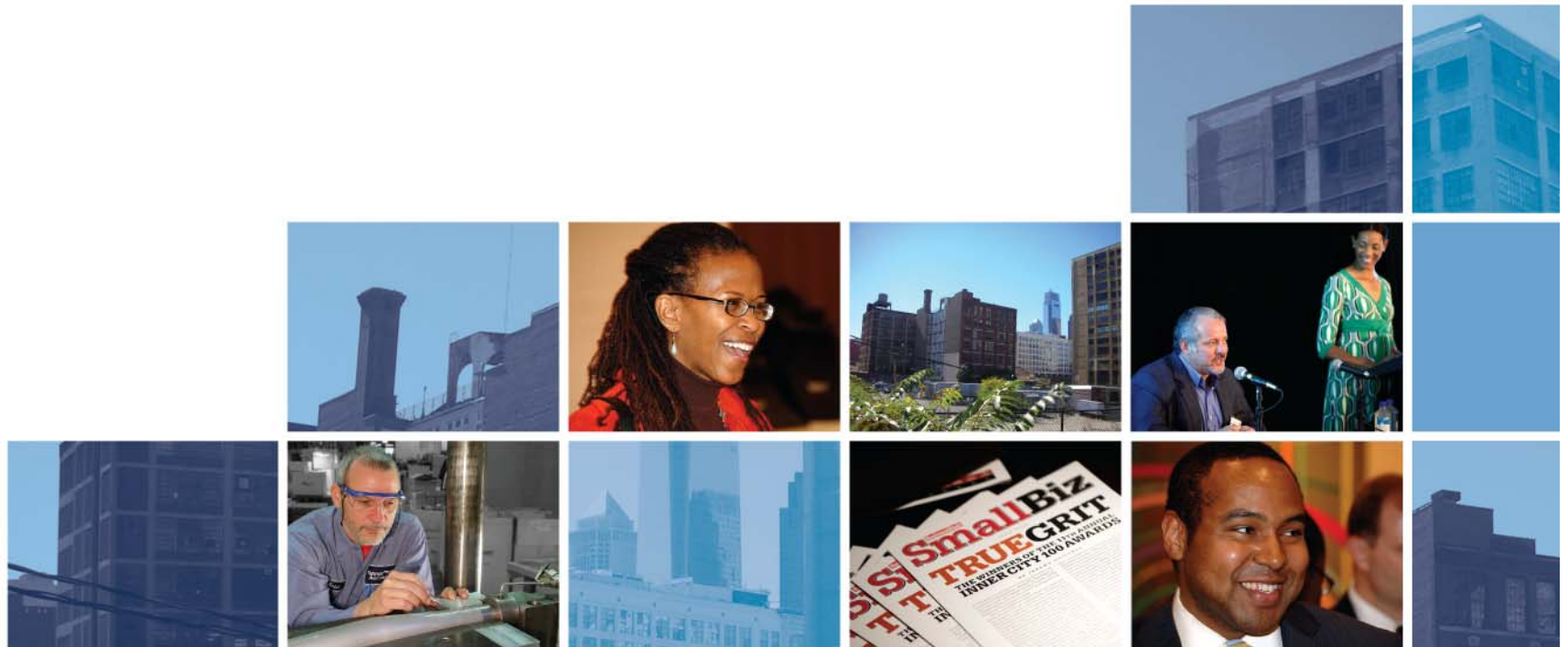


07.21.10

Building the Future:

Leveraging the Construction, Housing and Real Estate Activity For Strong and Equitable Economic Growth





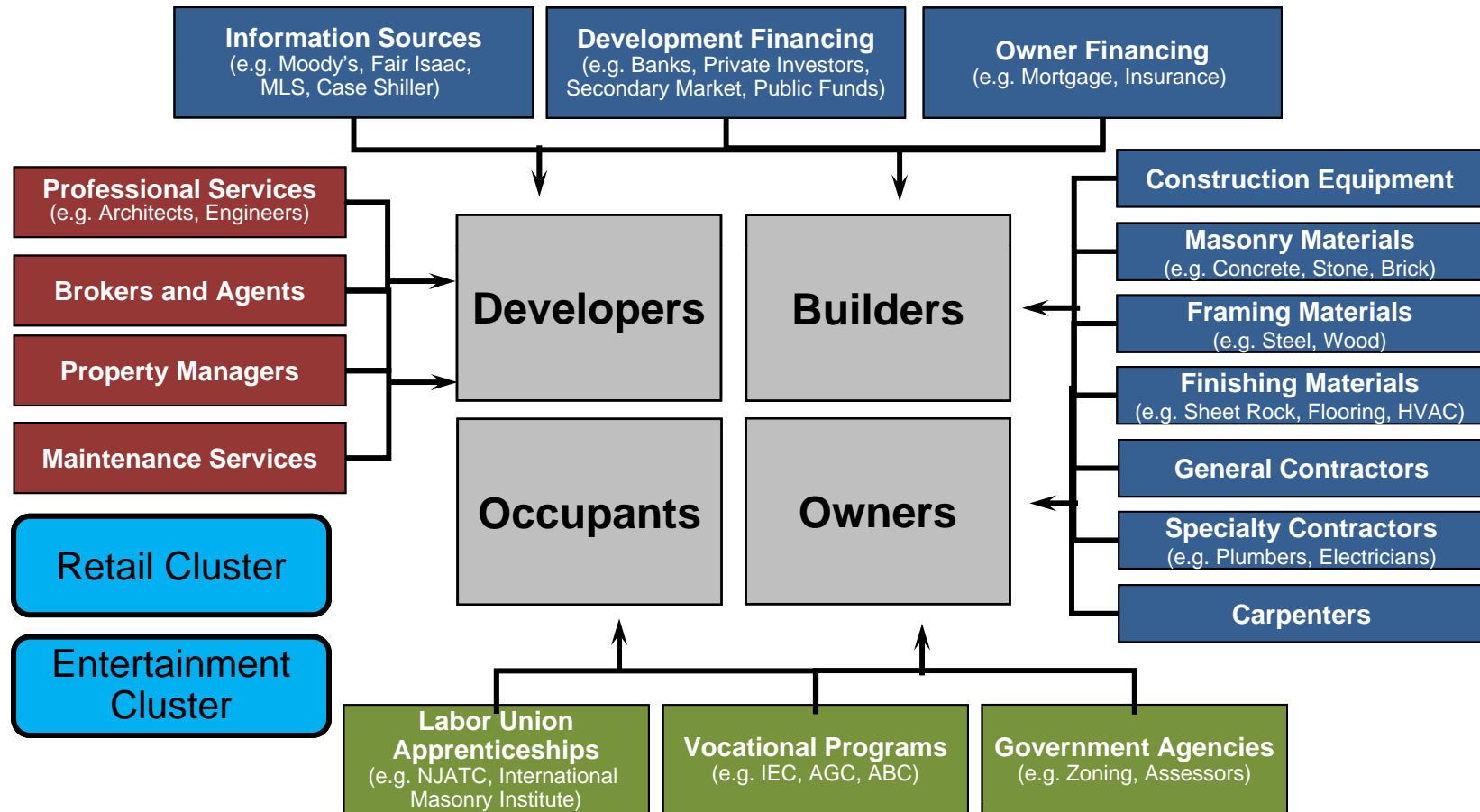
Agenda

- Welcome and Introductions
- **ICIC Presentation**
- Roundtable Discussion: Participant Insights and Feedback on Findings
- Break
- Roundtable Discussion: Recommendations for Year 2 Research
- Wrap Up

Overview of the CHRE Cluster

1.1

The Construction, Housing, and Real Estate (CHRE) cluster contains numerous industries and institutions.



CHRE covers numerous industries and end uses.

➔ In this study, CHRE includes two clusters:

Heavy Construction includes bridge, highway and pipeline construction, as well as traded portions of residential and commercial activity.

and

Local Real Estate and Construction serves local demand for construction maintenance, sale and leasing of residential and commercial buildings.



CHRE industries can be broken down into different end uses:

- **Residential** (e.g., New Housing Operative Builders; Single-Family Housing Construction)
- **Commercial/Industrial** (e.g., Industrial Building Construction; Building Finishing Contractors)
- **Infrastructure** (e.g., Water and Sewer Line Construction; Highway, Street, and Bridge Construction)

1.3

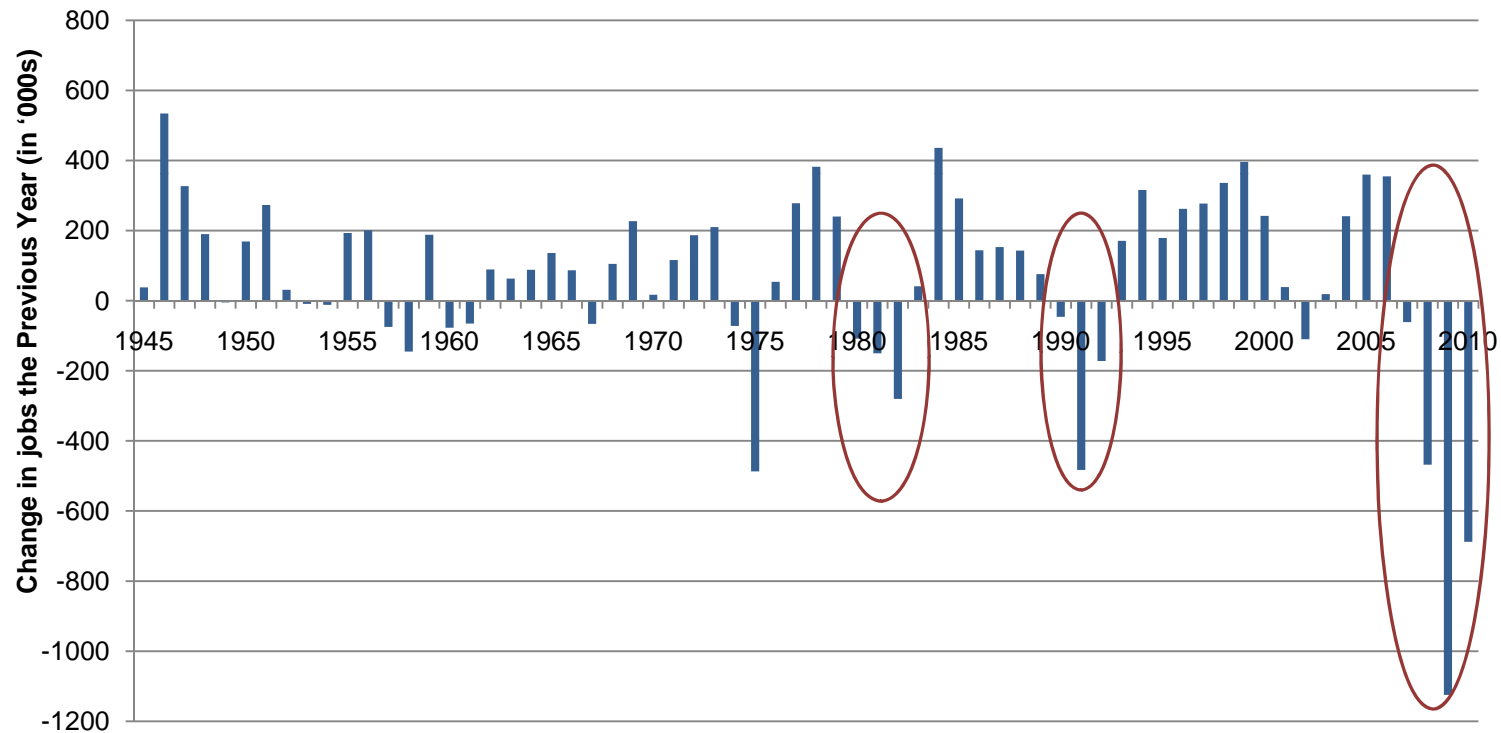
CHRE is among the largest clusters in the U.S. and remains so despite its recent decline.

