State of renewal:
Charting a new course for Indiana’s economic growth and inclusion

EXECUTIVE SUMMARY

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February 2021

Metropolitan Policy Program
at BROOKINGS

EXECUTIVE SUMMARY

There's been no escaping the COVID-19 pandemic, with its toll of hospitalizations, layoffs, and quarantines.

Every place in America has been affected, often in drastic ways, as the coronavirus hit home and laid bare—like an X-ray—an array of underlying economic and social challenges wherever it arrived.

And so it has been in Indiana. While it has managed, by some measures, one of the stronger recoveries from the initial crisis among states, the Hoosier State has also contended with major dislocations and challenges.

Not only did COVID-19 interrupt several years of relatively decent growth prior to the pandemic shock, but the pandemic and its impacts have intensified an array of concerns about the underlying health and resilience of the state's economy, ranging from its technological competitiveness (region by region) to its adaptability to the pay of its jobs.

In light of this, as Hoosiers begin to think ahead, the understandable impulse to simply "get back to normal" may not suffice.

Instead, Indiana—like other states—is facing a critical moment as it contemplates its post-pandemic future. Is the state prepared to challenge itself to go beyond its norms and focus on longer-term transformation? Or will it content itself with reverting to an imperfect pre-crisis status quo?

Such questions—which were already surfacing before the pandemic—are why in spring 2019, the Central Indiana Corporate Partnership (CICP) invited the Brookings Institution's Metropolitan Policy Program to provide a data-grounded economic assessment and actionable set of recommendations to inform the state's economic strategy at an important time. Envisioned as part of the Indiana GPS Project—a multistrand economic strategy effort spearheaded by CICP, assembling research from Brookings as well as the American Enterprise Institute (AEI) and its partner Economic Innovation Group (EIG), both in Washington, D.C.—the Brookings assessment and recommendations were conceived well before the COVID-19 crisis with an eye toward providing ideas for expanding Indiana's advanced industries and quality employment. With that said, the inquiry only gained in salience by taking on aspects of the current crisis.

Along these lines, the report that follows—"State of renewal: Charting a new course for Indiana's economic growth and inclusion"—draws a number of conclusions about the Indiana economy as it emerges from the COVID-19 crisis and considers how to catalyze a new era of state growth. In doing so, the report finds that:

1. INDIANA POSSESSES SIGNIFICANT STRENGTHS AS IT MOVES BEYOND THE WORST OF THE COVID-19 PANDEMIC, THOUGH DISPARITIES PERSIST.

Notwithstanding its especially deep initial plunge into the COVID-19 recession, Indiana was experiencing a relatively robust initial job rebound by the onset of the winter. Overall, the state's return from its pandemic lows has been relatively quick, with net payroll job losses for the year declining to 52,000 positions in November—or -1.7% of the state's total employment, the ninth-lowest figure among states.

Contributing to this result has been the state's industry structure. With services at the forefront of job losses nationally, the state's high specialization in manufacturing (which reopened relatively quickly) and low reliance on tourism (a source of some of the crisis's worst job losses) have ensured that Indiana has been shielded from the gravest disruptions of the pandemic. Indiana's large transportation sector (including fulfillment and logistics) has also contributed to the state's rebound, meaning that—for now, at least—the state's sizable "make goods/move goods" sector has been important in staving off dislocation.

Still concerning, though, is the persistent unevenness of the recession, which continues to vary sharply across income levels, race, and geography. Data from Opportunity Insights reveals, for example, that while high- and medium-wage workers in Indiana have seen full or nearly full employment recovery, in October, low-wage workers were still contending with employment rates more than 17% below mid-January 2020 levels.

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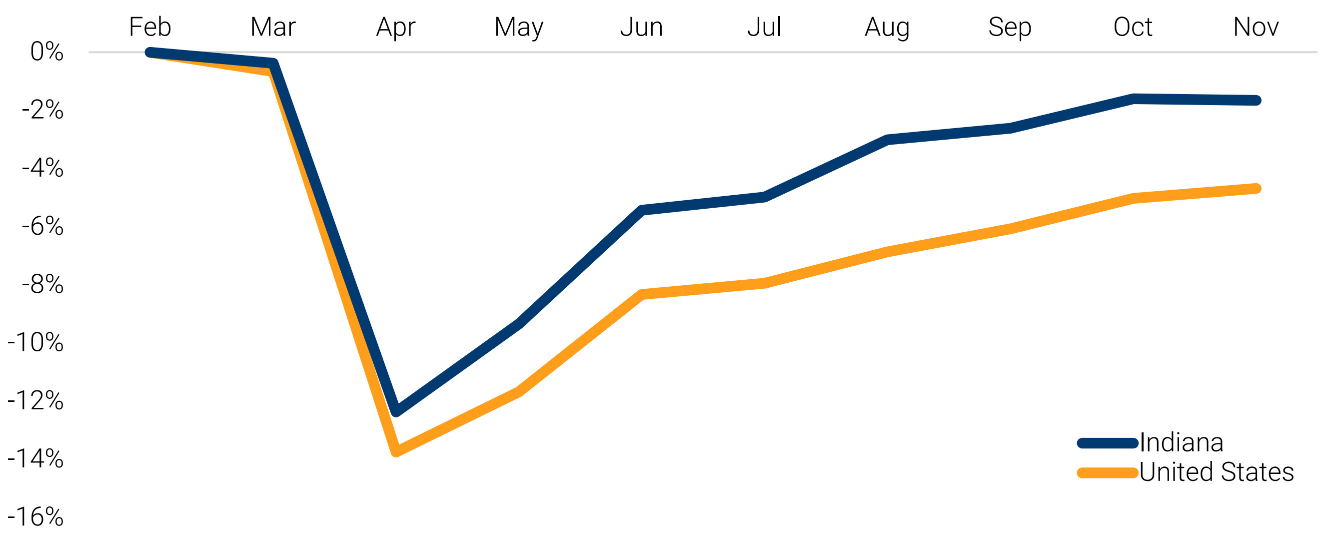
By the onset of winter, Indiana's relatively strong rebound had gained back 87% of jobs the state had lost in 2020, although the recovery slowed in the fall

