

Appendix D

Supplementary Models

In this appendix, we present three sets of models supplementing those described in Chapter 8. First, we show expanded versions of models that appeared in more compact form Chapter 8. Second, we present models for continuation in recertification months and in interim months, which were of necessity estimated on samples in which circumstantially eligible and ineligible households could not be clearly distinguished. Finally, we describe our unsuccessful attempt to model the likelihood that a household that thought it might be eligible for food stamps contacted the local FSP office.

Full Models of Perceived Eligibility and Application Completion

The multivariate models presented in Chapter 8 were re-estimated with superfluous policy variables eliminated (those whose estimated coefficients were less than 0.75 times the corresponding standard errors), in order to show more clearly the effects of the more pertinent policies. This re-estimation did not qualitatively change the results, except that requesting visitors to leave their children at home, not previously statistically significant in the application completion model, became statistically significant at the 10 percent level.

The full models and the more focused models (corresponding to tables 8.3 and 8.4) are shown side by side for awareness of eligibility and application completion in tables D.1 and D.2, respectively. They are seen to be extremely similar.

Table D.1—Logistic model of awareness of eligibility

	Full model	Focused Model
	Coefficient (standard error)	Coefficient (standard error)
Policy variables		
Local food stamp office does any outreach	-0.013 (0.296)	
Local community groups do any outreach	-0.150 (0.329)	
Number of modes of outreach, scaled 0-1	1.872** (0.756)	1.684*** (0.489)
Outreach coordinated with Medicaid/SCHIP	-0.644** (0.276)	-0.658** (0.277)
Household targeted for outreach in this area	-0.022 (0.378)	
Number of categories targeted for outreach in this area	-0.003 (0.230)	
Contextual variables		
County unemployment rate in 1999	-0.027 (0.035)	-0.022 (0.033)
Office located in urban area	-0.216 (0.240)	-0.231 (0.229)
Office located in Northern State	-0.162 (0.492)	-0.172 (0.497)
Office located in Midwestern State	0.319 (0.272)	0.311 (0.262)
Office located in Western State	-0.169 (0.336)	-0.197 (0.295)
Household characteristics		
Male head of household	0.176 (0.219)	0.171 (0.218)
Black head of household	0.186 (0.265)	0.191 (0.263)
Hispanic head of household	-0.391 (0.234)	-0.396* (0.227)
Head of household never married	-0.002 (0.334)	-0.006 (0.332)
Current TANF receipt	-0.747 (0.890)	-0.753 (0.896)
Prior food stamp receipt	0.210 (0.203)	0.212 (0.202)

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Table D.1—Logistic model of awareness of eligibility—Continued

	Full model	Focused Model
	Coefficient (standard error)	Coefficient (standard error)
Household has children under 5	0.161 (0.345)	0.161 (0.345)
Household has children under 18	-0.145 (0.269)	-0.148 (0.269)
Head of household is elderly (≥ 60)	-0.161 (0.410)	-0.158 (0.419)
Household has earnings	-0.055 (0.212)	-0.048 (0.205)
Household has some assets	0.411** (0.198)	-0.413** (0.199)
Household's income is below poverty level	1.079*** (0.209)	1.075*** (0.208)
Household is ABAWD-like	-0.595*** (0.214)	-0.593*** (0.213)
Additional potential targeting criteria for outreach		
Household contains any non-citizens	0.180 (0.446)	0.163 (0.437)
Household contains any elderly members	-0.658* (0.373)	-0.661* (0.376)
Household contains any disabled members	0.042 (0.262)	0.040 (0.259)
Current or previous AFDC/TANF receipt	-0.088 (0.202)	-0.087 (0.207)
Intercept	1.226 (0.435)	1.229 (0.412)
Mean of dependent variable	0.490	0.490
Sample size	2079	2079

Policy measures and their effects shown in *italics*; variables with statistically significant effects ($p < 0.10$) shown in **bold**.

*** Statistically significant at the 1 percent level.

** Statistically significant at the 5 percent level.

* Statistically significant at the 10 percent level.