| | U.S. 2007 | U.S. 2009 |
|------------------------------|--------------|--------------|
| Number of Employees | 12.3 million | 10.0 million |
| Share of Employment | 11% | 9% |
| Cluster Employment Rank | 2 | 4 |
| Employment Growth since 1998 | 24% | 0.6% |
| Employment Growth Rank | #5 (of 67) | #21 (of 67) |
| Absolute EMP Growth Rank | #2 (of 67) | #14 (of 67) |
| Average CHRE Wage (2007\$) | \$47,100 | \$46,500 |
| Wage as a % of Avg. US Wage | 105% | 105% |

1.4

Prior to the events of the past few years, the CHRE cluster had been relatively stable since 1945.

One-Year Change in Construction Employment, 1945-2010



Objectives of the Study



ICIC is undertaking a two-year study of the impact of CHRE activity on community economic development and stability, with a focus on distressed urban communities and their regions.

Objectives:

- Document the contributions of the CHRE cluster to inner city, central city, and regional economies
- Understand how CHRE activity can be translated into economic opportunities for distressed economies and their regions, including:
 1. Ensure that inner city clusters grow along with the region
 2. Maximize opportunities for inner city and minority entrepreneurs
 3. Learn to identify warning signals in urban areas in order to mitigate the downside on local economies

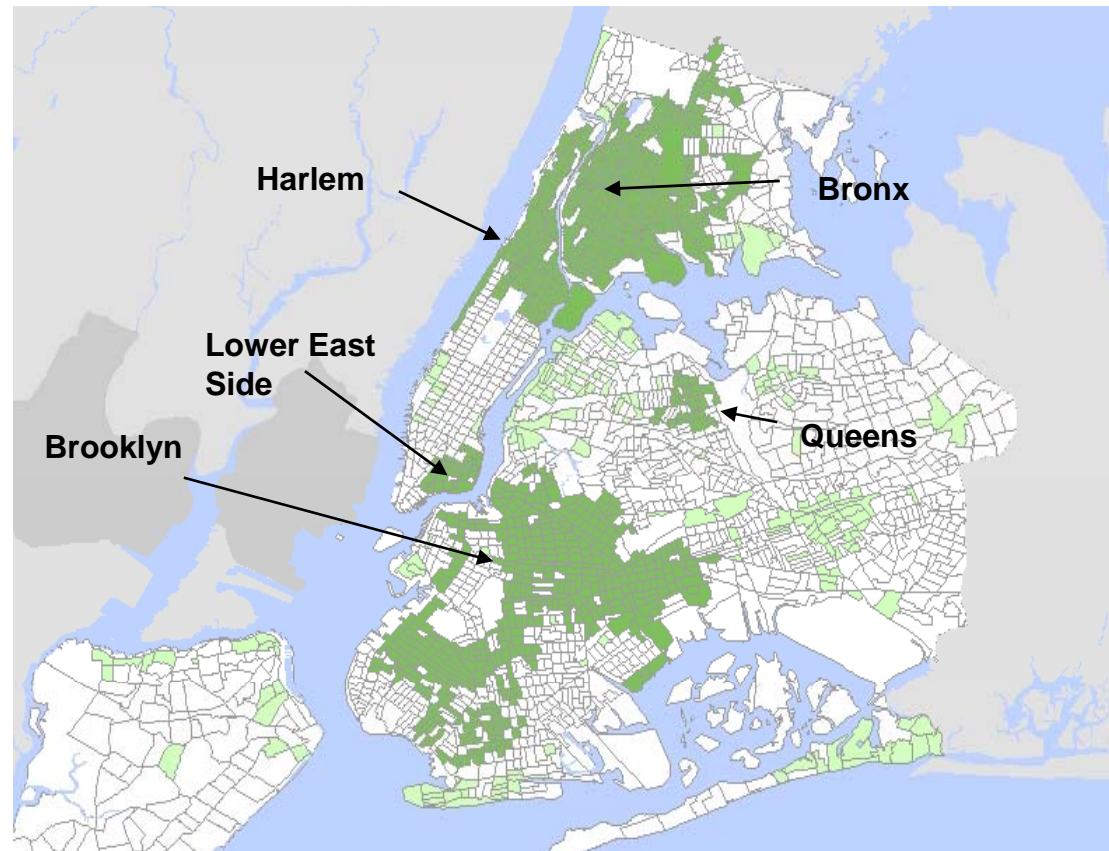
Inner cities are groups of economically distressed census tracts.

Key Metrics:

- Poverty
- Unemployment
- Income

Inner City vs. U.S., 2000

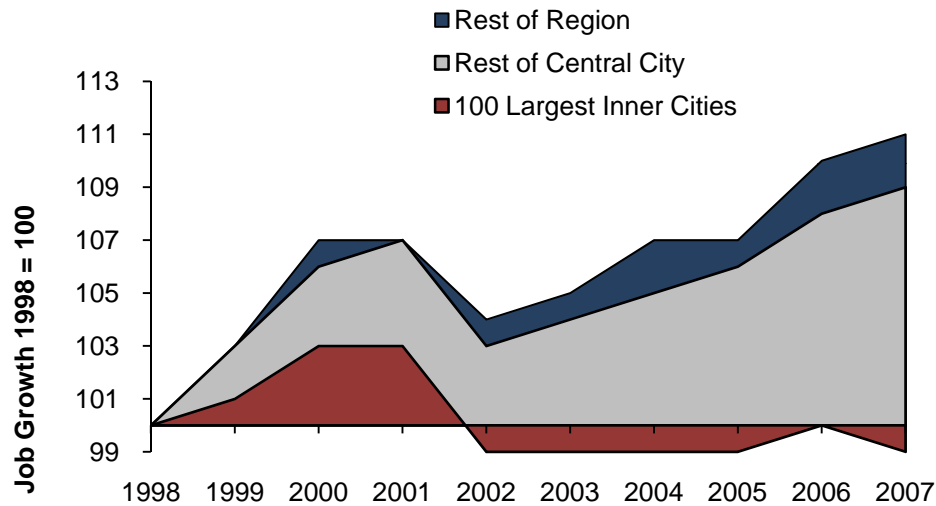
| | Inner Cities | US |
|---------------|--------------|----------|
| Poverty . | 31% | 12% |
| Unempl. | 13% | 6% |
| Median Income | \$24,838 | \$41,994 |



New York's Inner Cities

1.7

In ten years, the largest 100 inner cities created no net jobs, while the rest of the regions added more than 6.7 million.



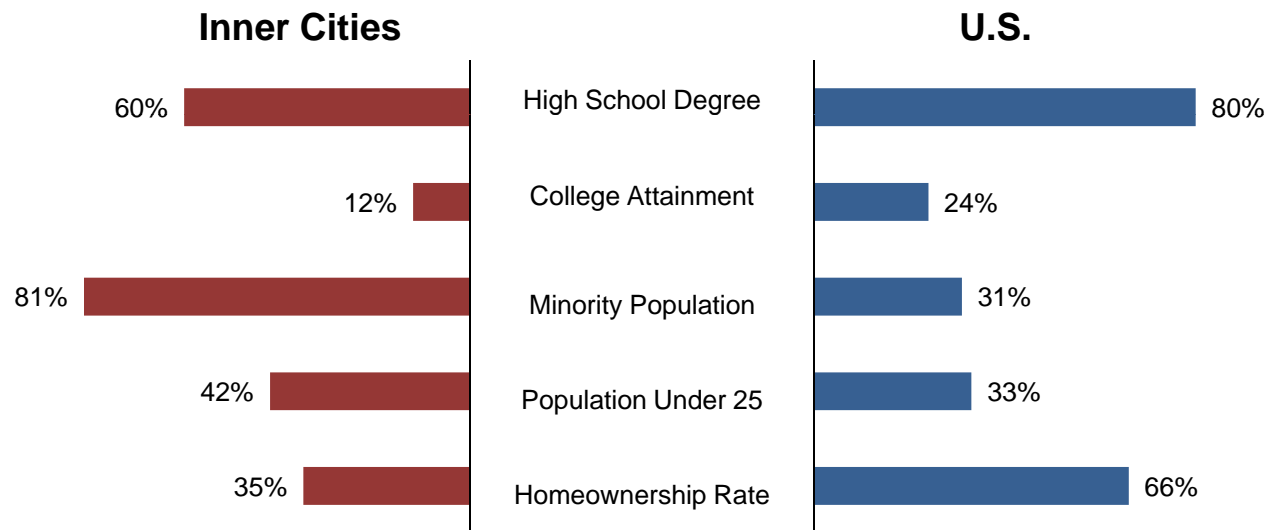
1998-2007

| | Job Growth CAGR | Net Job Change |
|----------------------|------------------------|-----------------------|
| Rest of Region | 1.2% | + 6.7 m |
| Rest of Central City | 0.9% | + 1.4 m |
| Inner Cities | -0.1% | -50,000 |

Inner cities are a robust, analytically meaningful group.

➔ The demographic characteristics of inner cities are distinct.

