishing	492	49%	0.15
Total	566,455	78%	1.00

NOTE: Current-year data for Oil/gas/mining and forestry/fishing were suppressed. Numbers shown here are estimates based on previous-year ratios

SOURCE: U.S. Bureau of Economic Analysis (accessed via Moody's Analytics)



# Net job change by zip code within the City of Tulsa, 1995-2005





# TULSA labor market

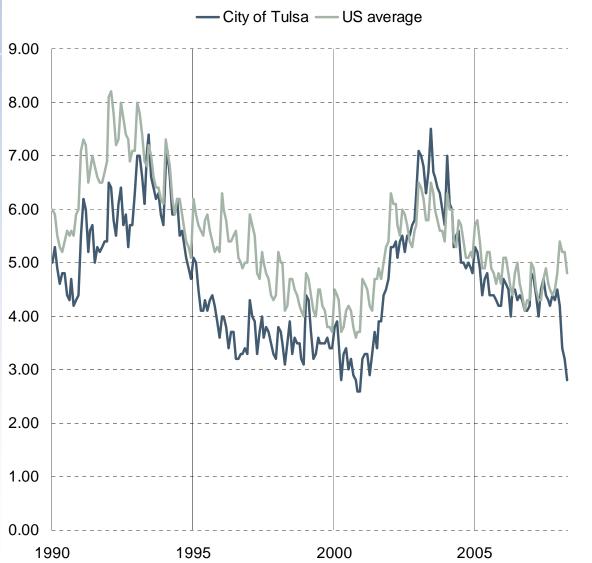
#### key findings

- Tulsa's unemployment rate runs lower than national average, with sharp divergence in the mid-1990s and again recently.
- Recent low unemployment driven less by job growth than slow growth in civilian labor force.
- Tulsa has a strong pool of management talent, but a very wide pay differential makes this talent base vulnerable to poaching.





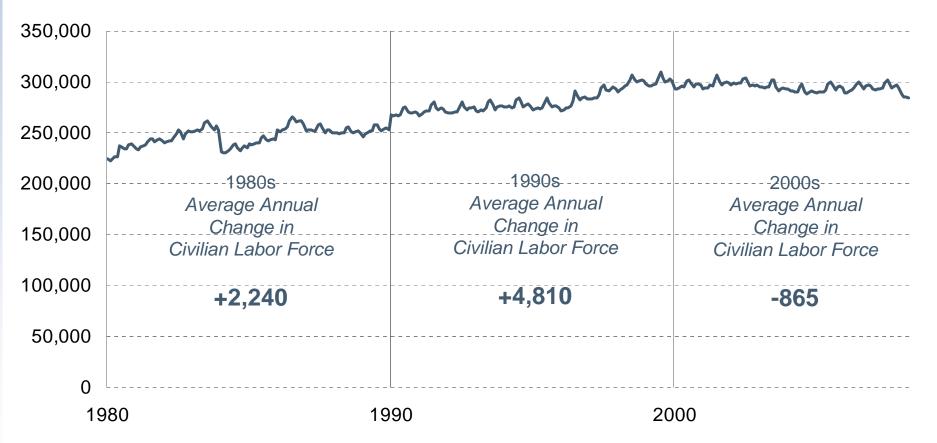
#### City vs. national unemployment rate







### Civilian labor force growth, Tulsa County



SOURCE: U.S. Bureau of Labor Statistics (accessed via Moody's Analytics)





# Employment in primary occupational groups, Tulsa MSA, 2007

	Occupational group	Number of Jobs	LQ (US=1.00)
	Office & administrative support	75,210	1.03
	Sales	42,800	0.95
	Production	40,200	1.26
	Food preparation & serving	34,480	0.97
	Transportation & material moving	27,890	0.92
<b>→</b>	Management	23,790	1.26
	Installation & repair	22,900	1.35
	Education, training, & library	22,570	0.86
	Construction & extraction	21,970	1.04
<b>→</b>	Healthcare (technical)	20,920	0.97
	Business & finance	17,010	0.90
	Healthcare (support)	13,630	1.20
	Property maintenance	10,870	0.79
	Computer & mathematical	9,850	0.98
	Protective service	8,710	0.90
	Architecture & engineering	8,610	1.10
	Personal care & service	7,650	0.73
	Arts, entertainment, & media	3,910	0.71
	Community & social services	3,710	0.66
	Legal	2,480	0.79
	Life, physical, & social science	2,410	0.61
	Farming, fishing, & forestry	350	0.25



