

DOMESTIC VIOLENCE AND WELFARE RECEIPT IN MARYLAND:

Linking Individual Outcomes to Implementation and Jurisdictional Differences

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Executive Summary

This report, the last in a series of three on domestic violence and welfare receipt in Maryland, ties together the findings of the first two reports and presents multivariate statistical analyses to complete the multi-method evaluation of the Family Violence Option (FVO) in Maryland. The project as a whole examined the implementation and impact of the Option on domestic violence victims receiving cash assistance in Maryland.

In 1996, while reforming federal welfare legislation, the United States Congress established for states the Family Violence Option to prevent reforms from adversely affecting those welfare recipients who were victims of domestic violence. The FVO requires that participating states screen and identify abuse victims, make service referrals, and offer waivers from time limits and work and child support requirements.

The present report examined what difference local FVO practices, jurisdictional characteristics, and individual demographics and experiences have made on domestic violence disclosures and documentation, waiver utilization, and the achievement of self-sufficiency. Using Maryland State administrative data for March 1998 to June 2001, demographic characteristics, employment, and Temporary Cash Assistance (TCA) participation were examined for four groups: domestic violence victims who were administratively marked and held FVO waivers; victims who were administratively marked but did not hold waivers; victims who were not administratively marked but whose case narratives

indicated abuse; and TCA recipients with no indication of domestic violence.

Abuse experiences, coded qualitatively from case narratives, were compared for the three victim groups. Data on FVO practices were gathered from interviews with personnel from Maryland's twenty-four local welfare agencies. Multivariate statistical models explored factors associated with disclosures, documentation, waiver usage, and six self-sufficiency outcomes.

Less than six percent of TCA recipients disclosed domestic violence between March 1998 and June 2000; approximately five percent of these victims received a waiver. Differences in age, race, and marital status between victims and non-victims ($p < 0.05$) suggested that certain sub-groups of victims might have been more difficult to identify or less likely to disclose. Waiver holders and non-holders had self-sufficiency outcomes similar to those of other welfare recipients. Narrative disclosers had lower annual earnings than non-disclosers ($p < 0.05$) yet fewer months of welfare benefits in the following year ($p < 0.01$). Presence of an in-agency domestic violence expert did not predict likelihood to disclose or be administratively documented, but domestic violence training and specific screening practices did ($p < 0.01$). Domestic violence community services were related to certain positive individual outcomes.

Maryland has made a good faith effort, with strong bipartisan support, to implement the FVO and, as evidenced by our studies, to monitor and report on the effects of this policy on women and their families. Study results demonstrate that, indeed, the FVO has been helpful to abused women and, despite some predictions to the contrary, has not caused victims to linger on the cash

assistance rolls. At the same time, the study also indicates that there is room for improvement and also for further research. Specific areas of concern and possible recommendations for change are noted in the last chapter of the report.

Introduction

This is the last report of a series of three on domestic violence and cash assistance receipt in the State of Maryland. The project examined the implementation and impact of the Family Violence Option (FVO), a state-level option of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, on abused welfare recipients in Maryland. By combining quantitative and qualitative research methods the project investigated the interaction among individual, agency, and jurisdictional variables.

The first report examined the recorded prevalence rate of domestic violence disclosures and described the characteristics of women who disclosed abuse between March 1998 and June 2000. Particular attention was paid to comparing the baseline and outcome experiences of four groups of women: domestic violence victims who were administratively marked and held FVO waivers; victims who were administratively marked but did not hold waivers; victims who were not administratively marked but whose case narratives indicated abuse; and welfare recipients with no indication of domestic violence. The second report focused on the macro level and described the implementation of the policy at the jurisdictional level. It focused on analysis of interview data from welfare program personnel in each of Maryland's 24 jurisdictions as well as how certain local economic and demographic conditions might have impacted FVO implementation and service delivery.

The present report ties the individual and macro levels together with the use of multivariate analyses. Specifically, through the use of statistical models,

the report explores the importance of individual versus macro level variables on nine outcome measures. The first three models focus on implementation outcomes and explore disclosures of domestic violence, administrative documentation of victims, and waiver usage. The other six models deal with self-sufficiency outcomes during a one-year follow-up period. The number of quarters employed, number of employers, and annual earnings comprise the three employment outcomes. The number of months of TCA receipt, exits, and recidivism status are the three cash assistance related outcomes.

This study should be useful to policymakers and frontline workers because the findings can aid in the development of program enhancements that may better identify and serve victims. Even though domestic violence is a complex and difficult issue for a significant portion of the on-welfare caseload, administrative disclosure rates are low. This discrepancy indicates that a better understanding of the issue is needed. Moreover, because clients experiencing domestic violence have problems different from other welfare recipients, program enhancements are necessary in order both to identify victims and to offer appropriate services.

Background

An effort to explain why some individuals have better outcomes than others is a quest of much social policy research spanning issues such as school vouchers, access to health care, and, most important to this study, welfare reform. Research and literature on the outcomes of welfare leavers, welfare stayers, and divertees have produced many important articles and reports on the effectiveness of welfare reform policies and their impact on individual self-sufficiency (e.g., Klawitter, Plotnick, and Edwards, 1996; Family Welfare Research and Training Group, 2001; Lacey, Hetling-Wernyj, and Born, 2002; Lee, George, and Dilts, 2000; Owwigho, 2001). For the most part, these studies consider extensively individual level predictors such as education, race, age, number of children, and previous employment experiences. Additionally, by nature of the research question, many studies on welfare reform include at least one policy-related aspect. For example, some leavers studies have compared outcomes of individuals receiving cash assistance in the post-TANF era to those of individuals in the AFDC era (Loprest and Zedlewski, 1999).

An important group of research studies have demonstrated that more important than the policy itself, however, is the process of frontline implementation and the practices used by street-level workers (e.g., Adams, Snyder, and Sandfort, 2002; Hasenfeld, 1983; Lipsky, 1980; Lurie, 2001). Unfortunately, even in studies of policy impact, little attention has generally been paid to the documentation, consideration, or evaluation of sub-state variations in welfare policy, practices, or outcomes. Similar to the scarcity of in-depth

consideration of local practices, few studies have been published on the role of other local level factors on individual outcomes.

A combined focus on traditional customer characteristics, frontline implementation practices, and local contextual factors is even less common in welfare policy research, but this body of research is growing and receiving more attention. One important multi-level study was completed in 2001 at the University of Maryland School of Social Work. This project found that traditional individual level characteristics better explain employment and cash assistance outcomes, but that agency and local level factors also play some role (Charlesworth et al., 2001). In addition to this project, Welfare, Children, & Families, a three city study based at Johns Hopkins University also considers a wide variety of influences on welfare outcomes from personal narratives to local factors. (Project Summary, www.jhu.edu/~welfare/welfare_sum.htm). However, these other multi-method, multi-level studies have, for the most part, kept the procedures and findings of the different methods and levels separate and have released distinct reports dealing with each issue. Thus far, few integrated reports describing the overlap and impact of one on the other have been published.

Using these much larger projects as models, this project scales down the scope from evaluating welfare reform as a whole to investigating one particular aspect of the legislation, the Family Violence Option. While the previous and ongoing studies provide an important theoretical basis for consideration of the various factors on the different levels, they offer little in the way of established, detailed models or empirical guidance regarding specific variables. In general,

the area is so new that while the categories of variables have been identified, the particular measures and specific combinations of variables have not been elucidated.

In addition to the exploratory nature of these new studies, their focus has been almost exclusively on the outcomes of individuals who utilize cash assistance programs. The question of the impact of the FVO raises a more fundamental question. Specifically, before investigation of participant outcomes is possible, the question of who the policy is reaching needs to be examined because in order to understand fully the impact of a particular policy, the intended beneficiaries or recipients of the policy must be known. To illustrate, the goal of the Family Violence Option is to identify and serve victims of domestic violence while keeping them safe. This goal is to be pursued by adjusting program requirements in order not to hinder efforts to “escape domestic violence or unfairly penalize such individuals who are or have been victimized by such violence, or individuals who are at risk of further domestic violence” (P.L.104-193, 402(a)(7)). Thus, to understand thoroughly how the FVO has played out in practice, research studies should first examine who is utilizing FVO programs and only then consider client outcomes.

Especially in light of the documented low administrative disclosure rates of domestic violence, the issue of explaining who participates is especially important. The concerns regarding FVO participation span three aspects. Research must determine who is disclosing domestic violence, which of these

disclosers are administratively documented, and, finally, who among disclosers are receiving FVO waivers.

The theoretical bases for applying welfare outcome models to the FVO and for creating and testing models to investigate disclosures and waiver use are in place. However, research of this type is very rare on the topic of domestic violence and welfare receipt primarily due to the difficulty of obtaining individual level data on FVO participants and potential participants. Using administrative data from the State of Maryland, this project is a first step to address this research and information gap. Specifically, this third and final report addresses factors which explain service and outcome variations of the Family Violence Option on the local level. This general question entails two separate inquiries which are the specific foci of this study.

- First, regarding implementation of the FVO, is disclosure of domestic violence or waiver usage explainable with the models constructed?
- And, second, regarding individual outcomes, is domestic violence, waiver usage, or certain jurisdictional level variables associated with particular employment or welfare program participation outcomes?

Methodology

This chapter presents a description of the methodology employed for this report. Included are a brief review of the procedures of sample selection and a short description of the data sources.¹ The majority of the chapter describes the research design, model construction, and outcome variables of interest (dependent variables) used in the multivariate analyses. The data analysis approach is also presented.

Sample

Three samples of domestic violence victims were identified. First, the universe of Maryland welfare recipients who were administratively marked as domestic violence victims between March 1998 and June 2000 were identified and divided into two groups: waiver holders and waiver non-holders. A five percent random sample of all other welfare recipients from the same time period was then drawn. Individual case narratives were read and coded to identify abuse within this sample; cases with an indication of abuse in the narratives were flagged and comprise the third victim sample. For comparison purposes, the remainder of cases from the random sample, those with no indication of domestic violence, was kept as a non-victim group and is the fourth analytic sample of the project. Table 1, on the following page, presents the description and size of the four samples, which, together, constitute a total study sample of 4,335 cases.