Demographic Characteristics, Inner Cities vs. U.S., 2000



Inner cities have been shown to be a robust, coherent analytic category across a number of economic measures: performance of retailers, foreclosure patterns, capital access, and economic drivers.

Local jobs are important for residents of high poverty neighborhoods.



An inner city business creates three times more new jobs for inner city residents than the same size business elsewhere in the region.

In a typical U.S. region, inner city residents hold:

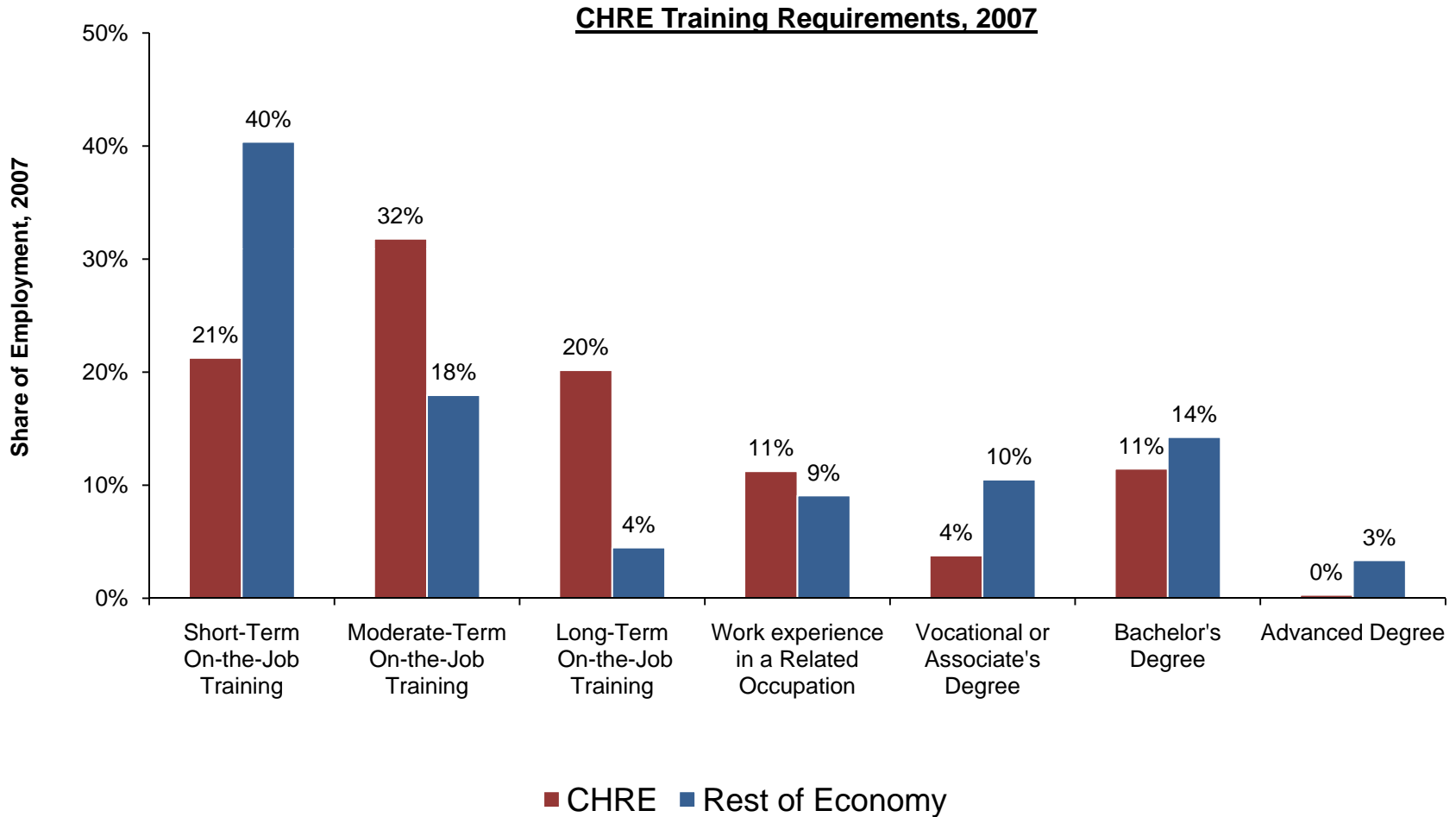
- 7% of the jobs in the rest of the region
- 11% of the jobs in rest of the central city
- 22% of the jobs in the inner city

Creating 100 new jobs for inner city residents would require:

- 1,450 jobs in the rest of the region
- 850 jobs in the rest of the central city
- 450 jobs in the inner city

1.10

Jobs in the CHRE cluster are a good match with inner city residents' skills.



Overall Framework of Study

Phase ONE

Provide a descriptive, empirical, and analytical treatment of the CHRE cluster in inner city, central city, and metropolitan areas for the 1998 to 2007 period.



- **Analytical report** with descriptive and empirical treatment of CHRE cluster
- **V1 data set** with demographic, economic, and policy variables for the 100 largest inner cities, central cities and regions
- **Draft case studies** of four inner city CHRE and housing clusters

Phase TWO

Identify public policy and private sector strategies for maximizing the impact of residential housing activity on urban economies



- **Convene national industry leaders** to solicit feedback, devise concrete action steps, and inform additional research
- Utilize **final case studies** to identify factors that promote strong cluster activity
- Use **statistical analysis** to test the importance of factors on inner cities, central cities, and regions across the US

CHRE in the Inner City

2.1

CHRE is among the largest clusters in both inner cities and regions.

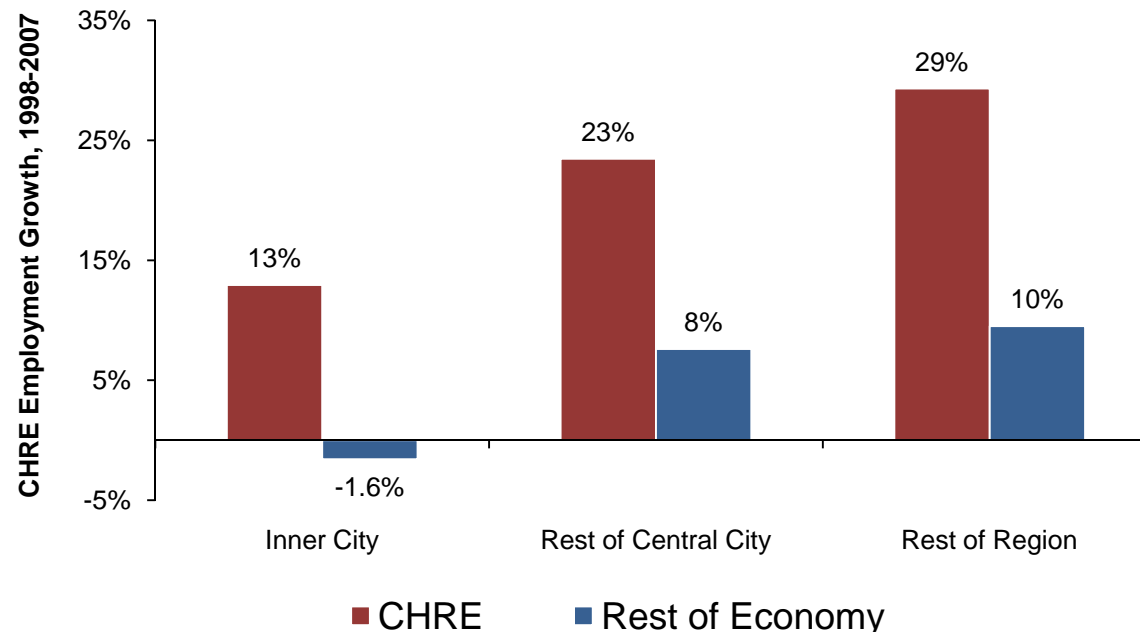
| | Inner Cities | Rest of Region |
|-----------------------------------|--------------|----------------|
| Number of Employees, 2007 | 775,000 | 7,050,000 |
| Share of Employment, 1998 | 7.7% | 9.2% |
| Share of Employment 2007 | 8.8% | 10.6% |
| Cluster Employment Rank, 2007 | #3 (of 67) | #3 (of 67) |
| Employment Growth, 1998-2007 | 13% | 29% |
| Absolute Employment Growth Rank | #2 (of 67) | #1 (of 67) |
| Average CHRE Wage, 2007* | \$46,872 | \$45,919 |
| Wage as a % of Avg. US Wage, 2007 | 112% | 109% |
| Firm Size (EMP/EST), 2007 | 12.9 | 9.6 |
| Firm Size Rank, 2007 | #57 (of 67) | #62 (of 67) |

2.2

However, the CHRE cluster in inner cities grew at less than half the regional rate during the 1998-2007 period.

➔ Inner cities would have added 100,000 jobs had they grown at the regional rate during this period.

Growth in CHRE versus Rest of Economy, 1998-2007



2.3

How can we explain the weakness of the inner city CHRE cluster relative to rest of the country?

➡ There are two general hypotheses that explain inner city CHRE performance.

Geographic Shifts



There was a shift in construction activity towards the suburbs; “footloose” activities followed this trend.

End Use Mix



Dominance of residential activity during the boom; a significant majority of this activity occurred outside the inner city.



There is evidence that both of these have influenced inner city CHRE cluster performance.

