



D.C. POLICY CENTER

The Alice M. Rivlin Initiative

The Alice M. Rivlin Initiative for Economic Policy & Competitiveness

Agenda for Years 1 & 2:
Urban resiliency, growth, and equity—What awaits
the District of Columbia in the post-COVID world?

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The D.C. Policy Center is standing up the Alice M. Rivlin Initiative for Economic Policy & Competitiveness to undertake research projects examining the District's competitiveness with a specific focus on policies that can make the city more attractive, support growth, and create shared prosperity.

During its first two years, the Rivlin Initiative will undertake research projects examining the factors that have contributed to the District's growth and how regional economic dynamics have shaped the District's competitive position. These projects will also consider how these trends may change in the uncertainty of the post-pandemic era, including how the pandemic is shaping demographic and economic trends for urban localities, what these changes mean for D.C. as the urban center of large metropolitan area, what risks and opportunities exist that can shape the city's future success, and what policies can help—or impede—the creation of a thriving local economy that can maximize opportunities for all residents, workers, and businesses in the District of Columbia.

Vision and goals

Three core principles will shape the Rivlin Initiative's work:

- Economic growth is necessary for sustained economic mobility.

- Combined with thoughtful policies, economic growth can create the fastest path to shared prosperity.
- The District of Columbia must remain competitive in the region and in the nation to continue to grow and increase opportunity.

We will put these principles at the center of four key activities:

1. We will produce original research and analyses relevant to the city's immediate and long-term economic success. Our audience includes the District's elected officials, policy leaders, advocacy groups, research organizations, journalists, and the public. We will also share our research nationally with a network of policy makers and researchers focused on urban success.
2. We will create new data by systematically engaging business establishments and employers in the city and across the region. We will use these data to examine what jurisdictional factors employers consider in making various business decisions, how these factors have changed since the beginning of the COVID-19 pandemic, and what these changes mean for growth and economic mobility in the District of Columbia. Systematic engagement of employers, who are untethered to administrative borders, is necessary to build a comprehensive picture of competitive dynamics in the region.

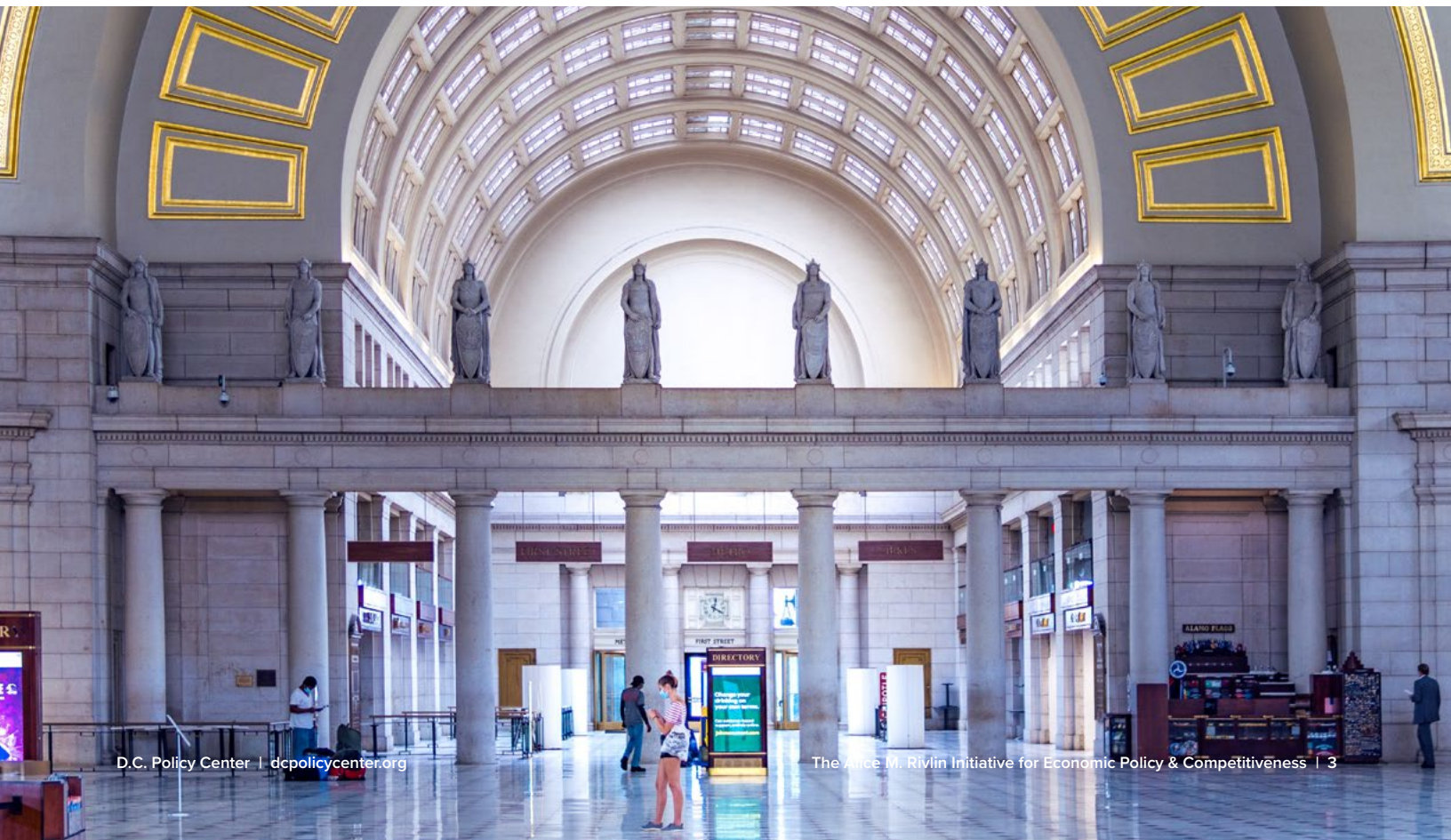
3. We will develop innovative, practical policy proposals that can support inclusive growth, test these proposals against the economic and competitive dynamics that shape the city and the region, develop comprehensive policy playbooks for policymakers, and create coalitions to advance these proposals.
4. We will communicate our findings in simple, easily understandable ways to ensure that our message is shared broadly and resonates with as many different groups as possible. Marrying serious research with accessible prose is the D.C. Policy Center's strong suit, and what sets us apart from other research or advocacy organizations.