¹ Sample selection and data sources are described in more detail in the first two reports in the Domestic Violence and Welfare Receipt in Maryland series. Please see Hetling-Wernyj and Born, 2002a and Hetling-Wernyj and Born, 2002b, both of which appear in the list of references.

Table 1. Description of the Four Samples

Group	Definition	Type	Size	Percent of active caseload
Waiver holders	victims who have disclosed and hold waivers	Universe	n = 261	0.31%
Waiver non-holders	victims who have disclosed but do not hold waivers	Universe	n = 293	0.35%
Narrative disclosers	victims not administratively marked as such but whose narratives indicate domestic violence	Sample	n = 184	Represents 5.12%
Non-victims	welfare recipients with no indication of domestic violence	Sample	n = 3,597	Represents entire caseload

Focal Dates

As stated earlier, in order for an individual to be a member of one of the four study samples, she had to have headed an active Temporary Cash Assistance (TCA) case in at least one month between March 1998 and June 2000. This broad time range is advantageous in that it permitted a larger sample size, but it posed challenges when operationally defining historical and follow-up measures for employment and cash assistance participation. Before gathering data and constructing the variables, it was necessary to designate a study or focal date (i.e., the specific date that would be used to demarcate “before” and “after” for purposes of the study) for each of the four study groups. For the three victim groups, the date most closely or directly associated with disclosure of domestic violence was used. Specifically, for the waiver group the initial date of the waiver was chosen; for the administrative non-waiver group the date the disclosure was recorded was chosen; and finally the date the violence was recorded in the narrative was used for the narrative group. For the non-victim group, the date of the first cash assistance check received in the study period (March 1998 – June 2000) was used as the focal date.

Data Sources

The study utilizes administrative data retrieved from computerized management information systems maintained by the State of Maryland and analyzed by the lead author. Specifically, three automated systems were used to gather information about customer demographics, cash assistance program participation, and employment. The systems are: CIS, the Client Information System; AIMS/AMF, the Automated Information Management System/Automated Master File; and MABS, the Maryland Automated Benefits System.

Data on the agencies and jurisdictions were compiled from a number of sources. Data on agency, socio-demographic, and economic variables were gathered from Maryland's Departments of Planning; Human Resources; Labor, Licensing, and Regulation; and Health and Mental Hygiene, as well as the U.S. Bureau of Economic Analysis and the Uniform Crime Report of the U.S. Department of Justice. These data contain information on housing, crime, vital statistics, and human capital in each of Maryland's 24 jurisdictions and for the state as a whole. Additional data on community resources related to domestic violence, such as the number of shelter beds available and if a domestic violence agency exists in each county, were gathered from the Maryland Department of Human Resources and a variety of domestic violence hotline data and information clearing houses.

Lastly, a series of telephone interviews was conducted with local Department of Social Services (DSS) personnel in each of the 24 jurisdictions to obtain specific information on how the Family Violence Option has been

implemented and what impact they perceive it has had. The interviews were semi-structured and had questions in seven main topic areas: background and staffing, trainings, screening and disclosures, waivers, referrals and relationships with other agencies, miscellaneous issues (including data entry and confidentiality), and opinion questions.

Research Design and Model Construction

Multiple regression analyses were used to investigate whether differences in implementation and self-sufficiency outcomes at the client level are due to variations in individual background characteristics, the waivers themselves, or jurisdictional differences. For example, what factors are significantly associated with domestic violence disclosures? Are race, age, or marital status related? Do screening methods or in-house experts matter? The purpose of multivariate analyses is to determine the extent and nature of significant relationships between an outcome or dependent variable and a number of predictive or independent variables. Multivariate analyses go beyond the type of univariate or descriptive statistics presented in our first two reports in that they address the potential impact of various variables and assess the impact of each while holding the other variables constant. For example, holding individual background characteristics constant, do screening methods still impact disclosures?

In this report, nine dependent or outcome variables were investigated. These variables were divided into two groups: FVO implementation outcomes and self-sufficiency outcomes. Domestic violence disclosures, administrative documentation, and waivers fall into the implementation group. The second

group, self-sufficiency, has a number of individual level measures in the categories of employment and welfare use. These include quarters employed, earnings, and number of employers during the follow-up period as measures of employment self-sufficiency, and the number of months of TCA receipt, exits, and recidivism during the follow-up period as measures of decreased welfare use. Definitions and descriptors of the dependent variables are provided in the following section; those of the independent variables are the subject of the appendix.

Implementation Models

Regarding FVO implementation, variations of the following models were constructed and tested:

$$1) \text{ Disclosure} = \alpha + \beta X_{\text{Dem}} + \beta X_{\text{Agency}} + \beta X_{\text{Juris}} + \varepsilon$$

$$2) \text{ Administrative marker} = \alpha + \beta X_{\text{Dem}} + \beta X_{\text{Abuse}} + \beta X_{\text{Agency}} + \beta X_{\text{Juris}} + \varepsilon$$

$$3) \text{ Waiver} = \alpha + \beta X_{\text{Dem}} + \beta X_{\text{Abuse}} + \beta X_{\text{Agency}} + \beta X_{\text{Juris}} + \varepsilon$$

The purpose of the equations was to explore the impact of FVO implementation on domestic violence victims regarding identification of victims and use of FVO waivers. The first equation attempted to explain who discloses domestic violence. The goal of the second equation was to explain the administrative documentation of victims. The last model was designed to explain who uses waivers. The equations investigated the impact of variables from all three levels (individual, agency, and jurisdictional indicators) on each of the three outcomes of interest: disclosures, documentation, and waivers.

Self-sufficiency Models

The second set of models explored one-year post-disclosure outcomes and were designed to explain employment and welfare use during the one-year follow-up period. Specifically, the models were constructed to examine how FVO policy practices help domestic violence victims achieve economic self-sufficiency. The models were based on the following equation:

$$\text{Outcome} = \alpha + \beta_{\text{Waiver}} + \beta_{\text{Non-waiver}} + \beta_{\text{NarrativeDisclosure}} + \beta X_{\text{Dem}} + \beta X_{\text{Agency}} + \beta X_{\text{Juris}} + \varepsilon$$

Variations of the model were used to explain follow-up employment experiences, including quarters employed, average quarterly earnings, total number of employers, and follow-up cash assistance program participation, including months of welfare receipt, exits, and recidivism. Each equation was used to determine if domestic violence disclosure, administrative documentation, or waiver use had a statistically significant impact on the self-sufficiency outcomes of an individual while also considering the potential impact of other individual, agency, and jurisdictional characteristics.

Selection bias was of critical concern for the individual outcome models exploring employment and welfare use during the follow-up period. Selection bias occurs when it is not the policy, but rather the characteristics of the individuals who choose or are assigned to the treatment, that are impacting outcomes (Besharov, Germanis, and Rossi 1997; Rossi, Freeman, and Lipsey 1999). For example, if individuals who hold waivers are more severely abused, then worse outcomes may be attributable to the abuse rather than to the waivers.

These differences were addressed and, to the extent possible, controls for all relevant influences were included in the multivariate equations.

Dependent Variables

As discussed above, the implementation and self-sufficiency outcomes of interest are the dependent variables of the statistical analyses. This section describes the definitions and univariate statistics of these important variables in more detail. The three dependent variables related to implementation outcomes are disclosures of domestic violence, administrative documentation of victims, and waiver usage. In terms of self-sufficiency outcomes, three employment related dependent variables (quarters worked, annual earnings, and number of employers during the one-year follow-up period) and three welfare participation dependent variables (months of cash assistance receipt, exits, and recidivism during the follow-up period) were explored.

Implementation Outcomes

Disclosures of Domestic Violence

This is a dichotomous dependent or outcome variable where the value of 1 indicates that the individual disclosed domestic violence and 0 indicates that the person had not. Of the total number of sample members ($n = 4,335$), 738 or 17.02% had either administrative markers or case narrative notes indicating a domestic violence disclosure.²

² As illustrated in Table 1 on page 8, these 738 women are those in the three victim groups: waiver holders ($n = 261$), waiver non-holders ($n = 293$), and narrative disclosers ($n = 184$).

Administrative Documentation of Victims

Of the 738 recipients who disclosed domestic violence, this variable measures whether or not the individual was administratively documented in the automated system as a victim. On this dichotomous variable, 554 women or 75.07% of the 738 victims were coded as 1 for having been administratively marked; the remaining 184 women were coded as 0 because there was no mark in the administrative system.³

Waiver Usage

This variable is also a dichotomous variable measuring whether or not a victim received an FVO waiver. Of the 738 victims, 261 or 33.37 percent received at least one type of waiver and thus were coded as 1. The remaining 477 women were coded as 0.⁴

Self-Sufficiency Outcomes

Quarters Worked

This variable is a count of the number of quarters an individual worked in a UI-covered job in Maryland⁵ during the four calendar-quarter period following the quarter containing the study or focal date. In other words, it measures the number of quarters worked during a one year period, which begins with the

3 Again, these data correspond to the figures shown in Table 1. Specifically, waiver holders (n = 261) and non-holders (n = 293) comprise the 554 administratively documented women while the narrative disclosers (n = 184) comprise the other group on this variable.

4 Table 1 on page 8 shows these data in more detail. For this variable, the 261 women in the first group equal the waiver holders (n = 261) and the other group is comprised of waiver non-holders (n = 293) and narrative disclosers (n = 184).

5 Because employment data come from the Maryland Automated Benefits System and do not include employment in other states or the federal government, the figures presented likely underestimate slightly the true labor force participation of the sample.

calendar quarter immediately following (and not including) the study or focal date.