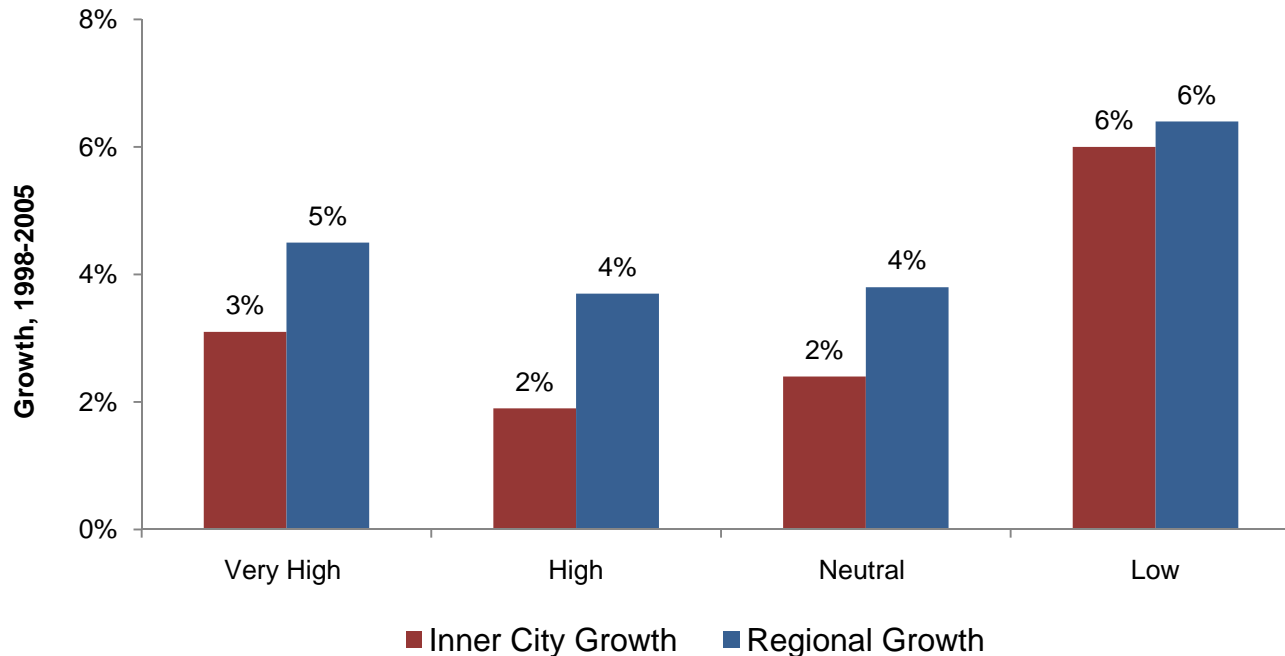
2.4

Inner cities have performed worst in the most “footloose” CHRE industries.



Employment in very “footloose” portions of the cluster, like lumberyards, shifted from inner cities to regions; low footloose activities, like cement manufacturing, did not.

Growth in Footloose Industries, Inner City vs. Region, 1998-2005



2.5

While the data are limited, there are indications that building and project locations have shifted away from urban cores.

Residential: At the national level, permit data show little change in geography of residential building between 1998-2006; however, there was a 20% decline in permits in second ring suburbs (9-20 miles from CBD) and 15% increase in permits 30+ miles from CBD.

Commercial and industrial: During this period, jobs shifted away from the urban cores to suburban locations. Facility construction and maintenance likely followed.

Infrastructure: There are no comprehensive data on projects nationally, but during this period, the quality of rural infrastructure improved relative to urban areas.

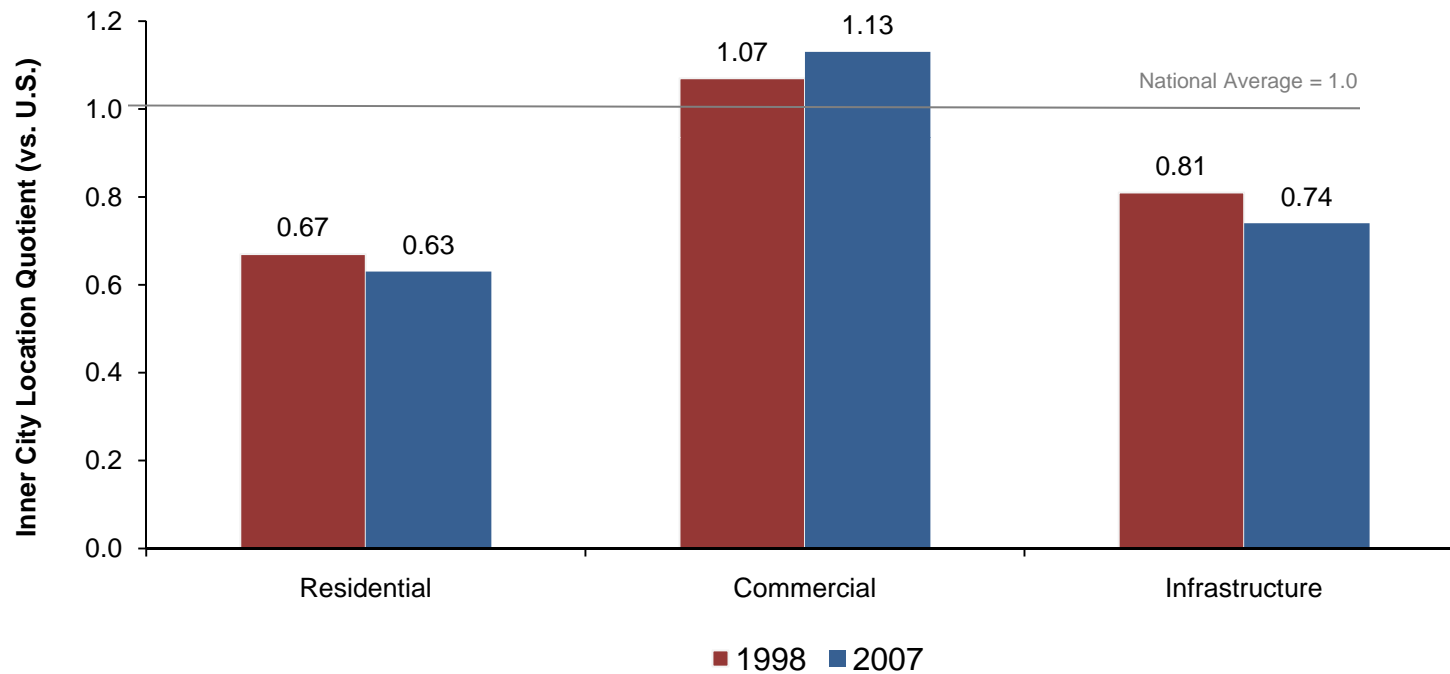


These patterns suggest that CHRE employment in inner cities and central cities will increase if future activity shifts back towards the urban core, as predicted.

2.6

Inner cities were weakest in residential at the beginning of the period and did not gain ground during the boom.

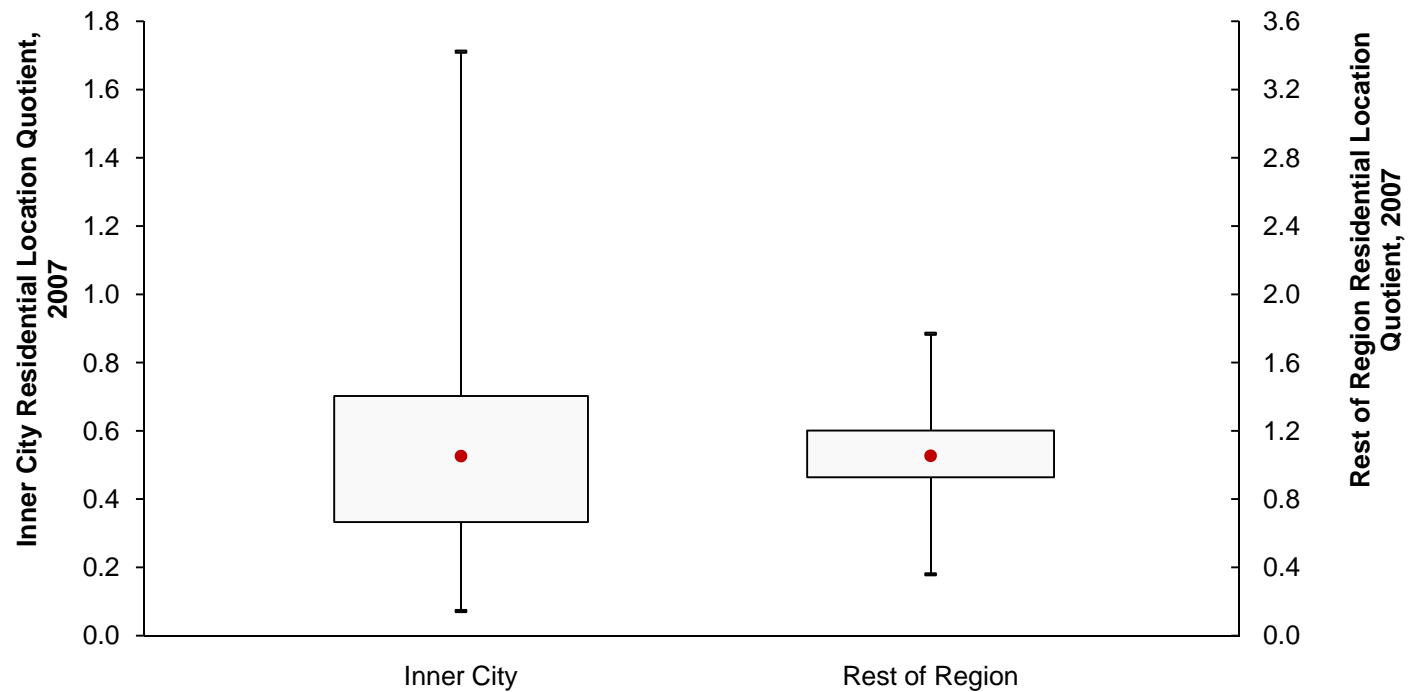
Average Inner City Location Quotient by End Use, 1998-2007



2.7

But there is great variation in residential performance across inner cities.

Distribution of Residential Location Quotients, Inner City vs. Region, 2007



Note: Red circle represents median; box represents 25th to 75th percentiles of each distribution.



We can analyze the range of outcomes to understand success.

2.8

There are a number of different factors that drive residential performance.



