Integrated Child Support System:

Random Assignment Monitoring Report

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

This report is a preliminary effort to document the proper functioning of random assignment in an experiment being conducted as one component of an evaluation of Texas' Integrated Child Support System (ICSS). The Ray Marshall Center (RMC) is conducting the evaluation of the waiver that enables the ICSS for the Texas Office of the Attorney General (OAG) and the Federal Office of Child Support Enforcement (OCSE). As of this writing, random assignment has been ongoing in the El Paso County site for over six months, with the plan being for this phase to last for twelve months, or until at least 400 cases have been assigned to each of the treatment (ICSS) and control groups.

As will be detailed below, this report finds that the El Paso random assignment seems to be functioning as designed so far, and that substantially similar groups have resulted from the random assignment mechanism. Although in an earlier draft of this report we reported problems identifying all control group case members, we have since requested and received additional data extracts from the OAG data system that have almost completely resolved this issue. These and other implications of our evolving data model are discussed in more detail below.

First we discuss the design, implementation, and results to date from the random assignment mechanism in the El Paso ICSS experimental site. We also discuss one remaining weakness of our existing data model, related to the identification of current and former members of the military, and our plans to remedy this. We further discuss the current state of analysis and continuing exploration of data issues in the Harris County site. Finally we propose a plan for resolving the remaining data issues more satisfactorily, including basing our judgments on several more months of random assignment, in a progress report due in January 2014.

RANDOM ASSIGNMENT: EL PASO COUNTY

El Paso County is the only forward-looking experimental site in the Texas ICSS evaluation, and the only site in which assignment of cases to conditions is intentionally and unambiguously random[1]. As such, it is very important for researchers to monitor the

[1] Implementation of ICSS in Harris County was done in such a way that enrollment in ICSS was essentially random. We have agreed, however, to defer the question of whether planned estimates of Harris County ICSS

random assignment process and outcomes to ensure that it results in two groups of cases and case members who are essentially equivalent at the point of random assignment. Then we can confidently attribute any differences between the groups that emerge later to the impact of the Integrated Child Support System.

RANDOM ASSIGNMENT MECHANISM

Random assignment in El Paso County is proceeding as designed. Individual cases in the ICSS experimental or treatment group are automatically registered to receive IV-D child support services, with an opportunity to opt-out, while cases in the control group do not receive IV-D services by default, but have the opportunity to apply on their own as they did prior to ICSS implementation.

Figure 1 illustrates the intended case flow for experimental and control group cases in El Paso County during enrollment.[2] Cases randomly assigned to the control group (non-ICSS) are meant to follow the left path in this chart, while those assigned to the experimental group (ICSS) follow the right path. Control cases following the left path enter registry-only (RO) status by default, unless they choose to opt-in and apply for IV-D services. Experimental, or ICSS cases, follow the right path and become full service (FS) cases until and unless they choose to opt-out. Cases currently receiving public assistance (PA) are ineligible for inclusion in the impact study, and are represented in Figure 1 by a red arrow bypassing random assignment and leading directly to FS case status.

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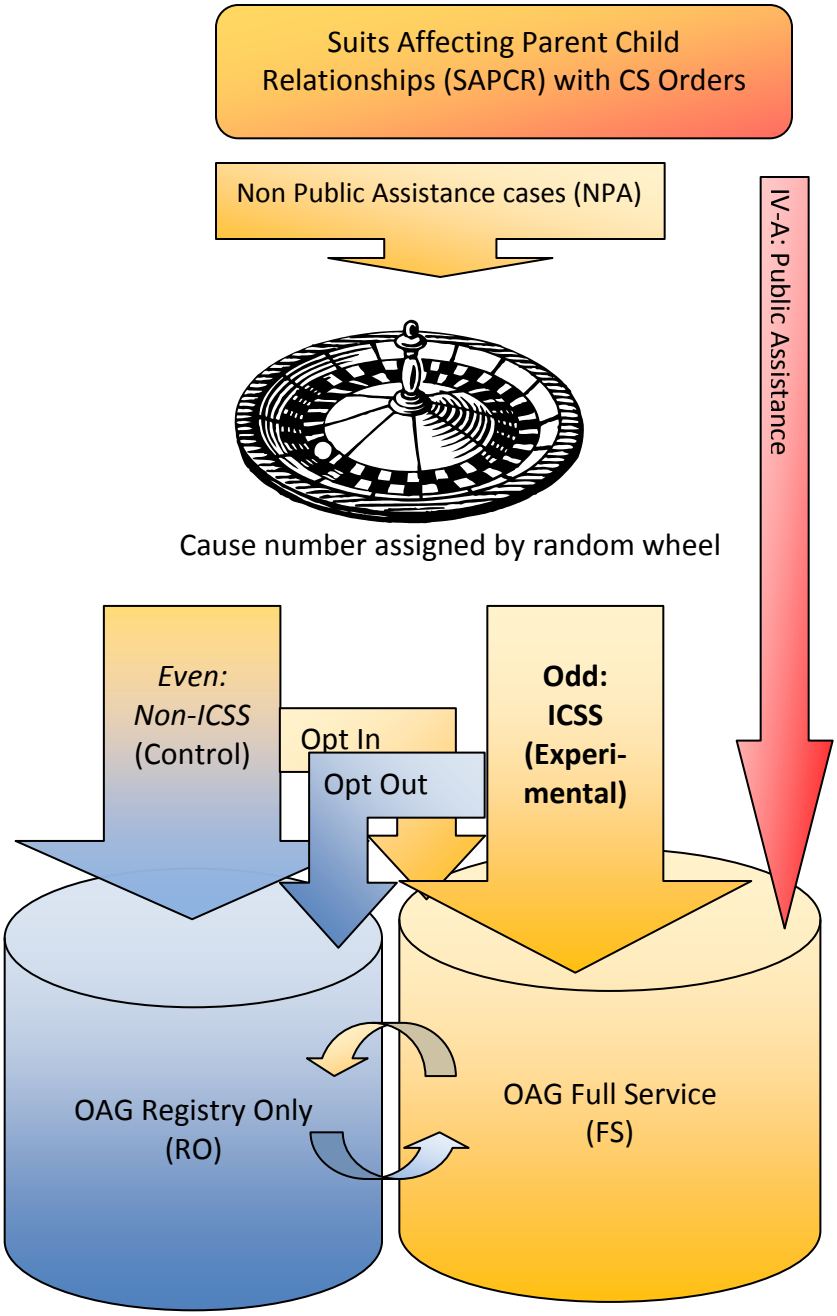
impacts can be regarded as experimental or merely correlational until we are able to bring better case history evidence to bear on the question of equivalence at the point of court assignment.

