

LIVE UNITED

2020 OHIO REPORT







**United Ways of Ohio** 

# **ALICE IN THE TIME OF COVID-19**



The release of this ALICE Report for Ohio comes during an unprecedented crisis — the COVID-19 pandemic. While our world changed significantly in March 2020 with the impact of this global, dual health and economic crisis, ALICE remains central to the story in every U.S. county and state. The pandemic has exposed exactly the issues of economic fragility, widespread hardship, and growing disparities — particularly by race and ethnicity —that United For ALICE and the ALICE data work to reveal.

That exposure makes the ALICE data and analysis more important than ever. The ALICE Report for Ohio presents the latest ALICE data available — a point-in-time snapshot of economic conditions across the state in 2018. By showing how many Ohio households were struggling then, the ALICE Research provides the backstory for why the COVID-19 crisis is having such a devastating economic impact. The ALICE data is especially important now to help stakeholders identify the most vulnerable in their communities, and direct programming and resources to assist them throughout the pandemic and the recovery that follows. And as Ohio moves forward, this data can be used to estimate the impact of the crisis over time, providing an important baseline for changes to come.

This crisis is fast-moving and quickly evolving. To stay abreast of the impact of COVID-19 on ALICE households and their communities, visit our website at UnitedForALICE.org/COVID19 for updates.

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Learn more about ALICE in Ohio: www.ouw.org/ALICE

**United Ways of Ohio** 

## **Acknowledgments**

United Ways of Ohio thank our partners and community stakeholders throughout the state for their support and commitment to this 2020 ALICE Report for Ohio. It is our hope that this Report will help raise awareness of the 39% of households in the state who live in poverty or who are ALICE — Asset Limited, Income Constrained, Employed. Our goal is to inform and inspire policy and action to improve the lives of ALICE families.

To learn more about how you can get involved in advocating and creating change for ALICE in Ohio, contact: **Emma Lieberth Osborn** at <a href="mailto:eosborn@uwsummitmedina.org">eosborn@uwsummitmedina.org</a>

To access the ALICE data and resources for Ohio, go to UnitedForALICE.org/Ohio



# **ALICE RESEARCH**

ALICE Reports provide high-quality, research-based information to foster a better understanding of who is struggling in our communities. To produce the ALICE Report for Ohio, our team of researchers collaborated with a Research Advisory Committee composed of experts from across the state. Research Advisory Committee members from our partner states also periodically review the ALICE Methodology. This collaborative model ensures that the ALICE Reports present unbiased data that is replicable, easily updated on a regular basis, and sensitive to local context.

Learn more about the ALICE Research Team on our website at <u>UnitedForALICE.org/ALICE-Team</u>

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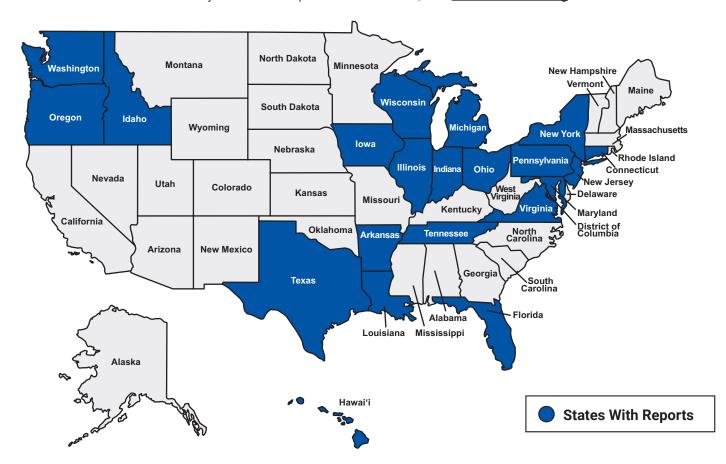
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University of Dayton

# **ALICE: A GRASSROOTS MOVEMENT**

This body of research provides a framework, language, and tools to measure and understand the struggles of a population called **ALICE** — an acronym for **A**sset **L**imited, **I**ncome **C**onstrained, **E**mployed. ALICE represents the growing number of households in our communities that do not earn enough to afford basic necessities. Partnering with United Ways, nonprofits, academic institutions, corporations, and other state organizations, this research initiative provides data to stimulate meaningful discussion, attract new partners, and ultimately inform strategies for positive change.

Based on the overwhelming success of this research in identifying and articulating the needs of this vulnerable population, this work has grown from a pilot in Morris County, New Jersey to 21 states and more than 648 United Ways. Together, United For ALICE partners can evaluate current initiatives and discover innovative approaches to improve life for ALICE and the wider community. To access Reports from all states, visit <u>UnitedForALICE.org</u>



# NATIONAL ALICE ADVISORY COUNCIL

The following companies are major funders and supporters of this work:

Aetna Foundation = Allergan = Alliant Energy = AT&T = Atlantic Health System = Atlantic Union Bank

Compare.com = Deloitte = Entergy = Johnson & Johnson = JLL = Kaiser Permanente = Key Bank

RWJBarnabas Health = Robert Wood Johnson Foundation = Thrivent Financial Foundation = UPS = U.S. Venture

# WHAT'S NEW IN ALICE RESEARCH

Every two years, United For ALICE undertakes a full review of the ALICE Methodology to ensure that the ALICE measures are transparent, replicable, and current in order to accurately reflect how much income families need to live and work in the modern economy. In 2019, more than 40 external experts — drawn from the Research Advisory Committees across our United For ALICE partner states — participated in the review process. A full description of the Methodology and sources is available at <u>UnitedForALICE.org/Methodology</u>

#### This Report includes the following improvements:

More local variation: The ALICE budgets for housing, food, transportation, health care, and taxes incorporate more local data. For housing, we differentiate counties within Metropolitan Statistical Areas using American Community Survey gross rent estimates. For food, the U.S. Department of Agriculture's Thrifty Food Plan is adjusted at the county level using Feeding America's cost-of-meal data. For transportation, auto insurance is added to new miles-traveled data (discussed in the next paragraph) to reflect different driving costs by state. For health care, out-of-pocket costs are provided by census region. And taxes now systematically include local income tax, using data from the Tax Foundation.

Better reflection of household composition: Transportation and health care budgets now better reflect costs for different household members. The transportation budget for driving a car uses the Federal Highway Administration's miles-traveled data, sorted by age and gender, and AAA's cost-per-mile for a small or medium-sized car. The health care budget reflects employer-sponsored health insurance (the most common form in 2018, when it covered 49% of Americans¹), using the employee's contribution, plus out-of-pocket expenditures by age and income, from the Agency for Healthcare Research and Quality Medical Expenditure Panel Survey.

More variations by household size: The median household size in the U.S. is three people for households headed by a person under age 65 and two people for households headed by seniors (65+).<sup>2</sup> Reflecting this reality, the Household Survival Budgets are presented in new variations, including a Senior Survival Budget. The website provides data to create budgets for households with any combination of adults and children. The ALICE Threshold has also been adjusted to incorporate the most common modern household compositions. These new budget variations are included in the County Profile and Household Budget pages on <u>UnitedForALICE.org/Ohio</u>

#### **New ALICE measures:**

- The Senior Survival Budget more accurately represents household costs for people age 65 and over. Housing
  and technology remain constant; however, some costs are lower transportation, food, and health insurance
  premiums (due to Medicare) while others are higher, especially out-of-pocket health costs. Because over 90%
  of seniors have at least one chronic condition, the Senior Survival Budget includes the additional cost of treating
  the average of the five most common chronic diseases.
- The ALICE Essentials Index is a standardized measure of the change over time in the costs of essential
  household goods and services, calculated for both urban and rural areas. It can be used as a companion to the
  Bureau of Labor Statistics' (BLS) Consumer Price Index, which covers all goods and services that families at all
  income levels buy regularly.

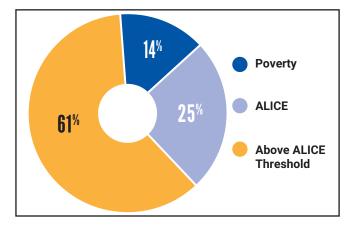
**Data Notes:** The data are estimates; some are geographic averages, others are one- or five-year averages depending on population size. Change-over-time ranges start with 2007, before the Great Recession, then measure change every two years from 2010 to 2018. County-level data remains the primary focus, as state averages mask significant differences between counties. For example, the share of households below the ALICE Threshold in Ohio ranges from 23% in Delaware County to 59% in Athens County. Many percentages are rounded to whole numbers, sometimes resulting in percentages totaling 99% or 101%. The methodological improvements included in this Report have been applied to previous years to allow for accurate year-over-year comparisons. This means that some numbers and percentages at the state and county level will not match those reported in previous ALICE Reports for Ohio.

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# ASSET LIMITED, INCOME CONSTRAINED, EMPLOYED

From 2010 to 2018, Ohio showed steady economic improvements according to traditional measures. Unemployment in the state and across the U.S. fell to historic lows, GDP grew, and wages rose slightly. Yet in 2018, eight years after the end of the Great Recession, 39% of Ohio's 4,685,500 households still struggled to make ends meet. And while 14% of these households were living below the Federal Poverty Level (FPL), another 25% — nearly twice as many — were ALICE households: Asset Limited, Income Constrained, Employed. These households earned above the FPL, but not enough to afford basic household necessities.



This Report provides new data and tools that explain the persistent level of hardship faced by ALICE households, revealing aspects of the Ohio economy not tracked by traditional economic measures. The Report highlights three critical trends:

- The cost of living is increasing for ALICE households. From 2007 to 2018, the cost of household essentials (housing, child care, food, transportation, health care, and technology) increased faster than the cost of other goods and services. The ALICE Essentials Index, a new tool that measures change over time in the cost of essentials, increased at an average rate of 3.4% annually nationwide over the past decade, while the official rate of inflation was 1.8%.
- Worker vulnerability is increasing while wages stagnate in ALICE jobs. By 2018, a near-record-low number of people were reported to be unemployed. However, that low unemployment concealed three trends that expose ALICE workers to greater risk: growth in the number of low-wage jobs, minimal increases in wages, and more fluctuations in job hours, schedules, and benefits that make it harder to budget and plan. These trends were clear in 2018: A record number of Ohio workers 59% were paid by the hour, and 59% of the state's jobs paid less than \$20 per hour, underscoring the correlation between hourly work and low wages.
- The number of ALICE households is increasing in Ohio as a result of rising costs and stagnant wages. There are more ALICE households than households in poverty, and the number of ALICE households is increasing at a faster rate. The FPL, with its minimal and uniform national estimate of the cost of living, far underestimates the number of households that cannot afford to live and work in the modern economy. In Ohio, the percentage of ALICE households grew significantly from 18% in 2007 to 24% in 2010 through 2017, comprising 25% of all households by 2018. By contrast, households in poverty fluctuated from 13% in 2007 to 15% in 2012, returning to 14% in 2018.

This Report provides critical measures that assess Ohio's economy from four perspectives: They track financial hardship over time and across demographic groups; quantify the basic cost of living in Ohio; assess job trends; and identify gaps in assistance and community resources. These measures also debunk assumptions and stereotypes about low-income workers and families. ALICE households are as diverse as the general population, composed of people of all ages, genders, races, and ethnicities, living in rural, urban, and suburban areas.