Table D.2—Logistic model of application completion

	Full Model	Focused Model
	Coefficient (standard error)	Coefficient (standard error)
Policy variables		
<i>Office open only Monday to Friday, 8 to 5</i>	-0.434** (0.213)	-0.448** (0.206)
<i>Clients asked to leave children at home × household includes children under 5</i>	-0.856 (0.621)	-1.039* (0.567)
<i>Childcare provided to office visitors × household includes children under 5</i>	-0.404 (0.487)	-0.266 (0.470)
<i>Index of child friendliness of office × household includes children under 5</i>	-0.853 (0.649)	-0.877 (0.608)
<i>Public transportation goes near office</i>	0.268 (0.335)	0.393 (0.267)
<i>Transportation assistance to office offered</i>	0.406 (0.290)	0.433 (0.297)
<i>Drop-box available for applications and documentation</i>	-0.145 (0.276)	
<i>Long wait times or shortage of seats in reception area</i>	-0.508 (0.375)	-0.454 (0.355)
<i>Informational videotapes in reception area</i>	0.353 (0.325)	0.406 (0.314)
<i>Brochures and pamphlets in reception area</i>	0.065 (0.267)	
Positive supervisor attitudes	1.518* (0.877)	1.522* (0.860)
<i>Eligibility interviews must be prescheduled</i>	-0.129 (0.767)	
<i>Severe consequences for missed eligibility interview</i>	-0.531 (1.157)	
<i>Application forms not available until meet with caseworker</i>	-0.431 (0.598)	
Fingerprint applicants of household type (TANF versus non-TANF)	-1.157*** (0.333)	-1.270*** (0.305)
<i>Home visits for fraud investigation</i>	-0.112 (0.231)	
<i>Third party verification forms required, by household type (TANF versus non-TANF)</i>	0.320 (0.360)	0.306 (0.316)

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Table D.2—Logistic model of application completion—Continued

	Full Model	Focused Model
	Coefficient (standard error)	Coefficient (standard error)
<i>Third party verification contacts required, by household type (TANF versus non-TANF)</i>	-0.082 (0.578)	0.306 (0.316)
<i>More than one visit, visits to other building, or pre-interview meeting required to complete application, by household type (TANF versus non-TANF)</i>	0.614 (0.492)	0.348 (0.417)
<i>TANF diversion x potential TANF applicant: lump sum</i>	0.349 (0.400)	0.322 (0.376)
<i>TANF diversion x potential TANF applicant: alternative resources</i>	0.613 (0.688)	0.788 (0.686)
<i>Job search requirements (TANF versus non-TANF)</i>	0.084 (0.274)	
<i>Caseworkers assist elderly/disabled with medical deductions</i>	-0.154 (0.479)	
<i>ABAWDs subject to time limits x ABAWD-type household</i>	-1.030** (0.441)	-0.990** (0.413)
<i>Monthly reporting required, for household type</i>	-0.001 (0.378)	
<i>Quarterly reporting required, for household type</i>	-0.319 (0.328)	-0.308 (0.320)
<i>Expected certification length for household profile</i>	-0.030 (0.038)	
Contextual variables		
County unemployment rate in 1999	0.237*** (0.072)	0.240*** (0.076)
Office located in urban area	-0.311 (0.289)	-0.193 (0.251)
Office located in Northern State	-0.645* (0.381)	-0.677* (0.347)
Office located in Midwestern State	-0.310 (0.323)	-0.346 (0.309)
Office located in Western State	-0.338 (0.366)	-0.366 (0.310)
Household characteristics		
Male head of household	0.239 (0.297)	0.238 (0.294)
Black head of household	-0.380 (0.313)	-0.343 (0.301)

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Table D.2—Logistic model of application completion—Continued

	Full Model	Focused Model
	Coefficient (standard error)	Coefficient (standard error)
Hispanic head of household	−0.218 (0.469)	−0.193 (0.455)
Head of household never married	−0.186 (0.280)	−0.182 (0.269)
TANF recipient	0.430 (0.480)	0.430 (0.480)
Prior FSP recipient	0.263 (0.250)	0.271 (0.251)
Household has children under 5	1.004** (0.500)	0.993** (0.481)
Household has children under 18	−0.451 (0.441)	−0.348 (0.432)
Head of household is elderly (≥60)	0.159 (0.441)	0.193 (0.431)
Household has earnings	−0.702** (0.279)	−0.660** (0.266)
Household has some assets	0.103 (0.252)	0.070 (0.241)
Household's income is below poverty level	0.909*** (0.315)	0.903*** (0.299)
Household is ABAWD-like	−0.749** (0.351)	−0.679** (0.335)
Intercept	−0.359 (1.186)	−1.153 (1.111)
Mean of dependent variable	0.784	0.784
Sample size	976	976

Policy measures and their effects shown in *italics*; variables with statistically significant effects ($p < 0.10$) shown in **bold**.

