

# heinz journal

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# The Vicious Cycle: Urban Decay, Urban Renewal and Gentrification

## Proactive Policy Recommendations for Protecting Detroit Residents from Gentrification

Eviana Barnes

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### I. Introduction

The cycle of urban decay, reinvestment, and gentrification represents a multifaceted evolution within communities. Urban decay begins with economic decline, eventually leading to disinvestment and abandonment. Communities can counter decay through government-led projects, infrastructure improvements, and commercial investments to revitalize their urban cores. However, these methods often promote gentrification: aesthetic improvements attract wealthier individuals and businesses to the area, increasing property values and cost of living while displacing low-income residents. Community members of marginalized areas witness a renewed life in their neighborhood without experiencing its newfound social and economic benefits.

Detroit, Michigan faced severe economic decline due to its reliance on the automotive industry. Subsequent decentralization and suburbanization led to abandonment. Many neighborhoods in Detroit have entered the investment and improvement phase of this cycle, which puts residents in danger of gentrification-led displacement. A proactive policy must be at the forefront of the local government's agenda to ensure that urban development in these areas is equitable and residents are protected. Detroit's government should implement policies targeting inclusive development, preservation, and economic diversification to protect residents from the effects of gentrification and displacement. Inclusive development policies to provide job training and require a local hiring mandate will upskill residents for career advancement, allowing them to participate in



the renewed community. Preserving and rehabilitating affordable housing and guaranteeing the availability of unsubsidized affordable units can prevent rising housing prices from causing displacement. Diversifying the economy through research investment and promoting a bottom-up governance neighborhood coalition could relieve the neighborhood from single-industry reliance and create conditions for a more responsive government. These equally important methods should be implemented in a collective and multi-faceted manner to prevent the gentrification and displacement of low-income residents.

## II. The Rise and Fall of Detroit

Detroit is well-known to many Americans as a cautionary tale of urban decay. What was once a booming automotive epicenter has become economically devastated, serving as a reminder - even a century later - of the need for proactive policy to address gentrification and displacement.

In 1900, Detroit was the nation's 13th largest city with 286,000 residents.<sup>1</sup> Since 1860, Detroit experienced consistent population growth, which increased from 45,000 in 1860 to 116,000 in 1880.<sup>2</sup> Detroit's proximity to mining resources and accessibility to the Great Lakes encouraged Henry Ford to open Ford Automotives on Detroit's Mack Avenue in 1903.<sup>3</sup>

### Ford's Effects on Employment and Population

Ford quickly became a significant employer of Detroit residents. In 1903, the Mack Avenue factory employed 125 people. By 1914, Ford employed 22,000 people, growing to 70,000 by 1920.<sup>4</sup> In that same period, Detroit's 1900s population grew from 286,000 to 993,000, becoming the 4th largest U.S. city.<sup>5</sup> The share of Detroit residents who worked at Ford grew from .04% to 7%.

### Increasing Economic Homogeneity

In 1914, Ford made history by offering a \$5 per day wage, double the industry norm.<sup>6</sup> The high wages lifted many low-skilled workers out of poverty; however, it fueled economic homogeneity in Detroit. Other carmakers opened factories in Detroit, seeking to mirror Ford's growth. By 1924, Chrysler and General Motors also called the Detroit area home.<sup>7</sup> Combined, these companies employed 296,000 people in the Detroit area in 1950, when just 50 years prior, the entire Detroit population was 286,000. In 1950, Detroit's population was

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1 "Industrial Detroit (1860-1900)," accessed November 26, 2023, <https://detroithistorical.org/learn/timeline-detroit/industrial-detroit-1860-1900>.

2 "Detroit Eviction Filings on Track to Return to Pre-Pandemic Level as COVID-19 Protections Expire," accessed November 28, 2023, <https://poverty.umich.edu/2022/11/14/detroit-eviction-filings-on-track-to-return-to-pre-pandemic-level-as-covid-19-protections-expire/>.

3 "Ford Motor Company," accessed November 26, 2023, <https://detroithistorical.org/learn/encyclopedia-of-detroit/ford-motor-company>.

4 "10,000 Storm Ford Factory Seeking Work," UPI, accessed November 26, 2023, <https://www.upi.com/Archives/1914/01/06/10000-storm-Ford-factory-seeking-work/8620854632111/>.

5 "Detroit, Michigan Population History | 1840 - 2022," accessed November 26, 2023, <https://www.biggestuscities.com/city/detroit-michigan>.

6 "Henry Ford Introduces the Minimum Wage: On This Day, January 5," accessed November 26, 2023, <https://www.gilderlehrman.org/news/henry-ford-introduces-minimum-wage-day-january-5>.

7 Culture Trip, "How Detroit Got Its Nickname Motor City," Culture Trip, accessed November 28, 2023, <https://theculturetrip.com/north-america/usa/michigan/articles/how-detroit-got-its-nickname-motor-city>.

approximately 2 million.<sup>8</sup> This meant the automotive industry employed 16% of Detroit residents, and the city became reliant on its success.

As the automotive companies expanded, Detroit's population saw a similar increase. While the jobs created by automotive investment seemed like a net positive, Detroit was not prepared for the significant dangers of singular industry reliance.

### **Automotive Industry Decentralization**

The downfall of Detroit's economy began when the automobile industry decentralized.<sup>9</sup> Detroit lost over 130,000 jobs when auto manufacturers built new plants in suburban areas and began automating assembly-line work.<sup>10</sup> As job opportunities moved to the suburbs, higher-skill and more financially stable white workers followed. In contrast, well-paid blue-collar work opportunities attracted African Americans to the city.<sup>11</sup> However, as they arrived, jobs were disappearing. Without financial stability or generational wealth, these communities were unable to uproot their lives in the city to chase suburban employment. Low-skilled workers, who were predominantly African American, became stuck in what would become a depressed and blighted city for generations to come. Economic decline, suburbanization, disinvestment, and abandonment all contribute to urban decay, and Detroit was experienced them all at once.<sup>12</sup>

By the 1970s, a once-thriving Detroit housed a population of predominantly low-skilled workers with limited economic opportunities. The lack of skilled workers and economic activity created a vicious cycle of economic depression that reinforced itself for decades, fueling deterioration and poverty.

### **21st Century Detroit**

The lasting effects of the economic downturn of 1970 devastated Detroit. From 1950 to 2010, Detroit's population decreased by 61.5%. By 2012, one-third of Detroit's total land area was vacant. Between 2005 and 2015, one in every three homes in Detroit was foreclosed<sup>13</sup>, while the national foreclosure rate was only 1.39%. In 2021, 33% of Detroit families lived in poverty, which is over double the level in 1970.<sup>14</sup> However, in recent years, the city has instituted recovery projects like park revitalization, affordable rental unit construction, and equitable opportunities for residents to rebuild what it once was.<sup>15</sup> The key word here is "equitable," but the city's record on that front is mixed.

One example of an inequitable renovation project currently underway in downtown Detroit is the Himelhoch Apartments. As the Detroit Metro Times reported in July 2023, residents of a senior home in a safe, affordable, and walkable area of Detroit's downtown received notice that their building would be

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8 "Detroit, Michigan Population History | 1840 - 2022."

9 Ibid.

10 Ibid.

11 Ibid.

12 "What Are Gentrification and Displacement," accessed November 27, 2023, <https://www.urbandisplacement.org/about/what-are-gentrification-and-displacement/>.

13 "Detroit: Past and Future of a Shrinking City," accessed November 28, 2023, <https://www.economyleague.org/resources/detroit-past-and-future-shrinking-city>.

14 "Detroit."

15 "City of Detroit, State and Local Officials, Community Partners and Residents Celebrate \$21.5 Million Strategic Neighborhood Fund Investment into Dexter Corridor," City of Detroit, accessed November 28, 2023, <https://detroitmi.gov/news/city-detroit-state-and-local-officials-community-partners-and-residents-celebrate-215-million>.

converted to market-rate housing in December 2022.<sup>16</sup> That meant the residents needed to find accommodations elsewhere.<sup>17</sup> Urban investment can be dangerous because, without a proactive policy, residents are unprotected from displacement and the other negative effects of gentrification.

The Oxford English Dictionary defines gentrification as “the process whereby the character of a poor urban area is changed by wealthier people moving in, improving housing, and attracting new businesses, often displacing current inhabitants in the process.”<sup>18</sup> Gentrification can be a positive process for economic development, improved infrastructure, and enhanced community engagement. But gentrification is a complex and multi-dimensional force, encompassing many factors like generational wealth, socioeconomic status, and race. Rising housing prices can lead to displacement and other devastating consequences for longtime residents in poor urban areas.<sup>19</sup>

Detroit is grappling with the opportunities and consequences of its transition from urban decay to investment - with recent years defined by both rising housing costs and increased eviction rates. This paper seeks to address these issues by proposing policy initiatives to protect residents. Enacting policy measures to protect current residents of Detroit from the negative effects of gentrification is of the utmost importance and urgency.

### III. Policy Recommendations

Proactive policies that mutually reinforce each other at the state and local levels are necessary to protect residents during urban growth. Various areas across the United States have implemented policies that Detroit should model to prevent disruption and displacement, ensuring the well-being of its long-term residents. Detroit should prioritize three focus areas: inclusive development, preservation, and economic diversity.

#### Inclusive Development

Inclusive development policies emphasize equal access and opportunity through labor.<sup>20</sup> This type of policy is especially important in Detroit because the residents left behind during the 1970s were predominantly low-skilled workers. By implementing an inclusive development policy that provides high-quality training programs and local hiring mandates, current residents of Detroit will build an adaptable skill set, which mitigates the risk of losing their work to either automated technology or higher-skilled workers. Implementing this policy also provides opportunities for career advancement, higher wages, and economic stability.<sup>21</sup>

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16 Steve Neavling, “Rising Costs and Gentrification Force Locals out of Detroit’s Downtown and Midtown,” Detroit Metro Times, accessed November 27, 2023, <https://www.metrotimes.com/news/rising-costs-and-gentrification-force-locals-out-of-detroits-downtown-and-midtown-33659535>.

17 Ibid.

18 “Gentrification,” accessed November 27, 2023, [https://www.oed.com/dictionary/gentrification\\_n?tab=factsheet#3089248](https://www.oed.com/dictionary/gentrification_n?tab=factsheet#3089248).

19 “In Praise of Gentrification,” The Economist, accessed November 27, 2023, [https://www.economist.com/united-states/2018/06/21/in-praise-of-gentrification?utm\\_medium=cpc.adword.pd&utm\\_source=google&ppcampaignID=18151738051&ppcadID=&utm\\_campaign=a.22brand\\_pmax&utm\\_content=conversion.direct-response.anonymous&gad\\_source=1&gclid=CjwKCAiAmZGr-BhAnEiwAo9qHiSNrG-NBRlsAs0tR9gE1lRgHVvCBqzs2RF2QctwkDRYNGVxzi3WkRRoC5HwQA-vD\\_BwE&gclid=aw.ds.](https://www.economist.com/united-states/2018/06/21/in-praise-of-gentrification?utm_medium=cpc.adword.pd&utm_source=google&ppcampaignID=18151738051&ppcadID=&utm_campaign=a.22brand_pmax&utm_content=conversion.direct-response.anonymous&gad_source=1&gclid=CjwKCAiAmZGr-BhAnEiwAo9qHiSNrG-NBRlsAs0tR9gE1lRgHVvCBqzs2RF2QctwkDRYNGVxzi3WkRRoC5HwQA-vD_BwE&gclid=aw.ds.)

20 “Localized Anti-Displacement Policies,” Center for American Progress (blog), accessed November 28, 2023, <https://www.americanprogress.org/article/localized-anti-displacement-policies/>.

21 “Localized Anti-Displacement Policies.”



## High-Quality Training Programs

Government investment in apprenticeship training programs would provide residents with the opportunity to gain work experience and develop relevant skills.<sup>22</sup> These programs are qualified for funding through the Infrastructure Investment and Jobs Act.<sup>23</sup> Detroit will benefit from this investment by building a higher-skilled workforce that will attract economic investment. To achieve these aims, Detroit could model their program on the Wisconsin Regional Training Partnership (WRTP), founded in Milwaukee.<sup>24</sup>

Milwaukee endured a degree of urban depletion due to the decentralization in the automotive industry. The Building Industry Group Skilled Trade Employment Program created the WRTP to help Milwaukee economically recover from a skills shortage and manufacturing economic homogeneity. The WRTP's vision states that "traditionally underrepresented and underemployed people - particularly women and people of color - must have access to education, training, and supportive equitable placement opportunities."<sup>25</sup> Their vision is accomplished through construction and manufacturing training programs provided at various degrees of commitment and difficulty.<sup>26</sup> Additionally, the WRTP offers a youth summer academy, community certifications, and an apprenticeship readiness program.<sup>27</sup> Due to the historical and geographical similarities between Milwaukee and Detroit, Detroit could adapt the WRTP program to fit the specific needs of city workers and industries.

## Local Hire Mandates

A local hiring mandate can encourage or require hiring residents from a particular region (for example, downtown Detroit) or a particular population (for example, women or people of color). City and local governments can set a hiring quota for a minimum percentage of respective populations working on public works and construction projects. This mandate works with the proposed apprenticeship program: employers can target workers to complete the apprenticeship program, which ensures job access for program graduates and encourages future participation in the program.

San Francisco successfully implemented a similar hiring policy in 2011.<sup>28</sup> The specific goals for their mandate were to make better use of existing resources, reduce administrative burdens, and increase employment opportunities for residents.<sup>29</sup> Specifically, the mandate applies to all projects with an estimated cost exceeding \$400k. It requires 20% of work hours to be performed by San Francisco residents and an additional 10% of hours by disadvantaged workers.<sup>30</sup> In the 1970s, San Francisco experienced one of the worst cases of gentrification in U.S. history due to deindustrialization, economic shifts, and urban investment projects that systematically displaced racial minorities, leaving them in a cycle of

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22 "Programs & Services."

23 "Localized Anti-Displacement Policies."

24 "Programs & Services."

25 Ibid.

26 Ibid.

27 Ibid.

28 "Local Hire for Construction," accessed November 28, 2023, <https://sf.gov/information/local-hire-construction>.

29 Ibid.

30 Ibid.

unemployment and poverty.<sup>31</sup> The 2011 hiring mandate is a step towards pulling vulnerable communities out of that cycle. Detroit could build its model on the structure of San Francisco's mandate. Adjustments for percentage and dollar thresholds could be calculated by looking into the specific workforce population demographics and estimated costs of prospective public works projects in Detroit.

## **Preservation**

Preservation policies—including affordable housing rehabilitation and preservation methods for maintaining unsubsidized affordable housing—protect the availability and quality of housing units. These measures are especially vital in Detroit, where eviction rates and housing prices have risen significantly. In 2022, over 20% of Detroit renters faced eviction, compared to 6.1% of American renters annually.<sup>32</sup> Median housing prices have significantly increased yearly from \$40,000 in 2021 to \$85,000 in 2023.<sup>33</sup> This data underscores the need for preservation policies to safeguard current residents from displacement due to eviction or rising prices.

## **Affordable Housing Rehabilitation**

Affordable housing rehabilitation promises one-to-one replacement of subsidized housing units that are demolished for new construction.<sup>34</sup> The policy would be upheld by the Rental Assistance Demonstration (RAD) program,<sup>35</sup> a federal-level nonprofit under the U.S. Department of Housing and Urban Development (HUD).<sup>36</sup> RAD employees alleviate any hazards or inefficiencies that may impact tenants' quality of life.<sup>37</sup> As RAD rehabilitates replacement units, the public housing authority protects the displaced residents' right to return.<sup>38</sup>

To obtain RAD assistance, Detroit's Housing Commission must first submit an application to HUD describing the proposed conversion.<sup>39</sup> Upon approval, the Housing Commission and HUD sign a Commitment to Enter into a Housing Assistance Payment Contract that outlines the terms and conditions of the conversion (such as the number of units involved).<sup>40</sup> Next, the Housing Commission develops its conversion plan, detailing financing and resident impact. RAD funding options include loans, tax credits, and grants.<sup>41</sup> Once these steps are taken, the Commission and HUD can finalize the conversion.<sup>42</sup> After the conversion, the Housing Commission enters into a Housing Assistance Payment Contract for rental assistance payments from HUD.<sup>43</sup>

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31 "Anti-Displacement\_full\_report\_11.15.Pdf," accessed November 28, 2023, [https://www.urbandisplacement.org/wp-content/uploads/2021/09/anti-displacement\\_full\\_report\\_11.15.pdf](https://www.urbandisplacement.org/wp-content/uploads/2021/09/anti-displacement_full_report_11.15.pdf).

32 Nick Graetz et al., "A Comprehensive Demographic Profile of the US Evicted Population," *Proceedings of the National Academy of Sciences* 120, accessed November 28, 2023, <https://doi.org/10.1073/pnas.2305860120>.

33 Marco Santarelli, "Detroit Housing Market: Prices, Trends, Forecast 2023," Norada Real Estate Investments, accessed November 28, 2023, <https://www.noradarealestate.com/blog/detroit-real-estate-market/>.

34 "Localized Anti-Displacement Policies."

35 "Rental Assistance Demonstration Toolkit 1," accessed November 29, 2023, <https://www.hud.gov/sites/documents/TOOLKIT1WHYRAD.PDF>.

36 Ibid.

37 "Localized Anti-Displacement Policies."

38 Ibid.

39 "Rental Assistance Demonstration Toolkit 1."

40 Ibid.

41 "Localized Anti-Displacement Policies."

42 "Rental Assistance Demonstration Toolkit 1."

43 Ibid.

Data from February 2022 shows that RAD has converted 155,000 of 958,000 units—16% of all public housing units nationwide—and 455,000 units had been approved for RAD conversion.<sup>44</sup> RAD’s work would be impactful in Detroit due to the city’s abundance of abandoned buildings. Detroit’s Housing Commission should apply for RAD assistance to meet residents’ affordable housing needs and revitalize empty structures with federal funding support.

### **Unsubsidized Affordable Housing**

Naturally Occurring Affordable Housing (NOAH) units account for about 75% of all affordable housing units in the United States.<sup>45</sup> Since NOAH units are unsubsidized and landlord-owned, residents of these units are at substantial risk of displacement — landlords could sell the properties to developers aiming to renovate, raise rents, and profit.<sup>46</sup> Preservation strategies are imperative to ensuring stable housing for NOAH residents. Grants and low-interest loans can fund functional upgrades, preserving ownership and residency while maintaining the quality and affordability of each rental unit.<sup>47</sup>

Washington, D.C.’s Small Building Program, spearheaded by the Department of Housing and Community Development (DHCD), finances repairs for eligible owners of affordable housing properties.<sup>48</sup> Applicant eligibility is based on median family income, and property eligibility hinges on occupancy percentage and improvement standards based on cost and degree of hazard to residents.<sup>49</sup>

To begin the process, applicants schedule a preliminary meeting with the DCHD. After submission, the DCHD assesses the requested repairs. Then, applicants must attend a DCHD property management course, available online and lasts a day and a half.<sup>50</sup> Upon completion, at minimum, applicants sign a grant agreement and a commitment to a five-year affordability covenant.<sup>51</sup> The covenant regulates rent, income eligibility, and property inspections.<sup>52</sup> Then, all lenders involved provide their consent to the DHCD. The DHCD can then seek out bids from contractors, to which the grant funds will be directly paid.<sup>53</sup> If a renovation requires temporary resident relocation, property owners must submit a relocation plan and a meeting with the DHCD prior to construction to ensure compliance with D.C. Official Code 42-3505.01(f) relocation standards.<sup>54</sup>

Detroit’s Housing Commission could facilitate a program similar to Washington D.C.’s Small Building Program, incentivizing property owners to seek grant funding for repairs instead of selling to new developers. This is crucial for protecting residents, such as those at the Himelhoch Apartments, from displacement when investors make robust bids to property owners. Like the RAD program, this approach offers sustainability benefits, likely using fewer materials compared to complete demolition and reconstruction. Plus, such programs can build residents’ trust in their local government.

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44 “Localized Anti-Displacement Policies.”

45 Ibid.

46 Ibid.

47 Ibid.

48 “Small Building Program,” accessed November 30, 2023, <https://dhcd.dc.gov/page/small-building-program>.

49 Ibid.

50 Ibid.

51 Ibid.

52 Ibid.

53 Ibid.

54 Ibid.



## **Economic Diversification**

Industrial policy can promote economic diversity. The government uses industrial policy to intervene in an economy to promote the growth and development of specific sectors. With industrial policy, the government can cultivate an innovation district in Detroit. Investment in research and bottom-up governance with community leadership can diversify Detroit's economy.

## **Investment in Research**

Detroit is just over forty miles from the University of Michigan in Ann Arbor. Over 50,000 students are currently enrolled in the University of Michigan, with over 15,000 graduates in 2021.<sup>55</sup> The most popular programs at the University of Michigan are computer science, economics, and business administration — these programs have over 2,000 graduates in 2021.<sup>56</sup> Graduates of these programs can contribute to a diverse and productive regional economy. Detroit should tap into this resource through research investment in these programs and by providing opportunities for recent graduates to promote economic diversity within the city.

Pittsburgh, Pennsylvania, utilized research investment to promote job creation by partnering with universities in the city. Pittsburgh, like Detroit, once heavily relied on a single industry—in this case, steel. Both the steel and auto industries began to decline around the 1970s, however, Detroit has not experienced Pittsburgh's level of recovery. Through research investments and academic partnerships, Pittsburgh has attracted investments from companies like Google, Uber, and Duolingo which have diversified its economy.<sup>57</sup> Today, the share of jobs in the pharmaceutical, computer science, robotics, and artificial intelligence industries outnumber the share of industrial jobs in Pittsburgh.<sup>58</sup> Pennsylvania's state government has even recognized Carnegie Mellon University for its role in Pittsburgh's economic growth.<sup>59</sup>

Detroit's proximity to Ann Arbor makes a partnership with the University of Michigan feasible. Investment in research centers specializing in computer science, economics, as well as business, and recruiting University of Michigan students for employment opportunities would help Detroit attract major companies. This would create jobs and diversify Detroit's economy, preventing single-industry reliance and promoting economic stability.

## **Bottom-Up Governance**

Neighborhood initiatives promote inclusivity and economic diversification by addressing local needs and leveraging assets. Detroit should create an initiative to ensure residents' voices are heard as new money pours into the neighborhood.

The Dudley Street Neighborhood Initiative (DSNI) was founded in Boston by residents reclaiming their neighborhood after an era of disinvestment. Over 40 years, the initiative has prevented displacement, promoted civic participation, and created economic opportunities through a community land trust.<sup>60</sup> Today, the once-abandoned community thrives with affordable housing, new businesses, and recreational spaces.

55 "University of Michigan-Ann Arbor," accessed December 1, 2023, <https://datausa.io/profile/university/university-of-michigan-ann-arbor>.

56 Ibid.

57 Bramanti, Alberto, "Cities and Regions: Managing Growth and Change 20555 Innovation 2" (Università Bocconi, November 6, 2023).

58 Ibid.

59 Ibid.

60 "About Us," DSNI, accessed December 1, 2023, <https://www.dsni.org/about-us>.

Downtown Detroit residents can build a neighborhood initiative based on the DSNL. Residents' input will deliver policies catered to unique community needs, as locals have a stronger understanding of local resources. Therefore, the relationship between the city and the neighborhood is mutually advantageous: The city can leverage local knowledge to capitalize on existing resources to promote efficiency and economic diversification. This line of communication can also help city governance to identify any skills and knowledge gaps that development programs could bridge. Additionally, fostering innovation at the community level empowers residents to pursue ownership of small and medium enterprises, further contributing to a diversified economy. A Detroit-based community initiative would improve city responsiveness, prevent displacement, and promote equity.

### **Policy Recommendation Summary**

Detroit must adopt proactive, inclusive policies to protect Detroit residents from displacement and exclusion during urban growth. Inclusive development policies, like high-quality training programs and local hire mandates, will upskill residents, reduce poverty, and mitigate the risk of displacement. Preservation policies, including affordable housing rehabilitation and unsubsidized affordable housing options help to counter rising housing prices and eviction rates. Investments in research and bottom-up governance can promote economic diversification. Research investments create jobs, attract companies, and reduce single-industry reliance. A Detroit neighborhood initiative could share perspectives, foster innovation, and make city governance more responsive and equitable. Implementing these policies is crucial for the well-being of Detroit's residents, preventing disruption amid urban expansion.

## **IV. Conclusion**

The cycle of decay, reinvestment, and gentrification in urban areas is dangerous without proactive policy measures for resident protection. These policies must be multidimensional to implement inclusive development, preservation, and economic diversity practices. Detroit's government can build on other cities' models to create policies best suited to the specific needs of Detroit residents. Implementing these policies is crucial during this critical phase of community evolution, where the city must prioritize supporting residents' needs over exclusion and displacement caused by runaway gentrification.