Total nonfarm employment in Indiana and US, not seasonally adjusted, February - November 2020



Note: November data is a preliminary estimate.
Source: Brookings analysis of BLS data.

Likewise, responses from the Census Bureau's Household Pulse Survey for mid-December report that half of Black and Latino or Hispanic Hoosiers resided in households that had experienced a loss of employment income since March. For white Hoosiers, the figure was 44%. And while unemployment rates in Indiana's regions had declined substantially by the fall, conditions varied and joblessness was still elevated, especially in the state's northern regions. Even so, the state's initial rebound has been relatively solid.

2. WITH THAT SAID, INDIANA'S PRE-PANDEMIC EMPLOYMENT AND PAY TRENDS RAISE QUESTIONS ABOUT THE LIKELY SHAPE OF ITS POST-PANDEMIC RECOVERY.

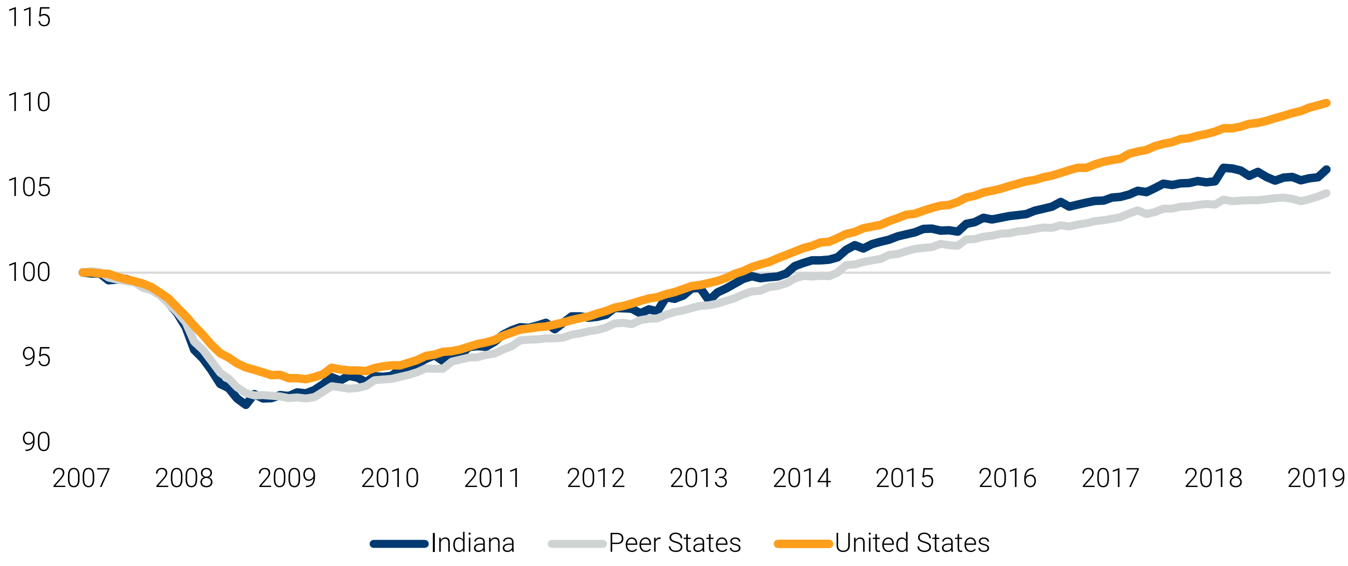
Indiana's pre-crisis norms on growth and pay, past recession recoveries, and family well-being signal vulnerabilities in the state's economic makeup, with implications for the nature of its longer-term recovery.

The vulnerabilities begin with growth and pay. On employment, the state's 0.5% compound annual growth rate (CAGR) in employment from 2007 to 2019 reflects a mixed story. As such, the state's employment growth lagged the national average of 0.8%, with the state having initially absorbed heavy job losses in manufacturing in the 2007-to-2009 recession. However, an export-driven manufacturing rebound then helped the state outpace its peer states' employment growth. In that sense, while employment growth has been slow by national standards, it has been above average for a Midwestern region still struggling with a regionwide loss of economic vitality.