The Report concludes with an analysis of the economic benefits if all households had income above the ALICE Threshold. Not only would there be a significant positive impact on families and their communities, but the state economy would also benefit. In fact, the added value to the Ohio GDP would be approximately \$108.4 billion.

This Report and its measures are tools to help stakeholders ask the right questions, reduce vulnerabilities, remove obstacles to advancement, identify gaps in community resources, build a stronger workforce, and implement programs and policies that help put financial stability within reach for ALICE households. With the magnitude of financial hardship revealed, these actions can help move all households toward a more equitable economy, and ensure that no one is left behind in harder times.

# **GLOSSARY**

**ALICE** is an acronym that stands for **A**sset **L**imited, **I**ncome **C**onstrained, **E**mployed — households with income above the Federal Poverty Level but below the basic cost of living. A household consists of all the people who occupy a housing unit. In this Report, households do not include those living in group quarters such as a dorm, nursing home, or prison.

The **Household Survival Budget** estimates the actual bare-minimum costs of basic necessities (housing, child care, food, transportation, health care, and a basic smartphone plan) in Ohio, adjusted for different counties and household types.

The **Senior Survival Budget** incorporates specific cost estimates for seniors for food, transportation, and health care, reflecting key differences in household expenses by age.

The **Household Stability Budget** calculates the costs of supporting and sustaining an economically viable household over time, including a contingency for savings.

The **ALICE Threshold** is the average income that a household needs to afford the basic necessities defined by the Household Survival Budget for each county in Ohio. Households **Below the ALICE Threshold** include both ALICE and poverty-level households.

The **ALICE Essentials Index** is a measure of the average change over time in the costs of the essential goods and services that households need to live and work in the modern economy — housing, child care, food, transportation, health care, and a smartphone plan.

# ALICE ONLINE

Visit <u>UnitedForALICE.org</u> for more details about ALICE, including:



#### **Interactive Maps**

Data at the state, county, municipal, ZIP code, and congressional district levels



#### Research Advisory Committee

Learn about the members and role of this critical group



#### **Additional Reports**

Explore The ALICE Essentials Index and The Consequences of Insufficient Household Income



#### Demographic Data

Information about ALICE households by age, race/ ethnicity, and household type



### Data Spreadsheet

Download the ALICE data



#### **Jobs Graphs**

Details about where ALICE works



#### **County Profiles**

Detailed data about ALICE households in each county



#### Methodology

Overview of the sources and calculations used in the ALICE research



#### More About United For ALICE

See our partners, press coverage, learning communities, etc.

# AT-A-GLANCE: OHIO

2018 Point-in-Time Data

Population: 11,689,442 Number of Counties: 88 Number of Households: 4,685,500

## How many households are struggling?

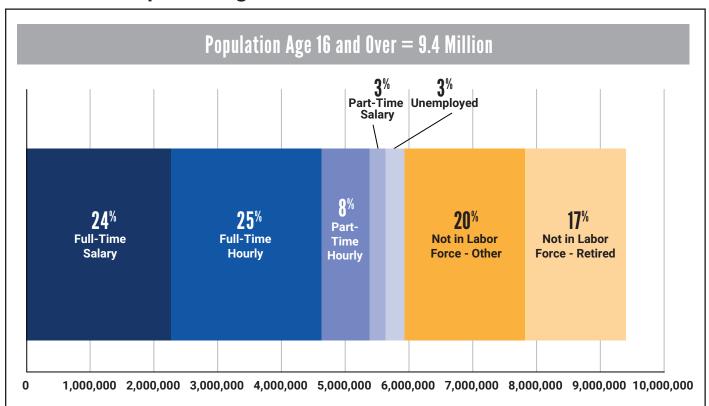
**ALICE**, an acronym for **A**sset **L**imited, **I**ncome **C**onstrained, **E**mployed, comprises households that earn more than the Federal Poverty Level but less than the basic cost of living for the state (the ALICE Threshold). Of Ohio's 4,685,500 households, 646,948 earned below the Federal Poverty Level (14%) in 2018, and another 1,149,971 (25%) were ALICE.

# 14% Poverty ALICE Above ALICE Threshold

# What does the Ohio labor force look like?

A 2018 overview of the labor status of Ohio's 9,399,588 working-age adults (people age 16 and over) shows that 63% of adults were in the labor force (blue bars), yet more than half were workers who were paid hourly. Hourly paid jobs tend to have lower wages, fewer benefits, and less stability. In addition, 37% of adults were outside the labor force (gold bars), either because they were retired or because they had stopped looking for work.

## Labor Status, Population Age 16 and Over, Ohio, 2018



Note: Data for full- and part-time jobs is only available at the national level; these national rates (51% of full-time workers and 75% of part-time, hourly workers) have been applied to the total Ohio workforce to calculate the breakdown shown in this figure. Full-time represents a minimum of 35 hours per week at one or more jobs for 48 weeks per year.

## What does it cost to afford the basic necessities?

The average ALICE Household Survival Budget in Ohio was \$21,828 for a single adult, \$24,396 for a single senior, and \$67,404 for a family of four in 2018 — significantly more than the Federal Poverty Level of \$12,140 for a single adult and \$25,100 for a family of four.

# Household Survival Budget, Ohio, Average, 2018

	SINGLE ADULT	SENIOR (1 ADULT)	2 ADULTS, 1 INFANT, 1 Preschooler
Monthly Costs			
Housing	\$542	\$542	\$782
Child Care	-	1	\$1,323
Food	\$251	\$214	\$760
Transportation	\$337	\$291	\$805
Health Care	\$217	\$488	\$706
Technology	\$55	\$55	\$75
Miscellaneous	\$165	\$185	\$511
Taxes	\$252	\$258	\$655
Monthly Total	\$1,819	\$2,033	\$5,617
ANNUAL TOTAL	\$21,828	\$24,396	\$67,404
Hourly Wage*	\$10.91	\$12.20	\$33.70

<sup>\*</sup>Full-time wage required to support this budget

Ohio Counties, 2018		
COUNTY	TOTAL HOUSEHOLDS	% ALICE & POVERTY
Adams	10,835	54%
Allen	41,204	38%
Ashland	20,439	35%
Ashtabula	35,445	47%
Athens	22,533	59%
Auglaize	18,723	30%
Belmont	26,200	40%
Brown	17,434	36%
Butler	143,040	40%
Carroll	11,126	39%
Champaign	15,209	33%
Clark	55,327	36%

Ohio Counties, 2018		
COUNTY	TOTAL HOUSEHOLDS	% ALICE & POVERTY
Clermont	77,920	35%
Clinton	16,370	39%
Columbiana	41,884	43%
Coshocton	14,461	43%
Crawford	17,755	44%
Cuyahoga	542,122	41%
Darke	20,838	35%
Defiance	15,213	29%
Delaware	70,501	23%
Erie	31,675	42%
Fairfield	55,934	36%
Fayette	11,736	41%

COUNTY	TOTAL HOUSEHOLDS	% ALICE & POVERTY	
Franklin	519,468	41%	
Fulton	16,425	30%	
Gallia	11,662	48%	
Geauga	35,285	27%	
Greene	66,053	31%	
Guernsey	16,098	43%	
Hamilton	344,562	40%	
Hancock	31,606	32%	
Hardin	11,495	42%	
Harrison	6,200	37%	
Henry	11,065	31%	
Highland	16,646	50%	
Hocking	11,120	419	
Holmes	12,437	42%	
Huron	22,860	36%	
Jackson	12,892	41%	
Jefferson	27,292	48%	
Knox	23,340	33%	
Lake	96,577	31%	
Lawrence	23,540	47%	
Licking	62,237	34%	
Logan	18,654	36%	
Lorain	121,344	36%	
Lucas	178,289	43%	
Madison	15,080	40%	
Mahoning	97,365	40%	
Marion	24,205	52%	
Medina	70,609	26%	
Meigs	9,193	43%	
Mercer	16,104	29%	
Miami	41,148	36%	
Monroe	5,945	44%	
Montgomery	224,225	40%	
Morgan	6,147	46%	
Morrow	12,650	39%	
Muskingum	34,471	41%	
Noble	4,967	48%	
Ottawa	17,691	32%	

Ohio Counties, 2018			
COUNTY	TOTAL HOUSEHOLDS	% ALICE & POVERTY	
Paulding	7,770	37%	
Perry	13,547	44%	
Pickaway	19,728	37%	
Pike	10,822	50%	
Portage	60,801	38%	
Preble	16,090	32%	
Putnam	13,236	26%	
Richland	48,105	35%	
Ross	29,779	44%	
Sandusky	23,562	35%	
Scioto	28,719	53%	
Seneca	21,652	37%	
Shelby	18,643	29%	
Stark	152,210	37%	
Summit	226,243	34%	
Trumbull	83,303	42%	
Tuscarawas	36,740	40%	
Union	19,546	28%	
Van Wert	11,419	33%	
Vinton	5,111	47%	
Warren	83,540	28%	
Washington	25,139	39%	
Wayne	43,908	34%	
Williams	15,246	39%	
Wood	50,694	35%	
Wyandot	9,076	35%	

Note: For counties with populations over 65,000, the American Community survey data are 1-year estimates; for populations below 65,000, data are 5-year estimates.

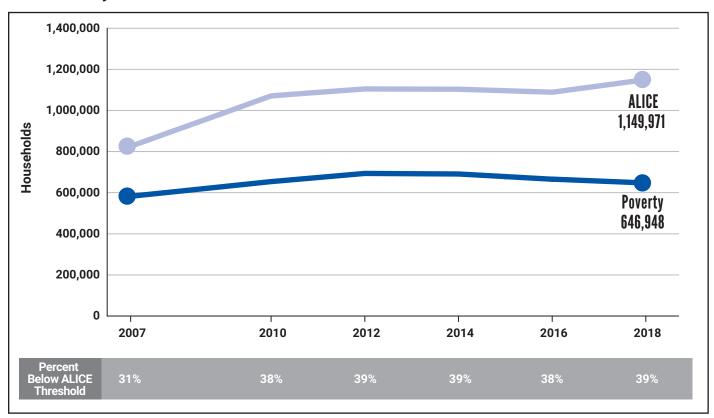
Sources: Point-in-Time Data: American Community Survey, 2018. ALICE Demographics: ALICE Threshold, 2018; American Community Survey, 2018. Labor Status: American Community Survey, 2018; Federal Reserve Bank of St. Louis, 2018. Budget: AAA, 2018; Agency for Healthcare Research and Quality, 2018; American Community Survey, 2018; Bureau of Labor Statistics, 2018— Consumer Expenditure Surveys; Bureau of Labor Statistics, 2019-Consumer Expenditure Survey; Bureau of Labor Statistics, 2018—Occupational Employment Statistics; Centers for Medicare & Medicaid Services, 2016-Medicare Current Beneficiary Survey; Centers for Medicare & Medicaid Services, 2019; Centers for Medicare & Medicaid Services, 2019-Medicare - Chronic Conditions; Federal Highway Administration, 2017; Feeding America, 2019; Fowler, 2019; Internal Revenue Service, 2020; Internal Revenue Service—FICA, 2020; Medicare. gov; Ohio Department of Job and Family Services, 2019; Scarboro, 2018; The Zebra, 2018; U.S. Department of Agriculture, 2018-Official USDA Food Plans; U.S. Department of Housing and Urban Development, 2018—Fair Market Rents; Walczak, 2019. For more details, see the Methodology Overview at UnitedForALICE.org/Methodology

# WHO IS ALICE?

With income above the Federal Poverty Level (FPL) but below a basic survival threshold — defined as the ALICE Threshold — ALICE households earn too much to qualify as "poor" but are still unable to make ends meet. They often work as cashiers, nursing assistants, office clerks, servers, laborers, and security guards. These types of jobs are vital to keeping Ohio's economy running smoothly, but they do not provide adequate wages to cover the basics of housing, child care, food, transportation, health care, and technology for these ALICE workers and their families.