*** Statistically significant at the 1 percent level.

** Statistically significant at the 5 percent level.

* Statistically significant at the 10 percent level.

Supplementary Models of Food Stamp Continuation

Overall, about 5 percent of active FSP recipients exit the Food Stamp Program per month. This percentage varies dramatically, however, between recipients that are in the middle and those that are at the end of a recertification period. Closure rates in interim months are around 2.4 percent; in recertification months, they are around 22 percent. These closure rates include cases that were closed because of circumstantial ineligibility as well as closures of circumstantially eligible households.¹

Local office policies are hypothesized to affect closure rates for both circumstantially ineligible and circumstantially eligible households. For *circumstantially ineligible* households, more extensive or frequent income reporting and recertification might increase the likelihood that ineligible households would be identified and terminated quickly. Households who know they are ineligible might decide not to submit reports or appear for recertification, which would have the same effect. In addition, policies designed to increase self-sufficiency, such as employment and training requirements, might increase the likelihood that a household would become circumstantially ineligible.

For *circumstantially eligible* households, these same participation and reporting requirements might affect closure rates in two ways. First, these requirements determine the cost of participation, and higher participation costs are hypothesized to cause more participants to leave the program voluntarily. Such participants might notify the agency of their intention, or they might simply abandon contact with the program. Second, participation and reporting requirements may lead to sanctions – which can include termination of benefits – for households who fail to meet the requirements. In addition to the effect of participation and reporting requirements, ABAWD time limits may lead to the cessation of benefits for some circumstantially eligible households.

Because participation and reporting requirements are hypothesized to affect closure rates similarly for eligible and ineligible households, and because circumstantial eligibility is unknown for many households who left the program, the analyses presented here cannot definitively indicate the effect of the policies on circumstantially eligible households.

There are partial exceptions to this statement, however. Some recertification policies, such as the availability of public transportation or the child-friendliness of an office, could affect the participant's cost of participation but should not affect the nature or frequency of information collected at recertification. Similarly, a requirement that participants visit the food stamp office if their TANF case closes would be expected only to increase participation costs. Because these policies would not be expected to have any effect on the closure rate for circumstantially ineligible cases, any observed effect may be attributed to an effect on circumstantially eligible households.

Because the overall closure rate is much higher in recertification than non-recertification months, the most important policy determinant of continuation for a household is therefore expected to be whether it faces a recertification in a given month—and for groups of households of various types, the frequency with which they face recertification. Certification lengths for apparently similar cases vary considerably across and within States. For example, for cases in which all adults are elderly or disabled, and have no earnings, recorded certification lengths in the QC data for the 40 States in this

¹ As discussed in Chapter 7, the available data do not indicate circumstantial eligibility for some groups of exiting households.

study run the gamut from 1 to 24 months. While most such cases (61 percent) have certification lengths of exactly 12 months, certification lengths of 6 months or shorter, and of 24 months, are each seen for 10 to 15 percent of this quite homogeneous group. Much greater variation is seen for other groups.

Local office policies can be expected to affect households differently depending on whether they are in a recertification month. Some policies apply primarily or exclusively to the recertification requirements per se: office hours, child friendliness of the office, in-person interview requirements, third party verification, and so on. Others apply directly to interim months: periodic reporting, E&T requirements, etc. Yet it can be anticipated that interim month requirements can affect continuation in recertification months as well, because participants will reconsider the net benefits of food stamp receipt when they are due for recertification. In the combined model presented below, policies have been interacted as appropriate with whether the participant household was observed in an interim or a recertification month. Separate models of continuation in interim and recertification months produced similar results, as discussed subsequently.

Combined Model of Continuation

The following local office policies significantly affect the likelihood that food stamp recipients will continue to participate in the program (table D.3, second column):

- Being in a recertification month ($p < 0.01$)
- In recertification months,
 - provision of child care, for households with children under 5 ($p < 0.10$)
 - E&T requirements, by household type ($p < 0.10$)
- In interim months,
 - E&T requirements, by household type ($p < 0.05$)

The model used data from case record abstractions on approved recertifications and closed cases.

