

Public assistance receipt among older youth exiting foster care



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ABSTRACT

There is increasing evidence that youth aging out of the foster care system encounter substantial challenges in their transition to adulthood. Receipt of public assistance following discharge from care is one important indicator of the extent to which these youth experience economic difficulties, but prior research on the topic has a number of key limitations. Building on existing research, this study examines public assistance receipt following exit from care among a cohort of 7492 youth who were discharged from an out of home placement in Los Angeles County between 2002 and 2004 and who were aged 16 or above at their time of discharge. Results show that approximately 28% of youth in the study sample received either CalWORKs, which is California's version of the Temporary Assistance to Needy Families (TANF) program, or General Relief (GR), which is LA County's general assistance program for indigent adults, at some point over the study's follow-up period. Additionally, "crossover youth," who have a history of involvement in both the child welfare and juvenile justice systems are more likely than their counterparts who were only involved in the child welfare system to receive both types of public assistance. Differences in the risk profiles for GR and CalWORKs receipt centered around gender, as males were far less likely to receive CalWORKs but more likely to receive GR. Findings from this study provide additional evidence that older youth who age out of or otherwise exit foster care struggle to achieve economic self-sufficiency and also suggest that crossover youth constitute a distinct sub-group of youth exiting foster care who should be targeted for specialized forms of assistance.

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1. Introduction

Roughly 26,000 youth age out of the child welfare system in the United States each year (U.S. Department of Health and Human Services, Administration for Children and Families Bureau, 2012). These youth, who must leave out-of-home placements in the child welfare system upon reaching a certain age, encounter substantial challenges in their transition to adulthood (Barth, 1990; Courtney & Dworsky, 2006; Courtney et al., 2011; Harris, Jackson, O'Brien, & Pecora, 2009; McDonald, Allen, Westerfelt, & Piliavin, 1996; Osgood, Foster, & Courtney, 2010; Shook et al., 2013; Stott, 2013). These challenges frequently result in a range of adverse outcomes during young adulthood, including difficulties in achieving economic self-sufficiency (Dworsky, 2005; Naccarato, Brophy, & Courtney, 2010; Pecora et al., 2006). Studies have consistently shown that former foster youth have higher rates of unemployment and lower income levels than those in the general population (Courtney, Dworsky, Lee, & Raap, 2010; Courtney et al., 2005, 2007, 2011; Okpych & Courtney, 2014). One recent study suggests that the gap in employment and earnings between former foster youth and their peers persists until at least the age of 30 (Stewart, Kum, Barth, & Duncan, 2014). In addition, former foster youth are about two times more likely to report difficulties in paying for rent and utilities than their counterparts in the general population (Courtney et al., 2010). Evidence that older adolescents

leaving foster care face an elevated risk of economic hardship is particularly concerning when viewed in the context of consistent evidence of the association between poverty and a myriad of negative health, behavioral health, criminal justice and other outcomes (Adler & Ostrove, 1999; Hsieh & Pugh, 1993; Lynch, Kaplan, & Shema, 1997).

Receipt of public assistance is one important indicator of the extent to which youth who have aged out of foster care experience economic difficulties during young adulthood. In particular, public assistance receipt can be understood as a proxy for poverty. This is both because public assistance programs are generally means tested and thus require recipients to be below the poverty threshold, and because programs that provide cash assistance rarely provide sufficient income to lift recipients above the poverty line (Finch & Schott, 2013; Schott & Cho, 2011). However, most research on public assistance use among youth aging out of foster care relies largely on descriptive measures (e.g. rates of TANF or food stamp receipt) or comparisons of these rates with youth in the general population (Cook, 1994; Courtney, Piliavin, Grogan-Kaylor, & Nesmith, 2001; Courtney et al., 2005, 2007, 2010; Pecora et al., 2006). Indeed, only two studies to date (Dworsky, 2005; Needell, Cuccaro-Alamin, Brookhart, Jackman, & Shlonsky, 2002) have examined factors associated with public assistance receipt among youth aging out of the foster care system, and these studies are limited in key respects.

Thus, the present study seeks to build on existing research by examining public assistance receipt among a cohort of older youth who exited an out-of-home child welfare placement in Los Angeles (LA) County. We track this cohort prospectively following their discharge from care in order to examine the extent and timing of their utilization of two types of public assistance: California Work Opportunity and Responsibility to Kids (CalWORKs) and General Relief (GR). The former is California's version of the Temporary Assistance to Needy Families (TANF) program and the latter is LA County's general

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assistance program for indigent adults. We also assess the relationship between demographic characteristics and factors related to a youth's experiences in juvenile systems of care, including whether youth have a history of involvement in both the juvenile justice and child welfare systems, and their receipt of assistance from these two programs.

2. Literature review

It is well-documented that older adolescents leaving foster care encounter obstacles in becoming economically self-sufficient and may come to rely on public assistance. A number of studies provide descriptive information about the rates of public assistance receipt among former foster youth.

An early study (Festinger, 1983) found that, among young adults who exited foster care between the ages of 18–21, 21% had received public assistance within four years of leaving care. Later studies provide additional information about rates of public assistance use among former foster youth. Specifically, findings from a study by Cook (1994) indicate that 30% of youth who left foster care at age 16 or older reported that they were receiving public assistance when they were interviewed between 2.5 and 4 years later when respondents were between the ages of 18 and 24. In a separate study of youth who left foster care at age 17 or 18 in Wisconsin during the mid-1990s, 32% had received some type of public assistance within 18 months of exiting care (Courtney et al., 2001). Similarly, Brandford and English (2004) report that, among youth who were emancipated from foster care in Washington State at age 18, one-third were receiving some type of public assistance at the time of an interview that was conducted between 6 and 12 months following emancipation. The Northwest Foster Care Alumni Study finds that 50% of a group of foster care alumni between the ages of 18 and 33 had received cash public assistance at some point after their 18th birthday (Pecora et al., 2006). Finally, an evaluation of Los Angeles County's Life Skills Training Program, of particular relevance for the present study given its setting, tracked youth who were in foster care at age 17 and found that, when interviewed two years later, roughly 21% of youth reported receiving some type of public assistance in the 12 months prior to the interview (U.S. Department of Health and Human Services, Administration for Children and Families, 2008).