# Occupations with 500+ jobs and LQs of 1.50+, Tulsa MSA, 2007

Occupational group	Number of Jobs	LQ (US=1.00)
General & operations managers	7,990	1.54
Team assemblers	5,970	1.63
Cooks, fast food	3,600	1.99
Welders, cutters, solderers, & brazers	3,330	2.75
Computer support specialists	3,140	1.90
Aircraft mechanics & service technicians	3,030	8.12
Machinists	2,760	2.14
Chief executives	2,720	2.90
Bill & account collectors	2,450	1.90
Inspectors, testers, sorters, & weighers	2,230	1.50
Cooks, institution & cafeteria	1,780	1.52
First-line supervisors/managers of vehicle operators	1,460	2.08
Production, planning, & expediting clerks	1,420	1.59
Electrical & electronic equipment assemblers	1,230	1.81
Cutting, punching, & press machine operators	1,210	1.52
Structural metal fabricators & fitters	1,130	3.34
Cement masons & concrete finishers	1,060	1.58
Reservation & transportation ticket agents & travel clerks	900	1.71
Industrial production managers	850	1.77
Coating, painting, & spraying machine operators	840	2.61
Mixing & blending machine operators	760	1.74
Insurance underwriters	750	2.41
Helpers of electricians	710	2.23
Mechanical drafters	690	2.96
Computer & office machine repairers	660	1.58
Excavating & loading machine operators	630	2.95
Vocational education teachers, postsecondary	600	1.70
Family & general practitioners	600	1.69
Tire repairers & changers	580	1.84
Petroleum pump & refinery operators & gaugers	560 ■	4.12

SOURCE: U.S. Bureau of Labor Statistics (2007 annual occupational data released May 9, 2008)



# Pay level for occupations with 500+ jobs and LQs of 1.50 +, Tulsa MSA, 2007

	Chief executives				
	Office exceditives	\$96,380	na		
	Industrial production managers	\$74,750	93%		
	General & operations managers	\$63,930	72%		
,	Aircraft mechanics & service technicians	\$57,150	117%		
	First-line supervisors/managers of vehicle operators	\$56,430	113%		
	Petroleum pump & refinery operators & gaugers	\$53,800	101%		
	Mechanical drafters	\$45,000	101%		
,	Vocational education teachers, postsecondary	\$43,330	95%		
	Insurance underwriters	\$40,000	73%		
_	Production, planning, & expediting clerks	\$35,220	89%		
	Computer & office machine repairers	\$34,930	94%		
	Inspectors, testers, sorters, & weighers	\$34,440	114%		
_	Machinists	\$33,600	95%	-	
	Excavating & loading machine operators	\$33,230	98%	-	
_	Welders, cutters, solderers, & brazers	\$33,070	102%		
	Mixing & blending machine operators	\$31,220	103%		
_	Structural metal fabricators & fitters	\$30,100	97%		
_	Cement masons & concrete finishers		<mark>3,380</mark> 85%		
	Electrical & electronic equipment assemblers	\$28,270 MS	A avg. 107%		1
_	Bill & account collectors	\$28,240	94%		
	Reservation & transportation ticket agents & travel clerks	\$28,190	95%		
	Coating, painting, & spraying machine operators	\$27,390	99%		
_	Computer support specialists	\$27,360	65%		
_!	Cutting, punching, & press machine operators	\$25,830	95%		
_	Helpers of electricians	\$23,790	96%		
_	Team assemblers	\$23,600	96%		
	Tire repairers & changers	\$18,930	87%		
_	Cooks, institution & cafeteria	\$17,770	83%		
_	Cooks, fast food	\$14,950	93%		
_	Family & general practitioners	na	na		