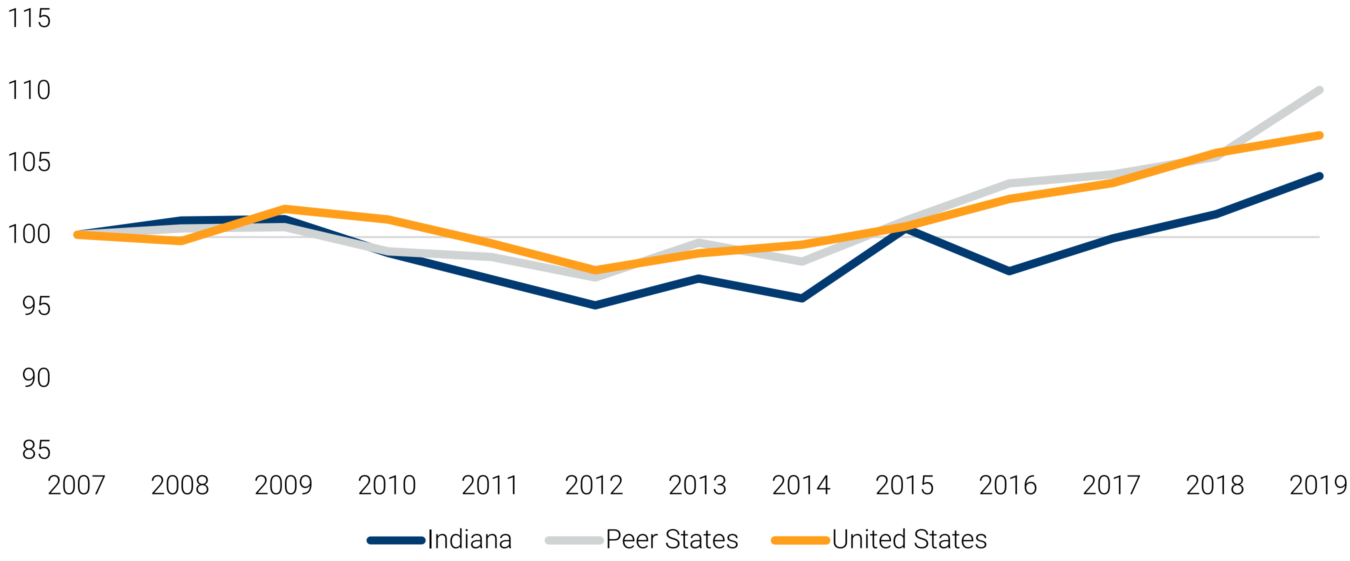
At the same time, though, earnings gains have underperformed. Nationwide, median annual earnings increased by just 0.6% a year in real terms from 2007 to 2019, to reach $36,600 per worker. By contrast, Indiana's gains were half that, with annual earnings growth registering at just 0.3%, allowing earnings to reach just $34,300. Only in the last pre-pandemic years did Indiana workers' earnings begin to grow in a sustained way, albeit at a slower pace than that of its peers.

Indiana managed respectable employment growth in the pre-pandemic decade, but its earnings gains underperformed

Total nonfarm employment (Dec. 2007 = 100), seasonally adjusted, December 2007 - January 2020



Real median hourly wage (2007 = 100), 2007 - 2019



Source: Brookings analysis BLS, BEA and the Economic Policy Institute's State of Working America Data Library data.

Also of concern are longer-term trends, including the state's experiences with recent recessions—an important indicator of resilience. Notwithstanding its sustained employment-growth edge compared to its regional peers, Indiana found itself knocked onto a slower growth trajectory after 2000, to the point that the state did not recover its May 2000 employment peak until May 2015. The nation as a whole, by contrast, recovered its February 2001 peak employment only four years later.

Even more disturbing, real hourly wage growth in Indiana has remained depressed since 2001, including in the wake of the 2007-to-2009 recession. Since 2000, Indiana's 0.5% per year real median wage growth trailed the national and peer-state rates and ranked 46th among states.

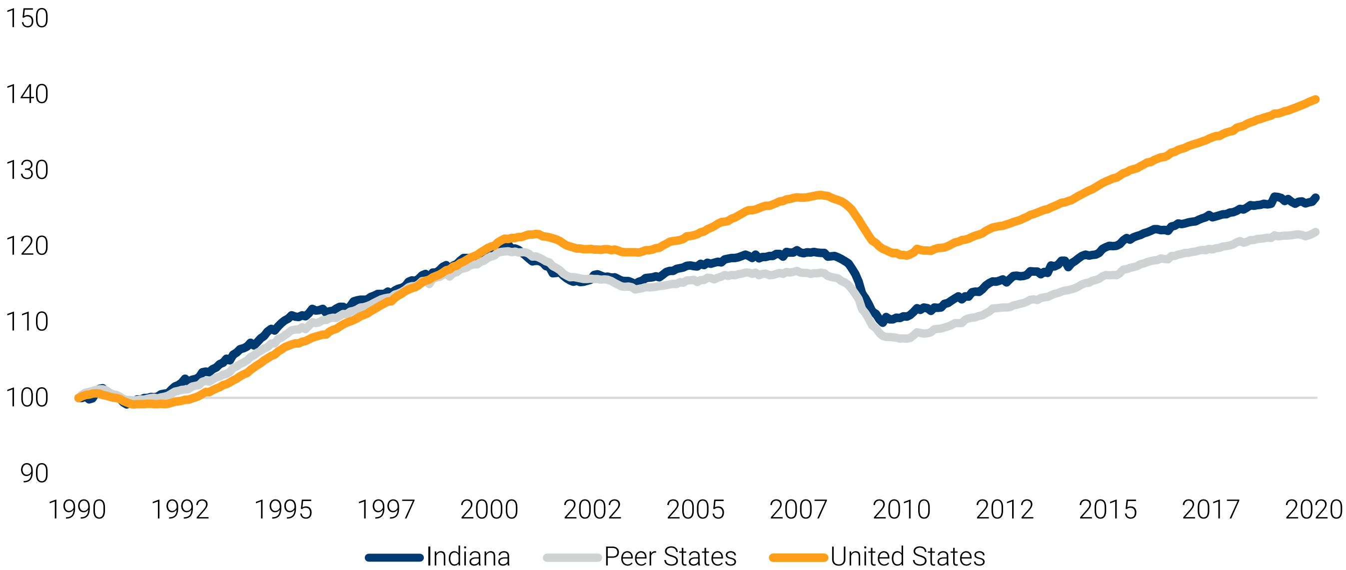
Together, the shocks of 2001 and 2007 to 2009 imposed major changes upon Indiana's economy—especially the 2001 recession, which corresponded with a surge of cheap imports from China in the wake of its accession to the World Trade Organization. The slow recoveries from these episodes represent a second caution about the future.

