EDUCATIONAL OUTCOMES FOR CHILDREN IN THE CARE OF THE DEPARTMENT OF HUMAN SERVICES AND ITS DIVISIONS: PRELIMINARY DATA MATCH REPORT

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<u>INTRODUCTION</u>

This study was initiated to gather information regarding the educational outcomes for children in the custody of the Division of Child and Family Services (DCFS) and the Division of Juvenile Justice Services (DJJS) being served through the education system and the Youth in Custody (YIC) Program. The overall study is attempting to assess several questions:

1. How are the foster youth doing on national tests in comparison with the Utah norm for their age group?
2. Are the foster children on grade level for their age?
3. Is there a difference in scores for those in YIC programs versus those who aren't?
4. What proportion of children has Individual Education Plans (IEPs), how does that compare to the population in general?
5. What percentage of youth in custody is graduating compared to the general population?
6. How many youth in custody receive a General Education Development (GED) compared to the general population?
7. What percentage of youth in custody receives YIC services and how is the determination made between who will and will not receive services?
8. How do the length of time in custody, placement types, and number of placement changes and how they correspond to school placement changes affect educational outcomes?
9. What key elements are important for educational success for youth in state care?
10. How can YIC improve its practices in order for youth in care to achieve better educational outcomes?
11. What are the strengths and challenges to educational success for youth in custody?

Whether or not all of these questions can be addressed will depend on the quality and type of the data obtained. This initial report is attempting to address these preliminary questions:

1. Are we able to match data on children in the custody of the Division of Child and Family Services and the Division of Juvenile Justice Services with data from the Utah State Office of Education (USOE) and at what rate?
2. How complete is the data from the USOE for children in custody?
3. Preliminary frequency counts for some of the information.

DCFS and DJJS completed the match to address the preliminary questions. They are then turning de-identified data sets over to a researcher with the Utah State University (USU) who will further analyze the data in an attempt to answer the questions above. Additionally another USU researcher is working on a qualitative study to help inform these questions.

LITERATURE REVIEW

To help inform what data to request for the study a literature review was done for DCFS and DJJS by the University of Utah (see appendix A). The main findings that apply to this evaluation were:
- Foster youth have lower high school completion rates, lower college attendance rates, and lower overall academic performance than peers.
- "There is minimal literature that highlights good predictors of academic success in youth within the system."
- Multiple moves or disruptions may contribute to negative educational outcomes.
- Children in custody were classified as eligible for special education more frequently than their peers. Higher levels of emotional and behavioral issues may contribute to lower educational rates.
- Poor bonds with schools and school personnel due to moves or other issues may negatively impact educational motivation and attainment.
- Poor communication or collaboration between multiple schools or between education, child welfare, and juvenile justice may contribute to poorer outcomes.
- Negative labels associated with youth in custody may contribute to poor self-concepts that affect educational motivation. Lower tolerance levels in the schools may contribute to this negative stigmatization.
- Early intervention for children may improve future academic success rates.
- Processes that may improve educational outcomes for children include:
    - Involvement in activities
    - Social connections, secure bonds, and interactions with others
    - Positive reinforcement for good performance
    - Having the "ability and skills to participate in interactions."
    - Having a mentor or role model

METHODOLOGY

Coordination meetings were held with USOE to discuss the project, data sharing approvals, and what data was available. An Educational Data Sharing Proposal was completed and turned into USOE for approval to obtain the data. The quantitative data match study and qualitative study proposals were reviewed and approved by the USU and DHS Institutional Review Boards.

Information on all students in the state was obtained for the 2009-2010 and 2010-2011 school years. The information from USOE included school enrollment information, grade point average (GPA), attendance, math, science, and language criterion reference test (CRT) scores and special education information. There was one indicator for Youth in Custody, however it was not populated. A list of the data elements obtained from USOE is included in Appendix B. An unduplicated list of students was created from the data received from the schools.

Children in DCFS custody served during fiscal years 2010 and 2011 were extracted from the DCFS management information system (SAFE) and youth served by DJJS during fiscal years 2010 and 2011 were extracted from the DJJS management information system (CARE). They were matched with the unduplicated list of students from USOE based on first name, last name, date of birth, and gender.