[2] This figure was adapted from Figure 3 in *Integrated Child Support System: Evaluation Analysis Plan*, Schroeder, O'Shea, & Gupta, 2012.

Figure 1. OAG Case Flow in El Paso County, Random Assignment by Cause Number



Randomization in El Paso County, as illustrated by the random wheel in the figure, is done using a fixed but arbitrary characteristic, the last digit of the customer's cause number, to minimize the possibility of the system being gamed. This optimal design assigns half of customers to the ICSS and half to the control group, based on whether the last digit of the cause number is odd or even.

RANDOM ASSIGNMENT, IMPLEMENTATION

Random assignment of new cases to either the ICSS treatment or control groups in El Paso began in March, 2013. As of early July, 2013, a cumulative total of 151 cases had been randomly assigned to the new ICSS program in El Paso County, and another 155 cases had been assigned to the control group.[3] Current plans are for random assignment to come to an end after reaching targets of 400 cases per group, and all future El Paso County cases will then be enrolled in the ICSS.

RANDOM ASSIGNMENT, EXCLUSIONS

As discussed in greater detail in Appendix A: Data Processing, 99 cases that would have been assigned to either the ICSS treatment or control group had to be excluded for one reason or another. The reasons behind these exclusions are discussed here.

A spreadsheet for detailed tracking of random assignment is maintained by El Paso County DRO staff, and is archived monthly by RMC. This spreadsheet not only allows identification of cases assigned to the ICSS and control groups, but also identifies cases that would have been assigned to one or the other group but had characteristics that precluded such assignment. The reasons given for cases being excluded from the experimental and control groups were analyzed in terms of frequency of use, and the results are shown in Table 1.

[3] Although we received an updated random assignment file in early September, 2013, none of the new cases can be successfully matched against our copies of the OAG databases, which represent snapshots as of June, and in some cases July, 2013. Thus, data are reported here only for cases assigned as of July 3rd.

Table 1: Cases Excluded from ICSS Experiment in El Paso

Cases removed from ICSS Treatment group			Cases removed from Control group		
Case transferred out	28	40.6%	Active Full Service (FS) case	25	83.3%
Case in other unit	18	26.1%	No Child Support Ordered	2	6.7%
Active Full Service (FS) case	16	23.2%	Parental Rights Terminated	1	3.3%
Case has no order	5	7.3%	Pending AG Case	1	3.3%
Active Registry Only (RO) case	1	1.5%	Temporary Order	1	3.3%
Case reactivated	1	1.5%			

Source: RMC analysis of El Paso County DRO data.

As expected, more cases had to be excluded from the ICSS treatment group (69) than from the control group (30). We anticipated this in part due to the greater scrutiny expected for ICSS cases. Our recent meeting with El Paso County DRO leadership, for example, revealed that for some cases that would have been assigned to ICSS, workers discovered one or more of the children were receiving Medicaid, which led to such cases being referred to the OAG as full-service (FS) IV-D cases instead. This path is depicted using a red arrow to represent Public Assistance (PA) cases on the right side of Figure 1. Indeed, Table 1 confirms that the existence of active FS cases accounted for at least 16 cases being excluded from the ICSS treatment group, and another 25 cases from the control group. While this accounted for the bulk of control group exclusions, it was only the third most common reason for exclusion from the ICSS group.

The most common reasons for exclusion from the ICSS group were apparently at least partly based on geographical mismatch. Twenty-eight cases were reportedly transferred-out to another unit, and another eighteen cases already existed in another unit, both likely indicators of case members living outside the geographic boundaries of the ICSS unit. Cases already existing in another unit might also be FS cases, and so could be justifiably excluded for either reason. Since there were no apparent geographical constraints placed on the control group, it will fall to researchers to ensure that no systematic geographic differences exist between the final ICSS and control groups.

A handful of cases were excluded for having no child support order, including 5 from the ICSS group, 2 from the control group, one from the control group with a temporary order, and one from the control group for having parental rights terminated. Finally, cases

being reactivated or pending suggest possible FS cases, justifiably excluded, and an active RO case excluded from the ICSS group could be an early opt-out.

Several of these findings suggest a need for RMC researchers to carefully design similar screens for control group cases. Some of these screens have been implemented, including a Medicaid screen as discussed in a later section, and some await further improvements to our data model. The point of applying these screens is so that any factors that could create differences between the two groups are identified, and equivalence of the groups at the point of random assignment can be maintained. This includes omitting additional cases from groups, if necessary, to ensure that all such sources of potential bias are eliminated from the experimental design.

RESULTS OF RANDOM ASSIGNMENT

As discussed in detail in Appendix A, and as might be expected given the timing of different data sources, the match success rate is slightly higher for cases assigned earlier in the study period (March to May 2013), as compared to those assigned later in the study period (June to July 2013). This problem can be easily remedied by waiting several months before extracting OAG data again, in a follow-up to the present report. Such a report would also benefit from following random assignment for more time, thus increasing the sizes if the ICSS and control groups.

