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RESEARCH ARTICLE

Impact of Enroll America on the Number of Individuals Covered through the Federally Facilitated Marketplace

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Objective. To assess the impact of Enroll America's field outreach activities on the number of individuals enrolled in Marketplace coverage during the first open enrollment period.

Data Sources/Study Setting. Marketplace enrollment for the initial open enrollment period linked with data on Enroll America's field activities and baseline local-area demographic, economic, and health services characteristics.

Study Design. We used a quasi-experimental design, comparing Marketplace enrollment during the first open enrollment period in local areas drawn from Enroll America field states to a comparison group of local areas drawn from states that were not served by Enroll America's field effort, but that otherwise match up well with Enroll America states.

Principal Findings. We find evidence of a large, positive effect of Enroll America's field outreach on Marketplace enrollment in non-Medicaid expansion states. Across model specifications, the Enroll America effects on Marketplace enrollment ranged between 10 and 15 percent, with most estimates statistically significant at the 5 percent level.

Conclusions. Enroll America played an important role in the success of individual states' efforts to boost Marketplace enrollment. Enroll America's evidence-driven, grassroots approach could serve as a model for others interested in conducting similar outreach campaigns for Affordable Care Act-related coverage.

Key Words. Affordable Care Act, Federally Facilitated Marketplaces, Marketplace enrollment, consumer outreach

One of the most significant reforms that the Patient Protection and Affordable Care Act (ACA) made to the U.S. health care system is the introduction of Health Insurance Marketplaces. Under the ACA, states were required to either establish Health Insurance Marketplaces that offer insurance plans for direct purchase or use the Federally Facilitated Marketplace (FFM). The law also made middle- and low-income families eligible for new tax credits that

cover a portion of the cost of Marketplace plans. These changes provided an opportunity for states to significantly increase affordable health insurance coverage for their residents. It was estimated that roughly 28 million Americans were eligible to purchase coverage in the Marketplaces during the first open enrollment period (October 1, 2013, through March 31, 2014), and an estimated 17 million Americans who were previously uninsured or bought insurance on their own qualified for premium tax credits in 2014 (Kaiser Family Foundation 2013a).

The tasks of identifying, educating, and enrolling eligible individuals in health care coverage during the first open enrollment period presented enormous challenges for most states. Before the launch of the Marketplaces, many Americans were confused about the new coverage opportunities, the availability of tax credits to help them buy the available coverage, and the enrollment process (Collins, Rasmussen, and Garber 2013; Kaiser Family Foundation 2013b). Adding to these challenges was the makeup of the newly eligible population, which was expected to be more racially diverse and less educated than the insured population, and more than twice as likely to speak a primary language other than English (PricewaterhouseCoopers 2012). In a number of states, political support for the expansion has been lacking, and this has limited and even hampered staff of health plans in their efforts to distribute information about the coverage and facilitate enrollment among those eligible for it (Keith, Lucia, and Monahan 2013; Giovannelli, Lucia, and Dash 2014; Shin et al. 2014).

Anticipating many of these challenges, Enroll America was founded in 2011 on the belief that an organization could champion the cause of boosting enrollment by supporting and supplementing ongoing efforts to facilitate enrollment in the coverage made available under the ACA. Enroll America is the only national organization focused solely on maximizing the number of uninsured Americans who enroll in health coverage. It pursues this goal primarily through its Get Covered America campaign, a grassroots-focused outreach effort designed to inform Americans about coverage opportunities, motivate them to seek coverage, and connect them with tools and agencies to facilitate their enrollment.

During the first open enrollment period, approximately 8 million consumers obtained coverage through the Marketplaces, and many more

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enrolled in Medicaid (Department of Health and Human Services 2014a; Centers for Medicare and Medicaid Services and Department of Health and Human Services 2014). First-year enrollment in Marketplace coverage contributed to a historic decline in the number of uninsured Americans (Sommers et al. 2014). According to data released by the National Center for Health Statistics (NCHS) for January–September 2014, the percentage of uninsured adults aged 18–64 decreased from 20.4 percent in 2013 to 16.7 percent in the first 6 months of 2014 (Martinez and Cohen 2015).

However, decreases in the number of uninsured individuals at the state level were far from uniform. For example, the National Health Interview Survey reported that the percentage of uninsured adults in Ohio dropped from 13.4 percent in 2013 to 8.9 percent in 2014, whereas in neighboring Indiana the decline was <1 percentage points, from 14.6 to 13.8 percent (NHIS 2015). This variability underscores the importance of state-level decision making in response to the ACA, including the choice of a federal or state-based exchange and the level of support and investment in consumer information and outreach (Sommers et al. 2015). The presence of outside groups like Enroll America may also have played an important role in the success of individual states' efforts to boost Marketplace enrollment by helping coordinate and conduct consumer outreach in a number of FFM states (Wishner, Spencer, and Wengle 2014).