SOURCE: U.S. Bureau of Labor Statistics (2007 annual occupational data released May 9, 2008)



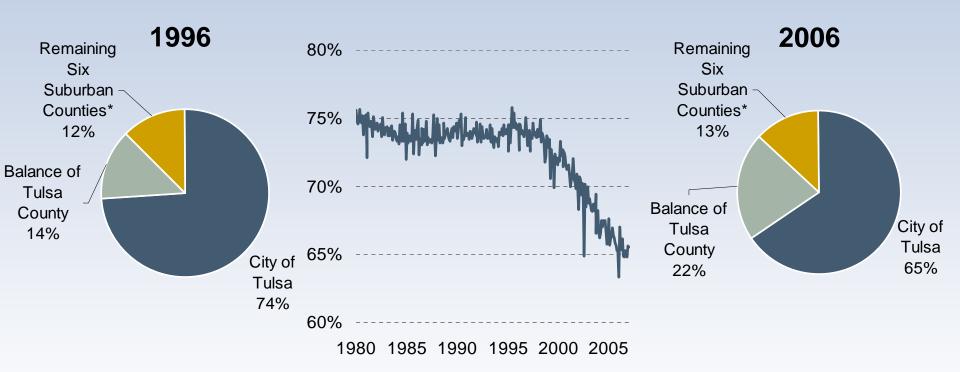
# tulsa RETAIL PATTERNS

#### key findings

- According to Oklahoma Tax Commission data, the city's share of taxable sales in the MSA has fallen from 74% to 64% in the past ten years.
- Surrounding jurisdictions within Tulsa
   County have gained at the City of Tulsa's expense.



# Sales subject to tax: City of Tulsa's declining share of the Tulsa MSA



\*NOTE: In addition to Tulsa County, the MSA includes Creek, Okmulgee, Osage, Pawnee, Rogers, and Wagoner Counties.

SOURCE: Oklahoma Tax Commission (accessed via the Center for Economic and Management Research at the University of Oklahoma)







## TULSA | plans (and more plans)

- Multiple players, multiple themes
- "Left hand, say hello to right hand..."

a common vision is essential





## TULSA players























**TEDC** Creative Capital







#### workforce

## THEMES workforce

#### demographics

slow growth of target demographic means need for talent attraction

#### education

 performance of local schools and potential for TCC, TU, OSU, OU

means need for aligning economic development, workforce development, & higher education

#### skills

 high local concentrations of skilled labor and lower pay levels

means need for re-thinking target industries





# THEMES regional growth

### Concerns about competitiveness...

 Tulsa's growth has gradually been slipping behind the US

 Growth patterns within the city and the county have been uneven





## THEMES transitional economy

Transition from natural resource economy to . . .?

- Advanced manufacturing
- Technology-driven services

Entrepreneurship and free agency





# thank you

### TIP Strategies, Inc.

7000 North MoPac Expressway
Suite 305
Austin, TX 78731
USA

+1.512.343.9113 tel

+1.512.343.9190 fax

www.TIPstrategies.com



### **Transportation Element**

How Does Tulsa Compare?







