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The "disproportionate costs" of immigrant policy on the health of Latinx and Asian immigrants

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Abstract

There is growing evidence that Asian and Latinx immigrants' health and health care access is shaped by immigrant policies that determine their rights, protections, and access to resources and the extent to which they are targeted by policing or deportation based on citizenship/legal status and other immigration-related social categories. However, there is limited population-based evidence of how immigrants experience the direct consequences of policies, nor of the impact of such consequences on their health. Between 2018 and 2020, we conducted the Research on Immigrant Health and State Policy (RIGHTS) Study, developing a population-based survey of Asian and Latinx immigrants in California (n = 2010) that measured 23 exclusionary experiences under health care and social services, education, labor/employment, and immigration enforcement policies. Applying Ruth Wilson Gilmore's concept of "disproportionate costs," we conducted a latent class analysis (LCA) and regression models of the RIGHTS data to 1) describe patterns of immigrant policy exclusion experienced by Asian and Latinx immigrants and 2)

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Ethics statement

This study was approved by the institutional review board at the University of California, Los Angeles Office for the Human Research Protection Program.

CRediT authorship contribution statement

Maria-Elena De Trinidad Young: Writing – original draft, Supervision, Project administration, Methodology, Conceptualization. **May Sudhinaraset:** Writing – review & editing, Conceptualization. **Sharon Tafolla:** Writing – review & editing, Writing – original draft, Formal analysis. **Michelle Nakphong:** Writing – review & editing. **Yueqi Yan:** Writing – review & editing, Formal analysis. **Kathryn Kietzman:** Writing – review & editing, Supervision, Conceptualization.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.socscimed.2024.117034.

test relationships between patterns of policy exclusion and health care access and health status. LCA analyses identified 6 classes of distinct combinations of policy exclusions. In regression analyses, respondents in the class with cumulative exclusions across all policy sectors had the worst health care access and highest level of psychological distress, but the best self-rated health; while those in the class with employment and enforcement exclusions also had poor health care access. Respondents in the other 3 classes experienced combinations of health and social services exclusions, but these alone were not associated with worse outcomes. Findings show that the consequences of immigrant policies harm health through both cumulative exposure to and intersections of exclusions across policy sectors. Labor/employment and immigration enforcement policies, specifically, likely drive health inequities within immigrant populations. The RIGHTS study highlights the need to measure the cumulative and intersecting "disproportionate costs" of immigrant policy within diverse immigrant populations.

Keywords

Asian; Latinx; Latino; Immigrant policy; Health care access; Health; Structural racism

1. Introduction

Immigrants in the United States currently live under a patchwork of federal, state, and local immigrant policies that shape their day-to-day experiences and their health. Immigrant policies are a key mechanism of structural racism (Misra et al., 2021) and there is mounting evidence that these policies contribute to health inequities by race/ethnicity and citizenship status (Crookes et al., 2022; Perreira and Pedroza, 2019). Immigrant policies are those that determine the rights, protections, and access to resources of foreign-born individuals and the extent to which they are targeted by policing or deportation based on their citizenship/legal status and immigration-related social categories, such as race/ethnicity, language, or occupation (Young and Wallace, 2019). These policies take the form of laws, regulations, court rulings, and institutional practices that exist across public policy sectors; while seemingly race-neutral, they have been used to reinforce immigrants' racialized social position (Ngai, 2004). Immigrant policies stratify noncitizens along the lines of legal status by granting varying levels of rights to those who are undocumented, in a temporary legal status, or permanent residents, while also authorizing inequitable access to resources and reinforcing criminalization of the nation's predominantly non-White immigrant population (Motomura, 2007; Torres and Young, 2016). As a result, they produce the social position of immigrants of color at the intersections of citizenship and race/ethnicity.

As a mechanism of structural racism, immigrant policies influence multiple *health* mechanisms: exposing immigrants of color to chronic stress, discrimination and criminalization, creating barriers to institutions, and limiting opportunities for improved material conditions, such as wages (Misra et al., 2021; Philbin et al., 2018). Population health research shows that state and federal immigrant policies that reinforce these mechanisms are associated with health inequities between immigrants of color and White populations, with worse outcomes for noncitizens compared to US born citizens (Crookes et al., 2022). At the state-level, policies that authorize enforcement and limit economic

opportunities have been associated with barriers to health care, avoidance of health services, worse mental health, and disparities in birth outcomes between citizens and noncitizens as well as between Latinx and White populations (Luo and Kostandini, 2023; Toomey et al., 2014; Torche and Sirois, 2019; White et al., 2014). At the federal level, the 1996 passage of the federal Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) restricted immigrants' eligibility for public benefits, leading to decreased health service use among Asian and Latinx immigrant elderly adults (Yeo, 2017) and public benefit enrollment among both undocumented immigrants (who were rendered ineligible under the law) and documented immigrants (who feared the consequences of public benefit use for future immigration processes) (Hagan et al., 2003; Kaushal and Kaestner, 2005).