Although we are still early in the random assignment phase, it is instructive to perform the planned comparisons between members of the ICSS treatment and control groups who were assigned to date. This comparison will serve as a check on the adequacy of the random assignment scheme for producing equivalent groups at the point of random assignment.

All identifiable case members

Characteristics of identifiable members of the ICSS and control groups are listed in Table 2. T-tests confirmed that the two groups are significantly different on only three of these dimensions. One difference, apparently indicating many more current and former military members in the ICSS, as compared to the control group, likely stems from a weakness in this measure, a point to which we will return later.

Table 2: El Paso Treatment vs Control Group, all Identified Case Members

	ICSS Treatment group	Control group	
All cases, demographics	N=107	N=125	
NCP age (years)	35.8	37.1	
NCP is female	7.7%	6.9%	
NCP is Hispanic	64.5%	75.0%	
NCP is black	6.5%	7.1%	
NCP is current or former military	25.2%	4.5%	**
CP age (years)	33.5	34.5	
CP is Hispanic	76.9%	83.3%	
CP is black	3.8%	2.8%	
CP is current or former military	3.7%	1.5%	
Number of children	1.6	1.6	
Age of youngest child, years	6.2	7.0	
Age of oldest child, years	8.2	8.9	
Non-custodial Parent, employment and benefit history			
NCP employed at case opening	45.5%	42.7%	
Percent of time NCP employed over prior 8 quarters	41.6%	36.8%	
NCP average quarterly earnings over prior 8 quarters	$7,839	$5,280	
NCP experienced earnings dip of at least 20% within prior 8 quarters	28.7%	20.5%	
Time since first observed NCP earnings (quarters)	24.8	23.2	
NCP earnings history sufficient to qualify for UI	46.5%	42.7%	
NCP receiving SNAP (Food Stamps) benefits at case opening	1.0%	3.4%	
Percent of time NCP received SNAP benefits in prior year	3.9%	5.4%	
NCP receiving TANF benefits at case opening	0.0%	0.0%	
Percent of time NCP received TANF benefits in prior year	0.0%	0.0%	
Custodial Parent, employment and benefit history			
CP employed at case opening	54.3%	60.8%	
Percent of time CP employed over prior 8 quarters	40.0%	42.6%	
CP average quarterly earnings over prior 8 quarters	$4,254	$4,089	
CP experienced earnings dip of at least 20% within prior 8 quarters	24.8%	28.3%	
Time since first observed CP earnings (quarters)	22.6	22.4	
CP earnings history sufficient to qualify for UI	43.8%	50.8%	
CP receiving SNAP (Food Stamps) benefits at case opening	9.5%	20.8%	*
Percent of time CP received SNAP benefits in prior year	10.1%	19.2%	*
CP receiving TANF benefits at case opening	0.0%	0.8%	
Percent of time CP received TANF benefits in prior year	0.0%	0.6%	

Source: RMC analysis of Texas OAG, TWC, and HHSC administrative records and El Paso County DRO data.

The other two significant differences between the ICSS and control groups are in the area of Supplemental Nutritional Assistance Program (SNAP, formerly Food Stamps) receipt among the custodial parents, both in the month of random assignment and in the year prior. In both cases, greater SNAP receipt was seen among control group members. Analysis in the next section, which focuses on those not receiving public assistance in the month of random assignment, suggests we should not be concerned with these differences.

Using these tables to get a general picture of the ICSS treatment group population, we first note that, similar to the overall caseload, the non-custodial parents (NCPs) on these ICSS treatment group cases are rarely female (7.7%). Average age is about 36 years for NCPs and 33 years for custodial parents (CPs). Members of ICSS cases tend to be of Hispanic origin (65% of NCPs; 77% of CPs), and a substantial fraction are current or former military (25% of NCPs; 4% of CPs; but see discussion below regarding military status of the control group). The families of ICSS case members tend to have about 1.6 children on average, with the eldest being around eight years, and the youngest around six years of age.

Using unemployment insurance (UI) administrative data to estimate employment and earnings, we find that only about half of case members were employed when their cases opened, and we found even lower levels of employment in the prior eight quarters. Basing employment measures on UI records is known to underestimate employment, particularly for those in the informal economy or whose employers do not report to Texas' UI system (like the U.S. military), so the true figures are in fact higher. Fortunately, planned comparisons with employment rates of members of the control group are subject to the same bias, so comparisons of employment rates and earnings across groups are meaningful.

On average, NCPs in the ICSS treatment group who were employed earned $7839 per quarter, while employed CPs earned $4254 per quarter. Around a quarter of both ICSS CPs and NCPs had earnings histories that indicated potential dips in earnings in the prior two years. Nearly half of the members of each group had an earnings history that would qualify them for unemployment benefits if they were to lose their jobs, assuming they met other requirements. Finally, as an indicator of how long their employment histories had been measurable within Texas UI data, we found an average of 22 to 24 quarters of employment history (time since first observed earnings), indicating a typical 5-6 year history among ICSS CPs and NCPs.