The range of values is 0 to 4 and the mean number of quarters worked for the entire sample is 1.64.

Number of Employers

This variable ranges from 0 for individuals who did not work during the one-year follow-up period to a maximum of 12 employers in a UI-covered job in Maryland. The average number of employers for the entire sample was 1.16 employers during the year following the study date quarter.

Annual Earnings

The range of the annual earnings variable is from zero dollars for individuals not employed during the follow-up year to \$73,679.94. The mean or average annual earnings during the follow-up year is \$4,269.47. Earnings is a continuous variable, but it is not logged as is conventionally done with earnings.⁶

Months of Receipt

Turning to cash assistance receipt, this variable captures the total number of months of benefit receipt in the 12 months following the study month and ranges from 0 to 12. Mean months of receipt for the entire sample is 7.34 months.

⁶ The dependent variable measuring annual earnings is not logged. While it is common practice, due to a skewed distribution, to log annual earnings for the general population, this correction is not necessary here. The distribution of earnings for the four samples closely approximates a normal distribution. As the samples consist of welfare recipients, it makes sense that it is unlikely to find individuals earning sufficiently large amounts as to skew the distribution as in the case for the general population.

Exit

This dichotomous variable measures the proportion of families which experienced a consecutive 60 day or longer exit from TCA during the follow-up period. Approximately half, 55.02 percent, of the entire sample experienced such an exit during the follow-up year.

Recidivism

Among exiters, this dichotomous variable indicates whether or not the individual returned to TCA during the 12 month follow-up period. Among all exiters, 10.19 percent experienced a return within the year.

Data Analysis

Three types of multivariate statistical methods were used to test the models described. In this last section of the methodology chapter, these analytical techniques: probit regression, Ordinary Least Squares (OLS) regression, and ordinal logit models, are briefly described as are the coinciding models.

Probit

The probit model is a type of multivariate regression technique that is appropriate when the dependent variable is dichotomous. In this report, probit models are used for the three implementation outcomes (disclosures, administrative markers, and waivers) and for two of the self-sufficiency outcomes (exits and recidivism). However, interpretation of the impact of the independent variables on the dependent or outcome variables is difficult with probit models. Thus, in addition to the raw coefficient, the marginal effect of the variable is

always presented in brackets in this report. This number is interpreted as a percentage point increase or decrease of the outcome variable. Specifically, each additional unit increase of the predictive variables leads to an x percentage point increase or decrease in the outcome variable.

Ordinal logit

The ordinal logit technique is used in modeling categorical dependent variables. In this case, it was used for the self-sufficiency variables of quarters worked and number of employers during the following year. The results of this type of model are similar to the probit model in that the raw coefficient is not sufficient in presenting a logical interpretation of the impact of the variables. In this case, the log odds results are presented in brackets to facilitate interpretation. In these models, the effect is interpreted as the odds of having more units of the outcome variable are x percent larger or smaller for each additional unit of the predictor variable.

Ordinary Least Squares (OLS) Regression

Finally, this type of multivariate regression model is used when the dependent variable is of a continuous nature. In this report, OLS regression is used for the self-sufficiency models explaining annual earnings and number of follow-up months of TCA. The raw coefficients are straightforward in this case and are interpreted as a one unit change in the independent variable leads to a x unit change in the outcome or dependent variable.

Findings

Exploring Implementation

The Family Violence Option (FVO) can be linked to a number of important individual outcomes. Most commonly thought of are long-term outcomes relating to self-sufficiency. However, before services can have the intended, or at least some, effect on such outcomes, these services must be offered and accepted.

This section addresses the impact of local FVO implementation by quantitatively exploring three issues related to domestic violence screening and service utilization. First, models were developed to explain the disclosure of domestic violence by welfare recipients. Second, administrative documentation of victims by welfare caseworkers was explored. Last, an investigation of the individual, agency, and jurisdictional variables related to waiver use was undertaken. All three sets of models represent an effort to integrate and account for the distinct impacts of a variety of individual and macro level variables. The presentation and discussion of results focus mostly on the variables for which statistically significant differences existed and on important agency variables in order to determine which implementation strategies have been most effective.

Investigating Disclosures of Domestic Violence

Like all of the implementation outcome variables, individual disclosures of domestic violence were hypothesized to be a function of individual, agency, and jurisdictional factors. The results from five regression models of disclosures of domestic violence are presented in Table 2. Probit estimates are presented with marginal effects in brackets.

Table 2. Disclosures of Domestic Violence

	(1)	(2)	(3)	(4)	(5)
Age	0.086 (0.024) [0.017]	0.140 (0.029) [0.026]	0.130 (0.030) [0.024]	0.137 (0.032) [0.023]	0.137 (0.032) [0.023]
Age-squared	-0.001 (0.000) [-0.0002]	-0.002 (0.000) [-0.0003]	-0.002 (0.0005) [-0.0003]	-0.002 (0.0005) [-0.0003]	-0.002 (0.0005) [-0.0003]
African-American	-0.732 (0.053) [-0.171]	-0.694 (0.055) [-0.152]	-0.527 (0.057) [-0.107]	-0.329 (0.061) [-0.060]	-0.337 (0.062) [-0.061]
Other non-Caucasian	0.036 (0.172) [0.007]	-0.009 (0.177) [-0.002]	-0.021 (0.187) [0.004]	0.158 (0.187) [0.029]	0.154 (0.187) [0.028]
Separated	0.358 (0.066) [0.083]	0.251 (0.069) [0.052]	0.222 (0.070) [0.044]	0.166 (0.074) [0.030]	0.169 (0.074) [0.031]
Divorced	0.403 (0.108) [0.098]	0.342 (0.111) [0.077]	0.293 (0.115) [0.062]	0.129 (0.115) [0.024]	0.130 (0.114) [0.023]
Pregnant	-0.002 (0.093) [-0.000]	-0.126 (0.098) [-0.022]	-0.169 (0.099) [-0.028]	-0.227 (0.105) [-0.034]	-0.230 (0.105) [-0.034]
Child-only case	-0.758 (0.123) [-0.113]	-0.773 (0.129) [-0.106]	-0.804 (0.127) [-0.104]	-0.864 (0.133) [-0.100]	-0.869 (0.133) [-0.100]
Two adults on case	-0.558 (0.203) [-0.080]	-0.612 (0.202) [-0.078]	-0.573 (0.205) [-0.072]	-0.582 (0.215) [-0.066]	-0.579 (0.214) [-0.066]
Other individual /case	Yes	Yes	Yes	Yes	Yes
Employment and welfare experiences	No	Yes	Yes	Yes	Yes
Local DV provider led training			0.142 (0.093) [0.026]	0.225 (0.138) [0.040]	0.283 (0.145) [0.051]
Team-led screenings			-0.111 (0.111) [-0.019]	-0.313 (0.177) [-0.044]	-0.400 (0.191) [-0.053]
DHR designed questions			-0.201 (0.084) [-0.040]	-0.442 (0.095) [-0.089]	-0.514 (0.113) [-0.106]
Waivers discussed before disclosure			-0.077 (0.134) [-0.013]	-0.064 (0.139) [-0.010]	-0.097 (0.142) [-0.015]
General DV info distributed			0.545 (0.101) [0.116]	0.167 (0.159) [0.030]	0.195 (0.162) [0.035]
Waivers granted without consultation			-0.215 (0.142) [-0.035]	0.821 (0.166) [0.191]	0.884 (0.175) [0.209]
Waivers granted automatically			-0.064 (0.133) [-0.011]	0.225 (0.142) [0.042]	0.272 (0.148) [0.053]
Low risk jurisdiction (compared to medium)				0.064 (0.312) [0.011]	0.152 (0.323) [0.027]
High risk jurisdiction (compared to medium)				-1.249 (0.147) [-0.266]	-1.444 (0.218) [-0.317]
Very high/ high level of dv services (compared to low/ medium)				0.707 (0.362) [0.151]	0.732 (0.202) [0.158]
Population and caseload	No	No	No	Yes	Yes
Baltimore City	No	No	No	No	Yes
Log-likelihood	-1680.0	-1615.2	-1536.9	-1423.7	-1423.0
Pseudo R2	0.150	0.183	0.223	0.280	0.281
Sample size	4,335	4,335	4,335	4,335	4,335

Note: The above are probit models with standard errors shown in parenthesis and marginal effects in brackets. Standard errors have been corrected for heteroskedasticity. The dependent variable is a binomial variable which equals one if the welfare recipient disclosed domestic violence.

Each model builds upon the one in the previous column, gradually adding more controls and other explanatory variables. The first column presents the effect of individual and case characteristics without considering the possible impact of individual welfare use and employment background, agency implementation strategies, and other jurisdictional characteristics. In column (1), age, race, marital status, and number of adults on the case are statistically significant. Age has a positive, at a slightly decreasing rate, impact on disclosure. African-Americans are 17.1 percentage points less likely to disclose abuse in comparison to Caucasians, but women of other races are not statistically different than Caucasians in their propensity to disclose. Divorced and separated women are both more likely to disclose abuse as compared to women who have never been married. Conversely, child-only cases (women who are receiving benefits only for children) and cases with two or more adults are less likely to disclose abuse. These estimates change only slightly when controls for historical employment and cash assistance receipt are added in column (2).

Agency implementation variables are added in the next model, which is presented in column (3). Jurisdictional variables measuring population and caseload per 1000 residents as well as the risk meta-indicator and indicator for domestic violence services are added in column (4). Column (5) contains the estimated effect of the previous variables on the likelihood of disclosure after controlling for the impact of residing in Baltimore City. Interestingly, the addition of this variable did not add any explanatory power to the model nor was it

statistically significant. In essence the results of columns (4) and (5) are virtually the same, indicating that, at least in the case of domestic violence disclosures, the jurisdictional measures included account for the situations in all Maryland jurisdictions, including Baltimore City.

