Covered California 2019 Open Enrollment Early Observations and Analysis

Introduction

Since the launch of the Patient Protection and Affordable Care Act in 2014, states served by the federally facilitated marketplace (FFM), as well as states like California that operate state-based marketplaces (SBMs), have regularly relied on plan selection and enrollment data as an important early indicator for measuring the overall health of the individual market and the relative success of each year's open-enrollment period.

In recent years, those comparisons have been made more difficult by federal decisions to reduce enrollment periods, cut back on marketing and outreach and unnecessarily affect premiums — such as by removing direct funding of the cost-sharing reduction program. The open-enrollment period for the 2019 coverage year is no exception, in that it marked the first time the marketplaces sought to enroll eligible Americans following the federal removal of the individual mandate penalty.

California closed its three-month open-enrollment period for 2019 on Jan. 15, while states

Highlights

- Covered California's total number of plan selections at the end of open enrollment for 2019 is virtually identical to 2018, reflecting both new enrollment and renewals.
- The number of consumers who had their coverage renewed for 2019 increased by 7.5 percent, primarily because Covered California had strong enrollment for the 2018 plan year, which resulted in more consumers who were eligible to renew their coverage for this year.
- New enrollment dropped about 23.8 percent, which appears to be largely the result of the federal removal of the individual mandate penalty. This drop in enrollment underscores the importance of the penalty and that even robust marketing cannot offset the negative impact of its removal.
- Covered California's drop in new enrollment is higher than the average 15.8 percent drop experienced by the 39 states served by the federally facilitated marketplace (FFM) this year. The difference is likely explained by the fact that the FFM states have already seen sharp decreases in new enrollment in each of the past four years, putting their 2019 decrease on top of an already greatly diminished pool since many healthy consumers have already opted out of coverage. California has maintained strong new enrollment in each of the prior four years, leaving it more susceptible to drops in new enrollment due to the loss of the penalty and other factors.
- Early analysis also indicates that the level of new enrollment for consumers seeking unsubsidized and Bronze plans experienced larger drops, indicating that affordability remains a key obstacle for many.
- The analysis also found that the reduced level of new enrollment for 2019 did not vary significantly for most other demographics, including age and income level for those receiving subsidies. However, consumers who preferred to speak a language other than English experienced a larger drop for 2019 than other groups did.

This analysis was prepared by Covered California for its ongoing planning and to inform policy making in California and nationally.

served by the federal marketplace maintained their truncated 45-day period and closed their open enrollment on Dec. 15.

The impact on enrollment nationally for the 2019 plan year has already been documented in reports on enrollment through the FFM, with overall plan selections dropping 4 percent, driven largely by a 16 percent decrease in the number of new consumers signing up during open enrollment. The drop in enrollment for 2019 builds on large decreases experienced by states served by the FFM in the 2016, 2017 and 2018 open-enrollment periods. Taken together, during the three years leading up to the 2019 open-enrollment period, states served by the FFM experienced a 39 percent decline in new enrollments, decreasing from 4 million to 2.5 million. In contrast, during the same three years, California saw a modest decrease in new enrollment, going from 425,000 to 388,000 (a 9 percent drop).

This issue brief examines Covered California's final open-enrollment plan selection totals, how Covered California compares to the FFM, the estimates experts and Covered California made prior to open enrollment regarding how the federal removal of the individual mandate penalty would affect consumers, whether any additional issues played a role in signing up consumers and critical areas for additional research.

Preliminary Results and Projections of the Federal Penalty Removal

The preliminary results of Covered California's open-enrollment period show the exchange finished with a total of 1,513,833 plan selections, composed of existing consumers whose coverage was renewed for the coming year and new consumers (see Table 1: Preliminary Analysis of Covered California 2019 Plan Selections). Overall, there is a difference of 7,641 fewer plan selections compared to 2018 — a drop of 0.5 percent.

TABLE 1
Preliminary Analysis of Covered California 2019 Plan Selections

Category	2018	2019	Change
New sign-ups[1]	388,344	295,980	– 23.8%
Renewals	1,133,180	1,217,903	+ 7.5%
Total	1,521,524	1,513,883	– 0.5%

Taking a closer look at the data, Covered California's enrollment comprises 1,217,903 plan renewals, which is 7.5 percent higher than last year. The increase in renewals reflects the growth Covered California experienced from the 2018 open-enrollment and special-enrollment periods, leading to more members who were eligible to renew their coverage for 2019 than were eligible to renew in the prior year.

The increase in renewals was offset by a sharp reduction in the number of new consumers enrolling in coverage. During the open-enrollment period, 295,980 consumers signed up for coverage, which represents a 23.8 percent decrease from last year.

Prior to the start of the open-enrollment period for the 2019 coverage year, Covered California worked with policy experts from Harvard University and Pricewaterhouse Coopers to study the potential impact that the federal removal of the individual mandate penalty could have on enrollment.

In addition, Covered California examined published studies of independent experts who projected an enrollment drop of anywhere from 7 and 26 percent, with different predictions on the impact of new enrollment and renewing consumers.[2]

For planning purposes, Covered California projected that the removal of the penalty could reduce effectuated enrollment at the end of fiscal year 2018-19 by between 7 and 18 percent, with a midpoint base projection of a 12 percent reduction. A reduction of 12 percent would have resulted in approximately 162,000 fewer consumers enrolled in coverage and an effectuated enrollment of 1.2 million at the beginning of July 2019.[3]

While Covered California's budget projections did not specifically address the end of open enrollment, if the 12 percent reduction is applied to the current plan selection data, Covered California's total enrollment is currently 174,942 higher than would have been expected using this methodology (see Table 2: Comparison of Covered California Net Plan Selections to Base Projection).

TABLE 2
Comparison of Covered California Net Plan Selections to Base Projection

Category	2019	Approximate Forecast[4] (using 12%)	Actual Versus Forecast	Difference
New sign-ups	295,980	341,743	(45,763)	– 13.4%
Renewals	1,217,903	997,198	220,705	22.1%
Total	1,513,883	1,338,941	174,942	13.1%

Covered California's 2019 Open-Enrollment Results: Early Analysis Comparing California to States Served by the Federally Facilitated Marketplace

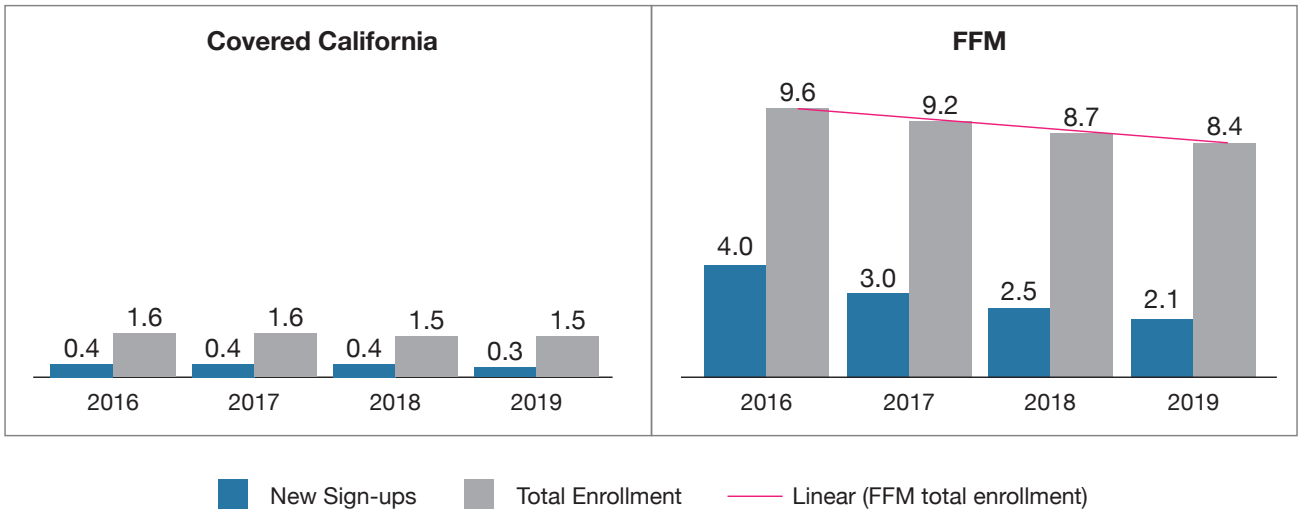
The federal removal of the individual mandate penalty appears to have had a more substantial impact on Covered California's new enrollment than projected, exceeding both Covered California's "base" projection of a 12 percent reduction and the apparent impact on new enrollment in states served by the federally facilitated marketplace (FFM), which saw a 16 percent drop from the previous year. However, Covered California's overall plan selection totals remain steady in comparison to the FFM, where enrollment dropped by 4 percent (see Table 3: Comparing Net Plan Selections, Covered California and FFM, 2019).

TABLE 3
Comparing Net Plan Selections, Covered California and FFM, 2019 Open Enrollment

Category	Marketplace	2018	2019	Change
New sign-ups[5]	FFM	2,460,431	2,072,115	– 15.8%
	Covered California	388,344	295,980	– 23.8%
Renewals	FFM	6,283,211	6,339,499	+ 0.9%
	Covered California	1,133,180	1,217,903	+ 7.5%
Total	FFM	8,743,642	8,411,614	– 3.8%
	Covered California	1,521,524	1,513,883	– 0.5%

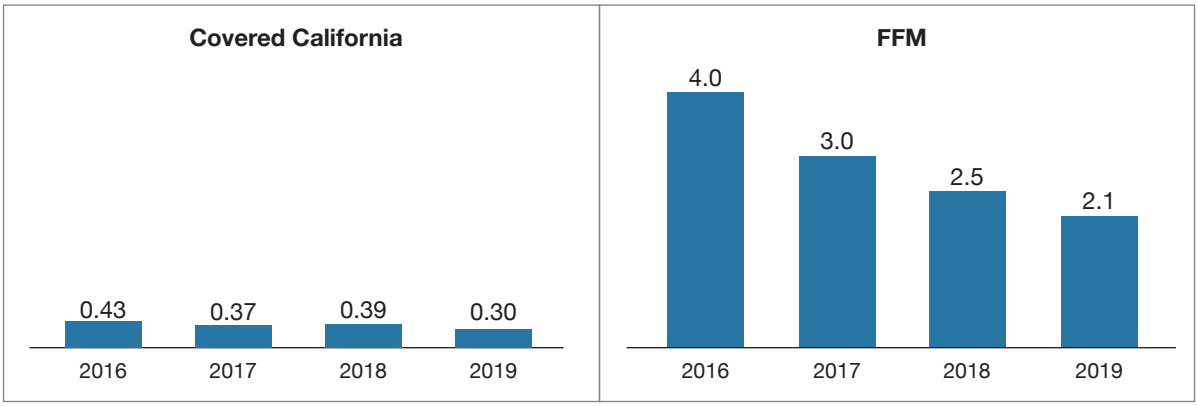
Looking at year-to-year changes, however, masks the more important trends in the individual market, which should be assessed based on multi-year trends of coverage, the changes to the rate of the uninsured and changes in the health status of those enrolling in coverage. Over the past four years, Covered California's total plan selections at the end of open enrollment have hovered near 1.5 million, while enrollment in the FFM has declined by 13 percent from 2016 to 2019 (see Figure 1: Comparing Net Plan Selections, Covered California and FFM, 2016-19).