Between 2007 and 2018 the total number of households in Ohio increased by 4%, growing from 4.5 million to 4.7 million. During the same period, the composition of households by income shifted. The percentage of households in poverty increased from 13% of all households in 2007 to a high of 15% in 2012, before returning to 14% in 2018. Yet the percentage of ALICE households increased significantly more (from 825,511 to 1,149,971, a 39% increase) so that by 2018, 25% of Ohio households were ALICE. The most dramatic increase in the number of ALICE households occurred from 2007 to 2010 in response to the Great Recession, and those numbers never recovered, continuing to rise over the eight years that followed. Overall, the percentage of households living below the ALICE Threshold (ALICE and poverty-level households combined) rose from 31% in 2007 to 39% in 2018 (Figure 1).

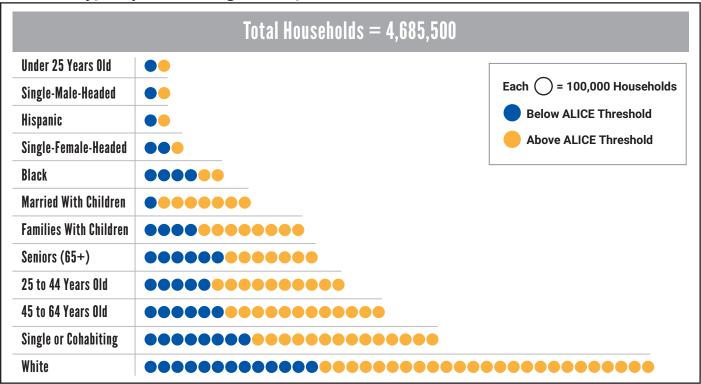
Figure 1. Households by Income, Ohio, 2007-2018



Sources: ALICE Threshold, 2007-2018; American Community Survey, 2007-2018

ALICE households live in every county in Ohio — urban, suburban, and rural — and they include people of all genders, ages, and races/ethnicities, across all household types. Figure 2 shows that in 2018, the largest numbers of households below the ALICE Threshold were in the largest demographic groups in Ohio — namely, White households, single or cohabiting households (without children or seniors), households headed by someone in their prime working years (ages 25–64), and seniors. Among families with children — another of the state's larger groups — married-parent families were the largest subgroup and accounted for 25% of families with children living below the ALICE Threshold.

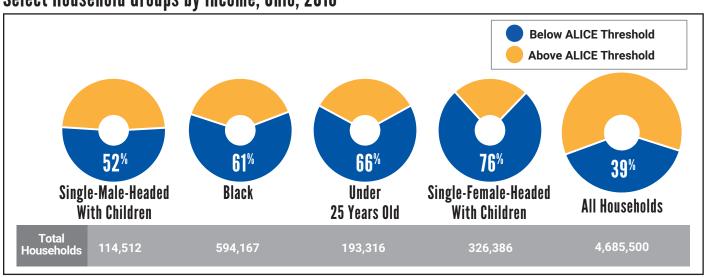
Figure 2. Household Types by Income, Largest Groups, Ohio, 2018



Note: The groups shown in this figure overlap across categories (age, household type, race/ethnicity). Within the race/ethnicity category, all racial categories except Two or More Races are for one race alone. Race and ethnicity are overlapping categories; in this Report, the Asian, Black, Hawaiian (includes other Pacific Islanders), and Two or More Races groups may include Hispanic households. The White group includes only White, non-Hispanic households. The Hispanic group may include households of any race. Because household poverty data is not available for the American Community Survey's race/ethnicity categories, annual income below \$15,000 is used as a proxy. Sources: ALICE Threshold, 2018; American Community Survey, 2018

Another way to examine the data is to look at the proportion of each group that is below the ALICE Threshold. Overall, 39% of households in Ohio had income below the ALICE Threshold in 2018. But many smaller groups had a disproportionately high percentage of families below the ALICE Threshold, including Black households, young households (headed by someone under age 25), and single-parent households (Figure 3). Certain groups with fewer than 100,000 total households also had a disproportionately high percentage of households below the ALICE threshold, including 32% of Asian households and 54% of households headed by someone who identifies as two or more races.

Figure 3.
Select Household Groups by Income, Ohio, 2018



Sources: ALICE Threshold, 2018; American Community Survey, 2018

In addition to these demographic disparities by age, race/ethnicity, and family type — which are perpetuated by discrimination and institutionalized racism, ageism, and sexism — other factors can also make households more likely to face financial hardship. Lower incomes are associated with households headed by a recent immigrant, especially one who is undocumented or unskilled; by someone with low proficiency in English; by a lesbian, gay, bisexual, transgender, or queer (LGBTQ+) person; by someone with a low level of education; by someone who was previously incarcerated; or by someone living with a disability. Groups with more than one of these factors — recent immigrants with special needs, for example, who may have both limited English proficiency and a disability; or LGBTQ+ people of color, who face systemic racism and discrimination — are even more likely to experience financial hardship.<sup>3</sup>

## TRENDS: HOUSEHOLD DEMOGRAPHICS

A growing number of households live on the edge of the ALICE Threshold. For these households, even a small increase in the cost of housing or a decrease in work hours can mean the difference between being financially stable and being ALICE. In Ohio, 10% of households (482,438) were on the cusp of the ALICE Threshold in 2018; of those, 53% earned just above the ALICE Threshold and 47% earned just below it.<sup>4</sup> This matters for families, but it can also impact the Ohio economy as a whole: Even a small drop in wages or hours worked, or an unexpected emergency — such as a factory closing or a natural disaster — could destabilize a large number of households. Conversely, a small increase in wages or a decrease in rent or a car payment could help push families above the ALICE Threshold.

Ohio is increasingly diverse. The largest percentage of households by race/ethnicity in 2018 were White (81%), yet the state has grown more diverse over the last decade, particularly among the younger population and in the suburban counties surrounding Columbus and Cincinnati.<sup>5</sup> From 2010 to 2018, the number of White households remained stable while the number of households of other racial and ethnic groups grew rapidly, with the largest increases seen in Black households (a 10% increase), Asian households (13%), and Hispanic households (38%). Households of color also experienced disproportionate increases

Even a small drop in wages or hours worked, or an unexpected emergency — such as a factory closing or a natural disaster — could destabilize a large number of households.

in financial hardship during this period, particularly among younger households (under age 25) and those headed by seniors. While the share of White households below the ALICE Threshold remained relatively unchanged, the percentage of Black households below the ALICE Threshold increased by 13%, followed by Hispanic households with a 43% increase, and Asian households with the most significant increase at 55%.<sup>6</sup> Growth in the total number of households was concentrated in the suburbs, with Delaware, Union, and Warren counties seeing the largest population increases. City centers and mostly rural counties experienced slow growth or declines, particularly in Crawford, Cuyahoga, and Mahoning counties.<sup>7</sup>

Ohio's household structure continues to change. Consistent with the national trend, the number of married-parent families with children in Ohio is declining as the number of single and cohabitating households is on the rise. In 2018, married-parent families with children accounted for just 16% of all households in Ohio, a decrease of 10% from 2010. At the same time, single or cohabiting adults under age 65 with no children under age 18 made up the largest proportion of households in Ohio (48%) in 2018, as well as the largest share of households below the ALICE Threshold (44%). Nationally, the number of cohabiting adults more than doubled between 1996 and 2017, and these partners tend to have higher levels of education and be more racially diverse today than cohabiting adults 20 years ago.<sup>8</sup>

Baby boomers and millennials, the two largest population bubbles, are getting older. This natural aging of the population is reducing the proportion of both college-age students and families with children as millennials have passed traditional college age, are having fewer children, and are waiting longer than previous generations to have them. It is also increasing the number of seniors as more boomers pass age 65. By 2045, 21% of the state's population will be age 65 or older; and the White population, which is older than other racial/ethnic groups, will continue to account for an increasing share of seniors.

Among seniors, there are several trends. First, having lived through a decade of financial challenges since the Great Recession, more Ohio seniors will become ALICE. While there are many policies and programs in place to help seniors financially — such as Social Security, property tax deductions or exemptions based on age, as well as senior discounts for both private and public purchases — many more seniors continue to experience financial hardship. Second, seniors make up a larger portion of households in rural areas, where they will continue to face additional challenges in access to transportation, health care, and caregiving. Third, almost half (48%) of seniors in Ohio have trouble with daily activities, and particularly with walking; yet as seniors age, they are more likely to live on their own. Increasing financial hardship, disability, and the likelihood of living alone all point to the need for growing senior services and support. A 2020 report on the best and worst places for seniors to live ranked Ohio 29th out of 50 states. The state received high marks for affordability and availability of senior housing, but low scores due to a lack of quality health-care professionals and the state's quality-of-life ranking, brought down by the high prevalence of obesity and smoking.

**Inequality in income and wealth will continue to rise** as wage growth and job stability in high-wage jobs greatly outpace growth and stability at the lower end. Nationwide, from the late 1940s to the early 1970s, incomes across the income distribution grew at nearly the same pace. Then, beginning in the 1970s, income disparities began to widen: The average income for the top 1% increased over five times more than that of the middle 60% and over three times more than that of the bottom fifth, from 1979 to 2016. The gap in wealth (savings and assets) is even greater. Nationally, single women own less than half (40 cents) of every dollar single men own. And the disparities are even greater among single Hispanic and Black women who, respectively, own eight cents and two cents on the single-male-owned dollar. Is

Unable to save, ALICE families do not have the means to build assets, let alone catch up to those who already have assets (especially those who have been building assets for generations). ALICE families also face more barriers that, when compounded, create an even bigger wealth gap. These include issues like lower pay for women, racial/ethnic discrimination in homeownership, and student loan debt. For example, research from the Center for American Progress shows that in Ohio, women earn approximately 77 cents for every dollar that men make, with even lower earnings among Black women at 64 cents for every dollar. Women are also more likely than men to hold low-wage jobs; nearly 7 out of 10 minimum-wage workers in Ohio are women. To

# THE COST OF LIVING IN OHIO

Traditional economic measures systematically underestimate the actual cost of basic needs and their rate of increase over time, concealing important aspects of the local and national economy. To better capture the reality of how much income households need to live and work in the modern economy in each county in Ohio, this Report includes the **ALICE Household Budgets**. In addition, the Report presents the **ALICE Essentials Index**, a standardized national measure that captures change over time in the cost of household essentials that ALICE households purchase. Together, these tools provide a more accurate estimate of the cost of living and a clearer way to track change over time.

## THE ALICE HOUSEHOLD BUDGETS

United For ALICE provides three basic budgets for all counties in Ohio. Each budget can be calculated for various household types.