The most significant variables are shown below, along with whether they are positively or negatively correlated with residential performance.

| Strength, 2007 ($R^2 = 0.38$) | Growth, 1998-2007 ($R^2 = 0.53$) |
|---|---|
| <p><u>Demographics</u></p> <ul style="list-style-type: none"> ▪ Central city median income (+) ▪ Inner city minority percentage (+) <p><u>Assets and Land Availability</u></p> <ul style="list-style-type: none"> ▪ Presence of cultural institution(s) in inner city (-) ▪ Presence of a large airport in inner city (-) <p><u>Political Conditions</u></p> <ul style="list-style-type: none"> ▪ Parties involved in local zoning approval (-) ▪ Level of state court involvement in upholding or restraining regulations (-) | <p><u>Demographics</u></p> <ul style="list-style-type: none"> ▪ Inner city percentage of African-American residents (+) <p><u>Business Environment</u></p> <ul style="list-style-type: none"> ▪ Business friendliness (+) <p><u>Housing Stock Characteristics</u></p> <ul style="list-style-type: none"> ▪ Change inner city home prices, 1998-2006 (+) <p><u>Political Conditions</u></p> <ul style="list-style-type: none"> ▪ Transition to new model of city governance (+) ▪ Parties involved in local zoning approval (-) |

The drivers of residential growth in the region are different from those associated with inner city residential growth.

| Residential Growth in the Rest of Region, 1998-2007 ($R^2 = 0.82$) | |
|--|---|
| <p><u>Demographics</u></p> <ul style="list-style-type: none"> ▪ Rest of region percentage of African-American residents (-)* ▪ IC Pop Growth – Rest Region Pop Growth (-) ▪ Percentage of foreign born residents (+) <p><u>Assets and Land Availability</u></p> <ul style="list-style-type: none"> ▪ Share of the region's intermodal facilities located in the inner city (+) <p><u>Firm Characteristics</u></p> <ul style="list-style-type: none"> ▪ Average firm size in rest of region (-) ▪ Employment at non-employer firms (-) <p><u>Housing Stock Characteristics</u></p> <ul style="list-style-type: none"> ▪ Change inner city home prices, 1998-2006 (+) ▪ Central city units built before 1939 (+) | <p><u>Business Environment</u></p> <ul style="list-style-type: none"> ▪ Unionization rate (-) <p><u>Political Conditions</u></p> <ul style="list-style-type: none"> ▪ Transition to new model of city governance (+) ▪ Parties involved in local zoning approval (+) ▪ Whether construction is a target cluster in city (-) ▪ Number of districts/wards in city council (-) ▪ Share of district-based seats in city council (+) ▪ Level of political pressure from local actors in the city development process (-) ▪ Level of state court involvement in upholding or restraining regulations (-) ▪ Involvement of state elected officials (-) |

Key: Variable is also significant in inner city model; ~~Variable is significant in inner city but not regional model;~~ Variable is new to the regional model or sign has changed.

Inner City and Regional Drivers of CHRE Growth

1. Political involvement in the cluster impeded 1998-2007 CHRE growth at both inner city and regional geographies.



State court involvement, number of parties in the process, and political pressure in development process all impeded job creation in the cluster.

However, the trade-off might be worth it, as longer run growth might be aided by political involvement.

2. There is evidence of competition between inner city and regional CHRE clusters.



When conditions deteriorate in the city (e.g., older housing stock, increased political pressure), rest of region grows more quickly.

When the city targets CHRE for growth, the rest of region grows more slowly.

3. The performance and probably the potential of the CHRE cluster are shaped by other cluster strengths: for example, cluster growth is negatively affected by the presence of cultural institutions or an airport.

Additional variables are being researched for future models.



The current version of ICIC's database includes 350 variables and over 300,000 individual data points. Additional metrics to be examined:

- 2008 employment data
- Education and training opportunities that are available in city/region
- Concentration of MBEs in inner cities; city M/WBE policies
- Large public projects by city
- Better measure of vacant/under-utilized land
- Other variables identified in case studies

Cleveland Case Study

Cleveland: General Overview

Between 1998 and 2007, the Cleveland region lost 50,000 jobs (5% of its job base); only three regions performed worse (Detroit, Columbus GA, New Orleans). During this same time period, the region lost 50,000 residents; only Detroit and Pittsburgh experienced larger population declines.

Job loss was concentrated in Cleveland's urban core: both the inner and central cities lost more than 10% of their jobs, compared to only a 3% decline in the rest of the region. Without employment growth in Health Services (mostly the Cleveland Clinic), the inner city would have lost over 20% of its job base.

These job losses were largely due to the significant decline in manufacturing. From 1998 to 2007, inner city Cleveland lost 40% of its manufacturing jobs, while the region's manufacturing base declined by 27%.

Cleveland CHRE Characteristics

CHRE is the third largest cluster in Cleveland's inner city. Large employers in Cleveland include Sherwin-Williams, Forest City Enterprises, and URS Corporation.

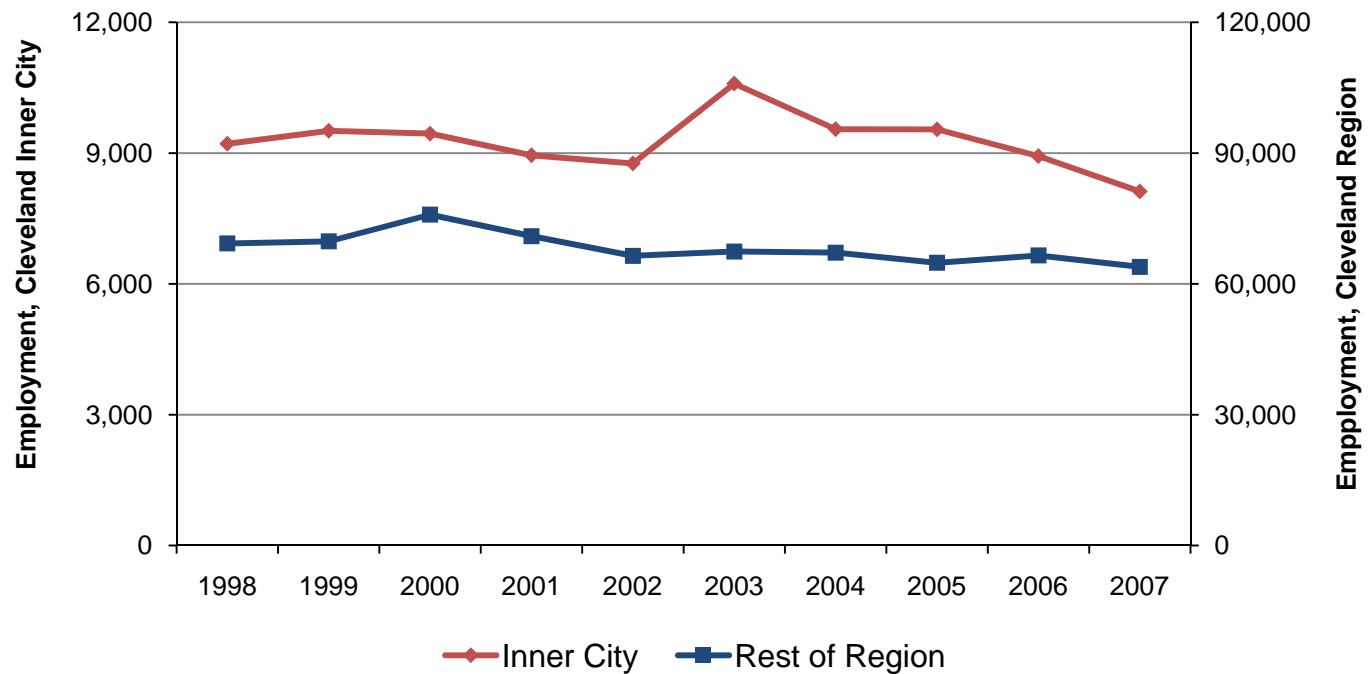
Many of the largest construction projects in Cleveland were driven by public and institutional spending (e.g., Euclid Corridor Transportation Project, Case Western, Cleveland Clinic, etc.).

Because of population and income loss, residential activity is very weak in Cleveland. In 2007, Cleveland's residential permits per 1,000 people were 0.5 compared to 5.0 nationally.

3.3

Despite general regional decline, the inner city CHRE cluster had as many jobs in 2006 as in 1998.

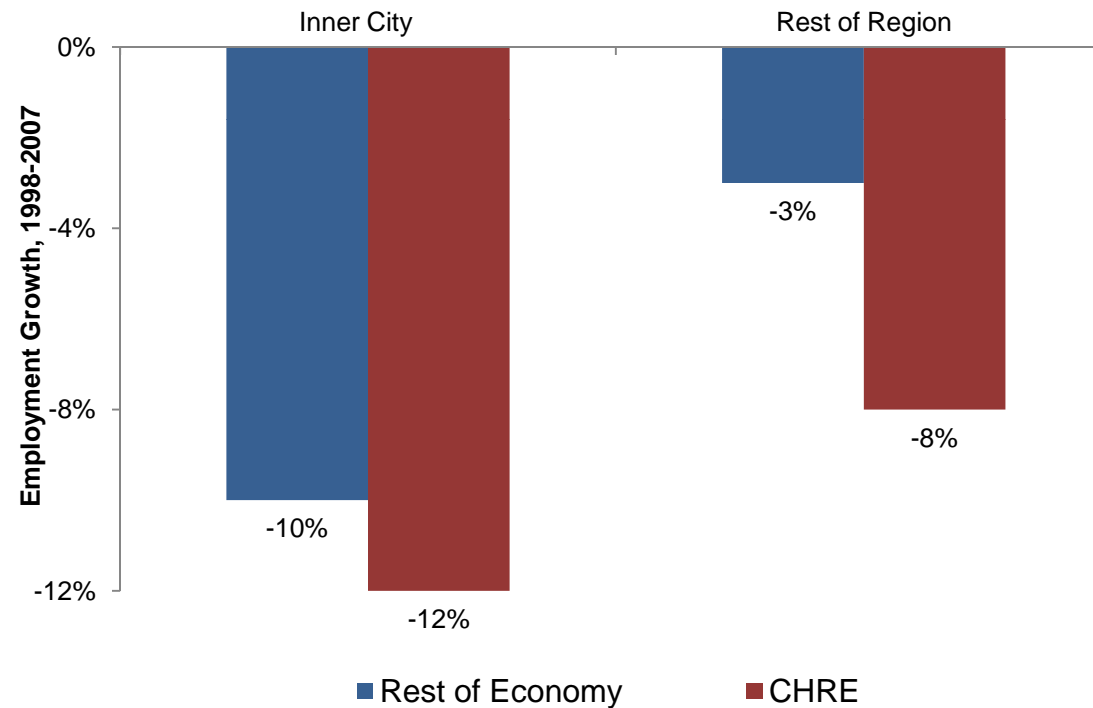
CHRE Employment , Cleveland Inner City vs. Rest of Region, 1998-2007



3.4

However, the inner city CHRE cluster declined much less than expected based on weakness in residential and overall economy.

