

weather stripping for one of these doors (1.2% of 84 doors weather stripped) was installed by the customer; another customer (1.6% of 63 customers who received measures) claims the auditor left weather stripping behind that has not been installed yet.

Table 62. Measure Installation: Vinyl Weather Stripping for Doors

| <i>63 participants received vinyl weather stripping for doors according to auditor records</i> | Customer count (N=63) | Measures installed count according to auditor records (N=100 doors) | Confirmed measures installed count (N=84 doors) |
|--|------------------------------|--|--|
| Auditor installed vinyl weather stripping for doors | 65.1% | 67.0% | 94.0% |
| Auditor gave vinyl weather stripping for doors to customer, customer installed it | 1.6% | 1.0% | 1.2% |
| Auditor gave vinyl weather stripping for doors to customer, customer has NOT installed it | 1.6% | 1.0% | 0.0% |
| Did not receive vinyl weather stripping for doors | 27.0% | 27.0% | 0.0% |
| Don't know (assuming auditor record is correct and measure was installed) | 4.8% | 4.0% | 4.8% |

One customer who installed the vinyl weather stripping themselves was asked if this was easy to do, and they confirmed that it was. There is also one surveyed participant who claims they were given the vinyl weather stripping measure by the auditor; this customer still intends to install it in the future.

Customers who confirmed the installation of program-provided vinyl weather stripping for doors were asked if any of the weather stripping has been removed from where it was installed. As indicated in Table 63, at least some of the program-provided weatherstripping has been removed from about a third (31.0% or 13 out of 42) of households where it was installed, representing one in five doors (20.2% or 17 out of 84) that were weather-stripped by the program.

with weather stripping installed than auditor records: thirteen claim to have received measures for between one and three doors more than auditors recorded, and three customers claim to have received measures for one door fewer than auditors recorded. In addition, three customers did not know if they received vinyl weather stripping for doors, and according to program records these customers should have received weather stripping for four doors. Thus the total confirmed number of doors weather stripped is 80 confirmed and corrected by customers plus four where auditor records are assumed correct equals 84 doors with vinyl weather stripping provided by the program.

Table 63. Removing Program-Provided Vinyl Weather Stripping for Doors

| | Customers with confirmed installation percent (N=42) | Confirmed measures installed percent (N=84) |
|---|--|---|
| <i>Has any of the vinyl weather stripping for doors that was installed through the Residential Neighborhood Program since been uninstalled or removed?</i> | | |
| No, all vinyl weather stripping for doors is currently installed | 69.0% | 65.5% installed |
| Yes, vinyl weather stripping for one door removed (other doors may remain installed) | 21.4% | 10.7% removed 9.5% installed |
| Yes, vinyl weather stripping for two doors removed (none remains installed) | 9.5% | 9.5% removed |
| Not sure if vinyl weather stripping for doors installed (did not answer questions about installation) | 0.0% | 4.8% assumed installed |

The thirteen customers whose combined 17 doors had their weather stripping removed were asked who removed it and why. These responses are listed below; most of these customers report that the tape started coming unstuck and falling off on its own. In two cases the landlord removed the measure (15.4% of 13, in one case it was another weatherization program provided by “the city” (7.7% of 13) , and in the other ten cases (76.9% of 13) it was the customer (though they often said they didn’t remove it so much as it fell off on its own).

Customers who removed vinyl weather stripping from one door (N=9)

- *It fell off because it wasn't sticking anymore.*
- *It started to peel off. It was not staying on.*
- *It's falling out from front door.*
- *It was not removed, it's just falling off.*
- *The tape kept on getting unstuck. I tried several times to press it back in place, but it continued to come off.*
- *It worked its way loose from the area on the frame above the handle, maybe a couple of inches.*
- *It started peeling off, so about 10% is no longer attached. The landlord was working on the door and made it come loose.*
- *I had water damage, so I had to remove the tape from that door because it was coming undone.*
- *The door wouldn't shut all the way.*

Customers who removed vinyl weather stripping from two doors (N=4)

- *It's falling apart, crumbling, and falling off.*
- *I participated in another weatherization program; the city came around and put something else around it.*

- *The landlord said that it was messing up the door, so they removed it.*
- *The tape kept on getting unstuck.*

Forty-two participants who confirmed that they had program-provided vinyl weather stripping installed on doors in their homes rated their satisfaction with this measure on a ten-point scale where “10” is the most satisfied. As seen previously in Table 24, the mean satisfaction rating for the vinyl weather stripping for doors is moderately high at 8.14 (though this is the lowest mean satisfaction rating of all the measures provided by this program), and 23.8% (10 out of 42) gave ratings of “7” or lower.