Finally, the human costs of two decades of stagnation represent a third source of uncertainty about what comes next. With the onset of the Great Recession, for example, the number of Hoosiers living in families that struggled to make ends meet—as indicated by a well-regarded "self-sufficiency standard" from the University of Washington—rose by over half a million people, from 1.4 million in 2007 to 1.93 million in 2011. By 2016, that total had fallen only slightly to 1.82 million—a figure still nearly 400,000 people higher than before the recession.

Altogether, about 30% of the state's population has been living in a struggling family since 2010, with only small declines in recent years—and this was before the onset of the COVID-19 pandemic. Less educated workers in the state and racial and ethnic minorities are especially overrepresented among the now likely swollen ranks of the struggling.

Indiana employment growth deteriorated in the wake of the recessions of 2001 and 2007 to 2009

Total nonfarm employment (Jan 1990 = 100), seasonally adjusted, January 1990 - January 2020



Source: Brookings analysis of BLS data.

The upshot is clear: As it anticipates recovery from the COVID-19 recession, Indiana does so having lost ground over the last two business cycles on several topline indicators of economic resilience.

3. 'PREEXISTING CONDITIONS' AFFECTING AT LEAST THREE KEY SUCCESS FACTORS UNDERLIE THE STATE'S TRENDS AND PRESENT CHALLENGES TO ITS RESILIENCE.

Work at Brookings and elsewhere has explored the special importance to prosperity of a short list of critical economic success factors. These factors include the dynamism of high-value "advanced" industries, the ability of the economy to "reallocate" jobs and workers from declining pursuits to promising ones, and the importance of inclusive growth that is broadly shared by all people and places. Such factors represent not just important takeaways from the resilience literature, but key influences on Indiana's long-run vitality—or lack thereof. They are the state's "preexisting conditions" when it comes to recovery and enhancement.

Indiana faces challenges on several of these important economic factors. Three findings warrant notice:

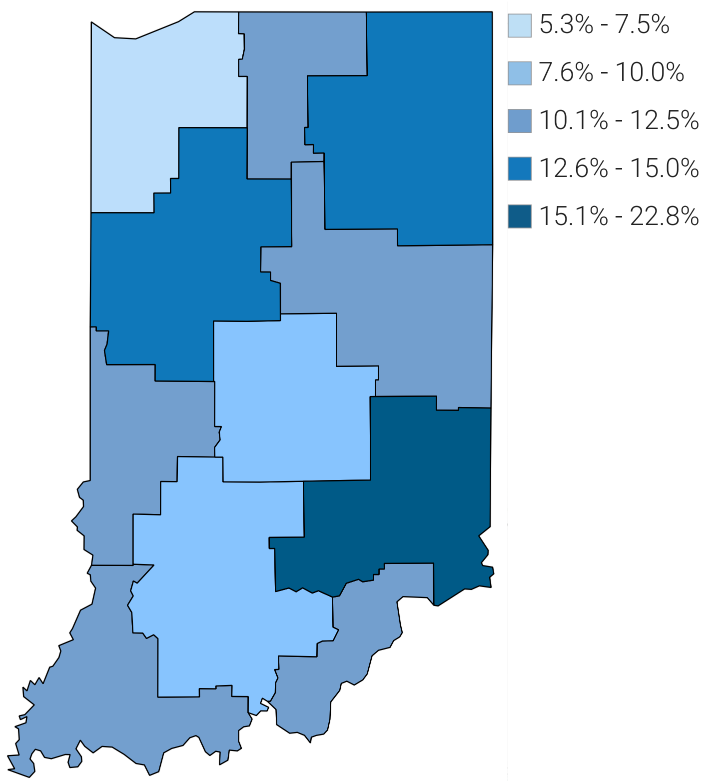
Advanced-industry sector competitiveness—reflected in productivity trends—has been slipping

Industry and firm productivity growth—the efficiency by which enterprises convert inputs into outputs—is critical to prosperity, but it has been declining in Indiana. Economy-wide, efficiency has slumped to levels around 15% below the national level. Especially concerning are slippages in the performance of the state's advanced-industry sector—a collection of 46 R&D- and STEM-worker-intensive industries in Indiana highlighted by Brookings and ranging from biopharma manufacturing and medical devices to automotive, R&D consulting, and technology.