The Rivlin Initiative's work will be the first in-depth and objective assessment of the District's competitive position and how this position shapes the city's economic growth potential. Our immediate goal in the first two years of the Rivlin Initiative is to provide new knowledge and tools that can contribute to the District's economic success during a time of great uncertainty. Our longer-term goal is to continuously assess the factors that make the District welcoming to all residents, workers, and businesses, so it can remain a cosmopolitan, diverse, and successful city.

Why is this work important and urgent?

Why cities have grown and how they have succeeded has been extensively studied. Urban success stems from high local wages, robust demand for housing and commercial real estate, and a growing tax base.¹ When a place is doing well, employers are willing to pay more for workers in that area and people are willing to pay more for access to that place. This, in return, creates high revenues for the government, which can be invested to create better schools, better transportation, better policing, a higher quality of life, or a stronger safety net, which further attracts residents, workers, and businesses.

The District of Columbia, in many ways, has been a textbook example of urban success. Sustained economic growth, driven by demand for urban living, especially from young and affluent residents, had been the norm over the last two decades prior to the COVID-19 pandemic. This continued growth partially concealed how competitive pressures from surrounding jurisdictions have begun to erode the District's economic edge.





Understanding the elements of the city's competitiveness in the context of the larger and fragmented metropolitan area is urgent for three reasons:

1. The existing weaknesses in the District's economy accelerated by the pandemic,
2. New risks posed by the changing geography of work, and
3. The weakening economic ties across the metropolitan Washington region that will require dramatically different approaches to policy.

The existing weaknesses in the District's economy have been accelerated by the pandemic.

Even before the pandemic, the city had decelerating population growth, increasing office vacancy rates, and a shrinking footprint in the regional employment picture.²

D.C. has been a net exporter of jobs in the region.

The city has served as the landing spot for many who move into the region and an incubator of new business establishments and jobs. But even during its strongest years, it has remained a net exporter of jobs. Data show that for every job that comes with a business establishment that relocates into the city from a neighboring jurisdiction, 2.4 jobs are lost when a

business establishment moves out to somewhere else in the region.³

D.C. has become less attractive to relocating adults.

The District's population growth had already slowed before the pandemic, with most of the growth coming from babies and international in-migration. Domestic in-migration turned negative in 2019 and has remained so during the pandemic.⁴ For example, since 2014, for every new resident who has moved to the District from neighboring jurisdictions, two have moved out.⁵ Household formation—an important driver of income tax base growth—has slowed. And, in recent years, income tax base growth has been primarily driven by the increasing incomes of existing taxpayers, and not the addition of new taxpayers.⁶

D.C. has become less attractive to large corporations and headquarters.

Of the last 120 large headquarters with 50 or more employees that have moved to the Washington metropolitan area from elsewhere in the country since 2000, only 16 opted to locate in the District.⁷ Establishments moving within the Washington metropolitan area are more likely to relocate somewhere outside of the District. For example, when an establishment with 20 or more employees located in D.C. decides to relocate, the odds of that company leaving the city is nearly one in three, but when a similarly sized business establishment located elsewhere in the region decides to move, the odds of that establishment choosing D.C. as their destination is one in 24.⁸

The changing geography of work poses new risks.