Table 3: El Paso Treatment vs Control Group, all Identified Non-PA Case Members

	ICSS Treatment group	Control group	
Non-PA cases, demographics	N=97	N=98	
NCP age (years)	36.0	37.7	
NCP is female	8.4%	5.8%	
NCP is Hispanic	66.7%	68.4%	
NCP is black	3.7%	5.3%	
NCP is current or former military	23.7%	5.8%	**
CP age (years)	33.8	35.1	
CP is Hispanic	77.3%	81.0%	
CP is black	0.0%	4.8%	
CP is current or former military	4.1%	1.9%	
Number of children	1.6	1.6	
Age of youngest child, years	6.2	7.2	
Age of oldest child, years	8.1	9.0	
Non-custodial Parent, employment and benefit history			
NCP employed at case opening	47.8%	40.0%	
Percent of time NCP employed over prior 8 quarters	43.9%	33.9%	
NCP average quarterly earnings over prior 8 quarters	$8,362	$5,695	
NCP experienced earnings dip of at least 20% within prior 8 quarters	28.3%	20.0%	
Time since first observed NCP earnings (quarters)	25.0	21.8	
NCP earnings history sufficient to qualify for UI	48.9%	40.0%	
NCP receiving SNAP (Food Stamps) benefits at case opening	1.1%	2.1%	
Percent of time NCP received SNAP benefits in prior year	2.7%	3.5%	
NCP receiving TANF benefits at case opening	0.0%	0.0%	
Percent of time NCP received TANF benefits in prior year	0.0%	0.0%	
Custodial Parent, employment and benefit history			
CP employed at case opening	52.6%	57.1%	
Percent of time CP employed over prior 8 quarters	39.6%	40.5%	
CP average quarterly earnings over prior 8 quarters	$4,461	$4,567	
CP experienced earnings dip of at least 20% within prior 8 quarters	23.2%	24.2%	
Time since first observed CP earnings (quarters)	22.5	22.0	
CP earnings history sufficient to qualify for UI	45.3%	48.4%	
CP receiving SNAP (Food Stamps) benefits at case opening	5.3%	9.9%	
Percent of time CP received SNAP benefits in prior year	5.6%	9.0%	
CP receiving TANF benefits at case opening	0.0%	0.0%	
Percent of time CP received TANF benefits in prior year	0.0%	0.0%	

Source: RMC analysis of Texas OAG, TWC, and HHSC administrative records and El Paso County DRO data.

A small share (9 to 10%) of ICSS case members had current or recent experience receiving SNAP benefits. As required by the non-PA restriction in the study design, however, none of these case members showed any history receiving Temporary Assistance to Needy Families (TANF) benefits. Next, in Table 3, we examine characteristics of members of ICSS treatment and control cases after identifying and removing those found to have been receiving Medicaid or TANF in the month of random assignment.

Non-public assistance case members

As discussed previously, those cases whose members are currently receiving public assistance (PA), including Medicaid or TANF, are not eligible for inclusion in the ICSS impact analysis, since they would be more appropriately referred to the OAG as full service (FS) cases. To correct for this, we applied a Medicaid and TANF screen, described in detail in Appendix A, that essentially searched for current Medicaid eligibility or TANF receipt, as of the month of random assignment, for the youngest child on each case. We found such eligibility for 27 control group cases, and 10 ICSS cases, all of which have been removed from the analysis in Table 3.

Generally speaking, this restriction of the experimental groups to those not currently receiving public assistance tended to eliminate the observed differences between the experimental and control groups. The exception to this pattern, also noted earlier, is the apparent presence of greater shares of current and former military members in the ICSS treatment group. This measure was not based on a direct reporting of military status, however, but on whether or not the employer records of CPs and NCPs in the OAG data system indicated they were employed by a branch of the military. In retrospect, and with the benefit of hindsight, this is not the best data source for such a measure, since the OAG data systems are much more likely to contain employer records for members of full service (FS), as opposed to registry only (RO) cases. And since the bulk of control group cases are RO, at least initially, it should not be surprising to find a higher proportion of military members in the ICSS group according to this measure. We will therefore reserve judgment on this characteristic while we search for a better data source to indicate military status. On the remainder of characteristics, we can safely conclude based on this evidence that to date, random assignment is producing essentially equivalent groups.

RANDOM ASSIGNMENT: HARRIS COUNTY

As described in detail in the Analysis Plan[4], ICSS implementation in Harris County was done in such a way that, for cases opened within a certain window of time, whether any given case received ICSS or the prior default services was essentially a random event. We continue to refine our data model in order to capture the characteristics of cases at the point of 'random' court assignment in Harris County, and the results are shown in Table 4.

[4] See *Integrated Child Support System: Evaluation Analysis Plan*, Schroeder, O'Shea, & Gupta, 2012.

Table 4: Harris County Treatment vs Comparison Group, all Identified Case Members

	ICSS Treatment group	Comparison group	
All cases, demographics	N=51,992	N=35,520	
NCP age (years)	33.7	33.2	**
NCP is female	8.9%	8.8%	
NCP is Hispanic	35.9%	34.5%	**
NCP is black	40.6%	42.8%	**
NCP is current or former military	2.7%	2.5%	
CP age (years)	32.0	31.6	**
CP is Hispanic	36.7%	35.8%	**
CP is black	38.2%	40.2%	**
CP is current or former military	0.3%	0.3%	
Number of children	1.5	1.5	
Age of youngest child, years	5.5	5.5	
Age of oldest child, years	6.8	6.8	
Non-custodial Parent, employment and benefit history			
NCP employed at case opening	59.2%	57.7%	**
Percent of time NCP employed over prior 8 quarters	58.1%	57.1%	**
NCP average quarterly earnings over prior 8 quarters	$7,012	$5,684	**
NCP experienced earnings dip of at least 20% within prior 8 quarters	28.6%	29.8%	**
Time since first observed NCP earnings (quarters)	29.5	29.4	
NCP earnings history sufficient to qualify for UI	56.9%	55.7%	**
NCP receiving SNAP (Food Stamps) benefits at case opening	5.4%	5.3%	
Percent of time NCP received SNAP benefits in prior year	6.1%	5.7%	**
NCP receiving TANF benefits at case opening	0.1%	0.1%	
Percent of time NCP received TANF benefits in prior year	0.1%	0.2%	**
Custodial Parent, employment and benefit history			
CP employed at case opening	63.4%	61.9%	**
Percent of time CP employed over prior 8 quarters	60.6%	59.6%	**
CP average quarterly earnings over prior 8 quarters	$5,014	$4,509	**
CP experienced earnings dip of at least 20% within prior 8 quarters	28.0%	29.9%	**
Time since first observed CP earnings (quarters)	28.6	28.4	*
CP earnings history sufficient to qualify for UI	59.5%	58.3%	**
CP receiving SNAP (Food Stamps) benefits at case opening	32.4%	34.3%	**
Percent of time CP received SNAP benefits in prior year	29.3%	30.2%	**
CP receiving TANF benefits at case opening	2.7%	4.5%	**
Percent of time CP received TANF benefits in prior year	2.2%	3.7%	**

Source: RMC analysis of Texas OAG, TWC, and HHSC administrative records and El Paso County DRO data.

