Summary of the Current Status of Health Insurance Enrollment in Connecticut

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Policymakers in Connecticut are considering various options to increase the affordability of insurance in the state. Prior to making such decisions, they are interested in better understanding the current demographic distribution of insurance enrollment in detailed categories. However, such estimates are not readily available. In this report we combine data from the American Community Survey Public Use Microdata Sample (ACS PUMS) with state-specific data sources to calculate detailed insurance enrollment information for 2019. We also produce high-level estimates of the impact of the COVID-19 pandemic on insurance enrollment.

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Summary

The state of Connecticut is currently considering a number of policy options to improve health insurance affordability, access, and equity. However, prior to undertaking such initiatives, the state is interested in better understanding the current distribution of insurance enrollment. To create policies that seek to increase insurance coverage and access to care in underserved communities and reduce racial and ethnic disparities, state policymakers need an accurate picture of the current distributions of insurance enrollment across these dimensions. In particular, the state's All-Payer Claims Database (APCD) does not contain complete information on race and ethnicity and is not representative of the self-funded group market. In this report we combine data from the American Community Survey Public Use Microdata Sample (ACS PUMS), which includes information on race and ethnicity, as well as insurance enrollment among those under the age of 65 in Connecticut. We also use published estimates of the impact of COVID-19 on insurance enrollment to provide a high-level estimate of how enrollment in Connecticut was affected during the early months of the pandemic.

Methods

To produce these estimates, we began with the ACS PUMS data, which are representative at the state level and include enrollment information for broad health insurance categories. We used iterative proportional fitting to reweight the age, gender, race, and ethnicity distributions to match the official Connecticut population estimates produced by the National Center for Health Statistics (NCHS), since those are the official estimates used by the Connecticut Department of Public Health. We combined the reweighted ACS PUMS data with a number of data sources on enrollment in various sources of health insurance in Connecticut in order to produce estimates for more granular insurance categories than are available in the ACS PUMS. For each source, we reweighted the ACS PUMS age and gender distributions by the age and gender distributions for that source from Connecticut. To keep population totals consistent, we did not reweight the total population for each insurance category, but instead the age and gender distributions within that population. We did not use race and ethnicity data from the Connecticut sources, since those fields have known issues of missingness and inaccuracy, as communicated to our team by individuals familiar with the data in Connecticut. Instead we used the race and ethnicity status in the ACS PUMS obtained after reweighting using the Connecticut-specific age and gender distributions. In order to produce high-level estimates of changes in insurance enrollment between 2019 and 2020 (when the major impacts of the COVID-19 pandemic started to become evident in the United States), we applied existing estimates of changes in enrollment in different insurance sources to our 2019 enrollment figures for Connecticut.

Results

We find that insurance enrollment in Connecticut in 2019 was generally high, with 93.5 percent of the population enrolled. Younger individuals—especially those under the age of 18—had the highest rate of coverage by Medicaid compared with other age groups, which is consistent with broader Medicaid eligibility criteria for children. Employer-sponsored insurance (ESI) covered the largest proportion of individuals within each age category, but was highest among those ages 40–49, with over two-thirds of that population enrolled in ESI.

There were substantial differences in insurance coverage by race and ethnicity. Asians had the highest rate of ESI coverage (76.0 percent), compared with 64.0 percent of white individuals, 52.8 percent of black individuals, and 45.4 percent of those of other races. The opposite pattern was true for coverage by Medicaid. Within the individual market, subsidized enrollment was highest among those who are white or of another race (46.6 percent and 55.2 percent, respectively), while 30.8 percent of black enrollees and 35.2 percent of Asian enrollees on the individual market received subsidies. Considering differences by ethnicity (Hispanic versus non-Hispanic), Hispanic individuals had a substantially higher rate of coverage by Medicaid (35.7 percent) compared with non-Hispanics (19.4 percent).

Within the individual market, younger people were more likely to have off-marketplace coverage, which is consistent with the notion that younger, healthier individuals may purchase low-priced plans outside of the state marketplace; the use of student health insurance provided via universities and colleges (which are considered individual insurance plans) may also contribute to off-marketplace individual market enrollment among younger people. Within the ESI market there was little variation by age, gender, race, or ethnicity in the distribution across markets (e.g., small groups versus large groups).

We also produced high-level estimates of the changes in insurance enrollment in Connecticut between 2019 and 2020, which includes the early months of the COVID-19 pandemic. Recent estimates of changes in insurance enrollment during this time period, which we applied to the Connecticut enrollment estimates, suggest that uninsurance actually decreased slightly, while Medicaid coverage increased and private insurance coverage fell.

Conclusion

This report provides the state of Connecticut with estimates of the distributions in enrollment by age, gender, race, and ethnicity in detailed insurance categories. The complex nature of this work highlights the need for better, more detailed health insurance enrollment data for state policymakers to aid in decisionmaking. We gratefully acknowledge the support and assistance of several people in writing this report. We thank our partners Miriam Miller and Josh Wojcik of Connecticut's Office of the State Comptroller and Jill Zorn of the Universal Health Care Foundation of Connecticut for their input and guidance. We are also grateful to Carter Price of the RAND Corporation and Naomi Zewde of the City University of New York for their thoughtful reviews of this work. We also thank Arnold Ventures and the Commonwealth Fund for funding this work.

