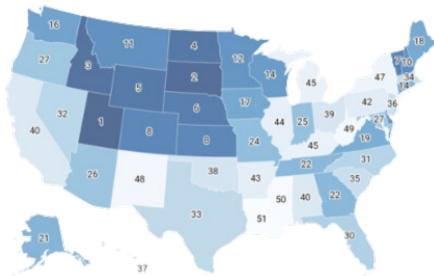




2023 CSI Economic Performance Index Rankings



**FEBRUARY 2024**

# Arizona's 2023 Economic Performance Index

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## About the Author



**Steven L. Byers** is a Senior Economist for the Common Sense Institute. Prior to joining CSI, Steven spent three years working for the Coalition for a Prosperous America, a nonprofit organization consisting of manufacturing, agricultural, labor, consumer, and citizen interest groups, where he conducted research on the U.S. economy, international trade, and tariffs. Highlights of this research include a paper titled, "Decoupling from China – An Economic Analysis of the Impact on the U.S. Economy of a Permanent Tariff on Chinese Imports" for which he and a co-author won the National Association for Business Economics Edmund A. Mennis Contributed Paper Award. Steven's experience as an economist spans twenty-three

years, including work at federal regulatory agencies (SEC, CFTC, PCAOB) and quantitative economic analysis supporting international trade litigation cases brought before the U.S. International Trade Commission. His Ph.D. dissertation topic was based on a computable general equilibrium model (CGE) he developed to evaluate the economic impact of regional tax incentives in a small city (Fort Collins, CO).



**Glenn Farley** is the Director of Policy & Research for Common Sense Institute Arizona. Prior to joining CSI in 2022, Glenn ended his 8 years in the Office of the Arizona Governor as Gov. Doug Ducey's Chief Economist and a policy advisor. In that role he advised on issues of tax, fiscal, and regulatory policy, and was one of the Governor's lead architects of his two major tax reforms – the 2018 tax overhaul that established the State's first remote sellers sales tax and dedicated the proceeds to a major simplification and overhaul of the individual income tax, followed by the 2021 income tax omnibus which phased in a 2.50% flat tax (the lowest in the country).

## *About Common Sense Institute*

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**Common Sense Institute** is a non-partisan research organization dedicated to the protection and promotion of Arizona's economy. CSI is at the forefront of important discussions concerning the future of free enterprise and aims to have an impact on the issues that matter most to Arizonans. CSI's mission is to examine the fiscal impacts of policies, initiatives, and proposed laws so that Arizonans are educated and informed on issues impacting their lives. CSI employs rigorous research techniques and dynamic modeling to evaluate the potential impact of these measures on the economy and individual opportunity.

## *Common Sense Institute Teams & Fellows Statement*

CSI is committed to independent, in-depth research that examines the impacts of policies, initiatives, and proposed laws so that Arizonans are educated and informed on issues impacting their lives. CSI's commitment to institutional independence is rooted in the individual independence of our researchers, economists, and fellows. At the core of CSI's mission is a belief in the power of the free enterprise system. Our work explores ideas that protect and promote jobs and the economy, and the CSI team and fellows take part in this pursuit with academic freedom. Our team's work is informed by data-driven research and evidence. The views and opinions of fellows do not reflect the institutional views of CSI. CSI operates independently of any political party and does not take positions.

## Introduction

In macroeconomics, the economic performance of a state is generally measured by economic growth (GDP), unemployment, labor force participation, among others. CSI developed the Economic Performance Index to assess the overall economic performance of Arizona relative to other states. It is comprised of seven metrics: GDP per capita, labor force participation rate for people aged 18 to 64 years, net business creation, inequality as measured by the Gini Index, the percentage of people of all ages in poverty, the median household, and net interstate migration.

The index starts in 2011 and is calculated annually. Construction of the index involves ranking each of the seven component metrics across 50 states and D.C. for each year and subtracting the rank by from 100. Therefore, higher (lower) index values indicate the state is more (less) competitive. To arrive at the Economic Performance Index, each of the seven component metrics is weighted evenly. The indices for each state and D.C. are then ranked with 1 equaling the highest index value and 51 equaling the lowest index value.