Focusing on the results from column (5), even after controlling for agency and jurisdictional differences, disclosures of domestic violence are significantly impacted by individual characteristics. Age continues to have a positive, yet at a decreasing rate, impact on the likelihood of a disclosure. African-Americans remain less likely to disclose abuse. While this impact decreases in each model, with the addition of other variables, it does not disappear and is a statistically significant explanatory variable. In the last model, the effect of being African-American as opposed to Caucasian decreases the likelihood of a disclosure by 6.1 percentage points. Separated women are still more likely to disclose abuse than never married women, but the impact of being divorced is now statistically insignificant. Pregnant women are now statistically less likely to disclose abuse by 3.4 percentage points. Not surprisingly, child-only cases and cases with more than one adult are less likely to disclose abuse.

Turning to the impact of agency variables, only three of the seven variables are statistically significant in the full model (column 5), but all have a relatively large effect on the likelihood to disclose. First, women residing in jurisdictions with team-led screenings are less likely to disclose by 5.3 percentage points. Second, using the DHR recommended screening questions as opposed to locally designed ones or no set questions led to a 10.6 percentage

point decrease in a women's likelihood to disclose domestic violence. Third, the ability of individual caseworkers to grant a waiver without having to consult with an expert, supervisor, services worker, or local provider led to a 20.9 percentage point increase in the likelihood to disclose.

Jurisdictional variables also had a statistically significant impact on domestic violence disclosures. According to the full model in column (5), while women residing in low risk jurisdictions were not statistically different in their likelihood to disclose domestic violence than those in medium risk jurisdictions, women in high risk jurisdictions were 31.7 percentage points less likely to disclose. Separate from this impact, women residing in jurisdictions with high or very high levels of domestic violence services were 15.8 percentage points more likely to disclose experiences of abuse.

Finally, considering the effect of the presence of an in-house expert on disclosures, the multivariate model from column (5) was altered so that a dichotomous expert variable replaced the set of implementation variables discussed above. Controlling for individual, case, and jurisdictional characteristics, the presence of an in-house family violence expert did not have a statistically significant effect on the likelihood of a disclosure. The estimated coefficient was only 0.031 with a standard error of 0.114. The marginal effect of having an expert in the jurisdiction of residence increases the likelihood of a disclosure by 0.5 percentage points, and again this impact was not statistically significant.

Investigating Administrative Documentation of Victims

An attempt to explain the administrative documentation of victims in the automated system was made using the same models as those investigating domestic violence disclosures except for two changes. First, the sample members used in these latter models were limited to the three victim groups. Second, the models constructed to explore reasons behind administrative documentation include variables measuring experiences with domestic violence. Specifically, the timing of the abuse and the living situation as gathered from case narratives were included in the models. Table 3 presents the results from the set of models exploring administrative documentation of victims.

Table 3. Administrative Markers for Domestic Violence Victims

	(1)	(2)	(3)	(4)	(5)
Age	0.110 (0.052) [0.033]	0.134 (0.054) [0.041]	0.118 (0.054) [0.034]	0.117 (0.056) [0.033]	0.117 (0.056) [0.032]
Age-squared	-0.001 (0.000) [-0.0004]	-0.002 (0.001) [-0.0005]	-0.001 (0.001) [-0.0004]	-0.001 (0.001) [-0.0004]	-0.001 (0.001) [-0.0004]
African-American	-0.230 (0.122) [-0.071]	-0.185 (0.125) [-0.056]	-0.174 (0.130) [-0.051]	-0.139 (0.141) [-0.039]	-0.184 (0.145) [-0.052]
Separated	0.165 (0.134) [0.059]	0.121 (0.137) [0.036]	0.091 (0.137) [0.026]	0.075 (0.140) [0.020]	0.096 (0.141) [0.026]
Non-US citizen	-0.708 (0.351) [-0.256]	-0.808 (0.362) [-0.295]	-0.589 (0.329) [-0.202]	-0.720 (0.339) [-0.249]	-0.713 (0.341) [-0.244]
Two adults on case	-0.724 (0.406) [-0.263]	-0.699 (0.405) [-0.252]	-0.823 (0.389) [-0.295]	-0.814 (0.403) [-0.287]	-0.753 (0.408) [-0.261]
Living together (not separately)	-0.747 (0.253) [-0.263]	-0.776 (0.258) [-0.281]	-0.898 (0.264) [-0.322]	-1.009 (0.276) [-0.361]	-1.018 (0.277) [-0.362]
Living status unknown	0.915 (0.271) [0.215]	0.938 (0.277) [0.218]	0.889 (0.290) [0.200]	0.845 (0.305) [0.184]	0.802 (0.313) [0.175]
Current abuse (opposed to recent)	0.233 (0.159) [0.067]	0.229 (0.159) [0.065]	0.294 (0.162) [0.078]	0.277 (0.170) [0.071]	0.311 (0.168) [0.078]
Past abuse (opposed to recent)	-0.441 (0.145) [-0.147]	-0.428 (0.152) [-0.142]	-0.453 (0.151) [-0.145]	-0.492 (0.155) [-0.155]	-0.485 (0.154) [-0.151]
Other individual /case	Yes	Yes	Yes	Yes	Yes
Employment/welfare history	No	Yes	Yes	Yes	Yes
Local DV provider led training			-0.118 (0.171) [-0.034]	0.533 (0.290) [0.146]	0.776 (0.337) [0.209]
Team-led screenings			-0.221 (0.210) [-0.068]	-0.935 (0.348) [-0.320]	-1.291 (0.422) [-0.451]
DHR designed questions			-0.339 (0.149) [-0.095]	-0.576 (0.204) [-0.152]	-0.809 (0.276) [-0.206]
Waivers discussed before disclosure			-0.022 (0.249) [-0.006]	-0.277 (0.265) [-0.083]	-0.416 (0.271) [-0.127]
General DV info distributed			0.114 (0.188) [0.033]	-0.650 (0.370) [-0.179]	-0.565 (0.388) [-0.155]
Waivers granted without consultation			-0.273 (0.209) [-0.085]	0.699 (0.324) [0.151]	0.967 (0.381) [0.187]
Waivers granted automatically			-0.145 (0.251) [0.043]	0.438 (0.295) [0.107]	0.683 (0.308) [0.152]
Low risk jurisdiction				1.729 (0.696) [0.347]	2.177 (0.759) [0.404]
High risk jurisdiction				-0.798 (0.285) [-0.248]	-1.508 (0.515) [-0.482]
Very high/ high level of dv services (compared to low/ medium)				1.561 (0.428) [0.396]	1.731 (0.445) [0.430]
Population and caseload	No	No	No	Yes	Yes
Baltimore City	No	No	No	No	Yes
Log-likelihood	-363.2	-357.6	-354.5	-341.0	-338.5
Pseudo R2	0.107	0.121	0.145	0.178	0.183
Sample size	738	738	738	738	738

Note: The above are probit models with standard errors shown in parenthesis and marginal effects in brackets. Standard errors have been corrected for heteroskedasticity. The dependent variable is a binomial variable which equals one if the domestic violence victim was marked as such in the administrative fields.

Column (1) shows the results of the first model which included only individual and case demographics as explanatory variables. In comparison to the models explaining disclosures of violence, fewer individual level variables were statistically significant. Age had a small positive impact on administrative documentation; and non-citizens were 25.6 percentage points less likely to be administratively marked. Variables accounting for individual violence (living status and timing of abuse) were more powerful explanatory factors and more of them were statistically significant. The addition of controls for employment and welfare history (column (2)) had little effect on the estimates.⁷

Agency implementation variables were added in the model presented in column (3). Without controlling for other jurisdictional level variables, the only implementation variable with a statistically significant effect was the screening instrument. Similar to the models exploring individual disclosures, residence in a jurisdiction which used the DHR recommended screening questions had a negative impact on being marked as a domestic violence victim in the administrative fields.

Columns (4) and (5) include variables measuring the jurisdictional indicators for risk and level of domestic violence services as well as controls for population size and caseload per 1000 residents; column (5) also has a control for Baltimore City residence. In explaining administrative documentation, Baltimore City is a significant variable and adds explanatory power to the model.

⁷ Additionally, the dichotomous variable indicating whether or not a case was a child-only case predicted an administrative marker perfectly so that variable had to be dropped from the models.

Considering the results presented in column (5), age and non-citizenship remain as the only two individual level significant explanatory variables from the administrative data. Age continues to have a positive impact with each additional year yielding a 3.2 percentage point increase in the likelihood of an administrative marker. Non-citizens are 24.4 percentage points less likely to be administratively documented. African-American victims are less likely to be marked, but this difference is not statistically significant.

Offering more explanatory power are the individual violence variables. First, individuals still living with their abusers are 36.2 percentage points less likely than those living separately to have a mark in the administrative fields. Second, individuals whose abuse occurred more than twelve months ago are less likely to be administratively marked (by 15.1 percentage points) as compared to those more recently abused (within the past year). However, those who were currently being abused were not statistically more or less likely to be marked.

Agency and jurisdictional factors were also strong explanatory variables and many were statistically significant. Individuals residing in jurisdictions where the local service provider, as opposed to a government employee, provided the agency's domestic violence training were more likely to be administratively marked. Team-led screenings and using DHR recommended screening instruments led to a lower likelihood of being administratively flagged. On the other hand, victims at agencies which had caseworkers who were able to grant waivers without consulting with other personnel and those that gave waivers

automatically had a greater likelihood of administrative documentation. However, the change in signs for these last two variables as well as the trainer variable (from negative in model 3 to positive in models 4 and 5) may indicate a problem with multicollinearity.⁸ While correlation analyses did not indicate a problem, this possibility should not be overlooked (Berry and Feldman 1985).