Over two dozen other local office policies were considered, but not found to have significant effects (table D.3, first column). Those that were dropped from the model because of large standard errors in the coefficient estimates were *recertification month* interacted with short office hours, with asking clients with young children to leave them at home, with availability of public transportation, with availability of a drop-box for completed forms and documentation, with shortage of seats and long waits to see the receptionist, with supervisor attitudes, with in-person interview requirements, with case closures for missed interviews, with third party verification contacts, with third party verification forms, with quarterly reporting requirements, and with food stamp requirements associated with TANF closures; and *interim month* interacted with monthly reporting requirements, with quarterly reporting requirements, and with E&T availability. Policy measures included in the model that did not have significant effects on participation were *recertification month* interacted with child friendliness, with transportation assistance, with monthly reporting, with time limits for ABAWD cases, with food stamp requirements associated with TANF sanctions, and certification length; and *interim month* interacted with food stamp requirements associated with TANF closures and with food stamp requirements associated with TANF sanctions.

Table D.3—Logistic models of continuing to receive food stamps

	Full Model	Focused Model
	Coefficient (standard error)	Coefficient (standard error)
Policy variables		
Recertification month	−2.527*** (0.147)	−2.532*** (0.147)
<i>Recertification month × office open only Monday to Friday, 8 to 5</i>	0.061 (0.244)	
<i>Recertification month × clients asked to leave children at home × household includes children under 5</i>	−0.006 (0.867))	
Recertification month × childcare provided to office visitors × household includes children under 5	1.349* (0.719)	1.340* (0.676)
<i>Recertification month × child friendliness index × household includes children under 5</i>	−0.132 (0.494)	−0.056 (0.469)
<i>Recertification month × public transportation goes near office</i>	−0.048 (0.238)	
<i>Recertification month × transportation assistance offered</i>	−0.273 (0.257)	−0.309 (0.247)
<i>Recertification month × drop-box available for applications and documentation</i>	−0.075 (0.292)	
<i>Recertification month × long wait times or shortage of seats in reception area</i>	−0.080 (0.414)	
<i>Recertification month × positive supervisor attitudes</i>	0.344 (0.797)	
<i>Recertification month × in-person interview required for household type</i>	0.116 (0.245)	
<i>Recertification month × office closes case for missed appointment</i>	0.315 (0.426)	
<i>Recertification month × third-party verification forms required</i>	−0.067 (0.314)	
<i>Recertification month × third party verification contacts required</i>	−0.315 (0.455)	
<i>Recertification month × monthly reporting required for household type</i>	−0.599 (0.392)	−0.500 (0.449)
<i>Recertification month × quarterly reporting required for household type</i>	−0.048 (0.395)	
Recertification month × E&T requirements for household type	−0.514* (0.293)	−0.558* (0.310)
<i>Recertification month × ABAWDs subject to time limits × ABAWD-type household</i>	−0.409 (0.335)	−0.425 (0.324)
<i>Recertification month × TANF sanctions affect food stamp benefits × TANF recipient</i>	0.501 (0.506)	0.526 (0.407)

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Table D.3—Logistic models of continuing to receive food stamps—Continued

	Full Model	Focused Model
	Coefficient (standard error)	Coefficient (standard error)
<i>Recertification month x TANF closure requires food stamp office visit x TANF recipient</i>	-0.088 (0.460)	
<i>Recertification month x expected certification length for household profile</i>	0.036 (0.031)	0.024 (0.028)
<i>Interim month x positive supervisor attitudes</i>	-0.820 (0.746)	-0.973 (0.753)
<i>Interim month x required to participate in E&T activities, by household type</i>	-0.643** (0.309)	-0.650** (0.269)
<i>Interim month x E&T services available to non-ABAWDs</i>	-0.071 (0.279)	
<i>Interim month x monthly reporting requirement for household type</i>	-0.104 (0.381)	
<i>Interim month x quarterly reporting requirement for household type</i>	-0.042 (0.477)	
<i>Interim month x TANF sanctions affect food stamp benefits x TANF recipient</i>	0.352 (0.425)	0.359 (0.401)
<i>Interim month x TANF closure requires FS office visit x TANF recipient</i>	0.386 (0.345)	0.395 (0.372)
Contextual variables		
County unemployment rate in 1999	0.025 (0.027)	0.024 (0.027)
Office located in urban area	-0.099 (0.294)	-0.105 (0.297)
Office located in Northern State	-0.104 (0.320)	-0.105 (0.297)
Office located in Midwestern State	0.734*** (0.245)	0.747*** (0.237)
Office located in Western State	-0.053 (0.274)	-0.053 (0.274)
Household characteristics		
Male head of household	0.142 (0.165)	0.140 (0.165)
Black head of household	0.193 (0.207)	0.185 (0.198)
Hispanic head of household	-0.267 (0.254)	-0.266 (0.260)
Head of household never married	-0.055 (0.159)	-0.055 (0.161)