## Key Findings

- **Growth in GDP per Capita:** Since 2011, Arizona's economy has grown 74% in terms of GDP per capita.
- **Reduction in Poverty:** The percentage of Arizonans in poverty has fallen from 19% in 2011 to 12.5% in 2023.
- **Median Household Income:** There has been a 51.1% increase in median household income from 2011 to 2023, and this is higher than the Western region inflation of 47.5% over the same period.
- **Labor Force Participation:** Labor force participation has seen an increase of 4.1 percentage points, rising to 76.7% in 2023.
- **Net Business Creation:** Per capita net business creation has surged from 0.99 per 100,000 residents in 2018 to 220.44 in 2023.
- **Interstate Migration:** Arizona continues to see a rise in net interstate migration, ranking 4th in the U.S.

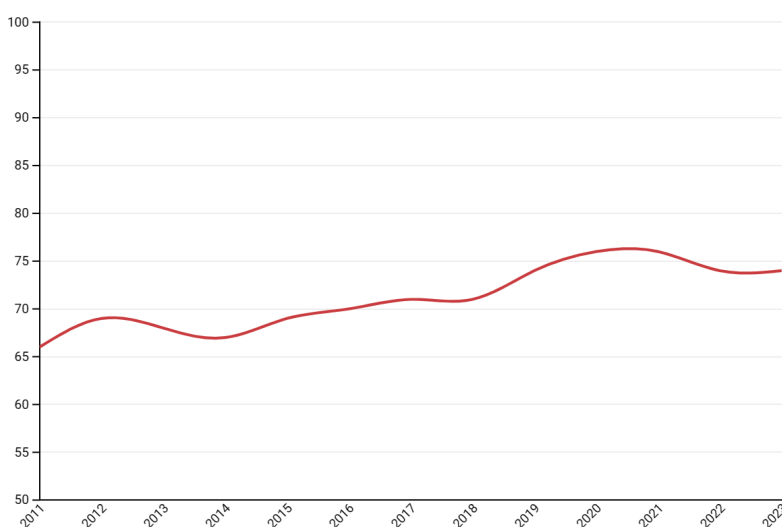
## Arizona's Economic Performance Index

It is especially important to recognize that the Economic Competitiveness Index is measuring Arizona's performance relative to 49 other states and the District of Columbia and not the performance of Arizona in isolation. As shown in figure 1, the Arizona Economic Performance index was 66.9 in 2011, rose to 74.4 in 2023.

The improvement in Arizona's Economic Performance Index is due to improvements in the economic environment in Arizona, and it has had better economic success than many other states. As discussed later in this report, the industrial composition of Arizona's economy differs from the nations in ways that make it difficult for it to be among the top state economies. For instance, Arizona's pleasant climate makes it an attractive destination for retirees and snowbirds and as such, will naturally have a lower labor force participation rate. Scarce water may hinder its growth potential in

Figure 1

CSI Economic Performance Index - Arizona



the future and may turn away some industries such as manufacturing that is highly dependent on water; this sector offers higher levels of income derived from salaries and wages. Arizona's real-estate-rental-leasing sector produces 17.1% of its GDP, 28% higher than for the U.S. overall, and this sector tends to be among the lowest for income derived from salaries and wages