Although the numbers in Table 4 show improvement over a preliminary Harris County analysis reported in the Analysis Plan, in particular showing greater balance between the sizes of the ICSS treatment and comparison groups, the data model still has shortcomings, and will need further development. It should be noted, however, that the presence of statistically significant differences here is in large part due to the much larger sample sizes in Harris County, in which case many of the smaller differences are of little practical significance. Thus, while all indications are that the two groups resulting from 'random' assignment in Harris County are essentially quite similar, it will be difficult to draw firm conclusions about the patterns of differences reported here until the data model is better developed.

EVALUATION TIMELINE

The timing of this report was planned some time in advance to be due more than a year after random assignment of cases into ICSS treatment and control groups was to begin in El Paso County. However, with implementation having been delayed from the original plan, and with administrative data receipt also lagging behind schedule, there was a lesser chance of this report being able to conclusively demonstrate the adequacy of random assignment to date in El Paso. Even under these conditions, however, the early data seem to indicate random assignment in El Paso is functioning properly, pending resolution of the military measure.

Thus, in order to more conclusively demonstrate the success of random assignment, we propose to revise this random assignment monitoring analysis and resubmit it as part of the progress report that is presently scheduled for delivery in January, 2014. Postponing the analysis would yield several advantages over the present report. For one, additional cases will be added to the El Paso ICSS treatment and control groups, yielding greater statistical power for comparisons. In addition, revisions to data sources, or additional data sources, will be sought in order to improve identification of members of the military, and to improve tracking of registry-only (RO) cases, which comprise the bulk of control group cases. Should the data extracts from the OAG data system prove inadequate to the task of characterizing control group members, we will explore the possibility of gathering additional identifying information on these case members from the El Paso DRO Friend of the Court (FOC) data system. This will allow us to link to other data sources to confirm whether random assignment is proceeding as planned and essentially equivalent ICSS treatment and control groups are being formed.

APPENDIX A: DATA PROCESSING

EL PASO COUNTY

Random Assignment

Implementation of ICSS in El Paso, including random assignment of cases to the ICSS and control groups, began in spring 2013. In early August 2013, a total of 405 unique records were received from the El Paso DRO, with random assignment designations (see Table A 1).

Table A 1: Random Assignment by El Paso DRO

	N	%
Control Group	155	38%
Removed from Control Group	30	7%
Treatment group	151	37%
Removed from Treatment Group	69	17%
Total	405	

Study Population

Matching

The random assignment data included both cause-numbers and case-ids. Using both variables to match to the OAG administrative data ensures a one-to-one match. However, case-ids were only available for 60% of the random assignment cases. To address this issue, the random assignment dataset was split into 2 sets - those without case-id (40%), and those with case-id (60%). Records without case-id were matched to the OAG dataset using only cause-number, while records with case-id were matched using both cause number and case-id. The two sets of matches were then combined. A total of 367 matches (91%) were obtained (see Table A 2).

Table A 2: Matches with OAG Administrative Data

	Not Matched	Matched	Total
El Paso DRO records with case-id	4 (2%)	234 (98%)	238
El Paso DRO records without case-id	37 (22%)	133 (78%)	170
Total	41 (9%)	367 (91%)	408

A close examination of the match rate indicates similar match rates for the treatment group and the control group. Also, the match rate is slightly higher (see Table A 3) for cases from earlier in the study period (March – April 2013), compared to later in the study period (May – July 2013).

Table A 3: Matches by Case Type

Case Type	Not Matched	Matched	Total
Control Group	5 (3%)	151 (97%)	156
Removed from Control Group	16 (53%)	14 (47%)	30
Treatment group	8 (5%)	143 (95%)	151
Removed from Treatment Group	12 (23%)	59 (83%)	71
Total	41	367	408

Table A 4: Matches by Entry Month

Entry Month	Not Matched	Matched	Total
March 2013	4 (6%)	61 (94%)	65
April 2013	4 (5%)	78 (95%)	82
May 2013	9 (11%)	73 (89%)	82
June 2013	10 (12%)	74 (88%)	84
July 2013	2 (11%)	17 (89%)	19
Total	29	303	332

Note: 76 records in the El Paso DRO random assignment data were missing the case opened date

OAG Characteristics

The 367 matched cases were then matched to OAG administrative datasets (court order data, case data, member-to-case cross-reference, and individual demographic data) to obtain additional information about the cases. Using the case-id to member-id cross-reference, custodial parents (CPs), non-custodial parents (NCPs) and dependent children, were identified for each case, and their demographic information was obtained.

149 records (41%) could not be matched to the OAG court order dataset. As a result, we did not have the order-entered-date for these records. To address this issue, we substituted with cause-start-date from the OAG cause dataset; if both order-entered-date and cause-start-date were missing, we substituted with report-date from the random assignment spreadsheet. In addition, if the order-entered-date was present but was not in 2013, order-entered-date was substituted with report-date from the random assignment spreadsheet. Nine cases (2%) had an entry date prior to the study time period, and were excluded. The matched cases also included three sets of duplicates (multiple case-ids per cause number with identical dates). To address this issue, the record with the highest case-id (assumed to be the most recent) was retained. 48 records (13%) could not be matched to the OAG case-member dataset, and were excluded as CPs and NCPs could not be identified.