While most population health has focused on the impact of immigration policy on Latinx populations, a growing body of research shows that Asian and other immigrants of color may also fare poorly under restrictive immigrant policies (Sudhinaraset et al., 2021; Young et al., 2018). For example, studies have found that Asian immigrants who are currently applying for citizenship status, those with visas, and those who are ineligible to apply for status are more likely to report depression, primarily driven by the fear and threat of deportation (Yellow et al., 2021). This literature suggests that, across different races/ethnicities, restrictive policies that reinforce racialized exclusion from public benefits, policing, and threat of deportation influence the experiences and, ultimately, well-being of immigrants of color.

1.1. Immigrants' experiences of exclusion within immigrant policy contexts

Despite the growing literature on immigrant policy and health, there is limited population-based knowledge of how Asian, Latinx, and other immigrant populations experience the direct, proximal consequences of living within the nation's patchwork of federal, state, and local policies; nor the extent to which their experiences may co-occur and intersect to influence their access to health care or health status. Immigrants' direct, personal experiences of immigrant policy have gone largely unmeasured in population health surveys. Instead, research has primarily examined immigrant polices as contextual measures and focused on comparisons in health either between foreign- and US-born populations or between race/ethnic groups (see Hatzenbuehler et al., 2017; Sudhinaraset et al., 2021). This approach has treated immigrant policy as an indicator of a jurisdiction's policy climate. The health mechanisms of chronic stress or limited resources are presumed to function via social *environments* rather than directly from personal experiences (Perreira and Pedroza, 2019; Philbin et al., 2018). For example, the concept of "chilling effects" hypothesizes that immigrants may be hesitant to use health care services due to the potential repercussions of restrictive policies, such as public charge (Barofsky et al., 2020; Vargas, 2015). Similarly, the concept of "spillover" effects describes how populations not targeted directly by a policy (e.g., US born children of immigrants) may still experience negative consequences due to the potential threat to family members or racialized discrimination (Perreira and Pedroza, 2019).

Importantly, immigrant policies also directly touch and define the contours of immigrants' lives in the United States. Indeed, qualitative research has demonstrated how Latino and Asian immigrants encounter numerous day-to-day forms of exclusion due to immigrant

policies - from denial of public benefits in health and social welfare institutions, to exclusion from the labor market due to legal status, to racialized policing in communities (Hsin and Aptekar, 2021; Kline, 2019). They may experience direct exclusions across multiple locations, such as community spaces or workplaces, and through institutional processes, such as government agency practices. These exclusionary experiences are the consequence of the differential treatment authorized by immigrant policies and likely co-occur across health care and social services, labor and employment, education, law and immigration enforcement, and other sectors. The variation in exposure to multiple exclusions likely results in different and inequitable levels of chronic stress, barriers to resources, and limited opportunities *within* immigrant populations (Joseph and Golash-Boza, 2021; Quesada et al., 2011). Examination of the population-level patterns of immigrants' direct policy exclusions can shed light on the ways in which federal, state, and local immigrant policies may contribute to inequitable health care access and health outcomes among immigrant populations.

1.2. The "disproportionate costs" of immigrant policy on health

Geographer Ruth Wilson Gilmore's concept of "disproportionate costs" provides a unique structural racism lens to examine the numerous intersecting forms of policy exclusions that may influence immigrants' health and contribute to racial/ethnic and citizenship health inequities. Wilson Gilmore argues that racism is produced and reinforced in the spaces in which marginalized people experience the power of the state. She describes racism as

> *"a limiting force that pushes disproportionate costs of participating in an increasingly monetized and profit-driven world onto those who, due to the frictions of political distance, cannot reach the variable levers of power that might relieve them of those costs"* (Gilmore, 2002)

We conceptualize immigrant policy exclusions as "costs" that are experienced across immigrant populations as they navigate life under the "limiting force" of federal, state, and local immigrant policies. Through immigrant policy, policymakers can authorize legally permitted, and often socially acceptable, exclusion based on immigration-related factors, such as citizenship, country of origin, language, or occupation; alternately, they can choose to extend or protect the rights granted to immigrants (Young and Wallace, 2019). Without access to "the variable levers of power," individual immigrants experience exclusion or "costs" in the form of being the direct target of the punitive regulatory practices of policing and deportation (such as racial profiling or arrest) or being granted few rights or denied rights (such as workplace safety violations). The population patterns of policy exclusions constitute "disproportionate costs" because they are unevenly-felt within immigrant groups and result in inequitable exposure to chronic stress and barriers to health, economic, and other resources that can erode health and produce barriers to health care.

In this study, we use the concept of "disproportionate costs" to identify how immigrant policies may result in direct policy exclusions among Asian and Latinx immigrants and to examine how the intersection of exclusions across multiple policy sectors may influence their health care access and health status. We focus on immigrants from Asia and Latin America, the nation's two largest immigrant groups, because, while they are

heterogeneous and have varied trajectories of migration and integration (Ngai, 2004), both groups have been subject to policies that authorize their exclusion and inequitable treatment in the workplace, in health care and educational settings, and that mandate policing and deportation (Escudero, 2020; Ngai, 2004). An examination of the population patterns of their policy exclusions can reveal which groups face inequitable risks to health and health care access based on their inequitable exposure to policy, beyond their race/ethnicity, citizenship status, or other social category. Consistent with calls to disaggregate data on immigrant populations to understand the heterogeneity *within* diverse populations (Ponce et al., 2023), this approach examines how the harms of restrictive immigrant policy are unevenly distributed *within* immigrant populations and their implications for health.