Finally, in order to assess the impact of the presence of an in-house family violence expert, a model was constructed in which all the implementation variables were dropped and a dichotomous variable for the presence of an expert was added. The presence of an expert in this case led to an 11.4 percentage point increase in the likelihood that a victim had an administrative marker, but this estimate was not statistically significant at the 0.05 level. Instead, it had a p-value of 0.08, and thus is not considered to have an impact that is statistically discernable from zero.

Investigating Waiver Use

The use of waivers is obviously an important measure of the uptake of FVO waivers, a key element of the legislation. In addition, waiver use may also be an important indicator of FVO service utilization in general. It is not discernable from these data whether or not a victim received other services in addition to a waiver. However, because offices require counseling as a requisite for waiver receipt, it is likely that many waiver recipients also received some other services. Table 4 contains the results from five models constructed to explore the impact of individual and macro variables on individual waiver usage.

⁸ Multicollinearity occurs when two independent variables are strongly correlated and can pose a problem in determining the separate effects of each variable on the dependent variable.

Table 4. Use of Waiver by Domestic Violence Victims

	(1)	(2)	(3)	(4)	(5)
Age	0.048 (0.046) [0.018]	0.057 (0.048) [0.021]	0.039 (0.048) [0.014]	0.043 (0.048) [0.016]	0.052 (0.047) [0.019]
Age-squared	-0.001 (0.001) [-0.000]	-0.001 (0.001) [-0.000]	-0.000 (0.001) [-0.0002]	-0.000 (0.001) [-0.0002]	-0.001 (0.001) [-0.0002]
African-American	-0.164 (0.108) [-0.060]	-0.169 (0.111) [-0.062]	-0.136 (0.116) [-0.049]	-0.091 (0.126) [-0.033]	-0.019 (0.129) [-0.007]
Separated	-0.005 (0.121) [-0.002]	0.009 (0.125) [0.003]	0.002 (0.126) [0.001]	0.016 (0.127) [0.006]	-0.026 (0.130) [-0.009]
Child-only case	0.452 (0.275) [0.176]	0.456 (0.275) [0.178]	0.457 (0.278) [0.177]	0.496 (0.281) [0.192]	0.548 (0.277) [0.213]
Two adults on case	-0.503 (0.442) [-0.163]	-0.488 (0.449) [-0.159]	-0.594 (0.492) [-0.184]	-0.660 (0.478) [-0.198]	-0.786 (0.471) [-0.223]
Living together (not separately)	-0.251 (0.278) [-0.088]	-0.266 (0.269) [-0.093]	-0.303 (0.274) [-0.104]	-0.316 (0.279) [-0.107]	-0.290 (0.280) [-0.098]
Living status unknown	-0.160 (0.183) [-0.163]	-0.179 (0.186) [-0.065]	-0.225 (0.188) [-0.078]	-0.237 (0.186) [-0.083]	-0.147 (0.191) [-0.052]
Current abuse (opposed to recent)	0.108 (0.140) [0.040]	0.090 (0.142) [0.033]	0.141 (0.146) [0.053]	0.147 (0.149) [0.055]	0.088 (0.151) [0.032]
Past abuse (opposed to recent)	-0.438 (0.144) [-0.150]	-0.455 (0.149) [-0.155]	-0.461 (0.152) [-0.156]	-0.447 (0.155) [-0.150]	-0.545 (0.158) [-0.152]
Other individual/case	Yes	Yes	Yes	Yes	Yes
Employment/welfare history	No	Yes	Yes	Yes	Yes
Local DV provider led training			-0.709 (0.147) [-0.254]	-1.110 (0.248) [-0.384]	-1.468 (0.307) [-0.489]
Team-led screenings			0.102 (0.190) [0.038]	0.461 (0.304) [0.177]	0.920 (0.365) [0.353]
DHR designed questions			0.177 (0.137) [0.064]	0.227 (0.151) [0.082]	0.431 (0.160) [0.152]
Waivers discussed before disclosure			-0.963 (0.232) [-0.293]	-1.192 (0.273) [-0.340]	-1.045 (0.279) [-0.307]
General DV info distributed			0.672 (0.170) [0.242]	0.905 (0.313) [0.320]	0.897 (0.349) [0.316]
Waivers granted automatically			0.651 (0.235) [0.250]	0.787 (0.277) [0.302]	0.535 (0.282) [0.204]
Low risk jurisdiction				-0.190 (0.595) [-0.068]	-0.993 (0.716) [-0.315]
High risk jurisdiction				0.618 (0.226) [0.232]	1.463 (0.310) [0.531]
Very high/ high level of dv services (compared to low/ medium)				-0.080 (0.357) [-0.029]	-0.218 (0.388) [-0.078]
Population and caseload	No	No	No	Yes	Yes
Baltimore City control	No	No	No	No	Yes
Log-likelihood	-464.2	-463.0	-443.0	-435.1	-425.2
Pseudo R2	0.032	0.034	0.076	0.093	0.113
Sample size	738	738	738	738	738

Note: The above are probit models with standard errors shown in parenthesis and marginal effects in brackets. Standard errors have been corrected for heteroskedasticity. The dependent variable is a binomial variable which equals one if the domestic violence victim received a waiver.

The estimates of the impact of individual and case characteristics, without controls for macro level variables and other individual historical experiences with employment and cash assistance, are presented in column (1). Notably, none of the individual and case level variables from the administrative data are statistically significant. The only individual level variable with explanatory power is timing of the abuse. Victims whose abuse occurred over twelve months prior were 15.0 percentage points less likely to receive a waiver than were victims whose abuse was recent (within the past twelve months).

Column (3) presents results of a model with implementation variables added. Columns (4) and (5) also include other jurisdictional level indicators, and column (5) contains a control for Baltimore City residence. Baltimore City is a significant explanatory variable and thus an important control for exploring waiver usage. Its addition also adds significance to the overall model.

Examining the results presented in column (5) more closely, it is clear that individual and case characteristics have little to do with waiver usage and that only past abuse statistically impacts the usage of a waiver. Implementation variables seem to be the most important explanations for the variance in waivers, with the effect of five of these six variables statistically different from zero. Trainings provided by local domestic violence agencies as opposed to government employees led to a 48.9 percentage point decrease in the likelihood of waiver receipt. Team-led screenings and the use of the DHR designed screening instrument led to an increase in the likelihood of a waiver as did the distribution of domestic violence material. Unexpectedly, the universal

discussion of FVO waivers before disclosures is statistically associated with a 30.7 percentage point decrease in the likelihood of waiver usage for victims in those jurisdictions.⁹

Considering the risk meta-indicator, individuals residing in low risk jurisdictions were less likely to have a waiver but this effect was not statistically significant. On the other hand, victims in high risk jurisdictions were 53.1 percentage points more likely to hold a waiver than were victims in medium risk jurisdictions. The effect of a high or very high level of domestic violence services in the jurisdiction was negative, but this impact was quite small and was not statistically significant.

The last consideration in quantitatively exploring waiver usage was the impact of the presence of an in-house family violence expert. Again, after dropping the implementation variables from the last model, a dichotomous variable indicating whether or not an in-house expert was appointed in that jurisdiction was added. According to the data, the presence of an in-house expert has a statistically significant, negative effect on waiver usage. Specifically, the presence of an expert leads to a 16.0 percentage point decrease in the likelihood of waiver use.

9 The implementation variable of "waivers granted without consultation" was dropped from this model due to difficulties with sample size. So few waiver holders resided in jurisdictions where caseworkers did not need to consult with anyone else that the inclusion of this variable would have posed problems with the other estimators.

Exploring Self-Sufficiency Outcomes

Indicators of self-sufficiency are critical and appropriate outcome measures used in most studies evaluating welfare policy. The purpose of this section is to investigate whether an experience of violence or, more specifically, one's classification as a waiver user, waiver non-user, or narrative discloser affects individual self-sufficiency as reflected by employment experiences and participation in cash assistance programs. In other words, controlling for a number of individual, agency, and jurisdictional characteristics, the impact of identification and classification of victims is assessed. Do all victims have similar outcomes? Do ones who are administratively marked or flagged in the system have better outcomes since their disclosure had been officially considered? Are the self-sufficiency outcomes of waiver holders worse than other welfare recipients as was speculated by critics of the FVO?

Table 5 contains the results from six models which address various aspects of self-sufficiency of the sample members one year after the study date. Columns (1) to (3) present results on three measures of employment status: the number of quarters worked, earnings for the post-study date year, and the number of employers an individual had. On the other end of the self-sufficiency spectrum, three measures of welfare dependency: months of TCA receipt, exits, and recidivism, are presented in columns (4) to (6).

Table 5. Individual Self-sufficiency Outcomes

Variables	Employment models			Cash participation models		
	Quarters worked (1)	Number of employers (3)	Annual earnings (3)	Months of TCA receipt (4)	Exit (5)	Recidivist (6)
Waiver holders	-0.234 (0.135) [-20.9%]	-0.074 (0.150) [-7.1%]	-91.06 (382.30)	-0.211 (0.286)	-0.012 (0.091) [-0.005]	0.284 (0.147) [0.051]
Waiver non-holders	-0.035 (0.132) [-3.4%]	0.061 (0.146) [6.3%]	599.16 (415.45)	-0.823 (0.281)	0.027 (0.091) [0.011]	0.380 (0.142) [0.071]
Narrative disclosers	-0.051 (0.141) [-5.0%]	0.230 (0.158) [25.9%]	-794.19 (406.64)	-0.895 (0.330)	-0.009 (0.104) [-0.003]	-0.040 (0.181) [-0.006]
Demographic controls	Yes	Yes	Yes	Yes	Yes	Yes
TCA and employment history controls	Yes	Yes	Yes	Yes	Yes	Yes
Agency FVO controls	Yes	Yes	Yes	Yes	Yes	Yes
Jurisdictional controls	Yes	Yes	Yes	Yes	Yes	Yes
Baltimore City control	Yes	Yes	Yes	Yes	Yes	Yes
Log-likelihood	-5743.2	-5690.1			-2761.6	-722.4
Pseudo R2	0.114	0.105			0.074	0.080
R2			0.468	0.123		
Sample size	4,335	4,335	4,335	4,335	4,335	2,385

Note: The models in columns (1) and (2) are ordinal logit models with the percent change in odds in brackets, and those in columns (3) and (4) are Ordinary Least Squares regression models. The models in columns (5) and (6) are probit models and present marginal effects in brackets. All standard errors have been corrected for heteroskedasticity. Dependent variables are outcome measures for the twelve-month follow-up period. Controls includes variables measuring demographic characteristics (age, race, marital status, language, citizenship, disability, pregnancy, age at first birth, number of children, age of youngest child, child-only case, and two adult case), TCA and employment history (months of TCA receipt out of previous 60 and previous 12, number of quarters employed during lifetime and in the past year, number of employers during past year, and earnings over past year), agency FVO implementation (local DV provider training, team-led screenings, DHR designed questions, waivers discussed before disclosure, general DV info distributed, waivers granted without consultation, and waivers granted automatically), jurisdictional characteristics (average monthly caseload per 1000 residents, population size in the thousands, risk meta-indicator, and domestic violence service indicator), and a control for residence in Baltimore City.

