# The Utah Economy

**Coincident Index:**

Developed by Crone and Matthews (1989)

Derived and published monthly by Philadelphia Federal Reserve Bank for all 50 states

Factors accounted for:

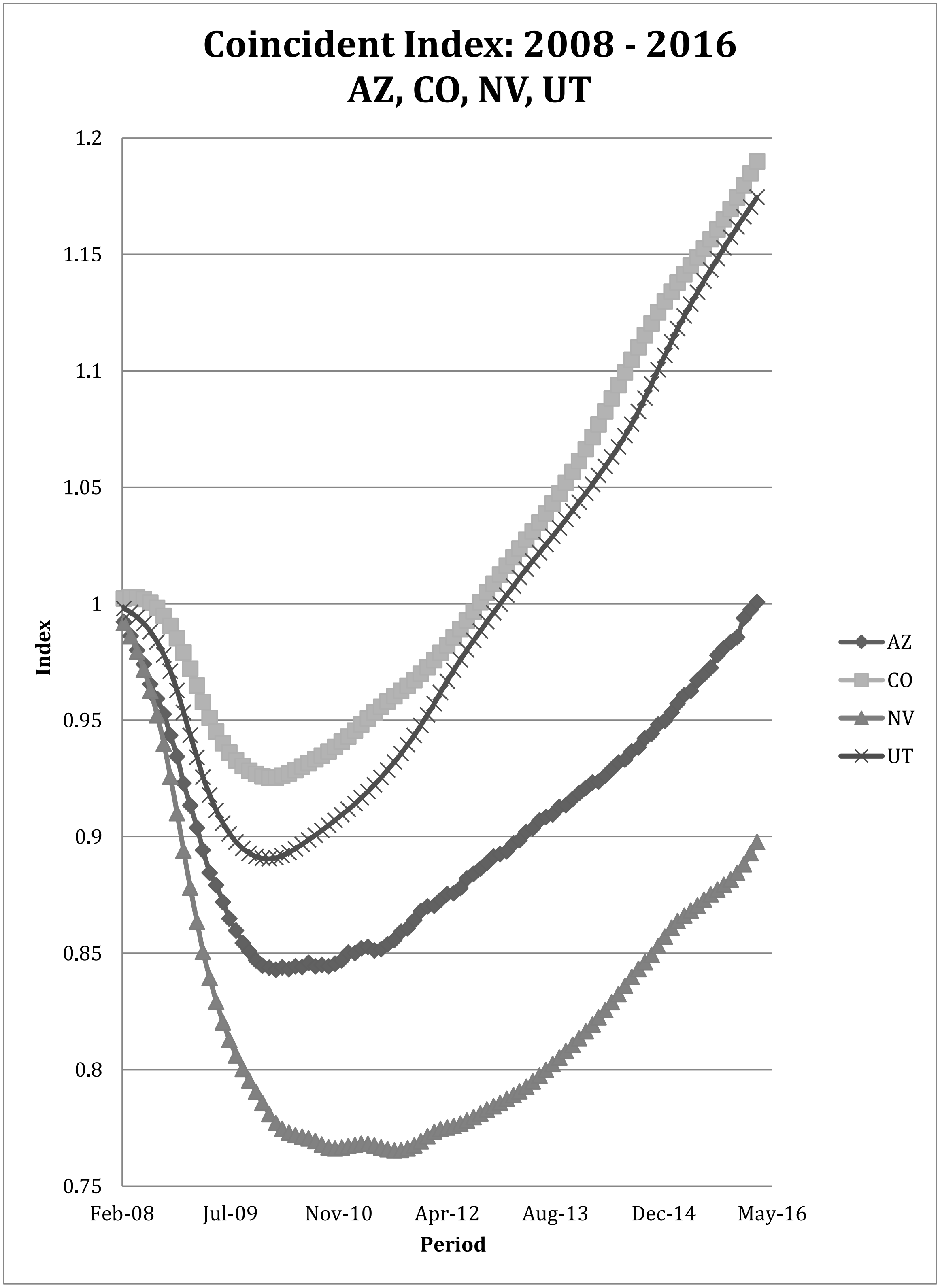
- Payroll employment
- Unemployment rate
- Average hours worked in manufacturing
- Wage and salary disbursements