The District workforce characteristics, the make-up of its industries, and its proximity to high-amenity suburban communities make the city particularly vulnerable to negative impacts of post-pandemic economic trends.

Work from home will permanently depress commuter activity. A large share of the District's workforce will likely shift to prolonged and permanent remote work with only a few days in the office. Prior to the pandemic, commuters from all parts of the region made up over two thirds of the District's workforce.⁹ With an estimated 62 percent of the jobs in the metropolitan Washington region classified as "teleworkable,"¹⁰ many workers immediately shifted to telework,¹¹ and their return to in-office work remains in limbo.¹² The overwhelming number of federal workers, who are even less likely to return to their offices, makes the shift to remote work an even more consequential trend for the District.

The city may lose not only the high-skill workers, but also the local consumer service economies these workers support.¹³ The disappearing commuter activity is impacting all aspects of the downtown economy from jobs¹⁴ to building values to public transportation ridership¹⁵ to retail and restaurant sales.¹⁶ For example, office vacancy rates are at historic highs, pushing 20 percent in the downtown areas. And for the first time since the Revitalization Act, office rents have begun to decline, particularly as concessions have risen. By the end of the first year of the pandemic, this had resulted in a nearly 9 percent decline in assessed values of large commercial office buildings, costing the city over \$150 million in annual tax revenue.¹⁷ Given the current amount of vacant and soon-to-be vacant space across the District's office market, if this trend continues, office vacancy rates may go as high as 23 percent,¹⁸ further lowering rents, operating incomes, and tax revenue.

The declining importance of commute is threatening the District's population growth and resident income tax base. Many residents are attaching less importance to commute times¹⁹ and choosing to live in suburban and exurban areas of the Washington metropolitan area to reduce their housing costs.²⁰ While single family homes in the District have appreciated in value since the beginning of the pandemic, home values

grew even faster in surrounding jurisdictions in the Washington metropolitan area, suggesting that the demand for housing is growing faster elsewhere in the region.²¹ Address change data from the United Postal Service suggest that in 2020, there was an alarming exodus out of the District, with 17,000 more people that moved out than in 2019.²² Some of the population loss was reversed since the summer of 2021, but net moves out of the city, measured by address change data, still remain above pre-pandemic levels.²³

The weakening economic ties across the metropolitan Washington region will require dramatically different approaches to policy.

Understanding how local policy will operate in the post-pandemic era—in the context of a large and competitive metropolitan area—is central to the District of Columbia's future economic success. With the pandemic, economic activity is becoming more dispersed, making the central cities less important.

This is especially concerning for the District. Unlike any other major American city, the District is surrounded by attractive suburban neighborhoods in two different states with large tax bases, a high quality of life, good schools, lower crime rates, all offered at a lower cost and with fewer regulatory impositions. In this environment, where residential and business location choices are increasingly less dependent on commute times, the District is at risk of losing residents, businesses, and workers unless the city enhances the advantages that justify the District's higher costs.

The District is particularly exposed to inter-jurisdictional competition as it is a relatively small, open economy, drawing from the strength of an administratively fragmented region.²⁴ The region is a cohesive economy but is comprised of fragmented and increasingly competitive jurisdictions, with significant sprawl and economic segregation.²⁵ Each jurisdiction's policies, investments, and actions reverberate across the metro region, pushing out or pulling in businesses, workers, and residents. Residents, workers, and employers continuously compare benefits and costs when deciding where to live, work, and set up shop, and the pandemic has eroded some of the value attached to the District in these calculations.

The District is not well-prepared to operate in an economic environment that quickly punishes uncompetitive policies. Weaker economic ties across the Washington metropolitan area jurisdictions can increase the potential gains to be achieved through policies that exploit the weaknesses of their neighbors. Suburban jurisdictions can do this, for example, by (i) adopting tax policies or regulatory policies that are attractive to residents and businesses, (ii) offering robust public services at lower prices that can “compete” with high-cost urban centers, or (iii) providing economic incentives and a welcoming environment to establishments which can locate anywhere in the Washington metropolitan area and still benefit from regional workforce or customer base.

As many scholars point out, cities generally bounce back after experiencing pandemics, riots, fires, and other catastrophic events.²⁶ But research also finds that long-term urban growth depends on fundamentals such as economic diversification, a strong, elastic housing supply, and investments in robust government services that increase opportunities, such as education.²⁷ All these go hand in hand with strong economic growth and competitiveness.