Abbreviations

ACA	Affordable Care Act
ACS PUMS	American Community Survey Public Use Microdata Sample
APCD	All-Payer Claims Database
CHIP	Children's Health Insurance Program
CPS	Current Population Survey
DoL	U.S. Department of Labor
EHBS	Employer Health Benefits Survey
ESI	employer-sponsored insurance
NCHS	National Center for Health Statistics
NHIS	National Health Interview Survey

1. Introduction

The Affordable Care Act (ACA) greatly increased the number of health insurance options available to most Americans via expansion of Medicaid eligibility (in some states), requirements that insurers offer coverage to all applicants regardless of preexisting conditions, and the establishment of health care marketplaces that allow individuals and families to purchase private health insurance coverage. These reforms, along with other ACA regulations, are intended to increase access to health insurance. Other regulations that limit age variation in premiums on the individual market and prohibit insurers from basing premiums on health status are designed to ensure that individuals are not priced out of purchasing health insurance due to exorbitant premiums. However, affordability of health insurance remains a major issue for many individuals and families. For example, insurance premiums for marketplace plans have risen substantially in recent years, and in turn, enrollment in ACA-compliant marketplace plans among individuals who do not qualify for subsidies fell from 6.3 million in 2016 to 3.8 million in 2018 (Centers for Medicare & Medicaid Services, 2019). The small group insurance market, which includes groups with up to 50 employees, has also seen rising premiums in recent years. Between 2015 and 2018 premium growth in the small group market outpaced premium growth in the large group market by 0.5 percentage points annually (McCue and Hall, 2020). Enrollment has declined steadily over the same period, though uninsurance among employees of small businesses has dropped as many enrolled in marketplace plans or became eligible for Medicaid due to expansion.

The state of Connecticut is currently considering a number of options to address affordability, access, and equity concerns. However, prior to undertaking such initiatives, it is interested in better understanding the current state of insurance enrollment in the state. In particular, Connecticut's All-Payer Claims Database (APCD) does not contain accurate information on race and ethnicity, nor does it fully represent self-funded employers. To create policies that target underserved communities and reduce disparities in insurance coverage and access to care, particularly by race and ethnicity, state policymakers need an accurate picture of the current distributions of insurance enrollment across these dimensions. In this report we combine data from the American Community Survey Public Use Microdata Sample (ACS PUMS), which represents all state residents and contains information on race, ethnicity, and insurance status, with data from various Connecticut sources to provide the state with a fuller picture of current insurance enrollment. We also use published estimates of the impact of COVID-19 on insurance enrollment to provide a back-of-the-envelope estimate of how the COVID-19 pandemic has affected enrollment in Connecticut.

2. Methods

No single data source contains detailed insurance enrollment and demographic information representative of Connecticut. The state's APCD is likely the closest approximation of this, but there are known issues with data quality and missingness of the race and ethnicity data in the APCD, and it is not representative of self-funded employer plans. Therefore, to construct the estimates in this report, we used the ACS PUMS data, which include high-level health insurance coverage data and well as demographic data, and combined them with a number of additional sources of data to (1) ensure that demographic distributions within an insurance source (e.g., Medicaid) matched known distributions within the state, (2) break down insurance status into more detailed categories than what is already included in the ACS PUMS (e.g., small group versus large group), and (3) match established Connecticut population totals for 2019.

Insurance Enrollment Estimates for 2019

To ensure our estimates reflected accurate population totals for Connecticut, we began with the ACS PUMS. The ACS PUMS data are representative at the state level, and include data on health insurance source of coverage (e.g., employer-sponsored insurance [ESI], private nongroup insurance, Medicaid, Medicare, etc.) in addition to information on race and ethnicity (U.S. Census Bureau, undated). We rely on the ACS PUMS data as the basis of this analysis, since some data on insurance enrollment directly from the state did not have accurate or complete information on race and ethnicity distributions. While the Connecticut population totals were the same in the ACS PUMS and the estimates produced by the National Center for Health Statistics (NCHS) and available from the Connecticut Department of Public Health, the distributions of age, gender, race, and ethnicity did not match exactly.¹ Since the NCHS estimates are the official Connecticut population estimates (Connecticut Department of Public Health, undated), we reweighted the ACS PUMS data using the NCHS population estimates such that the detailed population breakdowns by age, race, and ethnicity match almost exactly. There were certain age, gender, race, and ethnicity categories noted in the NCHS estimates that did not have representation in the ACS PUMS data,² so we combined the Asian and "other" race categories within the Hispanic ethnicity category to conduct the reweighting.

¹ The NCHS and ACS PUMS data differ in distribution of demographics because the NCHS data take into account a number of data sets, including those of the ACS PUMS, to produce their estimates (Arispe and Gindi 2021).

² In particular, there was poor representation of those with Asian or "other" race *and* Hispanic ethnicity in the ACS PUMS data.

The algorithm we used to implement the reweighting is called iterative proportional fitting. Since there are more than 35,000 individuals in the ACS PUMS data for 2019, the algorithm has ample space to match the Connecticut-specific data on age, gender, race, and ethnicity distribution within the population. After applying the algorithm, we validated its accuracy by comparing the desired distribution of individual characteristics based on the NCHS population estimates with the distribution observed in the reweighted ACS PUMS data.

We combined the reweighted ACS PUMS data with a number of data sources on enrollment in various sources of health insurance in Connecticut. We used these sources in order to match known distributions of demographic characteristics within insurance categories in the state. For each insurance source we reweighted the ACS PUMS age and gender distributions by the age and gender distributions for that data source from Connecticut. For these analyses, we include only individuals under the age of 65. In order to keep population totals accurate, we did not reweight the total population for each insurance category, but rather the age and gender distributions within that population. We describe below the data we compiled to identify insurance enrollment in each of the following categories:

Uninsured Individuals in the ACS PUMS who do not report any form of insurance are considered to be uninsured.