While limited, existing research shows that exclusionary experiences in specific sectors are associated with worse access to health care and health status. It highlights that the exclusionary consequences of restrictive immigrant policies influence material and psychosocial mechanisms that can have immediate as well as long-term cumulative or latent influences on health. For example, exclusions related to immigrants' legal status or language are associated with immediate barriers to obtaining needed medical care, such as delaying needed health care or avoiding it all together (Drewniak et al., 2017; Held et al., 2020; Saadi et al., 2020; Woofter and Sudhinaraset, 2022). Similarly, encounters with the immigration enforcement system, such as knowing or worrying about someone who could be deported, is associated with stress-related outcomes among both Asian and Latinx immigrants (Torres et al., 2018; Vargas et al., 2018; Yellow et al., 2021; Young et al., 2022). Furthermore, both Asian and Latinx immigrants who reported more enforcement encounters were more likely to delay seeking needed health care (Young et al., 2023b).

Evidence from the occupational health literature indicates that immigrant workers experience high rates of labor violations, such as wage theft, which are linked to stress and barriers to care (Crollard et al., 2012; Minkler et al., 2014). There is less population-based evidence regarding Asian and Latinx immigrants' direct experiences with exclusionary education policies, but research suggests that immigrant youth who have experienced policy-related barriers to higher education have lower educational attainment and worse self-rated health (Potochnick, 2021).

The literature on experiences of exclusion has primarily examined single policies or institutions and single immigrant groups. Extensive ethnographic research in immigrant communities, however, shows that these exclusions do not occur in isolation. Research has described how immigrants are criminalized as they seek health care and that health care settings can be spaces in which immigrants worry about enforcement policy (Van Natta, 2023); immigrant workers' financial precarity influences willingness to take time off work to seek needed health care (S. B. Horton 2016a,b); and immigrant youth experience intersecting barriers to educational and employment opportunities (Gonzales and Vargas, 2016). There is limited population-level knowledge on the co-occurrence or intersection of exclusionary experiences and their potential harms to health. There is a need to quantify and classify how exclusions co-occur across multiple policy areas (e.g., workplace and law enforcement) and which of these classifications may be associated with poor health outcomes.

1.3. The Research on Immigrant Health and State Policy study

To measure and examine the relationship between immigrant policy's "disproportionate costs" on immigrant health care access and health outcomes, we developed and conducted the Research on Immigrant Health and State Policy (RIGHTS) Study. We aimed to 1) measure population-based patterns of exclusion experienced by Asian and Latinx immigrants under federal, state, and local immigrant policies in California and 2) test the relationship between patterns of exclusion and health and health care access. California was an ideal study site as it is home to long-residing Asian and Latinx populations that have been exposed to a host of inclusive and restrictive policies. The state has historically and currently legislated immigrants' rights at the state level, and, while widely considered inclusionary, contains localities that have enacted restrictive policies or resisted implementation of inclusionary state policies (Rhodes et al., 2020; Young et al., 2023a). The RIGHTS survey measured Asian and Latinx immigrants' exclusionary experiences in the sectors of health care and social services, education, labor and employment, and law enforcement. We examined life-time exposures to policy exclusions, recognizing the likely presence of persistent, chronic stress and barriers to resources for a long-residing population in a state with a long history of immigrant policy making (Misra et al., 2021). Through latent class analyses (LCA) we identified groups or "classes" with shared exclusionary experiences. Our approach identified groups based on their experiences under immigrant policy, rather than relying solely on conventional race/ethnic categories – which are themselves proxies for experiences of structural racism (Ford and Airhihenbuwa, 2010). Through regression models we tested the relationships between "class" membership and the likelihood of having a usual source of care, having delayed care, experiencing psychological distress, and self-reported health status. We hypothesized that we would observe distinct clusters of experiences that show patterns of how respondents experienced co-occurring exclusions across sectors, and the extent or magnitude of the exclusions. We hypothesized that these clusters would identify groups that had experienced cumulative exclusions (e.g., experiences across multiple sectors) as well as groups that had experienced sector-specific exclusions (e.g., experiences primarily in a specific sector) and that class membership would be associated with outcomes, independently of race/ethnicity or citizenship status. Specifically, we hypothesized that the classes that had experienced exclusions in the greatest number of sectors would be at the highest risk of poor outcomes and that classes of exclusions in specific combination of sectors would be drive worse outcomes, showing the types of exclusion most likely to result in worse outcomes.

2. Methods

2.1. Survey development

We used a theoretically driven process to develop a survey instrument to measure exclusions that Asian and Latinx immigrants had experienced under immigrant policies, defined as policies that determine rights and protections of individuals based on immigration-related criteria (Young and Wallace, 2019). Through a review of the literature, we identified federal, state, and local policies in which there was evidence of a relationship with health inequities and selected four policy sectors that reinforced or enacted exclusions: health and social services, education, labor and employment, and law enforcement. We then convened our

advisory groups of community-serving agencies and immigrant health scholars to identify the exclusions they observed occurring in immigrant communities. Based on the literature and this input, we developed survey items to capture multi-sector policy exclusions. Items were written to capture an exclusion in which respondents had ever been targeted by a policy (e.g., racial profiling, deportation) or had a right violated despite a protection extended by the policy (e.g., denied medical interpretation, wage theft). Exclusions reflected the consequence of the intersection of multiple policies, rather than the legal outcome of a policy process. For example, we asked if respondents had ever been deported, which could result from local law enforcement agency policy, authorized by state policy, that intersected with federal removal policy. We refined the items through piloting and cognitive interviews in English, Spanish, and Mandarin. The final survey included 23 questions that each asked "Yes" or "No" if the respondent had ever experienced a specific exclusion (See Supplemental Table 1).