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Table D.3—Logistic models of continuing to receive food stamps—Continued

	Full Model	Focused Model
	Coefficient (standard error)	Coefficient (standard error)
TANF recipient	−0.271 (0.342)	−0.297 (0.306)
Prior FSP recipient	0.526** (0.204)	0.526** (0.203)
Household has children under 5	−0.169 (0.150)	−0.185 (0.140)
Household has children under 18	0.005 (0.177)	0.020 (0.275)
Head of household is elderly (≥60)	0.332 (0.276)	0.317 (0.268)
Household has earnings	−0.334** (0.166)	−0.350** (0.166)
Household has some assets	−0.076 (0.166)	−0.077 (0.163)
Household’s income is below poverty level	0.272* (0.151)	0.278* (0.149)
ABAWD-type household	−0.504*** (0.155)	−0.494*** (0.152)
Intercept	1.532 (0.456)	1.536 (0.432)
Mean of dependent variable	0.955	0.955
Sample size	2441	2441

Policy measures and their effects shown in *italics*; variables with statistically significant effects ($p < 0.10$) shown in **bold**.

*** Statistically significant at the 1 percent level.
** Statistically significant at the 5 percent level.
* Statistically significant at the 10 percent level.

A key methodological feature of this model is that the policies specific to recertification and interim months were measured as *deviations from the mean*. Consequently, the coefficient on the certification month variable itself can be interpreted as the impact on continuation of being in a recertification month per se, at the mean values of all of the policies that have effects in recertification months. This effect is −20 percentage points. That is, other things equal, cases are 20 percentage points more likely to close in recertification months than in interim months. Changing a group of cases from a 3-month certification period to a 6-month certification period would change its likelihood of a recertification in a given month from 0.25 to 0.167, a drop of 8.3 percentage points. This would reduce the monthly closure rate for these cases by 0.20×0.083 , or 1.7 percentage points.

Within recertification months, households with preschool children were more likely to continue if their offices provided child care, by 16 percentage points. An E&T requirement reduced continuation by 13 percentage points at recertification, and by 3.5 percentage points in interim months.

The effect of the availability of child care presumably represents an effect on circumstantially eligible households, as it would not be expected to influence the likelihood that an ineligible case would close. The employment and training result could represent an effect on either ineligible households (if it caused households' incomes to increase enough to make them ineligible) or circumstantially eligible households (if they failed to meet the requirement or abandoned contact with the program).

It is perhaps not surprising that other policies did not have significant effects on continuation. Interim closure rates are generally quite low for most groups, so any effects of policy would be expected to be small and difficult to measure. Ongoing recipients had already experienced and overcome potential barriers to recertification such as transportation and limited office hours at their initial application, and might be expected to do as well at recertification.

Continuation rates were significantly higher for former food stamp recipients and for households whose income was under the Federal poverty level at the prior certification. They were significantly lower for households with earnings and with ABAWDs at the prior certification. These demographic results again suggest the importance of alternative opportunities for needy households.

The descriptive analyses presented in Chapter 6 had likewise noted the lower likelihood for households to continue with the FSP if they had earnings, and the greater likelihood if their income was under the Federal poverty level. Neither the lower continuation rates for Hispanics, nor the higher rates for the elderly and for recipients of means-tested benefits, retained statistical significance in the multivariate analyses when other factors such as household income were taken into account.

Separate Models of Continuation in Recertification and Interim Months

Similar but not identical results were obtained from models that analyzed continuation in recertification and interim months separately. The joint model presented in table D.3 is shown side by side with the two individual models in table D.4, all three with superfluous policy variables removed.