Medicaid The Connecticut Department of Social Services provided Medicaid enrollment data by age and gender categories. This includes enrollment in both the Children's Health Insurance Program (CHIP) and Medicaid.

Enrollment in the individual market We combined data from Access Health CT and the ACS PUMS to determine enrollment in three subcategories of the individual market: subsidized marketplace enrollment, unsubsidized marketplace enrollment, and off-marketplace enrollment.

- Enrollment: Access Health CT, the health insurance marketplace for the state of Connecticut, provides detailed enrollment data in its annual summary reports (Access Health CT, 2019, 2020). We are also able to use the Access Health CT data report to determine the percentage of marketplace enrollees who receive subsidies versus those who do not. The ACS PUMS data report on the number of individuals who have individual market coverage and are subsidized or unsubsidized but do not differentiate between on- and off-marketplace coverage. Therefore, we calculate the ratio of subsidized to unsubsidized marketplace enrollees from Access Health CT and apply it to the ACS PUMS data. After applying the ratio, the number of remaining unsubsidized individuals are considered to have off-marketplace coverage.
- **Demographic distribution:** Since the age distributions of those who are subsidized and unsubsidized on the individual market could be different given the correlation between age and income, it is important to report them separately. However, the data provided by Access Health CT, as well as similar data contained in the Centers for Medicare & Medicaid Services Marketplace Open Enrollment Period Public Use Files (Centers for

Medicare & Medicaid Services, 2020), do not make this distinction. Therefore we use data from the Current Population Survey (CPS) that contain individual level data for all three market components.³ The CPS is too small to be representative of Connecticut but is large enough to be representative of the U.S. Northeast, which contains only Medicaid expansion states, including Connecticut. Therefore, after having restricted the CPS to the Northeast we reweight it using NCHS population statistics for Connecticut and estimate, for each age group, the ratio of the size of the subsidized and unsubsidized marketplace. We use this ratio to split the Access Health CT age distribution into its two market components and derive the size of off-marketplace enrollment as a residual. This leads to consistent age distribution estimates in which all the cell values are reasonable. The gender, race, and ethnicity distributions for these variables. This implies that the distribution of gender, race, and ethnicity for unsubsidized marketplace and off-marketplace enrollment are the same, since we cannot distinguish between these two markets in the ACS PUMS.

Enrollment in ESI We used the ACS PUMS to determine the total population enrolled in ESI. We then subset ESI enrollees into categories based on Taft-Hartley status, small versus large group status, and for-profit versus nonprofit status within the large group market based on control totals from administrative sources. We consider these categories in particular to align with a proposal in Connecticut Senate Bill 842 (State of Connecticut General Assembly, 2021), which would expand coverage of the existing state employee health plan to those who currently are eligible for insurance through multiemployer plans (e.g., Taft-Hartley plans),⁴ nonprofit employers, or small groups. The determination of the proportions of individuals in specific plan types follows the taxonomy shown in Figure 2.1.

³ In principle, it is possible to combine the age distributions from the ACS PUMS and Access Health CT to obtain separate age distributions for all three components of the individual market. Unfortunately, this approach is not practically viable, because in order to reconcile all the data sources, some population estimates in the younger age groups become negative or extremely small.

⁴ Taft-Hartley plans are multiemployer plans that are collectively bargained, typically by a union. The name is derived from the Taft-Hartley Act, which is more formally known as the Labor Management and Relations Act of 1947.





The taxonomy in Figure 2.1 translates into the following formula:

$$ESI = S + (L^{np} + L^p) + TH,$$

where

- ESI is the total population on ESI
- S is the small group market (\leq 50 full-time equivalent employees)
- L^{np} is the large group market, nonprofit
- L^p is the large group market, for-profit
- TH are Taft-Hartley/multiemployer plans.

Our key sources of information for the group market in Connecticut are the CT Consumer Report Card on Health Insurance Carriers for the small and large group market (State of Connecticut Insurance Department, 2020) and the publicly available U.S. Department of Labor (DoL) Group Health Plan Data for Taft-Hartley plans (DoL, undated).

 Taft-Hartley plans: We use the DoL's Group Health Plan Data to determine the total number of individuals enrolled in Taft-Hartley plans in Connecticut. We understand that this could be an undercount because the data rely on the filing of Form 5500, which some plans are not required to file. Plans that are exempted from the filing requirement include church and government plans, as well as plans with fewer than 100 participants (unless they are funded through a trust). For 2017 the DoL data cover 75.4 million employees. By comparison, the 2020 CPS shows that the number of employees who own an ESI plan is 85.4 million. This difference is indicative of the extent to which the DoL data may underestimate the size of the group market. From the DoL data set we have extracted all the plans based in Connecticut and kept those that are labeled as "multiemployer" plans. Then, we use Taft-Hartley plan enrollment data that were provided by the Connecticut Coalition of Taft-Hartley Health Funds to determine the distribution of individuals by age and gender.⁵ The coalition data are the only source of age distribution for this population.

2. **Small group plans:** In order to determine the size of the small group market we rewrite the equation above as follows:

$$S + (L^{np} + L^p) = ESI - TH.$$

On the right hand-side we put the known quantities: ESI from the ACS PUMS and Taft-Hartley from the DoL data. Since we are interested in the population under age 65, both quantities are computed for this population.