## TOPICS

Highway and Roadway Network Capacity

**Transit Capacity** 

Bicycling and Walking Opportunities







## TULSA, OKLAHOMA

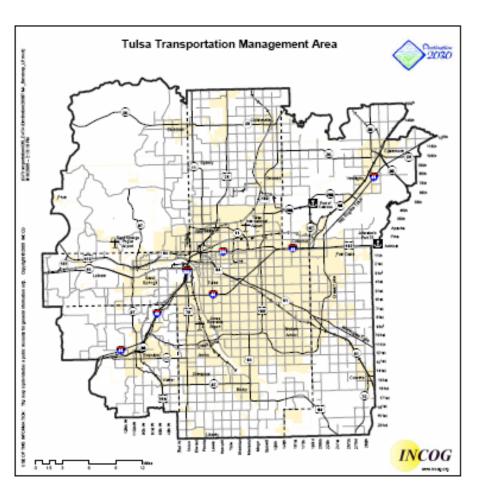
Metro Population: 803,235

City Population: 393,049

Transit Ridership: 2,661,245

Total Lane Miles: 1,526





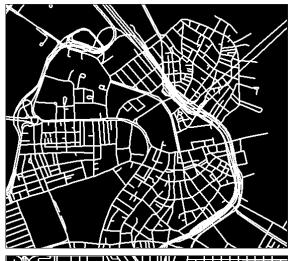


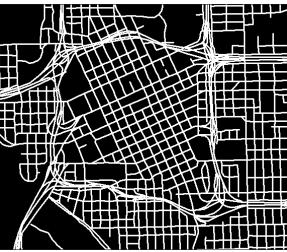




## NETWORK DESIGN

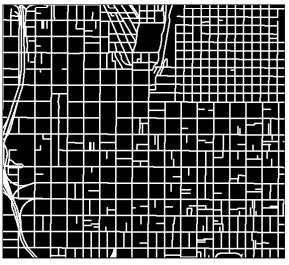
**Boston** 

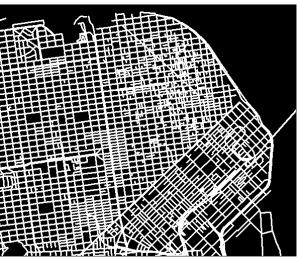




Tulsa

Salt Lake City





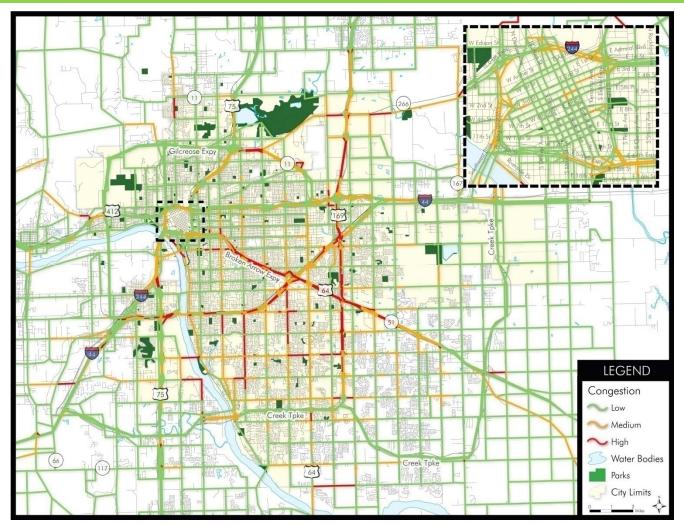
San Francisco







### V/C RATIO OR CONGESTION (24HR)



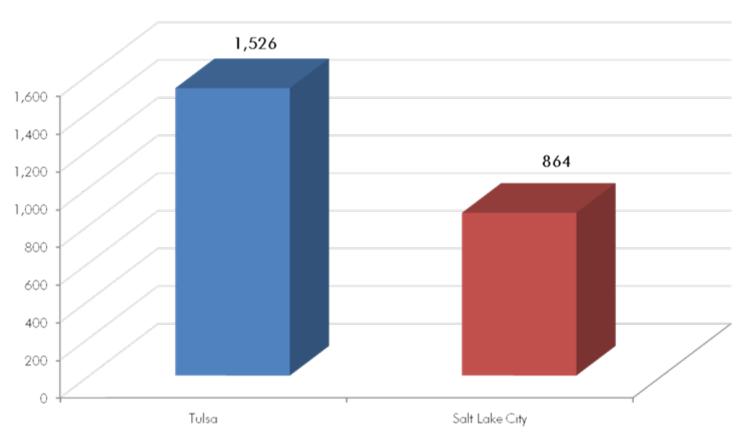






## ROADWAY INDICATORS

#### **Lane Miles**



Source: Tulsa: INCOG (2006)

Albuquerque: Mid-Region COG (2000) Charlotte: Kimley-Horn & Associates (2000)

Salt Lake City: Wasatch Front Regional Council (2005)

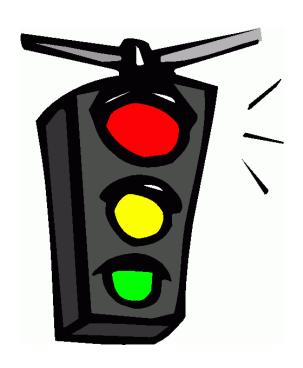




Kimley-Horn and Associates, Inc.