# Analysis of Indian and Chinese Intervention in Sri Lanka

Muhammad Asghar, Sajujya Gangopadhyay,  
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## Abstract

Sri Lanka has emerged as a key battleground in the geopolitical rivalry between India and China. Following the bloody end of the Sri Lankan Civil War, multilateral and Western bilateral investment into Sri Lanka decreased, providing an opportunity for China to make inroads. China financed wasteful infrastructure projects, increasing Sri Lanka's debt and leading eventually to the cession of the strategic Hambantota port to China. Sri Lanka's debt, combined with additional economic mismanagement by the powerful Rajapaksa family, led to an acute economic crisis in 2022. In the wake of the crisis, India is seeking to restore its historical position in Sri Lanka and counter China's expanding influence.

## Background and Context

### The Sri Lankan Civil War and the Rajapaksa Family

Following independence from British rule in 1948, Sri Lankan society largely polarized along a single dividing line, with the Sinhala majority (approximately 75% of the population) on one side and the Sri Lankan Tamil minority (approximately 11%) on the other.<sup>1</sup> The decades following independence were punctuated by mob violence, predominantly carried out by Sinhalese mobs against the Tamil minority. During this time, the Sinhalese-majority government also passed several laws that fostered resentment among Tamils. These include a 1956 law that established Sinhala as the official language of Sri Lanka and a 1973 law that effectively legalized discrimination in university admissions against Tamils, which particularly inflamed tensions among Tamil youth.<sup>23</sup> In 1976, a 22-year-old Tamil man named Velupillai Prabhakaran formed the Liberation Tigers of Tamil Eelam (LTTE, also known as the Tamil Tigers), a militant separatist group whose goal was the establishment of an independent Tamil state

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1 "Sri Lanka - The World Factbook," n.d.

2 The Editors of Encyclopaedia Britannica. "S.W.R.D. Bandaranaike | Prime Minister of Sri Lanka." Encyclopaedia Britannica, July 20, 1998.

3 The World Bank. "The Root Causes of the Ethnic Conflict in Sri Lanka." [web.worldbank.org](http://web.worldbank.org), n.d.



in northern Sri Lanka.<sup>4</sup> Sustained mass violence between Sinhalese and Tamils finally erupted in 1983 in the wake of Black July, an anti-Tamil pogrom in which thousands of Tamils were killed by Sinhalese mobs.<sup>5</sup> This event is commonly considered to mark the beginning of the Sri Lankan Civil War, which lasted for 26 years and resulted in tens of thousands of deaths.

It was during this period that the Rajapaksa family emerged as Sri Lanka's dominant political dynasty. The Rajapaksas are a political family that has been a fixture in Sri Lankan politics for decades. Mahinda Rajapaksa served as President from 2005 to 2015, while his brother Gotabaya Rajapaksa held the position of Secretary of Defense. Under their leadership, the Sri Lankan military ultimately defeated the LTTE in May 2009, bringing an end to the 26-year civil war.<sup>6</sup>

The victory boosted Mahinda Rajapaksa's popularity, particularly among the Sinhalese majority, and resulted in him becoming the most popular Sri Lankan leader in the modern era.<sup>7</sup> However, the methods employed during the final stages of the conflict have been met with international criticism and allegations of human rights violations. Gotabaya Rajapaksa, who served as Secretary of Defense during this time, also played a major role in the conflict and has faced similar scrutiny.<sup>8</sup> In 2011, a United Nations panel concluded that both the Sri Lankan government and the LTTE committed war crimes, including indiscriminate bombing of civilians and blocking the delivery of humanitarian assistance.<sup>9</sup> Moreover, the civil war saw violence and assassinations of journalists by both parties. The censorship of media outlets established during the conflict continues today; Reporters without Borders currently ranks Sri Lanka 146 out of 180 countries on press freedom.<sup>10</sup>

Following the end of the civil war, Western investment in Sri Lanka decreased, prompting Mahinda Rajapaksa to seek alternative sources of foreign capital.<sup>11</sup> Rajapaksa invested in expensive, highly visible, but often unnecessary infrastructure projects, which increased the country's debt. Projects like the Colombo-Katunayake Expressway—financed partially by China—had surprisingly high costs, leading to allegations of government kickbacks and corruption.<sup>12</sup>

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4 "Tamil Tigers | Definition, History, Location, Goals, & Facts." Encyclopedia Britannica, December 7, 2001. <https://www.britannica.com/topic/Tamil-Tigers>.

5 People for Equality and Relief in Lanka. "Black July: A Tamil Genocide," August 14, 2022. <https://pearlaction.org/black-july-a-tamil-genocide/>.

6 Subramanian, Nirupama. "Explained: The Story of the Rise and Fall of Sri Lanka's Rajapaksa Family," The Indian Express, July 11, 2022.

7 Ibid.

8 Ethirajan, By Anbarasan. "Sri Lanka Crisis: How War Heroes Became Villains." BBC News, July 13, 2022.

9 ReliefWeb. "Report of the Secretary-General's Panel of Experts on Accountability in Sri Lanka - Sri Lanka," September 14, 2011.

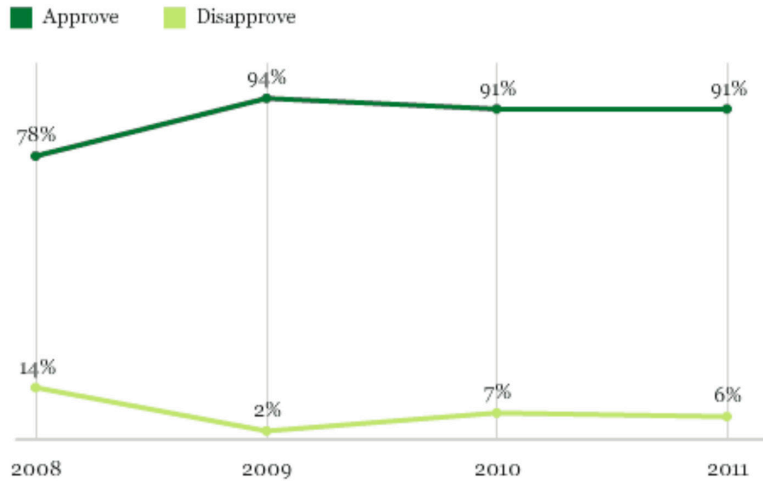
10 RSE. "Sri Lanka," September 9, 2022. <https://rsf.org/en/country/sri-lanka>.

11 CFR Editors. "Family Ties Led to Sri Lanka's Collapse. What Does This Mean for South Asia?" Council on Foreign Relations, July 28, 2022.

12 Brief, Sri Lanka. "Sri Lanka: Massive Kickbacks in Unsolicited Projects (with China) • Sri Lanka Brief." Sri Lanka Brief, July 21, 2014.

## Do you approve or disapprove of the job performance of President Mahinda Rajapaksa?

Asked of Sri Lankan adults



GALLUP®

Figure 1: Mahinda Rajapaksa's Approval Rating in Gallup Polls.<sup>13</sup>

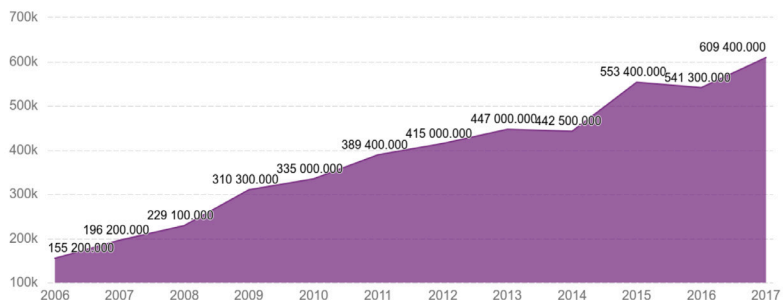


Figure 2. Sri Lanka Government Investment in Infrastructure (Millions of Sri Lankan Rupees).<sup>14</sup>

## 2018 Sri Lankan Constitutional Crisis

After a decade as president, Rajapaksa lost the 2015 election to Maithripala Sirisena, a former ally who formed a broad-based coalition that included the United National Party (UNP) and the Sri Lanka Freedom Party (SLFP).<sup>15</sup> Sirisena's victory was seen as a mandate for change, with promises to address corruption, improve governance, and pursue reconciliation efforts.<sup>16</sup>

13 "Sri Lankans Back Their Leadership Amid Western Criticism." Gallup.com, May 7, 2021. <https://news.gallup.com/poll/149306/sri-lankans-back-leadership-amid-western-criticism.aspx>.

14 CEICdata.com. "Sri Lanka Government Investment in Infrastructure," April 1, 2023. <https://www.ceicdata.com/en/sri-lanka/government-investment-in-infrastructure>.

15 Ayres, Alyssa. "Sri Lanka's Victory for Democracy." Council on Foreign Relations, January 9, 2015. <https://www.cfr.org/blog/sri-lankas-victory-democracy>.

16 Ibid.

However, Sirisena's tenure was marked by tensions within the coalition government and struggled to maintain a cohesive administration. This culminated in the 2018 constitutional crisis, when Sirisena attempted to dismiss then-Prime Minister Ranil Wickremesinghe and appoint Mahinda Rajapaksa as prime minister in an unconstitutional move.<sup>17</sup> This decision sparked widespread protests, plunging the country into a period of uncertainty as citizens and international observers questioned the state of Sri Lanka's democracy.<sup>18</sup> The Supreme Court intervened and ruled against Sirisena's decision, leading to Wickremesinghe's reinstatement as Prime Minister.

## Ongoing Economic and Political Crisis in Sri Lanka

### Contributing Factors to the Economic Crisis

In the three years following the end of the civil war, the Sri Lankan economy experienced its highest growth rate in the post-independence period. During this time, the Mahinda Rajapaksa government invested significant amounts of money in infrastructure projects, which were often funded by foreign investors, mainly China. These investments, which spanned multiple non-tradable sectors such as construction, transport, and public infrastructure were the main drivers of growth during the mid to late 2000s.<sup>19</sup> Despite these investments in non-tradable sectors, Sri Lanka is a service sector-based economy, with the service sector contributing around 55% of the country's GDP, followed by the industrial sector at approximately 30% and agriculture at about 9%. As a small island nation, Sri Lanka depends heavily on imports to sustain its economy. Major imports include gas, petroleum, wheat, and fertilizers, among others.<sup>20</sup>

The origins of Sri Lanka's unsustainable foreign debt can be traced to the late 2000s, when Sri Lanka undertook a substantial expansion of its public infrastructure projects. To finance these initiatives, the nation leaned heavily on foreign loans, primarily from China, and International Sovereign Bonds (ISBs), debt securities issued by a government in international capital markets. This marked a significant shift in Sri Lanka's foreign debt composition, moving away from concessionary loans provided by multilateral agencies such as the Asian Development Bank and the World Bank. The new private loans entailed shorter repayment terms, higher interest rates, and required repayment of the principal amount.<sup>21</sup> In 2004, commercial loans constituted a mere 2.5% of Sri Lanka's foreign loans; however, by the end of 2019, they accounted for 56% of the nation's foreign loans, with the majority being ISBs.<sup>22</sup>

17 Abi-Habib, Maria, and Dharisha Bastians. "Sri Lanka Faces Constitutional Crisis as President Unseats Prime Minister." *The New York Times*, December 3, 2018.

18 ABC News. "Sri Lanka Political Crisis: Thousands March in Protest against President's Decision to Sack Prime Minister," October 30, 2018. <https://www.abc.net.au/news/2018-10-30/warnings-of-bloodbath-as-political-crisis-grips-sri-lanka/10445252>.

19 Athukorala, Prema-chandra; Ginting, Edimon; Hill, Hall and Kumar, Utsav. "The Sri Lankan Economy: Charting a New Course.", Asian Development Bank. <https://www.adb.org/sites/default/files/publication/373316/sri-lankan-economy.pdf>

20 Chung, Daniel. "The End of the World Has Just Begun: Sri Lanka and supply chains.", *The Tufts Daily*, 16 September, 2022. <https://tuftsdaily.com/opinion/2022/09/16/the-end-of-the-world-has-just-begun-sri-lanka-and-supply-chains/#:~:text=Sri%20Lanka%2C%20as%20a%20small,and%20keep%20the%20lights%20on.>

21 Narayanana, Krithiga. "Why Sri Lanka Defaulted on its Foreign Debt.", *DW*, 14 April 2022, <https://www.dw.com/en/sri-lankas-foreign-debt-default-why-the-island-nation-went-under/a-61475596>

22 Moramadali, Umesh. "Sri Lanka's Foreign Debt Crisis Could Get Critical in 2021." *The Diplomat*, 09 February, 2022, <https://thediplomat.com/2021/02/sri-lankas-foreign-debt-crisis-could-get-critical-in-2021/>



In addition to Sri Lanka's growing fiscal deficit, by 2022, Sri Lanka was facing a looming balance of payments crisis. As a result of Sri Lanka's relatively high level of imports compared to exports, the country was running out of foreign currency reserves, which were needed to pay for imports and pay off some foreign debt obligations. These twin vulnerabilities—mounting debt and declining foreign currency reserves—created an increasingly insurmountable obstacle for Sri Lanka.

Gotabaya Rajapaksa, brother of the former president, won the presidential election in 2019. Within a month of taking office, the new Rajapaksa administration enacted substantial tax cuts that further reduced the country's ability to pay its debts. The cabinet slashed the value-added tax (VAT) from 15% to 8%, the 2% Nation Building Tax was abolished and combined with the Ports and Airport Development Levy, and the tax on Telecommunication Tariffs was reduced by 2.5%. Several other taxes were also eliminated, including the Economic Service Charge, Debit Tax on Banking and Financial Institutions, VAT on Sovereign Property, Capital Gains Tax on the Share Market, Pay As You Earn (PAYE) Tax, Credit Service Tax, and the Withholding Tax on Interest Income. Sri Lanka officially estimates that around SLR 800 million (US\$ 2.22 million) of tax revenue was lost as a direct result of the 2019 and 2020 tax cuts.<sup>23</sup>

Figure 3 shows the sharp increase in Sri Lanka's budget deficit since 2019, which was largely driven by the tax cuts. While the cuts were intended to increase spending in the economy and spur economic growth, large foreign debt coupled with dwindling government revenue made Sri Lanka's economy even more vulnerable.

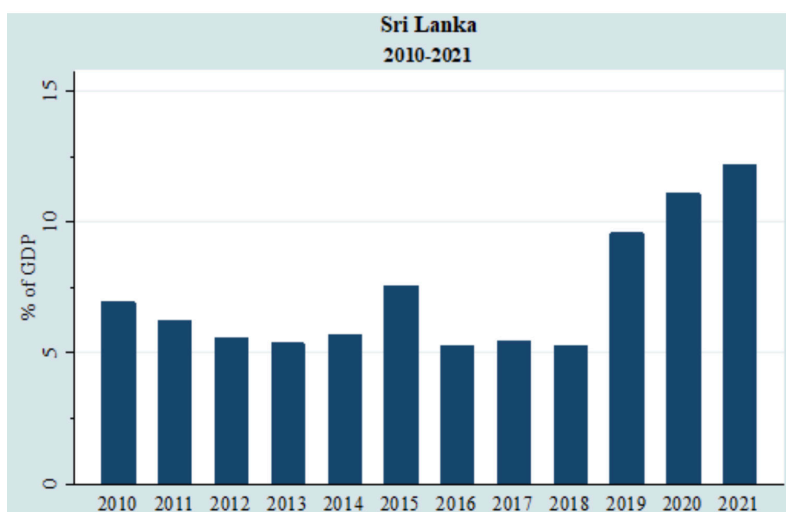


Figure 3: Sri Lanka's budget deficit (2010-2021).<sup>24</sup>

### Current Acute Economic Crisis and Uprising by the Public

The reduction of the country's tax base was followed by additional economic mismanagement by the government. In April 2021, the Rajapaksa administration announced that it was banning all imports of pesticides and synthetic fertilizers. The administration's announcement cited environmental concerns and a desire to push the country away from chemical fertilizers and

23 Bhowmick, Soumya. 2022. "How Sri Lanka's Tax Cuts Crippled Its Economy." ORE. August 6, 2022. <https://www.orfonline.org/expert-speak/how-sri-lankas-tax-cuts-crippled-its-economy/>.

24 LSE Business Review. "What lies behind Sri Lanka's collapse?," July 18, 2022, <https://blogs.lse.ac.uk/businessreview/2022/07/19/what-lies-behind-sri-lankas-collapse/>.

towards organic farming. However, some critics argued that the purpose of the ban was a last-ditch attempt to mitigate Sri Lanka's increasing foreign currency reserve problem: the ban would save Sri Lanka the \$400 million it was spending yearly importing synthetic fertilizers.<sup>25</sup>

Despite the ban's intention to address legitimate social and environmental concerns around pesticides and chemical fertilizers, the sudden rollout of the policy, and the lack of realistic planning around Sri Lanka's agricultural needs had dire consequences. In a matter of months, agricultural yields collapsed. The drop in rice production alone was enough to immediately nullify the savings from not buying foreign fertilizer, with the 20% drop in yields forcing Sri Lanka, which had been self-sufficient in rice production, to spend \$450 million on rice imports. Other crops saw similar declines—for example, Sri Lanka's largest export, tea, fell by 18%.<sup>26</sup>

After less than a year, the administration reversed the import ban policy, but the damage was done. The combined effect of high debt, diminishing foreign currency reserves, and the accompanying inflation and currency depreciation—now worsened by the import ban—made Sri Lanka's financial position untenable. Interest payments on debt obligations exceeded \$7 billion in 2022, but Sri Lanka had only \$1.6 billion in foreign reserves.<sup>27</sup> Eventually, Sri Lanka's government released an official statement declaring that it was halting payments on all foreign debt obligations, officially defaulting on April 12, 2022.<sup>28</sup>

In the wake of this collapse, Sri Lanka was unable to import critical supplies. Sri Lankans faced widespread power blackouts, as well as shortages of fuel, cooking gas, medicine, and other essential items. Inflation reached a record high of 60.8% percent in July 2022, exacerbating the already difficult economic conditions.<sup>29</sup>

The situation led to widespread protests in the country, with people taking to the streets to express their frustration with the worsening economic conditions.<sup>30</sup> The protests eventually led to the resignation of Prime Minister Mahinda Rajapaksa, who fled the country in May 2022. Two months later, protestors stormed the presidential residence, forcing Gotabaya Rajapaksa to flee to the Maldives and eventually resign his office.<sup>31</sup> New elections followed, and within a week, Ranil Wickremesinghe, an opposition leader and longtime fixture of Sri Lankan politics, became president.

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25 Torrella, Kenny. 2022. "Sri Lanka's Organic Farming Disaster, Explained." Vox, July 15, 2022. <https://www.vox.com/future-perfect/2022/7/15/23218969/sri-lanka-organic-fertilizer-pesticide-agriculture-farming>.

26 Ibid.

27 Narayanana, Krithiga. "Why Sri Lanka Defaulted on its Foreign Debt." DW, 14 April 2022, <https://www.dw.com/en/sri-lankas-foreign-debt-default-why-the-island-nation-went-under/a-61475596>

28 Moramadali, Umesh. "Sri Lanka's Story of Sovereign Default." The Diplomat, 31 August 2022, <https://thediplomat.com/2022/08/sri-lankas-story-of-sovereign-default/>

29 "CCPI based headline inflation recorded at 64.3% on year-on-year basis in August 2022.", Central Bank of Sri Lanka, <https://www.cbsl.gov.lk/en/news/inflation-in-august-2022-ccpi#:~:text=Headline%20inflation%2C%20as%20measured%20by,from%2060.8%25%20in%20July%202022>.

30 Salikudding, Tamanna, "Five things to Know about Sri Lanka's Crisis.", 15 July, 2022. <https://www.usip.org/publications/2022/07/five-things-know-about-sri-lankas-crisis>

31 "How crisis unfolded in Sri Lanka.", 22 July, 2022, <https://www.reuters.com/world/asia-pacific/how-sri-lankan-protests-unfolded-2022-07-22/>

## China in Sri Lanka

### Wasteful Infrastructure Spending Financed by China and China's String of Pearls Strategy

With declining Western investment into Sri Lanka in the wake of the bloody end of the civil war, China emerged as one of Sri Lanka's key investors. For China, the strategic value of a relationship with Sri Lanka is clear. Sri Lanka is situated on one of the largest maritime shipping lanes in the world, its disruption would hamper China's ability to import energy from the Middle East and elsewhere. Sri Lanka is also positioned 54 km away from one of China's largest rivals India. China's investment into Sri Lanka represents a major component of a Chinese "String of Pearls"—a term coined by U.S. analysts to refer to a network of Chinese military and commercial facilities and relationships along its sea lines of communication, which extend from the Chinese mainland to Port Sudan in the Horn of Africa.

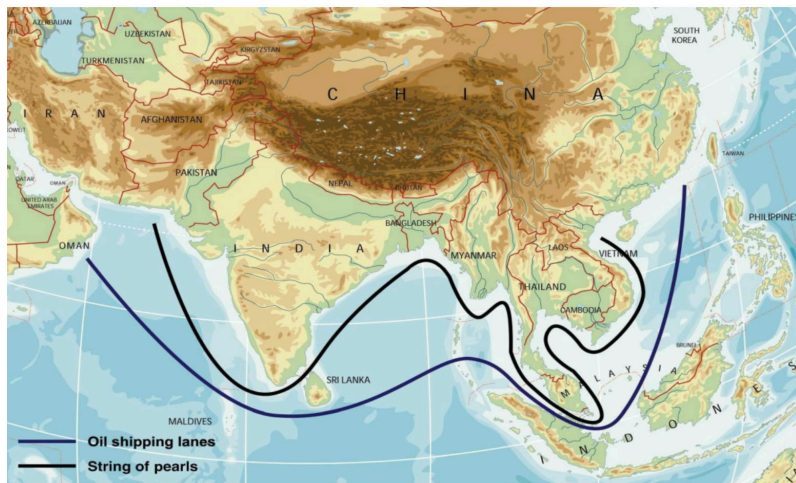


Figure 4. Approximate location of Indian Ocean shipping lanes and China's "String of Pearls" port acquisitions.<sup>32</sup>

China's strategy was facilitated by Mahinda Rajapaksa's attraction to large, visibly impressive infrastructure projects. Notable projects include the Mattala Rajapaksa International Airport, built at a cost of \$250 million. The airport incurred a \$23.6 million annual repayment obligation to China for the next eight years but only earns approximately \$300,000 in revenue annually.<sup>33</sup> The Hambantota Cricket Stadium, which also costs the equivalent of millions of USD, is another example of a project with questionable utility. As others have noted, the stadium's capacity of 35,000 exceeds Hambantota's entire population of 25,000 and visiting cricket teams have faced the threat of wildlife attacks due to the remote location.<sup>34</sup>

32 Samaranayake, Nilanthi. 2011. "Are Sri Lanka's Relations with China Deepening? An Analysis of Economic, Military, and Diplomatic." *Asian Security* 7, no. 2: 119-146.

33 Larmer, Brook. "What the World's Emptiest International Airport Says about China's Influence." *The New York Times*. The New York Times, September 13, 2017. <https://www.nytimes.com/2017/09/13/magazine/what-the-worlds-emptiest-international-airport-says-about-chinas-influence.html>.

34 Mashal, Mujib, Skandha Gunasekara, and Atul Loke. "Lavish Projects and Meager Lives: The Two Faces of a Ruined Sri Lanka." *The New York Times*. The New York Times, May 29, 2022. <https://www.nytimes.com/2022/05/29/sri-lanka-infrastructure.html>.

From China's perspective, however, the most important project is likely the Hambantota port. Like the previously mentioned projects, the port was a questionable choice given its location, which was ultimately chosen simply because Hambantota is the home district of the Rajapaksas. Opening in 2010, it became Sri Lanka's second largest port, after the Port of Colombo. In 2020, the port handled 1.8 million tons of liquefied petroleum gas (LPG) and dry bulk cargo, a level of traffic that was considered economically unviable.<sup>35</sup> In 2017, the Sri Lankan government signed a 99-year lease on the port with a 70% stake of the port leased to the China Merchants Port Holdings Company Limited (CM Port) for \$1.12 billion (the port is valued at \$1.4 billion).<sup>36</sup> Figure 5 shows the size of the port in relation to the Port of Colombo. As is evident from the satellite imagery, Hambantota is small and rural, whereas Colombo is highly urbanized.

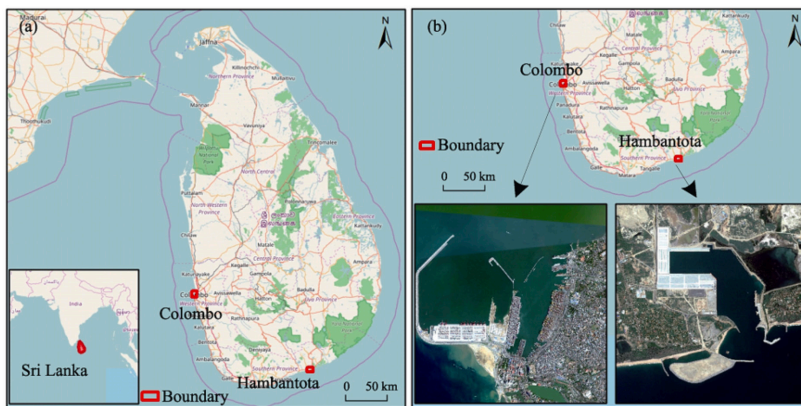


Figure 5. Satellite imagery of the Port of Colombo (left) and the Port of Hambantota (right).<sup>37</sup>

In comparison to Hambantota, development in Colombo has not been as prompt, despite it being the larger city. With the return of a Rajapaksa administration in 2019, a controversial bill approving the Colombo Port City Project (CPCP) was passed in May 2021.<sup>38</sup> The CPCP faced criticism for its insufficient Environmental Impact Assessment, which failed to consider the effects on the fishing industry near Colombo, a principal income source for many locals. Nevertheless, the CPCP will bring about \$8.7 billion FDI during its construction stage and approximately \$1 billion FDI every year in its operational stage.