Differences in the types of public assistance examined and duration of study follow-up periods make direct comparisons across the above-described studies difficult. Nonetheless, they offer consistent evidence that receipt of some type of public assistance is a fairly common experience among former foster youth. Additionally, other research shows that former foster youth have rates of public assistance receipt during young adulthood that are higher than their counterparts in the general population (Courtney et al., 2010), highlighting the gap in the economic outcomes between former foster youth and their peers.

Importantly, prior studies have shown that rates of public assistance receipt among youth aging out of foster care vary depending on the type of public assistance under consideration. For example, the results of the study by Brandford and English (2004) indicate that food stamps were the most commonly accessed form of public assistance among former foster youth with 26% of youth receiving this benefit, followed by Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) (10%), TANF (9%), and public housing (2%); other studies, including the evaluation of Los Angeles County's Life Skills Training Program, report similar variation in rates of receipt across different types of public assistance (Brandford & English, 2004; Courtney et al., 2005; Needell et al., 2002; U.S. Department of Health and Human Services, Administration for Children and Families, 2008; Williams, Pope, Sirles, & Lally, 2005). These differential rates of receipt may be due to a number of factors, including differences in the type of need and in eligibility criteria across different public assistance programs and jurisdictions. Regardless of its cause, evidence that the uptake of public assistance varies by program type underscores the importance of making distinctions between assistance type when examining public assistance receipt and related factors among youth exiting foster care.

The above-noted descriptive findings provide an important foundation for understanding the extent to which former foster youth make use of public assistance and how this compares to their peers in the general population. However, there has been little research on factors that predict the use of public assistance among youth aging out of foster care. Despite valuable insights that might be gained from such research, only two studies to date (Dworsky, 2005; Needell et al., 2002) have examined factors associated with the receipt of public assistance among former foster youth. Dworsky (2005), used administrative data to identify predictors of TANF and food stamp receipt among youth discharged from foster care at ages 16 and above in Wisconsin. In that study, female gender was a strong and consistent positive predictor of receipt of both types of assistance. The strong influence of gender on public assistance receipt is not surprising given that TANF eligibility is generally restricted to families with dependent children, who are overwhelmingly female-headed, and because guidelines for food stamp receipt are stricter for adults who do not have a disability or dependent children. Dworsky also reports that race/ethnicity, and factors related to youths' experience in the foster care system, including reason for entry into care, placement type, discharge outcome, total number of months in care, and age at discharge, were significantly associated with use of TANF and food stamps.

Needell et al. (2002) also used administrative data to examine factors associated with the use of TANF and Supplemental Security Income (SSI) among youth who were emancipated from foster care in California. Risk factors for receipt of each type of public assistance were examined separately for males and females, although a similar pattern of findings was observed for both genders. Among males, age at entry into care, race/ethnicity, placement type at time of discharge from care, and receipt of mental health services while in care were all associated with receipt of either or both TANF and SSI. Among females, race/ethnicity, age at entry into care, the total number of placement locations, placement type at time of discharge, and reason for removal were all significantly associated with the receipt of either TANF or SSI.

These studies are important, but have key limitations. First, with respect to the present study, one shortcoming of the two existing studies is that neither looks specifically at whether youth who were involved in both the child welfare and juvenile justice system were at an increased risk of public assistance receipt. While Dworsky's study includes youth who entered the foster care system due to issues with delinquency, it does not specifically identify youth who had a history of both delinquency and maltreatment. This is notable as the substantial body of research establishing a link between child maltreatment and delinquency (Goodkind, Shook, Kim, Pohl, & Herring, 2012; Ireland, Smith, & Thornberry, 2002; Ryan, 2006; Ryan & Testa, 2005), suggests that a significant number of children involved in the child welfare system are exposed to the risk of "crossing over" to the juvenile justice system, or vice-versa (Herz et al., 2012). These youth, often referred to as "crossover youth" (Herz, Ryan, & Bilchik, 2010), are increasingly being recognized as a group that may be particularly vulnerable to experiencing poor outcomes during adulthood (Herz et al., 2012). Indeed, evidence suggests that crossover youth come from families of origin with particularly complex needs (Halemba et al., 2004), have high rates of behavioral health disorders and experience poor educational outcomes (Herz & Ryan, 2008). In addition, divisions between the child welfare and juvenile justice systems mean that the unique needs of crossover youth may go unmet by either system (Altschuler, Strangler, Berkeley, & Burton, 2009; Herz et al., 2010). All of these factors may hinder the ability of crossover youth to attain economic self-sufficiency during adulthood and may lead to elevated rates of public assistance receipt in this population.

As an additional limitation of these two studies, neither includes general assistance (GA), among their measures of public assistance receipt. Instead, they focus on TANF, food stamps and SSI, depending on the study. This is an important gap because GA programs generally

provide cash assistance to very poor, primarily male, individuals who do not have dependent children and who are not eligible for any other type of public assistance (Schott & Cho, 2011). In some states, including California, GA recipients need not have a disability to qualify for assistance, meaning that poverty status is the primary criteria for GA eligibility. With the maximum GA benefit level in most states set to less than 25% of the federal poverty level (Schott & Cho, 2011), GA receipt may represent a stronger indicator of extreme economic hardship than other types of public assistance, such as SSI.