One needs to look no further than the District’s own history to observe the transformative nature of economic growth. After decades of decline, the District experienced an economic renaissance, initially set in motion by the Revitalization Act, and further bolstered by an improving quality of life and stronger government services supported by a robust revenue base and a more responsible local government. From the Revitalization Act in 1997 through 2019—before the pandemic—the District’s population grew by 33 percent,²⁸ private sector jobs grew by 45 percent,²⁹ and the number of business establishments grew by 23 percent.³⁰ This growth has been the basis of the District’s tremendous fiscal strength and robust revenue. From 1997 to the beginning of the pandemic, the District’s revenue more than doubled in real terms, tracking closely the growth in incomes earned in the city, the volume of sales, and the value of property.³¹ This has enabled the city to invest in infrastructure, quality of life, schools, affordable housing, and services—especially services for its most vulnerable residents³²—contributing to the city’s economic growth, vibrancy, and attractiveness.

A robust understanding of regional economic dynamics coupled with timely analyses that respond to current events and thoughtful policy proposals that can lift the District’s economic trajectory are desperately

needed. Learning from our own past and cities around the nation, and always informed by data and rigorous analyses, the Rivlin Initiative will focus on developing and promoting policies that can help shape a prosperous and inclusive economic future for the District of Columbia.

In so doing, the Rivlin Initiative will (i) increase our current understanding of regional economic dynamics and inter-jurisdictional economic competition, (ii) inform what the path of recovery from the COVID-19 pandemic’s economic impacts might look like for the District of Columbia, and (iii) inform how public policy can increase shared prosperity and opportunities in this central city of a large metropolitan area.

Work agenda and research areas for 2022-23

Consistent with the mission of the D.C. Policy Center, the goal of the Alice M. Rivlin Initiative for Economic Policy & Competitiveness is to help build a data-driven strategic vision that will support a strong, growing, and competitive local economy for the benefit of all District residents.

To this end, in its first two years, the Rivlin Initiative will focus on regional economic dynamics, especially the impact of the COVID-19 pandemic on the District and region’s immediate future. We will produce five major research papers focusing on regional economic dynamics and District’s position in the region in the post-pandemic world. We will also produce smaller publications tracking the District’s economy, fiscal position, and economic recovery.

The factors that make a city successful, attractive,³³ and competitive are complex.³⁴ The Rivlin Initiative’s research will examine these issues and identify linkages between government policy, including policy that shape the business environment and the cost of doing businesses, such as the regulatory and tax climate and public infrastructure, labor market conditions, and external factors, such as demand shifts and national economic conditions, and local economic outcomes.

The following summarizes the research projects planned for the first two years:

Flagship Research for the Alice M. Rivlin Initiative

Report on remote work and its potential impacts on the District of Columbia

Planned delivery: April 2022

Goal: Identify the connections between commuter activity and District's fiscal strength. Evaluate the potential impacts under various scenarios of remote and hybrid work.

Research methods: This research will review the growing literature on work from home trends, and how these trends are impacting urban city centers. Using publicly available data on population, jobs, rents, housing prices, and the tax base, this research will uncover the potential fiscal implications of prolonged remote work.

Regional Survey of Businesses, Part I

Planned delivery: June 2022

Goal: Uncover businesses' location considerations in the region, and decipher what really prompts businesses to choose one jurisdiction over another. The baseline knowledge uncovered by the survey will then help advance additional research topics, enabling the D.C. Policy Center to dig deeper into the results.

Research methods: The D.C. Policy Center will create a survey that will be sent to businesses that have left the District, those that have recently chosen to relocate to the District, and those that have chosen to stay.

The D.C. Policy Center will follow up with in-house focus groups with selected business leaders to provide richer context for understanding how businesses and employers make locational decisions. Potential questions include factors related to the labor market, regulatory and tax environment, proximity to clients, proximity to similar businesses, public infrastructure, venture capital, among others.

Regional Survey of Businesses, Part II

Planned delivery: December 2022

Goal: Identify business establishments' location considerations in the region through different phases of their lives. Investigate the impact of local policy and other economic, demographic, and external considerations that shape location decisions. The research will identify conditions businesses of various types find most favorable. It will also examine what prompts a business to move into or out of the District of Columbia.

Research methods: The D.C. Policy Center will collaborate with a public opinion and survey research firm in collecting data from regional businesses that were once located in the District of Columbia but have since moved all or some of their operations or employees to somewhere else in the Washington metropolitan area.

The survey sample will be selected using the NETS database which provides name, trademark, address, and move histories for business establishments across the region. The participants will be selected to create a representative sample of establishments that have migrated out of the city.

Report on Regional Business Migration and Growth Trends

Planned delivery: January 2023

Goal: Uncover which jurisdictions have been attracting or creating more businesses, why, and what this means for the District of Columbia. The research will examine if business creation and migration trends have changed over time, and whether these trends vary by industry, establishment type, size, or revenue.