Our final study population consisted of 307 cases with 614 adults. The random assignment for the final study population is summarized in Table A 5.

Table A 5: Random Assignment in El Paso Study Population

Adults (CPs and NCPs)	N	%
Control Group	264	43%
Removed from Control Group	28	5%
Treatment group	214	35%
Removed from Treatment Group	108	18%
Total	614	

In the main body of this report, t-tests are presented on the 478 adults (i.e. 239 cases) in the control and treatment groups.

EMPLOYMENT AND BENEFIT HISTORY

Using social security numbers, employment and benefit (SNAP and TANF) history were obtained for 573 adults (93%). Social security numbers were not available for 41 adults (4%), and thus for these individuals, employment, earnings and benefit history were treated as missing data. Employment history was derived from quarterly Unemployment Insurance (UI) records. Derived measures included whether the adult was employed when the case opened, the percent of time that the adult was employed in the prior 4 quarters, the adult's average quarterly earnings in the prior 4 quarters, and if the earnings history was sufficient for the adult to qualify for unemployment insurance. Benefit history included whether the adult was receiving benefits when the case opened, as well as the percent of time the adult received benefits months in the past in the prior 12 months.

MEDICAID / TANF HISTORY

Of the 307 cases in the final study population, the youngest child was identified for 267 cases (87%) and matched against Medicaid and TANF records. The remaining 40 cases (13%) did not have a social security number for the youngest child. The 267 identified children were matched to the available Medicaid and TANF data to determine if they were on Medicaid or TANF in the month when the case opened.

Table A 6: Medicaid History for the Youngest Child

	No	Yes	Total
Cases with youngest child on Medicaid at case opening	183 (69%)	84 (31%)	267
Cases with youngest child on TANF at case opening	265 (99%)	2 (1%)	267

In the main body of this report, t-tests are also presented on the 400 adults (i.e. 200 cases) in the control and treatment groups whose youngest children were not on Medicaid or TANF when their case opened.

DATA PROCESSING FOR HARRIS COUNTY

Study Population

The OAG administrative cause data has 512,939 cases that were opened in Harris County. The data was restricted to the five courts for the study (264,409 cases); three courts that adopted ICSS at the start of the study period and one court that adopted ICSS at the end of the study period were excluded.

These 264,409 cases were then matched to other OAG administrative datasets (court order data, case data, member-to-case cross-reference, and individual demographic data) to obtain additional information about the cases. 114,861 records (43%) could not be matched to the OAG court order dataset. As a result, we did not have the order-entered-date for these records. To address this issue, we substituted with cause-start-date from the OAG case dataset. However, 125,604 records (48%) could not be matched to the OAG case dataset either. As a result, 43,084 (16%) records did not have an order-entered-date and were excluded from analysis.

Cases that opened prior to or after the study period were excluded (15%, n=38,999). In addition, cases that opened in a court the same month that the court adopted ICSS were excluded (1%, n=1,537). The study population then comprised of 98,269 cases.

The data included several sets of duplicates (multiple case-ids per cause-number with identical dates). To address this issue, the record with the highest case-id (assumed to be the most recent) was retained. The study population then comprised of 96,960 cases.

Table A 7: Harris County cases by court number

Court Number	N	%
0	21805	4%
22	1	0%
55	846	0%
133	1	0%
151	1	0%
176	1	0%
215	1	0%
245	53662	10%
246	52814	10%
247	53103	10%
256	1	0%
257	53184	10%
308	53246	10%
309	53436	10%
310	52257	10%
311	52045	10%
312	52492	10%
313	4700	1%
314	4755	1%
315	4586	1%
351	1	0%
398	1	0%
Total	512,939	

Using the case-id to member-id cross-reference file, custodial parents (CPs), non-custodial parents (NCPs) and dependent children, as well as their demographics, were identified. CPs and NCPs could be identified for only 89,372 cases (92%); adults could not be identified for 7,588 cases (8%). Our final study population comprises of 89,372 cases with 178,744 adults. Dependent children could not be found for 4,528 cases (3%).

Random Assignment

The cases in the study population were designated as "treatment" or "comparison" based on the date they were opened and the date that the court to which they were assigned adopted ICSS. If a case was opened prior to the date the court adopted ICSS, it was designated as "comparison"; if the case was opened after the date the court adopted

ICSS, it was designated as “treatment”. The random assignment for the final study population is summarized in Table A .

Table A 8: Random Assignment in Harris County Study Population

	N	%
Comparison Group	73,898	41%
Treatment group	104,846	59%
Total	178,744	

In the main body of this report, t-tests are presented on the 178,744 adults (i.e. 89,372 cases) in the control and treatment groups.

Employment and Benefit History

Using social security numbers, employment and benefit (SNAP and TANF) history were obtained for 167,875 adults (94%). Social security numbers could not be found for 10,869 adults (6%). Employment history, derived from UI records, included whether the adult was employed when the case was opened, the percent of time that the adult was employed in the prior 4 quarters, the adult’s average quarterly earnings in the prior 4 quarters, and if the earnings history was sufficient for the adult to qualify for unemployment insurance. Benefit history included whether the adult was receiving benefits when the case opened, as well as the percent of time the adult received benefits months in the past in the prior 12 months.

APPENDIX B: DETAILED STATISTICS

This Appendix includes more detailed versions of several tables that appear in the main body of this report, including results of statistical tests.