FIGURE 1
Comparing Net Plan Selections, Covered California and FFM, 2016-19, in millions [6,7]



The primary driving factor in the loss among FFM enrollment has been a consistent and dramatic reduction in the number of people newly signing up for coverage. In the past four years, the FFM has seen a 49 percent reduction in open-enrollment plan selections (see Figure 2: Comparing New Sign-ups, Covered California and FFM, 2016-19).

FIGURE 2
Comparing New Sign-ups, Covered California and FFM, 2016-19, in millions [8,9]



As a result, while Covered California's drop in new enrollees who signed up during the 2019 open-enrollment period surpassed what states served by the FFM experienced, the decline in the FFM is compounded by the fact that those markets have already experienced several sharp decreases in new enrollment.

Looking at new enrollment for plan years 2016 through 2018, FFM states suffered a 39 percent drop in the number of new enrollees (see Table 4: Comparing Net Plan Selections, Covered California and FFM, 2016 to 2018). In essence, going into 2019 almost 1.5 million Americans who could have enrolled in FFM states were already priced out of coverage or had opted not to enroll. By comparison, Covered California saw a 9 percent drop in new sign-ups during the same time.

TABLE 4
Comparing Net Plan Selections, Covered California and FFM, 2016 to 2018

Category	Marketplace	2016	2017	2018	Cumulative Change 2016-2018	2019	% Change 2018-2019	Cumulative Change 2016-2019
New sign-ups	FFM	4,025,637	3,013,107	2,460,431	– 38.9%	2,072,115	– 15.8%	– 48.5%
	Covered California	425,484	368,368	388,344	– 8.7%	295,980	– 23.8%	– 30.4%
Renewals	FFM	5,600,345	6,188,698	6,283,211	12.2%	6,339,499	0.9%	13.2%
	Covered California	1,149,856	1,188,308	1,133,180	– 1.5%	1,217,903	7.5%	5.9%
Total	FFM	9,625,982	9,201,805	8,743,642	– 9.2%	8,411,614	– 3.8%	– 12.6%
	Covered California	1,575,340	1,556,676	1,521,524	– 3.4%	1,513,883	-0.5%	– 3.9%

California appears to be experiencing a greater impact from the removal of the penalty than other markets have — such as states served by the FFM, which have already lost significant numbers of "healthy" enrollees and whose enrollees were likelier to be less healthy before the federal removal of the penalty went into effect this year. This observation is consistent with the reductions in California's new sign-ups being relatively evenly spread across demographics, except for consumers who select Bronze-tier plans (see Figure 3: Covered California 2019 Open-Enrollment Bronze Plan Selections) and the fact that California has enrolled one of the healthiest population profiles in the country.

Statewide risk scores compiled by the Centers for Medicare and Medicaid Services consistently show California with one of the lowest risk scores in the nation, with an average risk mix of consumers in the individual market in California being 20 percent healthier than those enrolled in states served by the FFM. This low risk score has resulted in premiums being about 20 percent lower than the national average.

The Wakely Consulting Group also found that Covered California's better than average risk mix is not driven by demographics (i.e., not driven by having a younger average age), but by the better health profile of the individuals who enrolled across demographic groups.[10]

While Covered California has remained committed to reaching all eligible consumers in the state, federal policies that have affected states served by the FFM have not reflected such a commitment. These policies include the removal of the penalty in 2019, cutbacks in marketing and outreach, promotion of short-term and other non-Affordable Care Act-compliant health plans that pull consumers out of the common risk pool, as well as other policies in prior years. Taken together, these policies and affirmative steps put FFM states on a path to having an individual market that is made up of subsidized individuals who find their way to coverage and a virtual high-risk pool for unsubsidized consumers with poor health conditions.

With each subsequent year in decline, the FFM is left with a sicker pool of enrollees who are more likely to purchase coverage because they need health care — regardless of the penalty — and rising costs that price out anyone who does not get a subsidy or have a major health condition. The consequence of such a path would be higher premiums for unsubsidized consumers nationwide who will be forced out of the individual market while the federal government is forced to spend more on tax credits to protect subsidized consumers who have coverage through the exchange. While California and other SBMs can take steps that reflect their commitment to promote enrollment and lower health care costs, the federal removal of the penalty has had significant effects across the entire nation.

Covered California's 2019 Open Enrollment Results: Early California Specific Analysis

Covered California reviewed enrollment demographics for new enrollees for 2019 and compared them on the same dimensions to new enrollees for 2018 to see if the reduction in new plan selections is different in any specific areas.

Survey research published in 2018 indicated that the following groups were more likely to report that they would not have gotten covered if there had not been a penalty.[11]

- Consumers in Bronze plans.
- Latinos.
- Lower-income consumers, especially those under 250 percent of the federal poverty level and eligible for cost-sharing reductions.
- Younger consumers (primarily under 50 years of age).
- Consumers with no chronic conditions.
- Previously uninsured (in the prior year).
- Consumers without a college education.

While Covered California data is not available on all of these dimensions, this early analysis provides a review of new plan selections during open enrollment for several of the key categories of interest.

The enrollment tables that follow show that the share of consumers enrolled across demographic groups is relatively stable, with similar declines in enrollment, with a few notable exceptions.

Age Does Not Appear to Be a Factor in Consumers' Being More or Less Likely to Enroll With the Federal Removal of the Penalty

Many observers and estimates, including the survey results cited earlier, forecasted that younger enrollees would be less likely to enroll without a penalty. Covered California's analysis of new plan selection results for 2019 does not show large differences in the decreases in enrollment across age brackets. In fact, the largest variation occurred in consumers between the ages of 26 and 34, where the share of enrollees increased by 1.1 percent (see Table 5: New Plan Selections in 2019 Compared to 2018, by Age Bracket), but this change in share is within the swings observed in typical open-enrollment periods from one year to the next. This preliminary view suggests that the federal removal of the penalty did not have a more pronounced effect on the share of young consumers enrolling.

TABLE 5
New Plan Selections in 2019 Compared to 2018, by Age Bracket[12]

Covered California Enrollees					2019 Compared to 2018		
Age	2018 Open Enrollment		2019 Open Enrollment		Difference	% Change	Share Difference
17 or less	38,560	**9.1%**	28,490	**8.8%**	(10,070)	**– 26.1%**	**– 0.4%**
18-25	57,240	**13.5%**	43,630	**13.4%**	(13,610)	**– 23.8%**	**– 0.1%**
26-34	95,360	**22.5%**	76,860	**23.6%**	(18,500)	**– 19.4%**	**1.1%**
35-44	71,360	**16.9%**	53,540	**16.5%**	(17,820)	**– 25.0%**	**– 0.4%**
45-54	81,650	**19.3%**	59,700	**18.4%**	(21,950)	**– 26.9%**	**– 0.9%**
55-64	76,580	**18.1%**	61,150	**18.8%**	(15,430)	**– 20.1%**	**0.7%**
65 or older	2,450	**0.6%**	1,810	**0.6%**	(640)	**– 26.1%**	**0.0%**
TOTAL	423,200	**100.0%**	325,190	**100.0%**	(98,010)	**– 23.2%**	**0.0%**

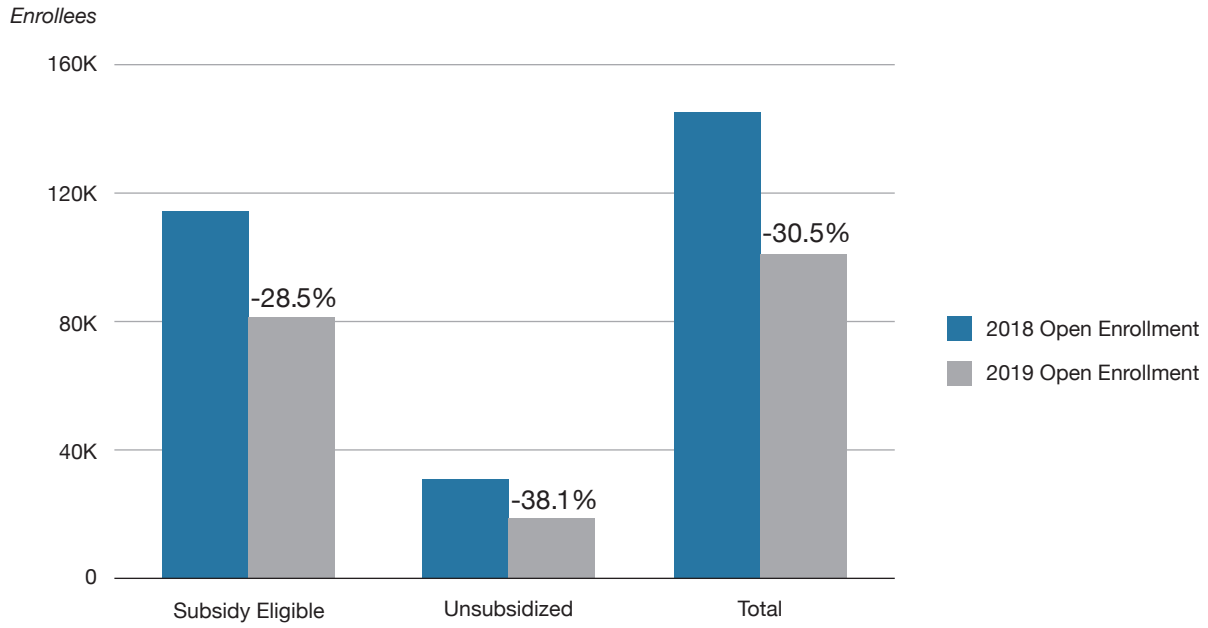
Fewer Bronze Consumers Indicates a Likely Disproportionate Impact of Removal of Penalty on Healthy Individuals and the Importance of Affordability to Healthy Individuals

New plan selections into Bronze enrollment, which offers Covered California's lowest premium option, fell from 143,000 to 100,000, a reduction of 30.5 percent compared to 23.2 percent overall. The decline was even higher among the unsubsidized, for whom Bronze enrollment dropped 38.1 percent compared to 28.6 percent on average (see Figure 3: Covered California 2019 Bronze Plan Selections).

This higher drop in enrollment is consistent with projections from experts that consumers who typically select Bronze plans are on average healthier than their counterparts are and are more apt to be affected by the removal of the penalty. Trends in decreasing enrollment in Bronze plans are worrisome indicators of the potential decline in the average health status of remaining enrollees and could foreshadow further premium increases by carriers across the nation.