Thus, GA is public assistance program of “last resort,” and is likely to serve a population that is distinct from recipients of other types of public assistance, in terms of its characteristics, level of economic hardship, and needs. Given this, it is also likely that both individual characteristics and factors related to youths’ experiences in the child welfare system will have different relationships with the likelihood of GA receipt following than with TANF receipt.

In short, the present study focuses on the receipt of TANF and GA because each program is likely to serve a different population. Consequently, the inclusion of each of these programs will provide a different perspective on the nature of economic difficulties encountered by youth aging out of the foster care system. This is particularly true of GA receipt, which has not yet been considered as an outcome measure in prior studies. On the other hand, the present study does not assess the receipt of food stamps or SSI, both of which have been considered in prior studies. Data on food stamps were available for the present study, but the eligibility criteria for food stamps encompass a broader population than that of either GA or TANF. Specifically, individuals with gross incomes above the poverty threshold are eligible for food stamps in LA County, and the desire to focus on extreme economic hardship in the present study motivated the decision to limit the analysis to receipt of GA or TANF. SSI data were not available, but SSI eligibility hinges both on income and the presence of a disability, whereas neither GA nor TANF have a disability requirement. As such, comparing GA and TANF to one another provides a more direct comparison of the economic outcomes of youth aging out of foster care than would be achieved by comparing either of these two programs to SSI.

3. Methods

3.1. Data and sample

The present study uses administrative data from the Los Angeles (LA) County Department of Children and Family Services (DCFS) to identify all youth who were discharged from a DCFS supervised out-of-home placement at any point between January 1, 2002 and December 31, 2004, and who were between the ages of 16 and 21 at their time of discharge from care ($N = 7844$). A total of 352 of these youth (4.4%) were subsequently identified as having received either of the two types of public assistance considered in the present study at some point prior to their discharge from care and were therefore dropped from the study sample. This resulted in a final sample of 7492 youth.

The available DCFS records included gender, age, dates of entry and exit for youths’ last out of home placement episode prior to discharge from care, the number of placement locations during this last episode, the type of placement at the time of discharge from care, reason for removal, and reason for exit from care. These DCFS records were matched with data from the LA County Department of Probation to identify “crossover youth,” in the study sample. Although there is no standard definition of crossover youth, we use a broad definition in the present study such that all youth in the sample who had a record of being under the supervision of the juvenile justice system at some point prior to their discharge from care, regardless of the sequencing of the involvement in these two systems, are considered to be crossover youth. A similarly broad definition of crossover youth has been employed in prior research (Ryan,

Williams, & Courtney, 2013).¹ Roughly 11% ($N = 801$) youth in the study sample meet these criteria and are considered to be crossover youth in the present study. Among these crossover youth, about 36% ($N = 285$) are female and 64% ($N = 516$) are male.

3.2. Dependent variable

The dependent variable for the present study is measured as the time, in months, to initial receipt of public assistance following discharge from out-of-home care. We constructed this measure using data from the LA County Department of Social Services (DPSS), which administers public assistance programs in LA County. We examine utilization of the following two DPSS-administered programs: CalWORKs, which is California’s TANF program, and GR, which is LA County’s GA program for indigent individuals who are ineligible for other federal or state assistance programs.

These two programs differ both with respect to the benefits they provide in terms of the characteristics of their respective recipient populations. CalWORKs provides a maximum monthly cash benefit of \$704 for a household of three and the vast majority of CalWORKs recipients are female-headed families with children. In contrast, GR offers a maximum monthly grant of \$221 and nearly 70% of its recipient population is comprised of single adult males (LA County Department of Public Social Services, 2014). Given these differences and in light of evidence of differential rates of public assistance receipt across programs among former foster youth, the present study assesses both receipt of any public assistance (i.e. either CalWORKs or GR) following exit from care and receipt of each type separately.

DPSS data were available on a monthly basis from January 2002 through December 2009 and youth who did not have a record of either CalWORKs or GR receipt following their exit from care are censored in December 2009. As youth in the study sample exited care at varying points in time between 2002 and 2004, follow-up times range from five years (60 months) to eight years (96 months) following exit from care, and the median follow-up time is about six years (71 months).

3.3. Analysis

We use descriptive analyses and bivariate tests to provide information about the characteristics of youth in the overall study sample and to compare recipients of public assistance with non-recipients of public assistance. A Bonferroni correction for multiple comparisons is used to determine the threshold for statistical significance for these bivariate comparisons; with 22 comparisons, an alpha level of 0.002 is considered statistically significant. Survival analysis, which is a set of statistical methods well-suited for examining the timing and occurrence of events, is employed to examine public assistance receipt following youths’ discharge from care. We estimate hazard functions, both for the receipt of any public assistance (i.e. either CalWORKs or GR), and then separately for receipt of CalWORKs and GR, respectively. Hazard functions describe the instantaneous risk that an event will occur over a particular time interval, assuming that the event had not yet occurred at the beginning of the time interval (Allison, 1995). In the context of the present study, graphs of the hazard function show how the risk of initial receipt of

¹ It is important to note that the broad definition used in the present study is consistent with that suggested by the Center for Juvenile Justice Reform. Under this definition a crossover youth is “any youth who has experienced maltreatment and engaged in delinquency” (Center for Juvenile Justice Reform, 2010, p. 6). The more restrictive term “dually involved youth” is used by the Center for Juvenile Justice Reform and has been employed in several prior studies (e.g. Huang, Ryan, & Herz, 2012) to describe youth who are simultaneously involved in both the juvenile justice and child welfare systems. We do not examine dually involved youth as a separate group. This is because the juvenile justice and child welfare systems could not have dual jurisdiction over a youth’s case in California during the study period, meaning that it was not possible for youth in the study sample to be simultaneously involved in both systems.

public assistance changed over time period following youths' discharge from out-of-home care.