2.2. Data collection

The RIGHTS survey was administered as a follow-up to the California Health Interview Survey (CHIS) in 2018, 2019, and 2020. CHIS used random-digit-dial (RDD) sampling in 2018 and address-based sampling 2019–2020 to produce a sample representative of California's non-institutionalized population (California Health Interview Survey). CHIS respondents were eligible to participate in the RIGHTS survey if they were ≥ age 18 and born in any country in Latin America or Asia, excluding those from the Middle East. CHIS respondents were recruited through mail and/or phone and completed the survey through a secure web portal or by phone with a trained, bilingual interviewer (CHIS, 2018). They were asked if they were willing to participate in future surveys. One to three months after completing CHIS, respondents were recruited by phone to complete the RIGHTS survey. CHIS and RIGHTS surveys were conducted in English, Spanish, Chinese (Mandarin and Cantonese), Vietnamese, and Korean. Sample weights were calculated to adjust for RIGHTS study design and to produce population-representative estimates. The final RIGHTS sample is representative of foreign-born Asian and Latinx adults in California (Total n = 2,010, Asian n = 1,004, Latinx n = 1,006).

2.3. Measures

The two dependent health care and two dependent health outcome variables came from the CHIS survey items:

Usual source of care.—Respondents reported Yes or No if they had a place that they usually went to when they were sick or needed health care.

Delay in care.—Respondents reported Yes or No if, in the past 12 months, they had delayed or not received other medical care they felt they needed (e.g., seeing a doctor, a specialist, or other health professional).

***Self-rated health* (SRH).—**Respondents reported if they described their health as Excellent, Very Good, Good, Fair, or Poor. Fair and Poor were combined into one category. SRH levels were numerically coded such that increasing values indicated better health.

Psychological distress.—We used the Kessler 6 (K6), a 6 item instrument, that measures population-level psychological distress (primarily depression and anxiety) (Prochaska et al., 2012). Respondents reported if they experienced each of the 6 items "none of the time" to "all of the time" in the past 30 days. Their final score was summed (range 0–24; Cronbach's alpha = 0.89). We used this score as a continuous variable to assess population-level variations.

The independent variable was derived from the 23 policy exclusion RIGHTS survey items using latent class analysis (LCA), described below.

For covariates, we included socio-demographic variables from the CHIS survey that may influence respondents' health and health care access outcomes: a dichotomous variable to classify respondents born in Latin America as Latinx and respondents born in Asia as Asian; current citizenship status (naturalized citizen, non-citizen); age (continuous), sex (male, female); education level (high school graduation, no high school graduation); employment status (employed, unemployed, out of labor force); poverty (at/above or below 200% Federal Poverty Level), and language of interview (completed in English, completed in other language). For usual source of care and delay in care regression models, we included health insurance (insured, uninsured), which can influence if respondents' have somewhere to receive health care; for delay in care, we additionally included usual source of care, as those with a place to receive care are less likely to delay care.

2.4. Analysis

Sample weights were created to account for the RIGHTS survey sampling design and applied to all phases of the analysis to produce population-representative estimates. We conducted descriptive analyses to examine the socio-demographic characteristics of the sample and the proportion of respondents reporting each outcome and policy exclusion.

We conducted latent class analysis (LCA) and regression analysis over two phases using Mplus 8.0 statistical software (Muthén and Muthén, 1998).

The first phase was the classification step. We tested models with 2–15 latent classes, assessing indicators of model fit for each (e.g., Akaike information criterion (AIC), the Bayesian Information Criteria (BIC), calculating the approximate correct model probability (cmP_k)) (Nylund-Gibson and Choi, 2018). The 6-class model was the most parsimonious to capture the homogeneity of class membership (Supplemental Table 2). For each of the 6 classes, the final model shows the probability that members reported each of the 23 policy exclusions (Supplemental Table 3). Then, to conceptually define each class, we assessed the exclusions experienced by its members, applying threshold criteria to determine if members had a high (≥0.7), medium (0.45–0.69), or low (<0.44) probability of each exclusion.

In the second phase, we conducted latent class regression analysis by adding each health care and health outcome to a model. We used the Bolck, Croon, and Hagenaars (BCH) method for analyses (Bolck et al., 2004). Each model tested the association between class membership and each outcome, net of covariates. The BCH approach avoids shifts in the latent classes that predict an outcome (e.g., health care) in the final phase, a limitation

to which the regular latent class method is susceptible (Asparouhov and Muthen, 2021). Models also controlled for covariates and provided estimates of the odds that each covariate is associated with class membership.