## Arizona's Economic Performance Index Component Metrics

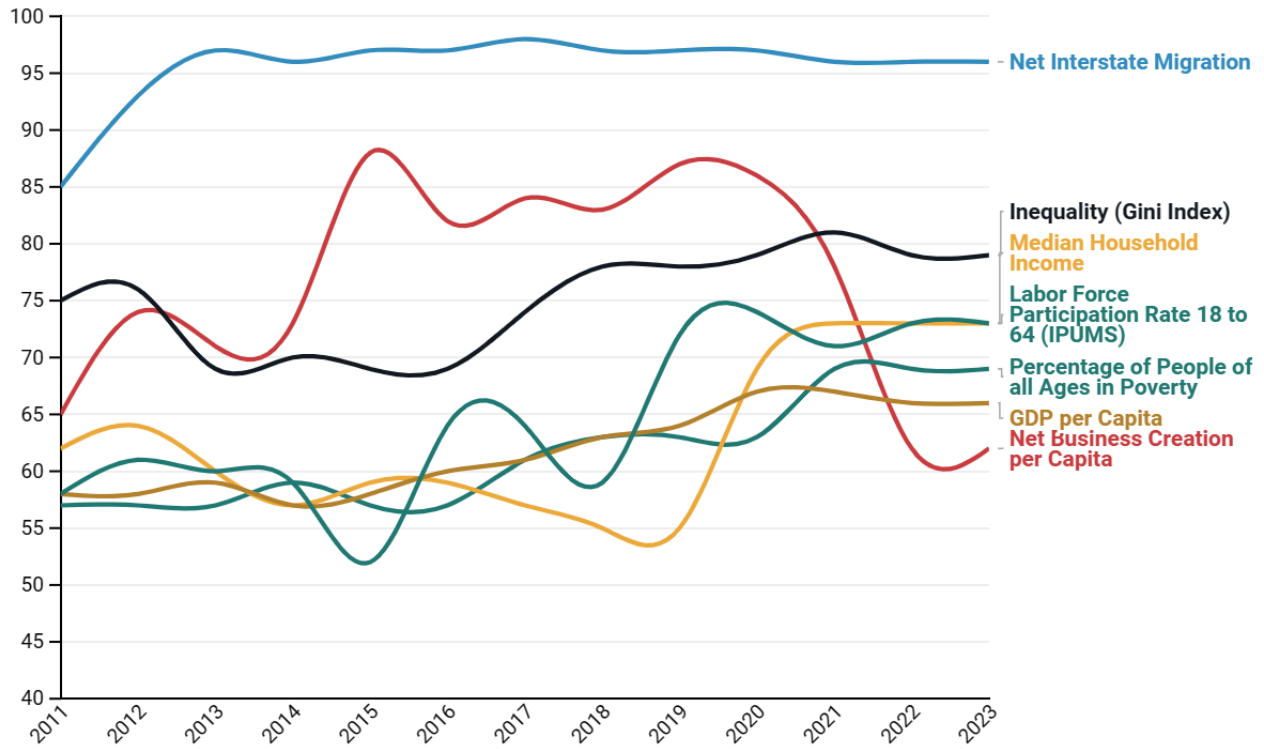
Figure 2 shows the evolution of the component metrics between 2011 and 2023, five of the seven metrics increased over this period. Only net business creation and inequality decreased. The index value for net business creation per capita was 65 in 2011 and then peaked in 2019 at 87 before declining to 62 in 2023. As shown in figure 3 most of this decline occurred after 2020, falling 29%.

The decline in Arizona's Economic Performance Index metrics is not the result of negative changes in the data specific to Arizona. The underlying data deteriorated in only one of the seven metric

categories, inequality as a measured by the Gini coefficient rose 1.5% from 0.46 in 2011 to 0.467 in 2023. The underlying data in the other six categories all improved from 2011 to 2023. Five of seven the Economic Performance Index component metrics increased because Arizona's performance was better than many other states.

Figure 2

### CSI Economic Performance Index Components - Arizona



The performance metric may rise at the state level, however, it may fall relative to the other 49 states and D.C, thus decreasing Iowa's overall competitiveness. The inverse may also be true.

Figure 3 describes the percentage changes in the Economic Competitiveness Index component metrics. Aside from the aforementioned index for net business creation per capita and inequality, six of the seven metrics declined from 2011 to 2023 with the largest increase occurring in the labor force participation rate (25.9%), followed by the percentage of people of all ages in poverty (22.8%), and GDP per capita (13.8%).

Figure 3

Arizona Economic Performance Index Component Metrics								
	Net Business Creation per Capita	Net Interstate Migration	Inequality	Percentage of People of all Ages in Poverty	Median Household Income	GDP per Capita	Labor Force Participation Rate 18 to 64 (IPUMS)	Jobs & Economy Competitive Index
<b>% Change 2011 to 2023</b>	-4.6%	12.9%	5.3%	22.8%	7.1%	13.8%	25.9%	11.3%

### The Composition of Arizona's Economy

The composition of a state's industry has a significant impact on the performance of its economy relative to other states. The composition of Arizona's and the U.S. GDP by industrial sector is shown in Figure 4. Additionally, a comparison of Arizona's industrial share distribution is compared to the U.S. share distribution, shown in the column labeled the relative share. The real estate-rental-leasing sector is the largest single contributor to GDP with 17.1% of GDP, followed by government and government enterprises at 11.3%, healthcare-social services at 8.8%, manufacturing at 8.6%, retail trade 6.9%, and construction at 5.3%.