[www.nytimes.com/2022/05/29/world/asia/sri-lanka-rajapaska-hambantota.html](http://www.nytimes.com/2022/05/29/world/asia/sri-lanka-rajapaska-hambantota.html).

35 "Sri Lanka Hambantota Port Project," n.d. [http://www.caledoniancable.com/English/company/Sri\\_Lanka\\_Hambantota\\_Port\\_Project.html#:~:text=The%20Hambantota%20International%20Port%20](http://www.caledoniancable.com/English/company/Sri_Lanka_Hambantota_Port_Project.html#:~:text=The%20Hambantota%20International%20Port%20).

36 Moramudali, Umesh. "The Hambantota Port Deal: Myths and Realities." – The Diplomat. for The Diplomat, January 16, 2020. <https://thediplomat.com/2020/01/the-hambantota-port-deal-myths-and-realities/>.

37 Ge, Yong, Yuehong Chen, Yuanxin Jia, Xian Guo, and Shan Hu. "Dynamic Monitoring the Infrastructure of Major Ports in Sri Lanka by Using Multi-Temporal High Spatial Resolution Remote Sensing Images." *Journal of Geographical Sciences*. Science Press, December 28, 2018. <https://doi.org/10.1007/s11442-018-1516-7>.

38 Bhole, Omkar. "Pitfalls of Chinese FDI in Sri Lanka – a Case Study of the Colombo Port City Project." *ICS Research Blog*, May 25, 2022. <https://icsin.org/blogs/2022/05/16/pitfalls-of-chinese-fdi-in-sri-lanka-a-case-study-of-the-colombo-port-city-project/>.

Sri Lanka's total external debt amounts to approximately \$45 billion, with \$8 billion of the total owed to China. In response, Sri Lanka has requested debt restructuring assurances from China, equivalent to a \$2.9 billion bailout package from the International Monetary Fund (IMF), which has since been approved.<sup>39</sup> Consequently, Sri Lanka will need to make annual payments of \$6-7 billion until 2029. The finalization of the IMF bailout led to ongoing strikes among public employees, who objected to tax increases that were a precondition of the deal.<sup>40</sup>

Considering the Hambantota port alongside China's investments in Chittagong Port (Bangladesh) and Gwadar Port (Pakistan), it is evident that one aim of China's strategy is to encircle India and counteract its historical dominance in the Indian Ocean. The signs of military competition between China and India are already emerging in Sri Lanka. Military ships and submarines were seen in Hambantota port in August 2022.<sup>41</sup> In response, India gifted the Sri Lankan Navy a Dornier 228 aircraft for maritime surveillance later that month.<sup>42</sup>

China's investments in Sri Lanka have also bore fruit on the international diplomatic stage, where Sri Lanka has supported China amid allegations of human rights abuses. In a recent interview with Xinhua, Sri Lanka's Foreign Secretary Jayanath Colombage said, "there is no evidence to support claims by some western politicians that 'genocide' was committed against the Uyghur community."<sup>43</sup> In 2015, the Sri Lankan government reportedly did not permit the Dalai Lama to visit the country in an effort not to upset China. Sri Lanka supported China's security law for Hong Kong in the United Nations Human Rights Council's vote, where it was one of 53 voting members.<sup>44</sup> Additionally, there have been allegations of bots and fake accounts used by the Chinese embassy on Sri Lanka's Twitter page, creating a false impression of public support for the embassy's attacks on its critics.<sup>45</sup> Facebook influencers affiliated with Chinese state media have increasingly pushed content targeting young adults in local languages, including Sinhala. This content highlighted the Sinopharm vaccine's effectiveness and framed China as a global public good provider.<sup>46</sup>

## India in Sri Lanka

### Strategic Importance of Sri Lanka to India

Indo-Sri Lanka relations have come into the limelight following the dramatic and cascading collapse of the Sri Lankan government and economy.<sup>47</sup>

39 Francis, Krishan. "Sri Lanka Leader Says IMF Deal Imminent after China's Pledge." AP NEWS. Associated Press, March 8, 2023.

40 Uayasinghe, Uditha. "Sri Lanka's Public Workers Strike to Press for Lower Taxes, Power Bills." Reuters. Thomson Reuters, March 15, 2023. <https://www.reuters.com/world/asia-pacific/sri-lankas-public-workers-strike-press-lower-taxes-power-bills-2023-03-15/>.

41 Jayasinghe, Uditha. "Chinese Military Ship Docks at Sri Lanka Port despite Indian Concern." Reuters. Thomson Reuters, August 16, 2022. <https://www.reuters.com/world/asia-pacific/chinese-military-survey-ship-docks-sri-lanka-port-2022-08-16/>.

42 Srinivasan, Meera. "India Hands over Dornier Maritime Surveillance Aircraft to Sri Lanka Navy." The Hindu, August 16, 2022. <https://www.thehindu.com/news/international/india-to-hand-over-dornier-maritime-surveillance-aircraft-to-sri-lanka-navy/article65770998.ece>.

43 News, China Xinhua. "There Is No Evidence to Support Claims by Some Western Politicians That 'Genocide' Was Committed against the Uyghur Community in China's Xinjiang, Said Sri Lanka's Foreign Secretary Jayanath Colombage in a Recent Interview with Xinhua." Twitter. Twitter, February 19, 2021.

44 Lawler, Dave. "The 53 Countries Supporting China's Crackdown on Hong Kong." Axios, July 3, 2020. <https://www.axios.com/2020/07/02/countries-supporting-china-hong-kong-law>

45 Sri Lanka: Beijing's Global Media Influence 2022 Country Report." Freedom House, 2022. <https://freedomhouse.org/country/sri-lanka/beijings-global-media-influence/2022>.

46 Ibid.

47 The Associated Press, "Sri Lanka's Ousted President Returns Home after Fleeing," NPR, September 3, 2022, sec. Asia, <https://www.npr.org/2022/09/03/1120916957/sri-lanka-ousted-president-returns>.



In order to better understand how the relationship between the two countries has evolved over the last 70 years, it is important to consider the overall socio-political dynamic between the South Asian neighbors.

The importance of Sri Lanka from an Indian perspective mainly stems from the island country's strategic location in the Indian Ocean, which is responsible for more than 75% of the world's maritime trade and more than 50% of daily global oil transfers.<sup>48</sup> This has gained more importance recently, as the Russia-Ukraine War has complicated oil transfer routes in all of Asia and left the major Asian and Western players scrambling to secure their position in the market.<sup>49</sup> Additionally, Sri Lanka's proximity to the Indian shoreline across the Palk Strait also increases its importance for Indian foreign policy.<sup>50</sup> India's national security concerns have further intensified due to the encroachment of Chinese military forces in the region. As a result, Prime Minister Narendra Modi has taken a more attentive approach to examining the geopolitical and military developments in the area.

Given the importance of Sri Lanka to India, the extent to which India has remained distant following China's involvement might seem surprising. To understand the Indian reluctance to involve itself militarily in Sri Lanka, an important piece of the puzzle is the Sri Lankan Civil War. In 1978, the Indian government supplied arms and ammunition to LTTE to support the minority Tamil population after significant pressure from the Tamil Nadu State government, a majority Tamil state in Southern India. After the LTTE ambushed a Sri Lankan government convoy, which killed 13 soldiers and triggered a widespread riot in which 2,500 Tamils died, the official Indian viewpoint changed. In 1987, the Indian Prime Minister sent in the Indian Peace Keeping Force (IPKF) to peacefully control the situation in the region in collaboration with the Sri Lankan government.<sup>51</sup>

However, as the war progressed, there were violent clashes between the IPKF, the Sri Lankan government, and the LTTE. Finally, in 1989, LTTE-sympathizing Sri Lankan President Ranasinghe Premadasa officially demanded the removal of IPKF from the region. This resulted in a public humiliation of the Indian government on the global stage. These events, coupled with the assassination of Indian Prime Minister Rajiv Gandhi by the LTTE, have been the primary underpinnings of the Indian reluctance to help Sri Lanka in its military reorganization, even after the Civil War ended.<sup>52</sup>

### **Commercial Relationship between India and Sri Lanka**

The early 2000s saw an increased Sri Lankan investment in the garment, petroleum, fast-moving consumer goods, and retail sectors in India. However, the intimate relationship between Rajapaksa governments and Beijing caused

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48 "Indian Ocean Trade Routes," ThoughtCo, accessed March 18, 2023, <https://www.thoughtco.com/indian-ocean-trade-routes-195514>.

49 "Impact of Russia-Ukraine War on Ocean Trade - Maritime Gateway," accessed March 27, 2023, <https://www.maritimegateway.com/impact-of-russia-ukraine-war-on-ocean-trade/>.

50 N. Sathiya Moorthy, "Sri Lanka and India: From Non-Traditional Threats to Security Cooperation," ORE, accessed March 27, 2023, <https://www.orfonline.org/expert-speak/sri-lanka-and-india-from-non-traditional-threats-to-security-cooperation/>.

51 "The Sri Lankan Civil War and Its History, Revisited in 2020," Harvard International Review, August 31, 2020, <https://hir.harvard.edu/sri-lankan-civil-war/>.

52 Ibid.

damage to the bilateral trade between the South Asian neighbors.<sup>53</sup> Currently, Sri Lankan Foreign Direct Investment in India is underpinned by three major projects that the Lankan government has invested in: Brandix Garment City, Carsons Cumberbatch (Carlsberg) and Ceylon Biscuits.

Project	Current Revenue Per Year (in USD millions)
Brandix Garment City - Visakhapatnam	1000
Carsons Cumberbatch (Carlsberg)	50
Ceylon Biscuits	24

Figure 6. Most significant examples of Sri Lankan investment in India.<sup>54</sup>

It remains to be seen how the Sri Lankan FDI in India will change in terms of the type of products, trade volume, or tariffs. However, given the increasing ties between the two governments, Colombo will likely pay close attention to the growth and prosperity of the trade relationship with India.<sup>55</sup> In particular, the election of Ranil Wickremesinghe—who has historically held a pro-India stance—has paved the way for further improving the relationship with India.

India became Sri Lanka's top lender in 2022 and 2023, surpassing China and the Asian Development Bank with a total of USD 4 billion in credit support, including USD 377 million paid as a loan from January 2022 to April 2022, a USD 700 million credit line for fuel imports and a credit facility of USD 1 billion for procurement of food, medicines, and other essential items from India facilitated through a partnership between the EXIM Bank and State Bank of India with the Sri Lankan Government.<sup>56</sup> This has been a breath of fresh air for Sri Lanka, which has been plagued by a fair-weather friendship with China over the last decade and has cultivated a renewed sense of goodwill amongst Sri Lankans for India.<sup>57</sup>

### Increasing Indo-Sri Lankan Ties in Response to Current Events

Given that the current Sri Lankan President assumed office at a time when the country was dealing with a severe financial and social crisis, the attention to foreign policy by the Sri Lankan administration has been commendable. In a sign of the changing times, Wickremesinghe has hinted at his intention to deemphasize Chinese investment and integrate the Lankan economy with Indian aid and trade. Even though his predecessor, Gotabaya Rajapaksa, was closer to India,

53 "Sri Lanka to Move Away From China and Toward Economic Integration With India," accessed March 27, 2023, <https://thediplomat.com/2022/09/sri-lanka-to-move-away-from-china-and-toward-economic-integration-with-india/>.

54 Ministry of External Affairs - Government of India. "India-Sri Lanka Relations." India Global, n.d. [https://www.mea.gov.in/Portal/ForeignRelation/Sri\\_Lanka\\_January\\_2014.pdf](https://www.mea.gov.in/Portal/ForeignRelation/Sri_Lanka_January_2014.pdf).

55 "Sri Lanka to Move Away From China and Toward Economic Integration With India"; Moorthy, "Sri Lanka and India."

56 "Blood Is Thicker than Water": S Jaishankar on India-Sri Lanka Relations," Hindustan Times, March 18, 2023, <https://www.hindustantimes.com/india-news/blood-is-thicker-than-water-s-jaishankar-on-india-sri-lanka-relations-101679090180927.html>.

57 Banerjee, "Are India-Sri Lanka Relations on the Mend?"

Rajapaksa's association with the pro-China Sri Lankan People's Front prevented his administration from cultivating stronger bilateral ties with India.<sup>58</sup>

As concern in Sri Lanka over growing Chinese influence has increased, the Trincomalee Port Agreement has emerged as a starting point for a changing economic and political relationship with India.<sup>59</sup> Signed in January 2022, the agreement pledges to redevelop an 850-acre storage facility, which has the capacity to hold about 8 million tons of oil reserves.<sup>60</sup> The agreement will secure a stronghold for India in the strategically important Trincomalee, which is one of the best natural harbors in the world.<sup>61</sup>

Correcting the Indian strategic blunder of refusing to develop the Hambantota port after being offered the opportunity has been one of the key points in Indian foreign policy over the last couple of years. Although there is no official evidence to suggest that China's commercial interests in Sri Lanka have an ulterior military motive, the docking of the Chinese warship Yuan Wang 5 at Hambantota in August 2022 has renewed the Indian suspicion of Chinese spying in the region.<sup>62</sup> The Tamil Nadu State Government in India has also complained about the increased presence of the People's Liberation Army in Sri Lanka and has made demands for increased security arrangements in case of a naval attack by the PLA.<sup>63</sup> However, India's potential stronghold in Trincomalee is a silver lining, as it might lead to India's own military foothold in Sri Lanka. It remains to be seen how the National Democratic Alliance-led nationalistic Indian government, with President Narendra Modi at the forefront, deals with the situation.

The events that unfold in the region over the next few months will likely determine the fate of the Indo-Sri Lankan relationship and will likely be watched closely by other developing economies like Afghanistan, Kazakhstan, Tajikistan, Uzbekistan, and Indonesia, all of which lean heavily on Chinese investments.

## Conclusion

It remains to be seen whether Sri Lanka will overcome its dire economic and political problems. Although the public uprising in 2022 and the flight of the Rajapaksas opened the door for reform, Sri Lanka still faces a daunting set of challenges. In March of 2023, public sector employees in multiple industries went on strike, rejecting the IMF bailout negotiated by the Wickremesinghe administration, which entailed more economic pain for a Sri Lankan public that has already endured shortages of critical goods, severe inflation, and widespread hunger. As Sri Lanka struggles to get its economy back on track, India is scrambling to secure its position in a correction to the hands-off approach that had been India's policy for decades. The rapidly evolving situation in Sri Lanka will continue to be significant in the coming years, and the world should watch with interest to see if China is able to maintain its foothold on the island in the face of an increasingly active India.

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58 Ibid.

59 "Sri Lanka, India Sign Deal to Redevelop Aging Oil Terminal," accessed March 27, 2023, <https://thediplomat.com/2022/01/sri-lanka-india-sign-deal-to-redevelop-aging-oil-terminal/>.

60 Ibid.

61 "Many Nations Vie for a Piece of Sri Lanka's Trincomalee Port Project. Here's Why," India Today, accessed March 27, 2023, <https://www.indiatoday.in/news-analysis/story/sri-lanka-trincomalee-port-strategic-importance-1959455-2022-06-07>.

62 "Chinese 'spy Ship' Yuan Wang 5 Docks in Sri Lanka despite Indian Concern," BBC News, August 16, 2022, sec. Asia, <https://www.bbc.com/news/world-asia-62558767>

63 "Chinese Military Ship Docks at Sri Lanka Port despite Indian Concern | Reuters."

# How Private, Landlord-Centered, and Racially Exclusive Housing Policies Deny Countless Minorities

Tyler Faris, Alec Tolmachoff, Justin Redman, Jared McHale

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## Introduction

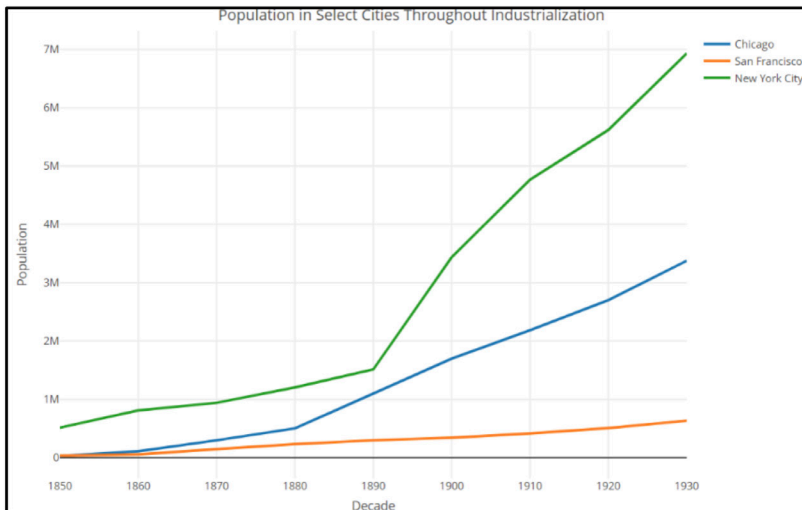
The bones of the modern American housing system and much of the racial wealth gap can be found in recent history. The 20th century saw the birth and development of a private, landlord-centered, and racially exclusive housing paradigm; this system remains today, through various policy choices. The multifaceted and decentralized nature of housing policy in the United States, combined with difficulty in user access and the deliberate exclusion of racial minorities, severely limits the nation's ability to provide adequate housing to large swathes of the public.

## 19th Century Urban Developments and the Local Zoning Response

Colonial America and the early republic had important urban centers, such as Philadelphia, Savannah, Boston, New York, and Charleston. Not only were cities hubs of economic activity but Governments were consolidated in there. At the time, housing policy was not a large concern, since land was freely available in the West. In many cases, this westward expansion dispossessed indigenous populations. Things started to change in the 19th century with increased immigration and domestic population growth saw cities grow larger than ever. As the Industrial Revolution spread, people now had economic incentives to move to the crowded cities. The graph above tracks the population growth of Chicago, San Francisco, and New York during the industrial expansion in America.<sup>1</sup> This massive population growth fundamentally changed many aspects of American cities. Immigration to urban areas included not only Northwest Europeans, but also Southern and Eastern Europeans, East Asian immigrants,

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<sup>1</sup> Sidney Redner, "Available City Population Data." Boston University Arts & Sciences: Physics. Accessed March 30, 2023.



and Black Americans from the South.<sup>2</sup> Additionally, industrial development worsened local environmental qualities, and overcrowded tenement buildings, raising public concern. The widespread developments in housing policy grew out of a desire to address these changes.

The first tool used was zoning, which was implemented by the cities themselves. After an eventually invalidated public laundry ban in 1885, the City of Los Angeles implemented zoning regulations that created residential-only areas of the city.<sup>3</sup> This laundry ban was a thinly veiled attempt to exclude businesses owned by Chinese people. Though unsuccessful, zoning was able to remove the possibility of laundry businesses operating in certain areas, as all businesses were excluded from the newly designated residential areas. This zoning was not a comprehensive effort to completely zone all of Los Angeles, it only set up a few areas where businesses could not operate. In addition to excluding minorities, zoning efforts excluded the expansion of industry, such as local glue factories.<sup>4</sup> This early zoning spread across cities in America during the early 20th century; the separation of residential, industrial, and mixed-use areas persists today. While the legality of zoning was confirmed with *Ambler Realty v. Village of Euclid* in 1926, efforts to use zoning to achieve racial segregation were less legally successful.<sup>5</sup> Racially explicit zoning was found unconstitutional in 1917 as a result of actions by the NAACP (National Association for the Advancement of Colored People).<sup>6</sup> However, many Southern cities continued to racially zone extralegally by using racial covenants, which were found constitutional in 1926.<sup>7</sup> Even though zoning did not directly determine housing availability, it created a foundation that would be used frequently in the eventual postwar development of suburbs and cities.

2 Thea M. Page and Lisa Blackburn, "News Release - Author Lisa See Gives Huntington Rare Glass Plate Negatives and Photos Depicting LA's Original Chinatown." The Huntington. May 13, 2021. Accessed March 30, 2023.

3 Amanda Erickson, "The Birth of Zoning Codes, a History." Bloomberg. June 29, 2012. Accessed April 1, 2023.

4 Ibid.

5 National Parks Service, "Civil Rights in America: Racial Discrimination in Housing." U.S. Department of the Interior. March 2021. Accessed March 30, 2023.

6 Ibid, 9.

7 Ibid, 10-12.



## The Great Depression, World War II, and the Federal Housing Response

Although zoning sprung up around the turn of the 20th century, a federal housing policy was not formulated until after the 1929 financial collapse. As the initial Hoover Administration's response to the Great Depression failed, Roosevelt took office in 1933 on the promise of a robust federal response. The first housing policy enacted was the creation of the Public Works Administration Act,<sup>8</sup> This was essentially a trial form of building public housing, in an attempt to reduce unemployment through increased construction activity. The use of the housing policy to stimulate the economy can be seen throughout the early Roosevelt Administration's housing policy. The most significant housing effort came in the form of the 1933 Homeowners Loan Act and the 1934 National Housing Act. These acts created the Homeowners Loan Corporation and the Federal Housing Administration (FHA), which set up a system to federally insure mortgages.<sup>9</sup> This was a measure to prevent further economic collapse and improve employment levels through construction. The process of determining who was eligible for mortgage insurance and in which neighborhoods, where Black neighborhoods were routinely given the lowest rating, was the process infamously known as redlining.<sup>10</sup> In addition to these maps, FHA policy suggested segregating early public housing projects and other discriminatory policies. Furthermore, most of the lending process was left to state and local authorities, further limiting access by Black Americans.<sup>11</sup> While this racial discrimination would have much larger effects after World War II, the origins of discriminatory mortgage insurance policies originated in the New Deal.

During the Great Depression, a grassroots movement led by Catherine Bauer and a Cleveland City Councilor, Ernest Bohn, emerged championing public housing.<sup>12</sup> While the Public Works Administration did construct public housing, it was not the focus of the Roosevelt Administration policy. However, in the wake of Roosevelt's failed attempt to pack the Supreme Court in 1937, he successfully supported the United States Housing Act of the same year.<sup>13</sup> In contrast to the 1934 Act, this legislation spearheaded the construction of public housing, which became more relevant as America's entrance into World War II expanded industrial employment. It created the United States Housing Authority, which oversaw the construction of public housing (the Public Works Administration had been dissolved in 1939). Additionally, federal funds for public housing were often allocated to support local housing projects,<sup>14</sup> such as the eventually infamous Cabrini-Green in Chicago, originally created as housing for war workers.<sup>15</sup> Finally, the 1930's housing policy created the impetus for slum clearance and "urban renewal." While these would become of greater national significance in the 1950s, the idea of demolishing dangerous, poor, and under-invested neighborhoods to make room for new developments was already present. Again, the Cabrini-Green project was built over the former Little Hell neighborhood, a

8 Alexander von Hoffman, 2012, 7.

9 U.S. Department of Housing and Urban Development, "Major Legislation on Housing and Urban Development Enacted Since 1932." US HUD. June 2014. Accessed March 30, 2023.

10 Terry Gross, "A 'Forgotten History' of how the U.S. Government Segregated America." National Public Radio. May 3, 201. Accessed April 4, 2023.

11 Alexander von Hoffman, 2012, 21.

12 Ibid, 7.

13 Ibid, 9.

14 Ibid, 9.

15 Amanda Seligman, "Cabrini-Green." Chicago Historical Society; Encyclopedia of Chicago. 2005. <http://www.encyclopedia.chicagohistory.org/pages/199.html>.

site of high levels of crime and mob activity.<sup>16</sup> This urban redevelopment would continue into the postwar period, often used as an excuse to demolish or isolate Black neighborhoods..

## Mid-to-late 20th Century Progression

Wartime and postwar policy focused on supporting new, single-family home construction for veterans and white families as a result of two main concerns. Many Americans feared millions of veterans spilling back into the United States without individual homes to return to.<sup>17</sup> In addition, many worried that the end of the war would mark a return to pre-war economic conditions, and wanted to support industry as much as possible.<sup>18</sup> Housing policy provided an avenue to address both concerns. The Servicemen's Readjustment Act of 1944, the GI Bill, and the Housing Acts of 1949 and 1950 established the idea of a national housing policy to provide a home for every family.<sup>19</sup> <sup>20</sup> Veterans were given very generous benefits like mortgage insurance<sup>21</sup>, allowing loan providers to lend at no risk and easing the veterans's path to homeownership.<sup>22</sup> This favorable mortgage policy encouraged the millions of returning veterans to take out loans for the construction of new single-family houses instead of renting or applying for public housing.<sup>23</sup> In addition, the discriminatory mortgage insurance policies, and the racial covenants mentioned in the prior sections, both came to bear here. The burgeoning postwar suburbs were racially exclusive, and suburban homeownership was blocked for Black Americans, among other minorities.