We derive the size of the small group market by using the Connecticut Consumer Report Card on Health Insurance Carriers, according to which the ratio of the size of small group to the size of large group is 10/84 (0.119). The equation is as follows:

$$\frac{\mathrm{S}}{(\mathrm{L}^{np}+\mathrm{L}^{p})}=\frac{10}{84}.$$

We combine this equation with the key identity above to obtain enrollment in the small and large group markets. The Connecticut APCD provided us with aggregated data on ESI coverage, which included a category for enrollment in the small group market and the corresponding age and gender distributions.

3. Large group, nonprofit, and for-profit plans: In order to determine the nonprofit and for-profit components of the large group market, we use the 2019 Kaiser Employer Health Benefits Survey (EHBS; see Claxton et al., 2019), which allows us to compute the ratio of workers covered by nonprofit and for-profit firms of size larger than 50 as follows:

$$\frac{\mathrm{L}^{np}}{\mathrm{L}^p} = 0.405.$$

Using this figure we obtain the size of the nonprofit and for-profit large group markets.

We summarize the data sources used for this analysis in Table A.1 in the appendix.

We note that the ACS PUMS data allow individuals to indicate more than one source of coverage. However, the proportion of individuals with multiple sources of coverage (especially unlikely pairings like being covered both by ESI *and* an individual plan) is higher than expected. For that reason, we introduce the following hierarchy to determine individuals' *primary* source of coverage, such that each insurance category is mutually exclusive and the totals sum to the population total of Connecticut:

⁵ We do not use the data from Connecticut Coalition of Taft-Hartley Health Funds for enrollment figures, as those data include only the subset of Taft-Hartley plans that currently participate in the medical network contract endorsed by the coalition.

- 1. Medicaid
- 2. other public coverage (Indian Health Service, Medicare, TRICARE)
- 3. ESI
- 4 individual market coverage
- 5. uninsured.

We choose this hierarchy because typically, individuals with both public and private coverage have primary coverage through the public insurer; similarly, ESI is more likely to represent a comprehensive health insurance plan (and therefore the primary source of coverage) relative to individual market coverage. This is similar to the hierarchy routinely used by the State Health Access Data Assistance Center (Hest, 2020), though the categories we use are slightly different because of our focus on the those under 65 years of age.

High-Level Insurance Enrollment Estimates for 2020

To provide Connecticut policymakers with a sense of the impact of the COVID-19 pandemic on insurance enrollment, we also calculated a version of these estimates applying recently published estimates from the NCHS's National Health Interview Survey (NHIS) of the differences in uninsurance during the first half of 2020 compared with 2019 (Cohen et al., 2021), and Medicaid enrollment estimates from June 2019 and November 2020 provided to us by the Connecticut Department of Social Services. These NHIS estimates are not state specific, and included estimates of uninsurance, as well as the two high-level categories: public health plan coverage and private health plan coverage. However, the NHIS estimates for changes in public coverage did not align with estimates from the Centers for Medicare & Medicaid Services that show that enrollment in Medicaid and CHIP, which make up the majority of public health insurance coverage for those under the age of 65, increased by 8.8 percent between October 2019 and September 2020. Therefore, we use the NHIS estimates of changes in uninsurance, combined with the estimates of changes in Medicaid enrollment from Connecticut, to back out the changes in private health insurance enrollment.⁶

We combine all of our individual market and ESI categories into one category for private health plan coverage for this part of the analysis, since we cannot distinguish changes in more granular categories. The Connecticut Medicaid and NHIS data are broken down by age, gender, and race/ethnicity categories. Age is only provided in two categories (those under 18 and those 18–64) in the NHIS, so we roll up our more detailed age categories to match those included in the NHIS report. Additionally, the race/ethnicity categories in the NHIS are combined into the following mutually exclusive categories: non-Hispanic white, non-Hispanic black, non-Hispanic

⁶ We make the assumption that the proportion of the population enrolled in other public insurance coverage did not change, as the COVID-19 pandemic would not have substantially affected eligibility for other public insurance types.

Asian, non-Hispanic "other," and Hispanic. Since we cannot break down these categories to allow for overlap between race and ethnicity, we align our race categories (white, black, Asian, and "other") with the non-Hispanic versions of those race categories in the NHIS report and calculate the percentage change in enrollment for our non-Hispanic category as the weighted average of the four non-Hispanic race categories.

We use the percentage change in uninsurance rates and in Medicaid enrollment between 2019 and 2020 and apply those percentage changes to the enrollment percentages in Connecticut to provide estimates for 2020 enrollment. We assume that there is no change in other public insurance enrollment, so the remaining difference is attributed to changes in private health insurance enrollment. We note that as opposed to some early predictions that the COVID-19 pandemic could lead to major reduction in insurance coverage (Dorn, 2020; Garrett and Gangopadhyaya, 2020; Health Management Associates, 2020), the recent estimates from the NHIS show changes in uninsurance from 2019 to 2020 that were not statistically significant (Cohen et al., 2021); in fact, uninsurance decreased slightly.

Table 3.1 summarizes the demographics and population size in the state of Connecticut for the three million residents under the age of 65. Those under the age of 18 made up roughly one-fourth of that total. There are roughly equal proportions of female and male individuals. More than 80 percent of the population under age 65 is white, and 18 percent is Hispanic.

The full estimates from our analyses are included in Table A.2 in the appendix. In the sections that follow in this chapter, we describe the insurance distributions by demographic characteristics.