#### SYSTEM OPERATIONS & MAINTENANCE



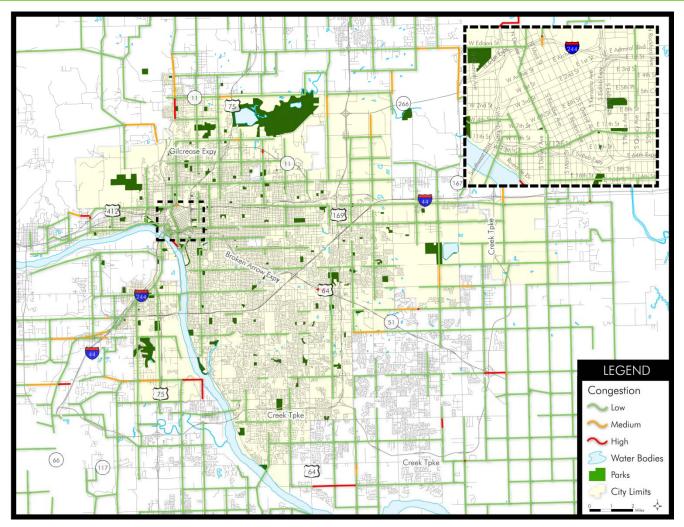
- City of Tulsa operates 465 signals
  - Limited system coordination
- •Land Development Impact Analyzes determine implementation of new traffic signals
  - Funding: Privately Funded Public Improvements (PFPI) at 100%
  - Signals can cost between \$125 and \$150 thousand







# V/C RATIO – SECONDARY ARTERIALS WITH ADT LESS THAN 20,000









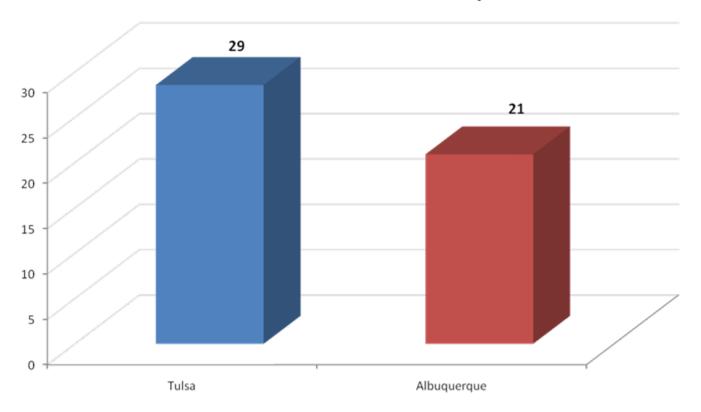
### STREET-SCALE URBAN REDESIGN



Four-Lane Undivided Roadway Conversion to a Three-Lane Cross Section are viable for roadways with a maximum ADT of 16,000. They have been accomplished up to 24,000 ADT.

## ROADWAY INDICATORS

#### **Vehicle Miles Traveled Per Capita**



Source:

Tulsa: INCOG (2006)

Albuquerque: Mid-Region COG (2000)





Kimley-Horn and Associates, Inc.