- The ALICE Household Survival Budget is an estimate of the minimal total cost of household essentials —
  housing, child care, food, transportation, health care, and technology, plus taxes and a miscellaneous contingency
  fund equal to 10% of the budget. It does not include savings, auto repairs, cable service, travel, laundry costs, or
  amenities such as holiday gifts or dinner at a restaurant that many families take for granted.
- The **Senior Survival Budget**, new to this Report, adjusts the Household Survival Budget to reflect the fact that seniors have lower food costs than younger adults, travel fewer miles for work and family responsibilities, and have increasing health needs and out-of-pocket health care expenses.
- For comparison to a more sustainable budget, the ALICE Household Stability Budget estimates the higher costs
  of maintaining a viable household over time, and it is the only ALICE budget to include a savings category, equal to
  10% of the budget.

The actual cost of household basics in every county in Ohio is well above the Federal Poverty Level (FPL) for all household sizes and types (Figure 4). For a single adult, the FPL was \$12,140 per year in 2018, but the average Household Survival Budget in Ohio was \$21,828 per year. The average Senior Survival Budget totaled \$24,396 per year, primarily due to increased health costs. (Despite having Medicare, seniors have greater out-of-pocket health care costs, largely due to increased spending on chronic health issues like heart disease and diabetes.) And all budgets were significantly lower than the Household Stability Budget, which reached \$42,036 per year for a single adult.

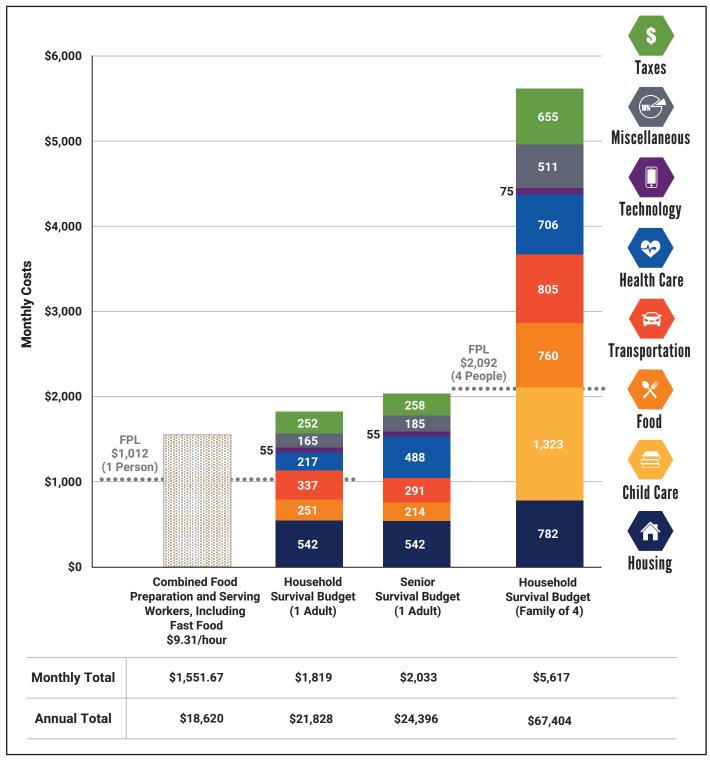
The gaps are even larger for families. The FPL for a four-person family was \$25,100 in 2018, while the Household Survival Budget for a family with two adults, an infant, and a four-year-old was \$67,404.<sup>19</sup> The cost of living for a family of four is highest in counties surrounding the metro areas of Columbus, Cincinnati, and Cleveland – over \$80,000 per year in Delaware and Warren counties — and lowest in rural areas, at less than \$62,000 in Mercer, Sandusky, and Gallia counties.

The hourly wages needed to support these budgets were \$10.91 for the single adult Survival Budget; \$12.20 for the Senior Survival Budget; and \$33.70 for one worker, or \$16.85 each for two workers, for a family of four's Survival Budget. To put these budgets in perspective, the median hourly wage for the most common occupation in Ohio, food preparation and serving workers, was \$9.31 in 2018, or \$18,620 if full time, year-round — not enough to support any of the ALICE budgets.

Public assistance programs are based on the FPL, but the FPL is not enough for a household to cover even its most minimal costs, as shown by the comparison to the Household Survival Budget in Figure 4. This means that assistance programs serve far fewer households than actually need assistance, even in a strong economy.

To see the details of each ALICE budget for different household types, visit <u>UnitedForALICE.org/Ohio</u>

Figure 4.
Budget Comparison, Ohio, 2018



Note: The FPL is a total; there is no breakdown of how that amount is allocated by budget category.

Sources: AAA, 2018; Agency for Healthcare Research and Quality, 2018; American Community Survey, 2018; Bureau of Labor Statistics, 2018—Consumer Expenditure Surveys; Bureau of Labor Statistics, 2019—Consumer Expenditure Survey; Bureau of Labor Statistics, 2018—Occupational Employment Statistics; Centers for Medicare & Medicaid Services, 2016—Medicare Current Beneficiary Survey; Centers for Medicare & Medicaid Services, 2019; Centers for Medicare & Medicaid Services, 2019—Medicare - Chronic Conditions; Federal Highway Administration, 2017; Feeding America, 2019; Fowler, 2019; Internal Revenue Service, 2020; Internal Revenue Service—FICA, 2020; Medicare.gov; Ohio Department of Job and Family Services, 2019; Scarboro, 2018; The Zebra, 2018; U.S. Department of Agriculture, 2018—Official USDA Food Plans; U.S. Department of Housing and Urban Development, 2018—Fair Market Rents; Walczak, 2019. For more details, see the Methodology Overview at <u>UnitedForALICE.org/Methodology</u><sup>20</sup>

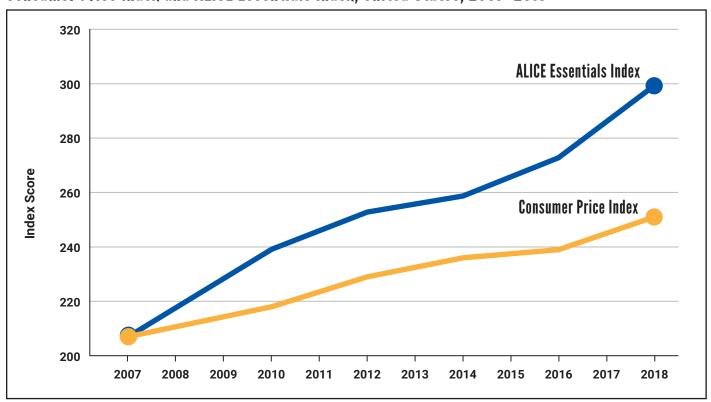
## THE ALICE ESSENTIALS INDEX

Based on items in the Household Survival Budget, the ALICE Essentials Index measures the change over time in the costs of household essentials — a much narrower definition than the more common rate of inflation based on the BLS Consumer Price Index (CPI). While the CPI covers a large group of goods and services that urban consumers buy regularly (housing, food and beverages, transportation, medical care, apparel, recreation, education, and communication services), the ALICE Essentials Index includes only essential household items (housing, child care, food, transportation, health care, and a smartphone plan). The ALICE Essentials Index is also calculated for both urban and rural areas, while the CPI only tracks inflation based on a select number of metropolitan (urban) counties.<sup>21</sup> For more detailed information, see the 2020 ALICE Essentials Index Report available at <u>UnitedForALICE.org/Essentials-Index</u>

Across the country, the ALICE Essentials Index has increased faster than the CPI over the last decade (Figure 5). From 2007 to 2018, the average annual rate of increase was 3.3% in urban areas and 3.4% in rural areas, while the CPI increased by 1.8%.<sup>22</sup> This difference is primarily due to the fact that the costs of basics, especially housing and health care, have increased, while the costs of other items — notably manufactured goods, from apparel to cars — have remained relatively flat. And while basic household goods were 18% to 22% more expensive in urban areas than in rural areas, those costs increased at nearly the same rate in both areas during this period.

Figure 5.

Consumer Price Index and ALICE Essentials Index, United States, 2007–2018



Sources: ALICE Essentials Index, 2007-2018; Bureau of Labor Statistics-Consumer Price Index, 2007-2018. For more information, visit UnitedForALICE.org/Essentials-Index

The difference between these two cost-of-living measures is more than an academic question. The CPI is used to measure inflation and monitor monetary policy. It also determines the rate at which a wide range of government program levels and benefits are increased, including Social Security, veterans' and Federal Civil Service retirees' benefits, government assistance programs, the FPL, income tax brackets, and tax credits like the Earned Income Tax Credit (EITC).<sup>23</sup> But the ALICE Essentials Index shows that from 2007 to 2018, the CPI considerably underestimated the increase in the cost of living for ALICE households across the country.

## TRENDS: COST OF LIVING

The cost of living for ALICE is growing significantly, often driven by the cost of housing. According to the most recent Ohio Housing Needs Assessment, 46% of renters in Ohio experienced housing cost burden between 2013 and 2017, defined as spending more than 30% of their income on rent and utilities. Housing cost burden is especially prevalent in counties surrounding metro areas — including Cincinnati, Cleveland, and Columbus — due to rapid population growth and an increasing demand for more affordable housing (especially among millennials and seniors). Yet finding such housing is a challenge throughout all Ohio counties, as rental costs are rising faster than wages.<sup>24</sup> And while the overall cost of living in rural areas is generally lower than in metro areas, expenses — especially housing — are rising at similar rates in both areas. Nationwide, households that are severely rent burdened (with rent accounting for more than 50% of their income) are projected to grow by at least 11%, to 13.1 million households, by 2025.<sup>25</sup>

Commuting times will continue to increase, as will demand for alternative transportation options. High housing costs and urban sprawl push workers farther from their jobs and increase commute times, which has a negative impact on health, job retention, and productivity. With these pressures, along with minimal public transportation infrastructure and the cost of owning and maintaining a car, there will be increased demand in Ohio to explore new public transportation options (e.g., trains and buses, rideshares, and self-driving vehicles). Transportation solutions will need to address both availability and affordability, while considering the different needs of commuters in urban areas and the surrounding suburbs, as well those who live and work in the more remote rural areas of the state.<sup>26</sup>

The child care industry will face new challenges, and so will parents. As the number of families with children starts to decrease (it fell 7% in Ohio from 2010 to 2018), it will be more difficult for child care centers to stay in business, making child care harder to find and more expensive, especially in less populated areas. Child care is a major expense for Ohio families. States with the least affordable child care have the highest costs in relation to percentage of family income. As defined by the Department of Health and Human Services, child care is considered affordable if costs are no more than 7% of the family income. Using this criterion, only 12% of families in Ohio can afford child care.<sup>27</sup> Families that are more likely to earn below the ALICE Threshold, such

An Ohio University survey of 500 first-year, first-generation college students found that 48% of respondents reported being food insecure or going hungry at some point during college. 77

as single parents, face even greater hardship in affording quality child care. Compounding this issue is the fact that low-paid child care workers are ALICE as well (with a median hourly wage of \$10.01 in Ohio).<sup>28</sup> As a result, child care workers in Ohio struggle to afford care for their own children, making it harder to retain and develop qualified staff.<sup>29</sup>