Category	Ν	Category %		
Total	2,935,043	100.0%		
Age				
<18	726,690	24.8%		
18–24	339,223	11.6%		
25–29	235,922	8.0%		
30–39	465,876	15.9%		
40–49	444,269	15.1%		
50-64	723,070	24.6%		
Gender				
Female	1,473,934	50.2%		
Male	1,461,110	49.8%		
Race				
White	2,349,750	80.1%		
Black	397,806	13.6%		
Asian	164,196	5.6%		
Other	23,294	0.8%		
Ethnicity				
Hispanic	535,777	18.3%		
Non-Hispanic	2,399,268	81.7%		

Table 3.1. Connecticut Demographics for Individuals Under 65 Years of Age, 2019

Distribution of High-Level Insurance Categories by Demographic Characteristics

In Figures 3.1–3.4, we summarize the distribution of insurance category by age (Figure 3.1), gender (Figure 3.2), race (Figure 3.3), and ethnicity (Figure 3.4). Unsurprisingly, individuals under the age of 18 have the highest proportion covered by Medicaid compared with other age categories, though for every age group ESI accounts for the majority of individuals. Insurance coverage among females is fairly similar to that of males (Figure 3.3), though males have higher rates of uninsurance (8.0 percent versus 5.0 percent). There are substantial differences in insurance coverage by race and ethnicity (Figures 3.3–3.4). Coverage by ESI is highest among white (63.5 percent) and Asian (71.8 percent) individuals, compared with 51.8 percent of black individuals and 52.6 percent of individuals in the "other" race category. Coverage by Medicaid is highest among black individuals (34.7 percent), followed by white (21.1 percent), "other" (19.1 percent), and Asian (13.5 percent) individuals. Uninsurance is highest among those of the "other" race category (20.0 percent) and black individuals (7.3 percent). The proportions of Medicaid coverage (37.2 percent) and uninsurance (12.6 percent) are also much higher among the Hispanic population compared with the non-Hispanic population (19.2 percent and 5.1 percent, respectively).







Figure 3.2. Distribution of Insurance Category by Gender, 2019

SOURCE: Authors' calculations using reweighted ACS PUMS data.



Figure 3.3. Distribution of Insurance Category by Race, 2019



Figure 3.4. Distribution of Insurance Category by Ethnicity, 2019

SOURCE: Authors' calculations using reweighted ACS PUMS data.

Distribution of Individual Market Enrollment Categories by Demographic Characteristics

Just under 6 percent of the population under age 65 in Connecticut (roughly 173,000 individuals) is enrolled in individual market coverage. Figures 3.5-3.8 summarize the distribution of enrollment types (on-marketplace subsidized, on-marketplace unsubsidized, and off-marketplace enrollment) in 2019. Individuals under the age of 25 had substantially more off-marketplace enrollment than older individuals (Figure 3.5), while individuals 25 and older were more likely to be enrolled in individual plans on the marketplace without subsidies relative to those under 25. The distributions were similar among males and females (Figure 3.6), but there was slightly higher enrollment in off-marketplace plans among black (47.0 percent) and Asian individuals (42.6 percent) than among those who are white or of another race (35.6 percent and 29.6 percent, respectively; Figure 3.7). Subsidized enrollment was also highest among those who are white or of another race (46.7 percent and 55.7 percent, respectively, compared with 29.6 percent of black enrollees and 36.1 percent of Asian enrollees). Finally, the distribution of enrollment across the individual market insurance types was relatively similar between Hispanic and non-Hispanic individuals, though the Hispanic population had somewhat lower enrollment in subsidized plans (37.2 percent) compared with the non-Hispanic population (45.5 percent; Figure 3.8).



Figure 3.5. Distribution of Individual Market Categories by Age, 2019

SOURCE: Authors' calculations using reweighted ACS PUMS data.



Figure 3.6. Distribution of Individual Market Categories by Gender, 2019



Figure 3.7. Distribution of Individual Market Categories by Race, 2019

SOURCE: Authors' calculations using reweighted ACS PUMS data.



Figure 3.8. Distribution of Individual Market Categories by Ethnicity, 2019

SOURCE: Authors' calculations using reweighted ACS PUMS data.

Distribution of Employer-Sponsored Insurance Enrollment Categories by Demographic Characteristics

Almost two-thirds of the population under age 65 in Connecticut (about 1,800,000 individuals) are enrolled in ESI. Figures 3.9–3.12 summarize the distribution of enrollment

types—small group and large group (for-profit employers), large group (nonprofit employers), and Taft-Hartley plans—in 2019. The distribution of enrollment among these insurance types did not vary substantially by demographics. Those ages 40–64 had slightly higher enrollment in small group plans and slightly lower enrollment in large group plans with for-profit employers (Figure 3.9). The distributions by gender were relatively similar to one another (Figure 3.10), while enrollment in large group plans in for-profit organizations was slightly higher among those of Asian race (70.5 percent) compared with all other races (58.7–60.9 percent; Figure 3.11). At the same time, enrollment in large group plans in nonprofit organizations was lower among this group. Enrollment in small group plans was highest among white individuals and those of other races (10.7 percent and 10.2 percent, respectively), compared with 8.1 percent among black and Asian individuals. Finally, there were no substantial differences in enrollment by ethnicity (Figure 3.12), but Hispanic individuals had slightly lower enrollment in large group insurance provided through a nonprofit (22.0 percent versus 25.3 percent), compared with non-Hispanic individuals.