RESULTS

Match rates by age
There is no set age children begin or end school. Consequently all foster care and DJJS children were included in the age match. The match rates are shown in the tables below. Because the match rates were limited to name, date of birth, and gender there is potential that some of the matches were in error. The match rates are better than expected and can most likely be improved with more time for hand research. For all subsequent school data only children 6 to 17 were included for the foster care children and children 10 to 17 for the DJJS children.

DCFS data match results
There were 4,652 children served in foster care in fiscal year 2010 and 4,666[i] served in foster care in 2011. Many of these children were not school age. There were 2,491 children that were matched with the school information for the 2009-2010 school year and 2,669 that matched for the 2010-2011 school year. Of children aged 6 to 17 in 2010, there were 2,590 foster children and 2,185 had school enrollment information for a match rate of 84.4%.   In 2011 there were 2,596 children served between the ages of 6 to 17 and 2,343 had school enrollment information for a match rate of 90.3%.

Foster children /USOE match rates by age

	2009-2010			2010-2011		
Child Age	Foster Care Child Count	Children Matched	Percent Matched	Foster Care Child Count	Children Matched	Percent Matched
0	196	0	0%	162	0	0%
1	318	0	0%	338	0	0%
2	320	0	0%	297	0	0%
3	263	1	0%	298	0	0%
4	227	0	0%	242	0	0%
5	183	24	13%	213	38	18%
6	166	114	69%	161	135	84%
7	185	150	81%	184	150	82%
8	156	113	72%	165	146	88%
9	177	147	83%	155	125	81%
10	147	122	83%	160	137	86%
11	151	127	84%	154	138	90%
12	160	139	87%	164	147	90%

13	187	165	88%	178	161	90%
14	240	217	90%	242	222	92%
15	305	277	91%	302	295	98%
16	339	296	87%	349	329	94%
17	377	318	84%	382	358	94%
18	355	248	70%	302	239	79%
19	156	25	16%	165	43	26%
20	38	6	16%	45	5	11%
21	6	2	33%	8	1	13%

DJJS data match results
There were 10,335 children served by DJJS in fiscal year 2010 and 9,678[ii] served by DJJS in 2011. Some of these children were not school age. There were 8,587 children that were matched with the school information for the 2009-2010 school year and 8,437 that matched for the 2010-2011 school year. Of children aged 10 to 17 in 2010, there were 8,308 DJJS children and 7,323 had school enrollment information for a match rate of 88.0%.   In 2011 there were 7,777 children served between the ages of 10 to 17 and 7,026 had school enrollment information for a match rate of 90.3%.
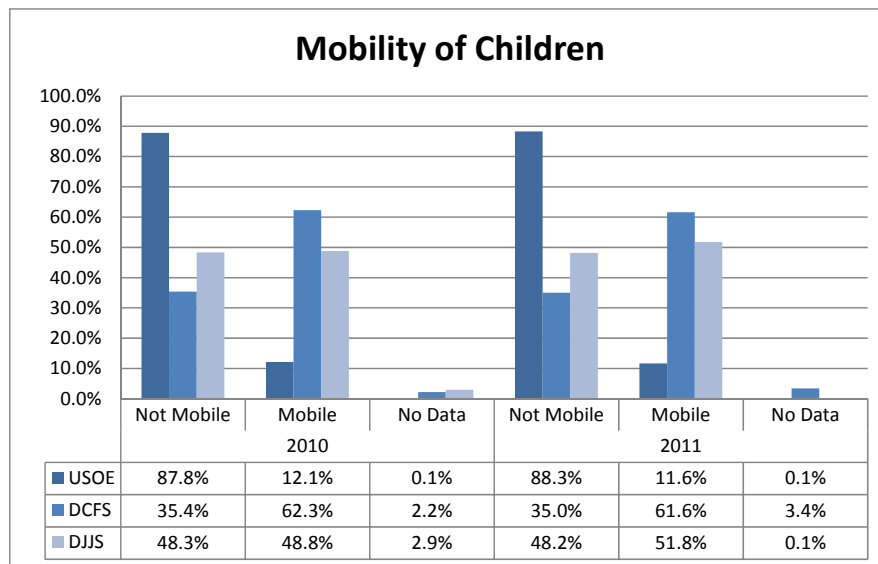
DJJS/USOE match rates by age