Cox proportional hazards regression models are used to assess the relationship between demographic characteristics and variables related to youths' experiences in juvenile justice/child welfare systems and the risk of initial receipt of public assistance. Models of this type estimate the relationship between a set of covariates and the hazard rate for a given event. Cox regression is a robust method for modeling time to event data both because it can handle censored cases and because it does not require the specification of a particular probability distribution for the survival function (Allison, 1995).

We estimate two Cox regression models. The first uses the aggregate measure of any public assistance receipt as its dependent variable. In this model, there is no distinction made between receipt of CalWORKs and receipt GR, with an episode of either treated equally as the event of interest. The second employs a competing risks approach, and considers CalWORKs and GR as two distinct event types. Such an analysis allows for an assessment of the relationship between the model covariates and the risk of receipt of each type of assistance. In a competing risks approach, those who experience one type of event are no longer considered to be at risk of experiencing other types of events under consideration. In the present study, this means that those whose initial episode of public assistance receipt following discharge from an out-of-home placement was through the CalWORKs program were no longer at-risk of having GR as their initial episode of public assistance receipt. While in reality, youth may have used both GR and CalWORKs at different points in time over the study's observation period, their initial episode could only have been either one or the other. In following established procedures for conducting competing risks analysis, separate models are estimated for each event type, which is possible without sacrificing any statistical precision (Allison, 1995).

Finally, because prior research has shown that gender has a strong influence on TANF receipt among youth transitioning out of the child welfare system (Dworsky, 2005), we fit Cox regression models both for the overall sample that includes both males and females, and then separately for male and female subgroups. Doing so allows for an exploration of differences between genders in the set of factors associated with public assistance receipt.

4. Results

Table 1 presents descriptive measures of the characteristics of the overall study sample and stratified by type of public assistance receipt. Roughly 28% of the overall study sample received either GR or CalWORKs at some point over the study's follow-up period, with slightly more youth receiving GR as the initial type of public assistance. Males account for 43% of the study sample, but only one-third of those who used any public assistance and only 10% of those who received CalWORKs. However, males comprise the majority (56%) of GR recipients. Crossover youth comprise 11% of the study sample, but account for 15% of those who used any type of public assistance and 20% of GR recipients. African Americans, who make up 44% of the sample, account for a majority (60%) of public assistance recipients. Those who entered care at ages 12 and younger are the largest single group youth in the sample, but are slightly overrepresented among recipients of public assistance. The same is true for those who exited care at age 18. The number of placement locations during the last out of home placement episode prior to discharge, is slightly higher on average for the overall sample than among those who did not receive public assistance. There are statistically significant, but not substantive, differences in the number of out of home placement episodes, with youth who did and did not receive public assistance both experiencing about two out of home placement episodes. Exiting care from a group home is more common among public assistance recipients than in the sample as a whole. Youth who aged out of care comprise the majority of sample, but were slightly underrepresented among recipients of any type of public

assistance. Neglect, followed by caretaker absence or incapacity are the two most common reasons for removal in the sample, and youth in these categories accounted for a disproportionate number of recipients of any public assistance.

Fig. 1 shows the hazard function for initial receipt of any public assistance receipt over time following youths' exit from an out-of-home placement. The hazard for first receipt of any public assistance is highest during the first 12 to 18 months following exit from care, and then declines sharply thereafter until it roughly levels out at about four years following exit from care. Fig. 2 shows the hazard functions for initial GR and CalWORKs receipt, respectively. The hazard for both types of public assistance receipt is highest in the first 1.5 years following exit from care, and then drops sharply. However, whereas the hazard for first episode of CalWORKs receipt follows a consistently downward trend over the duration of the study period, the hazard for first episode of GR receipt increases slightly over the period from six to eight years following youths' exit from care.

Table 2 presents the results of the Cox regression models for public assistance use following discharge from care. A total of 227 youth (roughly 3% of the overall study sample) had missing data on one or more of the covariates included in the models and are therefore not included in the models. Model 1 shows the results of the Cox regression model that uses any receipt of public assistance (i.e. either CalWORKs or GR) as the dependent variable. The risk of public assistance use for crossover youth is about 1.5 times that of the risk of youth exiting the child welfare system who did not have a record of juvenile justice system involvement. Males are only half as likely as females to use public assistance, while the risk of public assistance receipt following exit from care for African Americans is 160% greater and for Hispanics 20% greater than whites. Older age at the time of entry into an out of home placement is associated with an increased likelihood of receiving public assistance following exit from care. There is no association between age at exit from care and the risk of public assistance receipt. Although there is no significant relationship between number of placement episodes and public assistance receipt, each additional placement location during the last out of home placement episode is associated with a 4% increase in the risk of any public assistance receipt following discharge from care. In addition, youth who aged out of care and those who exited care for other reasons are less likely than those who reunified with family to receive any public assistance upon exit from care. There is no significant relationship between any of the removal reason covariates and the risk of public assistance receipt.