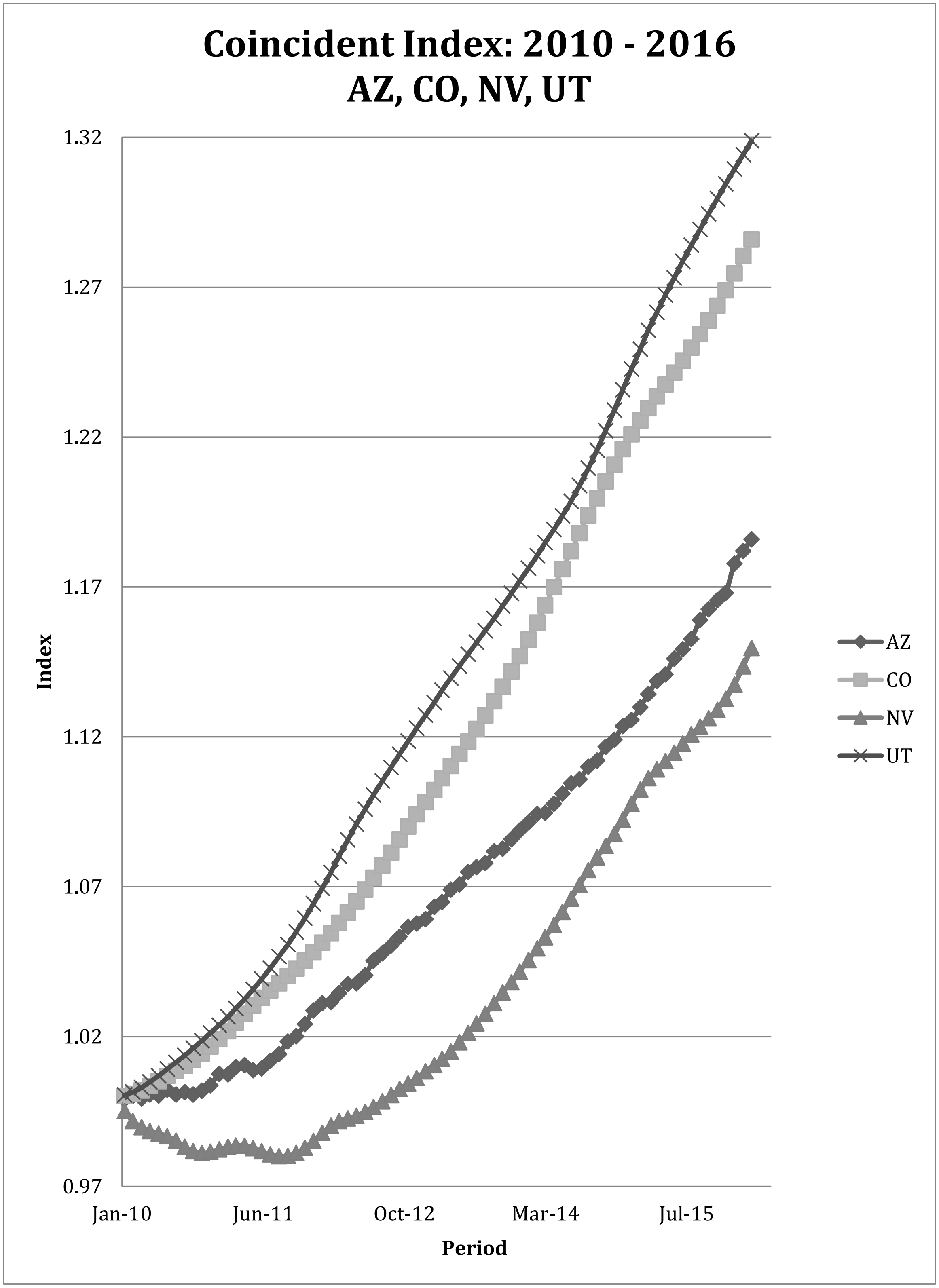
Application examples:

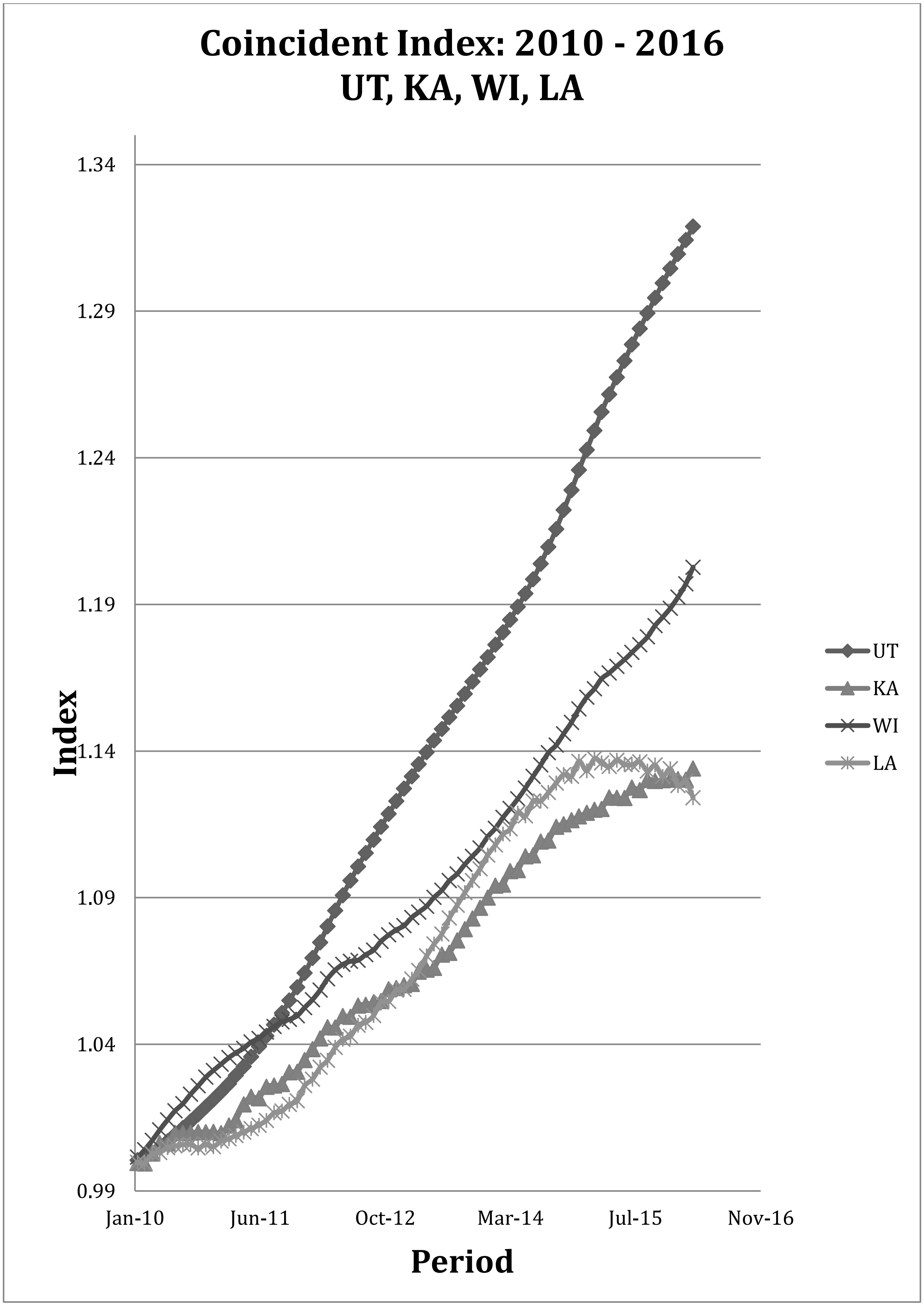
Western States 2008 – 2016:
AZ, CO, NV, UT

Western States 2010 – 2016:
AZ, CO, NV, UT

Selected States 2010 – 2016:
KA, LA, UT, WI


Coincident Index: 2008 - 2016
AZ, CO, NV, UT
Index
1.2
1.15
1.1
1.05
1
0.95
0.9
0.85
0.8
0.75
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
May-16
Period
AZ
CO
NV
UT


Coincident Index: 2010 - 2016
AZ, CO, NV, UT
1.32
1.27
1.22
1.17
1.12
1.07
1.02
0.97
Index
Jan-10
Jun-11
Oct-12
Mar-14
Jul-15
Period
AZ
CO
NV
UT


Coincident Index: 2010 - 2016
UT, KA, WI, LA
Index
1.34
1.29
1.24
1.19
1.14
1.09
1.04
0.99
Jan-10
Jun-11
Oct-12
Mar-14
Jul-15
Nov-16
Period
UT
KA
WI
LA

## Economic Incidence of a Tax

**People pay taxes**

- Passed backward to owners of capital (shareholders)
- Passed forward to labor (reduced wages)
- Passed forward to consumers (higher prices)

**Incidence of the corporate income tax?**

A very elusive and uncertain question/answer

**National corporate income tax**

Harberger (1962) capital (owners of capital) pays the tax

The Harberger model is based on a closed economy

When the model is extended to an **open economy** (capital and labor are mobile – realistic assumptions) the overwhelming conclusion is that a substantial portion of the corporate income tax is shifted forward to labor in the form of lower wages.

Grubert and Mutti (1985)
Desai, Foley, and Hines (2007)
Felix (2007)
Hasset and Mather (2010)
Clausing (2013)
Gravelle and Smaters (2006)
Randolph (2006)

**State corporate income tax**

McLure (1981) The tax burden needs to be considered in the context of the Wage, Capital, and Sales factors in the Allocation Formula.

McLure in the short run the tax lands on owners of capital and land – in the long run some of the tax likely shifted to consumers and labor.

Immobile capital and labor pay the tax

Consumers less likely pay the tax if prices set in national market -- If the state corporate tax operates as a destination tax (like a typical sale tax) then the portion of the allocation formula based on sales is borne by consumers in the taxing state.