Arizona's current industrial composition differs from the U.S. overall in some key areas where GDP and wage growth is high, these include a larger share of state GDP for the construction sector, 43% higher than for the U.S., the administrative-support-waste management sector's share of GDP is, 40% larger than for the U.S. overall, real estate-rental-leasing has a 28% larger share of GDP than does the U.S. On the other hand, Arizona's information sector's share contributes 40% less to GDP than for the U.S., professional-scientific-technical services and management of companies are both 74% the share size as for the U.S.



Figure 4

<b>Arizona and U.S. Sector Share of Real GDP 2023 Q1 through Q3</b>					
<b>Industry</b>	<b>Arizona Share of Real GDP</b>	<b>Rank Within Arizona</b>	<b>U.S. Share of Real GDP</b>	<b>Rank Within U.S.</b>	<b>Relative Share – Arizona to U.S.</b>
<b>Private industries</b>	88.8%		88.5%		
<b>Agriculture, forestry, fishing, and hunting</b>	0.4%	20	0.8%	20	0.55
<b>Mining, quarrying, and oil and gas extraction</b>	1.3%	17	1.3%	17	0.99
<b>Utilities</b>	1.6%	16	1.5%	16	1.10
<b>Construction</b>	5.3%	8	3.7%	10	1.43
<b>Manufacturing</b>	8.6%	4	10.2%	3	0.85
<b>Durable goods manufacturing</b>	7.1%		5.9%		1.20
<b>Nondurable goods manufacturing</b>	1.5%		4.3%		0.35
<b>Wholesale trade</b>	4.7%	9	5.1%	9	0.92
<b>Retail trade</b>	6.9%	5	5.7%	8	1.21
<b>Transportation and warehousing</b>	3.6%	12	3.3%	11	1.10

<b>Information</b>	4.3%	11	7.1%	6	0.60
<b>Finance and insurance</b>	6.3%	7	6.9%	7	0.91
<b>Real estate and rental and leasing</b>	17.1%	1	13.4%	1	1.28
<b>Professional, scientific, and technical services</b>	6.8%	6	9.2%	4	0.74
<b>Management of companies and enterprises</b>	1.8%	15	2.4%	14	0.74
<b>Administrative and support and waste management and remediation services</b>	4.5%	10	3.2%	12	1.40
<b>Educational services</b>	1.1%	18	1.2%	18	0.88
<b>Health care and social assistance</b>	8.8%	3	7.8%	5	1.13
<b>Arts, entertainment, and recreation</b>	0.9%	19	1.2%	19	0.75
<b>Accommodation and food services</b>	3.5%	13	3.0%	13	1.16
<b>Other services (except government and government enterprises)</b>	1.8%	14	1.9%	15	0.94
<b>Government &amp; Government Enterprises</b>	11.3%	2	11.5%	2	0.98

Figure 5 shows Arizona’s and the U.S. share of employment by each industrial sector. What stands out the most is that Arizona’s share of employment in administration-support-waste management-remediation-services is 1.2 times larger than for the U.S. Average income from salaries and wages tend to be lower in this sector as shown in figure 6. Commensurate with their share of GDP, employment share relative to the U.S. is low in professional, scientific, and technical services 60% of the U.S. share as well in the information sector which is 70% of the U.S. share. As shown in figure 6, these sectors tend to have high levels of income from wages and salaries.