The results of the model that treated receipt of CalWORKs and GR as competing risks show a substantial difference in the relationship between gender and each type of public assistance. Specifically, whereas the risk of CalWORKs receipt is 87% lower for males than females, the risk of GR receipt is 27% higher for males than for females. Beyond this, the risk profiles for CalWORKs and GR receipt are largely similar. Crossover youth are about 30% more likely than non-crossover youth to receive CalWORKs and 70% more likely to receive GR. African Americans are at an increased risk of both CalWORKs and GR receipt, and Hispanics are at an increased risk of CalWORKs, but not GR receipt. The risk of CalWORKs receipt for those who entered care at ages 13–15 is 1.2 times that of those who entered at age 12 or younger. Similarly, risk of CalWORKs receipt for those who entered care at age 16 or above is 1.3 times and the risk of GR receipt is 1.2 times that of those who entered care at age 12 or younger. The number of placement locations has a positive relationship of identical magnitude with the risk of both CalWORKs and GR receipt. Likewise, the pattern of findings for placement type and reason for exit from care are very similar for both CalWORKs and GR. As with the model estimated using any public assistance as the dependent variable, reason for removal is not associated with either CalWORKs or GR receipt.

Tables 3 and 4 present the results of the male and female subgroup models, respectively. For both the male and female subgroups, crossover youth are at an increased risk of any public assistance receipt and

Table 1
Sample characteristics.

	No public assistance receipt	Public assistance receipt			Total
		Any	GR	CalWORKs	
N	5413	2079	1065	1014	7492
% of total	72.2	27.8	14.2	13.5	100.0
Male (%) ^{†*}	46.7	33.5	55.6	10.3	42.9
Crossover youth status (%) ^{†*}					
Yes	9.0	15.1	20.1	9.8	10.7
Race/ethnicity (%) ^{†*}					
White	16.8	9.6	9.8	9.4	14.8
Black	37.0	60.3	69.4	50.8	43.5
Hispanic	38.6	28.0	18.9	37.5	35.6
Other	7.7	2.2	2.0	2.4	6.1
Entry age (%) [*]					
≤12	44.8	46.4	51.7	40.8	45.3
13–15	29.2	27.9	25.4	30.5	28.8
16+	26.0	25.7	22.9	28.7	25.9
Exit age (%)					
16–17	27.7	24.7	25.4	24.0	26.8
18	37.0	39.4	39.5	39.3	37.6
19–21	35.4	35.9	35.1	36.8	35.5
Number of placement locations during last out of home episode (mean) ^{†*}	3.6	4.3	4.2	4.5	4.5
Number of out home placement episodes (mean) ^{†*}	1.8	1.9	1.9	1.8	1.8
Placement type at time of exit ^{†*}					
Foster home	35.2	32.5	27.3	38.0	34.5
Group home	15.7	20.8	24.4	17.1	16.7
Relative's home	37.2	38.0	38.4	37.5	36.3
Other	11.8	8.7	9.9	7.5	10.6
Reason for exit from care (%) ^{†*}					
Age out/emancipation	58.6	55.0	52.3	57.8	57.6
Runaway/absconded	5.1	7.6	7.8	7.3	5.6
Guardianship	5.1	5.7	6.7	4.6	5.1
Incarcerated	2.3	3.7	5.4	1.9	2.6
Reunified	19.1	21.6	19.8	23.5	19.2
Other	9.9	6.5	8.1	4.9	8.6
Reason for removal from home (%) [*]					
Caretaker absence/incapacity	27.8	28.0	27.9	28.2	27.8
Neglect	30.3	31.8	35.4	28.1	30.7
Physical abuse	12.2	11.1	10.4	11.8	11.9
Sexual abuse	7.2	5.3	3.8	7.0	6.7
Conversion from supervision to placement	16.3	17.7	17.8	17.6	16.7
Other	6.2	6.0	4.7	7.3	6.2
Year of exit from care (%) ^{†*}					
2002	33.1	36.9	35.8	38.1	34.1
2003	32.9	32.2	31.4	33.1	32.7
2004	34.1	30.9	32.9	28.8	33.2

Note: χ^2 tests were used to compare public assistance receipt for categorical variables and one-way ANOVA used for continuous variables. A Bonferroni correction for 22 comparisons (11 each for two group and three group comparisons) was used and a *P* value of less than 0.002 was considered statistically significant.

[†] Two group comparison (Any public assistance receipt vs. no public assistance receipt) statistically significant at *p* < .002.

^{*} Three group comparison (GR, CalWORKs and no public assistance receipt) statistically significant at *p* < .002.