Investigating Employment Experiences

The first set of individual self-sufficiency outcomes are presented in columns (1) to (3) of Table 5. These models examine the impact of domestic violence classification on employment while controlling for the individual, agency, and jurisdictional variables included in the implementation models previously discussed.

Quarters Employed

The most obvious measure of employment, and most fundamental employment factor to influence self-sufficiency, is employment status or, in other words, whether or not an individual was employed. Column (1) of Table 5 contains the results of an ordinal logit model with quarters worked during the one-year, or four-quarter, follow-up period as the dependent variable. Examining these results, we find that all groups of domestic violence victims worked fewer follow-up quarters than non-victims did, but none of these differences are statistically significant. Specifically, the odds of having worked more quarters are 20.9 percent smaller for waiver holders than non-victims, but only 3.4 percent smaller for waiver non-holders and 5.0 percent smaller for narrative disclosers than non-victims.

Number of Employers

The number of employers during the follow-up period is the dependent variable of the ordinal logit model presented in column (2). The model includes individuals who worked during the follow-up period as well as those who did not. Thus, the dependent variable is zero for those who did not have a job and goes

up to 11 employers on the high end of the range. In this model, waiver holders are slightly more likely to have a smaller number of employers as compared to non-victims, but this is not statistically significant and is probably accounted for by this group's smaller likelihood of working at all. Both waiver non-holders and narrative disclosers have a slightly higher likelihood of a greater number of employers. None of these differences, however, are statistically significant.

Average Quarterly Earnings

Results from an OLS regression modeling annual earnings are presented in column (3) of Table 5. In this model, narrative disclosers, on average, made \$794.19 less than non-victims did, and this difference, as opposed to the results of the other two employment models, is statistically significant. In light of the non-significant findings in the quarters worked model and the number of employers model, this result is especially interesting. While narrative disclosers are not significantly more likely to work less or to have fewer employers, they did make significantly less money according to these data. Waiver holders made slightly less (\$91.06) than non-victims, and waiver non-holders made more (\$599.16) than non-victims. However, neither of these latter two differences is statistically significant.

Investigating Cash Assistance Program Participation

Participation in Maryland's Temporary Cash Assistance (TCA) program was used as the second indicator of self-sufficiency in the follow-up period. Specifically, months of TCA receipt and whether or not an individual exited welfare were explored for all individuals. Recidivism was also investigated for

those individuals who experienced a sixty-day exit during the follow-up period.

These three measures together provide a thorough picture of welfare dependence during the year following disclosure of domestic violence.

Months of Cash Assistance Receipt

Column (4) in Table 5 contains results from an OLS model exploring the factors associated with the number of months of TCA receipt during the follow-up period.¹⁰ Controlling for other individual and macro level factors, waiver holders received 2.11 fewer months TCA than non-victims, but this difference is not statistically significant. In contrast, waiver non-holders and narrative disclosers received over eight fewer months of TCA than non-victims and these differences are statistically significant. While waiver holders are the only group of domestic violence victims not to receive statistically less cash assistance in the follow-up period, they also do not receive more months of aid than non-victims. Thus, one can conclude that, even after controlling for a number of background characteristics, the receipt of a waiver does not increase the probability that a welfare recipient will remain on welfare longer than a non-victim.

Exits

A probit model was constructed to estimate the impact of domestic violence on TCA exits while holding other individual and macro level variables constant. These results are presented in column (5) of Table 5 and marginal effects are in brackets. The impacts of receiving a waiver, not receiving a waiver

10 A skewness-kurtosis test of the dependent variable, follow-up months of TCA, indicated non-normality. A number of transformations (e.g., log, exponent, reciprocal) were attempted to yield a more normal distribution, but none were successful. Thus, an ordinal logit model was used to test

but being administratively marked, and disclosing domestic violence but not receiving a waiver or being administratively marked are very small and statistically insignificant. Waiver holders are 0.5 percentage points less likely to experience a sixty-day exit during the follow-up period. Waiver non-holders were 9.1 percentage points more likely to experience an exit. And, narrative disclosers were 0.3 percentage points less likely than non-victims to experience an exit of 60 or more consecutive days during the 12 month follow-up period.

Recidivism

The last model of Table 5, presented in column (6), is a probit model which explored the effect of domestic violence on recidivism among exiters. Marginal effects are shown in brackets. Among TCA exiters, neither waiver recipients nor narrative disclosers have a statistically significant increase or decrease in their likelihood to recidivate or return to welfare after an exit of 60 or more days. Waiver non-holders, on the other hand, have a 7.1 percentage point increase in their likelihood to recidivate as compared to non-victims.

the robustness of the model. Given the similar results of the model, the use of OLS regression models to explain the follow-up use of TCA was deemed sufficient.

Conclusion

This final chapter of the report summarizes the key points from the results of the multivariate statistical models and addresses a number of recommendations that arose out of these findings.

Summary

Examining first the three implementation outcomes, disclosures, administrative markers, and waiver use, few statistically significant variables were common to all three outcome measures. No individual level variables were common to the three models. In terms of agency implementation variables, team-led screenings and the use of DHR designed screening questions both led to a decreased likelihood of disclosing abuse and being administratively documented. However, both agency practices also led to an increase of waiver use among those who were identified. The impact of jurisdictional variables showed a similar trend. Women in high risk jurisdictions as well as those in jurisdictions with low levels of domestic violence services were less likely to disclose abuse and be administratively marked, but more likely to receive a waiver once identified as a victim. Seemingly, these agencies may not be doing a very good job of screening and identification of victims, and may be using waivers as a blanket solution for those women who are flagged as being abused.

Considering each implementation outcome separately, individual characteristics, including race, marital status, age, and pregnancy were significant explanatory variables in the models of disclosures of domestic violence. They were less important in the models exploring administrative

documentation, but a few were still statistically significant. Dissimilarly, individual level characteristics were not significant predictors of waiver use rather implementation; jurisdictional variables added more explanatory power to the model.

Secondly, the findings from the models examining the six self-sufficiency outcomes showed that employment and cash assistance outcomes differed only slightly for victims and non-victims. The multivariate models demonstrated that, after controlling for important individual and macro level variables, differences between domestic violence victims and non-victims are rarely statistically significant. In terms of employment outcomes, only the annual earnings model showed a difference between non-victims and any of the three victim groups. In this model, narrative disclosers earned significantly less in the one-year follow-up period. Turning to cash assistance participation outcomes, while all victims received fewer months of assistance during the follow-up period, this difference was statistically significant only for waiver non-holders and narrative disclosers.

In brief, it seems as if the outcomes of waiver holders do not differ at all from non-victims. Similarly, waiver non-holders differ very little with slightly fewer months of TCA receipt in the follow-up period, but a higher likelihood of returning to welfare after exiting. However, the outcomes of narrative disclosers seem worse than those of non-victims in that the narrative disclosers are statistically more likely to earn less and to receive fewer months of TCA in the follow-up year. This combination of less earnings and less assistance points to disturbing or at

least diminished prospects for short-term self-sufficiency for those domestic violence victims whose experience is not administratively documented.

Recommendations

Given this new empirical evidence, thought was given to possible strategies and/or techniques that could lead to an improved policy on screening for domestic violence among welfare recipients and providing services to those individuals. Three categories for possible consideration seem suggested by study results. First and most obvious are suggestions for agency policy and frontline practice. Second, community resources and organizational integration are addressed and recommendations are made in this category. Third, suggestions for further research are presented.

Agency Policy and Frontline Practice

The requirement that there be an in-house family violence expert was instituted for the best of reasons, to ensure proper implementation of the FVO. It is also an easy and straightforward measure to evaluate local agency commitment to the policy. However, this study and its predecessors show that the current functioning of the in-house family violence expert in Maryland has both positive and negative impacts on other FVO strategies. Notably, the presence of an expert appears to have no impact on the important implementation outcomes of disclosures and administrative documentation. On the other hand, the presence of an expert is related to a decreased likelihood of waiver use, perhaps indicating that experts are able to offer other more appropriate services besides FVO waivers. These mixed results indicate that the

mere presence of an expert is not necessarily indicative of an agency's commitment, awareness or knowledge regarding domestic violence and the FVO.

Based on the data presented in this and our earlier reports, the position may either need to change or be replaced with a different strategy. On one hand, the expert may need to become more involved in screenings as opposed to just referrals after victims are identified. Unfortunately, in many jurisdictions with large caseloads, this is not a reasonable suggestion. On the other hand, instead of a mandated family violence expert, perhaps a better strategy for guaranteeing a minimal level of domestic violence support and expertise would be to establish a different type of support system. One suggestion is to mandate that a certain percentage or cohort of the frontline staff be intensively trained and be available for consultation or referral if the need were to arise. In any case, it is the opinion of the authors that the mandate with regard to an in-house expert may have outlived its utility and could be rescinded.