Child Age	2009-2010			2010-2011		
	DJJS Case Count	Children Matched	Percent Matched	DJJS Case Count	Children Matched	Percent Matched
Other	11	0	0.0%	3	0	0%
6	2	1	50.0%	-	-	-
7	1	0	0.0%	-	-	-
8	20	15	75.0%	10	9	90.0%
9	30	29	96.7%	42	35	83.3%
10	93	75	80.7%	58	50	86.2%
11	134	121	90.3%	144	125	86.8%
12	324	284	87.7%	273	235	86.1%
13	674	608	90.2%	647	574	88.7%
14	1,055	968	91.8%	1,073	985	91.8%
15	1,547	1,410	91.1%	1,506	1,395	92.6%
16	2,103	1,853	88.1%	1,906	1,741	91.3%
17	2,378	2,004	84.3%	2,170	1,921	88.5%
18	1,626	1,138	70.0%	1,538	1,258	81.8%
19	268	71	26.5%	239	93	38.9%
20	57	9	15.8%	53	13	24.5%
21	12	1	8.3%	16	3	18.8%

General information

Mobility
The table below shows the mobility of DCFS and DJJS children compared to children in the general school population. Data was only included for those where a match was found. The mobile indicator means that the student has less than 160 days of membership in the school. DCFS and DJJS children have a much higher percentage of children considered to be mobile. As mentioned in the literature review, multiple disruptions may contribute to negative educational outcomes.

Mobility of Children

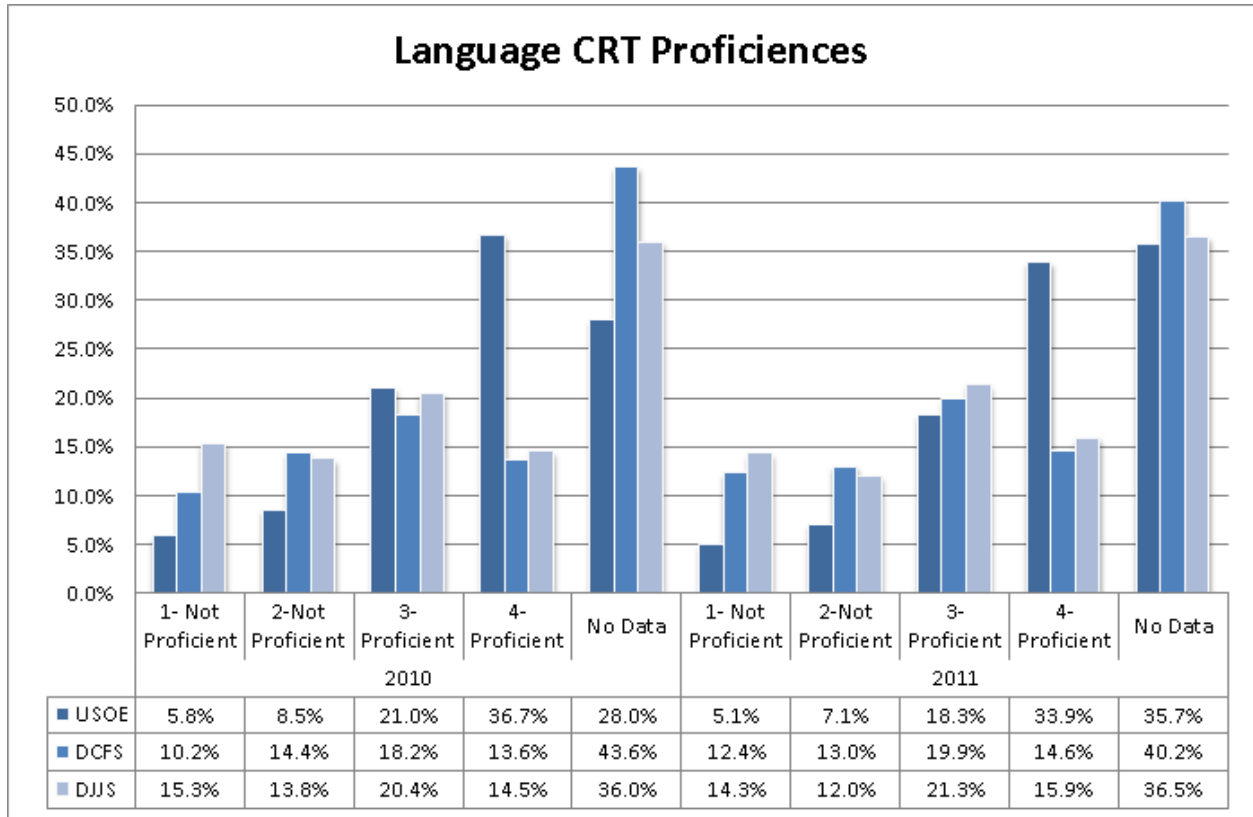|	Not Mobile	Mobile	No Data	Not Mobile	Mobile	No Data
		2010			2011	
USOE	87.8%	12.1%	0.1%	88.3%	11.6%	0.1%
DCFS	35.4%	62.3%	2.2%	35.0%	61.6%	3.4%
DJJS	48.3%	48.8%	2.9%	48.2%	51.8%	0.1%