These "crown jewel" industries operate in every Indiana region and county and support—both directly and indirectly—inordinate shares of the state's best-paying, highest-value economic activity. However, these high-productivity industries have also been stagnating. Between 2007 and 2019, advanced-industry productivity in Indiana grew at a paltry 0.4% annually, from $285,100 to $298,300 per worker. By comparison, real output per worker in advanced industries across the nation grew 2.7% a year during this period, reaching $375,000 per worker in 2019—implying a productivity gap of nearly 20% between the state and the nation. This represents a fall from the state's slight advanced-industry sector productivity *advantage* in 2007 of 5%.

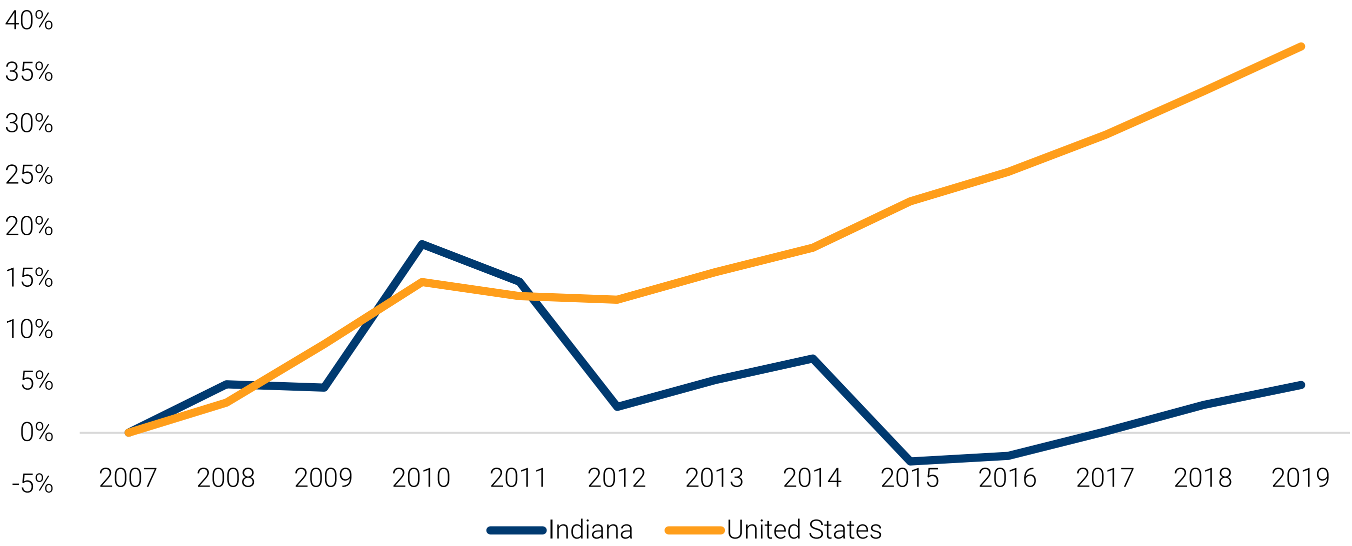
Advanced industries support quality employment—albeit at different concentrations—in all Indiana counties and in every region

Employment share in advanced industries by region, 2019



Source: Brookings analysis of Emsi data.

Indiana's advanced industries productivity growth has been languishing, falling behind the nation's since 2010
Advanced industries productivity - Percent change since 2007, 2007-2019



Source: Brookings analysis of Emsi and BEA data.

The state has struggled to adapt to recent economic shifts, which have created multiple "reallocation" challenges for industries and workers

Indiana's heavy specialization in manufacturing ensured that major changes in that sector—ranging from globalization and import competition to automation—brought significant firm and worker shifts in the last two recessions. For example, between 2001 and 2019—and especially in the recessions of 2000 to 2001 and 2007 to 2009—the state lost over 72,000 jobs in the manufacturing sector, which has long been a source of above-average wages for workers without a four-year college degree. At the same time, 228,000 jobs were created in the lower-paying hospitality, administrative services, and health care sectors.

The result of these shocks: Indiana's firm mix shifted abruptly toward low-skill service sectors, while thousands of workers struggled to undergo tough changes in jobs, industries, and skill demands, with a long-term depressive effect on wage growth and labor force participation.

Analysis in this report suggests the pandemic recession could portend new reallocation challenges tied to long-term structural changes and disruptions, such as more losses in manufacturing or the shift of retail activity from physical stores toward e-commerce. What's more, research from AEI's partner, the Economic Innovation Group, places Indiana 39th in the nation when it comes to the share of its employees working at new firms. That raises questions about the state's ability to readily create new jobs to replace those that may have been lost for good.

Indiana's economy has been providing too few good jobs

Good-paying work is critical in providing workers and families a livelihood and delivering the basic consumption that supports prosperous regions and communities. Accordingly, Brookings suggests—based on extensive research in Indiana—that "good jobs" pay at least a locally adjusted $40,700 a year and provide employer-sponsored health insurance. Under this metric, Indiana's store of good jobs has remained too small and grown too slowly.

To be sure, the state's stock of good jobs compares favorably to most states, given Indiana's manufacturing history. But even so, only 42% of the state's workforce possessed a good job between 2014 and 2018, the most recent period for which numbers are available. That means that roughly 58% of Hoosier workers—nearly three out of five—lacked a good job then.

Nor has the share of Hoosier workers in a good job increased appreciably in the last decade. Rather, it has remained the same. Also holding steady is Hoosiers' uneven access to good jobs: While 50% of male workers in Indiana are employed in a good job, only 33% of female workers are. Similar disparities cut across racial lines: Over 44% of white workers in the state have a good job, compared to just 30% and 25% of Black and Latino or Hispanic workers, respectively.