In this study, we estimate the impact of Enroll America's first-year outreach activities on the number of individuals enrolled in Marketplace coverage. The approach used follows a quasi-experimental design, in which we measure enrollment in a comparison group drawn from states that are not served by Enroll America's field effort, but otherwise match up well overall with those served by Enroll America. To our knowledge, this study offers the first causal estimates of specific outreach activities conducted in an effort to boost Marketplace enrollment. To date, little is known about the effectiveness of outreach strategies on health insurance enrollment, particularly among the population targeted by the ACA coverage expansions.¹

Enroll America's outreach efforts have the potential to play an important role in the success of individual states' efforts to boost Marketplace enrollment. Their approach to large-scale outreach differs importantly from the practices employed in traditional health-benefits outreach by community-based organizations or government-funded agencies. Most notably, its outreach campaign adopted modern campaign-style tactics that draw heavily on real-time data and analytics to inform the activities of field organizers and volunteers and drive decisions about operational investments. This reliance on data and analytics, if proven successful, may serve as a model for states or

outside groups interested in conducting similar outreach campaigns for ACA-related coverage or other benefit programs. Empirical research that sheds light on whether and how outreach efforts to identify and enroll individuals eligible for this new coverage option can help inform future coverage-related investments and efforts.

BACKGROUND ON ENROLL AMERICA'S FIELD OUTREACH PROGRAM

In 2013, Enroll America hired paid staff in 11 states—Arizona, Florida, Georgia, Illinois, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, and Texas—to launch its field outreach program. Within these 11 states, Enroll America took a largely regional approach to structuring its outreach effort; field staff were located in and primarily targeted urban areas where the majority of uninsured individuals were. These areas were assigned to regional organizing leads, who in turn managed organizers and deputy organizers in their region. The organizers were responsible for engaging volunteers, organizing events, and working with partners in their assigned area.

Enroll America's field outreach approach focuses on speaking directly to individuals—by phone, or in person at home, at community events, or at other places they frequent. To facilitate these conversations, Enroll America collected contact information on commit cards, which were used to collect consumers' contact information and gauge their interest in learning about enrollment opportunities or volunteering for Enroll America. All of the commit card data were entered into the Get Covered America database. Staff and volunteers, using telephone banks, would then follow up with consumers many times through a "chase" program to remind them of deadlines, answer their questions, and through the use of scripts by Enroll America, help connect them to enrollment assistance.

In tandem with the grassroots outreach campaign, Enroll America conducted a sophisticated digital outreach campaign. Enroll America used various online media strategies to direct consumers to its website. Consumers were encouraged to submit their contact information on the website, particularly their email addresses, which allowed Enroll America to engage them online with emails containing targeted messaging and information about upcoming enrollment events.

In all field states, Enroll America made a concerted effort to collaborate closely with groups directly assisting consumers in enrolling in the

Marketplace—the Navigators and Certified Application Counselors—to support the assisters’ efforts. For example, Enroll America used its Get Covered data and digital strategies to direct uninsured people to locations with assisters, either to one-time enrollment events or to meet with assisters who offered help on a regular schedule. For enrollment events, Enroll America partnered with application assisters to help enroll individuals and with community partners with space to hold events. Enroll America staff and volunteers advertised the events to consumers, typically by calling people they had collected contact information for, and encouraging them to attend an event.

Although these activities were only a part of Enroll America’s overall strategy, together these activities formed the primary means by which Enroll America staff communicated with individual consumers to connect them to coverage opportunities. Table 1 provides detail on the Enroll America’s outreach activities in its 11 Enroll America field states during the first open enrollment period.

DATA

Our study used five primary data sources. Our measure of Marketplace enrollment comes from the Office of the Assistant Secretary for Planning and Evaluation (ASPE) in the U.S. Department of Health and Human Services (HHS). ASPE released counts of qualified health plan selections in the states that relied on the federal technology platform for the initial open enrollment period—October 1, 2013, through April 19, 2014.² We linked these data with information obtained from Enroll America on its field program and digital campaign efforts at the zip-code level.

We combined Marketplace enrollment with baseline demographic, economic, and health services characteristics obtained from the American Community Survey (ACS) of the U.S. Census Bureau, and the Area Health Resources Files (AHRF), provided by the Health Resources and Services Administration. The ACS 5-year summary data (2009–2013), available at the zip-code tabulation areas (ZCTA) level, provides information on several local demographic and economic characteristics that we used in the matching procedure and as controls. The AHRF provided measures of the number of active primary care providers and population density. Lastly, we added the price of Marketplace plans (as measured by the premium for the silver plan with the second lowest price [for a 21-year-old]) for 2014 in each Marketplace geographic rating area (ASPE 2013).

Table 1: Summary Characteristics of the 11 Enroll America Field States during the First Open Enrollment Period

State	Number of Paid Field Staff*		Total Volunteers		Core Volunteers		Commit Cards Collected		Successful Chase Calls		Emails Sent		Number of Primary ZCTAs		Target Areas
Arizona	13		685		190		5,644		6,210		1,940,938		157		Maricopa and Pima counties Miami-Dade, Broward, Palm Beach, Hillsborough, Orange, and Duval counties
	38		5,005		1,440		28,569		44,805		7,996,747		420		
Georgia	13		1,163		252		7,583		9,433		3,978,409		125		DeKalb, Fulton, and Cobb counties Cities: Chicago, Springfield, Rockford
	13		4,214		497		7,694		14,388		503,882		305		
Michigan	15		2,930		603		13,930		19,767		3,140,651		336		Wayne and Macomb counties Cities: Flint, Lansing, Grand Rapids, and Kalamazoo
New Jersey	15		2,093		348		7,535		6,875		2,632,809		244		Essex, Bergen, Hudson, Passaic, and Union counties
North Carolina	13		1,493		533		8,761		12,608		3,654,364		97		Cities: Raleigh, Durham, Charlotte, Greensboro, and Winston-Salem
Ohio	17		1,708		475		10,448		13,928		3,855,360		203		Cities: Cleveland, Columbus, and Cincinnati (including suburbs)
Pennsylvania	15		1,233		347		6,144		8,702		4,194,408		150		Cities: Philadelphia and Pittsburgh
Tennessee	2		111		28		419		637		223,324		78		Cities: Memphis and Nashville
Texas	33		4,775		562		22,265		20,542		7,602,051		502		Cities: Dallas, Houston, Ft. Worth, Austin, San Antonio, Waco, El Paso; Rio Grande Valley

Notes: Core volunteers are volunteers that completed more than one outreach shift (such as tabling, conducting chase calls). A successful chase call is a follow-up call that reaches a consumer (as opposed to an unanswered call).
ZCTAs, zip-code tabulation areas.