Average Grade Point Average
Cumulative grade point average information is only available for grades 9 through 12. Below is the information regarding grade point average for children that had data reported. In 2010 there were 5,277 DJJS youth and 1,106 DCFS youth that had GPAs recorded. In 2011 there were 5,296 DJJS youth and 968 DCFS youth that had GPAs recorded. These data, along with the test data below, are consistent with the literature which shows lower academic performance for foster children than their peers.

Average GPA	USOE	DCFS	DJJS
2010	2.90	2.50	1.80
2011	2.93	2.40	1.90

Language Criterion Reference Test information
The languages tests administered were 2nd Grade-11th Grade language arts. The proficiency levels of the tests taken are in the table below. The state validated proficiency scales have a range from 1 to 4 with 1 and 2 being not proficient and 3 and 4 being proficient. The language CRTs are for students in grades 3 through 11 to assess reading, writing, and listening. The no data scores below include children in
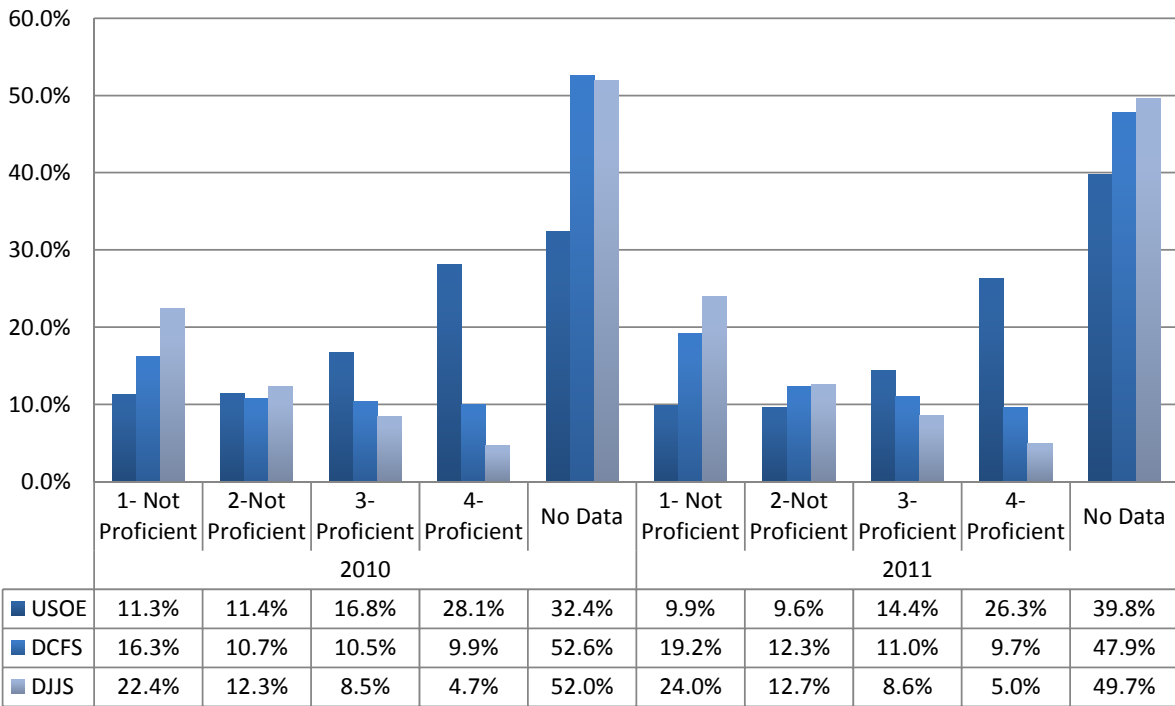
grades where the language CRT was not administered as well as children that do not have scores recorded.