Figure 3.9. Distribution of Employer-Sponsored Insurance Categories by Age, 2019



Figure 3.10. Distribution of Employer-Sponsored Insurance Categories by Gender, 2019

SOURCE: Authors' calculations using reweighted ACS PUMS data.



Figure 3.11. Distribution of Employer-Sponsored Insurance Categories by Race, 2019



Figure 3.12. Distribution of Employer-Sponsored Insurance Categories by Ethnicity, 2019

SOURCE: Authors' calculations using reweighted ACS PUMS data.

High-Level Estimates of 2020 Insurance Enrollment

We used estimates of changes in insurance enrollment between 2019 and 2020 to estimate changes to insurance enrollment in Connecticut during the early months of the COVID-19 pandemic. Table 3.2 provides the estimates of the proportions of the population who were uninsured, covered by Medicaid, covered by private insurance, and covered by other public coverage (Medicare, Indian Health Service, TRICARE, and Veteran's Administration) in 2019 and 2020. Contrary to early estimates of the impact of COVID-19 on insurance enrollment that predicted increases in uninsurance (Dorn, 2020; Garrett and Gangopadhyaya, 2020; Health Management Associates, 2020), our estimates (based on national estimates from the NHIS) find a small reduction in uninsurance (5.9 percent in 2020, compared with 6.5 percent in 2019). We find that Medicaid enrollment increased from 22.5 percent of the population in Connecticut under age 65 in 2019 to 24.4 percent in 2020, and private insurance enrollment fell by 1.4 percentage points. These effects were relatively consistent in all age, gender, race, and ethnicity categories, other than the "other" race population. Among those of other race, uninsurance declined slightly as it did with the overall population under age 65, but Medicaid coverage increased more substantially by 6.3 percentage points.

Category	Uninsured	Medicaid	Private Coverage	Other Public Coverage ^a	
Total					
2019	6.5%	22.5%	68.2%	2.9%	
2020	5.9%	24.4%	66.8%	2.9%	
Age					
<18					
2019	3.2%	33.7%	61.8%	1.3%	
2020	2.9%	36.3%	59.4%	1.3%	
18–64					
2019	7.5%	18.8%	70.3%	3.4%	
2020	6.9%	20.5%	69.2%	3.4%	
Gender					
Female					
2019	5.0%	23.9%	68.9%	2.3%	
2020	4.6%	26.0%	67.1%	2.3%	
Male					
2019	8.0%	21.0%	67.5%	3.5%	
2020	7.1%	22.8%	66.5%	3.5%	
Race					
White					
2019	6.2%	21.1%	69.7%	3.0%	
2020	5.8%	21.7%	69.5%	3.0%	
Black					
2019	7.3%	34.7%	55.4%	2.6%	
2020	7.0%	36.6%	53.9%	2.6%	
Asian					
2019	5.4%	13.5%	79.1%	2.0%	
2020	6.9%	14.7%	76.4%	2.0%	

Table 3.2.	Hiah-Level	Estimates	of 2020	Insurance	Enrollment
			00_0	mound	

Category	Uninsured	Medicaid	Private Coverage	Other Public Coverage ^a
Other				
2019	20.0%	19.1%	58.5%	2.4%
2020	14.5%	20.5%	62.5%	2.4%
Ethnicity				
Hispanic				
2019	019 12.6%		47.9%	2.3%
2020	11.2%	39.7%	46.7%	2.3%
Non-Hispanic ^b				
2019	5.1%	19.2%	72.7%	3.0%
2020	4.8%	20.9%	71.3%	3.0%

SOURCE: Authors' calculations using reweighted ACS PUMS data combined with estimates of 2020 enrollment. NOTES: The data for 2020 are based on January–June for the NHIS and on November 2020 for Medicaid enrollment.

^a The Other Public Coverage category includes Medicare, the Indian Health Service, TRICARE, and the Veteran's Administration

^b The NHIS data had the categories non-Hispanic white, non-Hispanic black, non-Hispanic Asian, non-Hispanic other, and Hispanic. We aligned the non-Hispanic race categories with our ethnicity-agnostic race categories; aligned the Hispanic category with Hispanic, and calculated the non-Hispanic category based on the weighted average of the non-Hispanic race categories in NHIS.

4. Discussion

In this report we compile data from a number of sources in order to provide a comprehensive estimate of insurance enrollment in Connecticut. We relied on data from the ACS PUMS for detailed information on age, gender, race, and ethnicity and reweighted it using state-specific data sources to estimate enrollment in Medicaid; the individual market (on-marketplace subsidized, on-marketplace unsubsidized, and off-marketplace plans); ESI (small group, large group for-profit, large group nonprofit, and Taft-Hartley and other multiemployer plans); and other public coverage, as well as to estimate uninsurance. This work is intended to provide the state of Connecticut with an understanding of the current status of insurance enrollment by demographic categories. It will help to inform policies that seek to increase insurance coverage and affordability and to evaluate whether those policies reduce disparities across race and ethnicity in particular.