All staff, however, should be familiar enough with the policy to describe the waivers and do an initial, but not superficial, screen for abuse. This study included both administratively marked victims and those women with only case narrative indications of abuse. Even so, the numbers so identified are strikingly low in comparison to the prevalence estimates reported by researchers in the field. Thus, perhaps more important than the expert position, developments in screening, identification, and recording of domestic violence seem needed. Improved screening and documentation would assist in identifying all victims,

serving victims better, and eventually evaluating the impact of services.

According to these analyses, DHR should also revisit its list of suggested screening questions. The research shows that jurisdictions which have designed new screening forms or do not have a set of standard questions are more likely to elicit disclosures.

Closely related to the ability of all staff to screen and offer services is the issue of training. Domestic violence and FVO trainings should be culturally sensitive and address the added difficulty of multiple barriers such as inner-city living, pregnancy, and dealing with current domestic violence; data show that these sub-groups of domestic violence victims may be more difficult to identify or be less likely to disclose. Moreover, a new round of trainings may be useful in all jurisdictions regardless of whether or not training was offered in the past. The data presented here point to a positive impact of more recent trainings in terms of offering more tools and taking a more holistic or agency-wide approach.

Additionally, while flexibility in the implementation of screening and waiver approvals is very welcomed on the local level, stronger guidelines regarding training and making resources available to provide that training would immensely aid overall FVO implementation and service delivery. Multivariate findings show that trainings led by local service providers as opposed to government employees yield more positive outcomes. Thus, DHR should consider funding local providers to conduct the training or partner with these organizations rather than lead the trainings alone. The authors are aware that the State and local subdivisions face a very uncertain and difficult fiscal situation. However, the cost

involved in training is minimal compared to the potential benefits. Moreover, costs should be able to be kept low by partnering with other organizations, both public and private.

One cost-efficient way of assisting frontline staff to carry out domestic violence related screening adequately would be for DHR to issue another Action Transmittal emphasizing the importance of the FVO and discussing the complexity of domestic violence. Revised screenings questions, ideally developed in consultation with subject-matter experts, could and should also be attached to the document.

Lastly, the Family Violence Option should remain as part of the welfare legislation. The findings presented here certainly do not indicate that abuse of the waivers is occurring or that the FVO encourages women to stay on welfare longer and not address the issue of self-sufficiency. However, while waiver use does not seem to have negative consequences in terms of self-sufficiency outcomes, the outcomes of victims who are administratively marked but do not use waivers are very similar. While low disclosure and documentation rates may be troubling, a low waiver use rate may be more indicative of the number of victims who need or accept waivers than of an unwillingness to grant them. Of more concern than the low waiver usage rate are the poor outcomes of victims who are not administratively marked in terms of lower earnings and fewer months of TCA receipt. Further experience with the policy and future research is necessary to address issues related to this particular sub-group of women.

In the meantime, the FVO continues to have potential as an important tool for identifying and serving domestic violence victims on welfare. First, this potential is evidenced by the statistically significant impact of certain agency variables on disclosures and documentation. Second, the better outcomes of administratively marked victims (both waiver holders and non-holders) in comparison to narrative disclosers seems to point to a positive effect of identification and documentation on service provision, assistance, and ultimately self-sufficiency.

Community Resources and Organizational Integration

Findings from statistical analyses suggest that cross-organizational partnerships should be fostered since domestic violence community services are related to positive individual outcomes. While beyond the scope of FVO policy or program implementation at the DSS level, the apparent impact of domestic violence services on a jurisdictional level is a critical finding. For example, as mentioned above, screening questions designed by local Departments in consultation with local domestic violence services providers yield better outcomes in terms of identification of victims than do the State-designed ones. Closer ties with local shelters, hospitals, police departments, and child welfare agencies may help identify more individuals in need as well as aid in service provision.

Further Research

As with many in-depth research endeavors, the answers to this project's questions have led to other important ones. In certain ways, the findings

presented in this report, and in the previous two, impact and, in some respects, even shift the research agenda. While the majority of the findings presented in the reports are of a quantitative nature, the qualitative findings have added insights not possible with quantitative data alone. To date, studies using quantitative and, in particular, administrative data from welfare offices are lacking. However, the results of this study show that in order to close the gap between the observed and estimated prevalence rates, both administrative and survey data must be utilized and linked. This type of research would also serve to disentangle the questions of caseworker sensitivity and awareness of the issue versus individual willingness to disclose, and be able to address more fully the distinct outcomes of narrative and administratively marked disclosers.

Results presented here also point to distinct outcomes regarding jurisdictional residence and race which should be further explored. First, the data indicate different experiences in Baltimore City versus Maryland's 23 counties; these findings could be better elaborated with separate models for urban versus suburban and rural areas. Similarly, the dissimilar experiences of African-American versus Caucasian women merit additional analyses to explore the possible reasons behind these differences.

Continued monitoring of screening, documentation, and service utilization is also essential since the FVO and the implementation of the policy are, relatively speaking, still very new. Policies and practices have not yet been set in stone at the jurisdictional level. In fact, the majority of interviewees expressed interest in learning the results of this research in order to re-evaluate their FVO

practices. In this situation, especially, an understanding of what is happening on the frontlines is critical in informing evaluations of the results as well as the development of improved training, screening, and perhaps service delivery methods and partnerships.

Lastly, the advantage of using multiple sources and types of data (primary and secondary, quantitative and qualitative, individual and macro level) is the ability to see a fuller picture of the impact of the policy and in fact of the context of the policy as well. This research design was critical in uncovering the findings presented in this report and in the previous two and may also offer a unique model for other public policy evaluations. Unfortunately, the extent and amount of data that are gathered when considering multiple types is vast and can easily be analyzed in so many ways that the research could extend far beyond the limits of one group's project. The analyses presented here do not exhaust the ways in which one could use these data. The authors have suggested a few research questions for which the data already gathered could be an important starting point, but would welcome other suggestions as well.

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Appendix

Independent Variables

Independent or predictive variables were divided into three main categories: individual level, agency level, and jurisdictional level characteristics.

Individual Level Characteristics

Tables A-1a to A-1c list the variables used in the multivariate models to account for important individual level characteristics. These variables are divided into three subgroups. Table A-1a lists demographic and case variables; Table A-1b lists historical variables; Table A-1c lists violence variables.

Turning first to Table A-1a, age, race/ethnicity, marital status, primary language, citizenship, disability status, pregnancy, and age at first birth are used as the important demographic characteristics of caseheads.¹¹ Because race and marital status are categorical variables (as opposed to variables with numerical or rank values), they needed to be divided into a number of dichotomous variables in order to account for the impact of each value. Thus, race was divided into three categories, Caucasian, African-American, and other; and two variables were included in the models, African-American and other so that the models determine the impact of being either of African-American descent or of another race compared to being Caucasian. Caucasian is, in this case, the comparison category, and is thus not included as a variable in the model.

Likewise, marital status was divided into four variables so that the results show

¹¹ Age at first birth is an estimate based on the individual's date of birth and the date of birth of her oldest child in the household, and the age of the casehead is also squared to account for a possible non-linear relationship between age and the independent variables.

the impact of being widowed, divorced, separated, or married as compared to the impact of being never married.

Case level demographics include the number of children in the assistance unit, the age of the youngest child, and the number of adults. Because the number of adults had three categorical values, this original variable was divided into two separate ones. Thus, the impact of child-only cases and the impact of two-adult assistance units were compared to that of one-adult assistance units.

Table A-1a. Individual Level Demographic and Case Variables

Variable Name	Description	Type	Summary Statistics
Age	Age at time of disclosure	Continuous	<u>M</u> = 32.6, <u>SD</u> = 10.9
age squared	Age at time of disclosure squared	Continuous	<u>M</u> = 1182.3, <u>SD</u> = 855.6
Race – African-American	Coded as African-American and non- African-American	Dichotomous	68.5% African-American
Race – Other	Coded as other and non-other	Dichotomous	2.0% other
Marital status – Widow	Coded as widowed or not	Dichotomous	1.4% widowed
Marital status – Divorced	Coded as divorced or not	Dichotomous	5.1% divorced
Marital status – Separated	Coded as separated or not	Dichotomous	1.5% separated
Marital status – Married	Coded as married or not	Dichotomous	7.8% married
Language	Primary language coded as English and non-English speaking	Dichotomous	1.3% non-English
Citizenship	Coded as citizen and non-citizen	Dichotomous	1.9% non-citizen
Disability	Coded as having a disability or not	Dichotomous	7.2% disabled
Pregnancy	Coded as being pregnant or not	Dichotomous	1.1% pregnant
age at first birth	Age at which casehead had first child	Continuous	20.3% before 18
number of children	Number of children on the case	Continuous	<u>M</u> = 1.7, <u>SD</u> = 1.1
age of youngest child	Age of the youngest child	Continuous	<u>M</u> = 5.6, <u>SD</u> = 4.7
number of adults – child-only	Coded child-only case or not	Dichotomous	17.0% child-only
number of adults – two-adult	Coded as two-adult case or not	Dichotomous	1.9% two-adult

Table A-1b, on the following page, lists the individual level variables reflecting clients' historical employment and cash assistance program experiences as these were also hypothesized to be important influences on individuals' outcomes. Specifically, variables expressing the number of quarters

worked over an individual's lifetime¹² as well as during the preceding year were included. Average earnings expressed in thousands (standardized to year 2000 dollars) and the number of employers over the previous year were also included. Historical cash assistance program participation was defined as the number of months of AFDC/TCA receipt as an adult in Maryland during the 60 months prior to the focal month. A variable measuring receipt of TCA during the previous 12 months was also included in the models.

