

LED Workshop: A Tale of Two Counties

ANSWERING QUESTIONS ACROSS DATA

LODES/ONTHEMAP, QWI EXPLORER, J2J EXPLORER

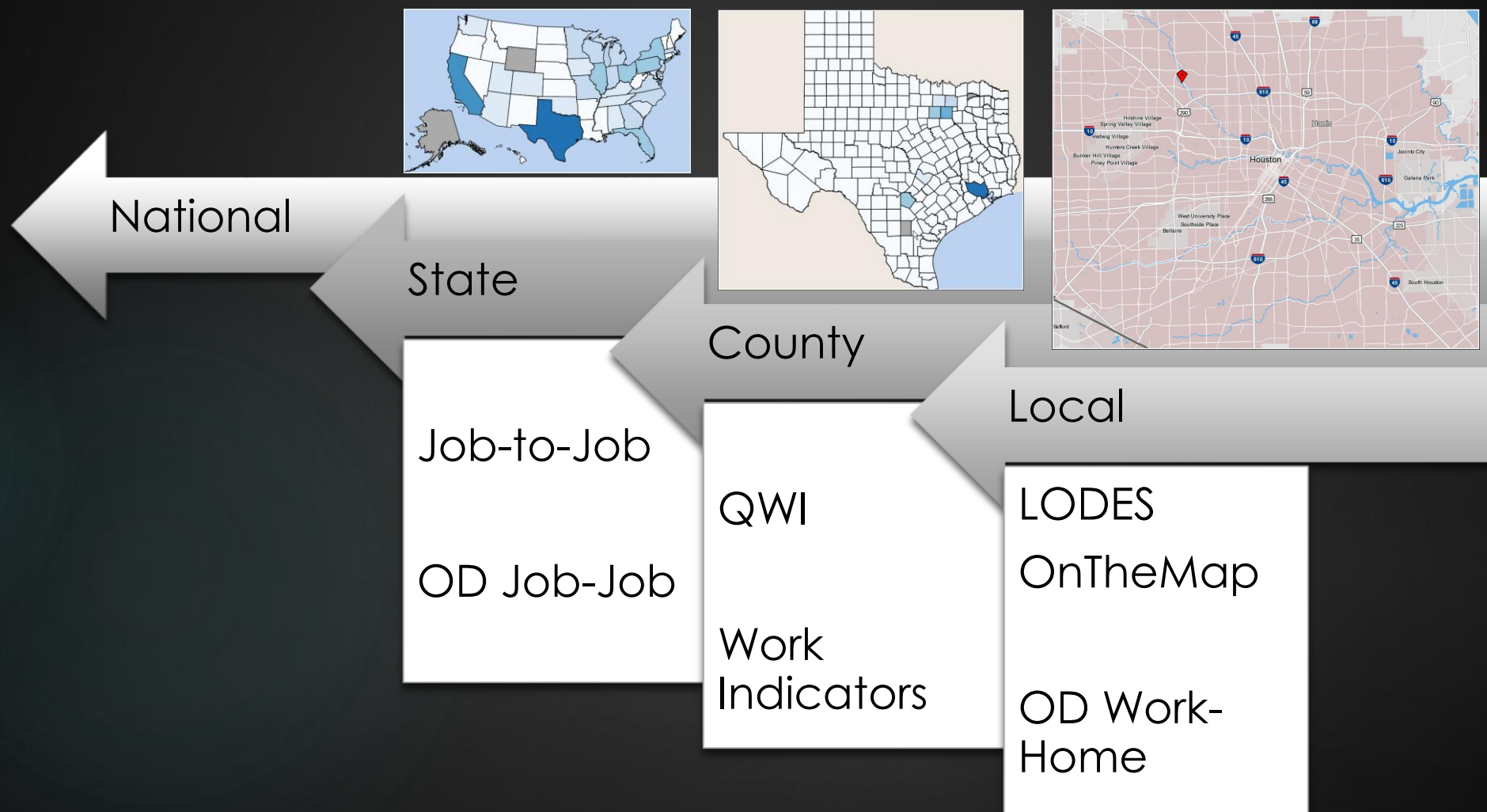
In this session you'll learn to

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- ▶ look at large scale economic trends in your area
- ▶ zoom in on local employment
- ▶ compare local, regional, and national data
- ▶ use dataset B to answer questions about dataset A
- ▶ backup claims or hypotheses with actual data
- ▶ 'debug' your data question like an expert

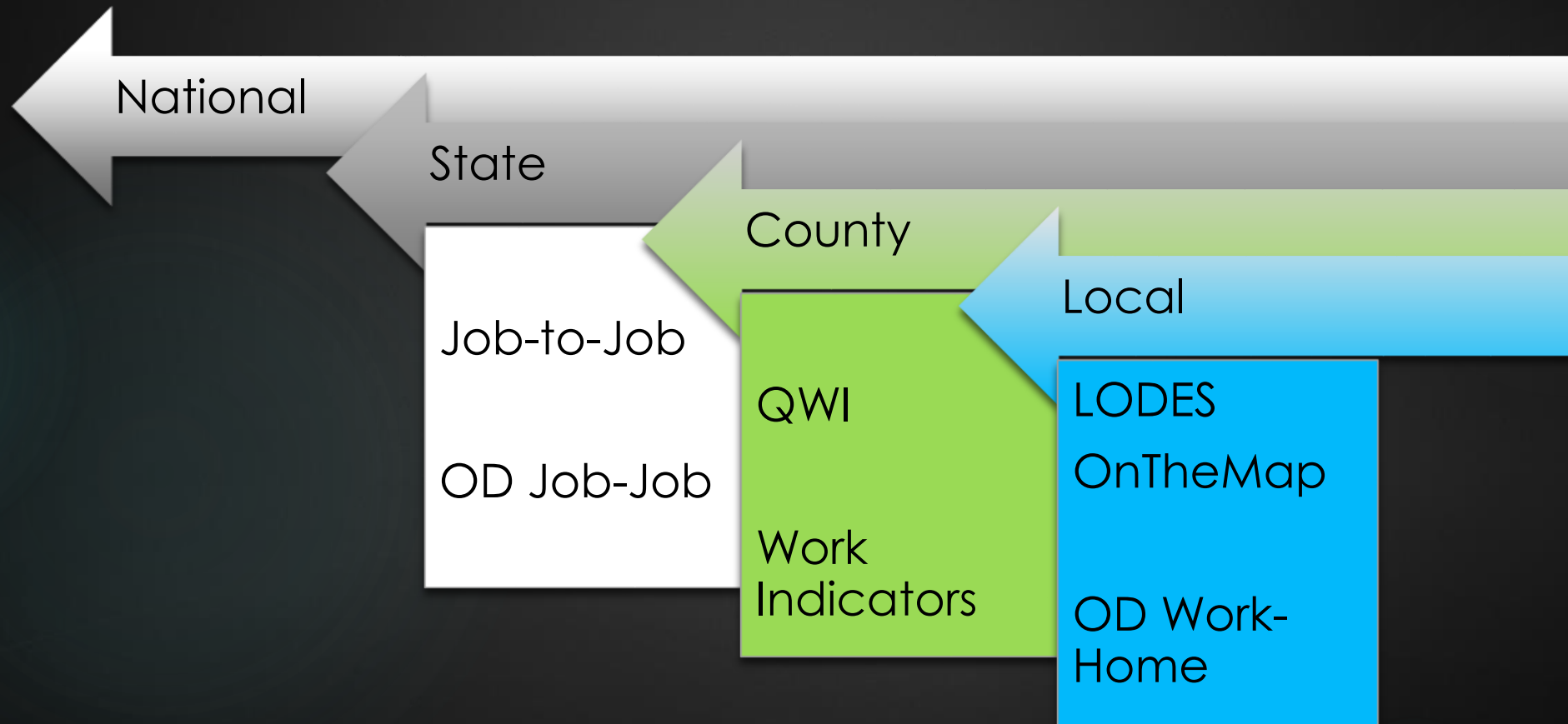
The LED workflow

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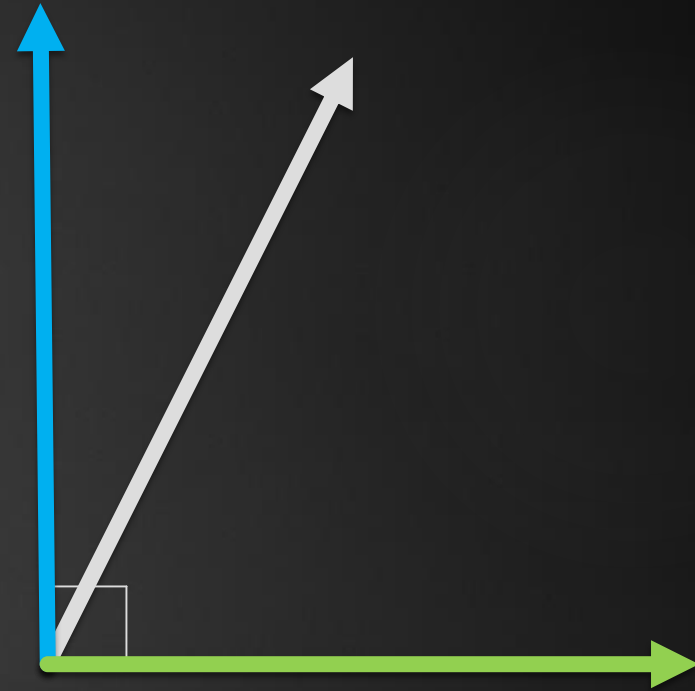
LODES/OnTheMap vs QWI

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These datasets are
complementary