In California, carriers serving the individual market assumed that the federal removal of the mandate penalty would lead to a less-healthy risk mix, which led to a substantial portion of the rate change for 2019. Covered California will be closely watching preliminary risk mix data for plan year 2019 when it is released and will stand ready to conduct analysis to study whether additional premium increases are warranted for the 2020 coverage year, absent reinstituting the individual mandate penalty at either the federal or state level.

FIGURE 3
Covered California 2019 Open-Enrollment Bronze Plan Selections



Enrollment Changes Based on Ethnicity and Language Preference Are Limited, but Do Not Appear to Show Large Variation Due to Federal Removal of the Penalty

Overall, the decrease in new plan selections during open enrollment was spread evenly across racial and ethnic groups, and there does not appear to be any specific group in which the share of enrollees reflected differential drops in enrollment when viewed in light of the typical shifts in new sign-ups from one year to the next. (See Appendix Table C: Covered California New Plan Selection by Race/Ethnicity, 2018-19.)

However, Covered California's analysis found a substantial differential impact among some populations where English is not the preferred spoken language. In particular, the number of Mandarin speakers dropped 28 percent, Spanish speakers dropped 29 percent and Korean speakers dropped 46 percent. By comparison, the number of English speakers dropped 22 percent.

Covered California believes this is an area of concern that warrants further study and may be the result of factors outside of the federal removal of penalty, such as concerns over whether receiving financial help for health coverage would designate someone a "public charge" and affect their immigration status — an issue that received substantial press coverage in "in-language" media.

Income Level and Subsidy Eligibility: Little Differential Impact for Those Eligible for Subsidies, While Those Ineligible for Subsidies May Be More Likely to Be Affected by the Penalty Removal

Price appears to remain the number one issue for consumers enrolling in coverage. The initial analysis shows that it appears there was not a substantial difference in the share of consumers who enrolled across income levels who were eligible for financial help (those earning less than 400 percent of the federal poverty level). This indicates that the financial support provided by subsidies remains a critically important element in persuading consumers to sign up for coverage.

There was, however, a substantial difference in the number of unsubsidized consumers who signed up during open enrollment, with plan selections dropping 31 percent, compared to 21.9 percent of those subsidized (see Appendix Table D: Covered California New Plan Selection by Income, 2018-19).

While this differential drop in enrollment is large, it is possible that some of the decline in unsubsidized consumers is not based on their foregoing coverage, in that they could be moving off-exchange and buying coverage directly from a carrier. This issue is complicated by the changes instituted after the cancellation of direct federal funding of the required cost-sharing reduction reimbursements, leaving California and many states with different premiums for unsubsidized consumers who purchase the same coverage on- versus off-exchange.

Differences in Enrollment by Service Channel May Indicate That Healthier Individuals Are Less Likely to Actively Seek In-Person Assistance and More Likely to Be Affected by the Federal Penalty Removal

New plan selections among consumers who signed up without assistance were 28.4 percent lower than in 2017, compared to 20.3 percent for those who got help from an agent, navigator or other Covered California representative (see Appendix Table E: Covered California New Plan Selection by Service Channel, 2018-19). The data suggests that consumers who seek assistance, perhaps due to greater health needs or questions about extenuating issues, were more likely to enroll in coverage. Conversely, healthier consumers may be those who enroll on their own and are more apt to be affected by the removal of the penalty. Again, this area deserves more study as the changes from 2018 to 2019 build on changes also observed in the transition from 2017 to 2018, and thus may not be solely due to changes in the penalty.

A complete set of demographic comparisons is provided in the Appendix: Detailed New Sign-up Data for Covered California's Open Enrollment.

Enrollment Data in Context: Understanding the Individual Market

The enrollment in any state's individual market is made up of two groups: (1) those who enroll in their Affordable Care Act marketplace, whether through a state-based marketplace (SBM) or the FFM, commonly referred to as "on-exchange" and (2) consumers who enroll "off-exchange" directly through a health insurance carrier.

California's individual market covers more than 2 million people, and just as with those who enroll in Covered California and sign up "off-exchange" by enrolling directly with a health plan issuer, comprises existing consumers who renew their coverage for the coming year and new consumers who sign up during open enrollment. At this time, we do not have a clear picture of current enrollment in the off-exchange market in California or the rest of the nation.

Since off-exchange enrollment is entirely unsubsidized, one early indicator of off-exchange enrollment may be the experience of unsubsidized consumers who are on-exchange, which is discussed above. However, there are reasons to be cautious about making direct comparisons given factors such as health plans' pricing off-exchange products lower to avoid unnecessary cost-sharing reduction surcharges to cover the costs of that required program in the absence of direct federal funding.

Given these uncertainties, how the federal removal of the penalty affected the off-exchange market and whether it will change the trend of existing consumers who complete their renewal and effectuate their coverage is currently unknown.

While the data in this issue brief is California-specific, what is both known and unknown should apply to other state and federal marketplaces.

On-Exchange Populations

New Enrollment: A preliminary analysis of new plan selections during Covered California's 2019 open-enrollment period suggests the removal of the individual mandate penalty had a substantial impact on the number of new enrollees. The drop in new plan selections from 2018 to 2019 was nearly 24 percent, which is above Covered California's base projection and near the high end of published projections. The relative health of these newly enrolled consumers could be cause for concern since it relates to a state's risk mix and would affirm health plans' decisions to raise premiums in California for all consumers to offset the costs of a generally less-healthy covered population.

Renewals: Overall, the number of renewal candidates is strong and reflects the growth Covered California experienced in 2018, as noted earlier. However, while the number of consumers in renewal is higher than in the previous year, it is too early to tell how many of these consumers will complete their renewal and effectuate their coverage, either in California or nationally, for months to come.[13] Considering that renewing members comprise nearly two thirds of the total membership for a given plan year, Covered California is closely watching this segment for indications of how the federal removal of the mandate penalty may alter consumer behavior. This issue also deserves scrutiny at the national level, where the portion of those who effectuate coverage after enrolling may also be affected.

Off-Exchange Population

In addition to Covered California's enrollment, approximately 800,000 Californians have enrolled in unsubsidized health care coverage directly from private health insurance carriers. Data on California's off-exchange enrollment is not available at this time, and we do not yet know whether it is experiencing the same trends as enrollment through Covered California. However, it is important to note that nationally the most recent data shows that off-exchange enrollment dropped 38 percent in the first quarter of 2018, compared to the same period from just one year earlier, indicating large drops in coverage based on consumers' being priced out of coverage.[14]

Areas for Further Analysis

Given the important policy discussions taking place at the national and state level, Covered California provides this issue brief to share the experiences following the open-enrollment period for 2019. While this issue brief shares numerous data points available at this time, there is still much we do not yet know about what it means for the future of the individual market. Some of the issues that demand further attention are:

Effectuated enrollment: Covered California's data shows that while net plan selections have declined slightly over the past four years, total effectuated enrollment has remained steady with actual growth each year. However, since this is the first year without an individual mandate penalty in place, a closer look should be taken at how many plan selections convert into effectuated enrollees at both the state and federal level and whether the removal of the penalty has an impact on historical conversion trends. This data should be available within two to four months. At the national level, it will be important to analyze rates of effectuated renewals and new enrollment to assess the impact of the penalty.

Off-exchange enrollment: While a significant amount of attention is paid to what is happening to on-exchange enrollment, it is also important to assess what is happening in the off-exchange market. Unfortunately, data on the millions of people enrolled directly through health insurance carriers is not as easily accessible. More needs to be known about how premium increases (for which consumers earning more than 400 percent of FPL receive no financial help) and the federal removal of the mandate penalty are affecting these primarily middle-class consumers.

Change in enrollee health status: The drop in new enrollees could have a profound impact on the overall risk scores of each state's individual market. A state with a deteriorating risk mix means it has a less-healthy population enrolled, and consumers will see higher premiums as a result. As stated earlier, preliminary data on the health of 2019 consumers will not be known until later this year.

Impact of the economy on enrollment and retention in the individual market: The nation continues to reap the benefits of an economy that has been going strong for several years. In California, the state has gained more than 3 million jobs since the economic expansion began in 2010. This economic boom has happened at the same time as the dramatic coverage expansions supported by the Affordable Care Act, and together they have contributed to the state having an uninsured rate at a historic low level.[15] More research needs to be done into how the economy is affecting enrollment and whether newly employed consumers are moving into job-based coverage.

Econometric analysis: This brief relies on observable differences in summary statistics for the newly enrolled population, but these early findings based on open enrollment data are not definitive and invite further study. First, many of the categories reviewed in this brief (such as income and tier choice) are likely correlated. Additionally, other trends in the market outside the mandate could be influencing the results described in this brief. A deeper analysis using econometric techniques is warranted to attempt to disentangle the impacts of the mandate from other market dynamics.

The changes in California's individual market — namely the removal of the federal penalty for being uninsured in 2019 and concerns of the impact of "public charge" — appear to be driving large and larger-than-forecasted impacts on new plan selections in California. Preliminary demographic analysis does not indicate a severe drop-off in any particular group; rather, it indicates that enrollees from across the demographic spectrum reduced their take-up of coverage. Covered California will continue to study the impacts of the policy change on the retention of existing consumers and on the risk profile of new and renewing consumers that result from the federal policy change.

About Covered California

Covered California is an independent part of the state government whose job is to make the health insurance marketplace work for California's consumers. It is overseen by a five-member board appointed by the governor and the Legislature. For more information about Covered California, please visit CoveredCA.com.

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[1] Open enrollment totals are based on gross plan selections of 423,484 for 2018 and 325,458 for 2019 allowed for comparable comparison over previous years.

[2] PwC. "Impact of Individual Mandate Penalty Elimination and Other Market Factors on Coverage Nationally and in California," Presentation to Covered California Board of Directors (May 17, 2018). https://board.coveredca.com/meetings/2018/05-17/PWC%20Slide%20Deck%20-%20pdf.pdf

[3] Covered California. "Fiscal Year 2018-2019 Budget" (Final, June 15, 2018). https://hbex.coveredca.com/financial-reports/PDFs/CoveredCA_2018-19_Budget-6-15-18.pdf

[4] Calculated using 2018 net plan selection totals.

[5] Open enrollment totals are based on gross plan selections of 423,484 for 2018 and 325,458 for 2019, allowing for comparable comparison over previous years.

[6] Table 2 displays "net" plan selections, as per FFM reports. Effectuated enrollment for 2019 is estimated using 2019 reported net plan selections and the 2018 ratio of reported net plan selections to eventual average effectuated enrollment, as reported by ASPE.

[7] https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Marketplace-Products/index.html and https://www.cms.gov/newsroom/fact-sheets/final-weekly-enrollment-snapshot-2019-enrollment-period and https://www.kff.org/other/state-indicator/effectuated-marketplace-enrollment-and-financial-assistance/ and https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Marketplace-Products/Effectuated_Quarterly_Snapshots.html.

[8] Table 2 displays "net" plan selections, as per FFM reports. Effectuated enrollment for 2019 is estimated using 2019 reported net plan selections and 2018 ratio of reported net plan selections to eventual average effectuated enrollment, as reported by ASPE.