Food insecurity, a longstanding problem for families with children, is also increasing among young adults and seniors. In 2018, households headed by adults under the age of 25 were more likely to be below the ALICE Threshold compared to other age groups in Ohio, and they often struggled to put food on the table. Reports consistently find higher rates of food insecurity among college students; an Ohio University survey of 500 first-year, first-generation college students found that 48% of respondents reported being food insecure or going hungry at some point during college.<sup>30</sup> There is also growing food insecurity at the other end of the age spectrum, with a projected 8 million food-insecure seniors nationwide by 2050. In Ohio in 2018, nearly 15% of adults age 60 and older had experienced food insecurity in the prior twelve months.<sup>31</sup> According to Feeding America, seniors are more likely to experience food insecurity if they are single, female, or a person of color, have a disability, are a renter rather than homeowner, or have grandchildren in the home.<sup>32</sup> Compared to other seniors, food-insecure seniors are more than twice as likely to have depression, 91% more likely to have asthma, 66% more likely to have had a heart attack, and 57% more likely to have congestive heart failure. Public benefits help but do not eliminate the need for emergency assistance measures such as food pantries.<sup>33</sup>

College students across the country are facing greater challenges in meeting living expenses, despite the fact that increasing numbers of students are working full or part time. Students often rely on multiple sources of financial support, including financial aid, student loans, and assistance from parents or other family members, to cover their living expenses. Yet even with these types of financial help, many students need to work while in school; in particular, more than two-thirds of students enrolled in community colleges work full or part time.<sup>34</sup> In a recent financial wellness survey, 56% of students report paying for college using money from their current employment, and 31% of students pay for college with credit cards, leading to accumulation of increased debt.<sup>35</sup> Working long hours to earn more income comes at a price, as it can interfere with academic performance and ultimately the likelihood of obtaining a degree.<sup>36</sup> Students report that two of the major obstacles to academic success are juggling work with school and other responsibilities and difficulty meeting expenses.<sup>37</sup> For more information, see the 2019 United For ALICE Report, *The Consequences of Insufficient Household Income*.

Gaps in health based on demographic, environmental, and socioeconomic factors will continue to grow. Volatility in health insurance availability and coverage, increasing out-of-pocket costs — even for those with employer-sponsored programs — and shortages of health care providers (especially in rural areas) make it harder for many families to get the health care they need.<sup>38</sup> According to America's Health Rankings, Ohio ranked 38<sup>th</sup> out of 50 states in 2019; challenges included high infant mortality, drug-related deaths, and premature death rates due to the prevalence of cardiovascular disease and related risk factors such as obesity, diabetes, and smoking.<sup>39</sup> The state ranked 36<sup>th</sup> in the Commonwealth Fund's 2018 survey of state health systems, receiving high scores for access and affordability, prevention, and treatment, but low ratings for healthy living and the disparity in care between higher- and lower-income patients.<sup>40</sup> Other factors, including geography, access to a high-quality education, and adequate, stable housing, also greatly impact health outcomes in the state. As a result, Ohio has a wide range in life expectancy at birth — from a low of 60 years in Franklinton, a neighborhood in Columbus within Franklin County, to a high of 89.2 years in the Stow area of Summit County.<sup>41</sup> These disparities will grow with new but expensive advances in medicine, compounded exposure to environmental hazards and public health crises for many low-income households, and a persistent context of discrimination and institutionalized racism in Ohio and across the country.<sup>42</sup>

Natural and human-made disasters will continue to impact ALICE households disproportionately. Across Ohio, the increasing impact of these incidents — from severe storms, floods, and tornadoes to pandemics — is felt most acutely by ALICE households and their surrounding communities. With minimal job security and little or no savings, ALICE families feel the impact of an economic disruption almost immediately as hourly paid workers suffer lost wages right away. ALICE households are more vulnerable during natural disasters as they often live in communities with fewer resources, and their housing is more susceptible to flooding, fire, and other hazards. With no financial cushion, ALICE workers struggle to repair damage, recover from illness, and pay ongoing bills. At the same time, ALICE workers are essential to disaster recovery efforts in both infrastructure repair and health care, and they are often forced to choose between caring for their families and ensuring community recovery. All of these costs are added to the increased risk of physical harm ALICE families face if they cannot afford to flee an oncoming natural disaster or take necessary precautions during a public health crisis.<sup>43</sup>

Financial instability will mean additional costs for ALICE households. The costs of financial instability are cumulative and intensify over time. Skimping on essentials, from food to health care, leads to greater long-term problems (see United For ALICE's 2019 Report, *The Consequences of Insufficient Household Income*). Failure to pay bills on time leads to fees, penalties, and low credit scores, which in turn increase interest rates, insurance rates, and costs for other financial transactions (from check-cashing fees to payday cards). Unexpected expenses can intensify these impacts. In 2017, only 59% of Ohio households had set aside any money in the prior 12 months that could be used for unexpected expenses such as illness or the loss of job. While this was above the national rate of 42%, it still left more than one-third of Ohioans with any financial cushion. And without enough income to cover current and unexpected expenses, ALICE households cannot save for future expenses like education, retirement, or a down payment on a house.

# THE CHANGING LANDSCAPE OF WORK IN OHIO

ALICE workers play an essential role in Ohio's economy but have not benefited from many of the state's recent economic gains — a reality that is not captured by traditional economic measures. This section breaks down labor force data in new ways, and in so doing highlights the challenges ALICE workers face: the declining power of wages to keep up with the cost of living, greater dependence on hourly wages, a higher number of adults out of the labor force, and increased economic risk for workers.

In 2018, Ohio had the nation's seventh largest economy. The state's GDP increased for the ninth consecutive year to \$676 billion and, according to the Bureau of Labor Statistics (BLS), the unemployment rate dropped to 4.5% from a high of nearly 11% after the Great Recession. While manufacturing continued to be an important contributor to the state economy, growth in health care, education, government, retail, trade, transportation and utilities, and the professional and business services sectors had created a more broad-based economy. This diversification also changed the employment landscape for Ohioans. In 2018, Walmart employed more than 50,000 employees compared to the state's two largest manufacturers, Honda and General Electric, which together employed fewer than 30,000.47

Overall, in 2018, there were more jobs in Ohio than prior to the Great Recession, yet growth came slowly over many years, was unevenly distributed within the state, and lagged behind the national average. Total employment growth in Ohio from 2010 through 2018 was 11.2%, compared to the national average of 15.5%. 48 Central Ohio far outperformed this national average, thereby raising the overall state average and concealing the fact that performance in other regions was even weaker than what the statewide average would suggest. Opportunities for work also varied considerably throughout the state, with the counties surrounding major metropolitan areas like Cincinnati, Cleveland, and Columbus offering more job opportunities and better salaries than urban and rural areas. Prospects for work and income levels also varied among rural counties — from the northwest region, where farming and agriculture are the major sources of employment, to the southeast Appalachian region, which includes ten adjacent counties with the state's highest unemployment rates and poverty rates exceeding 20% in 2018. 49

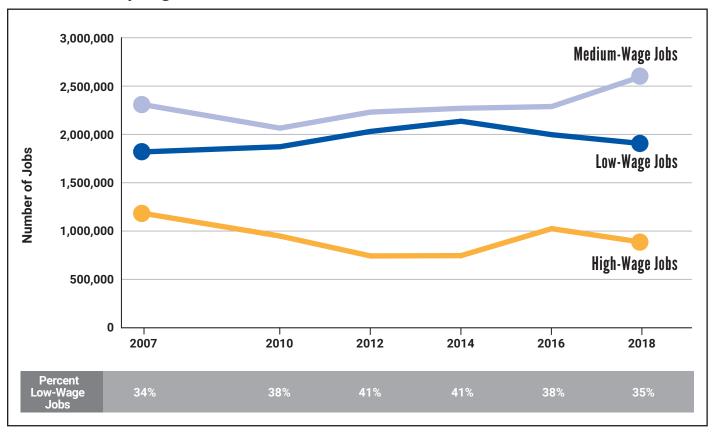
In 2018, more than one-third of Ohio's jobs did not pay enough for employees to keep up with the costs of the basic household budget. Figure 6 illustrates the following trends in wages compared to the cost of living in Ohio from 2007 to 2018:

Low-wage jobs (dark-blue line) are defined as those paying less than the wage needed for two workers to afford the family Household Survival Budget (which includes costs for two adults, an infant, and a four-year-old). In 2007, this was less than \$12.93 per hour; by 2018, it was less than \$16.85 per hour. The number of low-wage jobs increased by 5% during that period and accounted for more than one-third of Ohio's jobs in 2018. Even with two earners working full-time, low-wage jobs, it is not only possible but common for households to fall below the ALICE Threshold.

Even with two earners working full-time, low-wage jobs, it is not only possible but common for households to fall below the ALICE Threshold.

- Medium-wage jobs (light-blue line) allow two workers to afford a family Household Survival Budget. In 2007, these
  were jobs that paid between \$12.93 and \$25.86 per hour, per worker; by 2018, wages needed for these jobs were
  between \$16.85 and \$33.70 per hour, per worker. The number of medium-wage jobs increased by 13% during that
  period, and accounted for the largest number of jobs in the state.
- High-wage jobs (gold line) allow one worker to afford a family Household Survival Budget. In 2007, the wage required was \$25.86 per hour or more; by 2018, the wage required to afford basic household expenses had increased to \$33.70 per hour or more. The number of high-wage jobs decreased by 25% during that period.<sup>50</sup>

Figure 6.
Number of Jobs by Wage Level, Ohio, 2007-2018



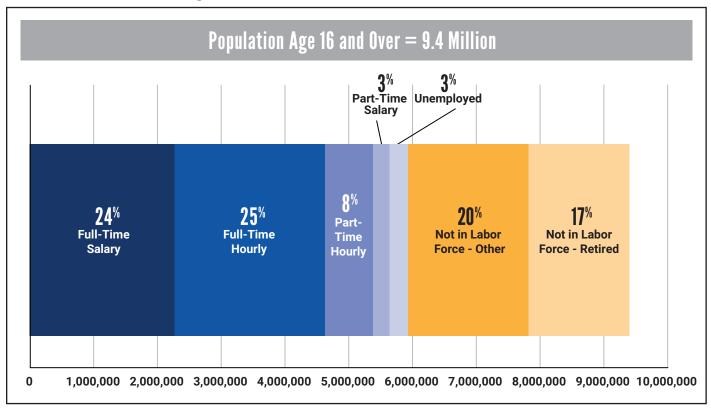
Note: Wage levels are defined by their relation to the Household Survival Budget. Dark blue = Job cannot support family Household Survival Budget with two earners. Light blue = Job supports family Household Survival Budget with two earners. Gold = Job supports family Household Survival Budget with one earner.

Sources: ALICE Household Survival Budget, 2007-2018; Bureau of Labor Statistics, Labor Force Statistics, 2007-2018-Occupational Employment Statistics

## THE NEW LABOR FORCE

A 2018 overview of the labor status of Ohio's 9,399,588 working-age adults (people age 16 and over) shows that 63% of adults were in the labor force (blue bars in Figure 7), yet more than half of them were workers who were paid hourly. In addition, 37% of adults were outside the labor force (gold bars).<sup>51</sup>

Figure 7.
Labor Status, Population Age 16 and Over, Ohio, 2018



Note: Data for full- and part-time jobs is only available at the national level; these national rates (51% of full-time workers and 75% of part-time workers paid hourly) have been applied to the total Ohio workforce to calculate the breakdown shown in this figure. Full-time represents a minimum of 35 hours per week at one or more jobs for 48 weeks per year.