Table A-1b. Individual Level Historical Variables

Variable Name	Description	Type	Summary Statistics
TCA receipt out of previous 60	Months of TCA receipt during the previous 60 months	Continuous	<u>M</u> = 24.2, <u>SD</u> = 21.8
TCA receipt out of previous 12	Months of TCA receipt during the previous 12 months	Continuous	<u>M</u> = 5.1 <u>SD</u> = 4.7
Quarters employed during lifetime	Number of calendar quarters employed as an adult	Continuous	<u>M</u> = 13.2, <u>SD</u> = 13.7
Quarters employed in the past year	Number of calendar quarters employed over the past year	Continuous	<u>M</u> = 1.4, <u>SD</u> = 1.5
Employers in past year	Number of unique employers during past year	Continuous	<u>M</u> = 1.0, <u>SD</u> = 1.3
Earnings over past year	Earnings in thousands over past year	Continuous	<u>M</u> = 3.4, <u>SD</u> = 6.8

The final type of individual level characteristics used as independent variables relate to the experience of abuse and thus are only applicable to sample members in the three victim groups. The abuse variables fall into two

12 Lifetime employment history is measured as the number of quarters an individual has ever worked since the beginning of the data (1985). Age is not accounted for in this variable. Thus, while on its own the lifetime variable offers no valuable information, as a control variable in a multivariate model with age included it is very useful.

categories, timing of abuse and living situation. For the original variable of living situation, two values were determined, separated versus together. For the second, the timing of abuse, three values were designated, currently abused, past (over one year ago) and recent past (within the last year). Both original variables, however, had a number of cases missing this information and necessitated the inclusion of an additional dichotomous variable. Thus, living situation was divided into two dichotomous variables: living together and missing, both of which used separated as the comparison group. Similarly, timing of abuse was divided into three dichotomous variables: current, past, and missing, and recent past was used as the comparison group for all three.

Table A-1c. Individual Level Violence Variables

Variable Name	Description	Type	Summary Statistics
Living situation – together	Coded as together or not	Dichotomous	4.3% living together
Living situation – Missing	Coded as unknown or not	Dichotomous	19.5% missing
Timing of abuse – current	Coded as current or not	Dichotomous	17.6% current
Timing of abuse – past	Coded as past or not	Dichotomous	16.4% past
Timing of abuse – missing	Coded as unknown or not	Dichotomous	13.6% missing

Agency Characteristics

Table A-2, on the following page, presents the variables that, in this study, were used to measure agency characteristics thought to be especially relevant to the implementation of the FVO. The summary statistics in the table reflect measures for the total sample of cases not for the 24 local jurisdictions. For

example, the descriptive statistics in the last column of Table A-2 for the presence of an expert are interpreted as, x percent of sample members resided in a jurisdiction with an expert, not x percent of the jurisdictions had an expert.¹³

Table A-2. Agency Level Variables

Variable name	Description	Variable type	Summary statistics
Expert	Coded as in-house expert present or not	Dichotomous	61.9% with expert
Training	Coded as local or government organization conducted training	Dichotomous	32.4% local organization led training
Staff screening	Coded as team or individuals conducted screenings	Dichotomous	7.1% team-led screening
Screening tools	Coded as DHR screening tools or local tools used	Dichotomous	81.9% DHR designed questions
Waiver timing	Coded as clients informed of waivers before or after disclosures	Dichotomous	10.9% waivers discussed before
Materials	Coded as written materials distributed or not	Dichotomous	24.6% written material distributed
Waiver grantor	Coded as individual grants waivers versus consultations and teams	Dichotomous	16.7% waiver granted by caseworker without consultation
Waiver frequency	Coded as waivers granted on individual basis or automatically	Dichotomous	9.6% waivers granted automatically

The agency variables hypothesized to influence implementation and self-sufficiency outcomes included measures of FVO personnel, training, screening, and waiver policy. The first variable measures the proportion of women who resided in a jurisdiction with an in-house FVO expert versus those who resided in jurisdictions without one. The second variable reflects the type of organization

13 For jurisdictional level descriptions, please see the second report in this series, Hetling-Wernyj and Born, 2002b.

that conducted the domestic violence training (local organization versus DHR or no training). Thirdly, screening methods were also deemed potentially important. Thus, the next four variables include the type of staff who conduct screenings (team-led versus an individual screener), the screening tools (DHR designed questions versus locally designed ones), when clients are informed of FVO waivers (before versus after disclosing abuse), and whether or written material was distributed. Lastly, two measures of waiver practice, specifically who grants the waivers (individuals versus consultations and teams) and whether or not waivers were granted automatically, were included.

Jurisdictional Characteristics

Five jurisdictional characteristics were included in the multivariate models as independent or predictor variables. These variables and their summary statistics are presented in Table A-3 below.

Table A-3. Jurisdictional Level Variables

Variable Name	Description	Type	Summary Statistics
Risk	Risk meta-indicator, coded as medium, low and high	Two Dichotomous	15.9% low risk 64.7% high risk
DV Indicator	Domestic violence service indicator, coded as low or medium and high or very high	Dichotomous	22.3% high or very high
Caseload	Average monthly TCA caseload per 1000 residents	Continuous	<u>M</u> = 17.6, <u>SD</u> = 14.6
Population	Population size in ten thousands	Continuous	<u>M</u> = 57.2, <u>SD</u> = 25.1
City	Baltimore City control	Dichotomous	45.7% Baltimore City

Risk meta-indicator

The original group of jurisdictional variables examined (and presented in the second report, Hetling-Wernyj and Born, 2002b) was divided into three categories: socio-demographic indicators, economic indicators, and community domestic violence services. The risk meta-indicator is a measure of the first two categories, socio-demographic and economic.

Due to the large number of indicators in these two categories, the creation of more succinct and manageable meta-indicators was deemed necessary. First, relationships among economic and socio-demographic indicators for each of the 24 jurisdictions were explored using correlation tables. Two meta-indicators, called socio-demographic risk and economic risk, composed of the socio-demographic and economic variables respectively, were used to group jurisdictions into three overall risk categories. For the economic meta-indicator, both macro-economic opportunity (i.e., the variables of unemployment rate, poverty rate, and job growth rate between 1994 and 1999) and personal economic well-being (i.e., average weekly wages, median household income, average per capita income, cost of living index, and fair market rent) were considered. In terms of the socio-demographic meta-indicator, infant mortality rate, proportion of the population over age 25 with a Bachelor's degree, high school drop-out rate, percentage of female-headed households, and three crime rates (murder, robbery, and breaking and entering) were taken into account.

The two meta-indicators were then divided into low, medium, and high risk categories, and jurisdictions were assigned to one of those three categories

based on the values of each jurisdiction on the above listed indicators as shown in Table A-4. If a jurisdiction fell in the “bottom” third of the values on the majority of the variables (e.g., top third for unemployment rate, bottom third for median household income), it was classified as high risk. Likewise, jurisdictions in the “top” third were assigned to the low risk category. Jurisdictions with the majority of values around the mean or median for the state or with mixed values were grouped into the medium risk category.

Table A-4. Matrix of Jurisdictional Risk Categorizations

	Low economic risk	Medium economic risk	High economic risk
Low socio-demographic risk	Calvert Carroll Frederick Montgomery		
Med socio-demographic risk	Anne Arundel Charles Howard Queen Anne's St. Mary's	Baltimore County Cecil Harford Talbot Washington Worcester	Allegany Garrett Somerset
High socio-demographic risk		Caroline Kent Prince Georges Wicomico	Baltimore City Dorchester

Using these results, each jurisdiction was assigned to one of three categories for overall risk: high risk, neutral risk, or low risk, thus creating one overall risk indicator. Figure A-1 depicts a map of the jurisdictions and their assignments. This designation enabled a more succinct examination of potential patterns of FVO implementation at the jurisdictional level and creation of the most succinct multivariate models. Jurisdictions with at least one low ranking

and no high rankings in either the economic or socio-demographic meta-indicators were designated low risk. The second category, neutral risk, includes counties with both medium economic and medium socio-demographic risk indicators. Jurisdictions with at least one meta-indicator in the high risk ranking and neither in the low risk ranking were grouped into the high risk category.

Figure A-1. Map of Jurisdictional Meta-risk Categories



Domestic violence service indicator

Domestic violence community service variables were also analyzed and used to create a domestic violence service indicator. A four-tiered categorization was created based on whether an agency existed in that jurisdiction, the number of shelter beds per 1000 residents, and the number of domestic violence arrests per 1000 residents. If a jurisdiction had no agency, but was a member of an agency in a neighboring county, the number of shelter beds per 1000 residents was calculated on a regional basis and that figure was considered. Admittedly, the components of the devised indicator do not exhaust potential measures of

important countywide domestic violence services due to either the confidentiality of such data or the unavailability of the information (lack of computerized data, lack of data collection, or lack of jurisdictional-level data).

Considering the data that were available, jurisdictions with an agency in their county, over 0.1 shelter beds per 1000 residents (on either a jurisdictional or regional basis), and over 4.0 arrests per 1000 residents were classified as having a very high level of domestic violence services. Jurisdictions that met two of these three criteria were considered to have a high level of services. Medium level jurisdictions exceeded the cut-off value on only one criterion, and low level ones met none of them.

Average monthly TCA caseload per 1000 residents

Using the average monthly TCA caseload size during the study time period and population size in 1999, the average monthly caseload per 1000 residents was calculated. This was included in the models as an important jurisdictional indicator of local socio-economic well-being and agency workload.

Population size in thousands

Jurisdictional population size was included as a control for the differences inherent between many smaller rural and larger suburban counties.

Baltimore City control

City residence was included because it was hypothesized that the size and characteristics of Baltimore City may have an impact beyond the measures included in the models. Current research on the impact of welfare reform often distinguishes between urban effects and other areas; other research highlights

the difficulty of implementation in urban agencies. Because Baltimore City is the most urban jurisdiction and very distinct from the counties, controlling for any unobserved urban distinctions was considered critical.