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Going deeper into these success factors reveals several underlying dynamics that point to important strategy challenges—and opportunities.

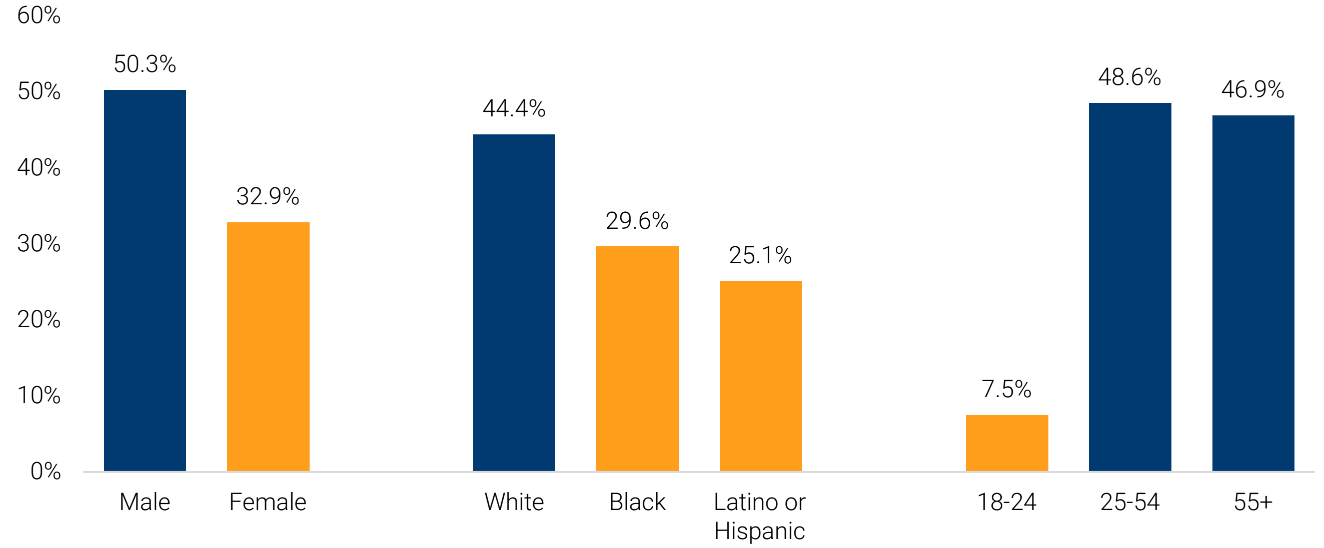
Insufficient digital investment is limiting advanced-industry sector competitiveness and the state's broader productivity

Underlying Indiana's productivity challenge are digital challenges. Information technology (IT) adoption is an increasingly important influence on productivity patterns given the "digitalization of everything" in the COVID-19 economy. And yet, digitalization has been proceeding too slowly in Indiana, to the detriment of productivity growth.

For one thing, Indiana ranks in the bottom third of states on Brookings's basic measure of economy-wide digitalization as reflected by the average digital intensity of its occupations. In addition, information on Indiana firms' capital expenditures depicts significant underinvestment in IT. Specifically, firm-level data from the tech-industry market research company Harte Hanks shows that in 2016, Indiana ranked just 37th among states for both its advanced-industry sector and whole-economy annual per

Men, white workers, and prime-age or older workers have greater access to good jobs; women, workers of color, and young people have less access

Share of workers in a good job by demographic group in Indiana, 2014-2018



Note: Asian American, Native American, Native Hawaiian, and those identifying as two or more races cannot be included because small sample sizes prevent statistically significant estimates.

Source: Brookings analysis of IPUMS USA 2014-18 5-year ACS microdata.

employee IT spending. Those levels—$12,300 and $7,400, respectively, compared to $25,000 and $11,100 nationally—ranked fifth and sixth among Indiana's peer states.

Similarly patchy are Indiana's broadband adoption rates, which interfere with business, job search, and education in both rural and urban areas. To be sure, Indiana's broadband adoption rate has increased from 60% to 65% since 2013. However, the state's 65% adoption rate remains in the fourth quintile of states—a concerning status that has been highlighted by the pandemic recession.

Thinner job supplies and various skill- and job-matching issues could slow worker transitions and wider reallocation

This is a problem because fast and favorable readjustments of firms and workers to new conditions speed recovery and maximize productivity and inclusive growth. But particular attributes of Indiana's reallocation environment could slow or complicate the state's job creation and labor market matching processes in the coming years.

On the job creation side, shortages in new-firm creation and investment in digital and other automation technologies could depress the state's supply of jobs in certain sectors or places. On the labor market side, skills disconnects—a problem everywhere—could slow job transitions and readjustment. For some, matching existing skills to new firms or industries will require challenging job searches. For others, the tendency of firms to upskill during downturns could complicate reemployment in enterprises replacing workers who performed "routine" automatable tasks with a mix of technology and more skilled workers. Even before the crisis, a third of Indiana jobs required postsecondary education, but only a quarter of working-age adults had that requisite level of education.

Meanwhile, telework—which will likely increase permanently—poses additional challenges, particularly for workers who lack digital skills or broadband access.