LET'S TAKE A LOOK AT AN EXAMPLE



Quick Definitions

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LODES/OnTheMap Employment

- ▶ 'The reference quarter is Quarter 2 (April-June) of the year of interest. This definition of "job" is sometimes called a "**Beginning of Quarter**" job because it is assumed that the worker was employed at that firm on the first day of the reference quarter.'
- OnTheMap FAQ

QWI Employment

- ▶ 'Estimate of the total number of jobs on the first day of the reference quarter. **Beginning-of-quarter employment counts** are similar to point-in-time employment measures, such as the QCEW.'
- QWI 101 Doc

Go To OnTheMap

<https://onthemap.ces.census.gov/>

Search “Hartford CT” (county)

Run analysis:

Work

Area Profile

2014

All Private Jobs (we'll talk about why to use all private jobs later)

Go To **QWI Explorer**

<https://qwiexplorer.ces.census.gov/>

Set

State: CT

Geography: Hartford

Ownership: **Private**

X Axis: Quarters (2014 Q2)

Group: NAICS 2

Hartford CT	LODES 2014	QWI 2014 Q2	
NAICS 2	JT03 (all private)	Emp (all private)	Absolute Difference
Agriculture, Forestry, Fishing and Hunting	709692		17
Mining, Quarrying, and Oil and Gas Extraction	7470		4
Utilities	10571069		12
Construction	1561115241		370
Manufacturing	5310152943		158
Wholesale Trade	2186821593		275
Retail Trade	5207652093		17
Transportation and Warehousing	1545115498		47
Information	1158111510		71
Finance and Insurance	5644157963		1522
Real Estate and Rental and Leasing	60775806		271
Professional, Scientific, and Technical Services	3336333846		483
Management of Companies and Enterprises	1126011019		241
Administrative and Support and Waste Management and Remediation Services	2893729738		801
Educational Services	1197111881		90
Health Care and Social Assistance	7238672112		274
Arts, Entertainment, and Recreation	59225944		22
Accommodation and Food Services	3413534764		629
Other Services (except Public Administration)	1677616614		162
Public Administration	00		0
<u>Total</u>	<u>448796450396</u>		<u>5466</u>

Differences still exist

- ▶ The entire QWI series is re-processed with each release
- ▶ LODES/OnTheMap never gets reprocessed
- ▶ Misc. Methodology Differences
- ▶ Mostly minor (subjective)

A little bit about coverage and some numbers to go with it

In

► Employees Covered Under UI

National QWI¹ puts Jan 2015
employment at 115 million

For comparison: ACS² puts
employment at 150 million

^ There are some major universe
differences here

But what is UI?

Out (Ballpark Figures)

- Active Military (1.2 million³)
- Self-Employed (14.4 million⁴)
- Postal Service (639,789⁵)
- Secretive Federal Agencies (???)
- Miscellaneous cases – students
employees at a university, DHS
dock workers
- Federal employees... hold on for 1
slides

¹ Beginning of quarter employment, private employment only

² ACS 2015 1-year civilian employment

³ Pop Estimates Program 2010-2016 as of Jan 1, 2015

⁴ 2015 ACS 1-year, National B24070

⁵ USPS.com, career and non-career employees

UI = Unemployment Insurance

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Wage Records

- ▶ Record of individual earnings for **covered jobs** (remember? no military, no postal, no secretive agencies, no self employment, etc.)
 - ▶ **Not claims** for unemployment insurance
- ▶ Records are collected for operation of state UI program
- ▶ Includes:
 - ▶ **Total** quarterly earnings for each job

Government Work

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- ▶ Are Federal workers in the data?
 - ▶ **QWI : NO**
 - ▶ **LODES/OnTheMap: YES**
- ▶ State and local government also in system, though some reporting inconsistencies
- ▶ Set both datasets to private employment and avoid the issue
- ▶ Also, private employment is the **only option** for national QWI

That's enough detail

READ THE DOCS FOR MORE

[HTTPS://LEHD.CES.CENSUS.GOV](https://lehd.ces.census.gov)

Two dominant cities in two dominant counties

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Hartford, CT (Hartford County)



Pittsburgh, PA (Allegheny County)



Why these two?

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Hartford, CT ([Hartford County](#))

- ▶ “If Hartford goes bankrupt in the next few years, as looks increasingly likely, it will come at the worst possible time, potentially squandering a rare chance at rebirth and only greasing the wheels of out-migration and job loss.”

- National Review

- ▶ “The deeper, more daunting question is what besides a tax break will make Connecticut a place people want to live and work. The state still hasn’t found the answer” - Slate

Pittsburgh, PA ([Allegheny County](#))

- ▶ “Pittsburgh, the feted champion of the new urbanism, went bankrupt in 2003 and has since undergone an impressive rejuvenation”

- ▶ “From 2010-2015, worker productivity shot up 10 percent, average annual wages increased 9 percent and the overall standard of living rose 13 percent in the Pittsburgh region” – Pittsburgh Post Gazette

A little about Hartford County

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Note that we're swinging to the county level

- ▶ Anyone from Hartford?
- ▶ Insurance capital of the US
- ▶ "Suburbs are inferior to thriving cities"
- ▶ Corporations are leaving, most recently
 - ▶ Aetna
 - ▶ GE
- ▶ Population shrinking
- ▶ This is the media narrative, but is it true?

Exploring Hartford with QWI Explorer

<https://qwiexplorer.ces.census.gov/>

Set

State: **CT**

Geography: **Hartford**

Ownership: **Private**

X Axis: **Quarter 2 Series (1996-2016)**

Group: **NAICS 2**

[link](#)

Does this look like a failing county?!

Getting **National** Comparisons with QWI Explorer

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Set

State: **United States**

Ownership: **Private**

X Axis: **Quarter 2 Series (1996-2016)**

Group: **NAICS 2**

link

It's still pretty hard to compare to Hartford

Export QWI to Excel

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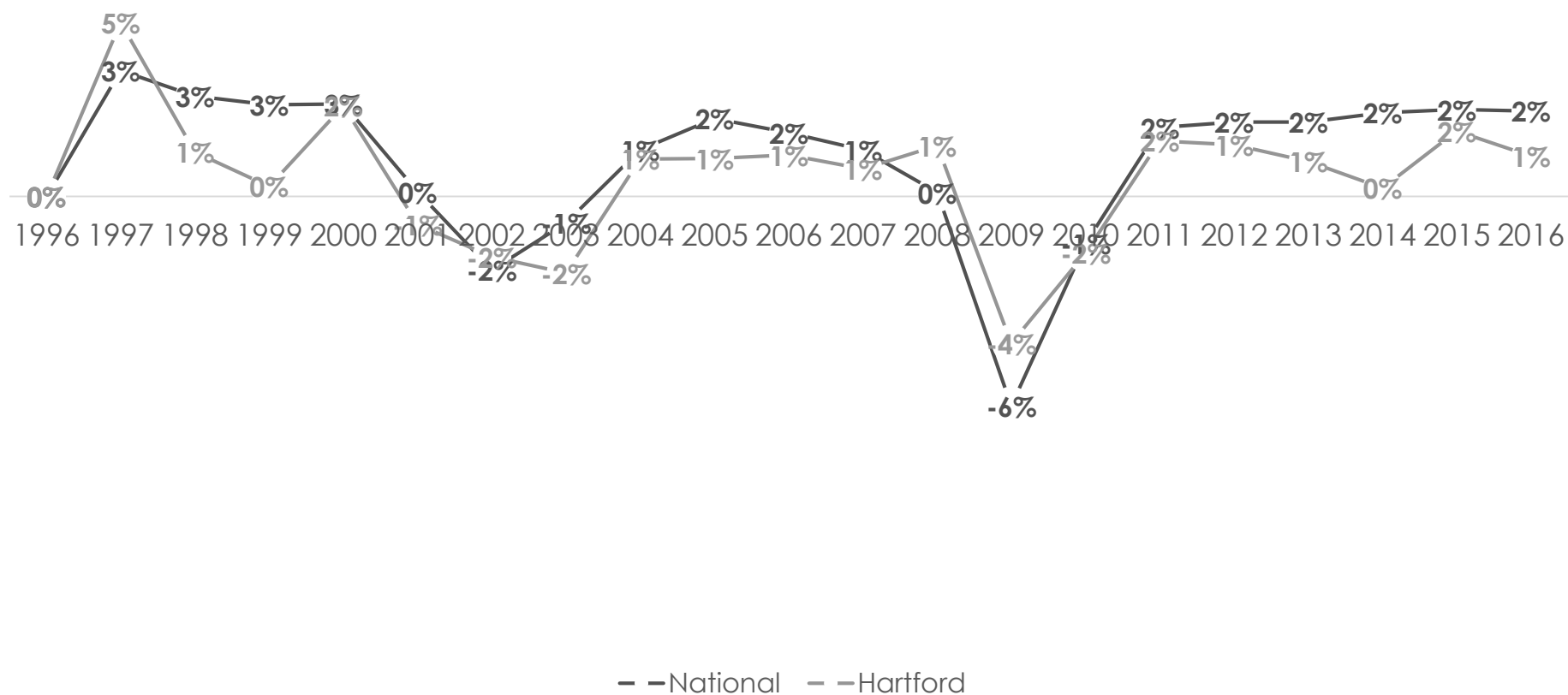
- ▶ **Normalize** in QWI helps but we can do more by hand
- ▶ Let's take the **top 4 industries** in **Hartford** and compare them to **National**
 - ▶ Manufacturing, Health Care, Finance and Insurance, Retail
 - ▶ Let's keep in the 'all' category for fun
- ▶ Click **Get Data**
- ▶ Export as **XLSX**