3. Results

3.1. Sample characteristics and exclusions

Table 1 presents the socio-demographic characteristics of the study sample. The sample was 58% Latinx and 42% Asian and 48% naturalized citizen and 52% noncitizen. Table 2 shows the percent of the sample that reported experiencing each policy exclusion within each sector. Across all policy sectors, 10% or more of respondents reported each policy exclusion, except for those who had been surveilled by police (9%), asked to prove citizenship by police (7%), or deported (4%). Among the most common policy exclusions, about 1 in 3 respondents had ever settled for a lower paying job, not been able to get a job due to their legal status, or knew someone who was deported. More than 1 in 4 respondents had ever been denied public benefits due to their citizenship status, avoided public benefits due to concern about public charge, or been injured at work. Supplemental Table 4 presents the sample characteristics and policy exclusions by Asian/Latinx and citizen/noncitizen status.

3.2. Classes of policy exclusions

Table 3 presents the 6 classes identified through the LCA, showing the variation in exposure to policy exclusions across this population-based sample. The overarching patterns show that the experiences of the first three classes was largely defined by exclusions in health and safety net sectors, either alone or in combination with labor and employment exclusions. In contrast, the fourth class had exclusions solely in labor and employment and law enforcement, and only one class, the fifth class, had exclusions across all policy sectors. The sixth class included those with almost no exclusions. Below we provide a description of each class, identified by their number and name in italics.

In the first three classes, there were notable differences, despite similarities across health care-related exclusions, suggesting distinct types of safety net and financial exclusions for members of each group. Class 1 (8.3% of sample) included those who were primarily *denied public benefits* due to citizenship status or income eligibility. Class 2 members (6.6%) were also *denied public benefits* due to citizenship or income eligibility, but additionally had *avoided public benefits* over immigration concerns – suggesting distinct dynamics in their relationship with the safety net system; they also faced limited employment due to settling for lower paying jobs. Members of class 3 (7.4%) were similarly *denied and had avoided public benefits* and faced *limited employment* through lower paid jobs, as well as due to *legal status barriers,* suggesting that financial exclusion in this group may be more linked to citizenship/legal status. In contrast to these first three classes, class 4 (29.1%) had no health and safety net related exclusions. Rather, members had a moderate probability of having faced *limited employment and enforcement impacts* from settling for lower paid employment and knowing someone who was deported. In contrast to all the classes, class 5 (4.5%), had high probabilities of *cumulative exclusions* across all policy sectors, including avoidance of public benefits due to immigration concerns, having been asked to show legal

status in a health care setting, limited employment and worker rights violations, and having stayed indoors to avoid enforcement, known someone deported, and been surveilled by law enforcement. Finally, the sixth class (44%) had *low exclusions* (44%) across all sectors.

3.3. Policy exclusions and outcomes

We individually added the four outcomes to the BCH LCA model to assess the association between class membership and each outcome, net covariates. For all models, respondents with 6-*low exclusions* were the reference group. For usual source of care and delay in care we used logistic regression models, for self-rated health we used a multinomial regression model, and for psychological distress we used an OLS model and estimated mean K6 scores. The goal of these models was to assess if some classes had worse outcomes; we did not aim to estimate a specific magnitude of a class' risk of the outcomes. Therefore, while we present the estimates for each model, our interpretation emphasizes identification of differences in outcomes across the classes, not an interpretation of the size of that difference.

Table 4A shows the associations between class membership and having a usual source of care. Compared to respondents with 6-*low exclusions*, respondents with 4-*limited employment and enforcement impacts* (OR 0.48, 95% CI 0.26–0.90) and 5-*cumulative exclusions* (OR 0.37, 95% CI 0.14–0.997) had statistically significantly lower odds of having a usual source of care. Table 4B shows the association between class membership and delay in care. Similar to usual source of care, compared to respondents with 6-*low exclusions*, those with 4-*limited employment and enforcement impacts* (OR 2.34, 95% CI 1.13–4.84) and 5-*cumulative exclusions* (OR 18.7, 95% CI 7.0–49.4) had statistically significantly higher odds of having delayed care. The odds ratio for delay in care for 5-*cumulative exclusions* resulted in a large confidence interval possibly due to the relatively smaller size of this class (4.5%) and the high risk of not having a usual source of care, a covariate in the model. As noted above, this estimate indicates an association, not a specific magnitude. Table 4C shows the association between class membership and reports of excellent versus fair/poor health. Respondents with 5-*cumulative exclusions* had a higher relative risk (RRR 3.7, 95 % CI 1.1–11.5) of reporting excellent versus fair/poor health compared to those with 6-*low exclusions*. Finally, Table 4D shows the mean estimated psychological distress score for each class. Respondents with 5-*cumulative exclusions* (mean: 5.7, 95% CI: 4.7–6.6) had a higher mean score than those with 6-*low exclusions* (mean: 3.6, 95% CI: 3.1–4.1). A score of ≥5 is an indication of moderate psychological distress (Prochaska et al., 2012).

3.4. Policy exclusion classes and covariates

Each of the above BCH LCA models also estimated associations between covariates and class membership. They showed the odds that each covariate (e.g., Asian v. Latinx, US citizen v. non-citizen) was associated with being in each class compared to the reference class, 6-*low exclusions*. Across models, Latinx compared to Asian respondents had significantly higher odds of being in any of the classes compared to 6-*low exclusions*. Across models, noncitizens compared to citizens had higher odds of having been 2-*denied and avoided public benefits* compared to 6-*low exclusions*. Supplemental Table 5 provides the complete results.

