Unlocking Ohio's economic potential

The impact of eliminating racial disparities on Ohio businesses, governments and communities

Methodology

The Health Policy Institute of Ohio contracted with researchers from **Altarum** to calculate the economic impact of racial disparities and inequities by using the methodology outlined below.

Population estimates and projections

Race/ethnicity

This analysis drew upon current and projected estimates of the Ohio population by the combination of race, ethnicity and age group. The racial and ethnic categories used were:

- White
- Black
- Hispanic/Latino
- Asian or Pacific Islander
- Other race

Note that white, Black, Asian or Pacific Islander and other race categories exclude those identifying as Hispanic/Latino, so these race/ethnicity categories are mutually exclusive and sum to the total Ohio population.

Current data sets do not allow for a meaningful analysis of Asian American experiences in Ohio, which can vary widely. Aggregated data can mask health disparities, particularly for subpopulations. Asian Americans overall tend to have positive outcomes on many health and economic indicators. However, data on southeast Asians and immigrant and refugee populations from Asia, such as Bhutanese-Nepali refugees, suggest these subpopulations experience poorer health and economic outcomes. In addition, data on Asian Americans is suppressed due to small sample size for some metrics.

Age

Because income varies by age and racial and ethnic groups can have different age distributions, it was important to capture age across race and ethnicity.

The age groups used were:

- Under age 25
- Age 25-34
- Age 35-44
- Age 45-54
- Age 55-64
- Ages 65 and older

Population projections

There was no single, authoritative source of population projections that included age, race and ethnicity. Therefore, several data sources were combined to capture important trends in both the increasing age and diversity of Ohio's population. Current population estimates by age group and race and ethnicity were computed using 2019 American Community Survey (ACS) data for Ohio. ACS data was also used to estimate mean income by age, race and ethnicity. Counts were consistent with other sources of information on the current Ohio population, such as those from state agency population estimates and projections.

Projections of changes in Ohio's population by age group, race and ethnicity combined data on the projected percent change in the Ohio population from 2019 to 2050. The projected percent change for each racial and ethnic category was compiled from the PolicyLink Racial Equity Atlas.[1] The projected percent change in the Ohio population by age group was sourced from the Ohio Development Services Agency.[2]

Economic impact of eliminating disparities estimations and calculations

Disparities in income

The impact of closing racial and ethnic disparities in mean income for people in Ohio was estimated as follows:

1. Mean incomes for individuals by the combination of race, ethnicity and age group were computed using 2019 ACS data for Ohio. Income includes wages, self-employment earnings and government transfer payments, such as social security.
2. Population counts for white, Black, Hispanic/Latino, Asian/Pacific Islander, and Ohioans of other races, by age group, were multiplied by their respective average Ohio income by age group and summed across all ages, and race and ethnicity categories to produce total state income.
3. The same population counts by race, ethnicity and age group were multiplied by the average income for white Ohioans in that age group for the race/ethnicity categories with average incomes less than the white income – Black, Hispanic/Latino, and other – to produce total state income under a racial equity scenario. Note that since the average income for Asian Ohioans was above the average income for white Ohioans, the income for the Asian population was not adjusted and remained the same under the racial equity scenario.
4. Total income was subtracted from total income under racial equity to estimate the potential gain in total income under racial equity.
5. For 2050, the same computations were performed with projected population counts in each racial/ethnic category to compute total income with and without racial equity and the potential gain in income under racial equity.
6. Final overall estimates of economic impact were adjusted to 2022 dollars using the GDP Implicit Price Deflator.[3]

For example , the impact of eliminating disparities in income for Black, non-Hispanic Ohioans was estimated using the following data:

	Population size (2019)	Current mean personal income (2019, age-adjusted)	Current total population income (2019, age-adjusted)	Mean personal income if there was no disparity (2019, age-adjusted)	Total population income if there was no disparity (2019, age-adjusted)
Black, non-Hispanic Ohioans	1,442,060	$21,171	$30,529,899,410	$35,721	$47,125,422,297

Using these figures, the current total income of Black Ohioans was subtracted from the total income of Black Ohioans if there was no disparity to calculate potential economic impact:

$$47,125,422,297-\$30,529,899,410=\$16,595,522,887$$

These calculations were replicated for Hispanic/Latino Ohioans and Ohioans of other races to estimate the statewide total economic impact of eliminating disparities in income.

Additional state and local tax revenues

The estimated increase in state and local tax revenues under racial equity was computed as 10.2% of the potential increase in income, based on the Tax Foundation's estimate of Ohio taxes as a percent of income.[4] In the absence of any known future change to this rate, the same rate was applied to the projected 2050 income impact to estimate the 2050 tax revenue impact.

Greater consumer spending power

The potential gains in consumer spending were estimated by multiplying the potential increase in income by the percentage of pre-tax income spent by U.S. Midwest households on total consumer spending and on selected major goods and services categories as measured by the U.S. Bureau of Labor Statistics National Consumer Expenditure Survey.[5] The most recent 2019-2020 spending shares were applied to both the current and projected 2050 income to estimate additional consumer spending associated with racial equity.