Job quality has suffered amid difficult economic transitions

Beneath the shortage of good jobs lie massive economic changes that have challenged state policy's ability to keep up. For example, the interlinked trends of globalization and automation have constrained mid-level wage gains in Indiana more than in most places. Here, it bears saying again that trade and technology each bring substantial benefits. But it is also true that each trend has almost certainly had negative wage effects on middle- and lower-skilled workers, especially given the state's manufacturing-heavy industry mix.

On trade, Brookings analysis using a method and data from economist David Autor and colleagues suggests that, between 1990 and 2007, Hoosier wage declines attributable to Chinese import competition were the highest in the Midwest, and the ninth-largest in the country. On technology, Brookings calculations using data from the International Federation of Robotics and economists Daron Acemoglu and Pascual Restrepo suggest automation-induced wage declines over the same timespan were likely higher than in any other state. Brookings also concludes that nearly one-third of Indiana jobs are now highly susceptible to automation employing existing technologies—the highest share in the country.

Over time, these trends have helped to "hollow out" the state's wage distribution, erasing middle-class jobs and forcing displaced workers to compete for lower-wage service work. The same can be said for related management paradigms involving outsourcing and the so-called "contingent" or gig economy, which have complicated workers' ability to secure higher wages and more benefits. In the face of all of this, Indiana policy innovation has simply lagged behind market changes, leaving many workers to contend with excessively low wages, benefits limits, and greater precariousness.

4. INDIANA SHOULD BUILD RESILIENCE INTO A RECOVERY THAT PROMOTES TRUE RENEWAL.

Indiana has an opportunity to elevate its trajectory. But to do that, it needs to do more than just manage a serviceable recovery from the immediate COVID-19 shock and recession.

Rather, the state needs to begin to address some of the deeper economic challenges it faced prior to the pandemic that could limit the dimensions of its recovery. Indiana should shoot for enhancement—not just repair.

Specifically, the state should begin improving its standing on key resilience factors by taking action to accelerate technology adoption, facilitate faster industry and worker adaptation, and promote economic inclusion.

Along these lines, the state should consider a number of linked initiatives and action steps aimed at both mitigating the worst of the crisis and systematically upgrading the state's growth platform for the next decade. Specifically, the state and its regional, civic, and business partners should take steps in the coming year or two to:

Accelerate digital adoption to drive economic dynamism and competitiveness. Promoting faster and broader digital adoption remains one of the best ways to rout the state's productivity slump and generate quality jobs and more dynamic prosperity. The state should pursue three initiatives:

- Drive digital adoption with a "Digital Indiana" initiative to deploy an awareness campaign and business support offerings to increase IT adoption by Indiana firms—especially small and medium-sized enterprises—in all industries, as does the state's EASE program and Manufacturing Readiness Grants in that sector
- Encourage digital skills development for Hoosiers by adding a digital skills requirement to the Indiana College Core (formerly the Statewide Transfer General Education Core)
- Begin to solve the state's broadband disconnects

For their part, regional actors and local industry networks can play a critical role in helping the state raise digital awareness, deliver digital skills development, and begin to tackle local broadband challenges.

Promote favorable job creation and worker transitions to allow for a beneficial "rewiring" of the economy. Favorable industry and work reallocations—from less desirable to more desirable configurations—are going to be crucial for the economy to change and adapt while helping displaced workers reconnect to sustainable work. Top priority moves would:

- Leverage incremental income tax gains to fund regional advanced-industry sector growth initiatives, with investments delivered by both the state and regional intermediaries
- Enhance entrepreneurship and small new business development, with a focus on entrepreneurs of color
- Better leverage unemployment insurance (UI) and work-sharing to boost employment and economic growth
- Promote more effective worker adjustment by continuing to support the Next Level Jobs program and the Workforce Ready Grant

In addition, the state should in the next few years more strongly support workers' searches for the right job and employer as the economy recovers and the labor market tightens. To do so, the state should:

- Enhance work connections with a statewide online matching platform

For their part, regional actors and local industry networks can continue to drive growth in their own advanced sectors while designing, aligning, and delivering industry-relevant, worker-supportive education, training, and job-matching innovations.

Do more to support workers who aren't in good jobs so as to promote inclusion and broadly shared prosperity. Neither a broad digital surge nor facilitating optimal reallocation of the economy and labor market will by themselves be sufficient to help the state's struggling workers. Large forces—including globalization and technology—will continue to pose challenges for the widespread creation of good jobs, whether in Indiana or elsewhere. Therefore, Indiana—like every other state—will need to accept that it must attend more to the basic needs of what will likely be a sizable pool of struggling workers for the foreseeable future. In that vein, the state could:

- Establish a "Choice Employers" designation and provide such employers with premium supports to encourage them to create more good jobs
- Enlarge the state's existing Earned Income Tax Credit and pay it quarterly to boost worker income and predictability
- Authorize a state panel to explore a Medicaid buy-in program for able-bodied adults
- Enact a comprehensive child care agenda to support working families
- Enact a state-sponsored automatic IRA to encourage greater retirement savings

In addition, the state may want in the coming years to examine a number of other recommendations that would help boost job quality for low-income Hoosiers. In that spirit, the state could:

- Enact statewide paid sick and family leave
- Expand access to benefits and protections to contingent workers, gig workers, and independent contractors
- Enact protections for temporary and on-call workers

For their part, regional organizations and local business networks can focus on good jobs in their own communities and experiment with new ways to support good wages and provide both educational pathways and supportive services for working families.