*Paid field staff positions from May 2013 through April 2014.

Source: Hoag, Orzol, and Orfield (2014), Hoag, Orfield, and Orzol (2015), authors' review of data provided by Enroll America.

METHODS

We conducted a cross-state analysis to estimate the Enroll America field campaign's impact on Marketplace enrollment. We used a quasi-experimental design, comparing Marketplace enrollment during the first open enrollment period in selected local areas in states where Enroll America operates its grass-roots outreach campaign (Enroll America states) with enrollment for a comparison group of local areas drawn from states using the FFM but where Enroll America did not have paid staff conducting outreach during the first open enrollment period (non-Enroll America states), but that otherwise matched up well with Enroll America states. To select this comparison group, we used propensity score matching. We matched our treatment and comparison groups at baseline on local-level economic and demographic factors such as population size; composition of the local population by age, race, and sex; income; and insurance coverage.

Treatment and Comparison States

The main threat to the validity of the empirical approach is that, even after matching on a comprehensive set of local characteristics, the two groups may remain disparate in a way that impacts enrollment. For example, if there are more (or fewer) restrictions placed on outreach and application assistance in non-Enroll America states, our comparison will overstate (or understate) the effect of Enroll America. This selection bias is a major concern given state-level differences in approaches to ACA-related coverage and socioeconomic differences across states related to enrollment. Table 2 provides a description of the treatment and potential control states along several key policy and socioeconomic characteristics.

To account for state-level differences that exist between those states where Enroll America operated a field program and those where it did not, we would ideally start by formally matching the 11 Enroll America states to non-Enroll America states. However, given the small number of states from which to draw observations and the lack of overlap between the two groups on state-level factors, we are unable to conduct a formal state-level matching process. Instead, we constructed three overlapping samples from which to match and conduct estimation. To the extent results are robust to sample definitions, we have more confidence that estimates are not primarily picking up unmeasured difference between the two groups of states that are unrelated to Enroll America but affect Marketplace enrollment.

Table 2: Key Characteristics of Treatment and Potential Control States

State	Treatment and Control States				EA State (yes)	Total Population	Uninsured Rate among Nonelderly Adults (2013) (%)	Medicaid Eligibility (Adults), Jan 2014 (%)	Population Living in Nonmetro Area (%)	Consumer Assistance Funding per Eligible Uninsured (\$)
	Full FFM Sample	Non- Medicaid Expansion Sample	Trimmed Non-Medicaid Expansion Sample	Medicaid Expansion, Jan 2014						
Florida	T	T		N	Y	19,076,224	26	0	6	5
Georgia	T	T	T	N	Y	9,793,627	23	0	19	4
Michigan	T	T	T	N	Y	9,885,330	15	138	19	6
North Carolina	T	T	T	N	Y	9,644,956	22	0	30	5
Pennsylvania	T	T	T	N	Y	12,724,094	13	0	16	6
Tennessee	T	T	T	N	Y	6,390,007	19	0	27	6
Texas	T	T		N	Y	25,624,900	28	0	12	4
Arizona	T			Y	Y	6,475,528	24	138	8	5
Illinois	T			Y	Y	12,847,974	15	138	13	26
New Jersey	T			Y	Y	8,832,393	16	138	0	6
Ohio	T			Y	Y	11,542,061	17	138	19	5
Alaska	C	C		N		719,805	18	0	33	18
Alabama	C	C	C	N		4,791,088	22	0	29	6
Indiana	C	C	C	N		6,506,173	18	0	22	5
Kansas	C	C	C	N		2,865,592	14	0	32	8
Louisiana	C	C	C	N		4,564,436	21	0	25	6
Maine	C	C		N		1,317,289	13	0	42	14
Missouri	C	C	C	N		6,006,909	15	0	26	6
Mississippi	C	C	C	N		2,973,359	20	0	55	7
Montana	C	C		N		999,409	24	0	65	13
Nebraska	C	C		N		1,840,235	13	0	41	7

Continued

Table 2. Continued

State	Treatment and Control States				Total Population	Uninsured Rate among Nonelderly Adults (2013) (%)	Medicaid Eligibility (Adults), Jan 2014 (%)	Population Living in Nonmetro Area (%)	Consumer Assistance Funding per Eligible Uninsured (\$)
	Full FFM Sample	Non-Medicaid Expansion Sample	Trimmed Non-Medicaid Expansion Sample	Medicaid Expansion, Jan 2014	EA State (yes)				
New Hampshire	C	C	C	N	N	16	0	38	28
Oklahoma	C	C	C	N	N	22	0	36	5
South Carolina	C	C	C	N	N	22	0	24	6
South Dakota	C	C		N	N	13	0	55	14
Utah	C	C	C	N	N	16	0	11	6
Virginia	C	C	C	N	N	16	0	14	5
Wisconsin	C	C		N	N	13	100	27	6
Wyoming	C	C		N	N	20	0	70	10
Arkansas	C			Y	Y	23	138	40	41
Delaware	C			Y	Y	10	138	22	68
Iowa	C			Y	Y	12	138	44	9
North Dakota	C			Y	Y	13	138	52	15
West Virginia	C			Y	Y	18	138	44	64