Regardless of whether the recertification and interim month continuation models are estimated jointly or separately, we find the same policy variables significant with the following exceptions, all relating to variables of marginal statistical significance:

- A monthly reporting requirement was found to significantly reduce the likelihood of completing recertification ($p < 0.10$) in the separate recertification model only. Its effect in the combined model was negative, but not statistically significant at conventional levels. Given the dwindling importance of monthly reporting since these data were collected, the policy implications of a monthly reporting effect would not be great.
- Conversely, an E&T requirement was found to significantly reduce the likelihood of completing recertification ($p < 0.10$) in the combined model only. Its effect in the separate recertification model was negative, but not statistically significant at conventional levels.
- Similarly, the provision of child care to office visitors significantly increased the likelihood of completing recertification ($p < 0.10$) in the combined model only. Its effect in the separate recertification model was positive, but did not attain statistical significance.

Table D.4—Logistic models of continuing to receive food stamps

	Recertification and interim months	Recertification months only	Interim months only
	Coefficient (standard error)	Coefficient (standard error)	Coefficient (standard error)
Policy variables			
Recertification month	-2.532*** (0.147)		
<i>Recertification month × clients asked not to bring children to office × household includes children under 5</i>		-0.373 (0.446)	
Recertification month × child care provided to office visitors × household includes children under 5	1.340* (0.676)	1.266 (0.580)	
<i>Recertification month × child friendliness index × household includes children under 5</i>	-0.056 (0.469)	-0.419 (0.486)	
<i>Recertification month × transportation assistance offered</i>	-0.309 (0.247)	-0.203 (0.224)	
<i>Recertification × in-person interview required</i>		0.192 (0.239)	
<i>Recertification × case closed for missed interview</i>		0.412 (0.405)	
<i>Recertification × third party verification contacts required</i>		-0.347 (0.445)	
<i>Recertification month × monthly reporting required for household type</i>	-0.500 (0.449)	-0.510* (0.291)	
Recertification month × E&T requirement for household type	-0.558* (0.310)	-0.306 (0.273)	
<i>Recertification month × ABAWDs subject to time limits × ABAWD-type household</i>	-0.425 (0.324)		
<i>Recertification month × TANF sanctions affect food stamp benefits × TANF recipient</i>	0.526 (0.407)	0.770 (0.593)	
<i>Recertification month × expected certification length for household profile</i>	0.024 (0.028)		
<i>Interim month × positive supervisor attitudes</i>	-0.973 (0.753)		-0.935 (0.976)
Interim month × required to participate in E&T activities, by household type	-0.650** (0.269)		-0.665** (0.288)
<i>Interim month × TANF sanctions affect food stamp benefits × TANF recipient</i>	0.359 (0.401)		0.416 (0.455)

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Table D.4—Logistic models of continuing to receive food stamps—Continued

	Recertification and interim months	Recertification months only	Interim months only
	Coefficient (standard error)	Coefficient (standard error)	Coefficient (standard error)
<i>Interim month × TANF closure requires FS office visit × TANF recipient</i>	0.395 (0.372)		
Contextual variables			
County unemployment rate in 1999	0.024 (0.027)	0.042 (0.032)	0.012 (0.039)
Office located in urban area	-0.105 (0.297)	-0.455* (0.243)	0.142 (0.396)
Office located in Northern State	-0.099 (0.309)	0.348 (0.267)	-0.498 (0.554)
Office located in Midwestern State	0.747*** (0.237)	1.275*** (0.269)	0.494 (0.334)
Office located in Western State	-0.053 (0.274)	0.424 (0.227)	-0.306 (0.371)
Household characteristics			
Male head of household	0.140 (0.165)	0.487 (0.297)	-0.059 (0.246)
Black head of household	0.185 (0.198)	0.297 (0.256)	0.154 (0.362)
Hispanic head of household	-0.266 (0.260)	0.223 (0.269)	-0.356 (0.307)
Head of household never married	-0.055 (0.161)	-0.432** (0.202)	0.146 (0.221)
TANF recipient	-0.297 (0.306)	-0.533 (0.514)	0.035 (0.397)
Prior FSP recipient	0.526** (0.203)	0.408* (0.217)	0.603*** (0.227)
Household has children under 5	-0.185 (0.140)	-0.036 (0.305)	-0.185 (0.197)
Household has children under 18	0.020 (0.275)	0.349 (0.309)	-0.178 (0.244)
Head of household is elderly (≥60)	0.317 (0.268)	0.316 (0.594)	0.414 (0.395)
Household has earnings	-0.350** (0.166)	-0.471** (0.279)	-0.381* (0.218)
Household has some assets	-0.077 (0.163)	-0.024 (0.233)	-0.086 (0.211)