Table B1 El Paso Treatment vs. Control Group, all Identified Case Members, detailed

	ICSS Treatment group		Control group					
All cases, demographics	N=107		N=125					
	Mean	**Std**	**Mean**	**Std**		**t-value**	**df**	**prob**
NCP age (years)	35.8	8.555	37.1	10.038		1.04	230	0.301
NCP is female	7.7%	0.268	6.9%	0.254		-0.24	233	0.810
NCP is Hispanic	64.5%	0.486	75.0%	0.441		0.86	57	0.391
NCP is black	6.5%	0.250	7.1%	0.262		0.10	57	0.918
NCP is current or former military	25.2%	0.436	4.5%	0.209	**	-4.50	145	<.0001
CP age (years)	33.5	7.595	34.5	8.085		0.92	236	0.356
CP is Hispanic	76.9%	0.430	83.3%	0.378		0.62	60	0.536
CP is black	3.8%	0.196	2.8%	0.167		-0.23	60	0.818
CP is current or former military	3.7%	0.191	1.5%	0.123		-1.04	173	0.298
Number of children	1.6	0.762	1.6	0.732		-0.36	235	0.721
Age of youngest child, years	6.2	4.394	7.0	4.861		1.32	235	0.187
Age of oldest child, years	8.2	5.069	8.9	5.199		1.05	235	0.296
Non-custodial Parent, employment and benefit history								
NCP employed at case opening	45.5%	0.500	42.7%	0.497		-0.41	216	0.679
Percent of time NCP employed over prior 8 quarters	41.6%	0.399	36.8%	0.415		-0.87	216	0.384

All cases, demographics	ICSS Treatment group N=107		Control group N=125			t-value	df	prob
	Mean	Std	Mean	Std				
NCP average quarterly earnings over prior 8 quarters	$7,839	15497.2	$5,280	9621.9		-1.44	162	0.153
NCP experienced earnings dip of at least 20% within prior 8 quarters	28.7%	0.455	20.5%	0.406		-1.41	216	0.161
Time since first observed NCP earnings (quarters)	24.8	17.32	23.2	17.85		-0.67	216	0.504
NCP earnings history sufficient to qualify for UI	46.5%	0.501	42.7%	0.497		-0.56	216	0.576
NCP receiving SNAP (Food Stamps) benefits at case opening	1.0%	0.100	3.4%	0.182		1.24	184	0.216
Percent of time NCP received SNAP benefits in prior year	3.9%	0.151	5.4%	0.182		0.67	216	0.502
NCP receiving TANF benefits at case opening	0.0%	0.000	0.0%	0.000				
Percent of time NCP received TANF benefits in prior year	0.0%	0.000	0.0%	0.000				
Custodial Parent, employment and benefit history								
CP employed at case opening	54.3%	0.501	60.8%	0.490		0.99	223	0.323
Percent of time CP employed over prior 8 quarters	40.0%	0.405	42.6%	0.404		0.48	223	0.630
CP average quarterly earnings over prior 8 quarters	$4,254	5224.5	$4,089	5317.6		-0.24	223	0.814
CP experienced earnings dip of at least 20% within prior 8 quarters	24.8%	0.434	28.3%	0.453		0.60	223	0.548
Time since first observed CP earnings (quarters)	22.6	17.35	22.4	16.61		-0.08	223	0.939
CP earnings history sufficient to qualify for UI	43.8%	0.499	50.8%	0.502		1.05	223	0.295
CP receiving SNAP (Food Stamps) benefits at case opening	9.5%	0.295	20.8%	0.408	*	2.40	216	0.017
Percent of time CP received SNAP benefits in prior year	10.1%	0.254	19.2%	0.319	*	2.40	221	0.017
CP receiving TANF benefits at case opening	0.0%	0.000	0.8%	0.091		1.00	119	0.319
Percent of time CP received TANF benefits in prior year	0.0%	0.000	0.6%	0.061		1.00	119	0.319

Table B2: El Paso Treatment vs. Control Group, all Identified Non-Medicaid Case Members, detailed

	ICSS Treatment group		Control group					
Non-Medicaid cases, demographics	N=97		N=98					
	Mean	**Std**	**Mean**	**Std**		**t-value**	**df**	**prob**
NCP age (years)	36.0	8.222	37.7	10.099		1.31	186	0.192
NCP is female	8.4%	0.279	5.8%	0.235		-0.71	196	0.479
NCP is Hispanic	66.7%	0.480	68.4%	0.478		0.12	44	0.903
NCP is black	3.7%	0.192	5.3%	0.229		0.25	44	0.804
NCP is current or former military	23.7%	0.428	5.8%	0.235	**	-3.63	147	0.000
CP age (years)	33.8	7.381	35.1	7.968		1.17	197	0.244
CP is Hispanic	77.3%	0.429	81.0%	0.402		0.29	41	0.773
CP is black	0.0%	0.000	4.8%	0.218		1.00	20	0.329
CP is current or former military	4.1%	0.200	1.9%	0.139		-0.89	170	0.374
Number of children	1.6	0.759	1.6	0.752		-0.52	196	0.604
Age of youngest child, years	6.2	4.333	7.2	4.916		1.57	196	0.117
Age of oldest child, years	8.1	4.992	9.0	5.298		1.29	196	0.198
Non-custodial Parent, employment and benefit history								
NCP employed at case opening	47.8%	0.502	40.0%	0.493		-1.08	185	0.283
Percent of time NCP employed over prior 8 quarters	43.9%	0.406	33.9%	0.412		-1.66	185	0.098
NCP average quarterly earnings over prior 8 quarters	$8,362	16115.2	$5,695	10505.0		-1.34	156	0.184
NCP experienced earnings dip of at least 20% within prior 8 quarters	28.3%	0.453	20.0%	0.402		-1.32	185	0.188
Time since first observed NCP earnings (quarters)	25.0	17.25	21.8	18.38		-1.22	185	0.225
NCP earnings history sufficient to qualify for UI	48.9%	0.503	40.0%	0.493		-1.22	185	0.222
NCP receiving SNAP (Food Stamps) benefits at case opening	1.1%	0.104	2.1%	0.144		0.55	171	0.580