National QWI vs Hartford

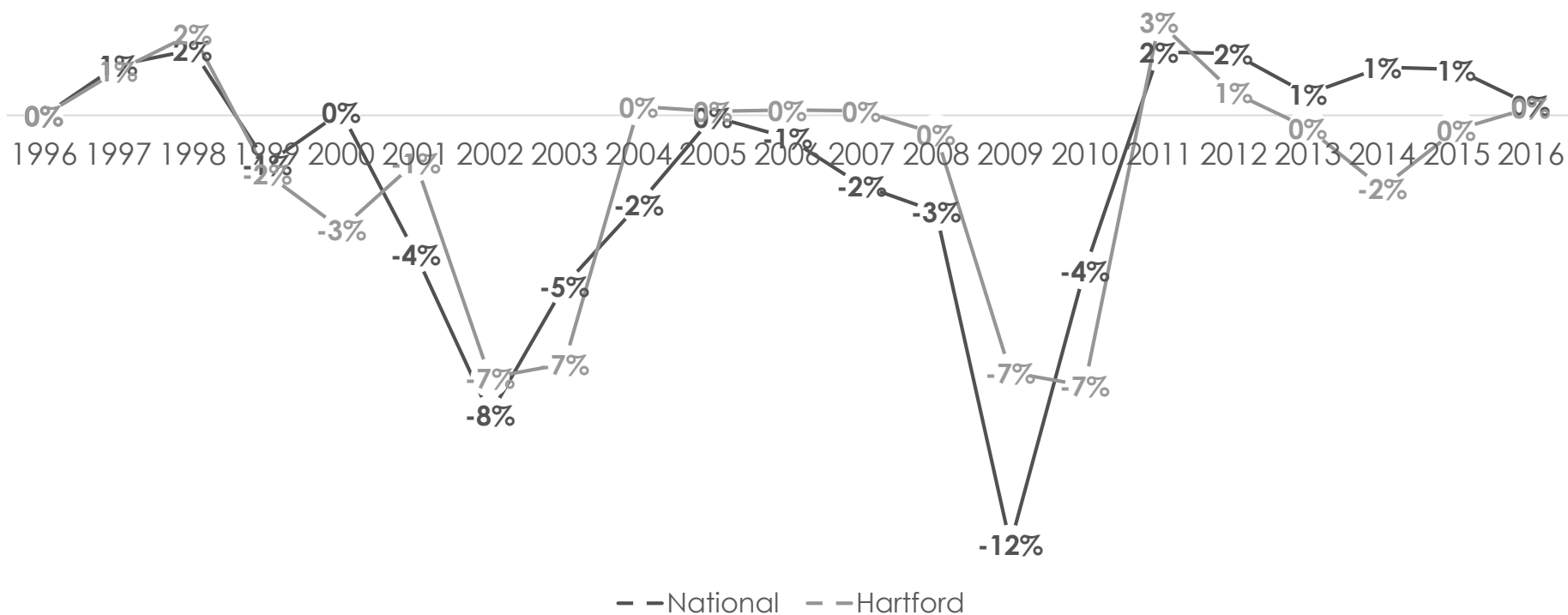
20

- ▶ Hartford_v_National.xlsx
- ▶ Charts from this excel demo to follow just incase we're running short on time

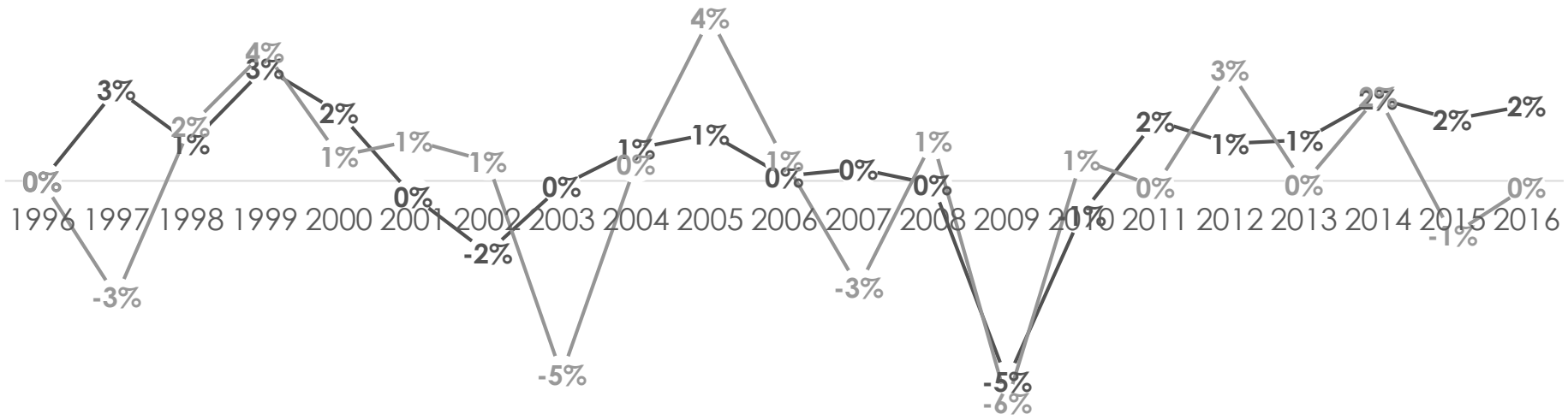
ALL PRIVATE EMPLOYMENT Q2 YEAR OVER YEAR %CHANGE