Research methods: This research will include both descriptive and regression analysis to understand how businesses have made their location decisions, and whether certain business characteristics can explain these decisions.

Paired with the Report on Regional Workforce Dynamics and the Regional Survey of Businesses, this will provide a comprehensive picture of current regional competitive dynamics.

Report on Regional Workforce Dynamics

Planned delivery: January 2023

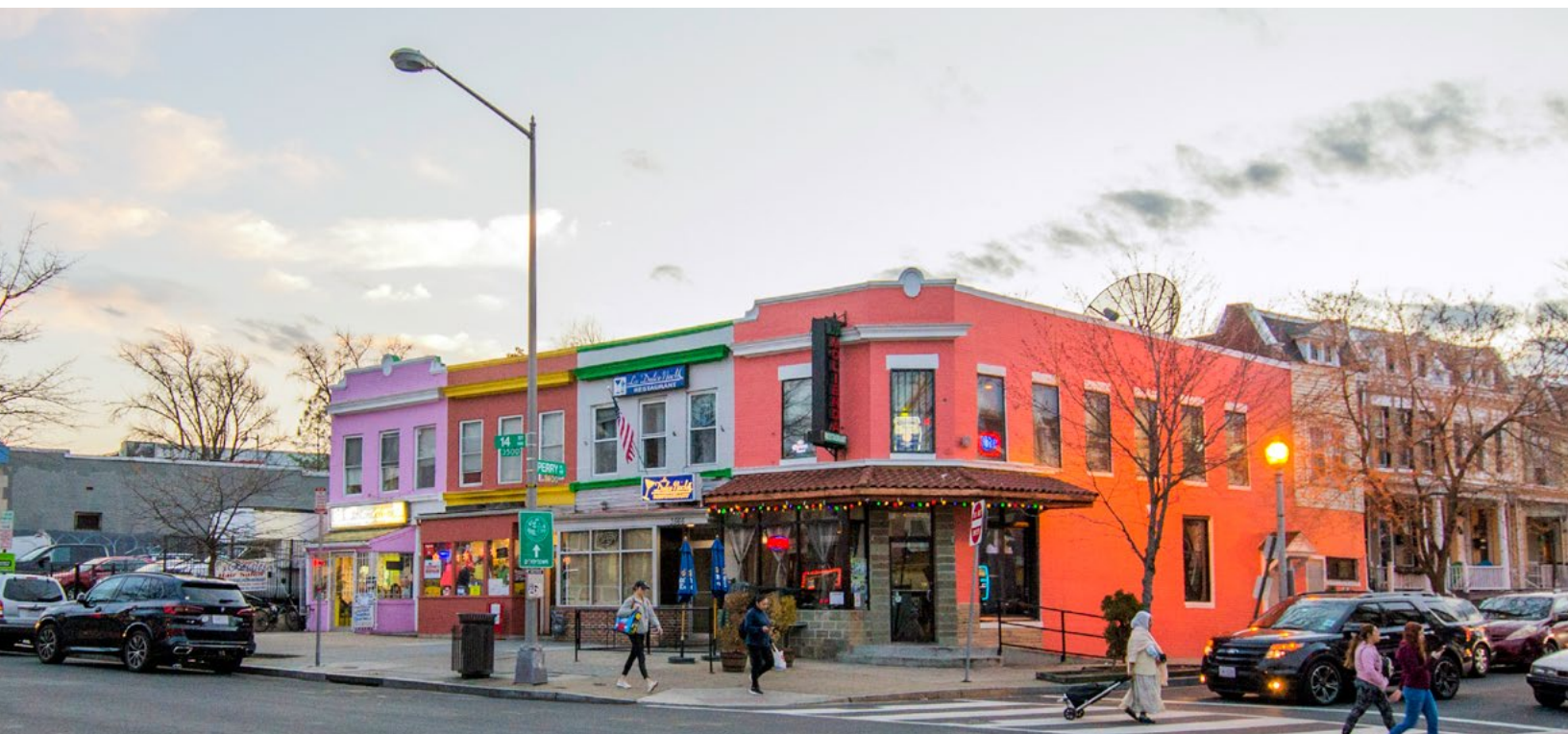
Goal: Understand where the region's workforce lives, and why. This research will examine labor force participation and migration trends across the region, why and where workers are relocating, how this contributes to regional and interjurisdictional competitiveness trends, and what the trends mean for the future of the District of Columbia.

Research methods: The report will use data from the U.S. Census and the Bureau of Labor Statistics to establish a baseline on regional workforce dynamics and how these dynamics relate to interjurisdictional differences in economic outcomes. It will also track where workforce diversity is greatest in the region and what factors contribute to the current spatial distribution of the region's workforce.