Sources: American Community Survey, 2018; Federal Reserve Bank of St. Louis, 2018

Though the majority of adults in Ohio were working in 2018 and most households had at least one worker, only 24% of working-age adults had the security of a full-time job with a salary. The rest were paid hourly and/or worked part time.<sup>52</sup>

## **Hourly Work and the Gig Economy**

Employers' increasing reliance on hourly workers is typically associated with freelance "gig economy" jobs (like rideshare driving or on-demand delivery), but even traditional jobs are now more likely to be paid by the hour, especially in retail, health care, food service, and construction.<sup>53</sup> These workers are more likely to have fluctuations in income, with frequent schedule changes and variation in the number of hours available for work each pay period. They are also less likely to receive benefits, such as health insurance, paid time off, family leave, or retirement benefits, especially if they work fewer than 30 hours per week at a single job.<sup>54</sup>

Hourly workers are more likely to have multiple sources of income. Traditional measures of employment have focused on the number of jobs held by a worker; for example, BLS estimates that only 5% of workers held two or more jobs in 2018.<sup>55</sup> However, in the modern economy, where many workers have their own small business, are consultants, or are contingent, temporary, freelance, or contract workers, a worker may have many sources of income that are not necessarily considered a "job." In 2019, nearly half (45%) of working adults reported having a side gig outside of their primary job.<sup>56</sup>

In comparison with hourly workers, salaried workers are paid an annual amount at regular pay periods, and usually receive benefits. Nationally, employers spent an average of 31% of compensation on benefits in 2018; not providing these represents significant savings to the employer. As a result, even traditional jobs are morphing as employers shift the financial risk of changes in supply and demand to employees.<sup>57</sup> While this is true throughout the economy, it is especially concentrated in lower-wage positions — the jobs most accessible to ALICE.

#### Who is Out of the Labor Force?

Of adults 16 years and older in Ohio, 17% were out of the labor force in 2018 because they were retired and another 20% were out of the labor force for other reasons (gold bars in Figure 7). This totals 37% of adults outside the labor force.<sup>58</sup>

Retirees (age 65 and over and not working) are traditionally one of the largest groups of adults out of the labor force. In Ohio in 2018, they accounted for 17% of the population age 16 years or older — a percentage higher than the national average, in part due to the baby boomer generation aging into retirement. However, this number did not include the increasing number of seniors who were still working; in 2018, 21% of seniors in Ohio were still in the labor force. According to a 2019 survey from the Center for Community Solutions, the percentage is even higher in urban centers such as Cleveland and Columbus, where nearly half of older adults between 60 and 74 are actively employed or looking for work. In Cleveland, almost one third of respondents report that they would like to retire but can't afford to stop working.

Those under 65 and not working were out of the labor force for a variety of reasons, the two most common being:

- School: Nationally, 77% of high school students and 52% of college students did not work in 2018. At these rates, non-working students in Ohio would account for one-third of the state's working-age adults out of the workforce.<sup>61</sup>
- Health: Adults with one or more health issues an illness or disability that makes it difficult to get to work, perform some job functions, or work long hours — accounted for one-quarter of those out of the labor force in Ohio in 2018.<sup>62</sup>

The remainder of adults were out of the labor force for other reasons, including scheduling conflicts, family caregiving responsibilities, or limited access to transportation or child care.<sup>63</sup> For women 25 to 54 years old, the most common reason for not working in 2018 was in-home responsibilities — caring for children, but also, as the population of Ohio ages, caring for an aging parent or a family member with a disability or chronic health issue.<sup>64</sup>

These adults who were out of the workforce were not included in the state's low unemployment rate, which only counts adults actively looking for work. In previous periods of low unemployment, employers have had to offer much higher wages to attract workers back into the labor force or away from other businesses. However, in the 2018 economy, those out of the labor force proved to be a large reserve of potential workers able to be drawn back into the labor force with only slightly higher wages — in effect, keeping wages low.<sup>65</sup>

## ALICE JOBS: MAINTAINING THE ECONOMY

While national conversations about work often focus on the economic importance of the "innovation" sector and its high-paying jobs, the reality is that the smooth functioning of the national and Ohio economies relies on a much larger number of occupations that build and repair the infrastructure and educate and care for the past, current, and future workforce. The workers in these jobs are described as "Maintainers" by technology scholars Lee Vinsel and Andrew Russell, and they are primarily ALICE. 66 To better understand where ALICE works, we elaborate on Vinsel and Russell's concept by breaking down all occupations in Ohio into two occupational categories, each with two job types: the lower-paying Maintainer occupations, composed of Infrastructor and Nurturer jobs; and the higher-paying Innovator occupations, composed of Adaptor and Inventor jobs.

# **DEFINITIONS**

#### **Maintainer Occupations:**

**Infrastructors** build and maintain the physical economy (construction, maintenance, management, administration, manufacturing, agriculture, mining, transportation, retail).

Nurturers care for and educate the workforce (health and education, food service, arts, tourism, hospitality).

#### **Innovator Occupations:**

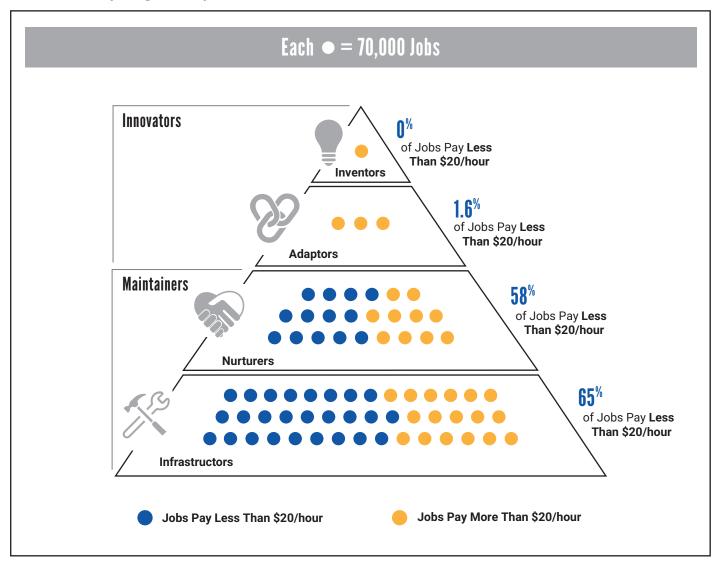
**Adaptors** implement existing tools or processes in new ways, responding to opportunities and changing circumstances (managers, industrial and organizational psychologists, analysts, designers, technicians, and even policymakers).

**Inventors** devise new processes, appliances, machines, or ideas. Before World War II, most inventors were independent entrepreneurs. Today, they are most likely engineers and scientists working in research & development, and, in some cases, higher education.

The largest employment sectors in Ohio are Maintainer occupations. The single largest industry in 2018, with 1,022,800 employees, was trade, transportation, and utilities, which is comprised of Infrastructor jobs. The second largest, with 930,500 employees, was education and health services, which is comprised of Nurturer jobs. Both industries have large shares of ALICE workers.<sup>67</sup> There are far fewer jobs in Innovator occupations (Adaptors and Inventors).

When stacked together, Ohio's occupations form a pyramid that reveals the critical role of Maintainer jobs — the jobs most accessible to ALICE — in the state economy (Figure 8). The majority of Maintainer jobs (65% of Infrastructor jobs and 58% of Nurturer jobs) pay less than \$20 per hour — a wage that, if full time, year-round, provides a maximum annual salary of \$40,000, or \$27,404 less than the family Household Survival Budget of \$67,404. By comparison, almost all Adaptor and Inventor occupations pay more than \$20 per hour.

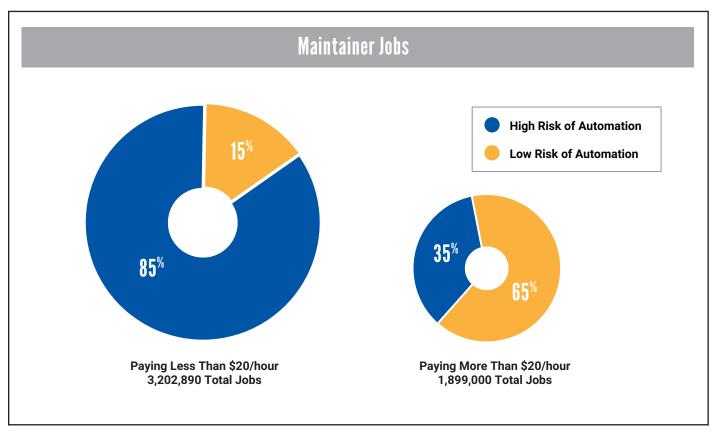
Figure 8.
Occupations by Wage and Type, Ohio, 2018



Source: Bureau of Labor Statistics, Labor Force Statistics, 2018—Occupational Employment Statistics

The precarious nature of ALICE workers' jobs is reinforced by the powerful relationship between low wages and the high risk of jobs becoming automated (defined as having a greater than 50% chance of being replaced by technology in the next decade). A recent report from The Century Foundation found that Midwestern states, such as Michigan, Ohio, Indiana, Illinois, and Wisconsin, had the highest concentration and fastest growth in the use of robotics, largely due to increased automation in the manufacturing industry. Jobs that pay less than \$20 per hour are more likely to be replaced by technology compared to higher-paying jobs. This is especially true for Maintainer occupations, where most jobs pay less than \$20 per hour and 85% of these low-paying jobs are at a high risk of automation. By comparison, only 35% of Maintainer jobs that pay more than \$20 per hour are at that level of risk (Figure 9).

Figure 9.
Occupations by Type and Risk of Automation, Ohio, 2018



Sources: Bureau of Labor Statistics, 2018-Occupational Employment Statistics; Frey & Osborne, 2013

There are also differences in salary and risk of automation based on the type of Maintainer job. Among Infrastructor jobs, 95% of jobs that pay less than \$20 per hour are at risk of automation, compared to 55% of those that pay more than \$20 per hour. Among Nurturer jobs, the discrepancy is even greater: 64% of jobs that pay less than \$20 per hour are at risk of automation, compared with 2% of those that pay more than \$20 per hour. 69 Education level also impacts risk of automation; nationally, the risk for jobs that require only a high school diploma (55%) is more than double the risk for jobs that require a bachelor's degree (24%). 70

## TRENDS: THE LANDSCAPE OF WORK

Economic growth will be led by the non-traditional work and small businesses of the gig economy. As much as 94% of U.S. net employment growth in the last decade has come from alternative or contingent labor, according to a National Bureau of Economic Research report. With an increasing number of workers who are contractors, work in small businesses, or rely on a combination of side gigs, the number of people experiencing gaps in income and going without benefits will also rise. Millennials are leading the way in this trend, with 48% nationally saying they earn income on the side (i.e., in addition to what they consider their primary employment), compared to 28% of baby boomers. While gig work can provide flexibility and better work-life balance for some, these arrangements are more volatile than traditional jobs, as workers bear the brunt of health care costs, changes in work demand, the price of materials, and transportation costs, as well as increased vulnerability during natural and human-made disasters, and economic downturns.