[9] CMS. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Marketplace-Products/index.html and https://www.cms.gov/newsroom/fact-sheets/final-weekly-enrollment-snapshot-2019-enrollment-period and https://www.kff.org/other/state-indicator/effectuated-marketplace-enrollment-and-financial-assistance/ and https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Marketplace-Products/Effectuated_Quarterly_Snapshots.html.

[10] Health Affairs. "National vs. California Comparison: Detailed Data Help Explain The Risk Differences Which Drive Covered California's Success." (July 2018.) https://www.healthaffairs.org/do/10.1377/hblog20180710.459445/full/

[11] See results as published at Fung, Vicki, et al. "Potential Effects of Eliminating the Individual Mandate Penalty in California." Health Affairs, 38 No. 1 (2019): 147–154. Preliminary results were published in March 2018 on the Health Affairs Blog. https://www.healthaffairs.org/do/10.1377/hblog20180223.551552/full/.

[12] These profiles are based on the gross plan selections, and as a result, the totals in the tables that follow are higher than the "net" totals shown on Table 1.

[13] This is true even for renewing members, because premium payment data from qualified health plan issuers typically lags two to three months due to appeal windows.

[14] Kaiser Family Foundation, "Enrollment in the Individual Insurance Market Continued to Fall in the First Quarter of 2018, With the 12 Percent Overall Decline Concentrated in Off-Exchange Plans." https://www.kff.org/health-reform/press-release/enrollment-in-the-individual-insurance-market-continued-to-fall-in-the-first-quarter-of-2018-with-the-12-percent-overall-decline-concentrated-in-off-exchange-plans/.

[15] EDD. "California unemployment rate rises to 4.2 percent in December." (Jan. 18, 2019.) https://www.edd.ca.gov/About_EDD/pdf/urate201901.pdf

APPENDIX:

Detailed New Sign-up Data for Covered California's Open Enrollment

Table A: Covered California New Plan Selection by Metal Tier, 2018-19

Metal Tier (Total)					2019 compared to 2018		
	OE 2018 TOTAL		OE 2019 TOTAL		Count Difference	Percentage Change	Share Difference
Metal Tier (Total)	Enrollees	(column %)	Enrollees	(column %)	Enrollees	(Δ %)	(column %)
Minimum Coverage	**9,910**	**2.3%**	**10,230**	**3.1%**	**320**	**3.2%**	**0.8%**
Bronze	**143,700**	**34.0%**	**99,860**	**30.7%**	**-43,840**	**-30.5%**	**-3.2%**
Silver	**187,850**	**44.4%**	**164,540**	**50.6%**	**-23,310**	**-12.4%**	**6.2%**
Silver - 70	42,690	10.1%	38,000	11.7%	-4,690	-11.0%	1.6%
Silver - Enhanced 73	23,980	5.7%	22,950	7.1%	-1,030	-4.3%	1.4%
Silver - Enhanced 87	71,690	16.9%	62,730	19.3%	-8,960	-12.5%	2.4%
Silver - Enhanced 94	49,490	11.7%	40,860	12.6%	-8,630	-17.4%	0.9%
Gold	**64,610**	**15.3%**	**38,300**	**11.8%**	**-26,310**	**-40.7%**	**-3.5%**
Platinum	**17,120**	**4.0%**	**12,270**	**3.8%**	**-4,850**	**-28.3%**	**-0.3%**
Grand Total	**423,200**	**100.0%**	**325,190**	**100.0%**	**-98,010**	**-23.2%**	**0.0%**

Metal Tier (Subsidy Eligible)					2019 compared to 2018		
	OE 2018 Subsidy Eligible		OE 2019 Subsidy Eligible		Count Difference	Percentage Change	Share Difference
Metal Tier (Subsidy Eligible)	Enrollees	(column %)	Enrollees	(column %)	Enrollees	(Δ %)	(column %)
Minimum Coverage	**2,940**	**0.8%**	**2,980**	**1.1%**	**40**	**1.4%**	**0.2%**
Bronze	**113,060**	**31.5%**	**80,890**	**28.9%**	**-32,170**	**-28.5%**	**-2.5%**
Silver	**177,730**	**49.4%**	**156,520**	**56.0%**	**-21,210**	**-11.9%**	**6.5%**
Silver - 70	32,570	9.1%	29,980	10.7%	-2,590	-8.0%	1.7%
Silver - Enhanced 73	23,980	6.7%	22,950	8.2%	-1,030	-4.3%	1.5%
Silver - Enhanced 87	71,690	19.9%	62,730	22.4%	-8,960	-12.5%	2.5%
Silver - Enhanced 94	49,490	13.8%	40,860	14.6%	-8,630	-17.4%	0.8%
Gold	**52,920**	**14.7%**	**30,340**	**10.8%**	**-22,580**	**-42.7%**	**-3.9%**
Platinum	**12,830**	**3.6%**	**8,970**	**3.2%**	**-3,860**	**-30.1%**	**-0.4%**
Grand Total	**359,480**	**100.0%**	**279,690**	**100.0%**	**-79,790**	**-22.2%**	**0.0%**

Metal Tier (Not Subsidy Eligible)					2019 compared to 2018		
	OE 2018 Unsubsidized		OE 2019 Unsubsidized		Count Difference	Percentage Change	Share Difference
Metal Tier (Not Subsidy Eligible)	Enrollees	(column %)	Enrollees	(column %)	Enrollees	(Δ %)	(column %)
Minimum Coverage	**6,970**	**10.9%**	**7,250**	**15.9%**	**280**	**4.0%**	**5.0%**
Bronze	**30,650**	**48.1%**	**18,980**	**41.7%**	**-11,670**	**-38.1%**	**-6.4%**
Silver	**10,140**	**15.9%**	**8,020**	**17.6%**	**-2,120**	**-20.9%**	**1.7%**
Silver - 70	10,120	15.9%	8,020	17.6%	-2,100	-20.8%	1.7%
Silver - Enhanced 73	10	0.0%	0	0.0%	-10	-100.0%	0.0%
Silver - Enhanced 87	10	0.0%	0	0.0%	-10	-100.0%	0.0%
Silver - Enhanced 94	0	0.0%	0	0.0%	0	N/A	0.0%
Gold	**11,690**	**18.3%**	**7,960**	**17.5%**	**-3,730**	**-31.9%**	**-0.9%**
Platinum	**4,290**	**6.7%**	**3,300**	**7.3%**	**-990**	**-23.1%**	**0.5%**
Grand Total	**63,720**	**100.0%**	**45,500**	**100.0%**	**-18,220**	**-28.6%**	**0.0%**

Table B: Covered California New Plan Selection by Age, 2018-19

Age	OE 2018 TOTAL		OE 2019 TOTAL		2019 compared to 2018		
					Count Difference	Percentage Change	Share Difference
Age	Enrollees	(column %)	Enrollees	(column %)	Enrollees	(Δ %)	(column %)
Age 17 or less	38,560	9.1%	28,490	8.8%	-10,070	-26.1%	-0.4%
Age 18 to 25	57,240	13.5%	43,630	13.4%	-13,610	-23.8%	-0.1%
Age 26 to 34	95,360	22.5%	76,860	23.6%	-18,500	-19.4%	1.1%
Age 35 to 44	71,360	16.9%	53,540	16.5%	-17,820	-25.0%	-0.4%
Age 45 to 54	81,650	19.3%	59,700	18.4%	-21,950	-26.9%	-0.9%
Age 55 to 64	76,580	18.1%	61,150	18.8%	-15,430	-20.1%	0.7%
Age 65+	2,450	0.6%	1,810	0.6%	-640	-26.1%	0.0%
Grand Total	423,200	100.0%	325,190	100.0%	-98,010	-23.2%	0.0%

Table C: Covered California New Plan Selection by Race/Ethnicity, 2018-19

Race/Ethnicity is a roll-up dimension that combines CalHEERS application questions on race and ethnicity, where a consumer who reports a Latino, Hispanic, or Spanish origin is counted as "Latino" in Race/Ethnicity, while races of Native Hawaiian or Pacific Islander are counted as "Asian" and "Other" comprises all non-Latino selections other than "Black or African American", "White", or "Asian" from the Race/Ethnicity dimension (including Multiple Races).

Race / Ethnicity	OE 2018 TOTAL		OE 2019 TOTAL		2019 compared to 2018		
					Count Difference	Percentage Change	Share Difference
Race / Ethnicity	Enrollees	(column %)	Enrollees	(column %)	Enrollees	(Δ %)	(column %)
Asian	66,150	20.3%	51,660	20.2%	-14,490	-21.9%	-0.1%
Black or African American	11,330	3.5%	10,040	3.9%	-1,290	-11.4%	0.4%
Latino	101,360	31.0%	78,400	30.6%	-22,960	-22.7%	-0.5%
Other	34,470	10.6%	27,680	10.8%	-6,790	-19.7%	0.2%
White	112,630	34.5%	88,070	34.4%	-24,560	-21.8%	-0.1%
Grand Total	326,470	100.0%	256,240	100.0%	-70,230	-21.5%	0.0%
(nonrespondent)	96,730	22.9%	68,950	21.2%	-27,780	-28.7%	-1.7%

Race/Ethnicity is a roll-up dimension that combines CalHEERS application questions on race and ethnicity, where a consumer who reports a Latino, Hispanic, or Spanish origin is counted as "Latino" in Race/Ethnicity, while races of Native Hawaiian or Pacific Islander are counted as "Asian" and "Other" comprises all non-Latino selections other than "Black or African American", "White", or "Asian" from the Race/Ethnicity dimension (including Multiple Races).

Race / Ethnicity	OE 2018 TOTAL		OE 2019 TOTAL		2019 compared to 2018		
					Count Difference	Percentage Change	Share Difference
Race / Ethnicity	Enrollees	(column %)	Enrollees	(column %)	Enrollees	(Δ %)	(column %)
American Indian/Alaska Native	870	0.3%	630	0.2%	-240	-27.6%	0.0%
Asian	66,150	20.3%	51,660	20.2%	-14,490	-21.9%	-0.1%
Black or African American	11,330	3.5%	10,040	3.9%	-1,290	-11.4%	0.4%
Latino	101,360	31.0%	78,400	30.6%	-22,960	-22.7%	-0.5%
Multiple Races	8,480	2.6%	6,950	2.7%	-1,530	-18.0%	0.1%
Native Hawaiian or Pacific Islander	530	0.2%	400	0.2%	-130	-24.5%	0.0%
Other	25,120	7.7%	20,100	7.8%	-5,020	-20.0%	0.1%
White	112,630	34.5%	88,070	34.4%	-24,560	-21.8%	-0.1%
Grand Total	326,470	100.0%	256,240	100.0%	-70,230	-21.5%	0.0%
(nonrespondent)	96,730	22.9%	68,950	21.2%	-27,780	-28.7%	-1.7%

All % calculations except the non- respondents calculated out of respondents only. Non- respondent % is of total population of enrollees.