Potential gain in economic output

The impact on state economic output, or Gross State Product (GSP), was computed by applying the same percent increase in income that would occur under racial equity to the state GSP.[6] This approach assumes an increase in GSP proportional to the increase in income, with the gain in income achieved by increasing productivity through closing disparities in factors such as health, education and employment opportunities. The 2050 estimate applied the 2050 percent increase in income under equity. Global GDP estimates characterized for context were from the World Bank.[7]

Disparities in health outcomes

To compute the potential economic impact for Ohio if gaps in health outcomes were eliminated so that Ohioans of color experienced the same health outcomes as white Ohioans, the methods of Laveist et. al as described in JAMA were used.[8] The total economic burden of inequity on Ohio was segmented by estimates of avoidable health spending, lost labor productivity and premature death. To inflate 2018 to 2022 dollars, the Federal Reserve's Gross Domestic Product annual implicit price deflator was used as previously described.

Disparities in incarceration

The savings associated with eliminating disparities in incarceration rates were estimated as follows using data on the incarcerated population as reported by the Ohio Department of Rehabilitation and Correction (ODRC)[9]:

1. Altarum computed total annual costs under current conditions by multiplying costs per day by 365 and multiplying by the total number of people incarcerated. Both costs per person and prison population counts were reported by ODRC. Altarum used total cost (reported as "Individual Cost per Day") rather than marginal cost per day because the large order of magnitude of decrease in the prison population, a 40% or more reduction, makes it likely that both fixed and marginal costs would be reduced. For example, entire units or facilities could be closed.
2. Altarum computed incarceration rates for Black and white Ohioans by dividing the reported 2022 prison population (summing male and female Ohioans of each race) by the total Ohio population of each race.
3. Altarum computed corrections spending under racial equity by applying the incarceration rate of white Ohioans to Ohio populations and summing to get a new prison population count. Altarum then computed associated annual spending by multiplying the cost per day times 365, times the new prison population under racial equity.
4. Altarum subtracted incarceration costs under racial equity from current incarceration costs and reported the difference as the potential economic impact of eliminating racial disparities in incarceration.

Notes

1. Data from the U.S. Census Bureau and Woods & Poole Economics, as compiled by the National Equity Atlas. "Population growth: Racial equity and immigrant inclusion strengthen communities. Percent change in population by race/ethnicity: Ohio; Year: 2019-2050." National Equity Atlas, PolicyLink, USC Equity Research Institute. Accessed August 2022. https://nationalequityatlas.org/indicators/population_growth#/?-geo=02000000000039000&-year=2019-2050

2. *State of Ohio Population Projections Report 2023.* Columbus, OH: Ohio Develop Services Agency, Office of Research, 2023. P6001.pdf (ohio.gov)

3. Data from the U.S. Bureau of Economic Analysis, as compiled by the Federal Reserve Economic Data (FRED) Database. "Gross Domestic Product: Implicit Price Deflator (GDPDEF)." Federal Reserve Bank of St. Louis. Accessed July 26, 2022. https://fred.stlouisfed.org/series/GDPDEF

4. York, Erica, and Jared Walczak. "State and Local Tax Burdens, Calendar Year 2022." *Tax Foundation,* April 7, 2022. https://taxfoundation.org/publications/state-local-tax-burden-rankings/

5. Data from the Consumer Expenditure Surveys Tables (CEX), Midwest Region of Residence. "Table 1800, Region of residence: Annual expenditure means, shares, standards errors, and coefficients of variation, 2019-2020." U.S. Bureau of Labor Statistics. Accessed July 2022. https://www.bls.gov/cex/tables/geographic/mean.htm

6. Data from the U.S. Bureau of Economic Analysis, as compiled by the Federal Reserve Economic Data (FRED) Database. "Gross Domestic Product: All Industry Total in Ohio (OHNQGSP)." Federal Reserve Bank of St. Louis. Accessed August 2022. https://fred.stlouisfed.org/series/OHNQGSP

7. Data from the World Bank national accounts data and OECD National Accounts data files. "GDP (constant 2015 US$)." The World Bank. Accessed August 2022. https://data.worldbank.org/indicator/NY.GDP.MKTP.KD

8. LaVeist TA, Pérez-Stable EJ, Richard P, et al. The Economic Burden of Racial, Ethnic, and Educational Health Inequities in the US. JAMA. 2023;329(19):1682–1692. doi:10.1001/jama.2023.5965 Available at https://jamanetwork.com/journals/jama/fullarticle/2804818

9. *2022 Annual Report.* Columbus, OH: Ohio Department of Rehabilitation & Correction, 2023. https://drc.ohio.gov/about/resource/reports/annual-reports/annual-report-2022

Download the full analysis here:

bit.ly/44HdPll