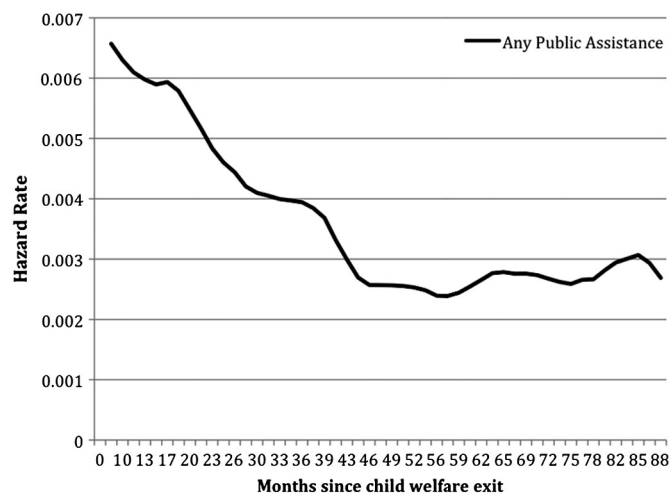
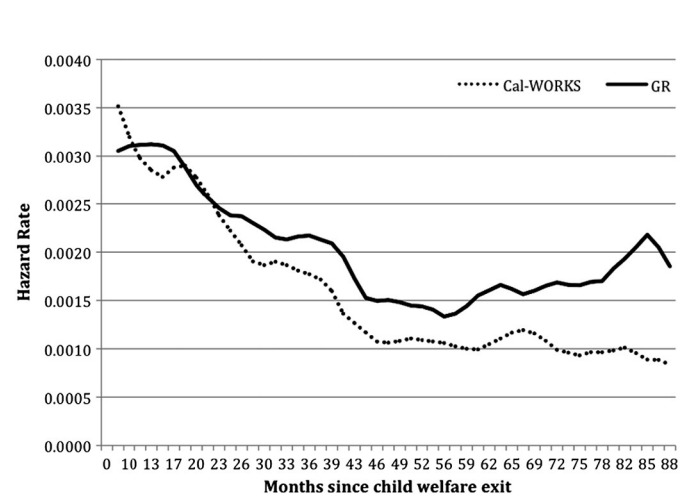
**Fig. 1.** Hazard function for any receipt of public assistance following exit from care.**Fig. 2.** Hazard functions for receipt of CalWORKs and GR following exit from care.

Table 2
Results of event history analysis for public assistance use (total sample, N = 7265).

	Model 1 (any public assistance)	Model 2 (competing risk model)	
		CalWORKs	GR
	Hazard ratio	Hazard ratio	
Crossover youth	1.53***	1.27*	1.70***
Male	0.54***	0.13***	1.27***
Race/ethnicity (White is ref.)			
Black	2.62***	2.44***	2.75***
Hispanic	1.22*	1.62***	0.83
Other race	0.98	1.01	0.94
Entry age (entry 12 or younger is reference)			
Entry at ages 13–15	1.13*	1.23*	1.05
Entry ages 16+	1.24**	1.29**	1.19*
Exit age (age 18 is ref.)			
16–18	0.92	0.97	0.87
19–21	1.03	1.08	0.97
Number of placement locations during last out of home episode	1.04***	1.04***	1.04***
Number of out of home placement episodes	1.01	1.01	1.02
Placement type at time of exit (relative home is ref.)			
Foster care	0.9	0.89	0.88
Group home	1.06	0.98	1.14
Other	0.70***	0.61***	0.78*
Reason for exit from care (reunification is ref.)			
Age out/emancipation	0.74***	0.77**	0.73**
Runaway/absconded	1.09	1.01	1.2
Guardianship	0.87	0.65*	1.13
Incarcerated	0.91	0.82	0.94
Other	0.57***	0.49***	0.63***
Reason for removal from home (caretaker absence/incapacity is ref.)			
Conversion from supervision to placement	0.99	1.05	0.93
Neglect	1	0.91	1.07
Physical abuse	0.87	0.83	0.9
Sexual abuse	0.84	0.79	0.86
Other	0.99	1.23	0.76
Year of exit from care (2002 is ref.)			
2003	0.99	0.97	1.01
2004	1.01	0.91	1.13

Note: Coefficients for Model 1 were estimated by Cox proportional hazard model. Coefficients for Model 2 were estimated by competing risk model.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

GR, but not CalWORKs receipt. The magnitude of the increased risk is larger for males than for females. The relationship between race/ethnicity and risk of public assistance receipt is different in the male and female models. Of particular note, while there is no difference between Hispanics and whites in the male models, in the female-only models Hispanics are more likely than whites to receive any public assistance and CalWORKs, but less likely to receive GR. Older age at entry into out of home care is consistently associated with an increased risk of public assistance receipt among females, but not among males. By contrast, whereas males who were discharged at ages 16 or 17 or at ages 19–21 are more likely than those who exited care at 18 to receive CalWORKs, exit age is not associated with risk of public assistance receipt in the female models. The number of out of home placement locations is associated with an increased risk of any public assistance and GR receipt among males, and with all types of public assistance receipt for females. Among females, those who exited care from a foster home or a placement type categorized as other are less likely to receive public assistance than those who were in a relative's care, while placement type is not associated with the risk of public assistance receipt in the male-only models. There was a similar pattern of findings between genders with respect to exit from care with both males and females who aged out of care being more likely than those who reunified to receive public assistance following their exit from care. However, aging out of care is only associated with a decreased risk of GR receipt for females in the competing risks model for females and only with a decreased risk of CalWORKs receipt in the male-only competing risk model. Finally, removal due to

physical abuse is associated with a decreased risk of any public assistance receipt and receipt of CalWORKs for females, but with an increased risk of CalWORKs receipt for males.

5. Discussion

The roughly 28% of youth identified as having received cash public assistance income in the present study is generally consistent with existing research on the rates of public assistance receipt among former foster youth. This finding provides yet another piece of evidence that a significant number of older youth exiting the foster care system face challenges in achieving economic self-sufficiency as they transition to adulthood. What is more, the finding from the present study that the risk of initial receipt of public assistance is highest within the first 18 months following youths' discharge from the child welfare system suggests that after exiting one public system of care, many youth come to rely on another system almost immediately.

As one of only a few studies to date that have explored factors associated with public assistance use among youth aging out the foster care system, this study made two primary contributions to understanding the economic outcomes of youth in this population. First, this study found that crossover youth were at an increased risk of public assistance receipt relative to youth who had a history of dependent care, upon discharge from the foster care system. This was consistently true with the exception of the competing risks models for the male and female subgroups, where crossover youth status was a predictor of GR, but not

Table 3

Results of event history analysis for public assistance use (males only, N = 3112).