Table C (continued): Covered California New Plan Selection by Race/Ethnicity, 2018-19

Race	OE 2018 TOTAL		OE 2019 TOTAL		2019 compared to 2018		
					Count Difference	Percentage Change	Share Difference
Race	Enrollees	(column %)	Enrollees	(column %)	Enrollees	(Δ %)	(column %)
American Indian or Alaska Native	1,500	0.6%	1,120	0.5%	-380	-25.3%	0.0%
Asian Indian	8,650	3.2%	8,100	3.8%	-550	-6.4%	0.6%
Black or African American	11,860	4.4%	10,480	5.0%	-1,380	-11.6%	0.6%
Cambodian	550	0.2%	500	0.2%	-50	-9.1%	0.0%
Chinese	25,390	9.4%	19,460	9.2%	-5,930	-23.4%	-0.1%
Filipino	10,410	3.8%	8,540	4.1%	-1,870	-18.0%	0.2%
Guamanian or Chamorro	140	0.1%	110	0.1%	-30	-21.4%	0.0%
Hmong	290	0.1%	260	0.1%	-30	-10.3%	0.0%
Japanese	2,040	0.8%	1,390	0.7%	-650	-31.9%	-0.1%
Korean	9,680	3.6%	5,950	2.8%	-3,730	-38.5%	-0.8%
Laotian	270	0.1%	270	0.1%	0	0.0%	0.0%
Multiple Races	11,160	4.1%	9,060	4.3%	-2,100	-18.8%	0.2%
Native Hawaiian	150	0.1%	120	0.1%	-30	-20.0%	0.0%
Other	44,140	16.3%	33,440	15.9%	-10,700	-24.2%	-0.4%
Other Asian	1,250	0.5%	610	0.3%	-640	-51.2%	-0.2%
Other Pacific Islander	150	0.1%	80	0.0%	-70	-46.7%	0.0%
Samoan	170	0.1%	150	0.1%	-20	-11.8%	0.0%
Vietnamese	8,310	3.1%	7,150	3.4%	-1,160	-14.0%	0.3%
White	134,420	49.7%	103,870	49.3%	-30,550	-22.7%	-0.4%
Grand Total	270,510	100.0%	210,620	100.0%	-59,890	-22.1%	0.0%
(nonrespondent)	152,690	36.1%	114,570	35.2%	-38,120	-25.0%	-0.8%

All % calculations except the non-respondents calculated out of respondents only. Non-respondent % is of total population of enrollees.

Ethnicity	OE 2018 TOTAL		OE 2019 TOTAL		2019 compared to 2018		
					Count Difference	Percentage Change	Share Difference
Ethnicity	Enrollees	(column %)	Enrollees	(column %)	Enrollees	(Δ %)	(column %)
(Hispanic/Latino/Spanish origin)*	19,270	5.5%	14,530	5.3%	-4,740	-24.6%	-0.2%
(Not Hispanic/Latino/Spanish origin)**	246,010	70.8%	194,380	71.3%	-51,630	-21.0%	0.4%
Cuban	570	0.2%	460	0.2%	-110	-19.3%	0.0%
Guatemalan	1,200	0.3%	950	0.3%	-250	-20.8%	0.0%
Mexican/Mexican American/Chicano	55,320	15.9%	41,770	15.3%	-13,550	-24.5%	-0.6%
Multiple Ethnicities	2,540	0.7%	2,280	0.8%	-260	-10.2%	0.1%
Other	19,090	5.5%	15,620	5.7%	-3,470	-18.2%	0.2%
Puerto Rican	1,080	0.3%	890	0.3%	-190	-17.6%	0.0%
Salvadoran	2,290	0.7%	1,900	0.7%	-390	-17.0%	0.0%
Grand Total	347,370	100.0%	272,780	100.0%	-74,590	-21.5%	0.0%
(nonrespondent)	75,830	17.9%	52,410	16.1%	-23,420	-30.9%	-1.8%

All % calculations except the non-respondents calculated out of respondents only. Non-respondent % is of total population of enrollees.

"Hispanic/Latino/Spanish origin" respondents answered "Yes" to application question "Are you of Hispanic, Latino, or Spanish origin?" but did not indicate a specific ethnicity.

"Not Hispanic/Latino/Spanish origin" respondents answered "No" to application question "Are you of Hispanic, Latino, or Spanish origin?" but did not indicate a specific ethnicity.

Table D: Covered California New Plan Selection by Income, 2018-19

FPL	OE 2018 TOTAL		OE 2019 TOTAL		2019 compared to 2018		
					Count Difference	Percentage Change	Share Difference
FPL	Enrollees	(column %)	Enrollees	(column %)	Enrollees	(Δ %)	(column %)
138% FPL or less	11,430	2.7%	7,000	2.2%	-4,430	-38.8%	-0.5%
138% FPL to 150% FPL	55,810	13.2%	44,870	13.8%	-10,940	-19.6%	0.6%
150% FPL to 200% FPL	112,380	26.6%	87,890	27.0%	-24,490	-21.8%	0.5%
200% FPL to 250% FPL	71,640	16.9%	54,850	16.9%	-16,790	-23.4%	-0.1%
250% FPL to 400% FPL	113,010	26.7%	89,900	27.6%	-23,110	-20.4%	0.9%
400% FPL or greater & Unsubsidized	58,940	13.9%	40,690	12.5%	-18,250	-31.0%	-1.4%
Grand Total	423,200	100.0%	325,190	100.0%	-98,010	-23.2%	0.0%

FPL Roll-Up	OE 2018 TOTAL		OE 2019 TOTAL		2019 compared to 2018		
					Count Difference	Percentage Change	Share Difference
FPL Roll-Up	Enrollees	(column %)	Enrollees	(column %)	Enrollees	(Δ %)	(column %)
Subsidized	364,270	86.1%	284,510	87.5%	-79,760	-21.9%	1.4%
Less than 250% FPL	251,260	59.4%	194,610	59.8%	-56,650	-22.5%	0.5%
250% FPL to 400% FPL	113,010	26.7%	89,900	27.6%	-23,110	-20.4%	0.9%
Unsubsidized	58,940	13.9%	40,690	12.5%	-18,250	-31.0%	-1.4%
400% FPL or greater & Unsubsidized	58,940	13.9%	40,690	12.5%	-18,250	-31.0%	-1.4%
Grand Total	423,200	100.0%	325,190	100.0%	-98,010	-23.2%	0.0%

Table E: Covered California New Plan Selection by Service Channel, 2018-19

Service Channel	OE 2018 TOTAL		OE 2019 TOTAL		2019 compared to 2018		
					Count Difference	Percentage Change	Share Difference
Service Channel	Enrollees	(column %)	Enrollees	(column %)	Enrollees	(Δ %)	(column %)
Assisted	274,880	65.0%	218,950	67.3%	-55,930	-20.3%	2.4%
Certified Enrollment Counselor	21,110	5.0%	17,410	5.4%	-3,700	-17.5%	0.4%
Certified Insurance Agent	193,550	45.7%	157,100	48.3%	-36,450	-18.8%	2.6%
Certified Plan-based Enroller	2,230	0.5%	2,550	0.8%	320	14.3%	0.3%
County Eligibility Worker	2,020	0.5%	1,400	0.4%	-620	-30.7%	0.0%
Service Center Representative	55,970	13.2%	40,490	12.5%	-15,480	-27.7%	-0.8%
Unassisted	148,320	35.0%	106,250	32.7%	-42,070	-28.4%	-2.4%
Grand Total	423,200	100.0%	325,190	100.0%	-98,010	-23.2%	0.0%

Service Channel reflects the latest assister type to submit an application or enroll a consumer, including change reports.
For this measure, prior contact with a CEC, PBE, or agent overwrites a more recent activity that was unassisted or performed by SCRs.

Table F: Covered California New Plan Selection by Preferred Spoken Language, 2018-19

Language Spoken Roll-Up					2019 compared to 2018		
	OE 2018 TOTAL		OE 2019 TOTAL		Count Difference	Percentage Change	Share Difference
Preferred Spoken Language	Enrollees	(column %)	Enrollees	(column %)	Enrollees	(Δ %)	(column %)
English	349,590	84.0%	273,900	85.2%	-75,690	-21.7%	1.2%
Spanish	41,360	9.9%	29,280	9.1%	-12,080	-29.2%	-0.8%
Asian and Pacific Islander	23,670	5.7%	16,880	5.3%	-6,790	-28.7%	-0.4%
Other	1,650	0.4%	1,470	0.5%	-180	-10.9%	0.1%
Grand Total	416,260	100.0%	321,520	100.0%	-94,740	-22.8%	0.0%
(nonrespondent)	6,940	1.6%	3,670	1.1%	-3,270	-47.1%	-0.5%

All % calculations except the non-respondents calculated out of respondents only. Non-respondent % is of total population of enrollees.
Some individuals do not have a preferred language because language preference is only required for primary applicants, and may be blank for other members of the household.

Language Spoken					2019 compared to 2018		
	OE 2018 TOTAL		OE 2019 TOTAL		Count Difference	Percentage Change	Share Difference
Preferred Spoken Language	Enrollees	(column %)	Enrollees	(column %)	Enrollees	(Δ %)	(column %)
Arabic	350	0.1%	280	0.1%	-70	-20.0%	0.0%
Armenian	240	0.1%	200	0.1%	-40	-16.7%	0.0%
Cambodian	130	0.0%	120	0.0%	-10	-7.7%	0.0%
Cantonese	3,650	0.9%	2,830	0.9%	-820	-22.5%	0.0%
English	349,590	84.0%	273,900	85.2%	-75,690	-21.7%	1.2%
Farsi	460	0.1%	440	0.1%	-20	-4.3%	0.0%
Hmong	70	0.0%	40	0.0%	-30	-42.9%	0.0%
Korean	4,320	1.0%	2,320	0.7%	-2,000	-46.3%	-0.3%
Mandarin	11,690	2.8%	8,450	2.6%	-3,240	-27.7%	-0.2%
Russian	600	0.1%	550	0.2%	-50	-8.3%	0.0%
Spanish	41,360	9.9%	29,280	9.1%	-12,080	-29.2%	-0.8%
Tagalog	660	0.2%	550	0.2%	-110	-16.7%	0.0%
Vietnamese	3,150	0.8%	2,570	0.8%	-580	-18.4%	0.0%
Grand Total	416,260	100.0%	321,520	100.0%	-94,740	-22.8%	0.0%
(nonrespondent)	6,940	1.6%	3,670	1.1%	-3,270	-47.1%	-0.5%

All % calculations except the non-respondents calculated out of respondents only. Non-respondent % is of total population of enrollees.
Some individuals do not have a preferred language because language preference is only required for primary applicants, and may be blank for other members of the household.

children

MDPI

Article

Trends in Food Insecurity and SNAP Participation among Immigrant Families of U.S.-Born Young Children

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Abstract: Immigrant families are known to be at higher risk of food insecurity compared to non-immigrant families. Documented immigrants in the U.S. <5 years are ineligible for the Supplemental Nutrition Assistance Program (SNAP). Immigration enforcement, anti-immigrant rhetoric, and policies negatively targeting immigrants have increased in recent years. Anecdotal reports suggest immigrant families forgo assistance, even if eligible, related to fear of deportation or future ineligibility for citizenship. In the period of January 2007–June 2018, 37,570 caregivers of young children (ages 0–4) were interviewed in emergency rooms and primary care clinics in Boston, Baltimore, Philadelphia, Minneapolis, and Little Rock. Food insecurity was measured using the U.S. Department of Agriculture's Food Security Survey Module. Overall, 21.4% of mothers were immigrants, including 3.8% in the U.S. <5 years ("<5 years") and 17.64% ≥ 5 years ("5+ years"). SNAP participation among <5 years families increased in the period of 2007–2017 to 43% and declined in the first half of 2018 to 34.8%. For 5+ years families, SNAP participation increased to 44.7% in 2017 and decreased to 42.7% in 2018. SNAP decreases occurred concurrently with rising child food insecurity. Employment increased 2016–2018 among U.S.-born families and was stable among immigrant families. After steady increases in the prior 10 years, SNAP participation decreased in all immigrant families in 2018, but most markedly in more recent immigrants, while employment rates were unchanged.