4. Discussion

This is the first study, to our knowledge, to collect and examine population-based data on Asian and Latinx immigrants' experiences of the exclusionary conditions produced by multiple immigrant policy sectors. Past studies have examined how overall policy contexts may be associated with race/ethnic and citizenship health inequities (Crookes et al., 2022). This study advances this research, applying the lens of "disproportionate costs" to understand how multi-sector immigrant policies not only produce anti-immigrant contexts but result in co-occurring and intersecting state-authorized exclusions. We developed a novel population survey to measure policy exclusions and conducted latent class analysis and regression analyses of the survey data to assess how the exclusions clustered and were associated with health care and health status outcomes. Our findings bring attention to the consequences of immigrant policy-related exclusions among the nation's two largest immigrant populations, but the health mechanisms and processes that we discuss here likely apply to other immigrant groups as well.

We found that notably high proportions of Asian and Latinx immigrants had experienced policy exclusions, including denial of access to safety net programs, limited educational and employment opportunities, violations of labor protections, and policing and deportation. In the LCA classes, over half of Asian and Latinx immigrants were in a class that had high probabilities of having experienced policy exclusion in more than one sector. Overall, higher proportions of Latinx respondents reported each of the exclusions; however, while Latinxs have frequently been the focus of research on immigration policy, Asian respondents also reported notable levels of exposure to exclusions. Our LCA regression models showed that, compared to the l*ow exclusions* class that had experienced few or no exclusions, two classes were more likely to have worse outcomes. The *cumulative exclusions* class, which was made up of individuals who had experienced exclusions in every policy sector, was the most likely to experience barriers to health care access and higher levels of psychological distress, suggesting that exclusions may have a cumulatively negative impact on some health outcomes. We also found that the l*imited employment and enforcement impacts* class, made up of individuals who had primarily experienced labor and enforcement exclusions, also had high likelihoods of barriers to health care, suggesting that intersecting exclusions in these two sectors may have uniquely harmful effects on health care access. The other three classes had all experienced combinations of health and social services exclusions, but the findings suggest that these alone were not associated with worse outcomes. Finally, surprisingly, the *cumulative exclusions* class was also the most likely to report excellent compared to fair/poor health.

These findings build on existing population-based evidence that the enactment and presence of federal, state, and local immigrant policies are associated with health inequities between racial/ethnic and citizenship status groups. The focus on "disproportionate costs" and our novel survey findings emphasize the need to measure and assess the direct consequences of immigrant policies as a critical health pathway. These costs reflect how the power of the state (i.e., policymakers) is directly experienced by Asian and Latinx immigrants. The LCA revealed the disproportionate patterns in which distinct groups experienced combinations of intersecting exclusions in locations ranging from homes to neighborhoods and from

workplaces to health care settings. Further, by conducting an LCA on a very diverse sample, we identified subgroups that are defined by their exposure to the racializing impact of immigrant policy – rather than by socially-constructed race/ethnic labels.

One interpretation of our findings is that exclusionary encounters with immigrant policy may function cumulatively on health. Immigrants exposed to more exclusions during their lives face numerous forms of harm and exposure to unfair treatment. This may put them at the highest risk for avoiding health care systems or chronic stress. This interpretation is consistent with the extensive life course literature that links cumulative disadvantages with worse later life health (Riosmena et al., 2015; Torres and Young, 2016). However, the patterns of immigrant health are rarely without their paradoxes, and the class with cumulative exclusions was also the class that was the most likely to report “excellent” self-rated health. While an unexpected finding, this is not inconsistent with patterns observed in some immigrant health studies in which vulnerable immigrant populations have sometimes demonstrated better SRH outcomes (Young et al., 2022). The finding may be due to limitations of the measure itself (See Viruell-Fuentes et al., 2012) and should not be interpreted as evidence that exclusions are good for health. Rather, the finding points to the need for nuanced understanding of the experiences of those populations that have been most directly targeted restrictive policies. Beyond experiencing “chilling” or “spillover” effects, those who have experienced the greatest harms from multi-sector immigrant policies likely experience the most acute complexities of racialization, exposure to risk, and, possibly, selection into migration (Tsuchiya et al., 2023). Future population research should include further examination of cumulative exposures to policy exclusions over the life course, including measures of the timing of different exclusions.

Another interpretation is that the *interaction* of exclusions across multiple sectors may play a role in compounding barriers to care and risks to health. Not all classes with multiple exclusions had worse outcomes; therefore, the cumulative effects of policy cannot be the only dynamic influencing health. Existing research on policy and health points to the importance of looking at the overall composition of policies in a state or locality (Homan et al., 2021; Philbin et al., 2018; Young and Wallace, 2019). The concept of intersectionality, which recognizes that residing at the intersection of social categories (e.g., race and gender) produces unique vulnerability, can be extended to the processes produced by immigrant policy (Gee and Ford, 2011). The patterns of “disproportionate costs” of immigrant policy can be understood as a reflection of the consequences of residing at the intersections of policy’s multiple forms of racializing exclusion. For example, an individual who both avoided public benefits over immigration concerns and who has experienced wage theft has contended with immigration concerns within two domains where they may have been similarly uncertain of their rights and/or subject to the administrative burdens of both the safety net and employment systems (Heinrich, 2018). Future research should examine how the experiences of exclusion in one sector may have consequences for possible exclusions in another sector. For example, ethnographic research on Latinx farmworkers has shown how lacking work authorization can be a risk for criminalization, as some workers must use unlawful identification practices to be able to secure employment while running the risk of a legal violation that could trigger a deportation (S. Horton 2016a).