Note: C, control state; T, treatment state; N, no; Y, yes; EA, Enroll America; FFM, Federally Facilitated Marketplace. Source: Medicaid expansion and Medicaid eligible (adults) from Kaiser Family Foundation's "Medicaid Eligibility for Adults as of January 1, 2014." Available at <http://kff.org/medicaid/fact-sheet/medicaid-eligibility-for-adults-as-of-january-1-2014/>. Total population and uninsured rate from the American Community Survey, U.S. Census Bureau, 5-year estimates (2009–2013); Population living in nonmetro area from the 2010 U.S. Census; Federal consumer assistance funding from Polsky et al. (2014), CCHIO (2013). Available at <http://www.cms.gov/CCIIO/Programs-and-Initiatives/Health-Insurance-Marketplaces/Downloads/navigator-list-10-18-2013.pdf>.

The three samples are as follows:

1. **Non-Medicaid expansion sample:** We restricted the pool of states to those 25 operating an FFM or to those that had a State Partnership Marketplace during the first open enrollment period and had not implemented a Medicaid expansion as of the first open enrollment period. The four Enroll America and five non-Enroll America states that chose to expand Medicaid exhibit some striking differences, at least descriptively, particularly in terms of population size and density. These differences make them difficult to match and may introduce significant bias in any comparison of the two groups. The excluded states are Arizona, Illinois, New Jersey, and Ohio (Enroll America states) and Arkansas, Delaware, Iowa, North Dakota, and West Virginia (non-Enroll America states). This is our preferred sample, and to the extent results are largely consistent across samples, the estimates from this model will serve as our main impact results.
2. **Full FFM sample:** The full FFM sample is made up of all 34 states operating an FFM or had a State Partnership Marketplace during the first open enrollment period. It includes all 11 Enroll America field states from which to estimate impacts and the largest possible pool of non-Enroll America states from which to draw a comparison group.
3. **Trimmed non-Medicaid expansion sample:** We remove potential outlier states from our preferred sample to further reduce any state-level unobserved heterogeneity that could potentially bias our impact findings. Specifically, we excluded states with (1) very small/very large total population, (2) relatively very high or very low uninsured rates, (3) generous Medicaid benefits to adults without dependents as of January 2014, or (4) a sizable proportion of its population living in nonmetro areas (>40 percent). This sample excludes Texas and Florida—the two largest states with the highest baseline uninsured rates—from the treatment group, and seven control states that appear qualitatively different from our treatment states on the above characteristics (Alaska, Maine, Montana, Nebraska, South Dakota, Wisconsin, and Wyoming).

Treatment Group

The treatment group was composed of ZCTAs drawn from the Enroll America field states. Treatment ZCTAs were further limited to those areas where Enroll America had an active field presence, or its “primary turf,” during the period January 2014–April 2014, when Enroll America was most active. These are the zip codes identified by Enroll America’s data and analytics as the main target areas for the field campaign and subsequently assigned to a specific organizer.³ The same list of zip codes corresponds to the focus of Enroll America’s digital advertising campaign. Although consumers in other zip codes in the state may have been exposed to Enroll America’s efforts, the dosage was highest in these primary turf areas.

Comparison Group

The comparison group consists of matched ZCTAs drawn from non-Enroll America states. We used propensity scores to select comparison ZCTAs that were similar during the pre-open enrollment period to the treatment ZCTAs in local factors that can influence enrollment. The propensity score for a given ZCTA is the predicted probability, based on all matching variables, that the ZCTA is part of the treatment group (Stuart 2010). The score collapses information from all of the matching variables into a single number for each ZCTA that we used to assess how similar ZCTAs are to one another. For each treatment ZCTA, we selected the potential ZCTA with the closest absolute propensity score to serve as its counterfactual. To minimize the potential for bias in our estimates, the matching process is conducted with replacement, so potential comparison group ZCTAs can form the counterfactual for more than one treatment ZCTA.

Matching Results

Table 3 shows that the comparison group matching procedure yielded well-balanced samples on most of the key local-area characteristics. In all three samples, the resulting comparison groups are quite similar in the size of its Marketplace-eligible population, total population, and percentage of its population in poverty, unemployed, uninsured, or with employer-sponsored coverage. There are differences between the treatment group and matched comparison group on a few local characteristics—notably, the percent of the population that is not a U.S. citizen; in the full FFM sample, population density; and in the non-Medicaid expansion sample, percent Hispanic.