Keywords: immigrant families; food insecurity; supplemental nutrition assistance program

1. Introduction

One-quarter of children in the United States (U.S.) under age 5 have at least one immigrant parent, with 93% of these children born in the U.S. [1]. Previous research has shown that infants and toddlers in low-income families with immigrant mothers are more likely to be born at a healthy weight, to be breastfed, to live in a two-parent home, and to have mothers who do not use tobacco, compared to children in low-income families with U.S.-born mothers [2]. Immigrant families, however, compared to non-immigrant families, disproportionately experience food insecurity, struggle to afford housing costs, and lack access to health care—all factors associated with adverse health outcomes [3,4].

Food insecurity, even if experienced at mild levels or temporarily, is associated with poor physical and mental health for children and adults regardless of nativity or immigration status [5–11]. As the severity of food insecurity increases to affect the quality and quantity of children's food, the health impacts of food insecurity on child health also worsen [12]. The Supplemental Nutrition Assistance Program (SNAP), the largest nutrition program in the U.S., is strongly associated with improved food security and positive health outcomes from the pre-natal period through early childhood and into adulthood [13,14].

SNAP is a means-test entitlement program that is available to all citizens and legally authorized families and individuals with incomes low enough to meet eligibility criteria. Families are often made aware of the program through community-based resource connections, and information about the program is widely available. In 2017, approximately two-thirds of people participating in SNAP were children, seniors, or persons with disabilities, and the average household income for SNAP participants was 63% of the U.S. federal poverty line [15]. Families and individuals participating in SNAP receive a monthly allotment of funds that are restricted for the sole purpose of purchasing uncooked foods to be prepared at home. SNAP cannot be used to purchase hot foods, alcoholic beverages, vitamins, cigarettes, household supplies, or other non-food items. These benefits are issued monthly on an electronic benefit transfer (EBT) card that the participant is able to use at authorized food retailers. In addition to reducing food insecurity, SNAP also promotes better nutrition. Every state in the U.S. operates SNAP nutrition education programming designed to teach participants about the benefits of healthy eating [16].

While all SNAP participants live in households with low incomes and therefore have higher rates of food insecurity than higher income households, several studies have documented the program's effectiveness in reducing food insecurity across levels of severity [13,14,17]. SNAP is also a countercyclical program, designed to expand during recessions when unemployment rates are high—as it did during the recent Great Recession, which began in December 2007 and officially ended in June 2009—and contract when unemployment rates are lower. Because of the countercyclical nature of SNAP, it is sensitive to trends in employment.

A large body of evidence documents the link between SNAP and child health. Mothers who participate in SNAP during pregnancy are more likely to have healthier babies compared to SNAP-eligible non-participants [18]. Young children in SNAP-participating families are less likely to be hospitalized, underweight, or at risk of developmental delays compared to SNAP-eligible non-participating families [19]. SNAP has also been shown to reduce food insecurity and poor health outcomes among children of all ages [20–22]. Even though SNAP effectively reduces food insecurity and improves health, it is underutilized, particularly by immigrant families. Federal regulations specify that documented immigrant adults who have been in the U.S. for less than five years are ineligible for SNAP, even if they meet all other eligibility criteria [23]. This is commonly known as the five-year bar. Although many families' U.S. citizen children may qualify for SNAP, research demonstrates that when parents are ineligible for assistance, their eligible children are less likely to participate in assistance programs [24]. Consequently, children of non-citizen parents are less likely to participate in SNAP. Because the benefits, when accessed, are often for the children only, mixed immigration status households have lower levels of SNAP benefits per household member when they do participate in SNAP and are at greater risk of food insecurity compared to households where parents and children are all citizens [25].

Over the past ten years, and particularly since 2016, increased immigration law enforcement, threatening anti-immigrant rhetoric, and public policy proposals that target immigrant families, including those that penalize immigrants for participating in assistance programs, have increased [26,27]. Anecdotal reports suggest that immigrant families may be forgoing participation in nutrition assistance and other federal assistance programs, even if eligible, due to fear of deportation or the negative effect of participation on their future U.S. immigration status [28,29].

We are unaware of any research that has systematically examined quantitative data comparing time trends in food security and SNAP participation among immigrant and non-immigrant families. This study aims to first document 10-year trends in household and child food security status and SNAP participation among families with young children disaggregated by maternal nativity and, for mothers born outside of the U.S., tenure of U.S. residence. The secondary aim of this study, given the changes in the policy environment from 2016 to 2018, sought to understand trends in food security status, SNAP participation, employment, and demographic differences across these years. Changes in household employment among immigrant and non-immigrant families, which may explain changes in SNAP participation and food insecurity rates, were also examined.

2. Methods

Data come from the ongoing Children's HealthWatch study, a multisite cross-sectional study investigating associations between economic hardships, participation in assistance programs, and the health of young children and their families [30]. Caregivers of children under 48 months were recruited for survey participation by trained research assistants during their child's primary care appointment or emergency department visit in five U.S. cities (Baltimore, MA; Boston, MA; Minneapolis, MN; Little Rock, AR; Philadelphia, PA). Data for this study were collected between January 2007 and June 2018, a period encompassing the Great Recession and economic recovery. As previously published [31], eligibility included fluency in English, Spanish, or Somali (Minneapolis only), state residency, and knowledge of the child's household. Caregivers of critically ill or injured children were not approached, nor were those interviewed within the previous six months. Research assistants administered interviews to caregivers verbally face-to-face in private settings after gaining informed consent. Institutional review board approval was obtained at each site prior to data collection and was renewed annually.

Of 53,356 caregivers approached between January 2007 and June 2018, 5474 (10.3%) were ineligible for the study, and 4114 (8.6%) refused or were unable to complete the interview. To ensure that the sample included only families with some members likely to be eligible for SNAP, the sample was limited to children born in the U.S. with public or no health insurance. Of caregiver/child dyads who completed the interview, 354 (<1%) children born outside of the U.S. and 4342 (9.98%) children with private health insurance were excluded. Additionally, the sample excluded caregivers who completed the interview in Somali (n = 168), given the unique circumstances of Somali refugees in the U.S., who are more likely to be eligible for SNAP than other immigrant populations and to whom the five-year bar does not apply. The final analytic sample was 37,570 (Figure 1).

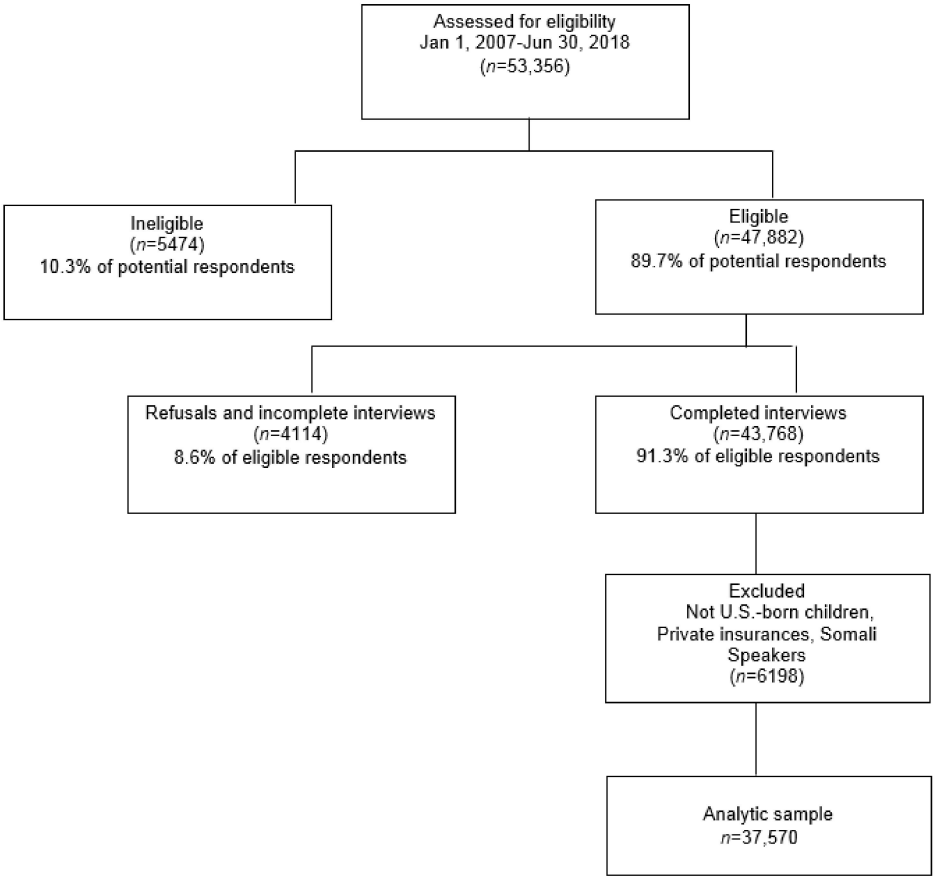

Figure 1. Description of analytic sample.

2.1. Independent Variables

2.1.1. Demographics

Caregivers reported the mother's age and race/ethnicity, their educational attainment, and their employment status. Child age was abstracted from medical records.

Mother's nativity and tenure in the U.S.: Caregivers were asked the birthplace of the biological mother and, if born outside of the U.S., the year the biological mother moved to the U.S. Of the caregivers interviewed, 93.7% were biological mothers. The sample was divided into three groups by nativity and tenure in the U.S.: (1) mothers born in the U.S. (U.S.-born group); (2) mothers born outside of the U.S. residing in the U.S. for five or more years (5+ years group); and (3) mothers born outside of the U.S. residing in the U.S. for less than five years, reflecting SNAP's five-year residency requirement (<5 years group).