	Model 1 (any public assistance) Hazard ratio	Model 2 (competing risk model)	
		CalWORKs	GR
Crossover youth	1.75***	1.47	1.81***
Race/ethnicity (White is ref.)			
Black	2.27***	1.49	2.41***
Hispanic	1.16	1.62	1.04
Other race	1.04	1.04	1.00
Entry age (entry 12 or younger is reference)			
Entry at ages 13–15	0.96	1.33	0.88
Entry ages 16+	1.03	1.07	1.03
Exit age (age 18 is ref)			
16–18	0.93	2.22**	0.79
19–21	1.09	1.77*	1.03
Number of placement locations during last out of home episode	1.03**	0.98	1.03***
Number of out of home placement episodes	1.00	0.96	1.00
Placement type at time of exit (relative home is ref)			
Foster care	0.97	0.93	0.97
Group home	1.08	0.71	1.16
Other	0.92	1.07	0.90
Reason for exit from care (reunification is ref.)			
Age out/emancipation	0.72**	0.43**	0.83
Runaway/absconded	1.04	0.68	1.19
Guardianship	1.01	0.24*	1.36
Incarcerated	0.95	0.82	1.05
Other	0.53***	0.29**	0.63**
Reason for removal from home (caretaker absence/incapacity is ref.)			
Conversion from supervision to placement	1.03	1.77	0.95
Neglect	1.02	1.31	0.97
Physical abuse	1.22	2.32**	1.06
Sexual abuse	0.73	0.00	0.84
Other	0.96	2.07	0.81
Year of exit from care (2002 is ref.)			
2003	0.93	1.43	0.86
2004	1.05	1.45	0.99

Note: Coefficients for Model 1 were estimated by Cox proportional hazard model. Coefficients for Model 2 were estimated by competing risk model.

* $p < .05$.** $p < .01$.*** $p < .001$.

CalWORKs receipt. These findings indicate that, irrespective of gender, crossover youth face greater challenges in obtaining economic self-sufficiency following discharge from care than their counterparts who were only involved in the child welfare system.

Second, this study is distinct from prior studies in that it includes receipt of GR among its outcomes. The inclusion of GR means that the present study likely identified a unique group of public assistance recipients who may not have been captured in prior studies that only examined public assistance programs that generally restrict eligibility to those who are both below some income threshold and who meet some additional criteria (e.g. presence of dependent children or disability). In addition, by treating receipt of GR and CalWORKs as competing risks, this study was able to assess differences in the set of factors associated with the risk of the receipt of each type of assistance. Differences in the risk profiles for GR and CalWORKs receipt centered around gender, as males were far less likely to receive CalWORKs but more likely to receive GR. Furthermore, while the factors associated with risk of GR and CalWORKs receipt were similar in the full sample competing risks analysis, there were more notable differences in the male and female subgroup models. In the male model, age at discharge from care, reason for exit from care, and reason for removal for care were all more strongly associated with risk of CalWORKs receipt than GR receipt, while the number of placement locations was significantly associated with risk of GR but not CalWORKs. It is difficult to draw firm conclusions from these findings. However, they do suggest that a different set of factors related to youths' experiences in the child welfare system may be linked to their risk of receipt of different types of public assistance and

by proxy, their risk of experiencing two substantively different situations of poverty: one as the head of a household with dependent children, and one as a single adult.

Beyond these two key findings, results from the present study are largely consistent with existing research, with a few exceptions. As in the studies conducted by Dworsky (2005) and Needell et al. (2002) this study found that African Americans, and to a lesser extent Hispanics, were generally at an increased risk of public assistance receipt. Older age at entry into care, which was positively associated with receipt of TANF in the study conducted by Needell et al. (2002), was also associated with an increased risk of public assistance receipt in the present study in the overall sample models and in the female subgroup models. On the other hand, whereas Dworsky (2005) found older age at exit to be associated with a decreased risk of TANF receipt, the relationship between age at exit and risk of public assistance receipt was less consistent in the present study. Specifically, age was only a significant predictor in the male only competing-risk model where those who exited care at age 16–18 or at ages 19–21 were both at an increased risk of initial receipt of GR. The number of placement locations, a measure of placement instability, had a consistent positive relationship with risk of public assistance receipt in the present study. This is consistent with the two existing studies on factors associated with receipt of public assistance among youth aging out of care, and also more generally with research linking greater placement instability with poor outcomes for youth who are in out of home care (Barber & Delfabbro, 2003; Jonson-Reid & Barth, 2000; Rubin, O'Reilly, Luan, & Localio, 2007; Ryan, Hernandez, & Herz, 2007). The decreased risk of public

Table 4
Results of event history analysis for public assistance use (females only, N = 4153).

	Model 1 (any public assistance) Hazard ratio	Model 2 (competing risk model)	
		CalWORKs Hazard ratio	GR
Crossover youth	1.37***	1.27	1.54**
Race/ethnicity (White is ref.)			
Black	2.82***	2.56***	3.30***
Hispanic	1.26*	1.62***	0.64*
Other race	0.97	1.01	0.89
Entry age (entry 12 or younger is reference)			
Entry at ages 13–15	1.24**	1.21*	1.30*
Entry ages 16+	1.37***	1.31**	1.45**
Exit age (age 18 is ref)			
16–18	0.91	0.87	0.97
19–21	0.99	1.04	0.89
Number of placement locations during last out of home episode	1.04***	1.04***	1.05***
Number of out of home placement episodes	1.02	1.01	1.03
Placement type at time of exit (relative home is ref)			
Foster care	0.86*	0.90	0.78*
Group home	1.08	1.04	1.14
Other	0.60***	0.57***	0.66*
Reason for exit from care (reunification is ref.)			
Age out/emancipation	0.75***	0.81	0.63**
Runaway/absconded	1.11	1.05	1.21
Guardianship	0.81	0.75	0.9
Incarcerated	0.83	0.73	0.87
Other	0.58***	0.52***	0.64*
Reason for removal from home (caretaker absence/incapacity is ref.)			
Conversion from supervision to placement	0.98	1.00	0.92
Neglect	0.99	0.88	1.20
Physical abuse	0.75**	0.74**	0.77
Sexual abuse	0.84	0.81	0.93
Other	1.03	1.17	0.72
Year of exit from care (2002 is ref.)			
2003	1.01	0.93	1.20
2004	1.00	0.87	1.33*