MANUFACTURING Q2 YEAR OVER YEAR %CHANGE

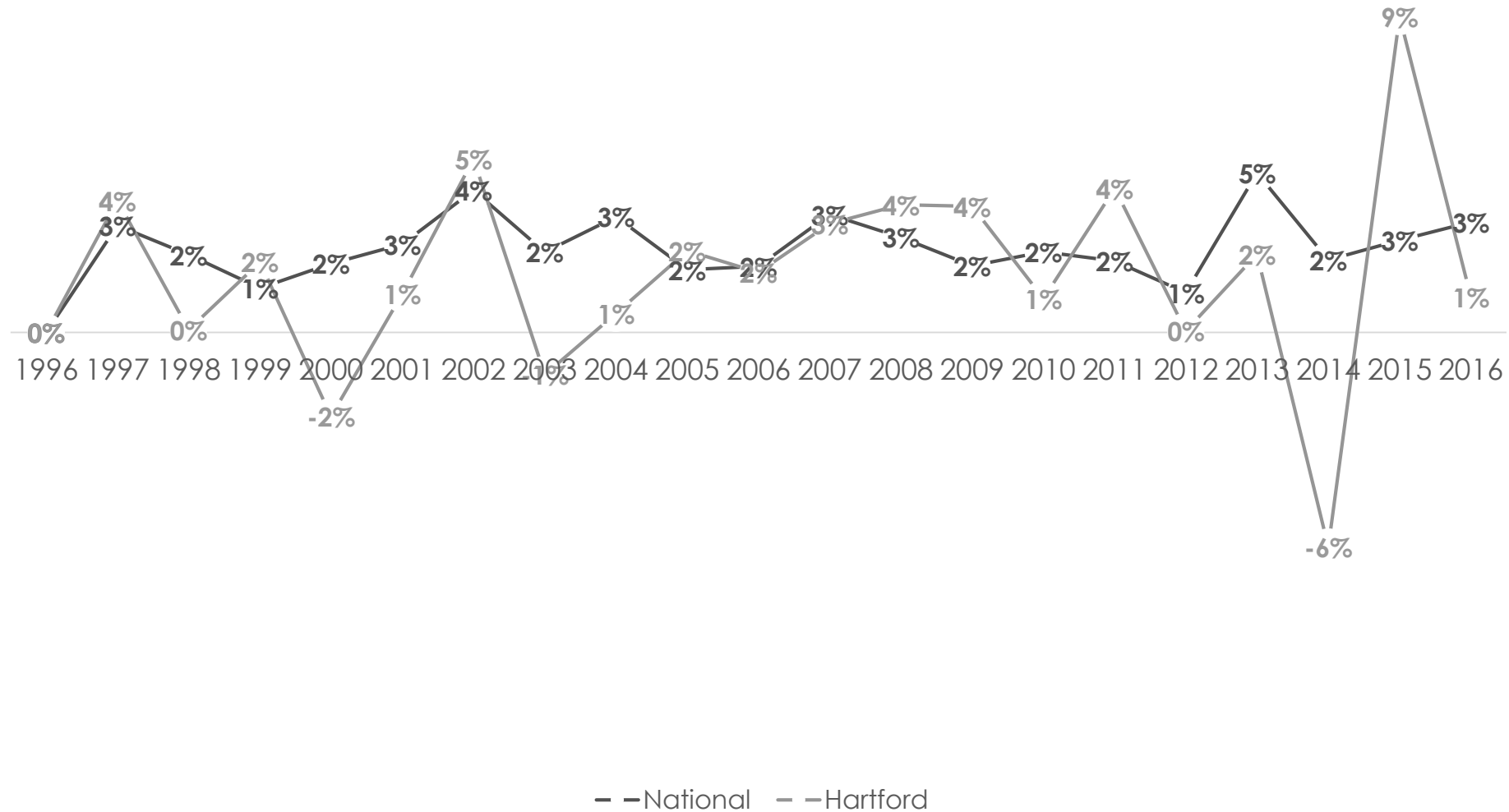


RETAIL TRADE Q2 YEAR OVER YEAR %CHANGE

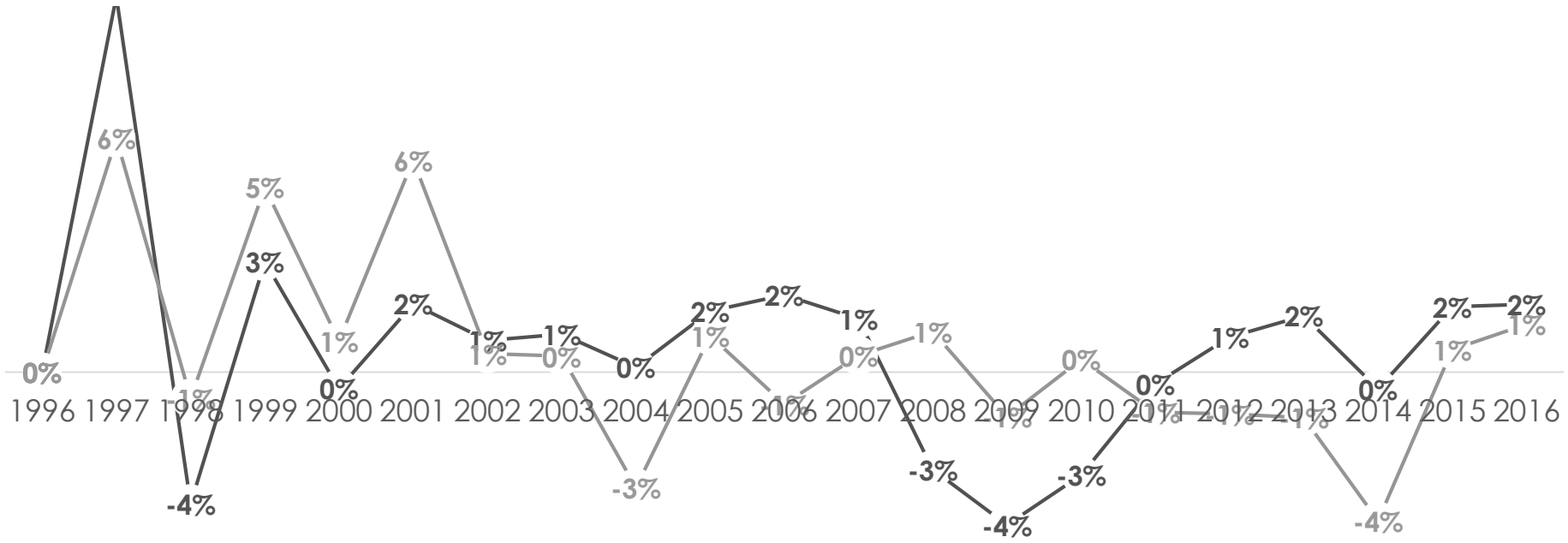


— National - - Hartford

HEALTH CARE AND SOCIAL ASSISTANCE Q2 YEAR OVER YEAR %CHANGE



FINANCE AND INSURANCE Q2 YEAR OVER YEAR %CHANGE



— National - - Hartford

At this point I'd swing back to QWI Explorer

- ▶ Check what's been going on in [Financial and Insurance industries since 2011](#) in:
 - ▶ NAICS 3 digit and NAICS 4 digit
 - ▶ [Link](#)
 - ▶ Is there another component to this?
 - ▶ [Sex](#)
 - ▶ [Age](#)
 - ▶ [Race](#)
 - ▶ [Education](#)
- ▶ And this is just the default indicator – there are **32 others!**
- ▶ It's called 'explorer' for a reason

Get as **in-depth** as you want

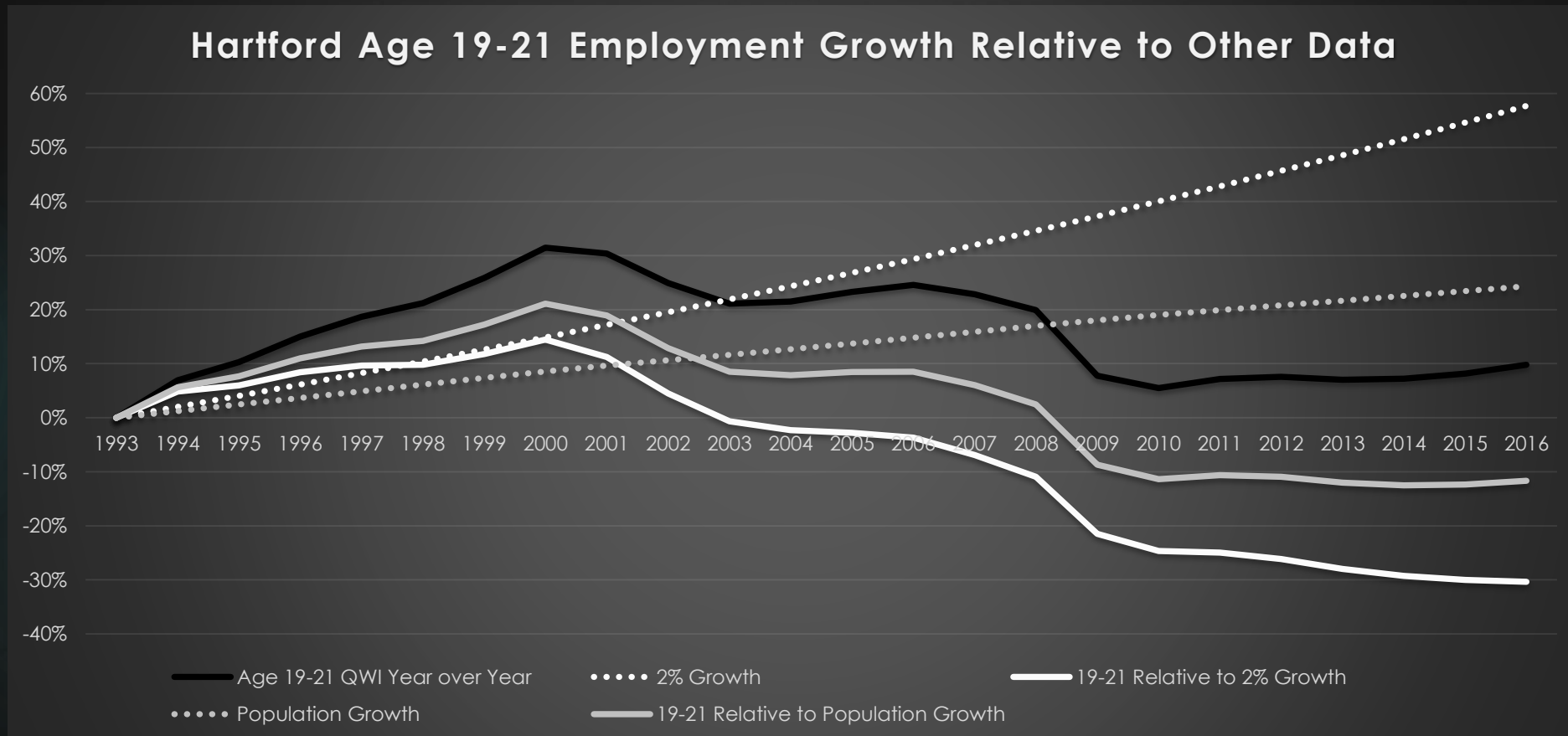
FOR EXAMPLE...

Hypothesis: youth employment is inordinately impacted in Hartford

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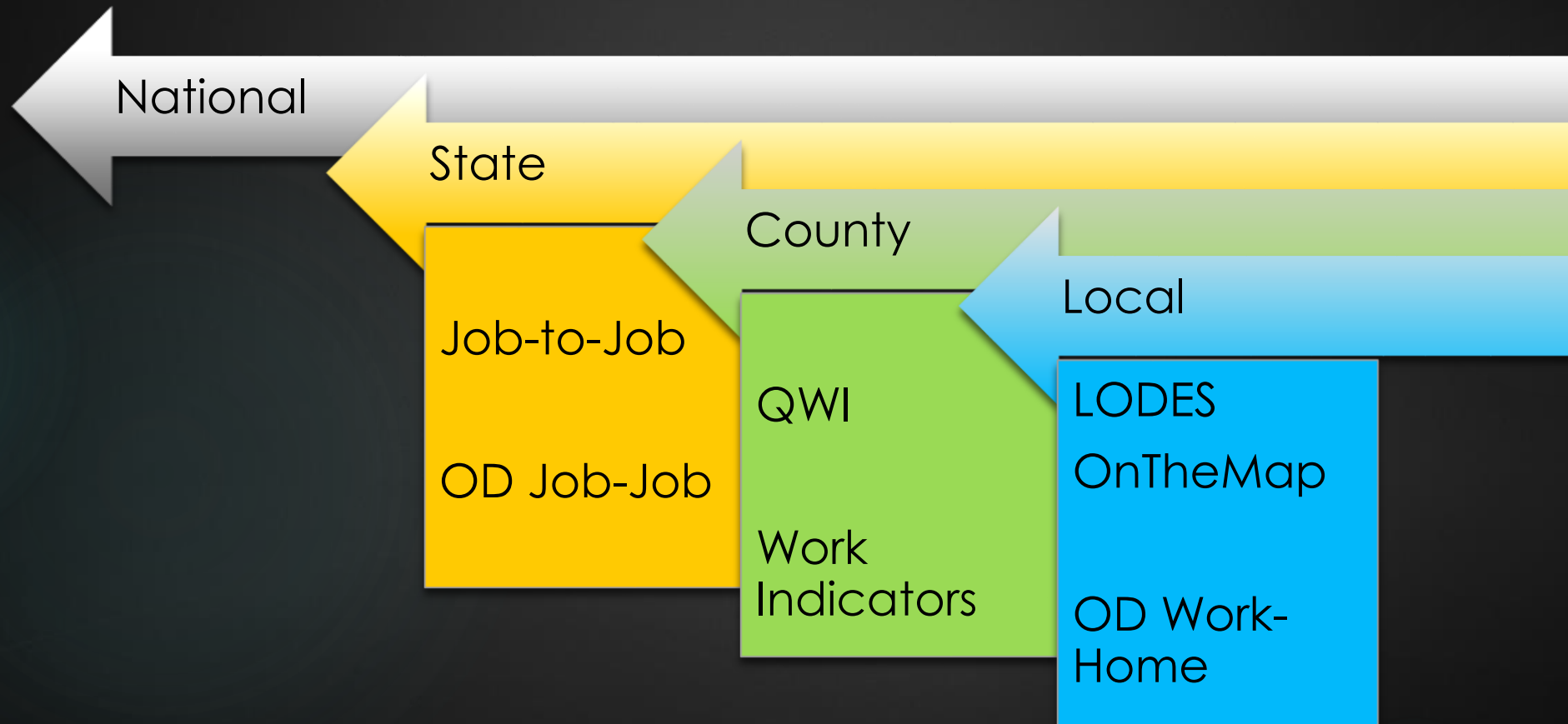
This example takes youth employment from Hartford and adjusts it to be relative to