Employment Trends, Cleveland Inner City vs. Rest of Region, 1998-2007

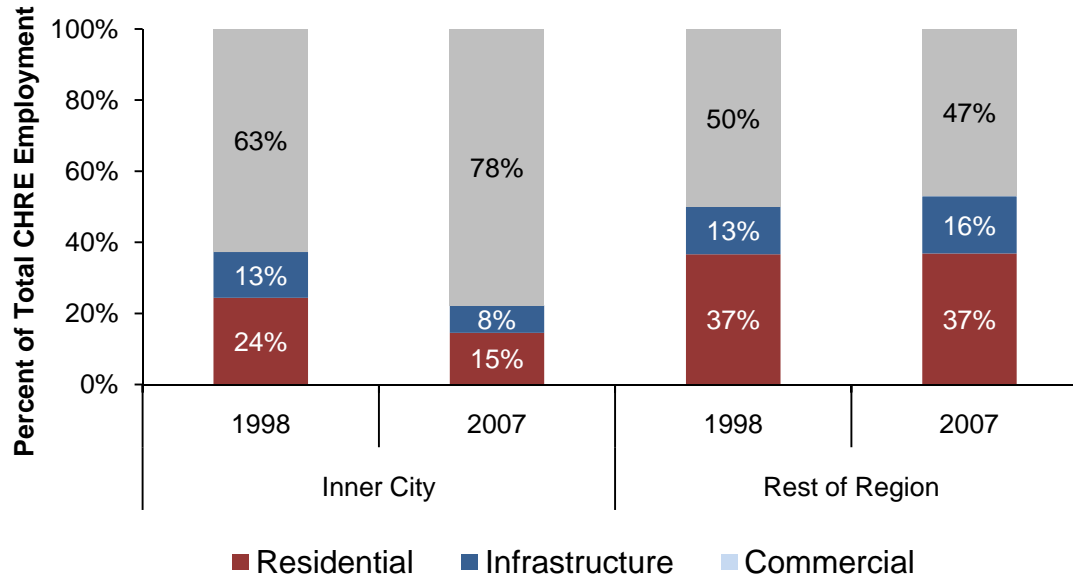


3.5

Cleveland inner city CHRE jobs are more reliant on commercial end-use and much less on residential.

➔ Inner city commercial end-use jobs have increased 9% to make up 78% of all CHRE jobs as of 2007.

Change in End Use Patterns, Cleveland Inner City and Rest of Region, 1998 vs. 2007

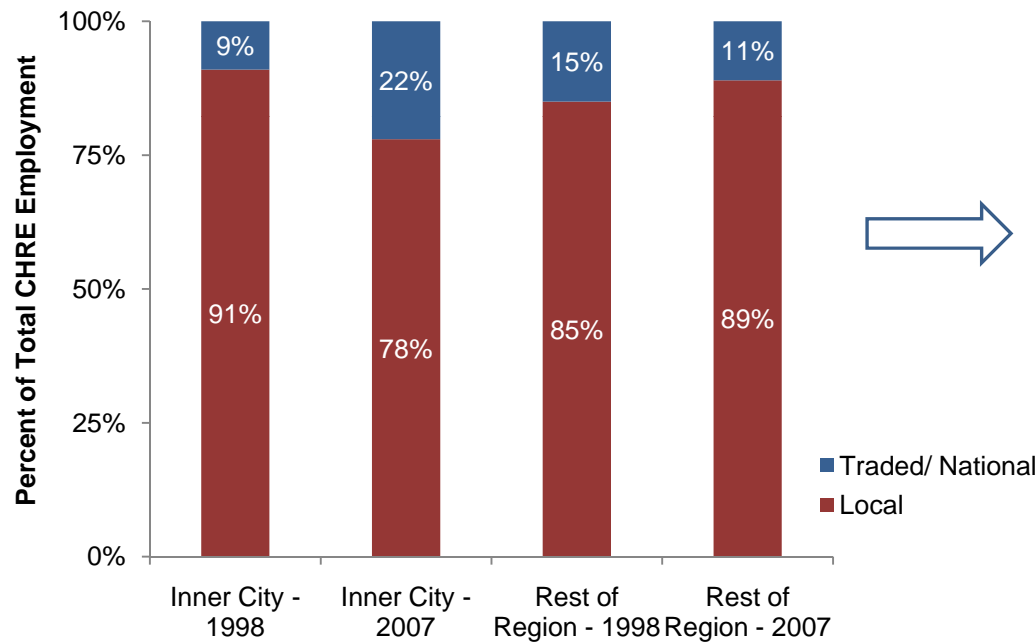


Commercial activity outside of the local market seemed to stabilize decline in inner city CHRE employment.

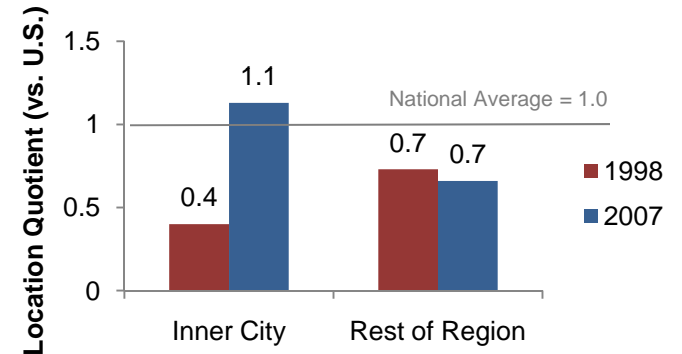
3.6

During the period, the CHRE cluster in inner city Cleveland more than doubled its reliance on the traded portion of the cluster.

CHRE Jobs by End Use, Cleveland Inner City and Rest of Region, 1998 vs. 2007



CHRE Traded Sector LQ, Inner City and Rest of Region, 1998 vs. 2007



Cleveland CHRE Cluster: Explaining Performance

Residential decline and the general economic collapse revealed a latent strength of the inner city CHRE cluster—the ability of its firms to reach into markets outside Cleveland. Many of Cleveland’s firms are relatively large players with national and international reach.

According to one interviewee, “It does not seem like Cleveland is doing that well in regards to the construction, housing, and real estate industries. In fact, we don’t have any projects in Cleveland as of now. We work in other cities around the country.”

The national capabilities are partially a response to the long-term economic decline in the region.



Washington, DC Case Study

Washington, DC: General Overview

As the nation's capital, the Washington, DC economy revolves largely around the federal government. The public sector accounts for approximately 200,000 jobs in the central city, three times more than the largest private sector cluster in the city (Local Commercial Services).

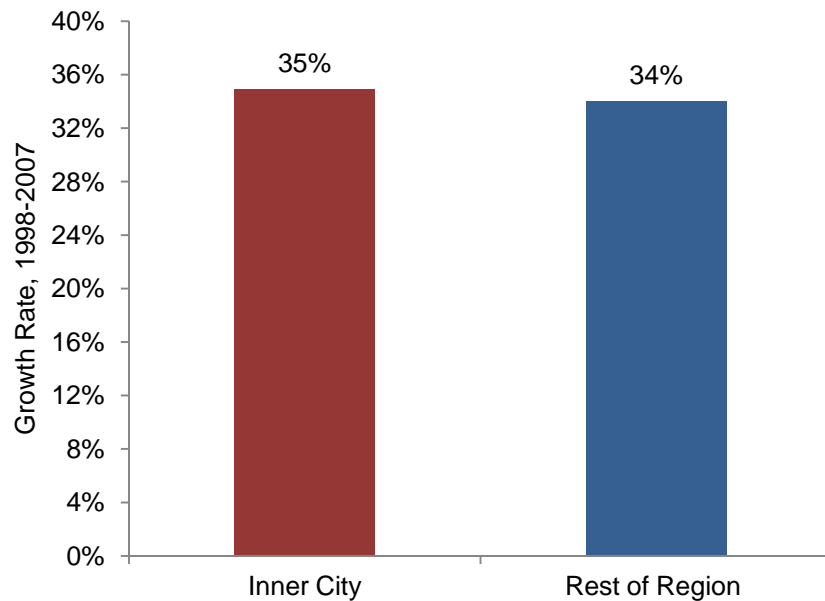
After an extended period of decline from 1950 to 2000, the population of Washington, DC grew throughout the 2000s. Employment at inner city firms increased 30% between 1998 and 2007, faster than in the region overall (21%).

The District has little in the way of manufacturing or other industrial activity. Only 1% of the land is currently zoned for industrial.

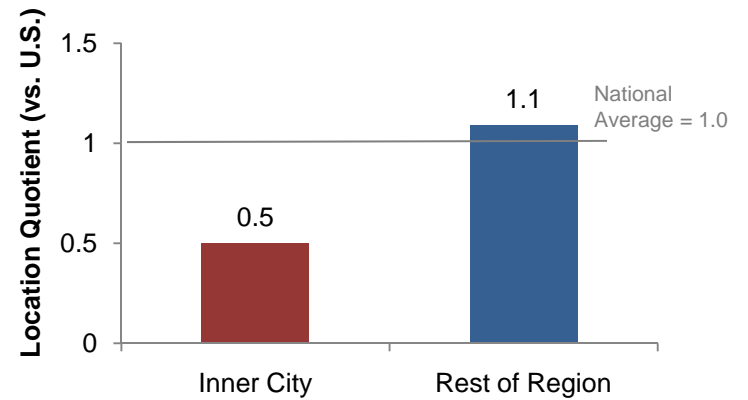
4.2

While CHRE grew in inner city Washington DC from 1998 to 2007, it remains very weak.

CHRE Employment Trends, Washington, DC Inner City vs. Rest of Region, 1998-2007



CHRE LQ, Washington, DC Inner City and Rest of Region, 2007



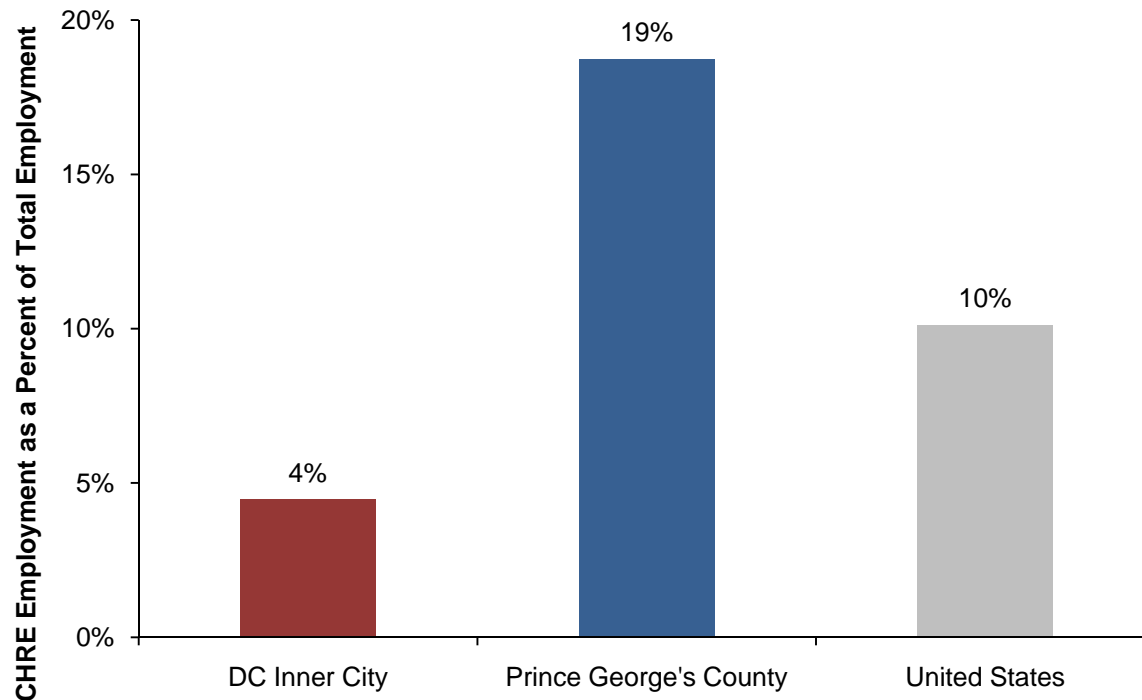
4.3

Prince George's County employs nearly 50,000 workers in CHRE – almost 20% of the total workforce.