Table 3: Characteristics of Treatment and Comparison Zip-Code Tabulation Areas (ZCTAs) at Baseline

	Full FFM Sample			Non-Medicaid Expansion Sample			Trimmed Non-Medicaid Expansion Sample		
	Treatment Group	Matched Comparison Group	Standardized Difference (%)	Treatment Group	Matched Comparison Group	Standardized Difference (%)	Treatment Group	Matched Comparison Group	Standardized Difference (%)
Sample size (states)	11	23		7	18		5	11	
Sample size (ZCTAs); unique observations	2,037	644		1,459	542		760	347	
Characteristics included in matching									
Marketplace-eligible population*	3,893	3,749	5.3	4,291	4,197	3.3	3,659	3,625	1.4
Total population	24,541	24,443	0.7	25,196	25,050	1.0	24,079	23,319	5.3
Rural area (%)	6.6	5.6	2.4	8.4	7.3	2.9	12.4	16.1	-8.8
Median income (\$)	59,031	57,771	5.6	56,631	56,654	-0.1	56,283	57,566	-6.0
Unemployment rate†	10.0	10.3	-5.3	10.3	10.3	0.0	11.1	10.9	3.4
Percent in poverty	15.1	15.9	-7.6	16.1	16.7	-6.7	15.8	15.6	1.3
Percent uninsured	14.6	15.3	-9.9	16.0	16.6	-7.6	12.8	13.4	-9.7
Percent ages 18–64 with employer sponsored insurance	56.8	57.0	-1.4	55.0	55.2	-1.2	59.0	59.4	-3.4
Percent female	51.0	50.9	2.2	50.9	50.6	8.7	51.1	51.0	2.5
Percent white	72.5	72.6	-0.6	71.0	71.0	0.0	70.9	72.0	-4.5
Percent black	17.2	16.1	5.0	18.8	16.8	9.4	21.0	19.6	5.8
Percent Hispanic	13.6	14.8	-7.1	14.9	15.6	-3.8	6.8	7.8	-13.9
Percent not a U.S. citizen	6.8	7.4	-9.9	7.2	8.3	-17.5	5.0	5.6	-11.3
Percent age 25–64	54.0	54.2	-4.5	54.1	53.7	-5.7	54.2	54.5	-4.8
Percent ages 25 + without a high school degree	19.7	20.7	-12.5	20.5	20.8	-3.8	18.9	18.4	6.4
Percent ages 25 + with some college	33.0	31.1	11.7	32.2	32.7	-3.2	32.8	35.0	13.2

Continued

Table 3. *Continued*

	Full FFM Sample			Non-Medicaid Expansion Sample			Trimmed Non-Medicaid Expansion Sample		
	Treatment Group	Matched Comparison Group	Standardized Difference (%)	Treatment Group	Matched Comparison Group	Standardized Difference (%)	Treatment Group	Matched Comparison Group	Standardized Difference (%)
Population density [‡]	1,860	1,397	28.8	1,682	1,719	-2.6	1,841	1,861	-1.1
Active primary care providers per 1,000 individuals [‡]	0.83	0.79	13.2	0.79	0.82	-7.0	0.89	0.89	-0.7
Second lowest cost silver plan premium [§]	196	193	10.4	196	190	17.4	190	190	0.3
Characteristics not included in matching									
State uninsured rate	20.6	15.6	108.3	21.9	16.2	122.5	17.2	16.9	9.1
Consumer assistance funding per uninsured individual	\$6.51	\$16.83	-103.3	\$4.95	\$6.56	-45.4	5.44	6.71	-34.7
Adoption of consumer assistance restrictions (laws)	60.3	60.0	1.3	61.3	64.8	-7.2	25.9	59.6	-71.8
State participated in ACA-related lawsuits	77.0	71.9	11.7	88.0	86.2	5.4	77.1	74.1	7.4

Notes: Characteristics of treatment and comparison ZCTAs at baseline are presented for the three samples described in the methods section. The full Federally Facilitated Marketplace (FFM) sample includes all states that used the FFM (Medicaid expansion and non-Medicaid expansion states). The non-Medicaid expansion sample excludes states that had expanded Medicaid under the Affordable Care Act (ACA) as of January 1, 2014. The trimmed non-Medicaid expansion sample is further restricted to exclude outlier states. Unless specifically noted, all variables were defined at the ZCTA level.

*Marketplace-eligible population is defined as individuals ages 0–64 without insurance coverage or insured by nongroup coverage purchased privately through the individual market. We then exclude two groups of individuals from among the uninsured, those eligible for Medicaid or CHIP, and those individuals with incomes above Medicaid eligibility levels but below 100 percent Federal Poverty Level.

[‡]Unemployment rate measured among individuals age 16+.

[§]These variables were defined at the county level.

[§]This variable is defined at the geographic rating area level.

Source: Mathematica analysis of Department of Health and Human Services Health Insurance Marketplace enrollment data through March 31, 2014 (including additional special enrollment period activity through April 19, 2014). Available at http://aspe.hhs.gov/health/reports/2014/MarketPlaceEnrollment/Apr2014/ib_2014apr_enrollment.pdf.

Although our matching approach achieved balance on key local-area characteristics, as discussed previously we were unable to include state-level factors in the matching procedure because of lack of overlap between the two groups. To explore how well our treatment and matched comparison groups balance on state-level factors, we show group means for four characteristics that might be important to Marketplace enrollment—the state uninsured rate, federal consumer assistance funding, presence of laws or regulations that restrict (in ways that exceed the federal regulatory framework) the work of persons providing consumer assistance, and state participation in anti-ACA lawsuits. In all three samples, we observe sizeable differences across some of the state-level factors. Although we enjoy a well-balanced sample on local-area factors, selection bias in our estimates due to state-level factors remains an overriding concern for this study.

During the matching process, we dropped potential treatment ZCTAs if they were outside the range of common support. For the trimmed non-Medicaid sample, these exclusion criteria removed only 26 ZCTAs (<3 percent of the total). However, for the full FFM and non-Medicaid expansion samples this led to considerable attrition of the treatment sample. We excluded 249 observations from the non-Medicaid sample (15 percent) and 580 observations from the full sample (22 percent). The majority of the excluded ZCTAs were from Florida, Illinois, New Jersey, and Texas.