Language CRT Proficiences

	1- Not Proficient	2-Not Proficient	3- Proficient	4- Proficient	No Data	1- Not Proficient	2-Not Proficient	3- Proficient	4- Proficient	No Data
			2010					2011		
■ USOE	5.8%	8.5%	21.0%	36.7%	28.0%	5.1%	7.1%	18.3%	33.9%	35.7%
■ DCFS	10.2%	14.4%	18.2%	13.6%	43.6%	12.4%	13.0%	19.9%	14.6%	40.2%
■ DJJS	15.3%	13.8%	20.4%	14.5%	36.0%	14.3%	12.0%	21.3%	15.9%	36.5%

Math Criterion Reference Test information
The math tests administered ranged from 2nd grade math to Algebra II and Geometry. The proficiency levels of the tests taken are in the table below. The state validated proficiency scales have a range from 1 to 4 with 1 and 2 being not proficient and 3 and 4 being proficient. The no data scores below include children where the math CRT was not administered as well as children that do not have scores recorded.
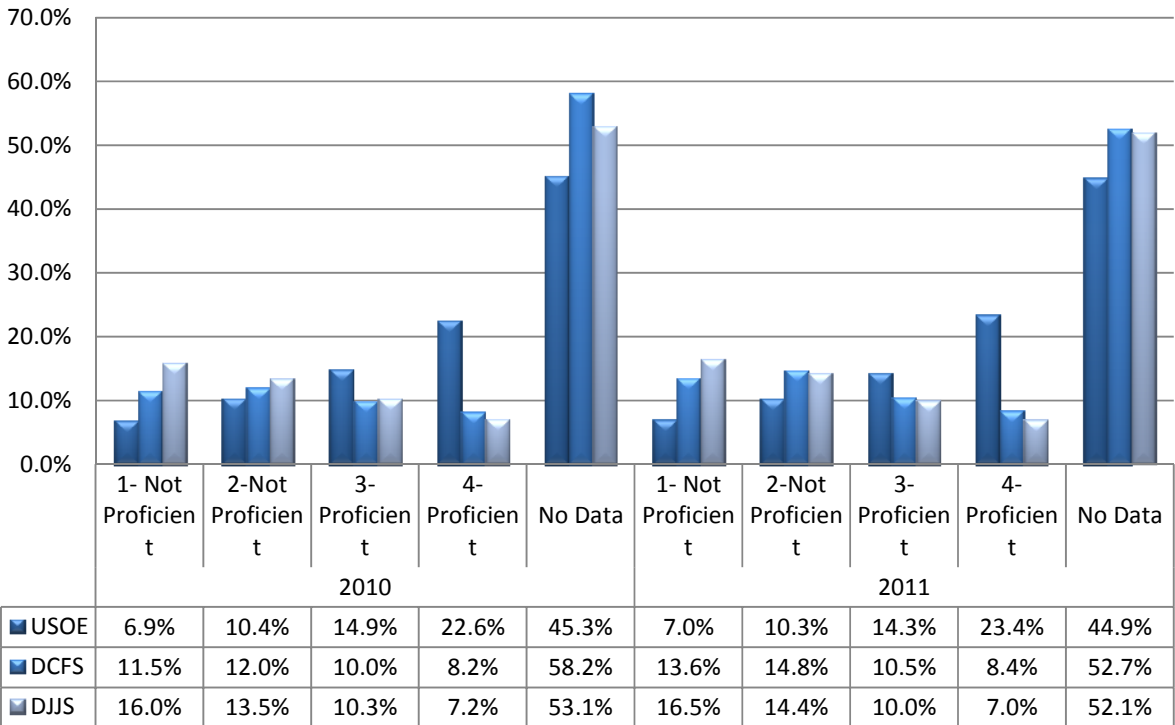
Math CRT Proficiences

	1- Not Proficient	2-Not Proficient	3- Proficient	4- Proficient	No Data	1- Not Proficient	2-Not Proficient	3- Proficient	4- Proficient	No Data
			2010					2011		
USOE	11.3%	11.4%	16.8%	28.1%	32.4%	9.9%	9.6%	14.4%	26.3%	39.8%
DCFS	16.3%	10.7%	10.5%	9.9%	52.6%	19.2%	12.3%	11.0%	9.7%	47.9%
DJJS	22.4%	12.3%	8.5%	4.7%	52.0%	24.0%	12.7%	8.6%	5.0%	49.7%