Note: Coefficients for Model 1 were estimated by Cox proportional hazard model. Coefficients for Model 2 were estimated by competing risk model.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

assistance receipt among those who emancipated from care is consistent with the study by Dworky, and may be indicative of successful planning on the part of the child welfare system to ensure that youth who are emancipated from care have resources needed to achieve self-sufficiency.

The results of this study have several implications for policy and research. First, the increased risk of public assistance receipt for crossover youth points to the need to identify and target this group for specialized forms of assistance in order to increase their ability to make successful transitions to adulthood. Outreach efforts along with a system based on predictive models should identify crossover youth as early as possible, so as to provide them with ongoing services while they remain under the supervision of juvenile systems of care. Providing specialized interventions to crossover youth would require additional public resources in the short term, but it is possible that such an investment could be more than fully recouped through reductions in the cost of public assistance (and potentially other public services) provided to crossover youth during adulthood as well as through increased tax revenues. As such, future research should focus on the development and testing of interventions that may help improve the outcomes experienced by crossover youth in adulthood.

Second, and from a broader perspective, findings from this study provide additional evidence that many older youth who age out of or are otherwise discharged from out-of-home care struggle to achieve economic self-sufficiency and are likely to need continued support into young adulthood. This is especially true as youth exiting the child welfare system are unlikely to receive the same degree of familial

support during the transition to young adulthood as their peers in the general population who benefit from nearly \$40,000 in direct and in-kind financial assistance from family members between the ages of 18–30 (Schoeni & Ross, 2004). The finding in this study that youth faced the highest risk for first receipt of public assistance directly subsequent to their discharge from care suggests that such services are greatly needed during this time period. In this respect, recent policy developments are encouraging. At the federal level, the Fostering Connections to Success and Increasing Adoptions Act of 2008 allows for the extension of support for youth in the foster care system up to the age of 21. Of particular relevance for the jurisdiction from which the present study draws its data, the implementation of California's version of this law, the California Fostering Connections to Success Act (AB-12), is in progress and will ultimately extend foster care to the age of 21. These developments will help place youth aging out of foster care on more equal footing with their peers in the general population, although more research is needed to help ensure that the new resources available to assist foster youth into their early adult years are used in the most effective manner.

Third, the present study points to the need for additional research to examine the relationship between gender, parental status and public assistance receipt in greater detail. As CalWORKs eligibility is reserved for households with children, the heightened risk of CalWORKs receipt among females may mean that gender is, to a large extent, functioning as a proxy for parental status in the present study. This suggests that females aging out of foster care are more likely to experience poverty as part of a family with young, dependent, children, while the elevated

risk of GR receipt among males suggests that males are more likely to experience poverty on their own. Thus, experiences of poverty among youth aging out of foster care are likely to vary substantively by gender and parental status. The interaction between gender and parental status, may also be an important determinant of economic outcomes and should be a topic for future research. For example, understanding whether female parents experience greater challenges than their male parent counterparts could help inform the development of specialized interventions that are best-suited each group's respective needs.

In closing, this study has a number of limitations that should be noted. First, findings from this study rely on data from a single jurisdiction and therefore may not be generalizable to other settings. Second, the present study only examined two types of public assistance receipt. While this study is the first to examine GR receipt, it is possible that looking at other types of public assistance, including SSI and public housing, may have produced different findings and a more complete picture of use of public assistance receipt among former foster youth. Third, the dependent variables in the present study were based only on the initial episode of public assistance receipt following discharge from out-of-home care, and thus did not provide any information about the length of time that youth remained on public assistance, or variations in patterns of public assistance receipt over time. Future research should investigate this more closely to arrive at a better understanding of when and how youth make use of public assistance. Fourth, although this study's use of administrative data allowed for highly accurate tracking of the utilization of public assistance in Los Angeles County among a large group of youth, administrative data are not without their limitations. In the present study, reliance on administrative data from LA County meant that the present study was not able to identify any use of public assistance that may have occurred outside of LA County and similarly, it was not able to assess the extent to which subject attrition due to death, relocation, incarceration or other factors may have biased its results. Other studies that collect primary data over time from a cohort of youth leaving foster care would not suffer from these same biases. Finally, the present study examined only a limited set of demographic characteristics and factors related to youths' experiences in the child welfare system. Indicators of other factors that may be related to the receipt of public assistance and economic well-being, including the presence of behavioral health problems, parental status, and variables related to youths' educational experiences, were not available in the administrative data used for the present study. As such, it was not possible to assess how the inclusion of these variables may have affected our results and future research would benefit from examining these and other additional factors that may be related to receipt of public assistance. Understanding how these factors interact with youths' experiences in the child welfare system to impact reliance on public assistance, would likely prove quite valuable for informing interventions intended to improve the economic outcomes of youth aging out of the foster care system.

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