A limitation of this matching approach is that comparison ZCTAs can be selected multiple times. In the extreme, a handful of unique comparison units could compose the comparison group for many unique treatment units. In the two non-Medicaid expansion samples, the vast majority of the comparison sample was composed of ZCTAs selected five or fewer times. For the full sample, there were several ZCTAs that served as the matched comparison member for over 25 treatment ZCTAs, highlighting again the difficulty matching ZCTAs across the two groups of Medicaid expansion states.

Model for Estimating Impacts

Using our matched treatment and comparison sample, we estimated the impact of Enroll America on Marketplace enrollment through the following regression model:

$$\text{Enroll}_{zs} = \alpha + \beta_1 \text{EA}_{zs} + \gamma \mathbf{X}_{zs} + \varepsilon_{zs} \quad (1)$$

where the model's variables are as follows:

1. Enroll_{zs} denotes the number of Marketplace enrollees for a ZCTA (z) in a state (s) during the first open enrollment period.
2. EA_{zs} takes the value of 1 for Enroll America primary turf ZCTAs and 0 otherwise.
3. X_{zs} is a vector of characteristics measuring the baseline characteristics of the ZCTA (z) in a state (s) that may influence enrollment; characteristics include total eligible Marketplace population, percent of ZCTA by race and education, the unemployment rate, and median income.
4. e_{zs} is a random error term.

The key parameters are the coefficient (β_1) on the indicator for Enroll America's field outreach program (EA_{zs}). This coefficient captures the impact estimate for Enroll America's outreach program—that is, the average enrollment for targeted ZCTAs in the Enroll America field states minus the average enrollment for matched ZCTAs in states where Enroll America was not active during the first open enrollment period. If Enroll America positively impacts Marketplace enrollment, $\beta_1 > 0$.

Because our outcome measure is a count, we use negative binomial count data models to reflect appropriately the distribution of enrollment and account for overdispersion. Robust standard errors are clustered at the state level. We also conducted two additional secondary tests to help corroborate the findings from the primary analyses. This is important because some of the differences observed between the treatment and comparison groups in the primary results could reflect limitations of the nonexperimental impact evaluation design. As noted, the impact design on which these models are based assumes that any observed difference in Marketplace enrollment across the two groups of ZCTAs is due to the activities of Enroll America rather than unobserved differences across the two sets of states from which these samples were drawn. We have greater confidence in the primary results if they are generally consistent with the expected broader pattern of results from the secondary tests.

First, we incorporated a placebo group, which looks for evidence of an Enroll America effect in geographic areas where Enroll America had not conducted meaningful consumer outreach. The placebo group was composed of urban ZCTAs in Enroll America states that were not assigned to a specific Enroll America organizer (expansion turf) and where there were few outreach-related activities conducted by Enroll America. We matched these expansion ZCTAs drawn from the seven non-Medicaid expansion Enroll

America states to a comparison group of ZCTAs drawn from non-Enroll America states. We combined the matched placebo sample with our main sample and re-estimated our primary models, allowing for differential effects between primary ZCTAs and the expansion ZCTAs. The inclusion of the expansion ZCTAs allowed us to difference out potential state-level differences not related to Enroll America's efforts that could lead to upwardly biased estimates in our main specifications. Although we might expect to some impact of Enroll America on Marketplace enrollment in these ZCTAs due to one-time events, spillover from activities in the primary areas, and Enroll America's broader outreach to state-level partners and media, any impact should be relatively small in magnitude.

Second, we conducted a within-state analysis, leveraging variation in the intensity of Enroll America's outreach efforts across its primary turf areas. For this second approach, we used information that Enroll America provided on its outreach efforts and assessed whether the ZCTAs where Enroll America conducted the most outreach were also those where Marketplace enrollment was highest. To do so, we limited the sample to ZCTAs in Enroll America states and grouped ZCTAs by the count of successful chase calls during the first enrollment period. We then re-estimated Equation (1), replacing the Enroll America predictor variable with quartile indicators, defined by the amount of outreach conducted. Given how important these activities were to Enroll America's primary goal of directing as many consumers as possible toward enrollment, we would expect a positive relationship between the number of these activities and Marketplace enrollment. Although these findings are also subject to potential selection bias—Enroll America's selection of particular ZCTAs for outreach activities was not random and may be associated with other non-Enroll America factors that are driving the differences shown—the within-state design permits the use of state fixed effects to account for state-level differences that could influence enrollment.

RESULTS

Impact Findings

Table 4 presents the impact results for the three treatment and comparison samples. Column 1 displays results from the preferred sample, the non-Medicaid expansion states; column 2 presents results from the full FFM sample; and column 3 shows the trimmed non-Medicaid expansion sample.