Urban revitalization became a central concern as the white suburbs were being built. There were legitimate reasons for urban renewal in many American cities; however, urban renewal often became the excuse to destroy or cordon off Black neighborhoods. The Housing Acts of 1953 and 1956 were largely focused on urban renewal, and the Federal-Aid Highway Act of 1956 justified bulldozing 'blighted' neighborhoods to build the national highway system.<sup>24</sup> As a result, neighborhoods like the Lower Hill District in Pittsburgh were demolished, and others were separated from the larger urban area via the construction of highways. This worsened local housing conditions and reduced the housing supply in these neighborhoods.

## Housing Policy in the Civil Rights Era

With racially exclusive suburbs firmly cemented in American society and urban conditions deteriorating, national housing policy shifted to these new realities. Federal responsibilities were shifted around, with urban transportation being moved to its namesake department, and housing authority consolidated under the new Department of Housing and Urban Development ("HUD"). HUD is still America's housing authority today and continues to contain the

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16 Ibid.

17 Alexander von Hoffman, 2012, 12-13.

18 Ibid, 18.

19 Ibid, 18-20.

20 U.S. Department of Housing and Urban Development, 2014.

21 Alexander von Hoffman, 2012, 14.

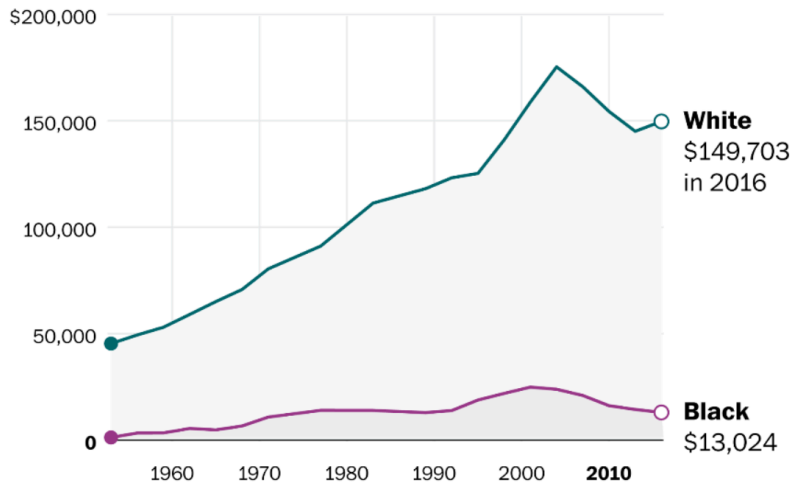
22 Ibid, 19.

23 Ibid, 19.

24 U.S. Department of Housing and Urban Development, 2014.

## White wealth surges; black wealth stagnates

Median household wealth, adjusted for inflation



Source: Historical Survey of Consumer Finances via Federal Reserve Bank of Minneapolis and University of Bonn economists Moritz Kuhn, Moritz Schularick and Ulrike I. Steins  
THE WASHINGTON POST

FHA.<sup>25</sup> Specific policy goals now revolved around discrimination and the burgeoning civil rights movement. The Civil Rights Act of 1968 included provisions for housing, including preventing discrimination in loans: a response to redlining.<sup>26</sup> In addition, further acts responded to the increasing levels of poverty in public urban housing. While public housing projects were constructed to support low-income and working-class tenants, they were not always intended to be government assistance for those in poverty. However, as white flight and a loss of economic activity hollowed out cities, the demographic and economic composition of public housing changed. Acts such as the Housing and Urban Development Act of 1969 established rent limits for public housing in response to this phenomenon.<sup>27</sup>

Ultimately, while the effort put into undoing discrimination was successful going forward, it did not undo the decades of prior housing policy. The policies that created the decentralized, segregated, single-family-centric housing model we have today were already cemented in the United States. This paradigm had consequences, and the home equity cultivated by those allowed to get insured mortgages has skyrocketed, while the wealth of those excluded has stagnated. Any successful policy addressing housing in the United States will need to overcome the intentional history that created the situation we live in today, and today's policies do not do this.

## Federal Housing Programs and Policies

Currently, the U.S. Department of Housing and Urban Development (HUD) has two main components: housing assistance and enforcement of the Fair Housing Act. HUD funds are mainly spent on subsidizing rent, city

<sup>25</sup> U.S. Department of Housing and Urban Development, "The Federal Housing Administration (FHA)." US HUD. Accessed March 30, 2023.

<sup>26</sup> "U.S. Department of Housing and Urban Development, 2014.

<sup>27</sup> Ibid.

infrastructure, and mortgage insurance. These policy choices keep people as renters, which subsidizes the private rental market and does little to move people into homeownership. Federal tax credits reinforce making housing a lucrative investment at a cost for renters and taxpayers.

HUD's Continuum of Care program is the infrastructure for homeless assistance in the United States, composed of nonprofits, state/local governments, and public housing agencies.<sup>28</sup> The Continuum of Care runs permanent housing for people with disabilities, and rapid re-housing which is temporary housing assistance to transition people to stable housing.<sup>29</sup> This "transitional" housing gives "interim stability" to help individuals get permanent housing by covering costs for up to 24 months.<sup>30</sup> Agencies can also use Continuum of Care funds for outreach efforts to help prevent homelessness through rental assistance.<sup>31</sup> Eligibility requirements are that people must be homeless, in a shelter or on the streets, and go through the Coordinated Entry process, which prioritizes based on measured need.<sup>32</sup> Currently, the Continuum of Care follows a housing-first approach in that people cannot be denied housing assistance based on their circumstances, such as employment or drug use.<sup>33</sup> The 2023 budget for homeless assistance was \$3.5 billion.<sup>34</sup> Despite these efforts, homeless prevalence has remained steady, with around 500,000 people being homeless.<sup>35</sup>

Moving from homelessness, HUD subsidizes housing to stabilize some with the housing choice voucher ("section 8") and public housing programs. Both programs are administered at the local level through Public Housing Agencies, which set individualized criteria.<sup>36</sup> HUD's general income guidelines are the family's income may not exceed 50% of the median income for the county.<sup>37</sup> Program recipients have a cap of spending 30% of their income on rent.<sup>38</sup> For housing choice voucher recipients the remainder of the rent is paid by the Public Housing Agency to the landlord. This amount has a cap based on Fair Market Rent.<sup>39</sup> As the name implies, the Fair Market Rent value is directly based on the market value of rentals in the area determined by local supply and demand. As rental prices increase, so will HUD's expenditures on the program. There are 2.3 million families receiving housing choice vouchers, the majority of which, 75%, are minority families.<sup>40</sup> The budget is \$32.1 billion, which was the highest- fund-

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28 "Continuum of Care (CoC) Program Eligibility Requirements." U.S. Department of Housing and Urban Development. March 30, 2023. <https://www.hudexchange.info/programs/coc/coc-program-eligibility-requirements/>.

29 Ibid.

30 Ibid.

31 Ibid.

32 "Coordinated Entry Policy Brief." U.S. Department of Housing and Urban Development. February 2015. <https://www.hudexchange.info/resource/4427/coordinated-entry-policy-brief/>.

33 Ibid.

34 "2023 Congressional Justifications." U.S. Department of Housing and Urban Development. [https://www.hud.gov/program\\_offices/cfo/reports/fy23\\_CJ](https://www.hud.gov/program_offices/cfo/reports/fy23_CJ).

35 "HUD Releases 2022 Annual Homeless Assessment Report." U.S. Department of Housing and Urban Development. [https://www.hud.gov/press/press\\_releases\\_media\\_advisories/HUD\\_No\\_22\\_253](https://www.hud.gov/press/press_releases_media_advisories/HUD_No_22_253).

36 "Housing Choice Vouchers Fact Sheet." U.S. Department of Housing and Urban Development. March 27, 2023. [https://www.hud.gov/topics/housing\\_choice\\_voucher\\_program\\_section\\_8](https://www.hud.gov/topics/housing_choice_voucher_program_section_8).

37 Ibid.

38 Ibid.

39 "Fair Market Rents (40th Percentile Rents)." U.S. Department of Housing and Urban Development. March 27, 2023. <https://www.huduser.gov/portal/datasets/fmr.html>.

40 "2023 Congressional Justifications." U.S. Department of Housing and Urban Development. [https://www.hud.gov/program\\_offices/cfo/reports/fy23\\_CJ](https://www.hud.gov/program_offices/cfo/reports/fy23_CJ).

ed program.<sup>41</sup> Public housing does not involve the private housing market and is more cost-effective with housing 1.7 million people at a significantly smaller budget of \$8.7 billion.<sup>42</sup> The policy preference shown here is to pay private landlords, even though this is not as cost-effective as public housing.

HUD's other main expenditure is the Community Development Block Grant (CDBG) with a total budget of \$3.7 billion.<sup>43</sup> A portion of the funds must be used to benefit low-income individuals, eliminate slums or blight, or address community development needs.<sup>44</sup> CDBG funds can be used for rehabilitating residential and non-residential structures, demolition of buildings, or construction of public facilities or improvements to utility facilities.<sup>45</sup> While these services are good for communities, the funds are prohibited from going towards the construction of new housing which could increase the housing supply and would be more likely to benefit renters by bringing prices down.<sup>46</sup> Again, this policy choice keeps people as renters in a needlessly constricted market.

The Federal Housing Administration (FHA) is the closest HUD comes to assisting people out of the renting market into homeownership, but only very narrowly. The FHA runs a mortgage insurance program so that if the homeowner defaults on their mortgage, the FHA pays a claim to the lender for the unpaid principal balance.<sup>47</sup> This insurance policy protects the lenders from missing payments, so it has the benefit of increasing someone's chance of getting approved for a mortgage that they may otherwise not qualify for. However, recipients are still paying annual premiums for the insurance policy, which is how the program is self-funded and only has an expenditure of \$165 million.<sup>48</sup> This program, like HUD's other programs, does not increase housing supply; instead, it focuses on limiting the severity of the situation for those who qualify.

The federal tax system also keeps people in the renting market by not offering tax breaks for those who are paying rent. For homeowners, there is the home mortgage interest deduction, which means the interest paid on a mortgage, with an upper limit on the mortgage amount being \$750,000, can be deducted from federal taxes. So wealthy individuals who have a \$600,000 mortgage can deduct the interest paid on their mortgage, but there is no tax relief for renters.<sup>49</sup> The tax deduction for mortgage insurance has ended, further limiting the benefits to lower-income individuals.<sup>50</sup> The Low-Income Housing Tax Credit (LIHTC) decreases the total tax burden for those developing low-income housing, so the benefit goes to the developers and not the people living in the housing.<sup>51</sup> This, again, is having cash benefits go to those in control of rental housing, instead of the renters themselves.

Lastly, HUD and the Department of Justice jointly enforce the Fair Housing Act. This law prohibits discrimination on the basis of race, color, national origin, religion, sex (including gender identity and sexual orientation), familial status,

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41 Ibid.

42 Ibid.

43 Ibid.

44 Ibid.

45 Ibid.

46 Ibid.

47 "The Federal Housing Administration." U.S. Department of Housing and Urban Development. March 31, 2023. [https://www.hud.gov/program\\_offices/housing/fhahistory](https://www.hud.gov/program_offices/housing/fhahistory).

48 Ibid.

49 "Publication 936 (2022), Home Mortgage Interest Deduction." Internal Revenue Service. March 31, 2023. <https://www.irs.gov/publications/p936>.

50 Ibid.

51 "Low-Income Housing Tax Credit (LIHTC)," U.S. Department of Housing and Urban Development. March 31, 2023. <https://www.huduser.gov/portal/datasets/lihtc.html>



and disability.<sup>52</sup> Anyone involved in any part of the housing process, such as property owners/managers, loan officers, real estate agents, non-profits, or local governments is bound by the Fair Housing Act.<sup>53</sup> Prohibited acts include differing rental or selling practices, steering, or blockbusting.<sup>54</sup> While this law does protect people, especially those with disabilities by requiring reasonable accommodations, it is only preventing future harm and is not correcting the previous harms discussed in the history section.

## State Housing Programs and Policy

Like Federal housing policy, implementation of state housing laws and programs vary widely across the nation. The framers of the Constitution sought to preserve individual state governing rights in the Tenth Amendment which states, “The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved for the States respectively, or to the people”.<sup>55</sup> State governments have since adopted one of two legal frameworks that largely dictate their approach to housing policy: Home Rule or Dillion’s Rule. Often called “broad rule”, the Home Rule framework empowers state municipalities to govern their citizens freely unless explicitly prohibited by the state constitution. Conversely, Dillion’s Rule, often called “narrow rule”, limits state municipalities to enacting policy only explicitly provided by the state constitution.<sup>56</sup>

Several states allow larger municipalities to operate under both frameworks through the implementation of a Home Rule Charter. Take Pittsburgh, Pennsylvania, for example. The state of Pennsylvania operates under Dillion’s Rule while the City of Pittsburgh exercises more freedom to govern than smaller surrounding communities through its Home Rule Charter.<sup>57</sup> Although still restricted by the state on certain issues, the city has more freedom and flexibility to enact local policies that efficiently respond to the needs of Pittsburgh citizens.

State housing policy is often characterized by whether the state laws favor the owners of rental real estate (landlords) or those renting the real estate (renters). Many policies factor into determining whether a state is considered “landlord friendly” or “renter friendly.” Some of the more prominent variables include security deposit limits and deadlines, eviction process, rent -increase and termination notices, rent control, and property taxes.<sup>58</sup>

Consider how state laws can vary on security deposit limits. Some states, like Florida and Georgia, have no security deposit limits, which enables landlords to require any amount of money they wish for a security deposit.<sup>59</sup> This approach favors landlords and disadvantages qualified renters who may not have large cash

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52 “Reasonable Accommodations Under the Fair Housing Act.” U.S. Department of Housing and Urban Development, U.S. Department of Justice. May 17, 2004.

53 Ibid.

54 Ibid.

55 “U.S. Constitution - Tenth Amendment | Resources | Constitution Annotated | Congress.Gov | Library of Congress,” accessed April 26, 2023, <https://constitution.congress.gov/constitution/amendment-10/>.

56 “The Role of States in Shaping Local Housing Strategies,” Local Housing Solutions, accessed March 31, 2023, <https://localhousingsolutions.org/plan/the-role-of-states-in-shaping-local-housing-strategies/>.

57 “City Clerk - Home Rule Charter | Pittsburghpa.Gov,” accessed April 26, 2023, <https://pittsburghpa.gov/clerk/home-rule-charter>.

58 “The Top 6 Landlord-Friendly States of 2023 | LawDepot - LawDepot.Com,” LawDepot, accessed March 31, 2023, <https://www.lawdepot.com/landlord-friendly-states/>.

59 Ibid.

reserves or may be waiting for the return of a previous security deposit. Other states, like Alabama and Arizona, have a rent limit of one month which creates an equal opportunity for qualified applicants who are looking for housing.<sup>60</sup> This is just one of many ways a state can shape its approach to rental housing. Figure 1 provides a comprehensive overview of rental real estate legislation by state after compiling results from ten different elements of the renter-landlord relationship.

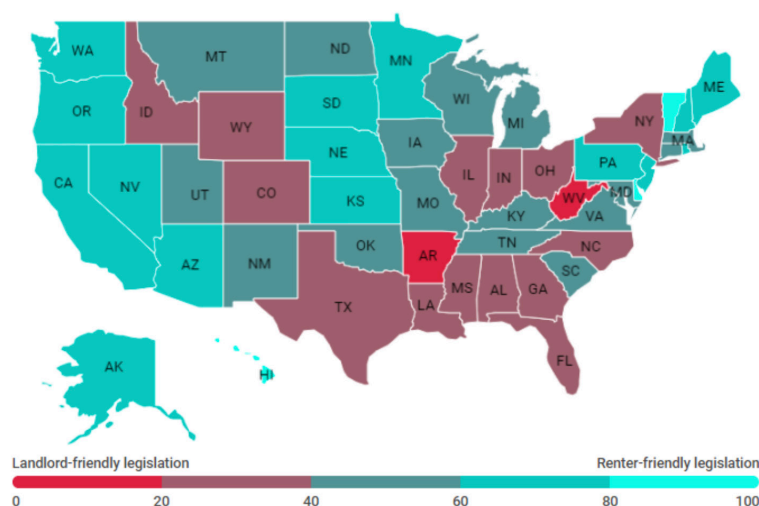


Figure 1: Renter-Friendly vs. Landlord-Friendly States<sup>61</sup>

## Local Housing Programs and Policy

The majority of federal and state housing programs rely on successful implementation at the local level. Low-income housing assistance and affordable housing planning are performed by local housing authorities and municipal redevelopment entities. In Pittsburgh, the Housing Authority of the City of Pittsburgh is responsible for placing low-income Pittsburgh residents in affordable housing within city limits, while the Allegheny County Housing Authority is responsible for residents outside of city limits.<sup>62</sup> The Urban Redevelopment Authority (URA) acts as the city's economic development enterprise by overseeing current development projects as well as reviewing permits for future projects. In addition to enforcing affordable housing quotas in new development proposals, the URA also donates \$10 million annually to the development of affordable and accessible housing through its Housing Opportunity Fund.<sup>63</sup> In addition to these public entities, the non-profit housing developer, Action Housing Inc., is another major provider of affordable housing in the city of Pittsburgh.<sup>64</sup>

A study of the disparity between landlords and renters reveals an eye-opening outcome that emphasizes the importance of local housing programs

<sup>60</sup> Ibid.

<sup>61</sup> By The Editors, "Legislation Changing in Many States to Make Them Less Landlord-Friendly," Rental Housing Journal (blog), March 19, 2019, <https://rentalhousingjournal.com/legislation-changing-in-many-states-to-make-them-less-landlord-friendly/>.

<sup>62</sup> "About," Housing Authority of the City of Pittsburgh (blog), accessed April 26, 2023, <https://hacp.org/about/>.

<sup>63</sup> "Impact," accessed March 31, 2023, <https://www.ura.org/pages/impact-section-landing>.

<sup>64</sup> "Who We Serve," Action Housing, accessed April 26, 2023, <https://actionhousing.org/about/who-we-serve/>.

and policy. A closer examination of a seemingly indiscriminate single-family rental home in Gary, IN shows that the landlord pays a monthly mortgage of \$401 to rent the home. Because the rental market in the suburbs of Chicago is competitive and affordable housing is very limited, the renters pay a monthly rent of \$1,050 to the landlord. The tenant ends up paying over 2.5 times the cost of owning the home while the landlord profits \$649. This large inequality only widens the existing wealth gap and is exacerbated by laws limiting the development of affordable housing. Local housing redevelopment authorities like Pittsburgh's URA have the most authority to reduce this disparity.

## Case Study: Pittsburgh, PA

As has been made clear by the preceding sections, housing is a deeply complex policy area, often without simple or all-encompassing solutions. Given the geographic differences in housing laws, regulations, and market forces, closer studies of particular areas are warranted. Pittsburgh, PA has a varied (and at times dark) history with housing and urban development policy as well as current market challenges. However, the city has proposed several solutions to combat the difficulties of living and renting in Pittsburgh. While not a comprehensive look at all the issues facing Pittsburgh's housing market, this case study aims to summarize important points and provide a brief overview of the city's housing policy.

It's worth starting with Pittsburgh's history of redlining, which continues to impact the city today. Anne Wright, Director of Operations at Carnegie Mellon's Community Robotics, Education, and Technology Empowerment Lab, says this is no accident. "Pittsburgh has a very high degree of racial segregation to this day," Wright explained to Carnegie Mellon's student newspaper, *The Tartan*. She added that today's racial demographic borders directly correspond to the historical borders of the redlining maps.<sup>65</sup> Indeed, once infrastructure was built and communities formed in accordance with these maps, correcting past errors became exceedingly difficult. This is particularly challenging because school districts in the area often have similarly segregated borders, leading to significant inequities in school funding and, consequently, educational quality.<sup>65</sup>

Pittsburgh also has a deep and fraught history with urban renewal projects, most notably the construction of Civic Arena (later Mellon Arena). This area, once referred to as the "Harlem of Pittsburgh," due to its status as the center of Black culture and music in the city, was gutted with \$17 million in Federal funding, forcing 8,000 residents from their homes.<sup>66</sup> In all, 80 blocks—100 acres, for reference—of the neighborhood vanished, and construction on the Civic Arena began.<sup>67</sup> The former home of the Pittsburgh Penguins hockey team stood on the land for decades before the team moved to their new arena adjacent to the old site. While the arena was demolished years ago, the land remained mostly undeveloped—a visible scar in the urban landscape, making the separation between the Hill and downtown ever more apparent.

Pittsburgh's residents of color continue to face displacement today. While discussions often center around the neighborhoods residents are displaced from,

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<sup>65</sup> Ibid.

<sup>66</sup> John R. Shrader, "Lower Hill District before Demolition," *Historic Pittsburgh*, accessed April 28, 2023, <https://historicpittsburgh.org/islandora/object/pitt:MSP285.B033.F05.I10>.

<sup>67</sup> James McClain, "Lower Hill District Demolition," *Historic Pittsburgh*, accessed April 28, 2023, <https://historicpittsburgh.org/islandora/object/pitt%3AMSP285.B033.F07.I01>.

it is also worth considering where people are displaced to. Wright pointed out that when people are forced to leave the city, they forfeit more than their homes. In the more peripheral areas they settle such as East Hills with its rising Black population, there are fewer governmental protections and worse public transportation options.<sup>68</sup>

A 2016 report prepared for the City of Pittsburgh Affordable Housing Taskforce by a team of consultants from Mullin & Loneragan Associates, Brean Associates, and Fourth Economy outlined that the risk of displacement is pervasive across the city for various reasons.<sup>69</sup> For example, the aforementioned Hill District's residents face risks due to their precarious personal finances. In contrast, the wealthier residents of neighborhoods like Bloomfield or Shadyside face an unstable housing market due to the increasing cost of living and a transient renter population.<sup>70</sup>

The same report gave an overview of the current housing market conditions, revealing that around a third of city residents were housing cost-burdened, which is defined as spending more than 30% of their income on housing.<sup>71</sup> The new housing developments in Pittsburgh do little to combat the affordability crisis. The average new one-bedroom rental is \$1,599 per month, while a new two-bedroom rental costs \$2,163. These prices render these units inaccessible for most Pittsburghers.<sup>72</sup> Overall, Pittsburgh faced a shortage of 14,896 affordable homes.<sup>73</sup>

The city has several initiatives aimed at alleviating housing costs for Pittsburgh residents. With \$8.9 million in funding from the American Rescue Act, the Urban Redevelopment Authority of Pittsburgh started a program where properties can receive funding in exchange for maintaining half or more of their units at prices that are not burdensome for individuals making less than 80% of the area median income.<sup>74</sup> Owners of properties with five or more units can receive up to \$50,000 per unit and up to \$1.5 million total per development, as long as they promise to keep their prices for residents affordable for 40 years.<sup>75</sup>

In addition to the annual allocation of \$10 million Pittsburgh dedicated to housing issues, the budget for 2023 includes a new annual "transfer for housing issuance" totaling \$2.5 million. The "issuance" refers to the city's scheme to fund affordable housing initiatives through a bond, using the \$2.5 million to cover payments over the term of the loan.<sup>76</sup> Deputy Mayor and Director of the Pittsburgh Office of Management and Budget, Jake Pawlak, stated that this policy could raise "tens of millions of dollars." He also mentioned that another bond issuance is forthcoming.<sup>77</sup>

Back to the Lower Hill District, new plans have surfaced for redeveloping the area, with a 28-acre project to replace the old parking lot with a mixed-use development.<sup>78</sup> The new development will include 288 homes, with 20% being

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68 Nassre, "Mapping Software Explores the Legacy of Redlining."

69 "Pittsburgh Housing Needs Assessment." City of Pittsburgh Affordable Housing Task Force, May 2016. [https://apps.pittsburghpa.gov/dcp/Pittsburgh\\_Housing\\_Needs\\_Assessment.pdf](https://apps.pittsburghpa.gov/dcp/Pittsburgh_Housing_Needs_Assessment.pdf).

70 Ibid, 78.

71 Ibid, 6.

72 Ibid.

73 Ibid.

74 Julia Felton, "Pittsburgh's URA Creates Program to Preserve Existing Affordable Housing," Pittsburgh Tribune-Review, February 10, 2023, <https://triblive.com/local/pittsburghs-ura-creates-program-to-preserve-existing-affordable-housing/>.

75 Ibid.

76 Margaret J. Krauss, "Gainey Administration Plans a Massive Investment in Pittsburgh Affordable Housing," 90.5 WESA, January 10, 2023, <https://www.wesa.fm/development-transportation/2023-01-10/gainey-administration-plans-a-massive-investment-in-affordable-housing>.