Not all classes that had multiple, multi-sector exclusions, however, had worse outcomes. This leads to a final interpretation regarding the *type* of policy sector in which exclusions occurred. There were no differences in outcomes between the *low exclusions* class and the three classes that primarily had health and safety net exclusions. There is a large body of evidence that immigrant policies are associated with worse access to health care for foreign-born individuals and noncitizens, in particular, compared to US born individuals (Crookes et al., 2022). When looking at the "disproportionate costs" of immigrant policy *within* an immigrant sample, however, the findings suggest that exclusions related to labor, employment, and immigration enforcement may drive inequities. A growing body of evidence indicates that immigration enforcement policies, measured at various levels, are associated with worse outcomes for many immigrant groups (Perreira and Pedroza, 2019) and the threat of enforcement can discourage immigrants from asserting their rights in the workplace (S. Horton 2016a,b). Other dynamics may also be at play, such as economic stress due to limited employment opportunities compounded by the costs of contact with the immigration enforcement and criminal justice systems. Future research should include examination of the ways in which labor/employment and immigration enforcement, specifically, produce direct consequences for immigrant populations.

The findings also contribute to understanding of race/ethnic and citizenship inequities within diverse immigrant populations. One approach to understanding health inequities within immigrant populations is to further disaggregate groups by race/ethnic categories (Ponce et al., 2023); another approach, that we took in this study, is to identify groups based on shared experiences of exclusion. Our findings point to the importance of examining the structural forms of exclusion – the "disproportionate costs" - that constitute Asian and Latinxs' social position, rather than solely examining differences between existing race/ethnic categories. For example, regression models showed that, compared to Asian respondents, Latinx respondents were more likely to be in the *cumulative exclusion* class. However, any respondent in that class, regardless of race/ethnicity or other characteristic, was at the highest risk of barriers to care and poor mental health. It was the exclusions – not their social categories – that influenced their higher risk of poor outcomes. By including both Asian and Latinx immigrants we were able to assess patterns among two racialized groups with distinct migration histories and trajectories. While both Asian and Latinx immigrants reside in distinct racial classifications, the intersectional positions of both groups in US race/ethnicity and citizenship hierarchies are the result of interconnected and intersecting institutional policies and practices that may result in "disproportionate costs" (Escudero, 2020).

5. Limitations and future directions

Despite numerous strengths, the study has limitations that should be considered when interpreting our findings. The study was cross-sectional. While all exclusions occurred prior to the outcomes, the survey measured *any* experience, irrespective of timing or frequency; therefore, findings cannot establish causal relationships. The study only included individuals currently living in the United States and outside of institutional settings (e.g., detention centers), excluding those who may have been or were in the process of being deported. As

a result, the findings likely underestimate the extent of and acute health influences of policy exclusions.

Several immigrant populations of color were not included in the survey, such as those from Africa or the Middle East and North Africa. Future research should include additional groups and explore the extent to which policy exclusions may have distinct impacts on sub-groups of immigrants based on differences such as country of origin, immigration histories, socioeconomic status, or discrimination. The analysis does not establish a direct link between health and health care outcomes and any one policy, rather the data establishes population patterns of exclusion within a multi-sector policy context. Finally, while our measures are innovative, they do not capture the entirety of exclusions that Asian, Latinx, and other immigrants may face. Future research can develop measures of other aspects of restrictive immigrant policies to examine the numerous consequences of policies in immigrants' lives and on their health.

6. Policy implications

Our findings have direct implications for health policies and programs. First, efforts to promote immigrant health should respond to the inequitable *consequences* of multiple areas of policy and related experiences of exclusion. For example, efforts to improve access within health care systems may have limited population health benefits if they do not also address the exclusions that patients experience in areas such as the workplace or policing in communities. For many immigrants, the experience of exclusion in one area of their lives likely means they have experienced exclusions in other areas. Second, addressing immigrant criminalization and labor exploitation are likely key to protecting and advancing immigrant health. Finally, while culturally tailored interventions are critical, interventions should also consider how to engage and support groups of immigrants based on their experiences of exclusion, rather than primarily their race/ethnic or citizenship category.

7. Conclusion

Immigrant policies across sectors have consequences in the lives of immigrants that contribute to inequitable health outcomes. Our findings provide insights into how immigrant policy – a structural factor–manifests in multiple, intersecting ways in the lives of diverse immigrant populations, influencing their access to health care and health status. Addressing the direct and exclusionary experiences created by immigrant policy can inform community-level efforts to change restrictive policies and eliminate the harmful and "disproportionate costs" borne by immigrant populations.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Data availability

The data that has been used is confidential.

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Table 1

Characteristics of study sample.