The more important question is what does the corporate tax do the capital structure of the firm, the dividend-payout rates, and the production techniques.

Published when a three-factor allocation approach was common and some states were imposing the state corporate tax beyond the water's edge.

Liu and Altschuler (2013) in an analysis of the incidence of a state corporate income tax conclude:

> "Our findings suggest that labor shares a significant part of the burden of the corporate income taxes…
>
> Labor shares at least 42 percent of the burden of the corporate income tax and possible more." (p 233)

## Economic Development

The role taxes play in influencing economic location decisions and economic development

Analysis of shifts between **regions** finds marginal evidence that taxes influence location decisions. The other factors of production such as labor, skilled labor, energy costs, proximity to markets, etc. dominate locations decisions.

State revenue schemes are becoming inundated with tax relief, financing aids, worker training, etc. making it more difficult to find substantial tax policies differences.

Analysis of shifts between **states** finds mixed results but generally there is very modest empirical support that taxes can influence location decisions. The role of taxes is tempered even further when service levels are included in the analysis.

Pjesky (2006)

- Vedder (1996)
- Becsi (1996)
- Helms (1985)
- Modify and Stone (1990)
- Carroll and Wasylenko (1994)

Analysis of shifts between **communities** within a state finds support for taxes influencing location choices. The property tax is the tax that matters. However, sales tax differences may also play a role (Cornia, et. al 2013)

Allocation Factors

What do we "know" about allocation factors and economic growth?

Edministon (2002)

"Simulations show that the revenue impacts are much more substantial in magnitude than are the economic development impacts, especially in the short run. For production regions, particularly those that gain little from an economic development perspective with strategic apportionment policies, the revenue loses are quite substantial…" (p. 260)

"Simulations suggest, however, that many states would have been better off if the apportionment game had never started…" (p 260)

Revenue loss does occur

Economic development gains are uncertain

**Personal Income Dependent Variable:**

| | |
|---|---|
| Alm and Rogers (2013) | SCIT + |
| Tomljanovich (2004) | SCIT + |
| Ojdede and Yamarik | SCIT + |
| Gale, Ruben, and Krupkin (2015) | SCIT + |
| Wasylenko and McGuire (1985) | SCIT ? |
| Shuai and Chumna (2103) | SCIT ? |

**Employment growth Dependent Variable:**

| | |
|---|---|
| Goolsbee and Maydew (2000) | Zero sum outcome/Changing sale factor |
| Fox and Yang (2016) | Uncertain about results of changing sales factor |

- We don't fully understand the economic incidence of the state corporate income tax:
- A line item on a Corporate Tax Return -- certain
- Offsetting reductions in labor costs -- uncertain
- Offsetting increases in prices – uncertain
- Formation of S Corps, etc.
- Alterations in equity and debt allocation -- uncertain
- Empirical analysis is required to understand and the answer is likely to be different for industries and firms within an industry

## Some General Considerations Around Economic Development Policies

Cornia, Testa, and Stocker (1978)

**Benefits may be short-lived.** Fiscal and tax incentives are tools that all governments have at their disposal. As soon as one state or community offers concessions that may cause business to relocate and take advantage of the tax break or subsidy, neighboring communities have strong incentives to offer tax concessions that meet or exceed those in the first community. In the final analysis, every community can play the tax concession game, eliminating any long-term advantages from tax concessions or fiscal incentives. The net result may be that all communities end up with a less productive and less equitable tax structure without realizing any benefits of industrial expansion.

**Benefits may flow largely to nonresidents.** Since benefits from industrial growth often spread beyond the boundaries of the sponsoring government, the community that bears the cost may not reap the benefits.

**Equity.** Fairness in taxation and fiscal concessions implies that businesses with similar situations should be taxed the same. Granting tax and fiscal concessions to selected new or expanding firms may be seen as unfair to existing companies.

**Neutrality.** To the extent that tax and fiscal concessions distort location decisions, they tend to reduce the efficiency of the total economy. This problem is of course one for national policymakers. Governments below the national level tend to be unconcerned over the effect that their public policies may have on other units or on the national economy.

**Administration and compliance.** Fiscal measures ought to be easily administered, avoiding undue costs for both governments and taxpayer. Tax incentives sometimes involve problems of definition that can cause difficulty for the tax administrator and even for the business. An example is the distinction sometimes made between equipment purchased for replacement and equipment bought for expansion.

**Revenue.** The goal of taxation, in the final analysis, is to generate revenue to support public services. In the short run, a policy that sacrifices tax revenue implies either reducing public services or turning to other sources of replacement revenue. In the long term, the effect on revenue depends on whether expansion in the tax base will produce sufficient revenue to cover any related public services

## Per Pupil Expenditures K-12: 2013