The ten customers with ratings of “7” or lower were asked the reason for their relatively low satisfaction with this measure; these responses are listed below. As with reasons for removing this measure, the main reason for low satisfaction is that the tape comes unstuck and peels off.

Customers who rated their satisfaction with vinyl weather stripping for doors at “5” to “7” out of ten (N=6)

- *It's falling apart, crumbling, and falling off.*
- *The landlord said that it was messing up the door.*
- *The tape kept on getting unstuck.*
- *It fell off because it wasn't sticking anymore.*
- *The foam insulation tape is actually coming undone. I keep on pressing on it, trying to make it re-stick, but it just falls off again.*
- *We couldn't get one of the doors to close. My husband had to cut some of the tape off.*

Customers who rated their satisfaction with vinyl weather stripping for doors at “1” out of ten (N=4)

- *It did not stay on.*
- *It's falling off.*
- *It's falling off and crumbling.*
- *The tape is always coming undone; it's not helping to insulate the doors at all.*

About one in three surveyed participants (33.3% or 14 out of 42) already had doors with vinyl weather stripping installed before participating in the Residential Neighborhoods program, as seen in Table 67 (these 14 participants with previously installed weather stripping had a total of 23 doors with weather stripping previously installed). Prior to the program, 14 respondents (33.3% of 42) say they intended to purchase and install vinyl weather stripping for doors, while another five respondents (11.9% of 42) said they “maybe” would have installed vinyl weather stripping on their doors before participating in the program, and one surveyed participant (2.4% of 42) said they already had weather stripping installed on every door. However, half (50.0% or 21 out of 42) did not intend to purchase any vinyl weather stripping for doors. Three of the surveyed program participants (7.1% of 42) have purchased enough additional measures to apply vinyl weather stripping to four more doors since receiving measures from the program audit.

Table 64. Vinyl Weather Stripping for Doors Installed Before the Program and Additional Vinyl Weather Stripping Purchased (N=42)

| | Customers (N) | Customers (%) |
|--|---------------|---------------|
| <i>Previously installed vinyl weather stripping for doors</i> | | |
| Already had vinyl weather stripping for doors installed – one door | 7 | 16.7% |
| Already had vinyl weather stripping for doors – two or more doors | 7 | 16.7% |
| Did not already have vinyl weather stripping for doors installed | 28 | 66.7% |
| Don't know / not specified | 0 | 0.0% |
| <i>Were you planning on purchasing vinyl weather stripping for doors before participating in the program?</i> | | |
| No | 21 | 50.0% |
| No, already installed on all available doors | 1 | 2.4% |
| Maybe | 5 | 11.9% |
| Yes | 14 | 33.3% |
| Don't know / not specified | 1 | 2.4% |
| <i>Additional vinyl weather stripping for doors purchased since program</i> | | |
| Have not purchased additional vinyl weather stripping for doors | 39 | 92.9% |
| Purchased additional vinyl weather stripping for doors | 3 | 7.1% |

Caulking Doors Installations

As seen in Table 65, the 49 surveyed participants confirmed that 35 doors were caulked by the program, which is only 48.6% of the 72 installations recorded by auditors.²⁰ A slight majority of 51.0% (25 out of 49) of customers who received this measure according to auditor records reported that they did not have any doors caulked by the program. None of the doors (0% of 35 confirmed installations) were caulked by the customers themselves.

²⁰ The 49 participants who confirmed that the auditor caulked doors should have had 72 doors caulked according to auditor records, however the customers claimed to have had 35 doors caulked. Seven customers (14.3% of 49) reported a different number of doors caulked than auditor records: according to auditor records these seven customers had 20 doors caulked, but when asked how many doors were caulked these respondents reported 16 doors caulked. In addition, twelve customers did not know if they had any doors caulked, and according to program records these customers should have had 19 of their doors caulked. Thus the total confirmed installed is 16 doors caulked confirmed and corrected by customers plus 19 doors where auditor records are assumed correct equals 35 doors caulked.