The findings from these research projects will inform policy proposals that the Rivlin Initiative will develop, test, and advocate for to help further the mission of the Policy Center: to arm decision makers with fact-based, unbiased, and reliable research and analyses to help create a vibrant local economy that can maximize opportunities for residents, workers, and businesses in the District of Columbia.

The Rivlin Initiative will also produce shorter, periodic analyses of economic and fiscal outcomes in the District, with a specific focus on the pace of recovery. These analyses will offer a timely response to current events or policy discussions that are top of mind for policymakers, business owners, and District residents. Potential topics include:

- 1. Labor market outcomes and recovery:** The Rivlin Initiative will periodically track jobs data by sector, wage, and location within the region, largely relying on Bureau of Labor Statistics data. These metrics will indicate outcomes in economic growth and competitiveness.
- 2. Fiscal outcomes:** The Rivlin Initiative will periodically track other indicators of competitiveness and economic growth including tax collections, tax bases, and shifts across bases, largely relying on cash and revenue data from the District of Columbia.
- 3. Access to opportunity:** For the District to be truly competitive, the benefits of economic growth and new opportunities should be accessible to all residents, creating economic mobility and uplifting all communities. To track opportunities, the Rivlin Initiative will track where new businesses are being created and where current job hubs are, compared to where workers live.
- 4. Job growth and resources:** While one primary indicator of competitiveness and economic growth is the addition of jobs and new opportunities for District residents, access to housing is a key factor in being able to retain those jobs and attract workers to fill those positions. Are housing units in the District of Columbia keeping up with the growth in jobs? For all incomes? Are there groups of workers not being adequately accommodated?
- 5. Commercial real estate and zoning:** The COVID-19 pandemic has changed demand in the commercial real estate market in the near-term, and long-term impacts remain uncertain. However, even prior to the pandemic, land use restrictions, development potential, and repurposing of existing buildings were topics of interest for policymakers. Potential research questions include: How much space is left for growth in each ward? Are there opportunities to uniquely use vacant office space to increase competitiveness? How does



the COVID-19 pandemic impact the demand for commercial space and amenities?

6. **How has the tax base shifted since the beginning of the COVID-19 pandemic?** Since the beginning of the pandemic, the District's coffers are increasingly reliant on income taxes. What does this mean for the future of tax policy in the District? How did the makeup of the District's personal income tax base shift overtime? What are the risks associated with this tax base?
7. **What is happening to the incomes of federal workers?** High federal wages have been a primary source of attracting talent to the District and the metropolitan region. However, in the last 30 years, the number of federal workers has declined, and their earnings have not grown as fast as private sector workers in the region. What does this mean for the future of the District and the region?
8. **The fiscal cliff:** The District received \$2.4 billion in fiscal aid from the federal government through the American Rescue Plan Act and has already planned for the use of these funds in fiscal years 2022 through 2024. This federal funding is the equivalent of about 9 percent of local tax revenue the city is projected to collect through these three years. What happens when the federal fiscal aid disappears?
9. **Economic diversification:** The District's economy has historically been dominated by a few key industries, such as the federal government and professional services. Recent sources of diversification have largely come from customer-facing industries such as leisure, entertainment, accommodation and food sectors, health, and education. With its disproportionate impacts on the local service economy, the pandemic reduced economic diversification, making the city even more reliant on government and professional services, which are more likely to work remotely. The Rivlin Initiative will assess the existing industry mix and identify emerging trends that can lead to bold, innovative ideas for diversifying the city's economy.
10. **Public transportation:** Research show that the pandemic has changed the demographics of public transportation ridership, and with remote work, these changes may take hold over long periods of time. What does this mean for the future of WMATA service and funding? What does it mean for the future of the District?

Why the D.C. Policy Center?

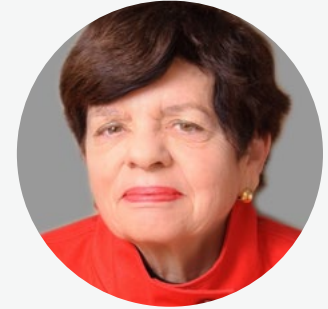
The D.C. Policy Center is uniquely positioned to successfully launch and build the Alice M. Rivlin Initiative for Economic Policy & Competitiveness.

First, the Rivlin Initiative's proposed vision, principles, goals, and research agenda is central to the D.C. Policy Center's goal of "advancing policies for a stronger, competitive, and vibrant economy in the District of Columbia."