Figure 5

<b>Arizona’s Distribution of Employment by Industry – 2022</b>					
	Arizona – Employment Distribution	Arizona - % of Total Private Sector Employment	U.S. – Employment Distribution	U.S. - % of Total Private Sector Employment	Relative Share - Arizona to U.S.
<b>Farm</b>	27,735	0.7%	2,567,000	1.4%	0.5
<b>Forestry, fishing, and related activities</b>	14,280	0.4%	966,800	0.5%	0.7
<b>Mining, quarrying, and oil and gas extraction</b>	20,295	0.5%	1,050,200	0.6%	0.9
<b>Utilities</b>	12,818	0.3%	605,600	0.3%	1.0
<b>Construction</b>	270,022	7.0%	11,867,800	6.3%	1.1
<b>Manufacturing</b>	204,725	5.3%	13,523,700	7.2%	0.7
<b>Wholesale trade</b>	126,540	3.3%	6,757,300	3.6%	0.9
<b>Retail trade</b>	422,975	11.0%	19,510,300	10.4%	1.1
<b>Transportation and warehousing</b>	240,127	6.3%	11,473,500	6.1%	1.0

<b>Information</b>	66,692	1.7%	3,861,900	2.1%	0.8
<b>Finance and insurance</b>	309,879	8.1%	12,982,300	6.9%	1.2
<b>Real estate and rental and leasing</b>	272,829	7.1%	11,832,200	6.3%	1.1
<b>Professional, scientific, and technical Services</b>	289,301	7.5%	15,978,400	8.5%	0.9
<b>Management of companies and enterprises</b>	53,464	1.4%	2,953,800	1.6%	0.9
<b>Administrative and support and waste management and remediation services</b>	322,974	8.4%	13,058,300	6.9%	1.2
<b>Educational services</b>	92,109	2.4%	4,885,700	2.6%	0.9
<b>Health care and social assistance</b>	476,659	12.4%	23,545,500	12.5%	1.0
<b>Arts, entertainment, and recreation</b>	85,991	2.2%	4,457,300	2.4%	0.9
<b>Accommodation and food services</b>	317,706	8.3%	14,750,300	7.8%	1.1
<b>Other services (except government and government enterprises)</b>	214,742	5.6%	11,616,100	6.2%	0.9
<b>Total Private</b>		100.0%		100.0%	

Figure 6

<b>Arizona's Distribution of Income from Wages and Salary by Industry -2022</b>					
	Arizona -Average Income from Wages and Salaries by Sector	Arizona - % Share of Average Income from Wages and Salaries by Sector	U.S. - Average Income from Wages and Salaries by Sector	U.S. - % Share of Average Income from Wages and Salaries by Sector	Relative Share – Arizona to U.S.
<b>Farm</b>	\$15,931	1.5%	\$10,169	0.9%	1.7
<b>Forestry, fishing, and related activities</b>	\$30,180	2.9%	\$25,859	2.1%	1.2
<b>Mining, quarrying, and oil and gas extraction</b>	\$68,618	6.5%	\$63,214	5.2%	1.2
<b>Utilities</b>	\$112,298	10.7%	\$116,344	11.2%	1.0
<b>Construction</b>	\$53,739	5.1%	\$49,559	5.1%	1.2
<b>Manufacturing</b>	\$84,493	8.0%	\$76,518	7.7%	1.2
<b>Wholesale trade</b>	\$87,316	8.3%	\$85,653	8.4%	1.1
<b>Retail trade</b>	\$37,006	3.5%	\$33,109	3.0%	1.2
<b>Transportation and warehousing</b>	\$32,567	3.1%	\$36,510	4.5%	1.0
<b>Information</b>	\$76,872	7.3%	\$115,704	6.2%	0.7
<b>Finance and Insurance</b>	\$59,259	5.6%	\$68,296	7.2%	0.9

<b>Real estate and rental and leasing</b>	\$16,847	1.6%	\$15,461	1.1%	1.2
<b>Professional, scientific, and technical services</b>	\$59,299	5.6%	\$78,619	6.1%	0.8
<b>Management of companies and enterprises</b>	\$90,216	8.6%	\$124,310	11.3%	0.8
<b>Administrative and support and waste management and remediation services</b>	\$42,984	4.1%	\$41,015	4.1%	1.1
<b>Educational services</b>	\$37,050	3.5%	\$40,082	3.2%	1.0
<b>Health care and social assistance</b>	\$57,376	5.5%	\$54,386	5.4%	1.1
<b>Arts, entertainment, and recreation</b>	\$28,038	2.7%	\$27,847	1.6%	1.1
<b>Accommodation and food services</b>	\$31,592	3.0%	\$29,790	2.6%	1.1
<b>Other services (except government and government enterprises)</b>	\$28,115	2.7%	\$29,249	3.1%	1.0
<b>Total Private</b>		100.0%		100.0%	