	% or mean(sd)
Ethnicity	
Asian	42%
Latino	58%
Citizenship	
Naturalized	48%
Noncitizen	52%
Age	48.82 (16.18)
Sex	
Female	53%
Male	47%
Education level	
High school graduation	66%
No high school graduation	34%
Employment status	
Employed, in labor market	59%
Unemployed	5%
Out of labor force, not in labor market	36%
Federal Poverty Level (FPL)	
At or above 200% FPL	46%
Below 200% FPL	54%
Insurance Status	
Has insurance	81%
Uninsured	19%
Language of interview	
English	47%
Non-English	53%
Usual source of care	
No	20%
Yes	80%
Delay in care in the last 12 months	
No	84%
Yes	16%
Self-rated health	
Fair/Poor	33%
Good	34%
Very good	20%
Excellent	13%
Psychological distress	
K6 Distress Score	4.09 (4.29)

Notes:

Source: CHIS, 2018, 2019, 2020 (n = 2010).

sd = standard deviation.

Analyses weighted.

Table 2

Policy exclusions experienced by study sample.

% of respondents who were ever …	% or mean(sd)
Health and social services exclusions	
Denied public benefits due to income	17%
Denied public benefits due to citizenship	25%
Denied public benefits due to paperwork	13%
Denied medical interpretation	12%
Observed another be denied interpretation	13%
Avoided government programs	25%
Asked to show SSN to receive medical care	33%
Education policy exclusions	
Discouraged from pursuing more education	10%
Asked to show SSN to enroll in school	24%
Labor and employment policy exclusions	
Settled for a job that paid less than deserved	34%
Work authorization at risk of expiring	10%
Unable to apply for job due to legal status	29%
Unable to be hired due to legal status	17%
Denied wages earned	18%
Asked to perform dangerous jobs	12%
Injured at work	26%
Enforcement exclusions	
Stayed indoors to avoid law enforcement	15%
Been watched by law enforcement	9%
Been stopped by law enforcement	13%
Asked to prove citizenship by police	7%
Seen immigration office in neighborhood	12%
Ever been deported	4%
Known someone deported	31%
Mean number of exclusions	4.08 (3.61)

Notes:

Source: RIGHTS Survey, 2018, 2019, 2020 (n = 2010).

sd = standard deviation.

Analyses weighted.

Abbreviations: Social security number, SSN.

Table 3

Policy exclusion classes and descriptions.

Class #	Class name	Respondents in this class had …	% of sample
1	Denied public benefits	high probabilities of having been denied public benefits due to citizenship status or income eligibility	8.3%
2	Denied and avoided public benefits and limited employment	high probabilities of having been denied public benefits due to citizenship or income eligibility and having avoided public benefits over immigration concerns and limited employment due to settling for lower paying jobs	6.6%
3	Denied and avoided public benefits and limited employment and legal status barriers	high probabilities of having been denied public benefits due to citizenship or income eligibility and having avoided public benefits over immigration concerns and medium probabilities of limited employment due to settling for lower paying jobs and legal status barriers to jobs	7.4%
4	Limited employment and enforcement impacts	medium probabilities of limited employment due to settling for lower paying jobs and legal status barriers to jobs and of having knowing someone who was deported	29.1%
5	Cumulative exclusions	high probabilities of *exclusions* across all policy sectors, including avoidance of public benefits due to immigration concerns, having been asked to show legal status in a health care setting; limited employment and worker rights violations; and having stayed indoors to avoid enforcement, known someone deported, and been surveillance by law enforcement	4.5%
6	Low exclusions (Reference group)	extremely low probabilities of any exclusions across sectors	44%

Table 4

Associations between class membership and A. usual source of care, B. delay in needed care, C. psychological distress score, and D. Excellent compared to fair/poor health, net covariates.

Class # and name	A. Usual source of care[a]	B. Delayed needed care[a]	C. K6 Score[b]	D. Excellent vs. Fair/ poor[c]
	OR (95% CI)	OR (95% CI)	mean (95% CI)	RRR (95% CI)
1. Denied public benefits	0.67 (0.28–1.58)	1.15 (0.45–2.9)	4.8 (2.8–6.7)	1.4 (0.55–0.67)
2. Denied and avoided public benefits and limited employment	0.49 (0.20–1.2)	2.20 (0.82–6.1)	4.5 (3.2–5.5)	1.1 (0.60–2.15)
3. Denied and avoided public benefits and limited employment and legal status barriers	0.50 (0.23–1.1)	2.24 (0.98–5.1)	3.5 (2.6–4.5)	1.5 (0.75–2.83)
4. Limited employment and enforcement impacts	0.48[d] (0.26–0.90)	2.34[d] (1.13–4.84)	4.4 (3.7–5.1)	1.3 (0.79–2.12)
5. Cumulative exclusions	0.37[d] (0.14–0.997)	18.7[d] (7.0–49.4)	5.7 (4.7–6.6)	3.7[d] (1.1–11.5)
6. Low exclusions	ref	ref	3.6 (3.1–4.1)	ref

Notes:

Covariates for all models: Race/ethnicity (Latinx/Asian), citizenship status, age, gender, education level, employment status, poverty, and language of interview. Additional covariates: Model A: insurance status; Model B: usual source of care. Analyses weighted.

[a] Logistic regression.

[b] OLS regression.

[c] Multinomial logistic regression.

[d] $p < 0.05$.

Source: RIGHTS Study and CHIS, 2018–2020 (n = 2010)