—Continued

Table D.4—Logistic models of continuing to receive food stamps—Continued

	Recertification and interim months	Recertification months only	Interim months only
	Coefficient (standard error)	Coefficient (standard error)	Coefficient (standard error)
Household’s income is below poverty level	0.278* (0.149)	0.807*** (0.237)	0.106 (0.240)
ABAWD-type household	-0.494*** (0.152)	-1.039*** (0.240)	-0.370* (0.210)
Intercept	1.536 (0.432)	0.212 (0.407)	2.340 (0.947)
Mean of dependent variable	0.955	0.782	0.976
Sample size	2441	1016	1425

Policy measures and their effects shown in *italics*; variables with statistically significant effects ($p < 0.10$) shown in **bold**.

*** Statistically significant at the 1 percent level.
 ** Statistically significant at the 5 percent level.
 * Statistically significant at the 10 percent level.

Supplementary Model of Likelihood of Contacting the Food Stamp Office

Contacting the food stamp office, conditional on perceived eligibility, was the “missing link” in the chain of food stamp participation decisions. Adding in this piece would ensure that all aspects of participation were covered, so that all possible effects of local office policies and practices could be detected. These pieces were:

- Perceived eligibility
- Contacting the office, conditional on perceived eligibility
- Completing the application process (and being approved for benefits), conditional on contacting the office
- Surviving an interim month
- Surviving a recertification month
- Likelihood of entering an interim *versus* a recertification month

This “missing link” differs qualitatively from the other links, however, in that the types of policies and practices that could affect it are unbounded. It was argued in Chapters 7 and 8 that perceived eligibility was affected by office outreach; application completion, primarily by the requirements of the application process; interim survival, by interim participation requirements; and recertification survival, primarily by the requirements of the recertification process. The decision to contact the office, in contrast, represents the outcome of a cost-benefit calculus which includes *all* aspects of FSP application and participation. A household could fail to contact the office because it was deterred by the time burden of application, by the intrusiveness of application requirements (e.g. fingerprinting, third party verification), by the costs of ongoing participation (e.g. monthly reporting, E&T

activities), by the frequency with which the certification process would have to be repeated, and so on. Sorting out these myriad possible influences, lacking detailed household information on values, attitudes, preferences, and knowledge, is a Herculean task.

An additional problem was due to the structure of the sample. The sample was designed to explore particular aspects of FSP participation. While it was possible to construct a representation of the entire eligible population from the various pieces of the sample, the quality of the data was far from uniform. A weak link in the construction was households that contacted the office but did not file an application (“near applicants”, identified roughly in the RDD survey of eligible nonparticipants). There were only 66 near applicants found in the 109 offices, so that many offices had no such households. In these offices it would misleadingly appear that *no* nonparticipant, non-applicant households that perceived themselves eligible ever contacted the food stamp office.

As suggested above, nonparticipant households could be influenced by virtually any aspect of the certification process and continuing requirements in deciding whether to contact the food stamp office. For practical purposes, the list of policies included in the model was limited to the most striking in each category.

Two versions of the model are presented below (table D.5), which differ in that they respectively include and exclude three problematic policy measures: outreach by community groups, a quarterly reporting requirement, and expected certification length. Both versions exclude superfluous variables (those whose estimated coefficients were less than 0.75 times their standard errors).²

It would be expected that outreach to households by community groups would increase the likelihood that those households would contact the local FSP office, but the model shows it to have a discouraging effect ($p < 0.01$). Conversely, quarterly reporting should discourage households, but has a marginally significant positive effect ($p < 0.10$). Finally, one would expect that households would be more likely to be interested in the Food Stamp Program if they could be certified for longer periods of time. The significant reverse finding ($p < 0.01$) suggests that longer certification periods may be associated with other policies that make participation less attractive. But even when certification period length is the *only* policy variable allowed in the model, it has a strongly negative coefficient ($p < 0.01$).

Omitting these three puzzling variables from the model leaves the rest of the inferences unchanged. Overall, 15.7 percent of households that thought they might be eligible contacted the local office. Two policies are seen to have effects on bringing households into contact with the FSP:

- positive supervisor attitudes ($p < 0.01$) and
- time limits for ABAWDS ($p < 0.05$).