## Economic Performance Index Components

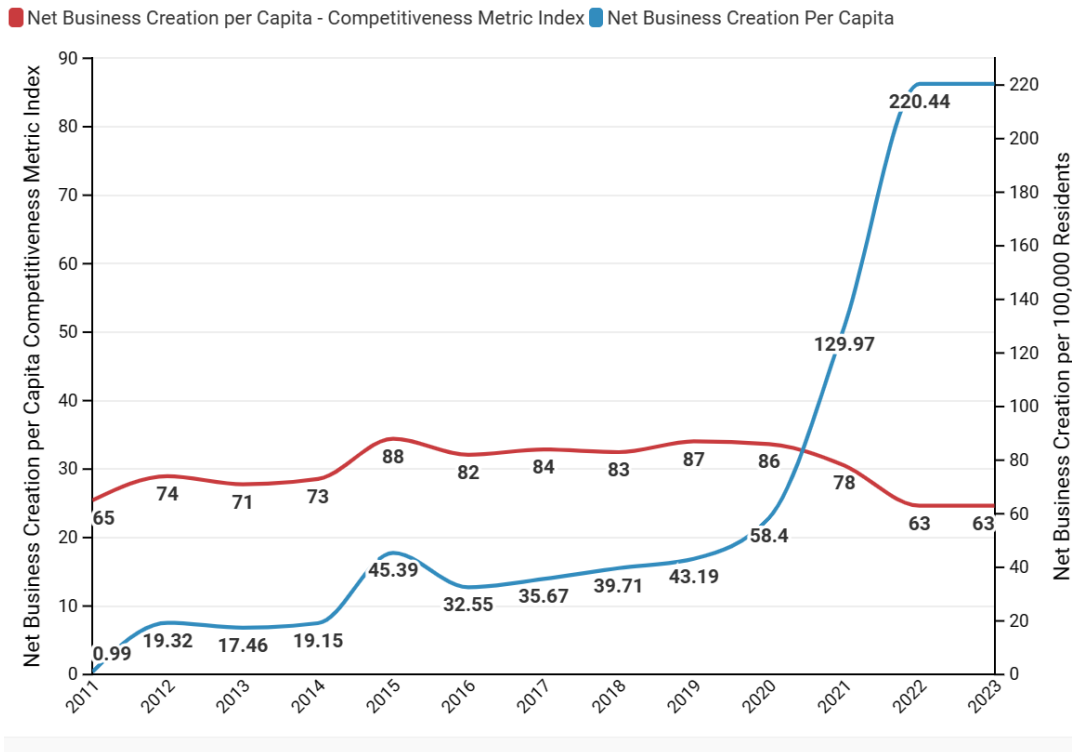
To illustrate the idea that a state's Economic Performance Index is a relative measure, each component metric index and metric value is evaluated below.

### Net Business Creation per Capita

Net business creation per capita increased slowly from 0.99 per 100,000 residents in 2011 to 58.4 in 2020 before accelerating in 2021 going forward to 220.44 in 2023. However, based on the competitiveness metric index relative to other states, it declined from 65 in 2011 to 63 in 2023. This decline in net business creation per capita relative to 49 other states and D.C. is due to higher net business creation per capita in other states.