The rise of automation will require a workforce with more digital skills. Rather than being replaced outright, many jobs, across all job types, will require an increasing ability to incorporate new technologies, work with data, and make data-based decisions. ALICE workers will need to gain new skills rapidly, and that will require more on-the-job training, more flexibility to change career paths, and different kinds of education providers. Jobs requiring digital skills are growing faster and pay better, yet there are not enough workers with the skills needed to fill available positions. Training of new workers to close the digital-skills gap is advantageous for both prospective employees and companies. The benefits of increased technology will include improved accuracy in areas like pharmaceutical pill dispensing, and reduced risk of injury for workers such as warehouse packers and long-distance drivers.

The number of low-wage jobs will continue to increase, despite automation. Even though most jobs will change and evolve with demand as well as technology, it may not be economical or effective to automate certain jobs. For example, low-wage Maintainer jobs in areas like education and health care require employees to be on-site and often involve relational skills that are difficult or impossible to automate (although these workers will still have to learn to work with technology). From 2016 to 2026, the occupation projected to have the largest number of new jobs in Ohio is home health aides; the median wage for these jobs in 2018 was \$10.67 per hour, which was not enough to support any of the ALICE budgets. Of the state's top 20 growth occupations, 58% will pay less than \$15 per hour, 23% will not require any formal educational credential at all, and 38% will require only a high school diploma.<sup>78</sup>

Students will continue to be a significant part of the labor force. As more families face financial hardship and the cost of college continues to rise, more students will have to work while in school. Nationally, 20% of high school students, 41% of full-time college students, and 82% of part-time college students had a job in 2017.<sup>79</sup> What's more, despite many students being employed, 45% of college students who completed the largest annual survey of basic college needs reported having experienced food insecurity in the previous month, and 56% had experienced housing insecurity in the prior year.<sup>80</sup> And even with more students working, student debt will continue to increase as more students from lower-income families attend college and costs continue to rise. In Ohio, 60% of college students who graduated in 2018 were in debt with an average loan of \$30,323, a 9% increase from 2010.<sup>81</sup>

# **NEXT STEPS: DATA FOR ACTION**

The ALICE data highlights significant problems in the Ohio economy in 2018: stagnant wages, a rising cost of living, and 39% of the state's households unable to afford even the most basic budget. However, this data can also be used to generate solutions to these problems that help ALICE households and create equity across communities. The measures of cost of living, financial hardship, and changes in the labor force presented in this Report can help stakeholders ask the right questions and make data-driven decisions. This data can help policymakers and community organizations identify gaps in community resources, and it can guide businesses in finding additional ways to assist their workforce and increase productivity — both in times of economic growth and in periods of economic recovery.

This section of the Report maps the 2018 ALICE data, showing gaps in resources to help direct assistance and fill immediate needs. When analyzed in relation to broader data on health, education, and social factors, these maps help focus solutions on underlying causes of hardship, and they also highlight areas of success.

## **IDENTIFYING GAPS**

ALICE households often live in areas with limited community resources, making it even more difficult to make ends meet. The lack of some resources has immediate and direct costs. For example, without public transportation or nearby publicly funded preschools, ALICE families pay more for transportation and child care. Other costs, such as the consequences of limited access to health care providers, open space, or libraries, accumulate over time.

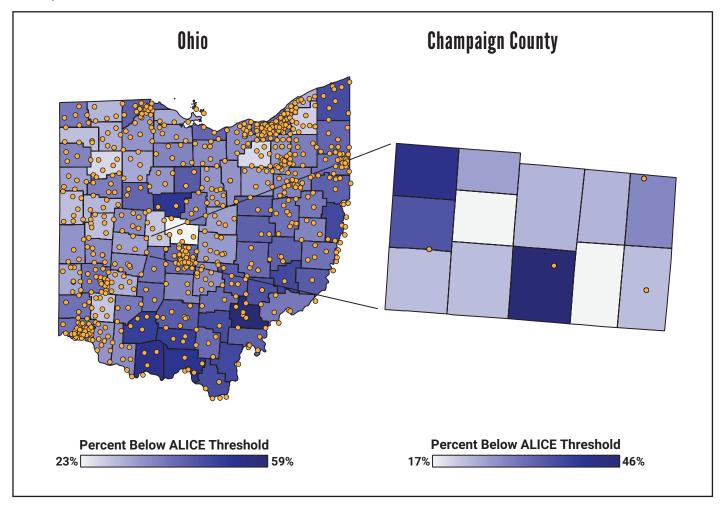
With the ALICE data tools, stakeholders can map where ALICE lives along with the location of community resources — such as public libraries or disaster-relief services — to identify gaps by town, ZIP code, or county (Figure 10). This data can help stakeholders answer targeted questions, including the following:

#### Do ALICE households have access to libraries?

Access to public libraries is especially important for ALICE families because libraries provide information on social services and job opportunities, free internet and computer access, and a range of free programs, community meetings, and even 3-D printers. After a natural disaster, libraries serve as second responders, providing electricity, internet access, charging stations, heat or air conditioning, and current information on recovery efforts.<sup>82</sup> In lower-income communities, the library can act as an equalizer, bringing resources to communities that are typically underserved.<sup>83</sup> Libraries also provide a safe and inclusive place for individuals and families. A 2019 Gallup Poll found that lower-income households (earning less than \$40,000 per year) visit the library more frequently than average- and higher-income households.<sup>84</sup>

Ohio has the fifth-highest number of public libraries in the U.S., with 736 libraries across 88 counties, shown in gold dots in Figure 10 (and in an interactive feature on <u>UnitedForALICE.org/Ohio</u>).85 It is important to track not only how many libraries there are, but who lives in the communities served by each library. This data can help stakeholders identify where there are gaps in needed services (such as in areas with a high percentage of ALICE households but few or no libraries) and what type of intervention might be most helpful. For example, areas with a small population but a high percentage of ALICE households may benefit from a mobile library service and shared services with nearby libraries, or library services (like free computers) could be offered in other public buildings.

Figure 10.
Library Locations and Households Below ALICE Threshold, Ohio, 2018



Sources: ALICE Threshold, 2018; American Community Survey, 2018; The Institute of Museum and Library Services, 2019

#### Are the needs of ALICE households met after a natural disaster?

Mapping where ALICE households live in relation to the impact of natural disasters such as severe storms, flooding, and tornadoes can help first and second responders meet critical needs. During a record-breaking 13-day stretch of tornado activity across the U.S., 21 tornadoes touched down in and around Dayton on May 27, 2019. Mercer, Montgomery, and other counties experienced one fatality, several injuries, and \$480 million in property damage. 60 Other recent severe weather has included excessive rain and flooding. 70 Natural disasters like these directly threaten the homes of ALICE families since more affordable housing is often located in vulnerable areas. The jobs where ALICE works are also more at risk, since low-wage and hourly paid jobs are more likely to be interrupted or lost. In addition, ALICE households have few or no savings for an emergency to begin with, and their communities often have fewer resources to assist households. 81

Knowing where ALICE households live can help federal, state, and local governments target preparation, response, and assistance for natural disasters, and help companies plan where to deploy their workforce and support. Because ALICE households and communities do not have the same resources as their wealthier counterparts, namely insurance or savings, they will need more assistance over a longer period of time to recover. Strategies will vary by rural or urban context, the quality of the housing stock, and the age composition of the community (with the young and the elderly more dependent on care).<sup>89</sup>

# **UNDERSTANDING ALICE: HEALTH, EDUCATION, AND SOCIAL FACTORS**

In most contexts, having a low income is associated with lower levels of education, higher rates of unemployment, and poorer health. 90 Communities that have been able to disrupt that association can provide important insights on how to change environments or policy to support ALICE households. By tracking where ALICE lives with other indicators, it is possible to identify counties that have overcome a challenge or bucked a trend. Stakeholders can then learn from these examples and adapt those solutions to their own areas.

Tracking relationships between ALICE households and other variables at the county level — in areas such as technology or health — can also help stakeholders ask important questions and target resources where they can have the greatest impact. To see interactive maps of socioeconomic indicators in Ohio, visit our website: <u>UnitedForALICE.org/Ohio</u>

Here are two possible questions:

#### Is internet access related to income?

Access to digital technology has exploded over the last three decades: By 2018, 92% of U.S. adults owned a computing device and 85% had a broadband internet subscription. Similarly, in Ohio, 91% of households owned a computing device and 85% had a broadband internet subscription in 2018.<sup>91</sup> Technology has also become more important for work, education, community participation, and, crucially, disaster response and recovery.

But access to technology still varies by income and geography. For many families, that lack of access translates directly to reduced job opportunities, educational opportunities, health care access, and financial tools. For example, low-income adults are more likely to use their phones to search and apply for jobs; nationally, 32% of smartphone users with income below \$30,000 have applied for a job on their phone, compared with 7% of smartphone users with income above \$75,000. Although smartphone technology is constantly improving, many tasks are still more difficult to complete on the small screen of a smartphone as opposed to a computer (e.g., word processing, filling out applications, editing spreadsheets), and many websites still do not have a mobile version, making navigation time-consuming and difficult, or sometimes impossible. Households without internet access are also at greater risk of being undercounted in the 2020 Census, when they may need government programs and services the most.<sup>92</sup>

This high usage of smartphones for a critical task indicates that many low-income households have limited access to the internet at home. In Ohio, 33% of households with income below the ALICE Threshold do not have an internet subscription, compared with only 8% for households above the ALICE Threshold. Rates also vary by location: The counties with the lowest access rates and lowest income are in rural areas, where 38% of households below the ALICE Threshold do not have an internet subscription. dentifying these gaps can help businesses and government provide more resources to libraries, establish training centers, and target low-cost internet plans.