Science Criterion Reference Test information

The science tests administered ranged from 4th grade science to Biology, Chemistry, Earth Systems, and Physics. The proficiency levels of the tests taken are in the table below. The state validated proficiency scales have a range from 1 to 4 with 1 and 2 being not proficient and 3 and 4 being proficient. The no data scores below include children where the science CRT was not administered as well as children that do not have scores recorded.
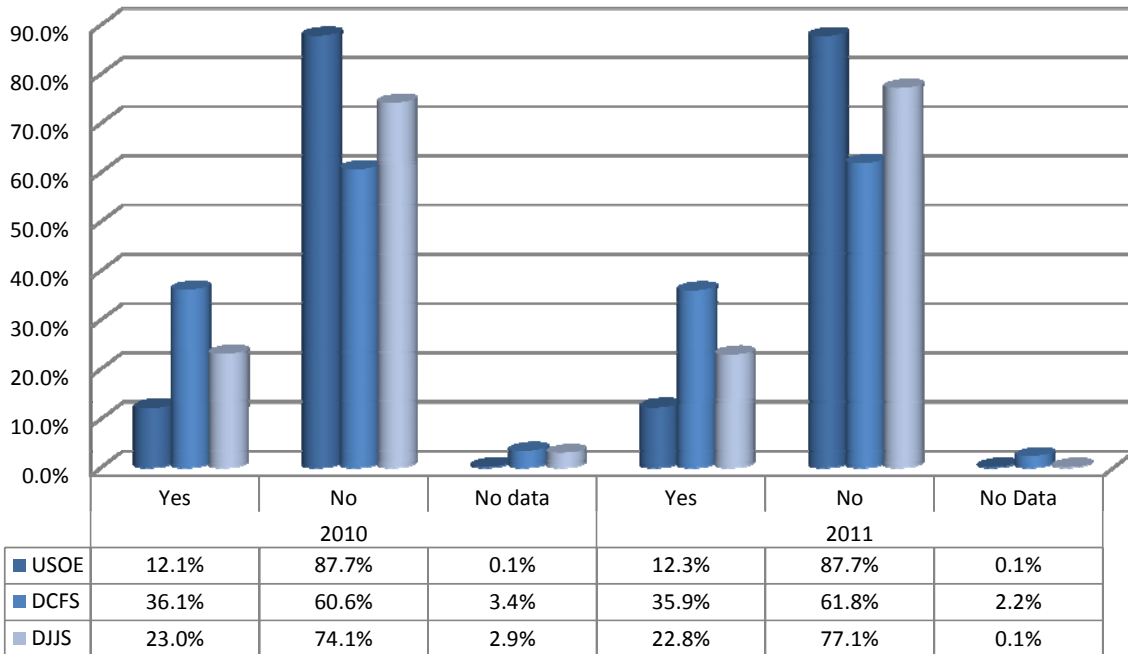
Science CRT Proficiences

	2010					2011				
	1- Not Proficient	2-Not Proficient	3-Proficient	4-Proficient	No Data	1- Not Proficient	2-Not Proficient	3-Proficient	4-Proficient	No Data
◼ USOE	6.9%	10.4%	14.9%	22.6%	45.3%	7.0%	10.3%	14.3%	23.4%	44.9%
◼ DCFS	11.5%	12.0%	10.0%	8.2%	58.2%	13.6%	14.8%	10.5%	8.4%	52.7%
◼ DJJS	16.0%	13.5%	10.3%	7.2%	53.1%	16.5%	14.4%	10.0%	7.0%	52.1%

Special Education – Self-Contained Resource Attendance Management Records (SCRAM)

The data below indicates the percentage of youth receiving special education services.

Special Education Services Received

	2010 Yes	2010 No	2010 No data	2011 Yes	2011 No	2011 No Data
USOE	12.1%	87.7%	0.1%	12.3%	87.7%	0.1%
DCFS	36.1%	60.6%	3.4%	35.9%	61.8%	2.2%
DJJS	23.0%	74.1%	2.9%	22.8%	77.1%	0.1%

Types of disabilities for which youth are receiving services are below. Areas of greatest discrepancy with the general USOE population are shaded in peach. Again this data agrees with other studies showing that children in custody are classified as eligible for special education at a higher rate and have higher rates of emotional and behavioral issues.

Disability Resource Type.