Figure 7

#### Net Business Creation per Capita - Arizona

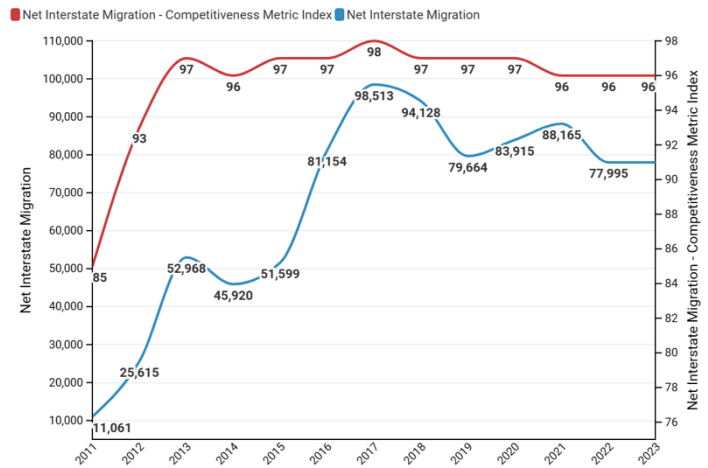


## Net Interstate Migration

Arizona remains an attractive state to relocate to, net interstate migration has fluctuated year to year but on average it has been increasing in Arizona over the past 13 years. Relative to all other states and D.C. based on the competitiveness metric index Arizona has improved relative to all other states and D.C., rising from 85 in 2011 to 96 in 2023.

Figure 8

Net Interstate Migration - Arizona



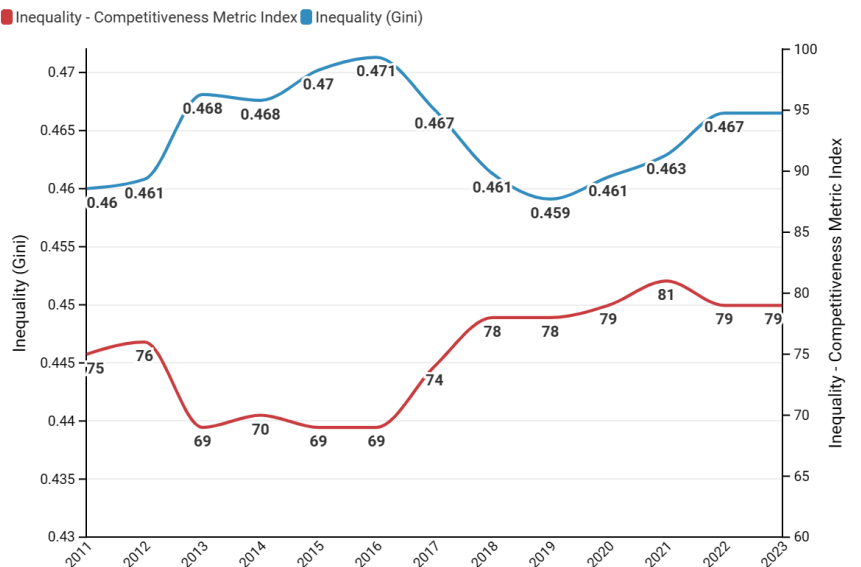
## Inequality

CSI utilizes the Gini coefficient to measure inequality. A Gini coefficient of 0 reflects perfect equality, where all income or wealth values are the same, while a Gini coefficient of 1 (or 100%) reflects maximal inequality among values, a situation where a single individual has all the income while all others have none.

Inequality in Arizona as measured by the Gini coefficient has increased by 1.5% from 0.460 in 2011 to 0.467 in 2023. Despite this, Arizona has become competitive relative to 49 states and D.C., with its competitive metric rising from 75 in 2011 to 79 in 2023.

Figure 9

Inequality - Arizona



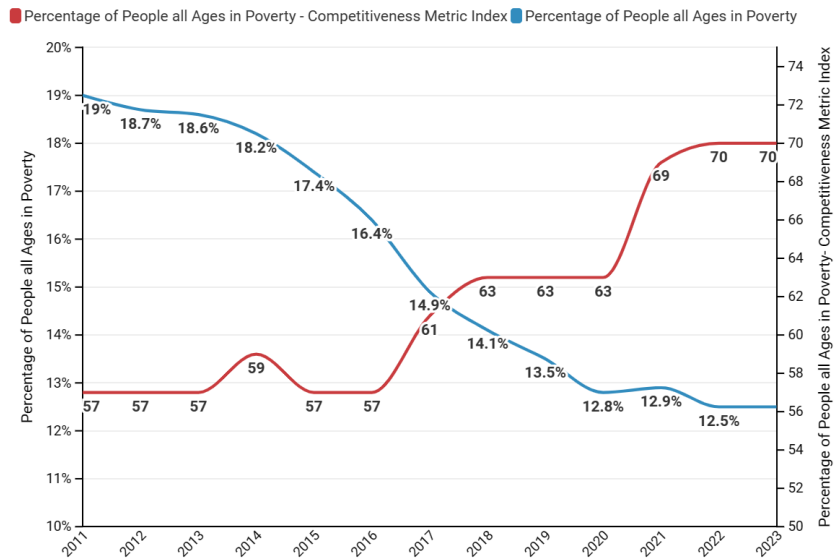


## Percentage of People of Ages in Poverty

The percentage of all people in poverty in Arizona has improved since 2011, falling from 19% to 12.5% in 2023. Relative to all 49 other states and D.C., it has improved as shown by the competitiveness metric index, which has increased from 57 in 2011 to 70 in 2023.