- 1) A **2% expected growth** target
- 2) **Population growth** (national, as defined by the pop estimates program, ~1.13%)



Tie J2J to QWI

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Hartford county is dominant

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- ▶ Let's use this to do a quick jump into J2J
- ▶ Because Hartford county is the largest in CT (by employment) let's look at the basic J2J flows to understand a bit more
- ▶ <https://j2jexplorer.ces.census.gov/>
- ▶ Look at flows from CT to other States and Industries

Moving on to more positive stories

Allegheny, PA - home of Pittsburgh

- ▶ Once again, a fairly dominant county in PA
- ▶ Let's use J2J to check on the workers coming in
 - ▶ Hires to PA from what state?
- ▶ Then we'll swing back to QWI to get the perspective of what a healthy economy should look like
 - ▶ Or at least this is the media narrative
- ▶ This isn't a J2J training
- ▶ But notice how it all fits together

QWI in Allegheny

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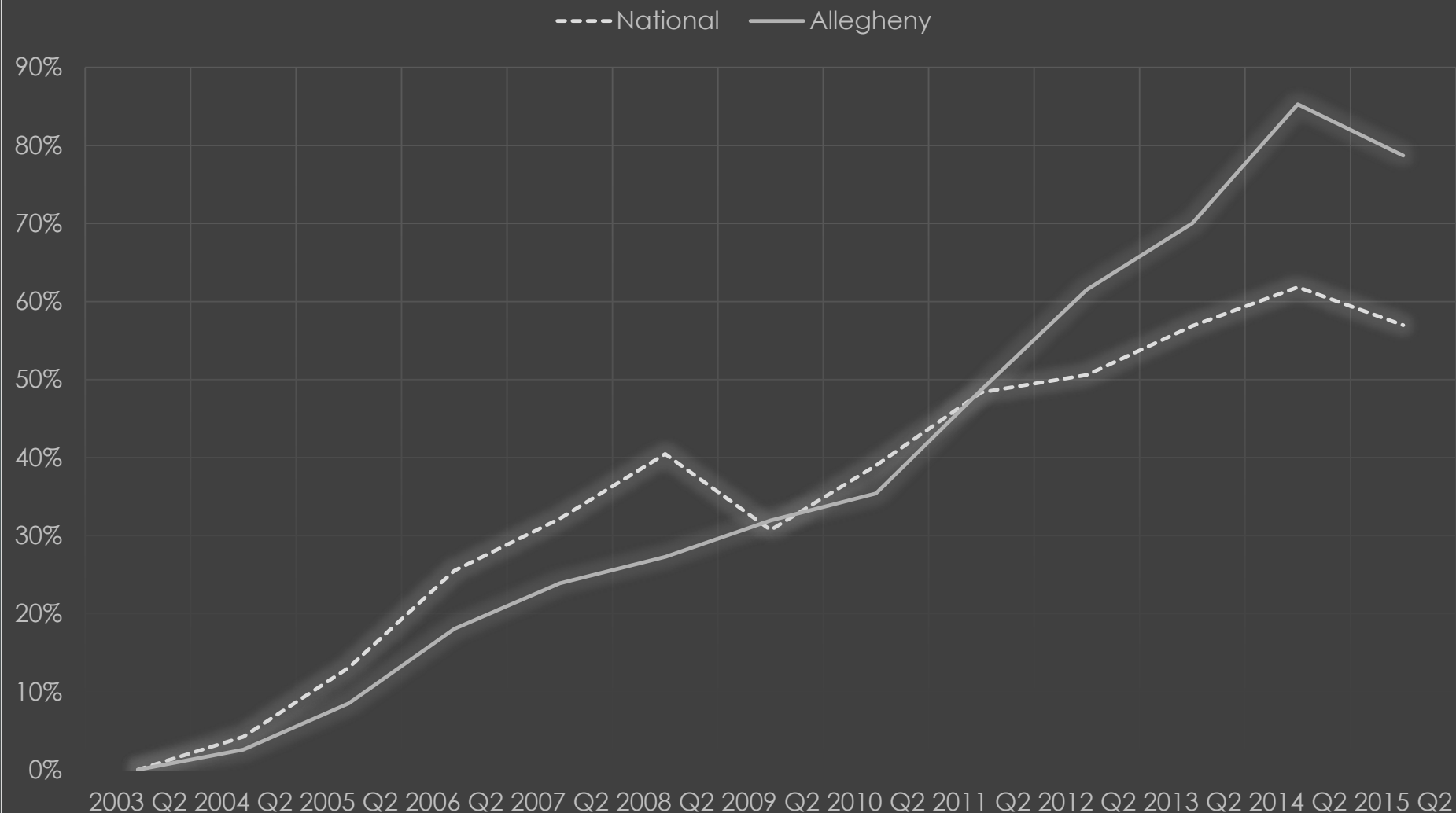
- ▶ Back to the bread and butter starting place of QWI Explorer (for me anyway)
 - ▶ Allegheny county, Q2 series, private employment, NAICS 2
- ▶ Let's switch this up a bit
 - ▶ Look at some **earnings** data
 - ▶ Pittsburgh had some financial problems around 2003-2004
 - ▶ "Ten years ago, Pittsburgh's credit rating was at junk bond status" – Pittsburgh Tribune-Review
- ▶ Let's use the earnings and employment data to figure out what Pittsburgh did right
- ▶ Best paying industries are mining, utilities, professional scientific services, management
- ▶ See `pitt_v_national.xlsx`

National QWI vs Allegheny

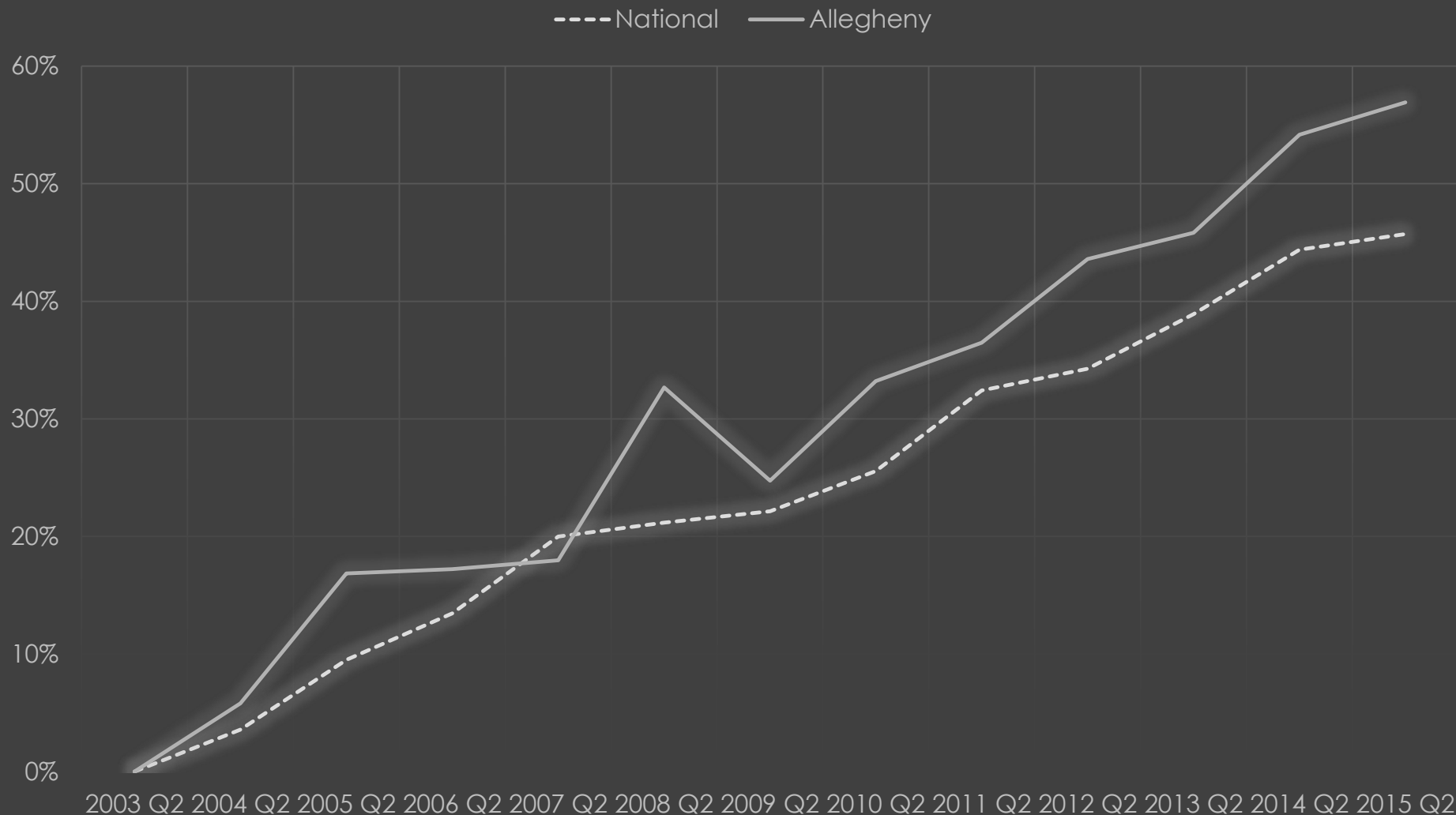
33

- ▶ pitt_v_National.xlsx
- ▶ Charts from this excel demo to follow just incase we're running short on time
- ▶ Relative Stable Earnings
- ▶ Relative Beginning of Quarter Employment