Table 65. Measure Installation: Caulking Doors

| <i>49 participants received door caulk according to auditor records</i> | Customer count (N=49) | Measures installed count according to auditor records (N=72) | Confirmed measures installed count (N=35) |
|---|-----------------------|--|---|
| Auditor caulked door(s) | 24.5% | 27.8% | 45.7% |
| Auditor gave caulk to customer, customer caulked doors | 0.0% | 0.0% | 0.0% |
| Auditor gave caulk to customer, customer has NOT caulked doors | 0.0% | 0.0% | 0.0% |
| Did not receive door caulk | 51.0% | 45.8% | 0.0% |
| Don't know (assuming auditor record is correct and measure was installed) | 24.5% | 26.4% | 54.3% |

Customers who confirmed that their doors were caulked by the program were asked if any of the caulking has been removed from where it was installed. As indicated in Table 66, one surveyed participants (8.3% of 12 who confirmed installations) reported that caulking was removed from one door (2.9% of 35 measures confirmed installed).

Table 66. Removing Program-Provided Door Caulking

| | Customers with confirmed installation percent (N=12) | Confirmed measures installed percent (N=35) |
|--|--|---|
| <i>Have any of the door caulking that was installed through the Residential Neighborhood Program since been removed?</i> | | |
| No, all caulked doors are currently caulked | 91.7% | 42.9% installed |
| Yes, caulk removed from one door | 8.3% | 2.9% removed |
| Not sure if doors were caulked (did not answer questions about installation) | 0.0% | 54.3% assumed installed |

The customer whose door had caulking removed was asked who removed it and why; their response is listed below.

- *The door wasn't shutting right, so my daughter removed the caulking.*

Twelve participants who confirmed that they currently have doors caulked by the program rated their satisfaction with the caulking on a ten-point scale where "10" is the most satisfied. As seen previously in Table 24, the mean satisfaction rating for the program-provided door caulking is quite high at 8.83, and only 16.7% (2 out of 12) gave ratings of "7" or lower.

The two customers with ratings of "7" or lower were asked the reason for their relatively low satisfaction with the door caulking; these responses are listed below.

- *The auditor didn't do all around the door but he came back and fixed it up so there isn't a problem. (Satisfaction rating "7 out of 10".)*

- *The door wasn't shutting right, so we had to take the caulking off.* (Satisfaction rating “2 out of 10”.)

A third of surveyed participants (33.3% or 4 out of 12) already had doors caulked before participating in the Residential Neighborhoods program, as seen in Table 67 (these four participants with previously caulked doors had a total of nine doors with caulking installed, though one participant added that the caulking on their two previously-caulked doors “*was really old and didn't work well*”). Prior to the program, five respondents (41.7% of 12) say they intended to purchase caulk and install it on their doors, while another two respondents (16.7% of 12) said they “maybe” would have intended to caulk their doors before participating in the program, while the remaining 41.7% (5 out of 12) did not intend to caulk any doors. None of the surveyed program participants (0 out of 12) have caulked any additional doors since receiving measures from the program audit.

Table 67. Doors Caulked Before the Program and Additional Caulk Purchased (N=12)

| | Customers (N) | Customers (%) |
|---|------------------|------------------|
| <i>Previously installed door caulk</i> | | |
| Already had one door caulked | 0 | 0.0% |
| Already had two doors caulked | 3 | 25.0% |
| Already had three or more doors caulked | 1 | 8.3% |
| Did not already have doors caulked | 8 | 66.7% |
| Don't know / not specified | 0 | 0.0% |
| <i>Were you planning on purchasing door caulk before participating in the program?</i> | | |
| No | 5 | 41.7% |
| No, already installed on all available doors | 0 | 0.0% |
| Maybe | 2 | 16.7% |
| Yes | 5 | 41.7% |
| Don't know / not specified | 0 | 0.0% |
| <i>Additional door caulk purchased since program</i> | | |
| Have not purchased additional door caulk | 12 | 100.0% |
| Purchased additional door caulk | 0 | 0.0% |

HVAC Winterization Kit Installations

As seen in Table 68, the 24 surveyed participants who should have received winter kits for wall or window HVAC units confirmed that 26 units were installed, which is only 72.2% of the 36 installations recorded by auditors.²¹ A majority of 54.2% (13 out of 24) of customers who received this measure according to auditor records reported that the auditor gave them the

²¹ Five customers who received winter kits according to auditor records report that these measures were either not received, or were received but have not been installed yet. The 17 participants who confirmed that winter kits were installed should have had 24 kits installed according to auditor records, however the customers reported having only 22 kits installed: Two of these customers should have received two kits apiece according to auditor records, but when asked how many kits were installed these respondents reported only one kit per household was installed. In addition, two customers did not know if they had any winter kits installed, and according to program records these customers should have had four kits installed. Thus the total confirmed kits installed is 22 confirmed and corrected by customers plus four kits where auditor records are assumed correct equals 26 kits installed.

measure and they installed it themselves, accounting for 61.5% (16 out of 26) measures that were confirmed installed by surveyed participants.²²