## Are drug overdoses driven by income?

Ohio, like many other states, experienced an increase in drug overdose deaths from 2007 to 2017, largely due to an increase in deaths from opioid use. One of the four states in the U.S. that has been hardest hit by the opioid crisis (along with Indiana, Kentucky, and West Virginia), Ohio has been described as "the epicenter" of the U.S.'s opioid epidemic. Drug overdose deaths contributed to the life-expectancy decline in Ohio over the last several years: Between 2010 and 2017, the mortality rate increased 21.6% for people age 25 to 64.95 In 2007, the number of unintentional drug-related deaths surpassed motor vehicle deaths as the leading cause of death by injury in Ohio. The total number of drug overdose deaths in Ohio more than tripled between 2009 and 2017, reaching 4,854 overdoses annually at its peak. Then in 2018, two years after the opioid crisis was declared a national emergency, the number of drug-related deaths in Ohio

dropped by more than 1,000 to 3,764, the lowest rate since 2015. That decrease was largely attributed to a drop in the number of prescription opioid-related deaths, which in 2018 reached their lowest levels in eight years. <sup>96</sup> And although the use of prescription opioids has declined, the crisis is far from over. A recent report from Millennium Health found that use of illegal drugs is increasing, with Ohio seeing the highest levels of co-occurring methamphetamine and fentanyl use. <sup>97</sup>

Several national studies have suggested that counties with the worst economic prospects have the highest rates of substance use disorders and drug overdose hospitalizations and deaths. Yet that relationship varies across states, as people of all incomes, geographies, ages, and races/ethnicities suffer from substance use disorders. <sup>98</sup> In Ohio, overdose deaths have been reported in every county. From 2013 to 2018, the age-adjusted overdose death rate ranged from 5 deaths per 100,000 in Holmes County to a high of 61 in Montgomery County. Some of the hardest-hit counties between 2013 and 2018 were those counties in the southwest corner of the state, including Brown, Butler, Clark, Fayette and Scioto, as well as Trumbull County in the northwest. <sup>99</sup> In 2018, the number of overdose deaths varied by income: Counties with the highest number of drug-related deaths also tended to have a higher percentage of households below the ALICE Threshold. However, lower income may be both a risk factor and an unwanted consequence of drug addiction. <sup>100</sup>

Understanding which communities have been hardest hit by substance use disorders can help planners and stakeholders see the complex ways in which addiction and financial hardship interact. Although economic standing is not the only risk factor for drug addiction in Ohio, the consequences of addiction hit low-income families harder. The impact of addiction and substance use disorders on families often means a decline in their financial position, causing many families to become or remain ALICE. A family's income may be reduced if addiction reduces an adult's ability to work, and these families often have substantial health care costs. For example, methadone treatment for opioid users costs about \$500 per month; inpatient rehabilitation facilities for substance use treatment can range from \$6,000 to \$20,000 per month. And lower-income families may not have access to such treatment programs, which only prolongs and compounds the outcomes of addiction. Substance use disorders take a toll on the stability of families and marriages, on parenting, and on the physical and mental health of family members. For all of these reasons, there can be huge value for community stakeholders in mapping where ALICE lives with drug overdose deaths to identify communities that have the greatest need but the fewest resources to address addiction-related problems.

## THE BENEFITS OF MOVING TOWARD EQUITY IN OHIO

The strength of the Ohio economy is inextricably tied to the financial stability of its residents. The more people who participate in a state's economy, the stronger it will be. In 2018, when the national economy was often described as "strong," the reality was that 1,796,919 Ohio households — more than one-third of all households in the state — struggled to support themselves. If all households earned enough to meet their basic needs, not only would each family's hardship be eased, but the Ohio economy would also benefit substantially. This is true in times of economic growth, and it becomes even more important during a period of crisis and recovery.

To better understand the extent to which financial hardship is a drain on a state's economy, this section provides an estimate of the benefits of raising the income of all households to the ALICE Threshold. While lifting family income would be an enormous undertaking, the statewide benefits of doing so make a compelling case for pointing both policy and investment toward that goal.

Based on 2018 data, the economic benefit to Ohio of bringing all households to the ALICE Threshold would be approximately \$108.4 billion, meaning that the state GDP would grow by 16% (Figure 11). This is based on three categories of economic enhancement:

**Earnings:** Ohio's 2018 GDP reflected earnings of \$35.6 billion by the state's households below the ALICE Threshold. Bringing all households to the ALICE Threshold would have a two-fold impact:

- Additional earnings: \$40 billion statewide.
- Multiplier effect: Studies show that almost all additional wages earned by low-wage workers are put back into the economy through increased consumer spending, which in turn spurs business growth. <sup>103</sup> Building on economic calculations used by Moody's Analytics, this estimate assumes an economic multiplier of 1.2, meaning that a \$1 increase in compensation to low-wage workers leads to a \$1.20 increase in economic activity. In Ohio, this increased economic activity would be valued at \$48.1 billion. <sup>104</sup>

**Tax revenue:** Ohio's 2018 GDP reflected tax revenue of \$600 million from the state's households below the ALICE Threshold. Bringing all households to the ALICE Threshold would have a two-fold impact:

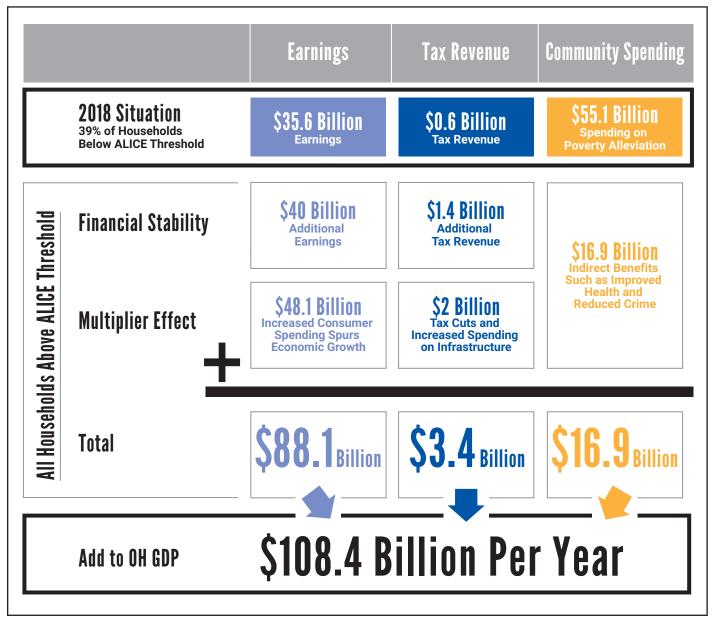
- Additional tax revenue: With additional earnings, there would be additional taxes paid as well as reduced usage of tax credits such as EITC for low-income earners, totaling an additional \$1.4 billion in tax revenue for Ohio.
- Multiplier effect: Additional state tax revenue gives state and local governments the opportunity to make investments that matter most to the well-being of residents and businesses from tax cuts for small businesses to improvements in infrastructure, including health care and education that can yield a high return on investment. Based on work by the Congressional Budget Office and Moody's Analytics, the estimated multiplier is 1.44, which would mean an added \$2 billion in economic activity in Ohio.<sup>105</sup>

**Community spending:** Ohio's 2018 GDP reflected community spending of \$55.1 billion on assistance to the state's households below the ALICE Threshold. When all households can meet their basic needs, this spending can be reallocated to projects and programs that help families and communities *thrive*, not just survive.

• Indirect benefits: Added value to the state GDP would come in the form of indirect benefits associated with increased financial stability. These benefits include improved health (and reduced health care expenditures), reduced crime and homelessness, and greater community engagement. Figure 11 uses the very conservative estimate of an added \$16.9 billion (or 2.5% of the state GDP, which is the estimated cost of childhood poverty alone). This is still far short of the total indirect benefits of bringing all households to the ALICE Threshold, as it does not include benefits for adults or factor in the direct impact of redeploying private and nonprofit spending currently used to alleviate poverty. 108

Figure 11.

Economic Benefits of Raising All Households to the ALICE Threshold, Ohio, 2018



Sources: ALICE Threshold, 2018; American Community Survey, 2018; Internal Revenue Service—1040, 2018; Internal Revenue Service—EITC, 2018: Internal Revenue Service—FICA, 2019; McKeever, 2018; National Association of State Budget Officers, 2019; Office of Management and Budget, 2019; Scarboro, 2018; U.S. Department of Agriculture—SNAP, 2019; Urban Institute, 2012; Walczak, 2019<sup>109</sup>

#### **Benefits for Households and Local Communities**

In addition to the economic benefits to the state if all households had income above the ALICE Threshold, there would be a significant number of positive changes for families and their communities. Our 2019 companion Report, *The Consequences of Insufficient Household Income*, outlines the tough choices ALICE and poverty-level families make when they do not have enough income to afford basic necessities, and how those decisions affect their broader communities. By contrast, Figure 12 outlines the improvements that all Ohio families and their communities would experience if policies were implemented that moved all households above the ALICE Threshold.<sup>110</sup>

Figure 12.
The Benefits of Sufficient Income

If households have sufficient income for	Impact on ALICE	Impact on the Community
Safe, Affordable Housing	Improved health through safer environments and decreased stress, improved educational performance and outcomes for children, greater stability for household members, a means to build wealth for homeowners	Less traffic, lower health care cost better maintained housing stock, lower crime rates, less spending o homelessness/social services
Quality Child Care and Education	Improved academic performance, higher lifetime earnings, higher graduation rates, improved job stability/access for parents, better health	Decreased racial/ethnic and socioeconomic performance gaps decreased income disparities, high return on investment (especially for early childhood education)
Adequate Food	Decreased food insecurity, improved health (especially for children and seniors), decreased likelihood of developmental delays and behavioral problems in school	Lower health care costs, improved workplace productivity, less spending on emergency food services
Reliable Transportation	Improved access to job opportunities, school and child care, health care, retail markets, social services, and support systems (friends, family, faith communities)	Fewer high-emissions vehicles on the road, more diverse labor marke decreased income disparities
Quality Health Care	Better mental and physical health (including increased life expectancy), improved access to preventative care, fewer missed days of work/school, decreased need for emergency services	Decreased health care spending, fewer communicable diseases, improved workplace productivity, decreased wealth-health gap
Reliable Technology	Improved access to job opportunities, expanded access to health information and tele-health services, increased job and academic performance	Decreased "digital divide" in acces to technology by income, increase opportunities for civic participation
Savings	Ability to withstand emergencies without impacting long-term financial stability and greater asset accumulation over time (e.g., interest on savings; ability to invest in education, property, or finance a secure retirement)	Greater charitable contributions; less spending on emergency healtl food, and senior services

Note: For sources, see Figure 12: Sources, following the Endnotes for this Report

In addition to the benefits listed above, greater financial stability and having basic needs met can reduce the anxiety that comes from struggling to survive, or not having a cushion for emergencies. It also leaves more time to spend with loved ones and to give back to the community — all of which contribute to happiness and improved life satisfaction.<sup>111</sup>

Having money saves money: Having enough income means that households can build their credit scores and avoid late fees, predatory lending, and higher interest rates. 112 That, in turn, means that ALICE families have more resources to use to reduce risks (e.g., by purchasing insurance), stay healthy (e.g., by getting preventative health care), or save and invest in education or assets that could grow over time (e.g., buying a home or opening a small business). Instead of a downward cycle of accumulating fees, debt, and stress, families can have an upward cycle of savings and health that makes them even better able to be engaged in their communities and, in turn, enjoy a reasonable quality of life.

For communities, this leads to greater economic activity, greater tax revenue, lower levels of crime, and fewer demands on the social safety net, allowing more investment in vital infrastructure, schools, and health care. 113 Strengthening communities by strengthening ALICE families means a higher quality of life for all.

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- 2 American Community Survey. (2018). 1-year estimates. U.S. Census Bureau. Retrieved from https://data.census.gov/cedsci/
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4 Households on the cusp are defined as those with income in the Census income bracket above and below the ALICE Threshold. Income brackets begin with less than \$10,000/year; they increase in \$5,000 intervals from \$10,000 to \$50,000/year; then they extend to \$50,000-\$60,000/year, \$60,000-\$75,000/year, \$75,000-\$100,000/year, \$100,000-\$125,000/year, and \$125,000-\$150,000/year.

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6 Note: All racial categories except Two or More Races are for one race alone. Race and ethnicity are overlapping categories; in this report, the Asian, Black, Hawaiian (includes other Pacific Islanders), and Two or More Races groups may include Hispanic households. The White group includes only White, non-Hispanic households. The Hispanic group may include households of any race. Because household poverty data is not available for the American Community Survey's race/ethnicity categories, annual income below \$15,000 is used as a proxy.

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