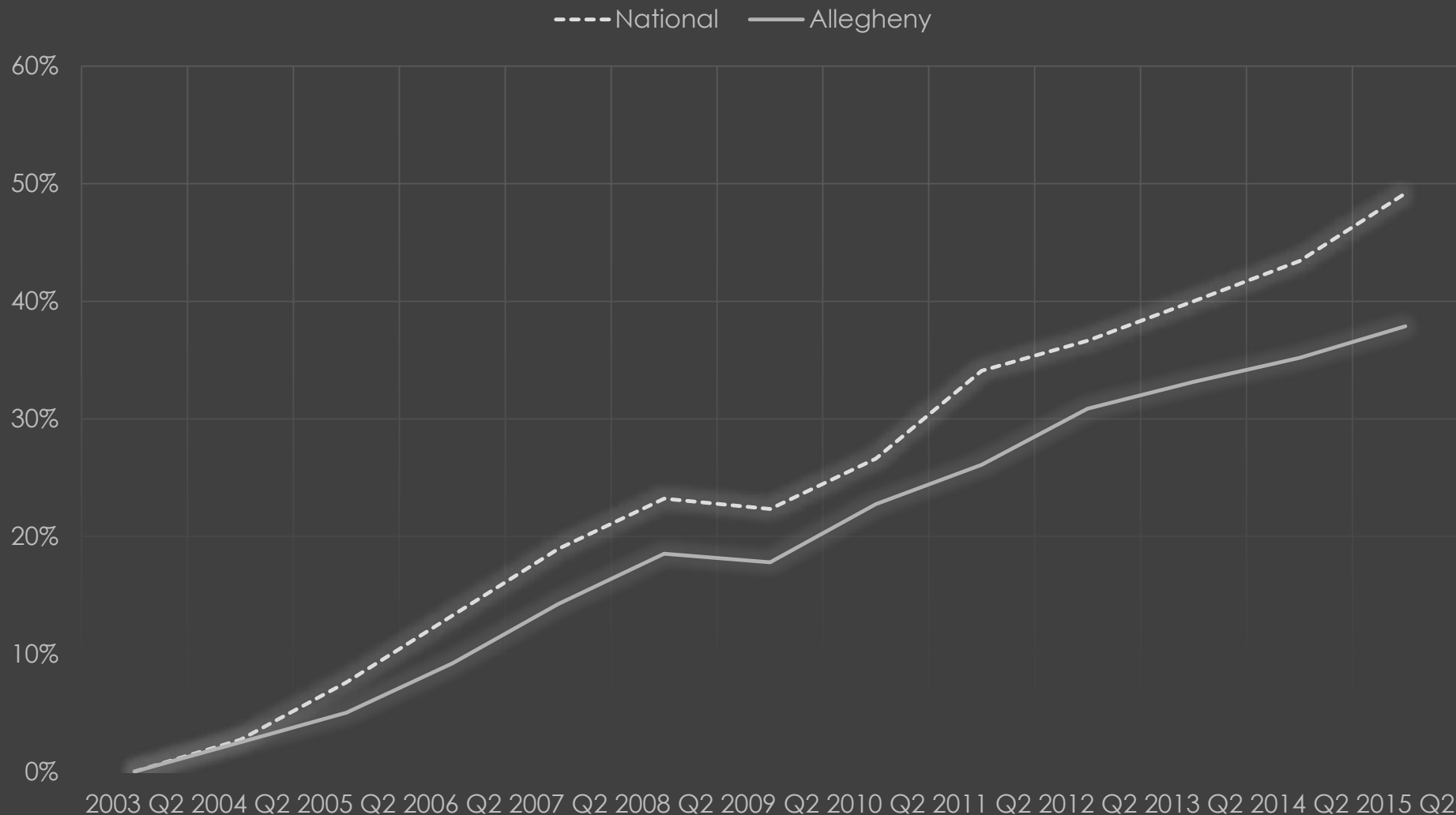
Mining, Quarrying, and Oil and Gas Extraction Q2 Relative Stable Earnings Change



Utilities Q2 Relative Stable Earnings Change

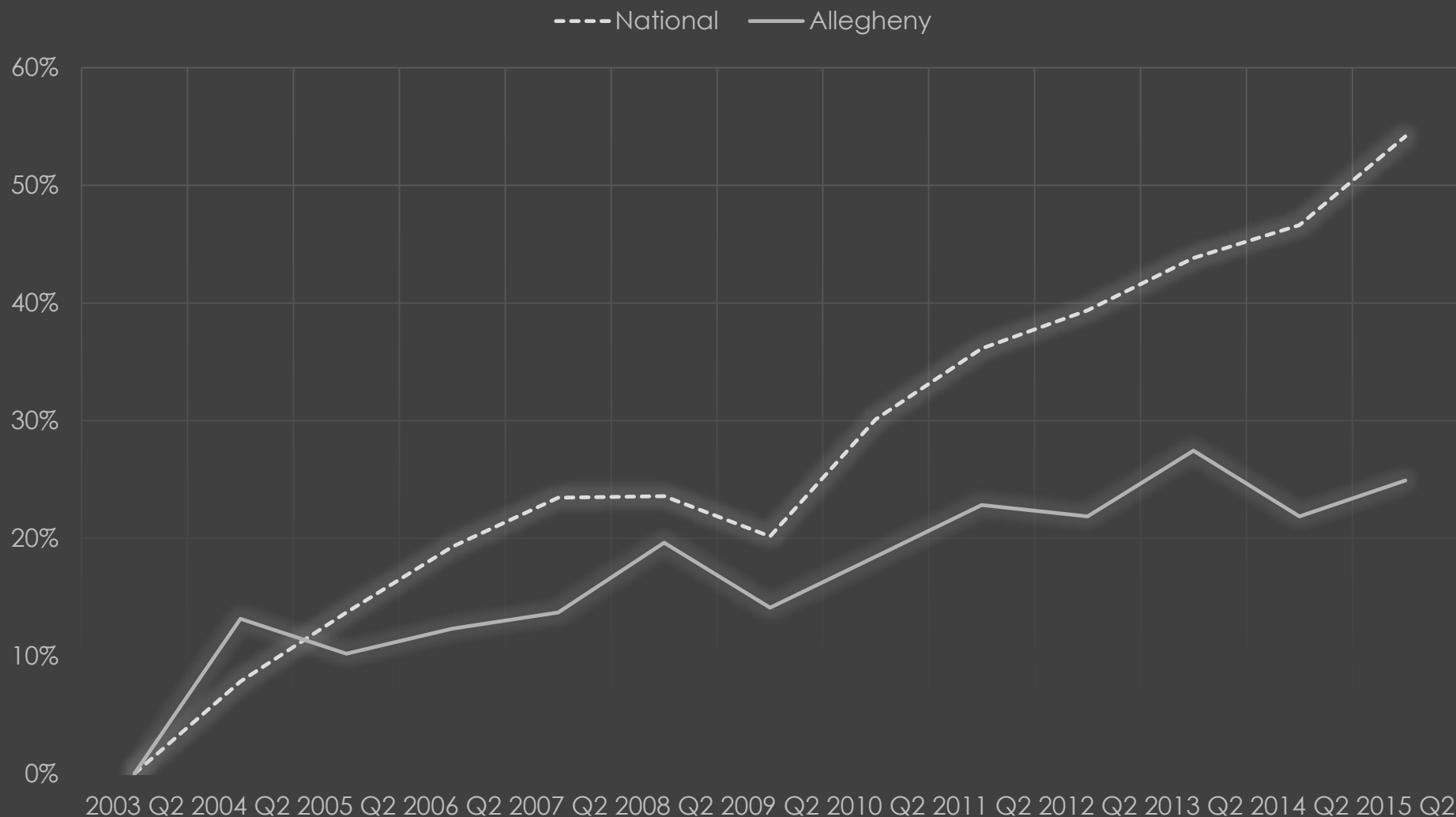


Professional, Scientific, and Technical Services Q2 Relative Stable Earnings Change