Table 68. Measure Installation: Winter Kit for Wall or Window HVAC

| 24 participants received door caulk according to auditor records | Customer count (N=24) | Measures installed count according to auditor records (N=36) | Confirmed measures installed count (N=26) |
|---|------------------------------|---|--|
| Auditor installed kit(s) | 16.7% | 16.7% | 23.1% |
| Auditor gave kit(s) to customer, customer installed | 54.2% | 50.0% | 61.5% |
| Auditor gave kit(s) to customer, customer has NOT installed | 16.7% | 19.4% | 0.0% |
| Did not receive winter kit | 4.2% | 2.8% | 0.0% |
| Don't know (assuming auditor record is correct and measure was installed) | 8.3% | 11.1% | 15.4% |

The thirteen customers who installed their winter kits themselves were asked if this was easy to do; nine (69.2% of 13) reported that it was easy, while three (23.1% of 13) reported that it was not easy, and one (7.7% of 13) was not sure.

The four customers who reported that they received winter kits from auditors which have not been installed yet report that they received a combined six kits, and all four of these customers (100%) say they do intend to install these kits.

Customers who confirmed that this measure was installed were asked if any of winter kits have been removed from where they was installed. As indicated in Table 69, 26.3% (5 out of 19) of surveyed participants who confirmed installations report that kits have since been uninstalled: The five participants whose measures were uninstalled accounted for 23.1% (6 out of 26) of measures that were confirmed installed.

Table 69. Removing Program-Provided Winter Kit for Wall or Window HVAC

| | Customers with confirmed installation percent (N=19) | Confirmed measures installed percent (N=26) |
|---|---|--|
| <i>Have any of the door caulking that was installed through the Residential Neighborhood Program since been removed?</i> | | |
| No, all kits installed kits are still installed | 63.2% | 61.5% installed |
| Yes, kit removed from one unit | 21.1% | 15.4% removed |
| Yes, kit removed from two units | 5.3% | 7.7% removed |
| Not sure if kits were installed (did not answer questions about installation) | 10.5% | 15.4% assumed installed |

²² Participants surveyed in the Carolina System for this evaluation had their homes audited by the program between March and August, 2013. Since the winter kit is intended for use in the winter, this may explain why this measure was usually left by auditors for the customers to install themselves. The participant survey was conducted in April and May of 2014, with the winter of 2013-14 intervening between the home audits and the survey.

The customers whose kits were removed from HVAC units were asked who removed them and why. Their responses are listed below: Four of the five customers who removed this measure did so because of warmer outdoor weather (the kit is intended to wintertime use).

- *It was never completely installed because we couldn't do it properly, so I removed it.*
- *The weather improved, so I removed it.*
- *I took it off for spring just last week.*
- *I took it off because the weather got warm and I started using the A/C again.*
- *We wanted to start using the air conditioner because it was getting hot out, so my husband removed it.*

Seventeen participants who confirmed that they had winter kits installed by the program rated their satisfaction with this measure on a ten-point scale where "10" is the most satisfied. As seen previously in Table 24, the mean satisfaction rating for the program-provided door caulking is quite high at 8.35, and 35.3% (6 out of 19) gave ratings of "7" or lower. The six customers with ratings of "7" or lower were asked the reason for their relatively low satisfaction with the door caulking; these responses are listed below.

- *I couldn't get it installed. (Satisfaction rating "1 out of 10")*
- *I didn't know how to put it in. It doesn't look quite right but it seems to help. (Satisfaction rating "6 out of 10")*
- *The kit was fine. My husband had to install it. I don't know why the auditor didn't do it while he was here. (Satisfaction rating "7 out of 10")*
- *The second winter kit that was left with me to install on my A/C unit was too big for one of my units. I believe that those kits don't fit snugly, they don't do a good job of sealing up that area. (Satisfaction rating "7 out of 10")*
- *There is still air coming in. (Satisfaction rating "7 out of 10")*
- *I don't know. (Satisfaction rating "7 out of 10")*

Only two surveyed participants (11.8% of 17) already had winter kits before participating in the Residential Neighborhoods program, as seen in Table 70 (the two participants with previously installed kits had them installed on one unit apiece). Prior to the program, only one respondent (5.9% of 17) reports that they intended to purchase and install a winter kit, while another respondent (5.9% or 1 out of 17) said they "maybe" would have intended to install this measure before participating in the program, while the remaining 88.2% (15 out of 17) did not intend to. None of the surveyed program participants (0 out of 17) have purchased or installed any additional kits since receiving measures from the program audit.