77 Ibid.

78 "Lower Hill," accessed March 31, 2023, <https://www.ura.org/pages/lower-hill>.

affordable, and not cost-burdensome for individuals making 80% of the area's median income.<sup>79</sup> Notably, the project also includes a 4,600-seat concert hall and a 900-space parking structure.<sup>80</sup> While redeveloping the area undoubtedly offers benefits over leaving the site barren, it is fair to wonder — especially considering the space dedicated to parking — whether what is being built will properly serve the current residents of the neighborhood or if it is designed to attract foot traffic from other locations. Given the history associated with the site, residents have been vocal about the need for this development to improve the neighborhood as a whole. However, there remains doubt whether the current project will achieve this goal.<sup>81</sup> Correcting past wrongs in housing and urban development policy remains challenging.

## Conclusion

The effects of past and present housing policy choices, which have systematically excluded Black people from fair access to housing and favored landlords through subsidies, have created an extraordinary need for more housing in the United States. This situation is exacerbated by the widely varying implementation of programs. Therefore, to secure housing for more people safely and securely, policies must aim to address the root causes of housing instability, such as low housing supply and high rents, which have allowed investors to dominate the housing market. Additionally, race must be considered in the policy choices going forward to diminish the racial wealth gap from these past harms.

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79 Ibid.

80 Eric Jankiewicz, "Plans for Lower Hill Concert Venue Pass First Public Test," PublicSource, January 25, 2023, <http://www.publicsource.org/development-pittsburgh-penguins-city-planning-hill-district-music-venue-approval/>.

81 Ibid.



# China-Pakistan Relations: Analysis of the Relations and the Impacts

Oravee Smithiphol, Bishu Giri, Uzma Rauf, & Zhihao Jin

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## I. Introduction

China and Pakistan have a historical relationship that began in the 1950s due to their shared opposition to India and their strategic location. The friendship has expanded to include economic, military, cultural, and global dimensions, but there are debates on its benefits for Pakistan. This paper investigates the relationship's economic, military, cultural, and global dimensions, analyzing the CPEC, trade, foreign investment, and China-Pakistan military relationship's impact on regional security dynamics. We also examine cultural exchanges and the relationship's impact on the world. Our research offers new insights into the potential risks and benefits of the partnership between China and Pakistan.

## II. Timeline of China and Pakistan Relations

As the Partition of India (Mountbatten Plan) was issued in 1947, Pakistan was created.<sup>1</sup> Two years later, the PRC was established as well. In 1950 China made diplomatic relations with Pakistan not due to any friendly goodwill but due to the threat of making each other another enemy.<sup>2</sup> Two countries were on different sides, Soviet-pro and American-pro at that time. The Partition of India had caused great disputes over both political and geographical issues between Pakistan and India, which mainly focused Kashmir area where pro-Pakistan Muslims were major local citizens but were ruled by upper-class pro-India Hinduism. The first Pakistan-India war took place in 1947 and the tension was then cooled down by the UN. During the Second Pakistan-India War in 1965, since China already won the war, the battle of Walong, which is named the China-India Border Self-Defense War in China, against India in 1962.<sup>3</sup> China sent an ultimatum

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1 "Partition of India," in Wikipedia, March 29, 2023, [https://en.wikipedia.org/w/index.php?title=Partition\\_of\\_India&oldid=1147281430](https://en.wikipedia.org/w/index.php?title=Partition_of_India&oldid=1147281430).

2 "China-Pakistan Relations," in Wikipedia, March 7, 2023, [https://en.wikipedia.org/w/index.php?title=China%E2%80%93Pakistan\\_relations&oldid=1143343737](https://en.wikipedia.org/w/index.php?title=China%E2%80%93Pakistan_relations&oldid=1143343737).

3 Banerjee, Ajay. "60 Years Later, Battle of Walong Remembered." Tribune India News Service, November 16, 2022. <https://www.tribuneindia.com/news/nation/60-yrs-of-battle-of-walong-commemorated-451699>.

to India to stop the second Kashmir conflict. During the Third Pakistan-India War in 1971, India took a great time during which the U.S. was stuck in the Vietnam swamp and China and Russia had a war on the border.<sup>4</sup> Big powers were focused on their affairs. India got overwhelming military support from Russia and won the third Kashmir War, recaptured some parts of Kashmir, and encouraged Eastern Pakistan to be independent.<sup>5</sup> Bangladesh was established. As we moved into the 21st century, China and Pakistan made a series of agreements and contracts on bilateral trading and by 2005, China had become the biggest trading partner of Pakistan.<sup>6</sup> In 2003, the China-Pakistan Free Trade Agreement (CPFTA), a free trade agreement (FTA) between the People's Republic of China and the Islamic Republic of Pakistan, sought to increase trade and strengthen the partnership between the two countries. Later, as President Xi came into power, a series of new international strategies were going to be carried forward. Thanks to the BRI in 2013, the China-Pakistan Economic Corridor was created.<sup>7</sup>

### III. Economic Relations

China and Pakistan have deep economic relations, which can easily be termed as an imbalanced relationship with Pakistan's economy heavily dependent on the Chinese economy. More particularly, Pakistan's economic reliance on China has grown multifold in the last decade.

*China is the biggest creditor to Pakistan:* Due to structural imbalances in Pakistan's economy, resultantly lower levels, and depleting foreign exchange reserves, the borrowing needs of Pakistan have been on the higher end, historically. At the end of 2022, Pakistan's gross debt to GDP ratio stood at 77.2 percent.<sup>8</sup> According to State Bank of Pakistan data, Pakistan's total external debt was recorded at 38% of the total debt of the country, as of end-January 2022.

China has the largest share in Pakistan's total external debt, as 30 percent of Pakistan's external debt will be from China by the end of FY21, according to the IMF.<sup>9</sup> It is interesting to note here that outstanding external loans from China to Pakistan are even higher than outstanding loans from the IMF or World Bank to Pakistan. The latest development in this regard was witnessed in February 2023, when China agreed to provide loans worth \$700 million to Pakistan to battle its ongoing Balance of Payments crisis.<sup>10</sup> It is also worth highlighting that Pakistan has failed to successfully negotiate the release of installments as part of the Extended Funds Facility with the International Monetary Fund (IMF), and this

4 "Indo-Pakistani Wars and Conflicts," in Wikipedia, March 27, 2023, [https://en.wikipedia.org/w/index.php?title=Indo-Pakistani\\_wars\\_and\\_conflicts&oldid=1146790827](https://en.wikipedia.org/w/index.php?title=Indo-Pakistani_wars_and_conflicts&oldid=1146790827).

5 "Indo-Pakistani War of 1971," in Wikipedia, March 26, 2023, [https://en.wikipedia.org/w/index.php?title=Indo-Pakistani\\_War\\_of\\_1971&oldid=1146786831](https://en.wikipedia.org/w/index.php?title=Indo-Pakistani_War_of_1971&oldid=1146786831).

6 Madiha Afzal, "At All Costs": How Pakistan and China Control the Narrative on the China-Pakistan Economic Corridor," Brookings (blog), June 15, 2020, <https://www.brookings.edu/research/at-all-costs-how-pakistan-and-china-control-the-narrative-on-the-china-pakistan-economic-corridor/>.

7 "China Approves USD 1.3 Billion Rollover for Cash-Strapped Pakistan," The Economic Times, March 4, 2023, <https://economictimes.indiatimes.com/news/international/business/china-approves-usd-1-3-billion-rollover-for-cash-strapped-pakistan/articleshow/98409893.cms?from=mdr>.

8 World Economics. "Pakistan," n.d. <https://www.world-economics.com/grossdomesticproduct/debt-to-gdp-ratio/Pakistan.aspx>.

9 State Bank of Pakistan. "State Bank of Pakistan." Accessed March 22, 2023, [https://www.sbp.org.pk/ecodata/export\\_Receipts\\_by\\_all\\_Countries.pdf](https://www.sbp.org.pk/ecodata/export_Receipts_by_all_Countries.pdf).

10 Hawkins, Amy. "Pakistan's Fresh £580m Loan from China Intensifies Debt Burden Fears." The Guardian, February 23, 2023. <https://www.theguardian.com/world/2023/feb/23/pakistan-loan-china-intensifies-debt-burden-fears>.

stalemate with the IMF has brought Pakistan to near-term default. The provision of loans from China to Pakistan during the economic meltdown raised concerns in Western countries and the USA about the growing debt burden of Pakistan from China.<sup>11</sup>

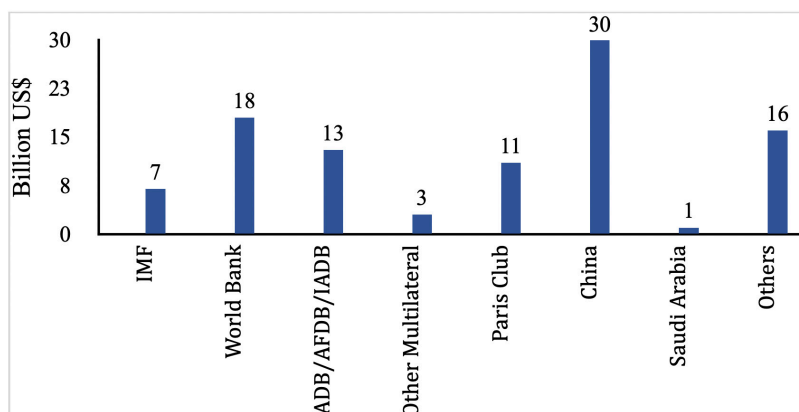


Figure 1: Decomposition of Pakistan's Public Debt at end of FY2020-21

*Pakistan has the highest trade deficit with China:* In terms of trade, for China, Pakistan is only a trading partner, however for Pakistan China is its second biggest export destination after the USA. According to the State Bank of Pakistan exported 18% of its total exports to China in FY22, according to State Bank Pakistan.<sup>12</sup>

Regarding imports, China is the biggest import source country for Pakistan. Pakistan imported 27% of its total import bill only from China, according to the State Bank of Pakistan.<sup>13</sup> Historical data shows that both imports and exports have steadily been growing since FY07 between China and Pakistan.

Pakistan relies heavily on Chinese imports to meet its domestic needs and support its industries. The nature of imports to Pakistan from China is mostly industrial and manufactured goods.<sup>14</sup> These products are crucial for the economy of Pakistan to support its domestic industries. Moreover, Chinese imports to Pakistan have also been increasing in high-tech products. This is dictated by the economic needs of Pakistan and reflects China's growing focus on the advancement of manufacturing and innovation. In 2021, the top Chinese imports to Pakistan were electrical, and electronic equipment, machinery, nuclear reactors, and distillation product.

<sup>11</sup> Ibid.

<sup>12</sup> State Bank of Pakistan. "State Bank of Pakistan." Accessed March 22, 2023. [https://www.sbp.org.pk/ecodata/export\\_Receipts\\_by\\_all\\_Countries.pdf](https://www.sbp.org.pk/ecodata/export_Receipts_by_all_Countries.pdf).

<sup>13</sup> State Bank of Pakistan. "State Bank of Pakistan." Accessed March 22, 2023. [https://www.sbp.org.pk/ecodata/import\\_Receipts\\_by\\_all\\_Countries.pdf](https://www.sbp.org.pk/ecodata/import_Receipts_by_all_Countries.pdf).

<sup>14</sup> "Pakistan Imports from China - 2023 Data 2024 Forecast 2009-2021 Historical," n.d. <https://tradingeconomics.com/pakistan/imports/china>.

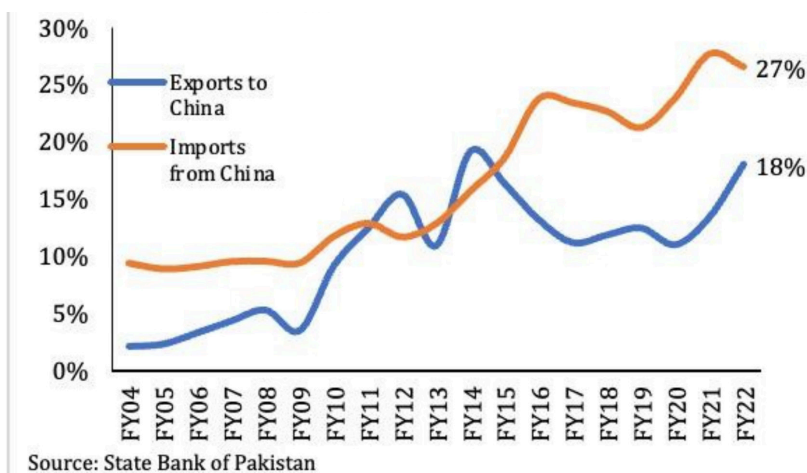


Figure 2: China has emerged as Pakistan's latest trading partner replacing the United States

In contrast to the nature of imports from China to Pakistan, Pakistan's exports to China are mainly dominated by raw materials and agricultural products.<sup>15</sup> This reflects Pakistan's comparative advantage in these sectors. China is the main buyer of cotton in the world and Pakistan is the main producer, so the top export from Pakistan to China is cotton. Similarly, Pakistan is rich in natural resources, and China imports minerals like copper and aluminum from Pakistan.

*Trade agreements between China and Pakistan:* China and Pakistan have signed several trade agreements to promote bilateral trade and investments. In 2003, the two countries signed a preferential trade agreement. This agreement was followed by another trade agreement called the 'Early Harvest Program' in 2006. This agreement granted zero-tariff treatment to 486 Chinese products in Pakistan, mainly vegetables, fruits, stone materials, textile machinery, and organic products. Meanwhile, China allowed zero-tariff treatment to 769 categories of goods imported from Pakistan, on a similar range of products as Chinese goods exported to Pakistan under this agreement.<sup>16</sup>

In 2005, to promote bilateral trade ties, a major trade agreement was introduced, called the 'China Pakistan Free Trade Agreement'. Under phase 1, both China and Pakistan agreed to phased elimination or reduction of Most Favored Nation (MFN) tariffs on 7550 tariff lines.<sup>17</sup> CPFTA phase 1 achieved its objective of increasing bilateral trade, however, growth in Pakistan's exports to China was outpaced by Pakistan's imports from China.<sup>18</sup> This resulted in a ballooning of Pakistan's trade deficit with China.<sup>19</sup> By 2018, Pakistan's trade deficit with China had already increased to 35 percent of Pakistan's total trade deficit.<sup>20</sup> Moreover, CPFTA Phase 1 was also widely criticized by business groups in Pakistan. The business community in Pakistan had reservations about granting

15 TRADING ECONOMICS. "Pakistan Exports to China - 2023 Data 2024 Forecast 2009-2021 Historical," n.d. <https://tradingeconomics.com/pakistan/exports/china>.

16 "China, Pakistan Sign 'Early Harvest' Agreement." Foreign Market Access Report, December 9, 2005. <http://www.china.org.cn/english/2005/Dec/151447.htm>.

17 Ibid.

18 Ibid.

19 Ibid.

20 Ibid.

access to Chinese goods which inundated the Pakistani market and made it tough for Pakistani businesses to compete against.<sup>21</sup>

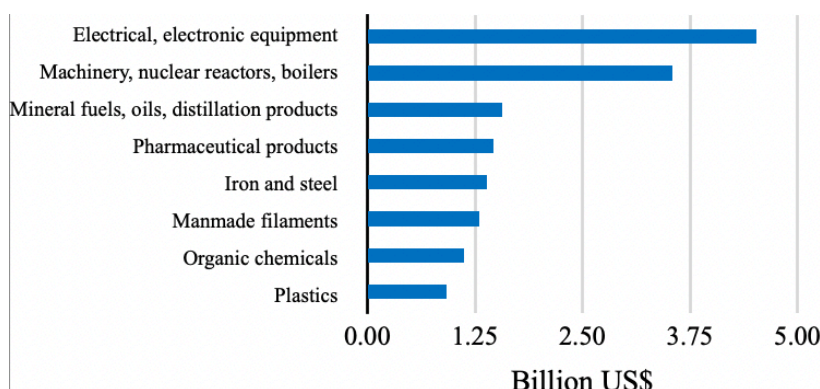


Figure 3 : Major Exports from China to Pakistan in 2021

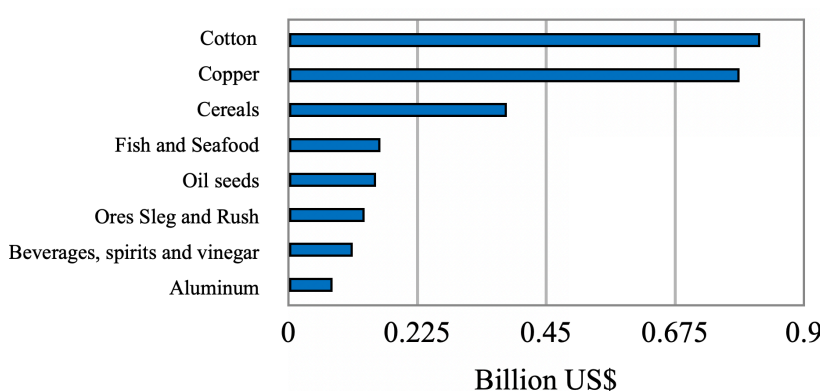


Figure 4 : Major Exports from Pakistan to China in 2021

As CPFTA Phase 1 disproportionately favored China, to address Pakistan’s ballooning trade deficit with China, CPFTA Phase 2 was introduced in 2019, and is expected to be in place till 2024. Phase 2 is expected to significantly improve Pakistan’s access to the Chinese import market and thus help Pakistan’s trade deficit reduce.<sup>22</sup> Tariff structures offered to Pakistan under Phase 2 seem to be markedly improvement from Phase 1.<sup>23</sup> Phase 2 has been described as a turning point in trade ties between China and Pakistan.

*Foreign Direct Investment (FDI) to Pakistan:* China has also been a dominant source of FDI in Pakistan.<sup>24</sup> According to the data by the State Bank of Pakistan, from FY16 to FY22, FDI from China to Pakistan has averaged around 32% of total FDI inflows to Pakistan. (Figure 5)

<sup>21</sup> Ibid.

<sup>22</sup> Ibid.

<sup>23</sup> Ibid.

<sup>24</sup> State Bank of Pakistan. “State Bank of Pakistan.” Accessed March 22,

2023. [https://www.sbp.org.pk/ecodata/import\\_Receipts\\_by\\_all\\_Countries.pdf](https://www.sbp.org.pk/ecodata/import_Receipts_by_all_Countries.pdf).

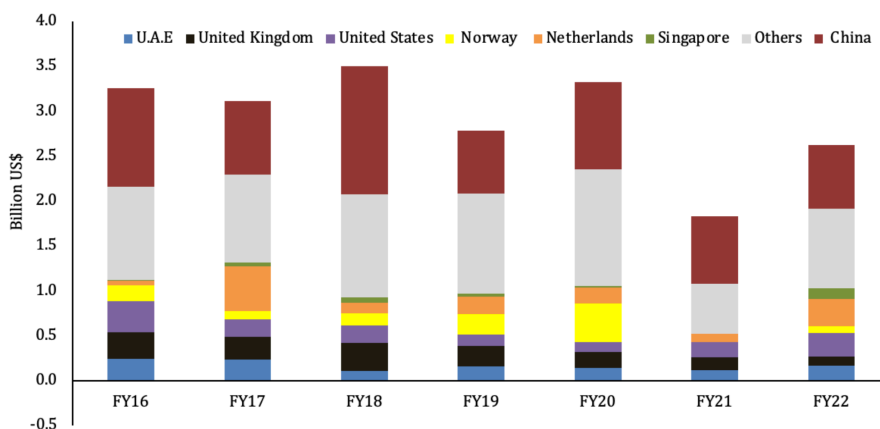


Figure 5: China has been a dominant source of FDI in Pakistan

## IV. Belt and Road Initiative

The Belt and Road Initiative (BRI) is a global infrastructure development strategy launched by the Chinese government in 2013.<sup>25</sup> The initiative aims to connect Asia, Europe, and Africa through a network of land-based and maritime economic corridors, with a focus on improving trade, investment, and infrastructure connectivity.<sup>26</sup> The BRI has been widely regarded as a significant strategic move by China to increase its global influence, as well as a platform for promoting economic development and cooperation among participating countries.<sup>27</sup> However, the initiative has also been criticized for potential debt risks, lack of transparency, and concerns over environmental and social impacts. According to a report by the World Bank, the BRI has the potential to boost economic growth and reduce poverty in participating countries, but its success will depend on ensuring sustainability and addressing potential risks and challenges.<sup>28</sup>

### BRI in Pakistan

In Pakistan, the China-Pakistan Economic Corridor (CPEC), a flagship project of the Belt and Road Initiative (BRI), is viewed as a game-changer for Pakistan's economy. The CPEC has the potential to address Pakistan's infrastructure deficiencies, create jobs, and accelerate economic growth.<sup>29</sup> However, the project is not without its challenges. Mardell notes that the CPEC is facing opposition from various groups, including local communities, environmentalists, and opposition parties.<sup>30</sup> One of the key concerns is the lack of transparency in the project's financing, which has led to concerns over the accumulation of unsustainable levels of debt.

<sup>25</sup> World Bank Group. "Belt and Road Economics: Opportunities and Risks of Transport Corridors." World Bank. World Bank Group, December 13, 2019. <https://www.worldbank.org/en/topic/regional-integration/publication/belt-and-road-economics-opportunities-and>

<sup>26</sup> Ibid.

<sup>27</sup> Ibid.

<sup>28</sup> Ibid.

<sup>29</sup> Mardell, Jacob. "The BRI in Pakistan: China's Flagship Economic Corridor." Merics, May 20, 2020. <https://merics.org/en/analysis/bri-pakistan-chinas-flagship-economic-corridor>

<sup>30</sup> Ibid.



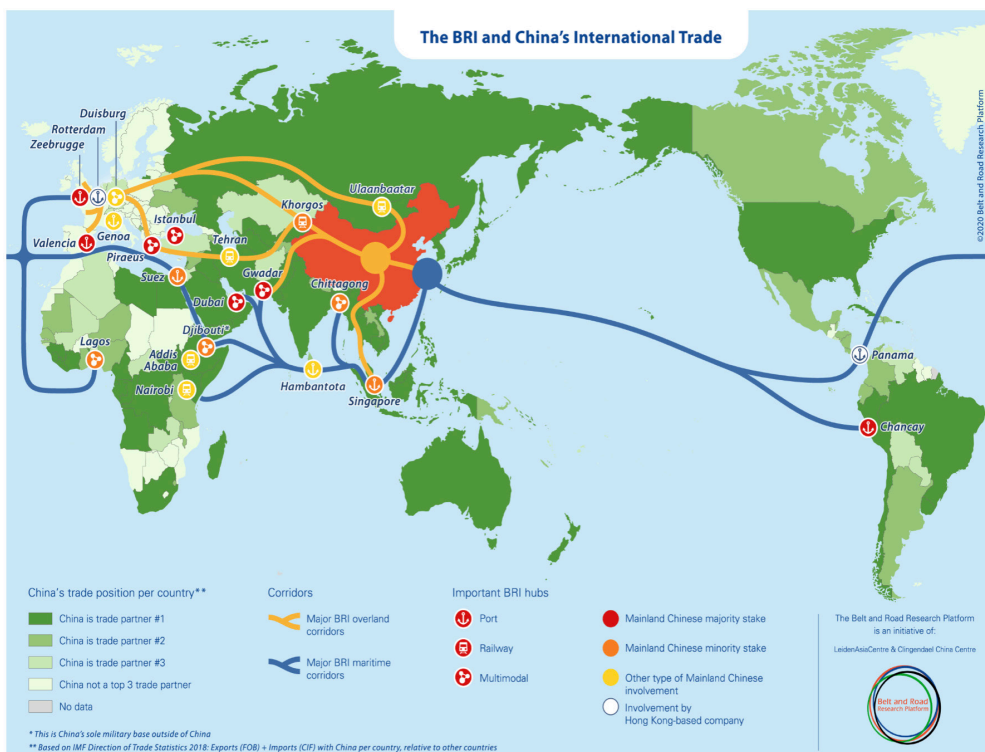


Figure 6: China's BRI plan

## Key Projects under CPEC:

### Gwadar Port

The development of Gwadar Port is one of the flagship projects of CPEC. It is an essential gateway connecting China to the Persian Gulf, and the strategic significance of Gwadar Port cannot be overstated. The ambitious CPEC projects are solely aimed at revolutionizing the connectivity between the China border and the Gwadar Port, thus bolstering trade and economic ties between the two nations. It is worth noting that the port is under the unwavering supervision of the Chinese administration, ensuring efficient and smooth operations that meet global standards. This project is a testament to the unwavering commitment of China and Pakistan toward enhancing regional development and progress.

### Energy Projects

CPEC includes several energy projects, including coal-fired power plants, hydroelectric dams, and wind farms. These projects aim to address Pakistan's chronic energy shortages. One of the key hydropower projects is the Karot Hydropower project in River Jhelum, which is expected to generate 720 MW of electricity.<sup>31</sup>

### Thar Coal Field

The project involves the extraction and utilization of coal reserves to generate electricity. It is expected to generate 3.8 million tons of coal per year, and the total cost of the project is around \$630 million.<sup>32</sup>

31 "Karot Hydropower Project, Pakistan." Power Technology, November 10, 2023, <https://power-technology.com/projects/karot-hydropower-project-jhelum-river/?cf-view>.