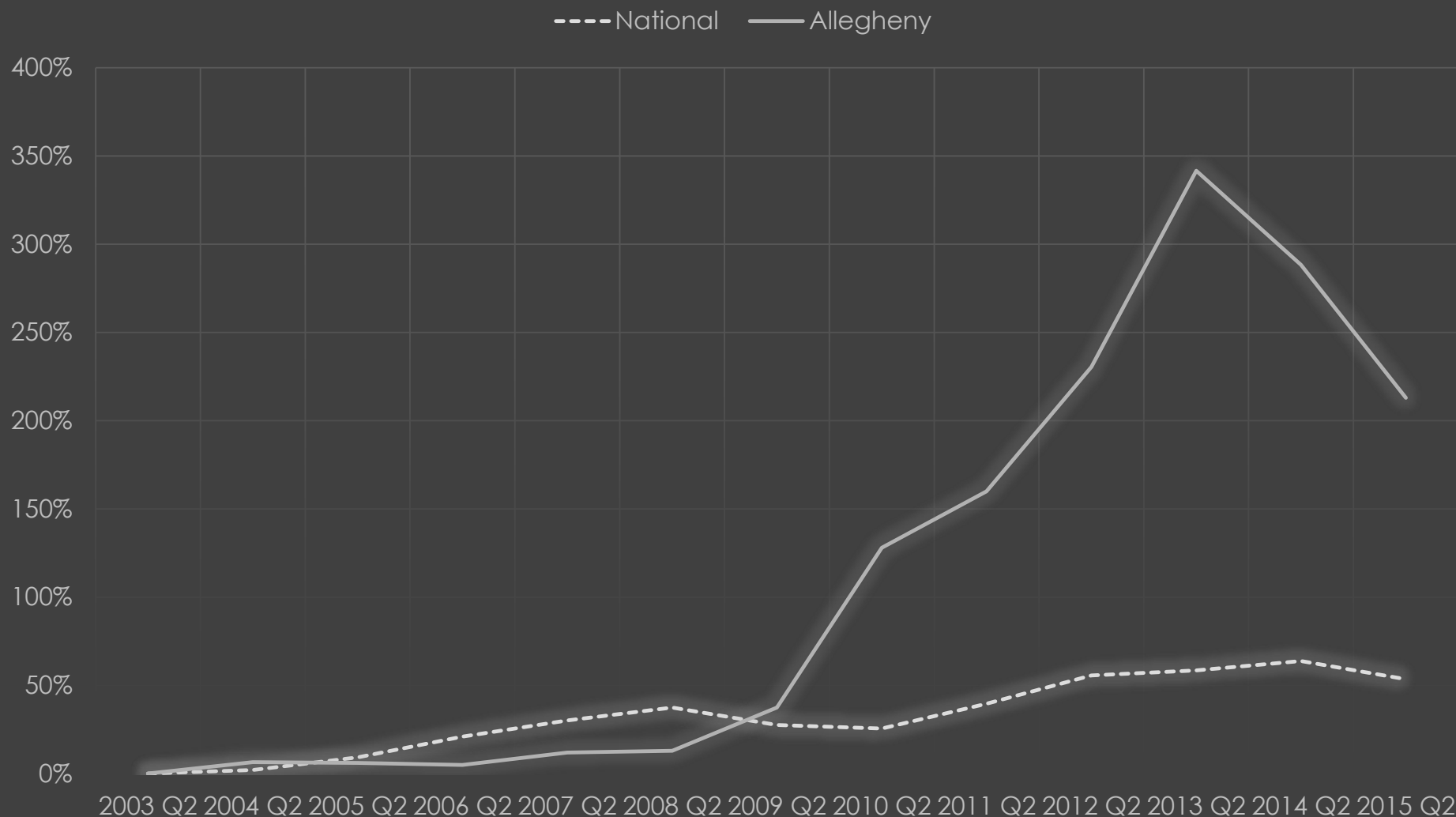


Management of Companies and Enterprises

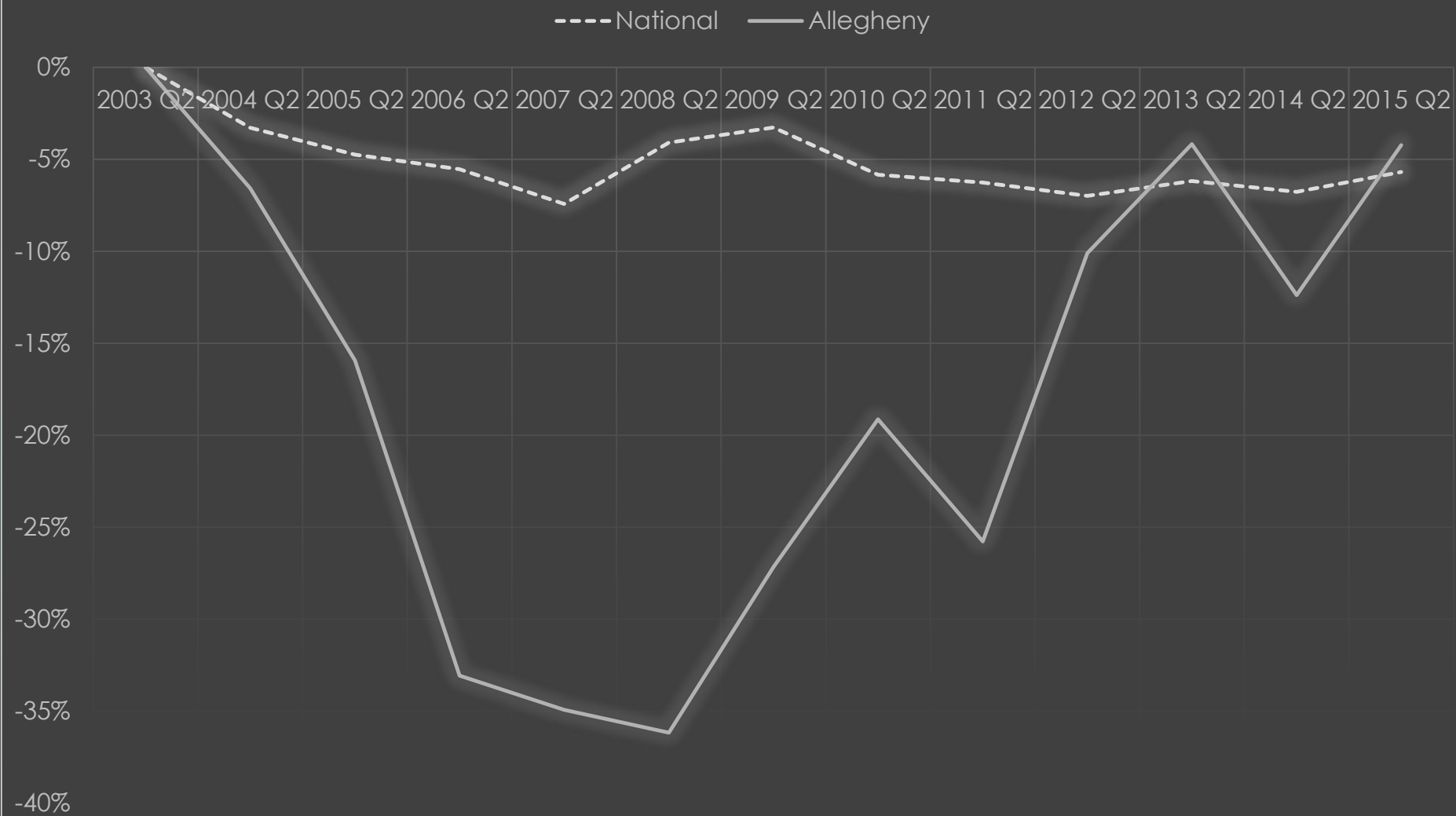
Q2 Relative Stable Earnings Change



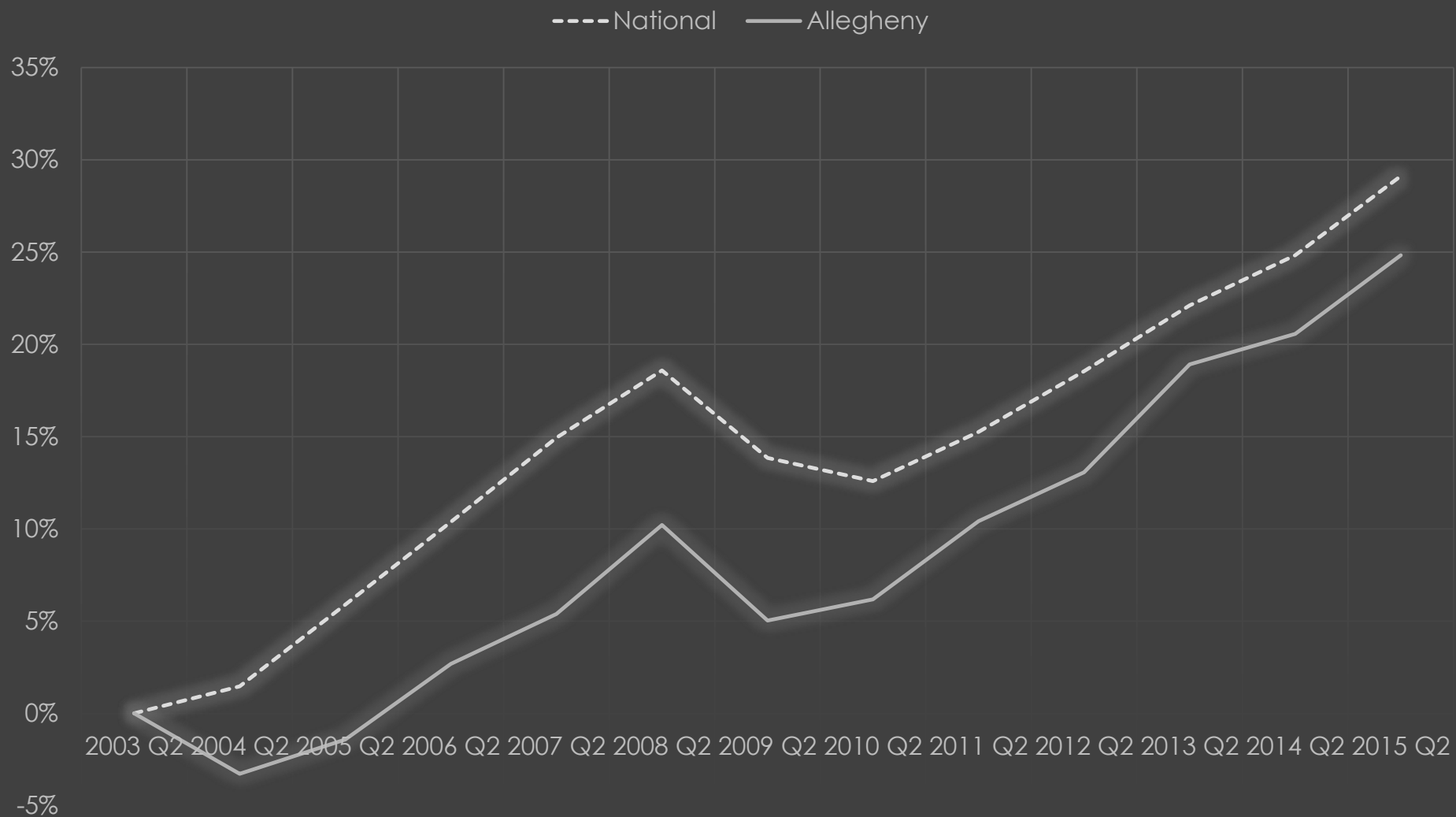
Mining, Quarrying, and Oil and Gas Extraction Q2 Relative Beginning of Quarter Employment Change