2.1.2. Employment

Caregivers reported the number of employed members in the household. For this analysis, the variable was coded as any household employment vs. no household employment. Additionally, employment trends focused on the most recent years across the three groups—2016 through 2018. These years were selected in order to detect whether any change in food security or SNAP status in this period was plausibly related to increasing employment.

2.2. Dependent Variables

2.2.1. Food Insecurity

Household and child food insecurity were measured using the U.S. Household Food Security Survey Module (HFSSM). This survey module consists of 10 household-focused questions and eight child-specific questions assessing the previous 12 months. The HFSSM is the gold standard in the U.S. for assessing food insecurity. Households are considered food insecure if they report they are were unable to consistently afford enough food for all household members to lead active, healthy lives, and if this condition was a result of constrained resources. These analyses identified two levels of food insecurity: (1) household food insecurity (HFI)—three or more household-focused questions endorsed as sometimes true or often true vs. never true, but none on the child-specific scale; and (2) child food insecurity (CFI)—two or more child-specific questions endorsed as sometimes true or often true vs. never true.

2.2.2. SNAP Participation

Caregivers were asked whether their household participated in SNAP at the time of the interview.

2.3. Analysis

To examine the prevalence of household food insecurity, child food insecurity, and participation in SNAP stratified by maternal nativity and tenure in the U.S., we examined changes in each variable independently for each year over the study period, in addition to the 6 months from January–June 2018. In a secondary analysis, we analyzed changes in employment status between 2016–2018 stratified by maternal nativity and tenure in the U.S. Prevalence rates were compared across years through chi-square tests using a significance level of 0.05. All analyses were conducted using SAS software (version 9.3; SAS Institute, Cary, NC, U.S.).

3. Results

Overall, 78.6% of the households had U.S.-born mothers, 17.6% had immigrant mothers in the U.S. ≥5 years, and 3.8% had immigrant mothers in the U.S. <5 years.

The primary analysis found household food insecurity among all groups increased over the study period. Household food insecurity among the U.S.-born group increased from 8.7% in 2007 to 14.3% in the first half of 2018, reaching its highest point in 2014, with a prevalence of 16.1% ($p < 0.0001$). The 5+ years group experienced an increase in household food insecurity from 10.8% in 2007 to 25.0% in 2014, then a steady decrease to 12.6% by the first half of 2018 ($p < 0.0001$). Household food insecurity among the <5 years group increased from 9.9% in 2007 to 25.0% in 2013 and then declined to 10.6% in the first six months of 2018 ($p = 0.04$) (Figure 2).

Child food insecurity rates fluctuated among groups across the study period. Increasing from 6.7% in 2007 among the U.S.-born group, the prevalence in this group peaked at 12.7% in the first six months of 2018 ($p < 0.0001$). Child food insecurity rates for the 5+ years group increased from 17.2% in 2007 to 28.0% in 2010, then declined to 10.1% in 2018 ($p < 0.0001$). Child food insecurity was consistently highest among the <5 years group. In 2007, rates of child food insecurity were 25.2% among this group, increased to 33.9% in 2010, and then declined to 24.2% in the first half of 2018. The highest rate of child food insecurity among the <5 years group was in 2010 during the immediate aftermath of the recession, with a prevalence of 33.9%, declining over the next six years to 18.7% in 2017, though increasing again to 28.6% ($p = 0.035$) in the first half of 2018 (Figure 3).

SNAP participation varied across the groups and study years. Among the U.S.-born group, rates of SNAP participation increased from 57.2% in 2007 to 78.8% in 2013 and then steadily declined. SNAP participation among the 5+ years group was 30.8% in 2007, then rose to a high of 53.3% in 2013 before steadily decreasing to 42.7% in the first half of 2018. In the <5 years group, SNAP participation

increased from 25.4% in 2007, to 48.9% by 2013, decreased to 43.0% in 2017 and then further decreased to 34.8% in the first half of 2018. All differences are significant at $p < 0.0001$ (Figure 4).

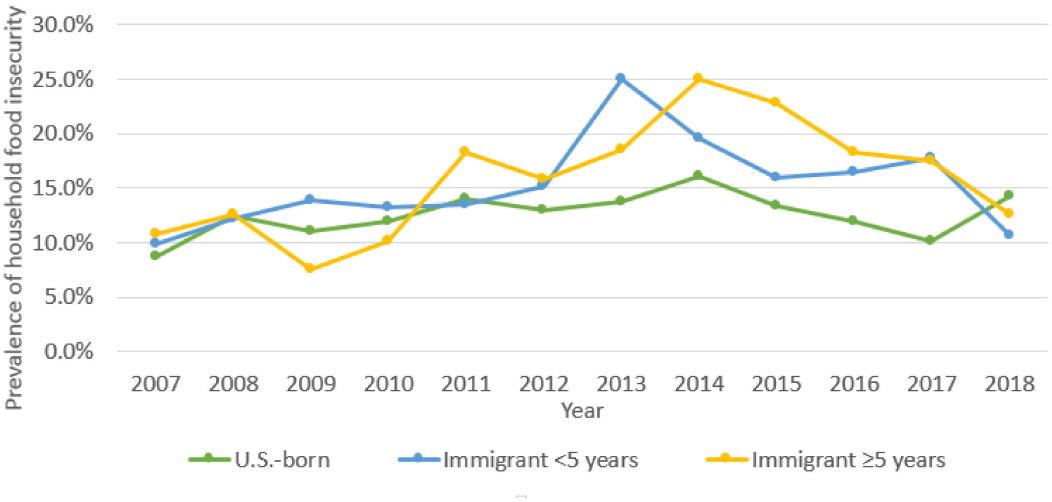

Figure 2. Trends in household food insecurity 2007–2018 by mother's place of birth.

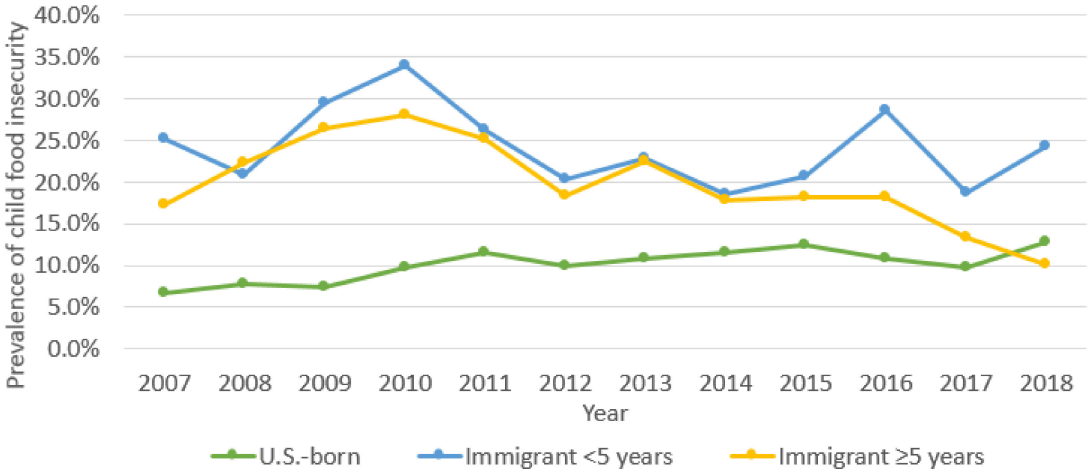

Figure 3. Trends in child food insecurity 2007–2018 by mother's place of birth.

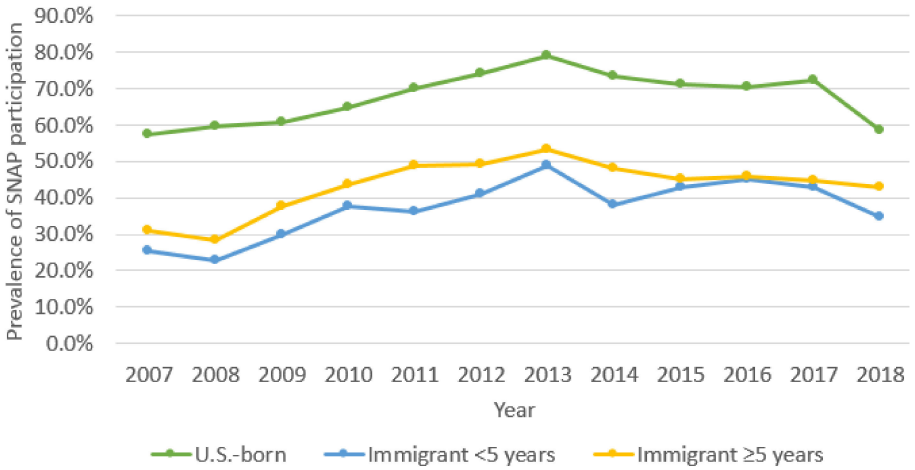

Figure 4. Trends in SNAP participation 2007–2018 by mother's place of birth.

The secondary analysis found differences in demographics and employment, which varied across groups from 2016 to 2018. Among U.S.-born mothers, there were demographic changes in the sample between 2016 and 2018. In 2016, 17.1% of mothers were White compared to 29.6% in 2018. There were also fewer Hispanic mothers and Black mothers in 2018 compared to 2016 (21.8% vs. 20.2% and 58.3% vs. 46.4% respectively) ($p < 0.0001$). The average age of U.S.-born mothers in 2016 was 26.6 (SD 5.3) and 27.3 (SD 5.5) in 2018 ($p = 0.0004$). The average age of the child was 19.2 months (SD 13.5) and did not vary across years. Caregivers in these families also had higher rates of education in 2018 than 2016, with 46.3% reporting having completed education beyond high school compared to 39.2% in 2016 ($p < 0.0001$); additionally, there were higher rates of being married/partnered in 2018 compared to 2016 (26.1% vs. 19%, respectively).

Among families in the 5+ years group, there were no demographic differences from 2016 to 2018. Across all three years, 73.5% of mothers were Hispanic, 21.2% Black, and 0.9% White. On average, mothers were 31.8 years old (SD 6.5) and children were 20.1 months (SD 14.3) old. One-quarter of caregivers (24.9%) had education beyond high school, and 43.5% were married or partnered. Among the <5 years group, on average from 2016 to 2018, 77.9% of mothers were Hispanic, 18.7% Black, and 0.8% White, which did not vary across years. The mean age of mothers was 28.7 (SD 6.5) years old across all three years. Child's age was the only demographic variable that changed significantly from 2016 to 2018 (12.9 (SD 11.9) vs. 18.3 (SD 12.9) months, respectively). Within this group, 34.6% of caregivers reported education beyond high school, and 40.2% were married or partnered, which did not vary by year (Table 1).

Analysis of employment trends from 2016–2018 also showed differences in employment rates across groups. Among U.S.-born mothers, household employment status increased from 78.3% in 2016 to 81.4% in 2018 ($p = 0.0014$). Household employment rates were, on average, 91% in the 5+ years group and 85.9% among families in the <5 years group, with no significant changes from 2016–2018 (Table 1).