DC ranks 97th among 100 inner cities in CHRE cluster strength. If PG County were an inner city, it would rank 2nd.

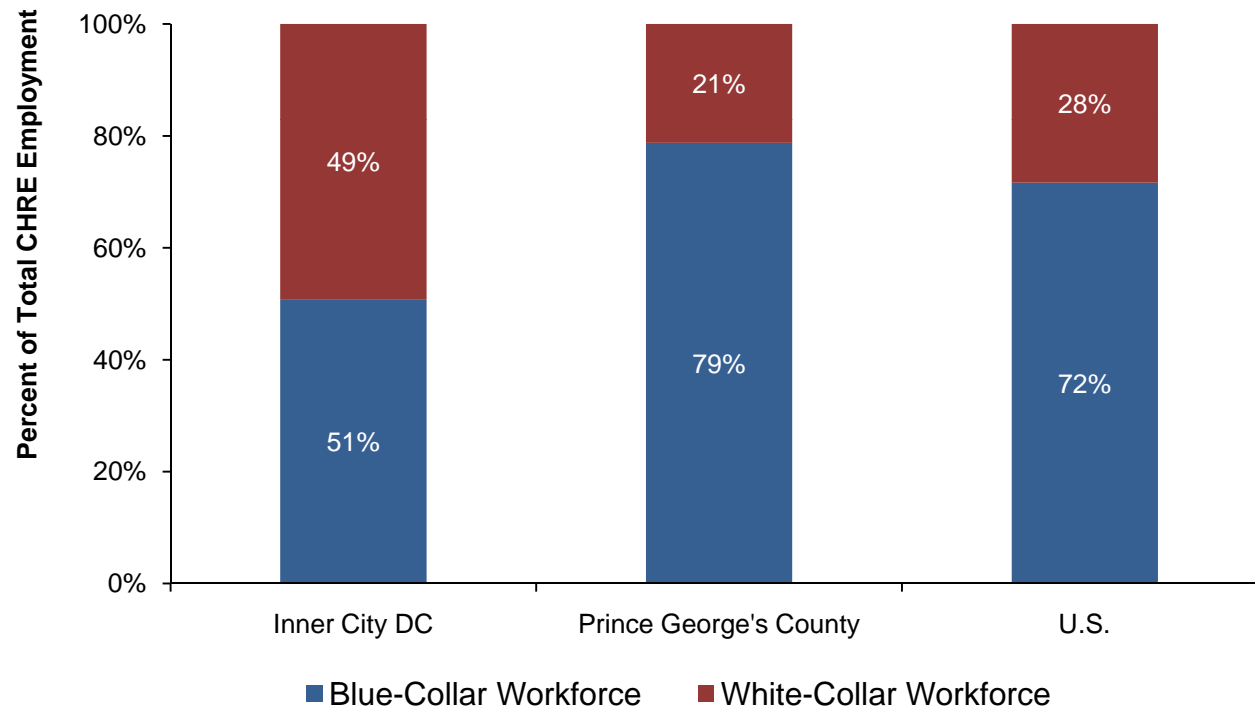
CHRE Employment as a Share of Total Employment , Washington, DC Inner City vs. Prince George's County and U.S., 2007



4.4

The CHRE cluster in PG County is concentrated in the blue-collar portion of the cluster. DC is focused on white collar.

Blue-Collar vs. White-Collar CHRE Employment Composition
Inner City DC vs. PG County and U.S., 1998-2007



Washington, DC CHRE Cluster: Explaining Performance

Only 1% of DC's land is zoned for industrial activity. In contrast, Prince George's County has built a strong CHRE cluster (its location quotient is almost two times the national average) by capitalizing on the county's industrial assets, including abundant, and low-cost industrial land.

Prince George's County also has the appropriate educational and training institutions, including Prince George's Community College and Croom Vocational High School. Because of its shortage of training institutions, Washington, DC has left potential workers with limited access to training in construction and other trades.

There have been recent attempts to strengthen the cluster in DC. For example, UDC began a two-year program this year; a number high schools, including McKinley Tech and Cardozo, are offering classes in construction; and at least one private firm has set up an incubator for CHRE contractors.



Dallas-Fort Worth, TX Case Study

Dallas-Fort Worth: General Overview

From 2000 to 2007, population in the Dallas-Fort Worth (DFW) region grew 19%—2.7 times the U.S. average— resulting in one million new residents. Between 2000 and 2007, the region added almost one million people, ranking it second in absolute population growth among MSAs in the US.

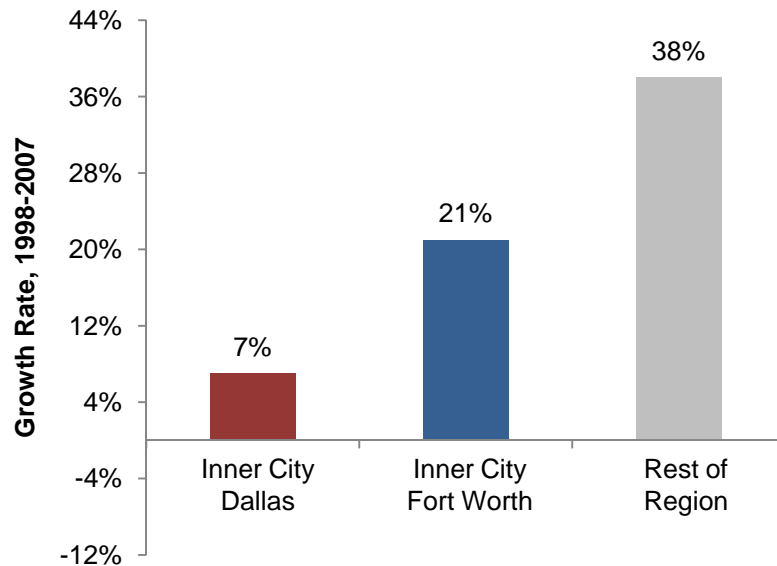
The economy is diversified, with strong traded clusters in aerospace, energy, transportation and logistics, and building fixtures; and strong local clusters in financial and commercial services.

The region is also known for its role as a global center for corporate headquarters. Across the region, there are 900 headquarters operations, including twenty-five Fortune 500 headquarters (Exxon-Mobil, AT&T, Texas Instruments, and Southwest Airlines).

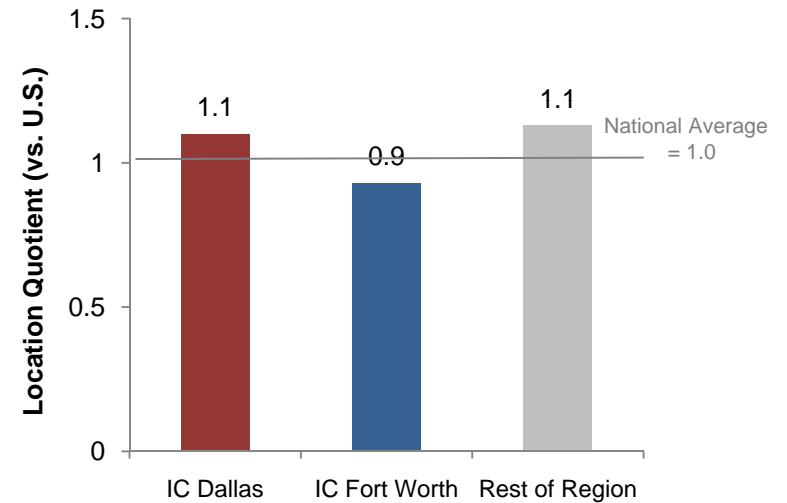
5.2

Across the region, the CHRE cluster is strong and growing.

CHRE Employment Trends, Inner City Dallas/Fort Worth vs. Rest of Region, 1998-2007

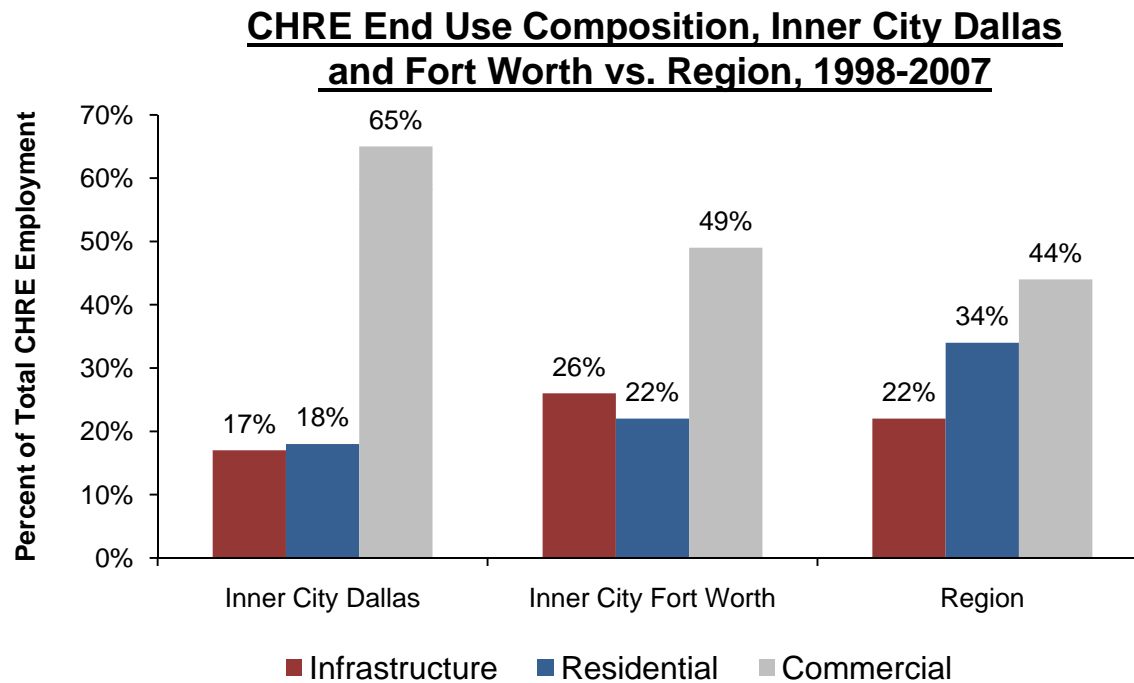


CHRE LQ, Inner City Dallas/Fort Worth vs. Rest of Region, 2007



5.3

From 1998 to 2007, commercial activity drove CHRE growth in inner city Dallas and inner city Fort Worth.