Second, the D.C. Policy Center has a proven track record of producing original, unbiased, high quality, and relevant research, and then using this research to develop actionable policy proposals of interest to the District's elected leaders. In its first five years of operation, the D.C. Policy Center published over 300 original research papers, studies, and analyses. The D.C. Policy Center also contributed to the development of many policy proposals in the areas of economic development, tax policy, education, housing, and workforce that were embraced by elected officials in the city.³⁵ Our research and experts have been cited more than 700 times in the media, including national and international publications. Our work is also frequently cited by elected leaders and other research organizations, it regularly appears in committee reports for local legislation, and it has even served as the basis of university lectures and high school curricula.

Third, as a data-driven organization with robust research on the District's economy and a deep understanding of its history and institutions, the D.C. Policy Center has the necessary expertise to undertake such an ambitious research agenda. Unlike many national research organizations that are located in the District of Columbia, the D.C. Policy Center has a singular focus on the District's economy and residents, ensuring the Initiative's work will focus intently on the economic and demographic realities of the District. This is valuable because while the District shares many industries, employers, and workers with the broader region, it also faces unique challenges and opportunities as a city administratively and politically separated from its metropolitan region.

Remembering our namesake, Dr. Alice M. Rivlin



Alice M. Rivlin was a champion for this city, a consummate public servant, and a tireless advocate for the District of Columbia. She chaired D.C.'s Finance Control Board, and she led D.C.'s first housing commission, where she painted a vision of D.C. filled with families and children—a vision District residents take for granted today, but was unimaginable at the commission's convening. She was the founding director of the Congressional Budget Office, served as the Director of the Office of Management and Budget (OMB), served as Vice Chair of the Federal Reserve Board, and received many prestigious awards for her work.

To us, Alice was a mentor and friend. She had served on the D.C. Policy Center's Advisory Committee since our inception. Importantly, Alice's vision for the city, her emphasis on economic growth as a prerequisite for strong government services and a robust safety net, and her unwavering belief in the uplifting power of opportunity perfectly embody the D.C. Policy Center's values and approach to policy. We continue to be inspired by her approach to policy which prioritized facts over ideology, her style which emphasized respect in public discourse, and the way she gave herself to her work with endless energy.

Fourth, the D.C. Policy Center understands how public policy areas interact, with policies sometimes working against each other and sometimes supporting each other. For example, affordable housing goals can be hampered by restrictive land use regulations,³⁶ restrictive licensing requirements can undermine workforce initiatives,³⁷ and uneven public investments in transportation can aggravate racial and economic segregation in schools.³⁸ A broad view of how local policies interact is particularly important for economic competitiveness, which has multiple dimensions connected across a range of policy areas—including housing, education, health, transportation, and workforce—in which the D.C. Policy Center has demonstrated expertise.

Fifth, as an established and well-respected organization in the District's policy world, the D.C. Policy Center not only has a commanding grasp of policy research and how it can be marshalled to change policy, but it also has close ties with the D.C. business community. This makes the D.C. Policy Center a unique entity to proactively engage employers and allow these key stakeholders in the community to help shape the research agenda. This engagement will add context to the objective analysis coming out of the Initiative which will, in turn, result in more insightful policy discussions that bring together policymakers, employers, industry leaders, workers, and other stakeholders. Leveraging this engagement, we aim to advance policies that support a strong and growing local economy for the benefit of all District residents.

About the D.C. Policy Center

Established in 2016, the D.C. Policy Center is a non-partisan think tank committed to advancing policies for a strong, competitive, and vibrant economy in the District of Columbia. The mission of the D.C. Policy Center is to arm decision makers with fact-based, unbiased, and reliable research and analyses to help create a vibrant local economy that can maximize opportunities for residents, workers, and businesses in the District of Columbia. Through rigorous research and collaboration, the D.C. Policy Center develops and tests policy ideas, disseminates its findings, actively promotes policy solutions, and engages in constructive dialogue and debate.

The D.C. Policy Center is a 501(c)(3) organization. Find more information about our mission, vision, and financials at dcpolicycenter.org/about.