Overall, none of our findings were unexpected, and the results are consistent with current knowledge of the private and public insurance sectors. We find that insurance enrollment in Connecticut in 2019 was generally high, with uninsurance levels at 6.5 percent, though there were substantial differences in insurance coverage by race and by ethnicity. Younger individuals, especially those under the age of 18, had the highest rate of coverage by Medicaid compared with other age groups, which is consistent with broader Medicaid eligibility criteria for children. We also found that within the individual market, younger individuals were more likely to have off-marketplace coverage, consistent with the notion that younger, healthier individuals may purchase low-priced plans outside of the state marketplace. The use of student health insurance provided via universities and colleges (which are considered individual insurance plans) may also contribute to higher off-marketplace individual market enrollment among younger people. Furthermore, black and Asian individual market enrollees had lower rates of subsidized enrollment compared with enrollees who were white or in the "other" race category. This lower rate of subsidization among black enrollees is consistent with national data for Medicaid expansion states (Artiga, Damico, and Garfield, 2015). Within the ESI market, there was little variation by age, gender, race, or ethnicity in the distribution of plan types.

Assembling these data highlights the challenges that state policymakers face when seeking data to inform policy changes to decrease uninsurance. Prior to this work, detailed estimates of insurance coverage—particularly broken down by group size and nonprofit status, presented at the level of not only age and gender but also race and ethnicity—were not widely available. To produce these estimates we combined a number of disparate data sources. Although Connecticut has its APCD, even data from APCDs lack important information. In particular, self-funded private insurance plans are not required to report their data to state APCDs. Additionally, race and ethnicity data are unreliable in most state-based data sources. For example, open enrollment

information from Access Health CT (2019) is missing race and ethnicity data for 30 percent of enrollees. The process also highlighted the value of transparency in government reports: the publicly available annual report and easily accessible data from the DoL were crucial for our estimates of the size of the Taft-Hartley market.

We have also produced high-level estimates of the changes in insurance enrollment in Connecticut between 2019 and 2020, which includes the first several months of the COVID-19 pandemic. Contrary to early estimates of the impacts of the pandemic, the recent estimates of changes in insurance enrollment during those time periods, which we applied to the Connecticut enrollment estimates, suggest that uninsurance actually decreased slightly, driven by increases in Medicaid enrollment that more than offset relatively smaller decreases in private insurance coverage. Although increases in unemployment during the pandemic would suggest that ESI coverage (and perhaps private coverage overall) would decrease substantially in 2020, several factors may have contributed to the more modest declines in private coverage during this time (Finegold et al., 2021; Rakotoniaina, 2020):

- Employers may have chosen to furlough employees rather than permanently lay them off in order to allow them to continue their benefits. For example, one survey (Collins et al., 2020) found that 53 percent of respondents who had insurance coverage through a job that was affected due to the pandemic reported being covered via the furloughed job; data released by the U.S. Bureau of Labor Statistics (2021) report a similar percentage.
- Individuals who were permanently laid off may have continued their ESI coverage via the Consolidated Omnibus Budget Reconciliation Act.
- Those who lost ESI or those who were previously uninsured may have enrolled in marketplace coverage during a special enrollment period related to COVID-19.

We note several limitations regarding the estimates in this report. First, we combined several sources of data to produce the enrollment estimates. We used the Connecticut sources to reweight age and gender distributions in the ACS PUMS, but to ensure that the size of the Connecticut population under age 65 remained consistent with published estimates, we maintained the total enrollment in high-level insurance categories from the ACS PUMS. However, this means that our estimates of total numbers of individuals enrolled in individual categories do not align exactly with the Connecticut data sources. Furthermore, the use of multiple data sources leads to some uncertainty surrounding the estimates—particularly breakdowns by race and ethnicity in the subcategories of ESI coverage—and we are not able to estimate the degree of uncertainty. Second, as we have described herein, we apply a hierarchy to insurance categories to ensure that population totals add up. While this may lead to slight differences in the demographic distributions by insurance category, it causes the estimates to align better with overall population figures from the state. Finally, we note that

the estimates of changes in enrollment during the first several months of the COVID-19 pandemic should be interpreted with caution. The unemployment estimates are based on national estimates rather than estimates specific to Connecticut, and are based on survey data. Survey response rates may have been affected by the COVID-19 pandemic (Cohen et al., 2021), so additional data are needed before conclusions can be drawn regarding the impact of the pandemic on insurance enrollment. Furthermore, the Medicaid enrollment estimates for 2020 by race and ethnicity are subject to known quality issues with the state Medicaid data.

This work is intended to provide policymakers with information on the current state of insurance enrollment in Connecticut so that they may create policies that target underserved communities and reduce racial and ethnic disparities in insurance coverage and access to care. Although this work is descriptive in nature and not intended to directly inform policy, it highlights the need for improved insurance enrollment data at the state level. For policymakers to make informed decisions, information on enrollment in detailed insurance categories, as well as distributions by demographic categories to identify underserved populations, is needed.

Table A.1 provides a summary of the data sources used to assemble the insurance enrollment figures presented in this report. Table A.2 proves the detailed insurance enrollment numbers that are summarized in figures in the main text.