Figure 10

Percentage of People all Ages in Poverty - Arizona

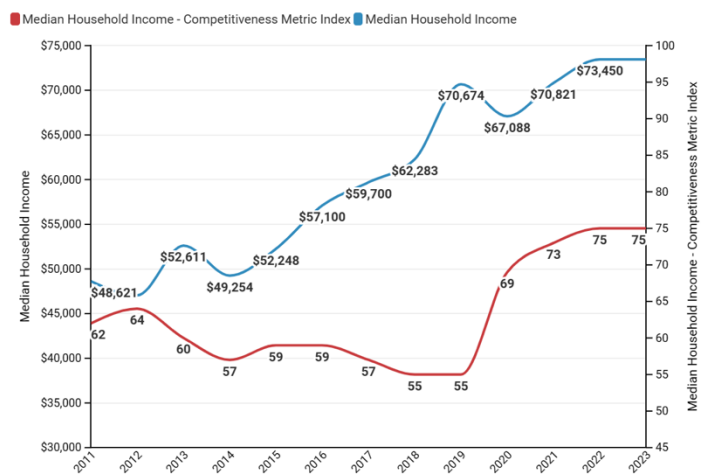


## Median Household Income

Median household income in Arizona has increased 51% from \$48,621 in 2011 to \$73,450 in 2023. This is 3.5 percentage points higher than the 47.5% increase in inflation in the West over the same period (statewide inflation data is not available). Annual inflation data specific to the Phoenix-Mesa-Scottsdale (Maricopa County) is available from 2013 to 2023 and indicates that inflation was 42.7%. Median household income in Maricopa County increased 60.7% from \$52,066 in 2013, to \$83,668 in 2023, outpacing inflation by 18 percentage points.

Figure 11

Median Household Income - Arizona

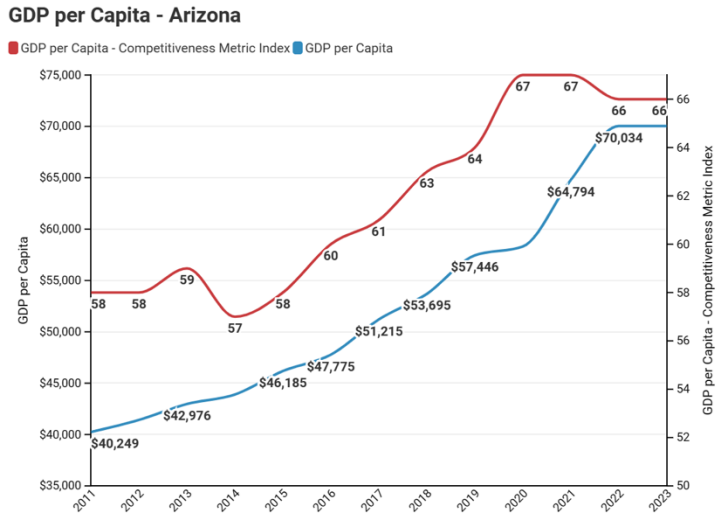


Relative to 49 other states and D.C., as measured by the competitiveness metric, Arizona has increased from 62 in 2011 to 75 in 2023.

## GDP per Capita

Arizona's per capita GDP increased 74% from \$40,249 in 2011 to \$70,034 in 2023. This resulted in an increase in their competitiveness metric from 58 to 66.

Figure 12



## Labor Force Participation

Labor force participation in Arizona increased 4.1 percentage points from 72.6% in 2011 to 76.7% in 2023. Compared to 49 other states and D.C., As a result of the increase in labor force participation, Arizona's the competitiveness metric rose from 58 to 73.

Figure 13