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Notes to the text

- 1 Glaser, Edward L. (2010), *Agglomeration Economics*, The University of Chicago Press.
- 2 In 1990, the District accounted for 38 percent of all non-farm employment and 31 percent of private sector employment in the Washington metropolitan area; in 2019, just before the pandemic, these shares had declined to 29 percent and 26 percent respectively. Bureau of Labor Statistics, *State and Area Employment, Hours, and Earnings for the District of Columbia and Washington-Arlington-Alexandria, DC-VA-MD- WV Metropolitan Division*, seasonally unadjusted.
- 3 Estimated by the D.C. Policy Center using the National Establishment Time Series data for 1990 through 2017.
- 4 Kathpalia, Sunaina (2021). "Births and International In-migration Maintain the District's 15-year Population Growth." D.C. Policy Center, Washington D.C.
- 5 Estimated by the D.C. Policy Center using American Community Survey five-year summaries for 2014 through 2019, and 2011 through 2015.
- 6 Sayin Taylor, Yesim (2021). "What is Happening to District's Income Tax Base?" D.C. Policy Center, Washington D.C.
- 7 D.C. Policy Center analysis of the NETS data.
- 8 This estimate is based on calculations using information from the NETS database, and it includes inner counties of the Washington metropolitan area only. Data analysis show that 1,186 such moves originated from DC since 2020, and of these establishments, 855 stayed in DC. Conversely, 3,983 business establishment moves originated somewhere else across the inner counties of Washington D.C., and of these only 159 relocated to D.C.
- 9 U.S. Census Bureau (2019). *LEHD Origin-Destination Employment Statistics (2002-2019)* [computer file]. Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program [distributor], accessed on March 7, 2022 at <https://onthemap.ces.census.gov>. LODS 7.5 [version]
- 10 Dingel, Jonathan, and Brent Neiman (2020). "How Many Jobs Can Be Done at Home?" Becker-Freidman Institute for Economics at the University of Chicago, Research/White Paper.
- 11 In July of 2021, 48 percent of residents aged 18 or older reported that at least one adult in their household worked remotely; and this share was 70 percent among those with a household income of \$100,000 or more. U.S. Census Bureau, *Household Pulse Survey, Telecommuting Patterns, Week 33*.
- 12 This is not a problem specific to D.C. A recent survey of over 2,000 leaders in key office markets found that by the summer of 2021, nearly half the companies in such markets were planning to reduce their office footprints. The survey was conducted by Gensler.
- 13 Althoff L., et. al. (2020). "The City Paradox: Skilled Services and Remote Work," CESifo Working Paper Series 8734, CESifo.
- 14 Duggan, Paul (2021) D.C. restaurant, retail employees face bleak future if remote office work stays prevalent, *Washington Post*.
- 15 Data from WMATA show that in June of 2021, average daily ridership for Metro was one fifth of what it was in June of 2019. WMATA, *Rail Ridership Data Viewer*, accessed on September 1, 2021.
- 16 General sales tax revenue contracted by 24 percent (in nominal terms) between fiscal year 2019 and fiscal year 2021 and is not projected to return to pre-pandemic levels before fiscal year 2023, which begins in October 2022. For details, see *Quarterly Revenue Estimates* from the Office of the Chief Financial Officer.
- 17 Based on the *Quarterly Revenue Estimates* by the Office of the Chief Financial Officer.
- 18 This is an estimate based on what is available for lease or will be available soon based on data from 502 large office buildings with a total inventory of 115 million sq. ft. At present, there are about 20 million sq. ft vacant in D.C. (data from Avison Young).
- 19 Ramani, Arjun and Nicholas Bloom (2021). "The Donut Effect of COVID-19 in Cities." *Work From Home Research*.
- 20 Whitaker, S. (2022) *Did the COVID-19 Pandemic Cause an Urban Exodus? Data Updates for Tables and Figures*, Federal Reserve Bank of Cleveland.
- 21 From March to June of 2021, single family homes in the District appreciated by 8 percent in value. In suburban and exurban locations, home values appreciated in double digits, sometimes by as much as 20 percent through the same period. For details, see Sayin Taylor, Yesim (2021). "The Declining Importance of Commute Times." D.C. Policy Center, Washington D.C. This is particularly problematic for high cost cities on the east coast, including D.C. Freidman, Nicole (2021), *For Home Buyers, Length of Commute Drops in Importance, New Data Shows*, *Wall Street Journal*.
- 22 Moored, Ginger (2021). "D.C. Lost at Least 17,000 More People During the Pandemic Than in the Prior Year, according to USPS Data on Net Moves. At Least 9,000 of the Loss Appears to be Permanent." District, Measured, D.C. Office of Revenue Analysis, Washington D.C.
- 23 Moored, Ginger (2022). *Pandemic led to DC population loss, but data suggests population rebound last summer* District, Measured, D.C. Office of Revenue Analysis, Washington D.C.
- 24 Rusk, David (1993). *Cities without suburbs*. Woodrow Wilson Center Press, Washington D.C.
- 25 Jimenez, Benedict. S. (2016). *Externalities in the Fragmented Metropolis: Local Institutional Choices and the Efficiency–Equity Trade-Off*. *The American Review of Public Administration*, 46(3), 314–336.
- 26 Many have speculated that cities will recover: Wilbert, Tony (2020). "Cities Will Bounce Back From Crisis as They Always Have, ULI Honoree Predicts." *CoStar*, Washington, D.C.; Jaffe, Eric (2020). "Why Richard Florida worries cities will recover too quickly from Covid." *Sidewalk Talk via Medium*; McArdle, Megan (2020). "Opinion: Cities will make a comeback after the coronavirus. They almost always do." *Washington Post*, Washington, D.C.
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