32 Ministry of Planning, Development & Special Initiatives 'P' block Pak-Secretariat. "Surface Mine in Block II of Thar Coal Field, 3.8 Million Tons/Year: China-Pakistan Economic Corridor (CPEC)"

## **Karakoram Highway**

The Karakoram Highway is a major road project under CPEC, connecting Pakistan with China through the Karakoram Mountain range. The project involves the construction of several tunnels, bridges, and other infrastructure. The Karakoram is open to much of the public, but foreign journalists are required to get Pakistani military permission to visit its far northern stretches.<sup>33</sup>

## **Optical Fiber Cable**

The Optical Fiber Cable project is aimed at improving Pakistan's telecommunications infrastructure. It involves the installation of a fiber-optic cable network that will provide high-speed internet connectivity across the country. The project is estimated to cover around 820 kms between Khunjab and Rawalpindi.<sup>34</sup>

## **BRI benefits**

The CPEC includes several projects such as the Gwadar Port and energy projects, which aim to provide a faster route to supply oil and other energy resources to China through Pakistan. This route not only provides a shorter distance for transportation but also avoids the Strait of Malacca, which can be a bottleneck for shipping. In addition, the CPEC also enhances regional security by providing economic benefits to Pakistan, which can reduce conflicts with neighboring India. By utilizing the CPEC, China can secure its energy needs while also promoting economic growth and stability in the region.

Pakistan is a crucial participant in the BRI, with several projects already underway, including the China-Pakistan Economic Corridor (CPEC). Infrastructure development projects under the CPEC, such as the construction of highways, railways, and ports, will improve transportation and logistics, leading to increased trade and economic growth in the region. This will create new job opportunities and help alleviate poverty, benefiting Pakistan's economy and people. Additionally, enhanced regional connectivity can promote stability and reduce the likelihood of conflict in the region. Overall, the BRI provides Pakistan with an opportunity to address its infrastructure deficiencies and promote economic growth while enhancing regional cooperation and connectivity.

## **Challenges with BRI in Pakistan**

The Belt and Road Initiative (BRI) is facing several challenges in Pakistan that could hinder the success of infrastructure development projects. One of the most significant challenges is security, as Pakistan faces a constant threat from terrorist organizations that could disrupt the implementation of BRI projects. Despite efforts to improve security measures, such as the establishment of a special security division for the CPEC, it was not enough to prevent a string of terrorist attacks.<sup>35</sup> The frequent changes in government in Pakistan have also created

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Authority Official Website." Surface mine in block II of Thar Coal field, 3.8 million tons/year | China-Pakistan Economic Corridor (CPEC) Authority Official Website. Accessed March 29, 2023. <https://cpec.gov.pk/project-details/4>.

33 Hadid, Diaa, and Abdul Sattar. "Life along Pakistan's Mountain Highway Where China Is Investing Billions of Dollars." NPR. NPR, December 14, 2019. <https://www.npr.org/2019/12/14/787220664/life-along-pakistans-mountain-highway-where-china-is-investing-billions-of-dollars>.

34 Ministry of Planning, Development & Special Initiatives 'P' block Pak-Secretariat. "Fiber Optic Project of CPEC: China-Pakistan Economic Corridor (CPEC) Authority Official Website." Fiber Optic Project of CPEC | China-Pakistan Economic Corridor (CPEC) Authority Official

35 "The China-Pakistan Economic Corridor-Hard Reality Greets Bri's Signature Initiative." Council on

political instability, leading to delays in the implementation of BRI projects. The projects may face problems running on time due to political instability, and this could impact their overall effectiveness. Another significant challenge for the BRI in Pakistan is the issue of the debt trap. Pakistan has already taken out billions of dollars in loans from China to fund various infrastructure development projects. The International Monetary Fund (IMF) warned that CPEC was contributing to a widening current-account deficit in Pakistan, as the country imported billions of dollars of materials for the projects.<sup>36</sup> There are also concerns that once the projects are handed over to Pakistan, the country may not have the capacity to maintain them effectively. This could impact the sustainability and long-term success of the BRI in Pakistan. Therefore, it is essential to address these challenges to ensure the success of the BRI in Pakistan, including enhancing security measures, promoting political stability, addressing debt sustainability, and building capacity to maintain and operate infrastructure projects.

## V. Military Relations

China and Pakistan have historically valued one another as a strategic hedge against India. “For China, Pakistan is a low-cost secondary deterrent to India,” Pakistani ambassador to the United States Husain Haqqani told CFR.org in 2006. “For Pakistan,” he said, “China is a high-value guarantor of security against India.”<sup>37</sup> Both China and Pakistan invest heavily in their military capabilities. According to theglobeconomy.com, China was the second largest military spender in the world with an expenditure of \$291.96 billion in 2022.<sup>38</sup> Pakistan ranked 23rd in terms of dollar spending, however, it ranked 13th in terms of military expenditure in percent GDP. In 2021, (Pakistan’s) military spending was 3.89% of GDP, surpassing both China’s 1.6% GDP and the United States’ 3.45% GDP military expenditures.<sup>39</sup>

### 1. Weapon supply

According to the report “Trends in International Arms Transfer, 2017,” Pakistan imported fewer weapons from the United States. Weapon imports to Pakistan, from the US, had dropped by 76 percent over the past five years.<sup>40</sup> Even so, the country did not significantly reduce its overall weapons purchases. Pakistan was among the biggest importers of major arms in Asia and Oceania from 2016-2020, ranking as the 5th largest arms importer in the world.

China has been a major supplier of weapons and military equipment to Pakistan, with the relationship dating back to the 1960s when China first began providing the nation with weapons.<sup>41</sup> According to the Stockholm Peace International Research Institute (SIPRI), China accounted for 73 percent of the

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Foreign Relations. Council on Foreign Relations. Accessed March 29, 2023.

<https://www.cfr.org/blog/china-pakistan-economic-corridor-hard-reality-greets-bris-signature-initiative>.

36 Ibid.

37 Afridi, Jamal, and Jayshree Bajoria. “China-Pakistan Relations.” Council on Foreign Relations, July 10, 2010. <https://www.cfr.org/backgrounder/china-pakistan-relations>.

38 “Military Spending by Country, around the World,” TheGlobalEconomy.com, accessed March 27, 2023, [https://www.theglobeconomy.com/rankings/mil\\_spend/](https://www.theglobeconomy.com/rankings/mil_spend/).

39 “Military Spending, Percent of GDP by Country, around the World,” TheGlobalEconomy.com, accessed March 27, 2023, [https://www.theglobeconomy.com/rankings/mil\\_spend\\_gdp/](https://www.theglobeconomy.com/rankings/mil_spend_gdp/).

40 Nukhbat Malik and Muhammad Ishtiaq, “China Outpaces US in Arms Supply to Pakistan,” VOA, March 13, 2018, <https://www.voanews.com/a/china-outpaces-us-arms-supply-pakistan/4297350.html>.

41 Afridi, Jamal, and Jayshree Bajoria. “China-Pakistan Relations.” Council on Foreign Relations, July 10, 2010. <https://www.cfr.org/backgrounder/china-pakistan-relations>.

total arms imports to Pakistan between 2015 and 2019, with Russia (6.6%) and Italy (6.1%) second and third on the list.<sup>42</sup>

For China, Pakistan has been a primary arm recipient since 1991. Beyond this, China has also exported to several Asian countries such as Bangladesh and Myanmar, and has developed closer relations with many African countries, accounting for 19.1 percent of China's total exports between 2010 and 2020.<sup>43</sup> According to SIPRI, between 2019 and 2023, 38 percent of China's total arms exports went to Pakistan, 17 percent to Bangladesh, and 8.2 percent to Algeria. The number of countries China exports also increased during this time, rising from 40 countries during the five years between 2010 and 2014 to 53 countries between 2015 and 2019.<sup>44</sup> On the other hand, weapon imports from China accounted for 74 percent of all imports for Pakistan, showing the strong reliance Pakistan has on China.<sup>45</sup>

The armed forces of Pakistan have commissioned many advanced weapon systems and equipment of Chinese origin. These requisitions include the VT4 main battle tank, the SH-15 self-propelled howitzer, the Type 054A/P frigate, the JF-17 fighter jet, the J-10C fighter jet, and the ZDK-03 early warning aircraft, according to official announcements and media reports.<sup>46</sup> In 2022 alone, Pakistan added at least 50 new JF-17 fighters, developed jointly with China.<sup>47</sup> From 2022 to 2028, China is expected to deliver eight conventional submarines to Pakistan. The two countries have also jointly produced JF-17 fighter jets, anti-tank missiles, portable surface-to-air missiles, missile boats, and tanks, among other military weapons.<sup>48</sup>

## 2. Intelligence Sharing

China assists in building Pakistan's military capabilities in various forms, including through the provision of nuclear technology and conducting joint military exercises. In the late 1970s, China's assistance in Pakistan's civil nuclear energy program began in earnest. Since then, China has been instrumental in Pakistan's nuclear and missile program development. China provided Pakistan with highly enriched uranium, ring magnets necessary for processing the uranium, and education for nuclear engineers. Pakistan's nuclear bomb is widely believed to be based on Chinese blueprints. In 1990 and 1992, China provided Pakistan with nuclear-capable M-11 missiles that have a range of 186 miles. China reportedly has provided the technology for Pakistan to build a missile that could strike targets within a 360-mile range.<sup>49</sup>

42 Kabir, Usman. "Pakistan 11th Largest Arms Importer in the World, Claims Research Institute." Geo.tv: Latest News Breaking Pakistan, World, Live Videos, March 9, 2020. <https://www.geo.tv/latest/276369-pakistan-11th-largest-arms-importer-in-the-world-claims-sipri>.

43 Xue, Maryann. "How China Grew from Buyer to Major Arms Trade Player." South China Morning Post, July 4, 2021. <https://www.scmp.com/news/china/military/article/3139603/how-china-grew-buyer-major-arms-trade-player>.

44 Ibid.

45 "Arms Imports (SIPRI Trend Indicator Values) - Pakistan." World Bank Open Data. Accessed May 7, 2024. [https://data.worldbank.org/indicator/MS.MIL.MPRT.KD?locations=PK&most\\_recent\\_value\\_desc=true](https://data.worldbank.org/indicator/MS.MIL.MPRT.KD?locations=PK&most_recent_value_desc=true).

46 Xuanzun, Liu. "China Displays Advanced Weapons, Equipment at Pakistani Defense Expo." Global Times, November 16, 2022. <https://www.globaltimes.cn/page/202211/1279689.shtml>.

47 "China to Ramp up Arms Export to Pakistan." Tribune India News Service, March 24, 2022. <https://www.tribuneindia.com/news/world/china-to-ramp-up-arms-export-to-pakistan-380368>.

48 Xue, Maryann. "How China Grew from Buyer to Major Arms Trade Player." South China Morning Post, July 4, 2021. <https://www.scmp.com/news/china/military/article/3139603/how-china-grew-buyer-major-arms-trade-player>.

49 Dori, John, and Richard Fisher. "The Strategic Implications of China's Nuclear Aid to Pakistan."

Cooperation in the field of joint exercises and mutual training has been strengthened. The Army's Warrior Exercises, Air Force's Shaheen Exercises, and Navy's Sea Guardians Exercises are becoming increasingly institutionalized. In 2022, a delegation from Pakistan comprised of senior military officials from all three services visited China from June 9 to 12 as part of the meeting of the Pakistan-China Joint Military Cooperation Committee (PCJMCC). According to ISPR, "Both sides discussed their perspectives on the international and regional security situation and expressed satisfaction on defense cooperation between the two countries".<sup>50</sup>

The Aman multinational maritime exercises also provide an important platform for Pakistan and China to carry out multilateral military cooperation.<sup>51</sup> The Pakistan Navy planned to host the AMAN-23 multinational maritime exercise in February 2023, with the Chinese People's Liberation Army (PLA) Navy--having taken part in previous editions--again expected to participate. China and Pakistan have been maintaining close naval and maritime exchanges and cooperation in recent years, including joint drills, enhanced by Pakistan's procurement of four advanced Type 054A/P frigates from China.<sup>52</sup>

In 2020-21 China participated in a joint naval exercise with Pakistan and supplied strike capable Caihong and Wing Loong Unmanned Aircraft Systems to Pakistan. The Caihong and Wing Loong are spy vehicles, which Pakistan has been employing against India in the border region of Jammu. Pakistani drones are deployed to drop arms, ammunition, drugs, Indian currency, and anti-India propaganda literature.<sup>53</sup>

### 3. Counter-terrorism Support

The China-Pakistan Joint Anti-Terrorism Cooperation Committee was established in 2014 to facilitate cooperation and information sharing between the two countries on counter-terrorism issues. Together, they have conducted joint operations to eliminate terrorist threats. In 2018, China and Pakistan held a joint military exercise near the border between Pakistan and Afghanistan aimed at enhancing their counter-terrorism capabilities. The exercise involved the deployment of troops, tanks, and aircraft, and was seen as a demonstration of the two countries' commitment to working together to address shared security concerns. They have also coordinated their efforts to combat cross-border terrorism, particularly along the China-Pakistan Economic Corridor (CPEC).<sup>54</sup>

In the case of the conflict between Pakistan and Afghanistan, China has provided diplomatic support to Pakistan. For example, China has facilitated

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The Heritage Foundation, June 16, 1998. <https://www.heritage.org/asia/report/the-strategic-implications-chinas-nuclear-aid-pakistan>.

50 Tahama Asad, "Overview of Pakistan-China Military Cooperation," Global Village Space, August 3, 2022, <https://www.globalvillagespace.com/overview-of-pakistan-china-military-cooperation/>.

51 "Backbone of Pakistan-China Longstanding Friendship: Close Military Cooperation between Pakistan and China in the New Era." Hilal Publications, August 2022. <https://hilal.gov.pk/view-article.php?i=6459#:~:text=The%20military%20cooperation%20between%20Pakistan,has%20entered%20a%20new%20era>.

52 Xuanzun, Liu. "China-Pakistan Joint Drills Strengthen Ties, Enhance Interoperability between the Two Navies: Pakistani Naval Chief." Edited by Chen Zhou, China Military, January 1, 2023. [http://eng.chinamil.com.cn/WORLD\\_209198/WorldMilitaryAnalysis/16199290.html](http://eng.chinamil.com.cn/WORLD_209198/WorldMilitaryAnalysis/16199290.html).

53 K. N. Pandita, "China 'Bets Big' On Pakistan To Achieve Its Military & Political Goals Under National Rejuvenation Objective - US Report," Latest Asian, Middle-East, EurAsian, Indian News, January 27, 2023, <https://eurasianimes.com/china-banks-on-pakistan-to-achieve-its-military-political-goals/>.

54 Wolf, Siegfried O. "Pakistan and Terrorism: China-Pakistan Economic Corridor as Critical Juncture?" E-International Relations, May 11, 2016. <https://www.e-ir.info/2016/05/11/pakistan-and-terrorism-china-pakistan-economic-corridor-as-critical-juncture/>.

peace talks between the Afghan government and the Taliban, to reduce the violence and instability in Afghanistan that has spilled over into Pakistan. In 2018, China also played a key role in helping to broker a ceasefire between the Afghan government and the Taliban during the Eid al-Fitr holiday.<sup>55</sup>

The Pakistan-China relationship has been regarded as an ‘all-weather’ friendship, though it is primarily limited to inter-governmental contact with selected people-to-people interactions. A sustained relationship between Pakistan and China requires a mutual understanding of cultures, traditions, and languages, which can take place only through robust people-to-people contact. The number of Chinese tourists in Pakistan does not exceed beyond a few thousand in any given year. Even during relatively peaceful decades of Pakistani history, the number of Chinese visiting Pakistan has been fewer than the European and American visitors.<sup>56</sup>

Nevertheless, cultural exchange between Pakistani and Chinese citizens increased after the launch of CPEC. China has sent Pakistan state-owned PTV and other commercial television channels a series of documentaries, dramas, and another television programming for free.<sup>57</sup> China is boosting its Mandarin teaching through state-backed language and culture organizations called Confucius Institutes – of which, Pakistan is home to four with two more Confucius resource centers that have opened – and spreading exposure to its arts and narrative media in a bid to engage everyday Pakistanis. Chinese language classes are also becoming more common in Pakistan as students and professionals seek to learn Mandarin to take advantage of new opportunities in China.

The year 2023 is being designated as the Pakistan-China Year of Tourism Exchanges, numerous tourism-related activities will be happening between the two neighbors. The Managing Director of Pakistan Tourism Development Corporation (PTDC) said “We will hold a Gandhara Buddhist heritage exhibition in Beijing very soon. There is a plan to send our cultural delegations of youth and tourism professionals to China and obviously, we welcome delegations from China also coming to Pakistan in promoting Chinese culture in Pakistan and vice versa.”) The PTDC plans to continue coordinating with other departments to strengthen cultural and tourism exchanges and promote people-to-people contact between the two countries.<sup>58</sup>

## **VI. Impact of China-Pakistan Relations**

### **China-Pakistan Relations’ Influence in the Middle East**

On March 10th, 2023, with the great help of China, Saudi Arabia and Iran restored their relations, indicating that the overall economic connection, from the

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55 Ramachandran, Sudha. “Is China Bringing Peace to Afghanistan?” – The Diplomat, June 20, 2018. <https://thediplomat.com/2018/06/is-china-bringing-peace-to-afghanistan/>.

56 Tarar, Nadeem Omar. “Cementing the Friendship Bond: Pak-China Cultural Ties.” Hilal Publications, October 2015. <https://hilal.gov.pk/view-article.php?i=1083>.

57 Nadeem, Mehr. “China Boosts Soft Power in Pakistan via Film and Social Media.” Reuters, September 11, 2019. <https://www.reuters.com/article/us-china-silkroad-pakistan-softpower/china-boosts-soft-power-in-pakistan-via-film-and-social-media-idUSKCN1VW0LJ>.

58 Chang Chen and Martini Tan Kailong, “Pakistan-China Year of Tourism to Greatly Boost Tourism Cooperation, Says Pakistani Official,” IChongqing (blog), January 5, 2023, <https://www.ichongqing.info/2023/01/05/pakistan-china-year-of-tourism-to-greatly-boost-tourism-cooperation-says-pakistani-official-2/>.



Middle East through Pakistan to China has been most activated. This is seen as a great diplomatic win for Beijing, said CNBC, though it has drawn wide concern from U.S. officials worried about China's influence in the Middle East.<sup>59</sup>

### **China-Pakistan Relations' Impact on the U.S.**

The impact of China-Pakistan relations upon the U.S. isn't significant. Since 2001, Israel & Egypt have been the long-term stronghold allies for the U.S. in the region, collectively accounting for 3/4 percent of the overall military trade with the U.S. In this respect, the U.S. still holds a far bigger military footprint than China in this region.<sup>60</sup>

### **China-Pakistan Relations' relations' Impact on India**

Conversely, the impact of China-Pakistan relations on India is critical. Since India has been holding the resolution of recapturing Kashmir over the past decades, the fact that China's BRI route, as well as Pakistan's actual control over the same region, can easily instigate nationwide hatred towards both China and Pakistan.<sup>61</sup> Moreover, although China insists that the BRI is a means of expanding the international economy, the road nevertheless helps its military and political influence radiate from the route itself.<sup>62</sup> In the near future, India will receive a great challenge from China when it comes to South Asia international affairs. Correspondingly, India's grand plan of becoming the sixth great power in the world will likely be achieved.

## **VII. Conclusion**

This paper investigates the nature of the China-Pakistan relationship and explores the question of whether friendship with China is beneficial for Pakistan. Our analysis shows that the relationship has been fruitful for Pakistan in many ways, particularly in terms of deepening economic ties through the China-Pakistan Economic Corridor (CPEC) project. However, while the CPEC has brought much-needed investment to Pakistan, the country has not been able to gain significant revenue from the projects, and concerns have been raised about Pakistan's ability to repay the loans from China.

Furthermore, our research indicates that China has not directly helped Pakistan militarily, despite their "all-weather" friendship. As a result, it may be time for Pakistan to rethink its relationship with China and consider ways to improve its domestic economy and become more self-reliant.

In conclusion, the China-Pakistan relationship has both benefits and drawbacks for Pakistan. While the friendship has brought significant economic benefits, Pakistan must carefully evaluate its relationship with China and pursue a more sustainable and independent economic policy. This will require a delicate

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59 Wintour, Patrick. "Iran and Saudi Arabia Agree to Restore Ties after China-Brokered Talks." *The Guardian*, March 10, 2023. <https://www.theguardian.com/world/2023/mar/10/iran-saudi-arabia-agree-restore-ties-china-talks>.

60 Peter Baker, "Chinese-Brokered Deal Upends Mideast Diplomacy and Challenges U.S.," *The New York Times*, March 11, 2023, sec. U.S., <https://www.nytimes.com/2023/03/11/us/politics/saudi-arabia-iran-china-biden.html>.

61 "On China's Belt and Road, How Jaishankar Reiterated India's Longstanding, Consistent Position." *The Indian Express*, November 2, 2022. <https://indianexpress.com/article/explained/china-belt-and-road-initiative-india-position-explained-8244276/>.

62 McBride, James, Noah Berman, and Andrew Chatzky. "China's Massive Belt and Road Initiative." *Council on Foreign Relations*, February 2, 2023. <https://www.cfr.org/backgrounder/chinas-massive-belt-and-road-initiative>.

balance between maintaining strong ties with China and seeking alternative approaches for more independent development. Ultimately, this decision about how to proceed with the China-Pakistan relationship will be crucial for Pakistan's long-term economic and strategic interests.

# Don't Trust Anyone Over Thirty-Four: Age-Based Changes in Economic Expectations Across Time and Space in the U.S.

Nicholas Rogness

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## Abstract

Generational conflict between younger and older generations in the United States (U.S.) and other developed countries reflects a symptom of age-based changes in economic expectations. In 1980, young people in most U.S. counties could afford rental housing as a proportion of wage income (considered “affordable” when rents do not exceed 30% of income). In 2021, very few regions of the country could be considered affordable for young people. Using Geographic Information System (GIS) software, I present shifts in job shares, education, workforce dynamics, and other measures of economic well-being for young people in the U.S. across time and space. I used these visuals to inform a multivariate regression analysis for the year 2021 using old-young relative labor measures similar to those in Rogness (2017) (those ages 55-64 being used as “old” and those ages 25-34 being used as “young”). I find empirical evidence for the following, evaluated at the MSA level: 1) cohort size for young people does not contribute to relative inequality in labor outcomes compared to older workers; 2)

relative shares in job or occupation type can contribute to inequality in old-young labor outcomes in limited instances, such as in abstract, problem-solving occupations or manual ones. Race/ethnicity also appears to play a role; however, this is only in geographic areas with higher relative White or Asian shares of older people.

**Keywords:** spatial economics, regional economics, geographic information systems, labor economics, age-based changes in economic expectations (ABCEE)

## I. Introduction

A sense of economic pessimism among younger generations in the U.S.—both observed and perceived—continues to permeate public discourse. The resulting resentment towards older, perhaps more fortunate generations started with manifestations of Internet culture in the 2010s (see examples in the “old economy Steve” meme, or sale of “OK Boomer” t-shirts).<sup>1</sup> Some quantitative analysis during this period spoke to potential sources of discontent. Fry et al. (2011) summarized “the growing gap in economic well-being” as differences in wealth, income, poverty, and employment by age group. A recent social media video on economics concluded that “young generations are now poorer than their parents”, which is attributed primarily to shifting housing markets, relative political power, and the role of public policy.<sup>2</sup> This paper will refer to these shifts as age-based changes in economic expectations (ABCEE). This constitutes a broader definition of the “age-based wage inequality” phenomenon studied in Rogness (2017).

For the rest of this paper, I build on the existing research on ABCEE by analyzing the geospatial dimension of age-based changes in economic expectations and by using geospatial analysis to test other potential contributors to ABCEE. This paper will also compare these findings to those of previous research.

## II. Methodology

Both of this paper’s chosen dimensions of analysis rely on individual data from the American Communities Survey. The first dataset used for the geospatial analysis was collected from survey years 1980, 1990, 2000, 2011, and 2021. Unlike the second dataset, only survey responses for those considered young—ages 25 to 34—were included with variables related to work status, education, wages, and rent costs. The data were aggregated by year and county and were joined to shapefiles for U.S. counties in GIS software.

The second data set—for multivariate regression analysis—was only collected for 2021. Similar to Rogness (2017), I calculated summary statistics by “young” and “old”—that is, comparing aggregated results for survey respondents aged 25-34 versus those aged 55-64. In an approach informed by common practices in urban and regional economic development, I aggregated these results by MSAs.<sup>3</sup> The ratio of o (old variable) over y (young variable) was used to build various old-young relative measures.

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1 (Weissmann, 2013); (Ok boomer and the ‘generation war’, 2019)

2 [Economics Explained], 2022

3 This unit of study from the U.S. Office of Management and Budget is “a region consisting of a large urban core together with surrounding communities that have a high degree of economic and social integration with the urban core.” (Ruggles et al., 2023)

It should be noted that some aggregated statistics were computed differently depending on the denominator being used (for both datasets). For education, race/ethnicity, and rent cost, the total number of respondents in the relevant age pool was used. For wages, number of hours worked, unemployment rates, labor force participation rates, and occupation type, all people in the labor force (either working or seeking work) were included with slight variations in methodology between datasets. All aggregated results were weighted by factors attributed to each respondent.