Table 4: Impact of Enroll America on Marketplace Enrollment during First Open Enrollment Period (October 1, 2013–March 31, 2014)

	<i>Model Type</i>		
	<i>(1) Non-Medicaid Expansion Sample</i>	<i>(2) Full FFM Sample</i>	<i>(3) Trimmed Non-Medicaid Expansion Sample</i>
ZCTA is located in an Enroll America state			
Coefficient	0.151**	0.153	0.157**
Standard error	0.063	0.096	0.074

Notes. Our results are presented for the three samples described in the Methods section. The full FFM sample includes all states that used the FFM (Medicaid expansion and non-Medicaid expansion states). The non-Medicaid expansion sample excludes states that had expanded Medicaid under the Affordable Care Act as of January 1, 2014. The trimmed non-Medicaid expansion sample is further restricted to exclude outlier states. Regressions include as controls all ZCTA-level, county-level, and regional-level characteristics used in matching. Dependent variable is Marketplace enrollment during the first open enrollment period; robust standard errors are clustered at the state level. Full regression results available upon request.

FFM, Federally Facilitated Marketplace; ZCTAs, zip-code tabulation areas.

*/** indicates significantly different from zero at the .05/.01 levels, respectively.

Source: Mathematica analysis of Department of Health and Human Services Health Insurance Marketplace enrollment data through March 31, 2014 (including additional special enrollment period activity through April 19, 2014). Available at http://aspe.hhs.gov/health/reports/2014/MarketPlaceEnrollment/Apr2014/ib_2014apr_enrollment.pdf.

We find evidence of a large, positive effect of Enroll America's field outreach on Marketplace enrollment in non-Medicaid expansion states. In the non-Medicaid expansion sample (column 1), the percentage change in total enrollment attributable to Enroll America is 15.1 percent and statistically significant ($p < .05$). We find similar evidence of a large, statistically significant impact of Enroll America in the trimmed non-Medicaid expansion sample (column 3). In the full sample (column 2), the coefficient is similar to that of the non-Medicaid expansion samples (range is 17.4–15.3 percent); however, the standard error is large, thus offering no statistical confidence that the estimated impact is different from zero in the full sample.

Point estimates on the control variables from the different samples and models are in the expected direction. For example, with the full sample model, we find that a 1-percentage-point increase in the uninsured rate raises Marketplace enrollment by roughly 2.4 percent. The coefficient on size of the Marketplace-eligible population is positive and statistically significant. The coefficient on poverty rate is negative and significant, as is the coefficient on median income, with high income ZCTAs having lower Marketplace enrollment. Both of these findings are consistent with eligibility for Marketplace tax credits (results available upon request).

Placebo Group

The primary results indicate a positive impact of Enroll America on Marketplace enrollment. To examine whether this finding could be the result of state-level differences between the two groups of states, we re-estimated impacts including a placebo group of ZCTAs where Enroll America had not conducted a meaningful amount of consumer outreach during the enrollment period. The inclusion of the placebo group did attenuate the magnitude of the estimated impact of Enroll America; however, the point estimate remains large (10.5 percent) and statistically significant at $p < .05$ (Table 5). These findings suggest that the estimates from the main specification are not primarily being driven by non-Enroll America differences across the states related to enrollment.

Within-Enroll America State Analysis

When we limit our sample to Enroll America states and estimated separate impacts across ZCTAs grouped by the level of Enroll America outreach activity, we observe greater Marketplace enrollment as the amount of outreach increased. The quartile results suggest a strong positive dose-response relationship between the number of successful chase calls and Marketplace enrollment—with steady increases in predicted Marketplace enrollment as the amount of outreach conducted by Enroll America increased (Figure 1).⁴ Because of our concerns that these estimates reflect differences across ZCTAs

Table 5: Sensitivity Check Including Expansion Zip-Code Tabulation Areas (ZCTAs)

	<i>Coefficient</i>	<i>Standard Error</i>
ZCTA is located in an Enroll America state		
Expansion ZCTA	0.049	0.089
Primary ZCTA	0.104**	0.044

Notes. Our results are presented for non-Medicaid expansion sample described in the Methods section. The non-Medicaid expansion sample excludes states that had expanded Medicaid under the Affordable Care Act as of January 1, 2014. Regressions include as controls all ZCTA-level, county-level, and regional-level characteristics used in matching. Dependent variable is Marketplace enrollment during the first open enrollment period; robust standard errors are clustered at the state level. Full regression results are available upon request.

*/** indicates significantly different from zero at the .05/.01 levels, respectively.

Source: Mathematica analysis of Department of Health and Human Services Health Insurance Marketplace enrollment data through March 31, 2014 (including additional special enrollment period activity through April 19, 2014). Available at http://aspe.hhs.gov/health/reports/2014/MarketPlaceEnrollment/Apr2014/ib_2014apr_enrollment.pdf.

Figure 1: Association between Counts of Successful Chase Calls by Enroll America and Marketplace Enrollment during First Open Enrollment Period (October 1, 2013–March 31, 2014)

Notes. Our results are presented for non-Medicaid expansion sample described in the Methods section. The non-Medicaid expansion sample excludes states that had expanded Medicaid under the Affordable Care Act as of January 1, 2014. The *x*-axis groups counts of successful chase calls into quartiles (four exhaustive categories). Regressions include as controls all zip-code tabulation area-level, county-level, and regional-level characteristics used in matching, and state fixed effects; robust standard errors are clustered at the state level. Results shown in the figure are from two separate models. Results shown in blue bars use as the dependent variable is Marketplace enrollment during the first open enrollment period; results shown in the red line use as the dependent variable enrollment as a percent of the Marketplace-eligible population. Full regression results are available upon request.