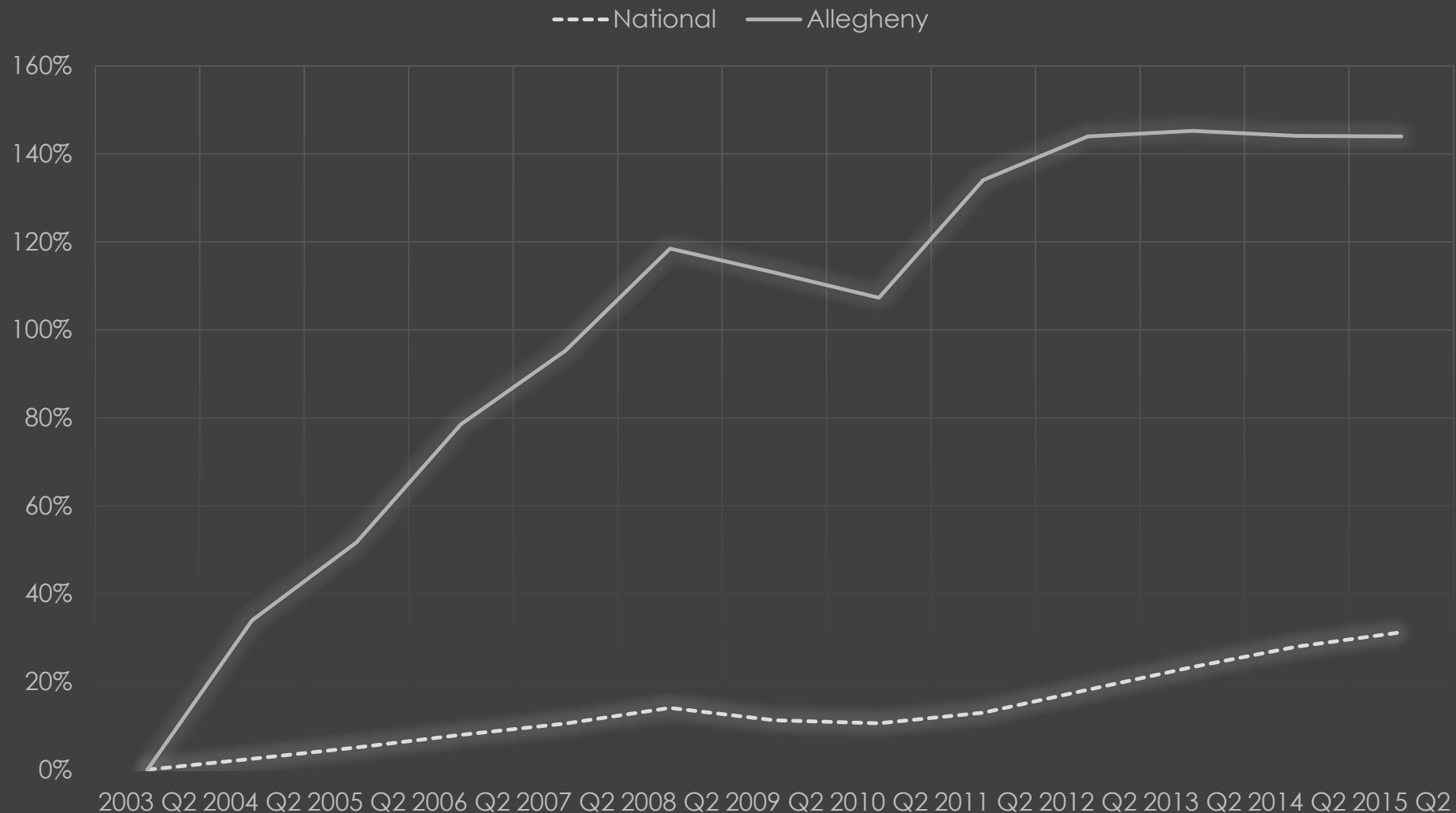
Utilities Q2 Relative Beginning of Quarter Employment Change



Professional, Scientific, and Technical Services Q2 Relative Beginning of Quarter Employment Change



Management of Companies and Enterprises Q2 Relative Beginning of Quarter Employment Change



Comparing in Explorer

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National

[Link](#)

Allegheny

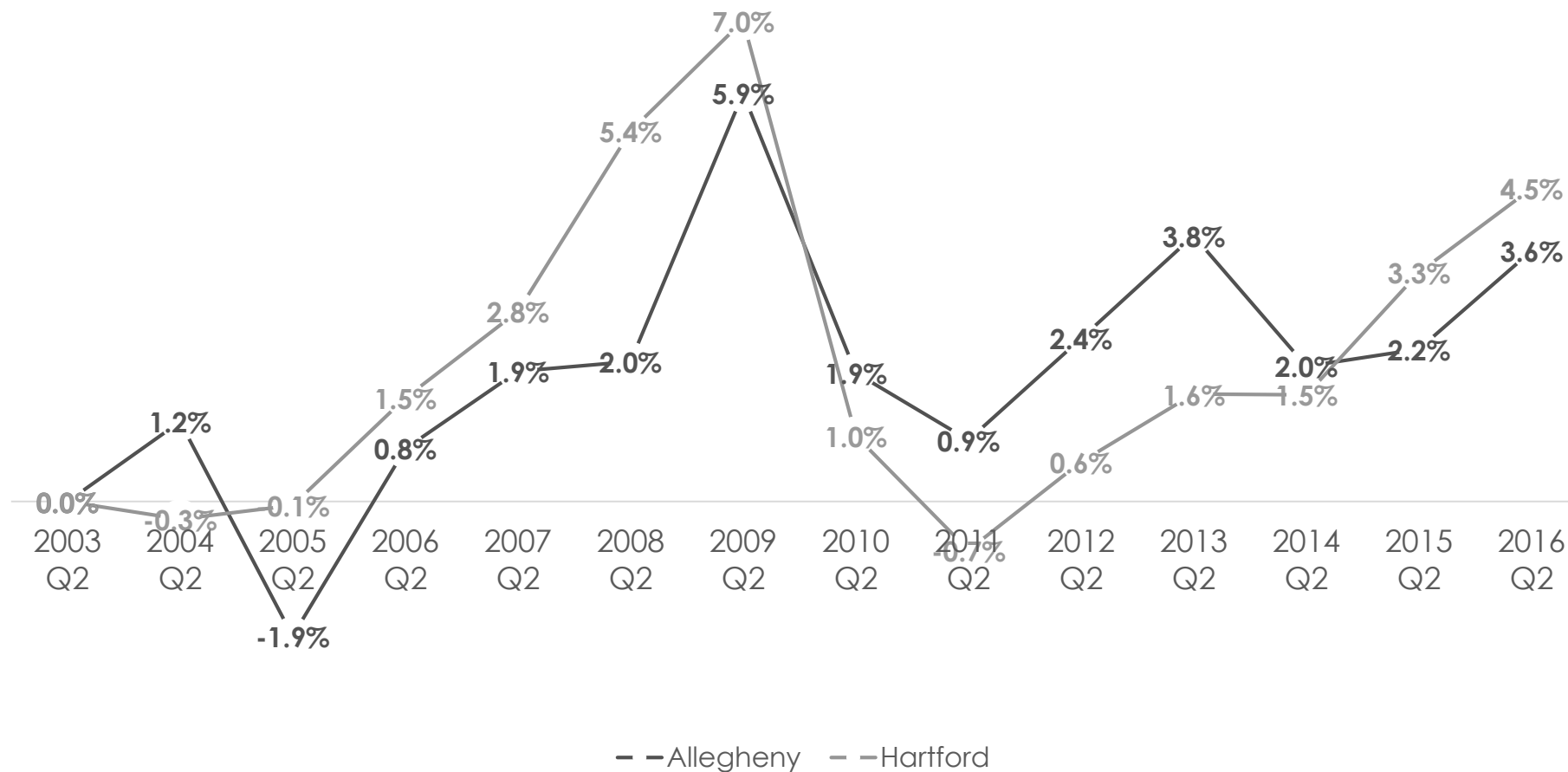
[link](#)

Hartford

[link](#)

See top_level_comparison.xlsx

RELATIVE % EMPLOYMENT GAINS
ALL PRIVATE JOBS, BEGINNING OF QUARTER
W/ NATIONAL TRENDS REMOVED



TLDR; Not everything is a simple story

Use the data together

LODES/OnTheMap

QWI

J2J

Earlene Dowell

Jody Hoon-Starr