Non-Medicaid cases, demographics	ICSS Treatment group		Control group					
	N=97		N=98					
	Mean	Std	Mean	Std		t-value	df	prob
Percent of time NCP received SNAP benefits in prior year	2.7%	0.120	3.5%	0.150		0.40	179	0.690
NCP receiving TANF benefits at case opening	0.0%	0.000	0.0%	0.000				
Percent of time NCP received TANF benefits in prior year	0.0%	0.000	0.0%	0.000				
Custodial Parent, employment and benefit history								
CP employed at case opening	52.6%	0.502	57.1%	0.498		0.62	184	0.539
Percent of time CP employed over prior 8 quarters	39.6%	0.407	40.5%	0.405		0.15	184	0.878
CP average quarterly earnings over prior 8 quarters	$4,461	5411.1	$4,567	5919.3		0.13	184	0.899
CP experienced earnings dip of at least 20% within prior 8 quarters	23.2%	0.424	24.2%	0.431		0.16	184	0.871
Time since first observed CP earnings (quarters)	22.5	17.33	22.0	17.56		-0.17	184	0.864
CP earnings history sufficient to qualify for UI	45.3%	0.500	48.4%	0.503		0.42	184	0.675
CP receiving SNAP (Food Stamps) benefits at case opening	5.3%	0.224	9.9%	0.300		1.19	167	0.237
Percent of time CP received SNAP benefits in prior year	5.6%	0.183	9.0%	0.224		1.12	184	0.263
CP receiving TANF benefits at case opening	0.0%	0.000	0.0%	0.000				
Percent of time CP received TANF benefits in prior year	0.0%	0.000	0.0%	0.000				

Table B3: Harris Treatment vs. Comparison Group, all Identified Case Members, detailed

All cases, demographics	ICSS Treatment group N=51,992 Mean	Std	Comparison group N=35,520 Mean	Std		t-value	df	prob
NCP age (years)	33.7	9.235	33.2	9.097	**	-7.62	77051	<.0001
NCP is female	8.9%	0.285	8.8%	0.283		-0.76	88765	0.445
NCP is Hispanic	35.9%	0.480	34.5%	0.475	**	-4.13	74098	<.0001
NCP is black	40.6%	0.491	42.8%	0.495	**	5.98	74098	<.0001
NCP is current or former military	2.7%	0.161	2.5%	0.155		-1.79	81121	0.074
CP age (years)	32.0	9.357	31.6	9.350	**	-7.35	87449	<.0001
CP is Hispanic	36.7%	0.482	35.8%	0.479	**	-2.62	72246	0.009
CP is black	38.2%	0.486	40.2%	0.490	**	5.36	72246	<.0001
CP is current or former military	0.3%	0.057	0.3%	0.051		-1.79	84585	0.073
Number of children	1.5	0.767	1.5	0.773		0.12	87106	0.901
Age of youngest child, years	5.5	4.889	5.5	4.943		-1.02	76021	0.307
Age of oldest child, years	6.8	5.406	6.8	5.424		-1.86	87106	0.062
Non-custodial Parent, employment and benefit history								
NCP employed at case opening	59.2%	0.492	57.7%	0.494	**	-4.35	84325	<.0001
Percent of time NCP employed over prior 8 quarters	58.1%	0.414	57.1%	0.411	**	-3.72	84325	0.000
NCP average quarterly earnings over prior 8 quarters	$7,012	24971.1	$5,684	10959.8	**	-10.50	72981	<.0001
NCP experienced earnings dip of at least 20% within prior 8 quarters	28.6%	0.452	29.8%	0.457	**	3.72	73918	0.000
Time since first observed NCP earnings (quarters)	29.5	13.71	29.4	13.65		-1.33	84325	0.184
NCP earnings history sufficient to qualify for UI	56.9%	0.495	55.7%	0.497	**	-3.70	84325	0.000
NCP receiving SNAP (Food Stamps) benefits at case opening	5.4%	0.225	5.3%	0.224		-0.46	84325	0.644

All cases, demographics	ICSS Treatment group N=51,992		Comparison group N=35,520			t-value	df	prob
	Mean	Std	Mean	Std				
Percent of time NCP received SNAP benefits in prior year	6.1%	0.191	5.7%	0.185	**	-3.22	75929	0.001
NCP receiving TANF benefits at case opening	0.1%	0.031	0.1%	0.036		1.49	66686	0.136
Percent of time NCP received TANF benefits in prior year	0.1%	0.023	0.2%	0.034	**	5.87	57089	<.0001
Custodial Parent, employment and benefit history								
CP employed at case opening	63.4%	0.482	61.9%	0.486	**	-4.28	83546	<.0001
Percent of time CP employed over prior 8 quarters	60.6%	0.403	59.6%	0.403	**	-3.56	83546	0.000
CP average quarterly earnings over prior 8 quarters	$5,014	7473.3	$4,509	8105.7	**	-9.14	69994	<.0001
CP experienced earnings dip of at least 20% within prior 8 quarters	28.0%	0.449	29.9%	0.458	**	5.77	73009	<.0001
Time since first observed CP earnings (quarters)	28.6	13.88	28.4	13.89	*	-2.12	83546	0.034
CP earnings history sufficient to qualify for UI	59.5%	0.491	58.3%	0.493	**	-3.32	83546	0.001
CP receiving SNAP (Food Stamps) benefits at case opening	32.4%	0.468	34.3%	0.475	**	5.78	73222	<.0001
Percent of time CP received SNAP benefits in prior year	29.3%	0.386	30.2%	0.391	**	3.62	73298	0.000
CP receiving TANF benefits at case opening	2.7%	0.163	4.5%	0.207	**	13.22	62282	<.0001
Percent of time CP received TANF benefits in prior year	2.2%	0.107	3.7%	0.139	**	17.11	61231	<.0001