Table 1. Demographics for 2016 to 2018 by mother's nativity and tenure in the U.S.

Question	Response	Overall	2016	2017	2018	*p*-Value
U.S.-Born Mothers						
Mother Age	*N*	5132	2266	1538	1328	0.0004
	Mean (Std Dev)	26.8 (5.5)	26.6 (5.3)	26.8 (5.6)	27.3 (5.5)	
Child Age (Months)	*N*	5189	2287	1555	1347	
	Mean (Std Dev)	19.2 (13.5)	19.4 (13.7)	18.6 (13.3)	19.6 (13.4)	0.1207
Mother's Race/Ethnicity	Hispanic	1208 (23.6%)	492 (21.8%)	446 (29.2%)	270 (20.2%)	<0.0001
	Black|Non-Hispanic	2770 (54.1%)	1314 (58.3%)	837 (54.8%)	619 (46.4%)	
	White|Non-Hispanic	981 (19.2%)	386 (17.1%)	200 (13.1%)	395 (29.6%)	
	Other	158 (3.1%)	63 (2.8%)	45 (2.9%)	50 (3.7%)	
Caregiver Married/Partnered	Yes	1036 (20.0%)	434 (19.0%)	251 (16.2%)	351 (26.1%)	<0.0001
Caregiver Education	Less than high school	853 (16.5%)	382 (16.7%)	275 (17.7%)	196 (14.6%)	<0.0001
	High school	2231 (43.0%)	1009 (44.1%)	694 (44.7%)	528 (39.2%)	
	More than high school	2101 (40.5%)	895 (39.2%)	583 (37.6%)	623 (46.3%)	
Any Employment in household	Yes	4019 (78.4%)	1773 (78.3%)	1160 (75.8%)	1086 (81.4%)	0.0014

Table 1. *Cont.*

Question	Response	Overall	2016	2017	2018	*p*-Value
Immigrant Mothers ≥5 Years [a]						
Mother Age	*N* Mean (Std Dev)	1297 31.8 (6.5)	530 31.6 (6.4)	481 31.7 (6.4)	286 32.1 (6.7)	0.5691
Child Age (Months)	*N* Mean (Std Dev)	1297 20.1 (14.3)	530 20.7 (14.6)	481 19.6 (14.0)	286 19.8 (14.4)	0.3960
Mother Ethnicity	Hispanic	950 (73.5%)	398 (75.2%)	352 (73.8%)	200 (69.9%)	0.7082
	Black|Non-Hispanic	287 (22.2%)	112 (21.2%)	104 (21.8%)	71 (24.8%)	
	White|Non-Hispanic Other	12 (0.9%) 43 (3.3%)	3 (0.6%) 16 (3.0%)	5 (1.0%) 16 (3.4%)	4 (1.4%) 11 (3.8%)	
Caregiver Married/Partnered	Yes	563 (43.5%)	230 (43.6%)	208 (43.2%)	125 (43.9%)	0.9858
Caregiver Education	Less than high school	485 (37.4%)	202 (38.1%)	191 (39.7%)	92 (32.2%)	0.1215
	High school	489 (37.7%)	207 (39.1%)	164 (34.1%)	118 (41.3%)	
	More than high school	91 (34.6%)	29 (31.9%)	40 (37.7%)	22 (33.3%)	
Any Employment in Household	Yes	1175 (91.0%)	474 (89.8%)	439 (92.0%)	262 (91.6%)	0.4222
Immigrant Mothers <5 Years [b]						
Mother Age	*N* Mean (Std Dev)	264 28.7 (6.5)	91 27.9 (6.3)	107 30.0 (6.6)	66 27.8 (6.3)	0.0293
Child Age (Months)	*N* Mean (Std Dev)	264 14.4 (12.1)	91 12.9 (11.9)	107 13.2 (11.3)	66 18.3 (12.9)	0.0095
Mother Ethnicity	Hispanic	204 (77.9%)	72 (80.0%)	85 (79.4%)	47 (72.3%)	0.4806
	Black|Non-Hispanic	49 (18.7%)	13 (14.4%)	19 (17.8%)	17 (26.2%)	
	White|Non-Hispanic	2 (0.8%)	1 (1.1%)	1 (0.9%)	0 (0.0%)	
	Other	7 (2.7%)	4 (4.4%)	2 (1.9%)	1 (1.5%)	
Caregiver Married/Partnered	Yes	106 (40.2%)	39 (42.9%)	44 (41.1%)	23 (34.8%)	0.5794
Caregiver Education	Less than high school	91 (34.6%)	32 (35.2%)	36 (34.0%)	23 (34.8%)	0.9208
	High school	81 (30.8%)	30 (33.0%)	30 (28.3%)	21 (31.8%)	
	More than high school	91 (34.6%)	29 (31.9%)	40 (37.7%)	22 (33.3%)	
Any Employment in Household	Yes	225 (85.9%)	79 (86.8%)	89 (84.8%)	57 (86.4%)	0.9111

[a] Immigrant Mothers ≥5 years: Families with mothers who immigrated to the U.S. more than or equal to five years ago. [b] Immigrant Mothers <5 years: Families with mothers who immigrated to the U.S. less than five years ago.

4. Discussion

During the Great Recession from 2007 to 2009, food insecurity increased for families with young children across all three groups. Families with immigrant mothers, in particular, had higher rates of household and child food insecurity during the height of the recession and a slower recovery than families with U.S.-born mothers. SNAP participation also increased across all groups between 2007 and 2013 during the Great Recession and its aftermath and then began to decline However, among families with U.S.-born mothers and immigrant mothers in the U.S. <5 years, there was a sharp decrease in SNAP participation between 2017 and the first half of 2018. However, small cell sizes for the first 6 months of 2018 should be interpreted with caution.

While an improving economy with higher employment rates might be a plausible explanation for this sharp decrease in participation in SNAP, employment trends varied only for the families with U.S.-born mothers while remaining constant for families with immigrant mothers in the U.S. <5 years.

The decrease in SNAP participation occurring concurrently with both an increase in employment and an increase in food insecurity among families with U.S.-born mothers may reflect a previously documented phenomenon where families whose SNAP benefits are cut off due to increased earnings experience a net loss of family resources placing them at higher risk of food insecurity [32]. The consistency of employment across 2016–2018 occurring concurrently with a decline in SNAP benefits among families with immigrant mothers who have resided in the U.S. <5 years, however, suggests that other factors may be contributing to this trend. The decline in participation among these families may be reflective of recent anecdotal reports suggesting that immigrant families are dis-enrolling or declining to enroll in federal assistance programs, including SNAP, out of fear of deportation or deleterious impacts on their future U.S. immigration status [29,33,34]. Other reasons for the decline in participation may be associated with this trend. Further research, however, is needed to discern the cause of the decrease. Qualitative methods that provide opportunities for immigrant mothers to respond to open-ended questions pertaining to their experiences in the U.S. and the reasons why they choose to participate or not participate in federal assistance programs such as SNAP may offer greater insights into the trends identified through this study. Research utilizing administrative data may also be able to examine nationally representative trends and potentially uncover other reasons for declining participating, such as disproportionate terminations or denials.

Several limitations of this analysis should be considered. The data come from cross-sectional sampling and therefore demonstrate associations, not causation. Due to only 6 months of available data for 2018, the cell sizes for this time period are small and therefore should be interpreted cautiously. All outcomes were self-reported, which creates a potential for bias in food security status and over- or underreporting of SNAP participation. Given that the current study includes only unadjusted outcomes, more research is necessary to examine associations adjusted for contextual factors that may relate to food security or SNAP participation. Further, the immigration status for the mothers, which impacts eligibility for SNAP, is unknown. The current policy context, however, makes these preliminary findings timely, and provides important evidence for ongoing policy discussions as well as directions for future research.

Policy proposals, such as the recent regulatory proposal to change the definition of public charge, may have contributed to this trend. Beginning in February of 2017, the federal administration began discussing changes to public charge, which is a term used by U.S. immigration officials to refer to persons who are considered primarily dependent on the government for subsistence. Immigrants subject to this consideration who are found to be or likely to become a public charge may be denied admission to the U.S. or denied adjustment to legal permanent resident status. To date, public charge determination has been limited to receipt of public cash assistance or institutionalization for long-term care at the government's expense.

Data in this study suggest a declining trend in SNAP participation among immigrant families, even as their employment remains constant and child food insecurity continues at a rate higher than the U.S.-born population. If the definition of public charge were expanded, as currently proposed by the present administration, to include participation in SNAP and potentially other supports like housing subsidies and Medicaid (public health insurance), rates of food insecurity among citizen children under the age of four years are likely to increase, along with associated health consequences [35,36]. Anecdotal stories from physicians, social service providers, and members of the community already describe fear among immigrant families related to participation in SNAP. A change to public charge could sharply increase this phenomenon in the short term.

Given the immediate and long-term health implications of food insecurity, especially child food insecurity [12], policy proposals that change public charge determination rules or impede SNAP participation among immigrant families of U.S. citizen infants and toddlers could have long-term negative consequences on public health and the health care system [37,38]. Beyond public policy change, it is important to increase education efforts among non-governmental, community-based organizations working with immigrant communities to inform immigrant families of their eligibility

for SNAP and provide resources to local organizations that support enrollment in SNAP and other programs. In addition, ensuring data confidentiality for those applying for benefits, eliminating hostile anti-immigrant rhetoric in national discourse, and reducing barriers to nutrition assistance for families with low incomes regardless of parental nativity or immigration status [39] may benefit the health, growth, and development of the youngest citizens of the U.S. Future research is necessary to examine the sequelae of health outcomes associated with the trends documented in this study and identify potential solutions to remediate these trends. Further, as leaders in other countries outside of the U.S. propose policies that negatively target immigrants, research would be important to discern the potential ripple effects on the health of children and their families in those settings.

5. Conclusions

Over the last ten years, household food insecurity doubled for families with recently arrived immigrant mothers and their U.S.-born children while rates of child food insecurity remained alarmingly high. SNAP participation for these families decreased between 2017 and the first half of 2018, despite a lack of change in household employment status. These trends may be reflective of anecdotal reports in recent years that immigrant families fear participation in health-promoting nutrition assistance programs for which they may be eligible, including SNAP, because of fears of deportation or effects on their future immigration status. Policies that increase, rather than decrease, support for immigrant families with infants and toddlers may be necessary for reversing these trends that threaten the health and development of young children and their families.

Author Contributions: A.B.-A., S.E.d.C. and D.D.C. supervised data collection at the Boston site, conceptualized and designed the study, interpreted the analyses, and drafted and revised the manuscript. S.C. helped conceptualize and design the study, conducted the analysis, provided statistical expertise, and critically reviewed and revised the manuscript. D.A.F., M.M.B. and E.O.J. supervised data collection in their sites, helped conceptualize and design the study, and reviewed and revised the manuscript. N.A. critically reviewed and revised the manuscript.

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Conflicts of Interest: The authors declare no conflict of interest.

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