## ALBUQUERQUE, NEW MEXICO

Metro Population: 729,649

City Population: 448,607

Transit Ridership: 8,751,698

Total Lane Miles: 2,334



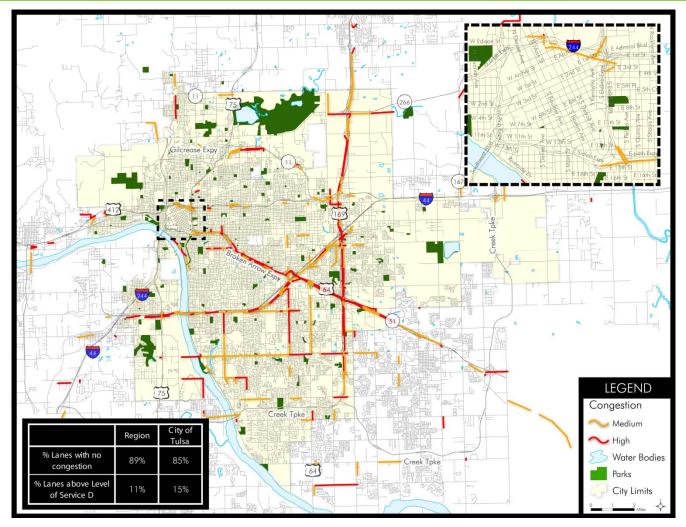








# V/C RATIO LANES WITH LEVEL OF SERVICE D AND ABOVE

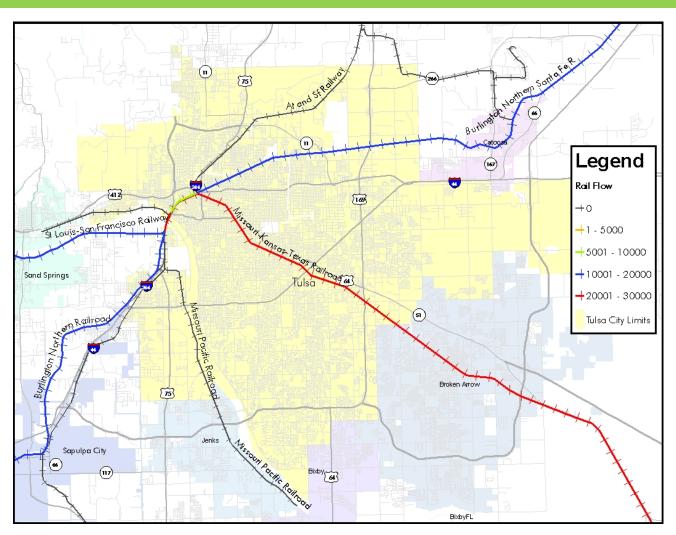








## FREIGHT RAIL INVENTORY



Source: US DOT Bureau of Transportation Statistics (2000)



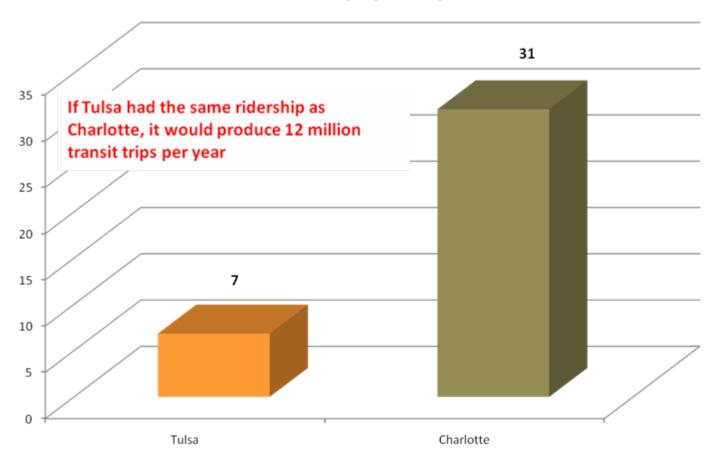


Kimley-Horn and Associates, Inc.



## TRANSIT INDICATORS – RIDERSHIP

#### **Annual Trips per Capita**



Source: National Transit Database (2006)







### CONCLUSION

#### Highway and Roadway Network Capacity

 Many opportunities for redesign and construction to achieve higher performance

#### **Transit Capacity**

 Potential for increased commuter transit along congested freeway corridors and new transit markets

#### Multi-modal Demand

 Opportunity for street scale urban redesign of arterials that will create new economic opportunities







## **Upcoming Events**

- July 2008 Community Values
- September 2008 City Wide Workshops
- January 2009 Community Workshops
- April 2009 Scenarios
- June 2009 Vision
- September 2009 Draft Plan & Implementation
- Adoption Hearings October December 2009



## Thank You