Source: Mathematica analysis of Department of Health and Human Services Health Insurance Marketplace enrollment data through March 31, 2014 (including additional special enrollment period activity through April 19, 2014), available at http://aspe.hhs.gov/health/reports/2014/MarketPlaceEnrollment/Apr2014/ib_2014apr_enrollment.pdf; and additional baseline local-area characteristics. [Color figure can be viewed at wileyonlinelibrary.com]

correlated with outreach activity, such as total population and estimated size of the Marketplace-eligible population, we re-estimated the model using enrollment as a percent of the likely Marketplace population as the dependent variable. These results are presented in the red line and show the same positive relationship with Enroll America's outreach efforts. These results help support the plausibility of the main findings because we find suggestive evidence that Enroll America's specific outreach activities are related to Marketplace coverage.

DISCUSSION

The introduction of Health Insurance Marketplaces in all states and the expansion of Medicaid programs in participating states represent the largest health insurance expansion in the United States since the introduction of Medicaid and Medicare in 1965 (Barnes 2012). Enroll America was founded on the belief that an organization could champion the cause of boosting enrollment by supporting and supplementing ongoing efforts to facilitate enrollment in the coverage made available under the ACA. With its sole focus on boosting enrollment in health coverage and an efficient, evidence-based outreach strategy more commonly associated with the private sector, Enroll America has the potential to play an important role in identifying newly eligible individuals and helping with their enrollment in ACA-related coverage options.

Using a quasi-experimental design, we estimated the impact of Enroll America's field outreach efforts on Marketplace enrollment. Findings from the impact analysis are consistent with a large, statistically significant effect of Enroll America on Marketplace enrollment in several states utilizing the FFM. Two secondary tests largely support this finding: the inclusion of a placebo group where we account for impacts in ZCTAs where outreach activities by Enroll America were conducted on a more limited basis, and a within-state analysis that exploited the varied intensity of Enroll America outreach across target areas. Taken together, the results here provide some verification that Enroll America's national education and outreach campaign was effective at boosting Marketplace enrollment during the first open enrollment period, although the magnitude of the effects we observe is almost certain to be biased to some degree by state-level unobserved heterogeneity.

The findings from this study reveal two important implications for health policy and ACA-related outreach efforts moving forward. First, to maximize enrollment in ACA-related coverage, focused outreach efforts such as those implemented by Enroll America are needed, at least in states that operate an FFM. Interviews conducted as part of an evaluation of Enroll America highlighted its role in coordinating disparate outreach-related activities and expanding local nonprofit capacity by sharing resources and knowledge (Hoag, Orzol, and Orfield 2014). Our finding of a positive impact would suggest that Enroll America was filling an important need that was not satisfied in FFM states where Enroll America did not have field staff. There is little evidence that Enroll America's efforts crowded out outreach that would otherwise be done by other organizations. These contributions may be critically

important in a number of states where funding for outreach and enrollment is relatively limited and where states have taken a “hands-off” approach to coordinating enrollment efforts to Marketplace coverage.

Second, Enroll America’s field outreach strategy is a potential model for conducting effective outreach on behalf of a broad spectrum of program types, particularly those that require an individual to make choices between benefits that differ in type and cost to the consumer. Enroll America staff realized early on that choosing to enroll in health coverage was a complex and personal decision for many individuals. Collecting contact information and structuring an outreach campaign based on reminders and updates and analyzing those data to target future work have not been tried in past outreach campaigns. The collection and sharing of contact data and training interested parties in how to use this style of outreach is a potential best practice for states and other outside organizations interested in coordinating outreach efforts that have multiple stakeholders.

There are several limitations to our study. The first and most important is the risk of selection bias in our impact estimates, which is a common threat to many quasi-experimental designs. Although we enjoy a well-balanced sample on local-area factors, selection bias in our estimates due to state-level factors remains an overriding concern for this study. Enroll America selected states in which to place staffed operations and, within these states, Enroll America targeted its staffing and consumer-facing outreach to specific geographic areas. These decisions about where to focus efforts were not made randomly but were the result of efforts to maximize the effect on enrollment. This nonrandom selection of target states could lead to upwardly biased results.

Second, there are several important issues with the data in this study. Most relevant was the suppression of qualified health plan counts for zip codes where the number of Marketplace enrollees was fewer than 50 (Department of Health and Human Services 2014b). Although the suppressed zip codes only represent about 4 percent of plan selections, this suppression happened in about 60 percent of zip codes. Given the need to convert the zip-code-level Marketplace data to ZCTA-level data, this suppression led to an underestimation in ZCTA-level enrollment and the exclusion of ZCTAs for which we had no valid zip-code enrollment data.

Third, Enroll America’s potential reach includes populations outside the realm of this study. Our study focused only on Marketplace enrollment; any impact of Enroll America on other insurance coverage take-up (such as Medicaid coverage) is outside the scope of this study.

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Disclosures: None.

Disclaimer: None.

NOTES

1. There has been some research on the effectiveness of outreach on take-up for children's health insurance programs. Key research on the impact of outreach on public health insurance program take-up for children has come from Aizer (2007), Irvin, Trenholm, and Rosenbach (2006), and Cousineau, Stevens, and Farias (2011).
2. The ASPE data contain counts of qualified health plan selections and not actual enrollment numbers; enrollment requires payment of a premium. For simplicity, we refer to this as Marketplace enrollment in the report.
3. We converted these zip codes to ZCTAs; a ZCTA was defined as primary turf if at least one zip code that made up the ZCTA was defined as such.
4. We observe a similar pattern when using replacing counts of successful chase calls with counts of commit cards collected, emails sent, and emails collected (results available upon request).

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article:

Appendix SA1: Author Matrix.