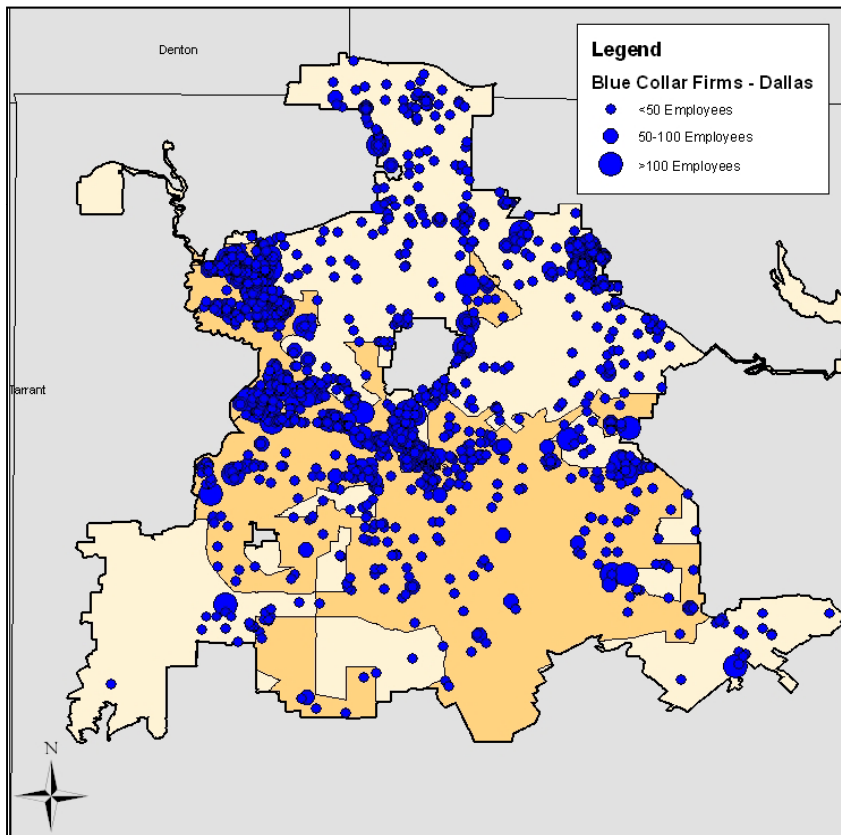


This is likely shaped large commercial projects, strong M/WBE programs, and weak residential across U.S. inner cities.

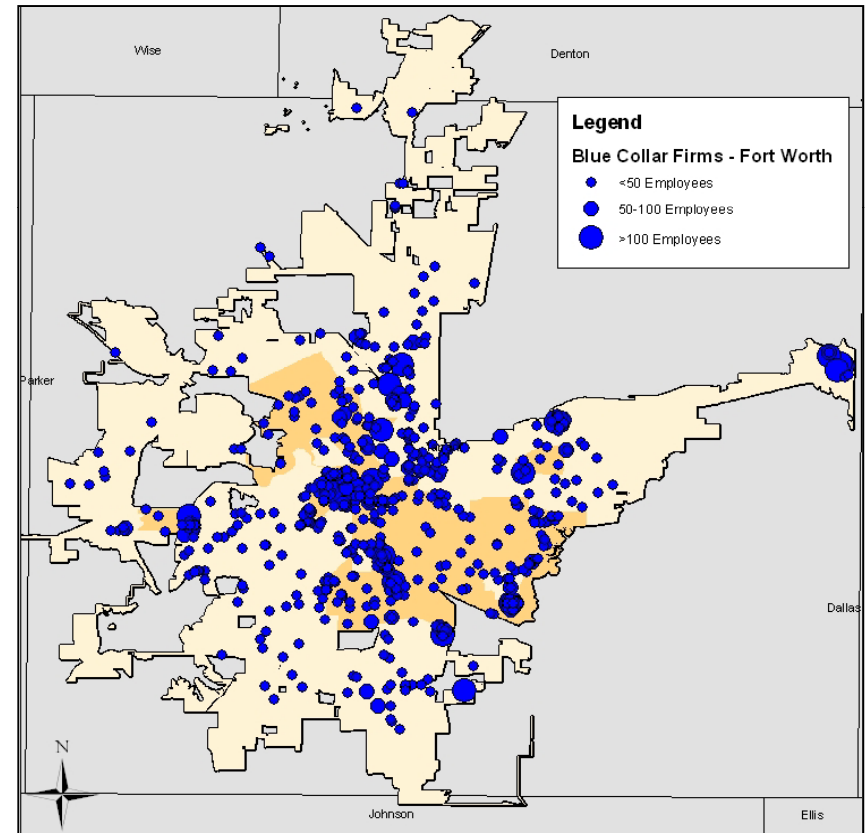
5.4

Longer term, CHRE is likely to be stronger in inner city Dallas than in inner city Fort Worth.

Map of Blue Collar CHRE Firms, Dallas



Map of Blue Collar CHRE Firms, Fort Worth



DFW CHRE Cluster: Explaining Performance

CHRE has been strong and growing in the DFW region, as well as its inner cities. The inner city clusters have been buoyed by large commercial projects, such as Cowboys Stadium, and efforts to involve local firms and M/WBEs.

In inner city Fort Worth, however, the concentration of headquarter and health care activities is likely to discourage attraction of new and expanded industrial activity because of both demand for land to meet construction and expansion needs, as well as (perceived) compatibility with existing uses, especially health care.

On the other hand, inner city Dallas has a stronger CHRE cluster, an abundance of industrial land, compatible existing uses, and a city development strategy for the CHRE cluster. Its cluster is likely to grow and provide jobs for local residents.



Policy Implications

General Policy Findings: Changing Organizational Structures

→ The economy-wide trend of fewer, larger players in supply chains has affected the organization of the CHRE cluster.

Examples:

| | | |
|-------------------------------------|---|--|
| Retail | → | Shift towards large store formats like Home Depot supercenters |
| Equipment Distribution and Sourcing | → | Rapid growth in very large establishments, combined with in-sourcing by national players like Turner Logistics, has shifted activity (and value added) away from a large number of small sub-contractors to a small number of national/international firms |
| Fencing | → | Manufacturing and distribution: still coordinated within firm, but manufacturing has been replaced by sourcing Fencing Contracting: national players are moving into regional markets and pushing out single-site players |



These and related changes could de-link CHRE activity and local economic development; policy needs to recognize the cluster's multiple touch points into local economies

General Policy Findings: MBE Representation is Still Lagging



Despite a myriad of regulations and requirements, MBEs remain under-represented in the CHRE cluster

Percent of MBEs in Construction, Real Estate and Total U.S. Economy, 2002 vs. 2007

| NAICS | Year | % Minority Owned Employer Firms | % Minority Owned Non-employer Firms | % Minority Owned Firms - Total |
|--|------|---------------------------------|-------------------------------------|--------------------------------|
| U.S. Construction (23) | 2002 | 6% | 14% | 12% |
| | 2007 | 8% | 18% | 16% |
| U.S. Real Estate/Rental & Leasing (53) | 2002 | 7% | 10% | 9% |
| | 2007 | 8% | 14% | 13% |
| Total Economy (00) | 2002 | 9% | 19% | 16% |
| | 2007 | 10% | 23% | 20% |



Existing approaches seem to generate large numbers of small, one-off projects

Potential improvements: increase coordination and flexibility across business segments, political districts, and over time.

General Policy Findings: Ability of Inner City Residents to Access CHRE Jobs Varies Greatly



Firm location and job location matter in terms of neighborhood vitality, resident ability to access jobs, transportation costs and value of time. Characteristics of the local CHRE cluster also strongly affect access.

Factors that shape resident access to jobs :

1. **MATCH:** The match between inner city cluster strengths and residents' skills.
2. **ASSETS/OPENNESS:** The quality and availability of local training institutions, as well as their openness (e.g., vocational schools/community colleges versus union-based training)
3. **DEMAND:** Role of unions in placing workers; demand for workers; length of the union bench
4. **SUPPLY:** Availability of foreign-born and foreign-trained workers; strong workforce in adjoining counties/states

Case Studies: Policy Implications

| | Cleveland | District of Columbia | Dallas-Fort Worth |
|------------------------------------|--|--|--|
| Key Finding | National markets stabilized the inner city CHRE cluster when the economy bottomed out | The inner city CHRE cluster is very weak despite strong building trends and local policies that support DC firms | Fort Worth's inner city is transitioning from industrial uses; Dallas's inner city has locked in industrial strengths |
| Specific Policy Implication | Weak markets cities with strong capabilities should shift policy focus from parsing local projects to accessing national markets | Cities with weak clusters need to strengthen supply side capabilities (worker skills, education and training, land and space availability) | The potential for CHRE to spur economic development in distressed communities varies over time; cities can evolve away from CHRE potential |
| General Policy Implication | Align CHRE policies with the current needs of the local cluster, including the need for new markets | Local policy will have little effect if pre-conditions are not met | Policies to maximize the economic impact of CHRE should be coordinated with broader development vision for neighborhoods, cities, regions |
| Why City Is Good Example | Cleveland is a perfect example because the downturn revealed latent strengths – these should be the target of policy | DC is a good example of the large role of policy and politics relative to the size and importance of the cluster | Dallas-Fort Worth illustrates the importance of micro-conditions for success in the CHRE cluster, including land availability and compatibility with adjacent uses |



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