### **III. Related Works Review**

#### **Autor and Dorn (2009)**

A summary of previous research literature related to this work would help to understand this paper's scientific approach. Autor and Dorn (2009) examines the role of "occupational age structure" in changing job opportunities. These changes in job opportunities consist of a well-documented "polarization" of the labor market in which employment shares in high and low-earning occupations are growing while shares in "middle-class" occupations are shrinking. Their research concludes that older workers displaced by the loss of mid-wage, routine-intensive jobs (such as clerical, accounting, and repetitive physical motion work) were more likely than younger workers to find new employment in manual jobs (such as food service, transportation, and construction work). As a result, it is argued that older workers had relatively worse job outcomes and expectations.

#### **Rogness (2017)**

My previous research in Rogness (2017) took this implication of disadvantaged older workers to task. It presented a growing advantage of 25% in hourly wages for older workers relative to younger workers between 1976 and 2015. I attributed the strongest potential contributors to this trend to generational shifts, especially the rapid rise in college attainment by cohorts born in the 1930s-1940s. I submitted evidence of strong statistical significance for the size of younger cohorts using panel data pooled by individual U.S. states for each given year of analysis. In short, I found a positive relationship with young cohort size, suggesting that stretched public higher education resources could explain a significant piece of the age-based inequality puzzle. However, later reflection made these initial conclusions unsatisfactory. I thought back to Autor and Dorn's focus on occupation types and figured they must play a role in understanding ABCEE; I tried to accomplish this in Rogness (2017) but failed to develop adequate heuristics. My previous analyses' reliance on extensive panel data proved too complicated for me to include more precise variables. A geospatial approach similar to the one undertaken by Chetty et al. (2014) seemed to map a breakthrough.

#### **Chetty et al. (2014)**

These researchers focused on understanding the variance in intergenerational socioeconomic mobility across the U.S. Their work counts among the minority of economics papers that incorporated GIS in their analysis; therefore, I thought back to it when undertaking this project. I wished to imitate some version of their commuting zones (CZs) approach as this unit of analysis is more helpful for understanding how individuals are socially and economically tied to a particular geographic area (compared to zip codes, counties, or states, whose boundaries mainly exist for political and administrative purposes). I settled on an

approach for the later multivariate regression analysis using MSAs, which, unlike CZs, do not usually include rural areas. However, my chosen MSAs seemed to be a more sensible geographic unit of analysis while being readily accessible.

## IV. Findings and Discussion on Geospatial Analysis

I compiled a myriad of statistics related to young people and workers at the county level from 1980-2021.<sup>4</sup> Three of the topline measures related to work-force dynamics are included in Figures 1a-e through 3a-e. The figures display labor force participation rates, average hourly wage rates, and a ratio of average monthly rent over average hourly wages. Each of these sets of maps exhibits different trends across time and space.

In this analysis, labor force participation rates started in 1980 with an apparent divide in outcomes for young people living in metropolitan counties versus those in non-metro counties (Figure 1a). The variance is generally low, however, with most counties hovering between participation rates of 75-85%. Very few counties had participation rates below 70%. Most large cities scored high marks at this time—many cities in the formerly Industrial Midwest (what many refer to as the “Rust Belt,” including cities such as Detroit, Cleveland, and Pittsburgh) are the exception to this trend. Over time, rates for metro/non-metro counties (or urban/rural settings) both show improvement. By 2021, most counties in and around major U.S. cities have participation rates exceeding 80-85% (Figure 1e). Rates have also converged around Rust Belt cities, perhaps reflecting a new equilibrium in labor supply and demand markets after decades of declining population in these areas. Non-metro counties, while still demonstrating higher rates than those in 1980, are still lower than their metro peers in 2021. This deficiency suggests a gap in employment opportunities, reflecting a higher proportion of young people in rural areas choosing not to work at the beginning of their prime working years. Still, most young people across the U.S. seem to be engaging with work.

While labor force participation rates have improved for young people across almost all parts of the country, it should be asked what quality and types of jobs this group is pursuing. One measure of job quality concerns average hourly wage rates.<sup>5</sup> In 1980, these amounts were higher for young people living in and around cities across the Northeast, Midwest, and the West Coast (Washington, Oregon, and California). A marked change occurred in the Southeast region of the country from 1980-2021, with a broad range of cities such as Houston, Charlotte, Miami, and Atlanta offering higher wages compared to those found in nearby non-metro counties. As a symptom of the urban-rural divide, many Southeast cities became reflective of this trend for young people.

It is generally expected today that jobs in urban areas will offer higher pay than jobs in rural areas to offset higher costs of living. In consideration of this, it is important to consider a measure that controls wages for local housing costs. Fortunately, the American Communities Survey (ACS) collects survey data on monthly gross rent costs.<sup>6</sup> Gross rent costs are a particularly relevant metric

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<sup>4</sup> I would have preferred to aggregate this data by MSA; however, the time series nature of the data makes it difficult to attribute statistics to geographic areas that have a significant portion of their boundaries in a given year.

<sup>5</sup> This was calculated by taking individual annual wage income, dividing by the number of hours worked in the last year, and aggregating the result by a weighted average.

<sup>6</sup> Gross rent costs include utility costs. Ruggles et al., 2023.



to today's youth, as 65% of households headed by an individual under age 35 are rented.<sup>7</sup> The ACS data is used to create a ratio of monthly rent to wage. A county with a ratio higher than 0.3 indicates that the average young person in that area is rent-burdened, as housing is generally considered affordable "when it consumes no more than 30% of a household's income."<sup>8</sup> Trends in the rent/wage ratio are displayed in Figures 3a-e. A county is considered to have "unaffordable" housing for young people when it shows orange or red (a rent/wage ratio of 30-35% or >35%). According to this metric, only a few counties in California and Florida were unaffordable in 1980, but the following decades have illustrated a dramatic trend. By 2021, most regions of the country can be considered unaffordable, with the Industrial Midwest/Rust Belt regions being the exception. For young people, the only cities with options for affordable housing as of 2021 are in the following areas: Western Pennsylvania, upstate New York, Ohio, Michigan, Indiana, and Wisconsin, or rural, non-metro counties.

There are many other relevant statistics on educational attainment and its connections to the kinds of jobs being secured by young Americans over time and space. However, this paper would become too cumbersome to include them all here. Included in the works cited page is a link to an ArcGIS StoryMap that contains more extensive analysis for the reader to review at their leisure.<sup>9</sup> A dashboard is also available for viewing the compiled statistics at the county level for the survey year 2021—this serves as another avenue to visualize the data in an appealing manner to a broader audience.<sup>10</sup>

## V. Findings and Discussion on Multivariate Regression Analysis

The curiosity for a geospatial approach to descriptive statistics undertaken in the previous section spread to potential causal applications. This seemed a logical extension to Rogness (2017) insofar as ideas for well-structured regression models were concerned. However, this paper assesses that a different unit of analysis may reveal other plausible contributors to ABCEE. Borrowing from old-young relative measures in Rogness (2017), the idea of commuting zones used in Chetty et al. (2014), and best practices in urban and regional economic development, this study hypothesizes the following model:

$$Y_i = \alpha + \beta_1 x_i + \beta_2 x_i + \dots \beta_n x_i + \epsilon_i$$

Where  $Y_i$  is the old-young relative wage bill<sup>11</sup> for each metro area in 2021,  $i$  represents each metro area for each variable, and each beta coefficient represents a parameter estimate of the effect of each independent variable on the old-young relative wage bill. Each  $x$  represents each variable used across the different models.

With the general framework for potential regression models, this paper considers which independent variables to use and how to use them across different models. The first set of models tests the potential effects of differential

<sup>7</sup> Craft, 2023

<sup>8</sup> (What is Affordable Housing?)

<sup>9</sup> Rogness, Age-Based Changes in Economic Expectations (2023a)

<sup>10</sup> Dashboard available at <https://www.arcgis.com/apps/dashboards/6c480dadcd714239983c707765684793>

<sup>11</sup> This is an adaptation of the relative wage bill found in Rogness (2017). Instead of dealing in logarithms this time, I simply calculated old worker labor supply (weighted sum of all hours worked in the survey year) times old worker median hourly wages over young worker labor supply times young worker median hourly wages.

shares of older and younger workers in abstract and manual occupations (using designations informed by Autor and Dorn (2009)).<sup>12</sup> These results are contained in Table 1. In models 2 and 3, the log size of the young group in each MSA is included (testing Rogness (2017)’s strongest independent variable). Models 3 and 4 include differential shares of various racial/ethnic groups simply to assess if equitable economic outcomes differ across age groups. The results suggest the following:

1. Higher relative shares of older workers in abstract, problem-solving occupations contribute to more unequal labor outcomes (for every 1% increase in relative share in Model 1, wage bill inequality increases by 0.95%).
2. Higher relative shares of older workers in manual occupations contribute to more equal labor outcomes (every 1% increase in relative share in Model 1 decreases wage bill inequality by 0.77%).
3. Local differences in unemployment rates have a significant equalizing effect, as expected. However, MSAs with higher relative rates of older worker unemployment may be a bad sign for all workers as opposed to a windfall for younger workers.
4. The younger people’s group size has a significant effect on the relative wage bill, though in a contrarily negative fashion to the results of Rogness (2017). This may have to do with the cross-sectional aspect of this study’s data (only from one year) as opposed to the multiyear panel data of Rogness (2017).
5. Higher relative shares of certain racial/ethnic groups contribute positively to wage bill inequality. This trend is exhibited most strongly for MSAs with higher relative shares of older white people. This can be seen across the other two following sets of models.

The second set of models (Table 2) measures the effects of relative educational attainment across age groups in relation to the relative wage bill. I expected bachelor’s degrees to have a significant positive effect on old-young inequality and high school diplomas to have a negative one, as the two might be comparable to the observed divergence between abstract and manual occupations. In fact, a higher concentration of older people in MSAs contributes to inequality in *both* cases of bachelor’s degree and high school diploma achievers. Local relative unemployment, young people group size, and relative shares of Whites also remain statistically significant; in model 2, higher shares of older Asians are also associated with higher inequality.

The third set of models (Table 3) dives deeper into the role of different occupation types held by younger versus older workers. To prepare this analysis, the ACS’s 1990 categorization of occupations was split into six groups: service jobs, mechanical and repair jobs, operator and laborer jobs, managerial and professional services jobs, high-technology Science, Technology, Engineering, and Mathematics (STEM) jobs, specialty jobs, and sales and administration jobs. A breakdown of these occupation codes assigned to their respective categories can be found in the Data Appendix. Relative unemployment, young group size, and relative shares of Whites and Asians all maintain similar estimated effects as

<sup>12</sup> I assigned the labels for individuals with abstract and/or manual jobs as follows: using Autor and Dorn (2009)’s replication data, I designated occupations with Task Abstract scores at or above its median ( $\geq 2.06$ ) as abstract and those with Task Manual scores at or above the median ( $\geq 0.93$ ) as manual.

in the previous two sets of models. Controlling for these factors, only service jobs have a significant effect on the relative wage bill. This effect, estimated at around -1.2% across both models for every 1% increase in relative service job share, implies that relative older worker success may have been experienced in other non-service jobs. It also implies that job markets in metro areas with a higher concentration of younger workers in service occupations are more likely to have worse labor outcomes than their older counterparts. Thus, it can be inferred that the prevalence of service jobs for young people in a region has contributed to the downsides of ABCEE.

## **VI. Conclusions: Implications for public policy**

The results presented above cast doubts on a key conclusion from Rogness (2017)—namely, that the growing cohort size of younger generations can be attributed as the primary contributor to ABCEE. Rogness (2017) proposed the possibility of spurious causality and presents evidence to suggest that the results may only apply to “its dimension of skilled old-young relative labor measures”. Moreover, it would normally be expected that geographic areas with higher levels of young people would have a higher relative labor supply (since labor supply is a component of the wage bill calculation). As this study hypothesized, using the relative shares of younger/older workers in different occupational categories by a spatial economic unit (in this case, the MSA level) leads to a different set of conclusions. The different results regarding young cohort size may be the result of a single year’s worth of data instead of those of multiple. Perhaps future work may apply the new models outlined here to a set of larger longitudinal data. Irrespective of further research on the topic matter of ABCEE, the estimated effects of different occupational categories on old-young relative labor outcomes cannot be ignored. Abstract and manual jobs appear to play a significant role, as do service/hospitality jobs and racial identity as White or Asian.

Additionally, the data suggests potential policy solutions. The prevalence of more affordable rents in rural counties suggests that measures to encourage remote or hybrid work flexibility for skilled, problem-solving occupations could have the effect of encouraging young workers in such professions to move further away from costly cities. A second potential policy solution concerns the lack of “semi-skilled,” middle-wage jobs in the under-recruited vocational trades (plumbing, welding, carpentry, and other well-paying manual labor jobs). Public investments and partnerships in the vocational trades could ameliorate the “polarization” of the labor market between abstract and manual jobs that have disproportionately affected today’s young people. Finally, state and local governments might consider a mix of minimum wage and universal basic income measures for the benefit of young people in low-wage manual occupations. Such provisions should be balanced carefully against effects on employment and other state and local public spending priorities. With this big picture in mind, policy-makers and advocates may yet help today’s youth restore their trust in those over age thirty-four.

Data Appendix

Table A: New Classification of 1990 Census Bureau’s List of Occupations

	MANAGERIAL AND PROFESSIONAL SPECIALTY OCCU- PATIONS	Label
	Executive, Administrative, and Managerial Occupations:	mgr_prof
3	Legislators	mgr_prof
4	Chief executives and public administrators	mgr_prof
7	Financial managers	mgr_prof
8	Human resources and labor relations managers	mgr_prof
13	Managers and specialists in marketing, advertising, and public relations	mgr_prof
14	Managers in education and related fields	mgr_prof
15	Managers of medicine and health occupations	mgr_prof
16	Postmasters and mail superintendents	mgr_prof
17	Managers of food-serving and lodging establishments	mgr_prof
18	Managers of properties and real estate	mgr_prof
19	Funeral directors	mgr_prof
21	Managers of service organizations, n.e.c.	mgr_prof
22	Managers and administrators, n.e.c.	mgr_prof
	Management Related Occupations:	mgr_prof
23	Accountants and auditors	mgr_prof
24	Insurance underwriters	mgr_prof
25	Other financial specialists	mgr_prof
26	Management analysts	mgr_prof
27	Personnel, HR, training, and labor relations specialists	mgr_prof
28	Purchasing agents and buyers, of farm products	mgr_prof
29	Buyers, wholesale and retail trade	mgr_prof
33	Purchasing managers, agents and buyers, n.e.c.	mgr_prof
34	Business and promotion agents	mgr_prof
<b>Code</b>	<b>Label</b>	
		mgr_prof
35	Construction inspectors	mgr_prof
36	Inspectors and compliance officers, outside construction	mgr_prof
37	Management support occupations	mgr_prof
	Professional Specialty Occupations	hi-stem

Code	Label	
	Engineers, Architects, and Surveyors:	hi-stem
43	Architects	hi-stem
	Engineers:	hi-stem
44	Aerospace engineer	hi-stem
45	Metallurgical and materials engineers, variously phrased	hi-stem
47	Petroleum, mining, and geological engineers	hi-stem
48	Chemical engineers	hi-stem
53	Civil engineers	hi-stem
55	Electrical engineer	hi-stem
56	Industrial engineers	hi-stem
57	Mechanical engineers	hi-stem
59	Not-elsewhere-classified engineers	hi-stem
	Mathematical and Computer Scientists:	hi-stem
64	Computer systems analysts and computer scientists	hi-stem
65	Operations and systems researchers and analysts	hi-stem
66	Actuaries	hi-stem
67	Statisticians	hi-stem
68	Mathematicians and mathematical scientists	hi-stem
	Natural Scientists:	special
69	Physicists and astronomers	special
73	Chemists	special
74	Atmospheric and space scientists	special
75	Geologists	special
76	Physical scientists, n.e.c.	special
77	Agricultural and food scientists	special
78	Biological scientists	special
79	Foresters and conservation scientists	special
83	Medical scientists	special
	Health Diagnosing Occupations:	special
84	Physicians	special
85	Dentists	special
86	Veterinarians	special
87	Optometrists	special
88	Podiatrists	special
89	Other health and therapy	special
	Health Assessment and Treating Occupations:	special

<b>Code</b>	<b>Label</b>	
95	Registered nurses	special
96	Pharmacists	special
97	Dietitians and nutritionists	special
	Therapists:	special
98	Respiratory therapists	special
99	Occupational therapists	special
103	Physical therapists	special
104	Speech therapists	special
105	Therapists, n.e.c.	special
106	Physicians' assistants	special
	Teachers, Postsecondary:	special
113	Earth, environmental, and marine science instructors	special
114	Biological science instructors	special
115	Chemistry instructors	special
116	Physics instructors	special
118	Psychology instructors	special
119	Economics instructors	special
123	History instructors	special
125	Sociology instructors	special
127	Engineering instructors	special
128	Math instructors	special
139	Education instructors	special
145	Law instructors	special
147	Theology instructors	special
149	Home economics instructors	special
150	Humanities profs/instructors, college, n.e.c	special
154	Subject instructors (HS/college)	special
	Teachers, Except Postsecondary:	special
155	Kindergarten and earlier school teachers	special
156	Primary school teachers	special
157	Secondary school teachers	special
158	Special education teachers	special
159	Teachers , n.e.c.	special
163	Vocational and educational counselors	special
	Librarians, Archivists, and Curators:	special



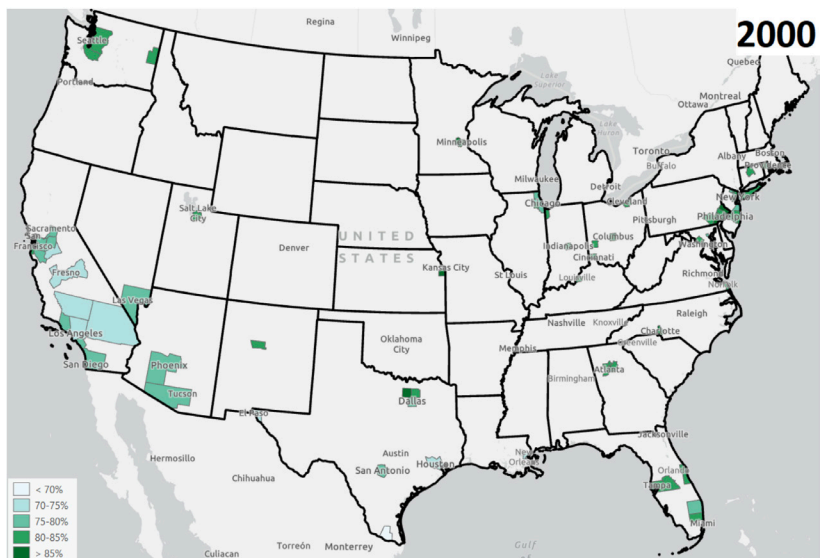
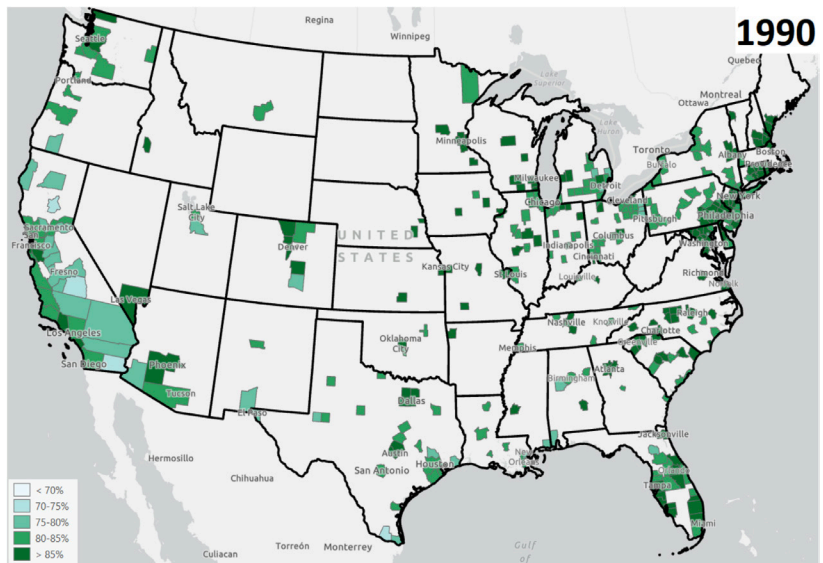
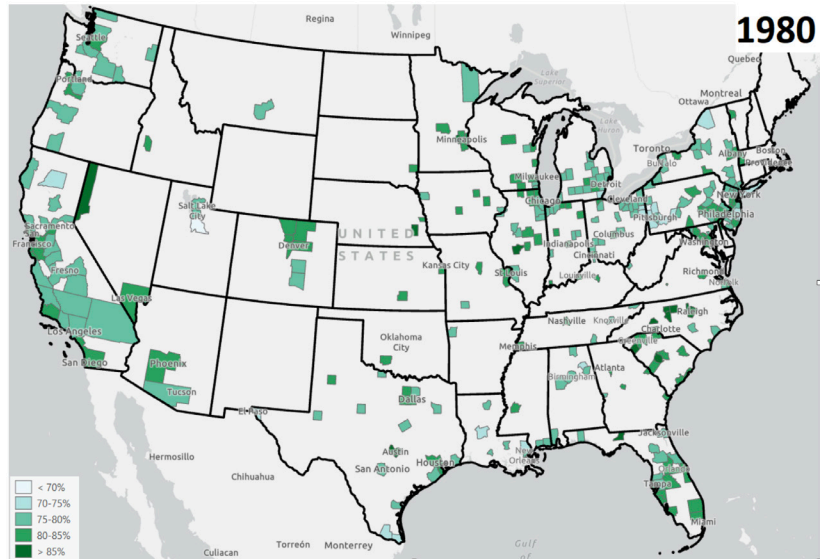
<b>Code</b>	<b>Label</b>	
164	Librarians	special
165	Archivists and curators	special
	Social Scientists and Urban Planners:	special
166	Economists, market researchers, and survey researchers	special
167	Psychologists	special
168	Sociologists	special
169	Social scientists, n.e.c.	special
173	Urban and regional planners	special
	Social, Recreation, and Religious Workers:	special
174	Social workers	special
175	Recreation workers	special
176	Clergy and religious workers	special
	Lawyers and Judges:	special
178	Lawyers	special
179	Judges	special
	Writers, Artists, Entertainers, and Athletes:	special
183	Writers and authors	special
184	Technical writers	special
185	Designers	special
186	Musician or composer	special
187	Actors, directors, producers	special
188	Art makers: painters, sculptors, craft-artists, and print-makers	special
189	Photographers	special
193	Dancers	special
194	Art/entertainment performers and related	special
195	Editors and reporters	special
198	Announcers	special
199	Athletes, sports instructors, and officials	special
200	Professionals, n.e.c.	special
	TECHNICAL, SALES, AND ADMINISTRATIVE SUPPORT OCCUPATIONS	
	Technicians and Related Support Occupations	special
	Health Technologists and Technicians:	special
203	Clinical laboratory technologies and technicians	special
204	Dental hygienists	special
205	Health record tech specialists	special
206	Radiologic tech specialists	special