Indiana has an opportunity to elevate its trajectory. But to do that, it needs to do more than just manage a serviceable recovery from the immediate COVID-19 shock and recession. Rather, the state needs to begin to address some of the deeper economic challenges it faced prior to the pandemic that could limit the dimensions of its recovery. Indiana should shoot for enhancement—not just repair.

ACKNOWLEDGEMENTS

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The Brookings Metropolitan Policy Program (Brookings Metro) would like to thank the Central Indiana Corporate Partnership (CICP), BioCrossroads, and the Lilly Endowment Inc. (LEI) for their generous support of this analysis and of Brookings's advanced economy work more broadly.

Sincere thanks for ongoing input and counsel go to David Johnson of CICP as well as to Clay Robbins, Robert Smith, and Jaclyn Dowd at LEI; Jason Kloth of Ascend Indiana; Patty Martin at BioCrossroads; and Mark Howell of Conexus Indiana.

The Brookings team is also grateful to Ryan Streeter of the American Enterprise Institute for his counsel and good cheer.

Additional invaluable input and practical support in Indiana were provided by Lori Leroy, Nathan Ringham, and Melissa Roberts at CICP.

More broadly, the Brookings Metro team has relied on a rich flow—even during the pandemic—of both structured and informal consultation with a helpful, thoughtful, and committed array of Indiana stakeholders.

The GPS Project Advisory Council provided a helpful sounding board throughout the research process and merits our sincere appreciation: Keira Amstutz, Kevin Brinegar, Jaclyn Dowd, Sue Ellspermann, Tim George, Starla Hart, Teresa Lubbers, Justin McAdam, John Ruckelshaus, Robert Smith, and Ryan Streeter.

An outstanding set of regional leaders convened two focus groups in all 11 Indiana regions, read draft material, and merited additional gratitude. These leaders included:

Northwest: Heather Ennis, Jená Bellezza, Linda Woloshansky, Denise Dillard

North: Regina Emberton, Pete McCown

Northeast: John Sampson, Ryan Twiss

Wabash Heartland: Pat Corey, Johnny Park

Central: Mark Fisher

East Central: Delaina Boyd, Tom Kinghorn

West Central: Rob Coons

Southwest: Jim Ryan

Indiana Uplands: Tina Peterson

Southeast: John Burnett, Kathy Oren

South: Linda Speed

And the team relied continuously on the expertise of dozens of committed Hoosiers and others, including: R. Scott Appleby, Desmond Amuh, Regina Ashley, John Axelberg, Bob Behning, Jeanna Berdel, Brad Bishop, Luke Bosso, Stephanie Bothun, Kate Broshears, Caitlin Brown, Bryce Carpenter, Angela Carr Klitzsch, Dawn Clark, Matt Crouch, Jackie Cuellar, Wendy Dant Chesser, Scott Davison, Merritt Dilts, David Ebert, Claire Fiddian-Green, Kenan Fikri, Mark Fisher, Scott Ford, Thomas E. Fuja, Roberto Gallardo, Tom Gates, Jodi Golden, Julie Goodman, Robert Goosen, Nathan Hartman, Brock Herr, Michael Hicks, Mackenzie Higgins, Michael Huber, Kathy Huffman, Saru Jayaraman, Leighton Johnson, Drew Klacik, Mitch Landess, Mike Langellier, Chris R. Lowery, Chauncey Lennon, Douglas Mansfield, Molly Martin, Tony Mason, Konnie McCollum, PJ McGrew, Geoffrey S. Mearns, Jamie Merisotis, Steven Meyer, Blair Milo, Kara Monroe, Paul Mitchell, Ian Nicolini, Ray Offenheiser, Margo Olson, Mark Partridge, Umesh Patel, Charles Penquite, Jr., Tim Raper, Aaron Renn, Joshua Richardson, Brad Rhorer, Denise Riedl, Dave Roberts, Carol Rogers, Scott Rudd, Greg Taylor, Stacy Townsley, Yamila Ruiz, Ken Sauer, Paige Shevlin, Jeffrey H. Smulyan, Brian Stemme, David Terrell, Travis Thiex, Bill Turner, Michael Ursem, Lawrence Walter, Mark Wasky, Chris Watts, and Maureen Weber.

Closer to home, the authors would also like to thank the following colleagues for substantive input: Alan Berube, Annelies Goger, Tracy Hadden Loh, Amy Liu, Joseph Parilla, and Adie Tomer.

In addition, we are grateful for the practical help of Jade Arn, Kim Bright, Michelle Carter, Elizabeth Dang, Anthony Fiano, Alec Friedhoff, Michael Gaynor, Chris Howie, Julia Kraeger, David Lanham, April McWilliams, Erin Raftery, Karen Slachetka, Reda Urmanaviciute, and Luisa Zottis at Brookings.

MORE INFORMATION

About the Indiana GPS Project

Coordinated by the Central Indiana Corporate Partnership (CICP), the Indiana GPS Project is a series of multidimensional reports on Indiana's economy. It is designed to inform public policy and business priorities that will spur economic growth in Indiana, including through recommendations about how to increase the number of good jobs available to Hoosiers. The research project, which began in August 2019, has been spearheaded by CICP and conducted in collaboration with the Brookings Institution's Metropolitan Policy Program and the American Enterprise Institute.

To learn more, visit **Indianagpsproject.com**.

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