Table A.1. Summary of Data Sources

Variable	ACS Value	Source of Alternative Value	Alternative Value	Chosen Value	Rationale for Choice
Medicaid		•		·	
Total enrollment	659,511	Connecticut Medicaid (personal communication)	841,490	ACS	Using population totals from different data sources would lead to population totals that were inconsistent with known estimates
Age/gender/race/ ethnicity distributions		Connecticut Medicaid (personal communication)		Connecticut Medicaid	These are proportions, and we can use them without risk of being inconsistent with other data
Individual market					
Marketplace total enrollment	N/A	Access Health CT	109,289	Access Health CT	ACS does not provide this value; it only provides the subsidized marketplace value and the sum of the unsubsidized and off-marketplace value
Marketplace subsidized enrollment	44,126	Access Health CT	77,377	Access Health CT	Consistency with the total
Marketplace unsubsidized enrollment	N/A	Access Health CT	33,656	Access Health CT	Consistency with the total
Off-marketplace enrollment	N/A		N/A	Combined ACS PUMS and Access Health CT	Consistency with both Access Health CT and ACS
Marketplace total: age distribution	N/A	Access Health CT		Access Health CT	Only source
Marketplace, subsidized: age distribution		Access Health CT + CPS Northeast reweighted to match Connecticut NCHS population demographics	N/A	Access Health CT and CPS Northeast, reweighted to match Connecticut NCHS population demographics	Only source

Variable	ACS Value	Source of Alternative Value	Alternative Value	Chosen Value	Rationale for Choice
Off-marketplace: age distribution	N/A			ACS individual market data and Access Health CT estimates	Only source
Individual market: gender/race/ethnicity distributions	ACS			ACS	Only source
ESI					·
TAFT-Hartley totals	N/A	DoL			Only source
TAFT-Hartley: age/gender distribution	N/A	Connecticut Coalition of Taft- Hartley Health Funds		Connecticut Coalition of Taft- Hartley Health Funds	Only source
TAFT-Hartley: race/ethnicity distribution	ACS				Only source
ESI: small group totals	N/A	Connecticut Consumer Report Card on Health Insurance Carriers	187,861	Connecticut Consumer Report Card on Health Insurance Carriers	Only source
ESI: small group age/gender distribution	N/A	Connecticut APCD		Connecticut APDC	Only source
ESI: small group race/ethnicity distribution	N/A	CPS (national) reweighted to match Connecticut APCD age/gender distribution		CPS	Only source
ESI: Large group, profit, totals	N/A	Connecticut Consumer Report Card on Health Insurance Carriers + Kaiser EHBS	1,123,509	Connecticut Consumer Report Card on Health Insurance Carriers and Kaiser EHBS	Only source; Kaiser EHBS provides the ratio of profit to nonprofit enrollees
ESI: Large group, profit, age/gender/race/ ethnicity distributions	N/A	CPS (national) reweighted to match Connecticut NCHS population demographics		CPS (national), reweighted to match Connecticut NCHS population demographics	Only source
ESI: Large group, nonprofit, totals	N/A	Connecticut Consumer Report Card on Health Insurance Carriers	366,543	Connecticut Consumer Report Card on Health Insurance Carriers	Only source
ESI: Large group, nonprofit, age/gender/race/ ethnicity distributions	N/A	CPS (national) reweighted to match Connecticut NCHS population demographics			Only source

			l	Individual Market			Employer-Sponsored Coverage				
	Total Population Under 65	Medicaid	On- Marketplace, Subsidized	On- Marketplace, Unsubsidized	Off- Marketplace	Small Group	Large Group (for Profit)	Large Group (Nonprofit)	Taft Hartley/ Multiemployer	Other Public Coverage ^a	Uninsured
Total	2,935,043	659,511	77,377	31,912	64,056	187,861	1,123,509	454,521	61,915	84,840	189,541
Age											
<18	726,690	244,536	5,001	2,732	17,260	35,225	262,502	111,831	14,901	9,559	23,143
18–24	339,223	77,062	6,965	2,945	21,314	19,476	127,535	46,176	7,364	7,538	22,848
25–29	235,922	56,472	5,462	2,197	6,924	12,127	89,622	27,556	3,589	6,580	25,393
30–34	235,868	54,167	6,733	2,138	612	14,021	94,278	33,170	3,376	7,202	20,171
35–39	230,008	46,811	5,351	2,278	911	14,532	93,390	38,289	5,074	4,619	18,753
40–44	216,606	39,197	4,643	2,596	2,620	13,690	90,467	34,341	5,906	4,288	18,858
45–49	227,663	36,111	7,529	3,072	3,114	17,342	91,642	42,076	5,398	4,887	16,492
50–54	257,989	37,522	9,278	3,754	3,193	22,211	103,240	46,098	4,915	9,221	18,557
55–59	257,349	36,782	13,776	4,622	3,673	22,031	101,001	43,887	5,297	11,464	14,816
60–64	207,732	30,852	12,639	5,577	4,436	17,207	69,833	31,097	6,096	19,483	10,512
Gender											
Female	1,473,934	352,118	42,688	16,441	33,002	100,417	547,043	245,255	30,348	33,632	72,990
Male	1,461,110	307,393	34,689	15,471	31,054	87,444	576,467	209,266	31,567	51,208	116,551
Race											
White	2,349,750	495,091	68,021	25,802	51,790	160,255	907,820	371,886	51,525	70,817	146,743
Black	397,806	137,840	4,257	3,364	6,752	16,777	125,371	57,816	6,182	10,247	29,200
Asian	164,196	22,136	4,330	2,544	5,106	9,585	83,135	21,328	3,886	3,215	8,931
Other	23,294	4,444	769	203	408	1,244	7,183	3,492	322	561	4,668
Ethnicity											
Hispanic	535,777	199,367	6,381	3,588	7,202	28,452	150,752	52,600	7,430	12,404	67,601
Non- Hispanic	2,399,268	460,144	70,995	28,324	56,854	159,409	972,758	401,922	54,485	72,436	121,941

Table A.2. Estimated Insurance Enrollment in Connecticut Among Those Under 65 Years of Age, 2019

^a The Other Public Coverage category includes the Indian Health Service, Medicare, TRICARE, and the Veteran's Administration.

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