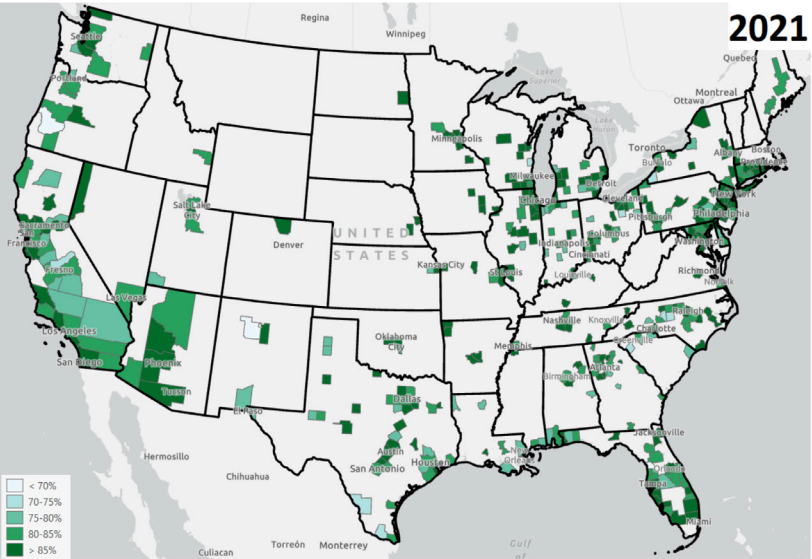
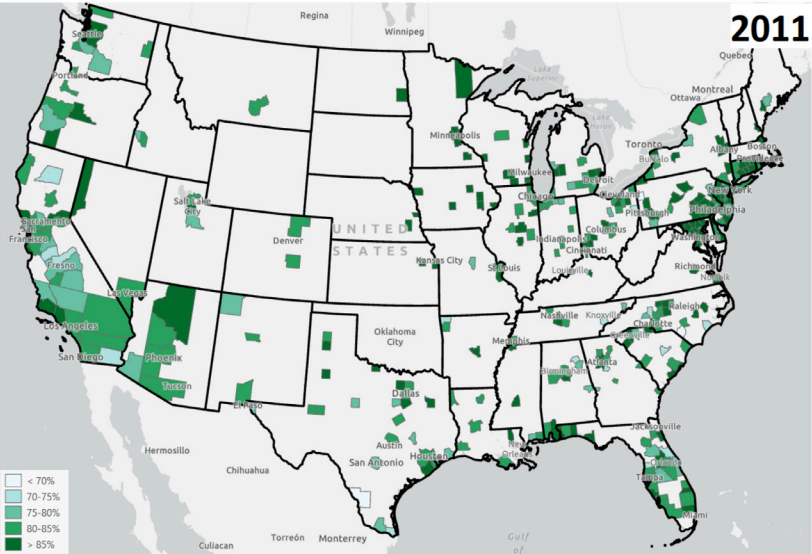
Code	Label	
207	Licensed practical nurses	special
208	Health technologists and technicians, n.e.c.	special
	Technologists and Technicians, Except Health	special
	Engineering and Related Technologists and Technicians:	hi-stem
213	Electrical and electronic (engineering) technicians	hi-stem
214	Engineering technicians, n.e.c.	hi-stem
215	Mechanical engineering technicians	hi-stem
217	Drafters	hi-stem
218	Surveyors, cartographers, mapping scientists and technicians	special
223	Biological technicians	special
	Science Technicians:	special
224	Chemical technicians	special
225	Other science technicians	special
	Technicians, Except Health, Engineering, and Science:	special
226	Airplane pilots and navigators	special
227	Air traffic controllers	special
228	Broadcast equipment operators	special
229	Computer software developers	hi-stem
233	Programmers of numerically controlled machine tools	hi-stem
234	Legal assistants, paralegals, legal support, etc.	special
235	Technicians, n.e.c.	special
	Sales Occupations:	sales_admin
243	Supervisors and proprietors of sales jobs	sales_admin
	Sales Representatives, Finance and Business Services:	sales_admin
253	Insurance sales occupations	sales_admin
254	Real estate sales occupations	sales_admin
255	Financial services sales occupations	sales_admin
256	Advertising and related sales jobs	sales_admin
	Sales Representatives, Commodities:	sales_admin
258	Sales engineers	sales_admin
274	Salespersons, n.e.c.	sales_admin
275	Retail sales clerks	sales_admin
276	Cashiers	sales_admin
277	Door-to-door sales, street sales, and news vendors	sales_admin
	Sales Related Occupations:	sales_admin

<b>Code</b>	<b>Label</b>	
283	Sales demonstrators / promoters / models	sales_admin
	Administrative Support Occupations, Including Clerical	sales_admin
	Supervisors, Administrative Support Occupations:	sales_admin
303	Office supervisors	sales_admin
	Computer Equipment Operators:	sales_admin
308	Computer and peripheral equipment operators	sales_admin
	Secretaries, Stenographers, and Typists:	sales_admin
313	Secretaries	sales_admin
314	Stenographers	sales_admin
315	Typists	sales_admin
	Information Clerks:	sales_admin
316	Interviewers, enumerators, and surveyors	sales_admin
317	Hotel clerks	sales_admin
318	Transportation ticket and reservation agents	sales_admin
319	Receptionists	sales_admin
323	Information clerks, n.e.c	sales_admin
	Records Processing Occupations, Except Financial:	sales_admin
326	Correspondence and order clerks	sales_admin
328	Human resources clerks, except payroll and timekeeping	sales_admin
329	Library assistants	sales_admin
335	File clerks	sales_admin
336	Records clerks	sales_admin
	Financial Records Processing Occupations:	sales_admin
337	Bookkeepers and accounting and auditing clerks	sales_admin
338	Payroll and timekeeping clerks	sales_admin
343	Cost and rate clerks (financial records processing)	sales_admin
344	Billing clerks and related financial records processing	sales_admin
	Duplicating, Mail, and Other Office Machine Operators:	sales_admin
345	Duplication machine operators / office machine operators	sales_admin
346	Mail and paper handlers	sales_admin
347	Office machine operators, n.e.c.	sales_admin
	Communications Equipment Operators:	sales_admin
348	Telephone operators	sales_admin
349	Other telecom operators	sales_admin
	Mail and Message Distributing Occupations:	sales_admin
354	Postal clerks, excluding mail carriers	sales_admin
355	Mail carriers for postal service	sales_admin

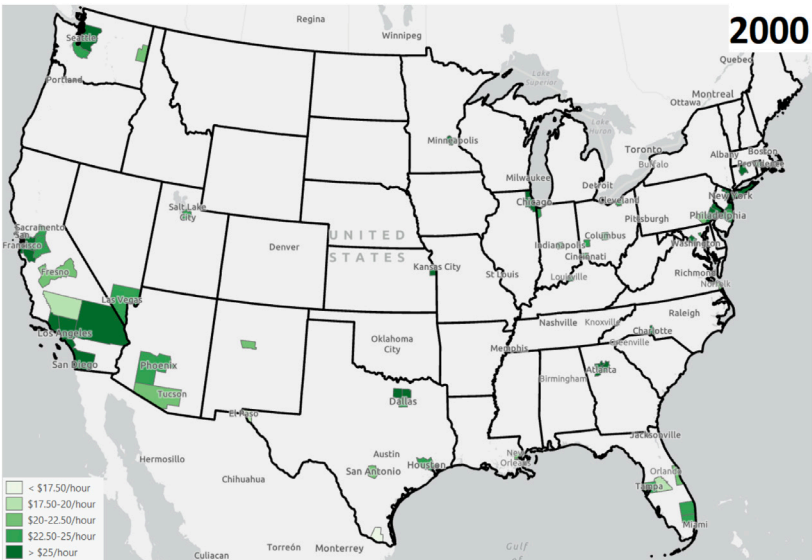
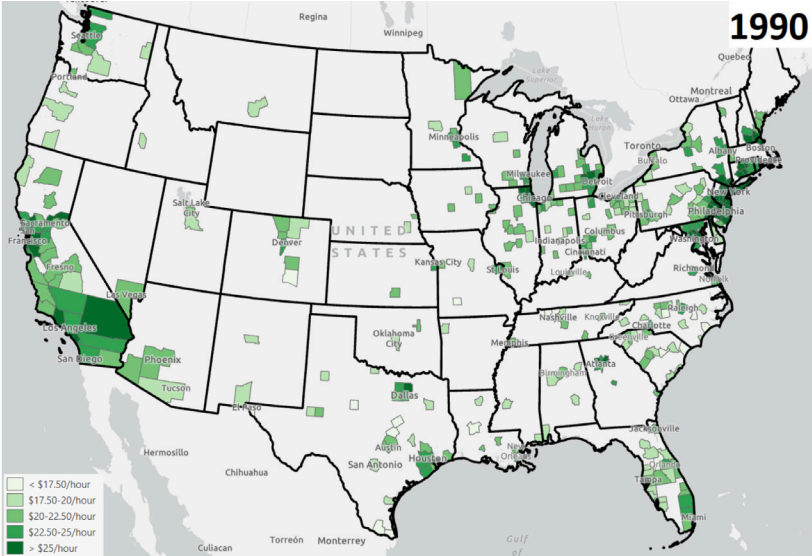
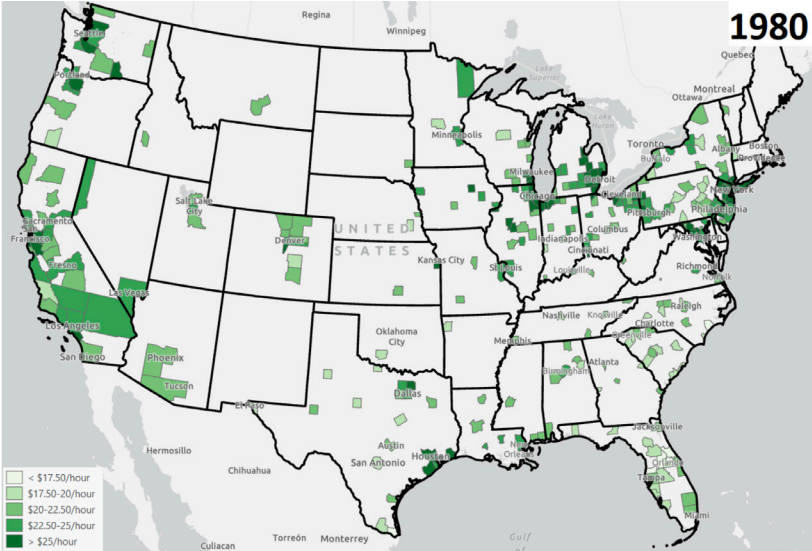
<b>Code</b>	<b>Label</b>	
356	Mail clerks, outside of post office	sales_admin
357	Messengers	sales_admin
	Material Recording, Scheduling, and Distributing Clerks:	sales_admin
359	Dispatchers	sales_admin
361	Inspectors, n.e.c.	sales_admin
364	Shipping and receiving clerks	sales_admin
365	Stock and inventory clerks	sales_admin
366	Meter readers	sales_admin
368	Weighers, measurers, and checkers	sales_admin
373	Material recording, scheduling, production, planning, and expediting clerks	sales_admin
	Adjusters and Investigators:	sales_admin
375	Insurance adjusters, examiners, and investigators	sales_admin
376	Customer service reps, investigators and adjusters, except insurance	sales_admin
377	Eligibility clerks for government programs; social welfare	sales_admin
378	Bill and account collectors	sales_admin
	Miscellaneous Administrative Support Occupations:	sales_admin
379	General office clerks	sales_admin
383	Bank tellers	sales_admin
384	Proofreaders	sales_admin
385	Data entry keyers	sales_admin
386	Statistical clerks	sales_admin
387	Teacher's aides	sales_admin
389	Administrative support jobs, n.e.c.	sales_admin

Figures 1a-e: Labor Force Participation Rates for Young People, 1980-2021

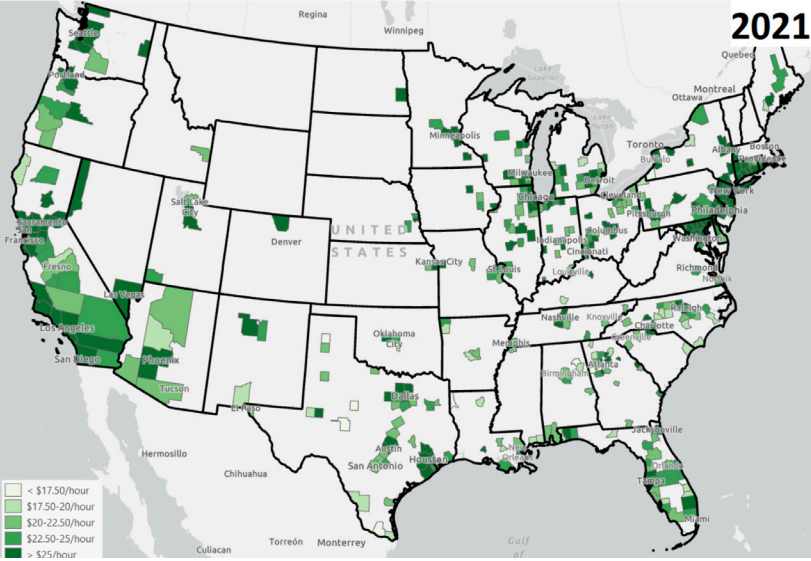
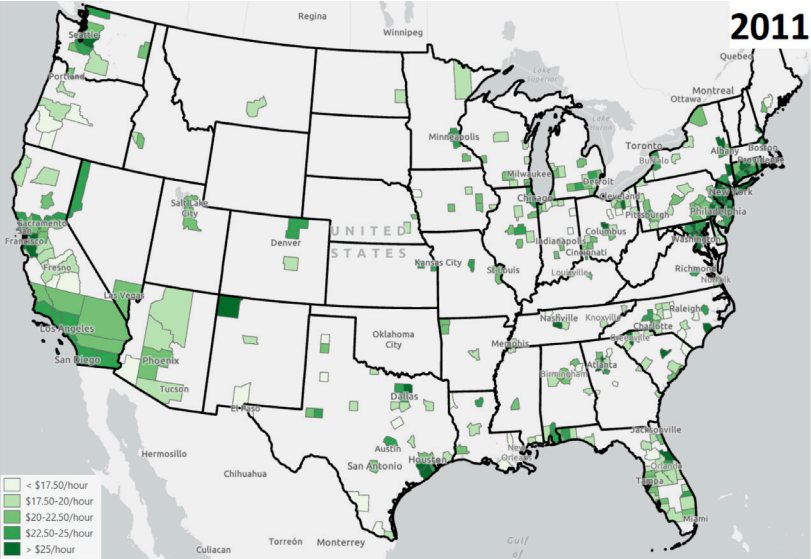




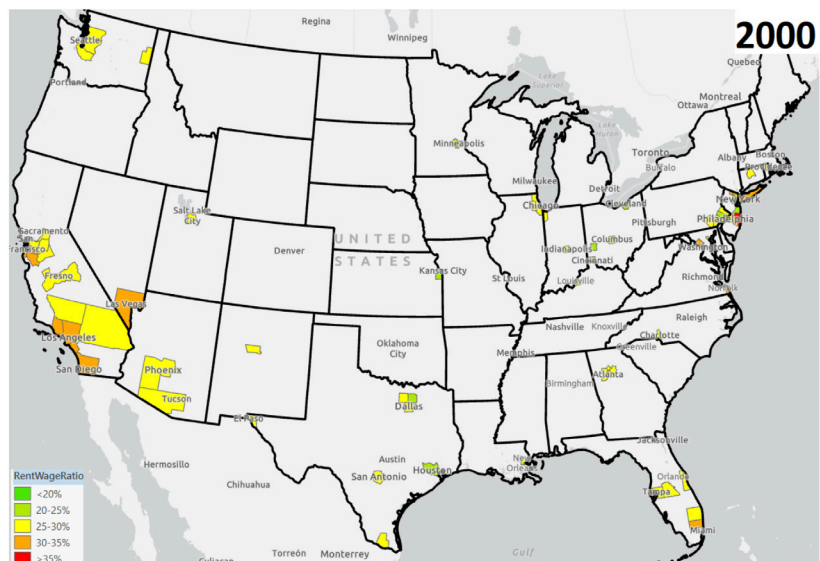
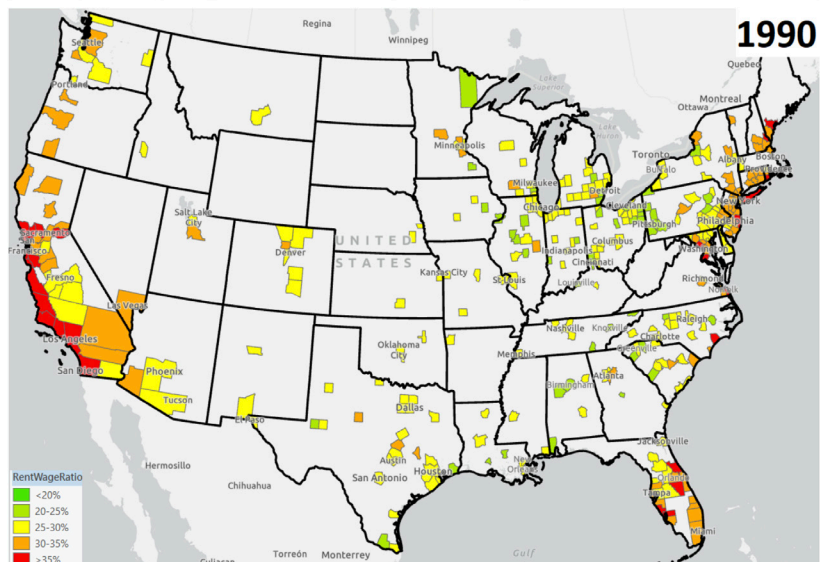
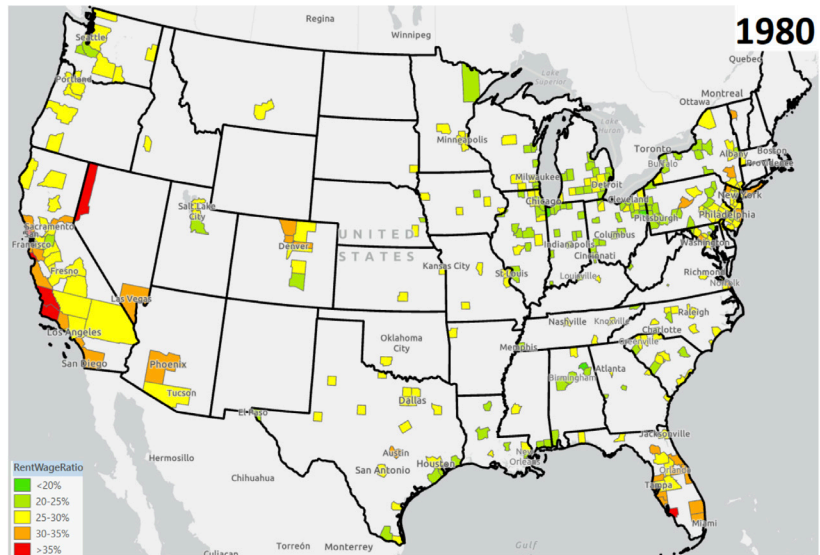
Figures 2a-e: Hourly Wage Rate for Young Workers, 1980-2021







Figures 3a-e: Rent/Wage Ratio for Young People, 1980-2021





Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 1: Regression of Old-Young Relative Wage Bill Against Differences in Abstract and Manual Job Shares**

VARIABLES	(1)	(2)	(3)	(4)
Old-Young Diff. in % Abstract Jobs	0.951*** (0.184)	0.775*** (0.188)	0.872*** (0.186)	0.654*** (0.189)
Old-Young Diff. in % Manual Jobs	-0.767*** (0.193)	-0.774*** (0.189)	-0.709*** (0.192)	-0.702*** (0.186)
Old-Young Diff. in % Hispanic			0.854** (0.425)	0.780* (0.413)
Old-Young Diff. in % Black			0.339 (0.691)	0.000578 (0.677)
Old-Young Diff. in % White			1.378*** (0.467)	1.497*** (0.455)
Old-Young Diff. in % Asian			1.588* (0.813)	1.492* (0.790)
Old-Young Diff. in % Unemployed	-2.831*** (0.560)	-2.643*** (0.552)	-2.733*** (0.565)	-2.496*** (0.552)
Log Young Pop Size		-0.0466*** (0.0139)		-0.0560*** (0.0140)
Constant	0.888*** (0.0296)	1.423*** (0.162)	0.847*** (0.0407)	1.467*** (0.160)
R-squared	0.199	0.232	0.232	0.278

**Table 2: Regression of Old-Young Relative Wage Bill Against Differences in College and High School Completion Rates**

VARIABLES	(1)	(2)
Log Young Pop Size	-0.0496*** (0.0148)	-0.0587*** (0.0146)
Old-Young Diff. in % Bachelor's Degrees	0.868** (0.360)	0.747** (0.349)
Old-Young Diff. in % HS Diplomas	0.499* (0.273)	0.652** (0.287)
Old-Young Diff. in % Hispanic		0.639 (0.452)
Old-Young Diff. in % Black		-0.0850 (0.704)
Old-Young Diff. in % White		1.762*** (0.467)
Old-Young Diff. in % Asian		1.908** (0.819)
Old-Young Diff. in % Unemployed	-2.446*** (0.577)	-2.314*** (0.567)
Constant	1.554*** (0.161)	1.537*** (0.159)
R-squared	0.154	0.226

Standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 3: Regression of Old-Young Relative Wage Bill Against Differences in Shares of Occupational Categories**

VARIABLES	(1)	(2)
Log Young Pop Size	-0.0472*** (0.0142)	-0.0573*** (0.0144)
Old-Young Diff. in % Service Jobs	-1.208*** (0.369)	-1.101*** (0.375)
Old-Young Diff. in % Mech/Repair Jobs	-0.640 (0.399)	-0.606 (0.395)
Old-Young Diff. in % Operator/Laborer Jobs	-0.441 (0.385)	-0.274 (0.388)
Old-Young Diff. in % Mgr/Prof Services Jobs	0.681* (0.370)	0.546 (0.373)
Old-Young Diff. in % High STEM Jobs	0.373 (0.557)	0.105 (0.565)
Old-Young Diff. in % Specialty Jobs	-0.0333 (0.335)	-0.176 (0.340)
Old-Young Diff. in % Sales/Admin Jobs	0.126 (0.338)	0.0690 (0.335)
Old-Young Diff. in % Hispanic		0.588 (0.437)
Old-Young Diff. in % Black		0.00635 (0.706)
Old-Young Diff. in % White		1.330*** (0.473)
Old-Young Diff. in % Asian		1.589* (0.822)
Old-Young Diff. in % Unemployed	-2.608*** (0.558)	-2.437*** (0.562)
Constant	1.435*** (0.166)	1.488*** (0.166)
R-squared	0.239	0.274

Standard errors in parentheses

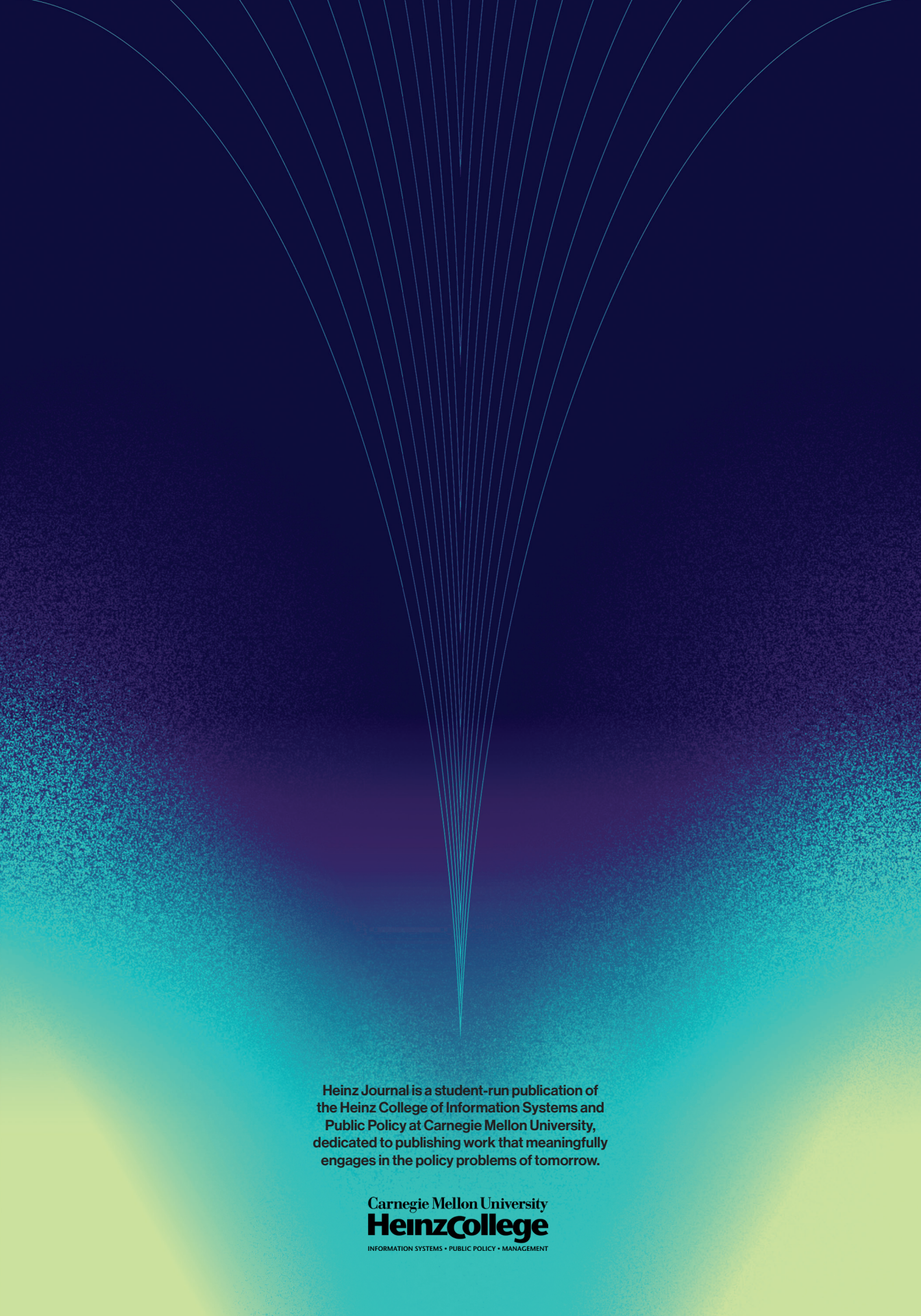
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

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