In addition, households were significantly more likely to contact the food stamp office if the unemployment rate in their county was high. Households with male heads, TANF recipients, and

² The policy measures that were dropped varied between the two versions of the model, because forcing some variables out brought other variables in. Every policy variable considered appeared in one or the other version, with the sole exception of job search requirements at application (specific to household type, and applied only to former food stamp recipients, as other potential applicants would be less likely to be aware of this feature).

households with income less than the federal poverty line were significantly more likely to contact the office; former FSP recipients, households with elderly heads, ABAWD-type households, and those with assets were less likely to do so.

Because of the three counterintuitive findings, this model is substantially less plausible than the two models presented in Chapter 8 and the other models presented in Appendix D. While some of the results are suggestive, we believe that the limitations imposed by the sample design are too great to be overcome. A design which directly sampled participants and nonparticipants and collected comparable data on each, including knowledge and attitudes, would be ideal for supporting this sort of analysis.

Table D.5—Logistic model of contacting the food stamp office

	Model A: Coefficient (Standard Error)	Model B: Coefficient (Standard Error)
Policy variables		
<i>Household is targeted for outreach</i>		0.283 (0.366)
<i>Number of personal communication modes (scaled 0–1) × household is targeted for outreach^a</i>		–0.828 (0.611)
Community group outreach	–0.763*** (0.239)	
<i>Public transportation goes near office × previous recipient</i>	0.250 (0.305)	
<i>Office open for eligibility interviews only Monday to Friday, 8 to 5</i>		–0.155 (0.250)
Positive supervisor attitudes	2.836 (0.722)	2.013*** (0.630)
<i>Fingerprint applicants of household type (TANF versus non-TANF)</i>	–0.273 (0.322)	
<i>Third party verification: required forms (TANF versus non-TANF)</i>		–0.357 (0.359)
<i>Third party verification: required contacts (TANF versus non-TANF)</i>		0.472 (0.353)
<i>Monthly reporting for household type</i>		–0.852 (0.357)
Quarterly reporting for household type	0.473* (0.287)	
<i>Required to participate in E&T activities, by household type</i>	0.179 (0.233)	
<i>E&T services available to non-ABAWDS</i>	–0.312 (0.269)	
ABAWDs subject to time limits	–1.797*** (0.543)	–1.749*** (0.540)
Expected certification length for household profile	–0.186*** (0.028)	
Contextual variables		
County unemployment rate in 1999	0.127* (0.068)	0.100* (0.060)
Office located in urban area	–0.646** (0.294)	–0.725*** (0.256)
Office located in Northern State	0.075 (0.359)	–0.022 (0.338)

—Continued

Table D.5—Logistic model of contacting the food stamp office—Continued

	Model A: Coefficient (Standard Error)	Model B: Coefficient (Standard Error)
Office located in Midwestern State	−0.391 (0.254)	−0.412 (0.252)
Office located in Western State	−0.263 (0.323)	−0.130 (0.271)
Household Characteristics		
Male head of household	0.579** (0.261)	0.580** (0.258)
Black head of household	−0.027 (0.243)	0.008 (0.219)
Hispanic head of household	0.370 (0.319)	0.294 (0.359)
Head of household never married	0.175 (0.342)	0.181 (0.304)
Receiving TANF	2.044*** (0.561)	2.063*** (0.596)
Prior food stamp receipt	−0.307 (0.251)	−0.241 (0.226)
Household has children under 5	−0.219 (0.281)	−0.171 (0.260)
Household has children under 18	−0.096 (0.309)	0.082 (0.321)
Head of household is elderly (≥ 60)	−2.127*** (0.331)	−2.586*** (0.358)
Household has earnings	−0.312 (0.259)	0.066 (0.229)
Household has some assets	−0.405* (0.231)	−0.475** (0.213)
Household's income is below poverty level	1.920*** (0.219)	1.784*** (0.201)
ABAWD-like household	−1.072*** (0.403)	−0.785** (0.386)
Intercept	0.579 (0.803)	−0.556 (0.729)
Mean of dependent variable	0.157	0.157
Sample size	1516	1516

a “Personal” communication modes for outreach are: presentations to community groups, direct mailings, and telephone calls to former recipients.

Policy measures and their effects shown in *italics*; variables with statistically significant effects ($p < 0.10$) shown in **bold**.

*** Statistically significant at the 1 percent level.

** Statistically significant at the 5 percent level.

* Statistically significant at the 10 percent level.