	2009-2010			2010-2011		
	USOE	DCFS	DJJS	USOE	DCFS	DJJS
Deaf/Blindness	0.0%			0.0%		
Orthopedic Impairment	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
Visual Impairment (Including Blindness)	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%
Traumatic Brain Injury	0.1%	0.3%	0.3%	0.1%	0.1%	0.2%
Hearing Impairment/Deafness	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%
Multiple Disabilities	0.3%	1.4%	0.0%	0.3%	1.5%	0.1%
Developmental Delay	0.4%	1.1%		0.4%	1.2%	
Emotional Disturbance	0.5%	9.2%	6.0%	0.5%	7.9%	5.8%
Intellectual Disability (federal "Mental Retardation")	0.6%	2.8%	0.9%	0.6%	3.3%	0.9%
Autism	0.6%	1.2%	0.5%	0.7%	1.1%	0.6%

Other Health Impairment	0.9%	2.8%	2.6%	0.9%	3.9%	3.1%
Speech/Language Impairment	3.0%	2.5%	0.5%	2.9%	2.9%	0.7%
Specific Learning Disability	5.8%	14.6%	14.3%	5.9%	13.7%	14.7%
None	87.7%	64.2%	74.7%	87.5%	64.1%	73.8%

Discussion

It is important to note that these are preliminary results. There are some inconsistencies in the data and further analysis is needed. The data here should be considered initial estimates. The numbers may change as the data is refined over time. Overall the preliminary results indicate:

- The match rate was greater than expected, and may be improved upon with more hand research.
- DCFS and DJJS children are more mobile than those in the general population
- The average GPA of children in foster care is approximately half of a point lower, and for children receiving DJJS services it is approximately 1 point lower.
- Of the children who have CRT scores, a majority are not proficient, compared with the general population where a majority are proficient.
- They perform slightly better in language art CRTs than they do in Math and Science.
- A large percentage of children qualify for special education services.

Next steps include:
- The Utah State Office of Education data will be analyzed further in conjunction with data from DCFS and DJJS by a researcher at Utah State University. The researcher will explore statistically significant associations in an effort to assess the questions outlined in the introduction.

Appendix A

Literature Review

Educational Outcomes for Children in Child Welfare and Juvenile Justice Services

Educational Outcomes for Children in the Child Welfare and Juvenile Justice System

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Introduction

Much of the literature available on educational outcomes for children in the child welfare and juvenile justice system focuses on risk factors. There is minimal literature that highlights good predictors of academic success in youth within the system. Relatively little is known about the long-term outcomes of children in foster care (Pecora et al., 2007). Children in both of these systems face a myriad challenges from going in and out of care, fulfilling court requirements, encountering several different case workers along the way, and a lack of communication between systems. These challenges cause disruptions and pose a threat to the educational outcomes and academic achievement of children within these systems.

Former foster children are at higher risk for several negative outcomes, including substance abuse, homelessness, and low educational attainment (Massinga & Pecora, 2004). According to the Child Welfare League of America (CWLA) although children in the United States are entitled to educational services, specific needs of children and youth in care and in the system often go unmet (CWLA, 2009). Only 50% of foster youth complete high school, which is significantly lower than the rate of their peers at 70% (CWLA, 2009). These youth also attend college at a substantially lower rate of 20%; nevertheless 70% of foster youth express the desire to obtain post secondary education (CWLA, 2009). Foster care youth are struggling academically, have lower graduation rates, lower reading abilities, and lower overall academic performance than their peers (CLASP, 2009).

Educational Disruptions

Children in foster care and within the juvenile justice system are often highly mobile experiencing multiple living arrangements and placements per year (CLASP, 2009). Changes in foster placements and living arrangements often coincide with changes in schools. High school mobility rates have been associated with negative educational outcomes such as failing grades, behavior problems, and decreased high school completion (CLASP, 2009). Transferring from school to school is often a timely process that requires school records to be passed on. Often the delay in transferring records results in children being out of school for weeks or even months on end (Walker & Smithgall, 2009). The result of being out of school can lead children to fall behind academically, cognitively and socially. The impact of transferring schools can range from missing a few days, to serious long-term consequences

such as broken peer relations, weeks of absences, and misplaced special education services (Smithgall, Gladden, Howard, George, & Courtney, 2004). Children who are out of school for an extended period often need to repeat courses and are unable to access the necessary support services to assist their educational outcomes (CWLA, 2009).

A study by Pecora et al, out of Washington and Oregon looked at educational and employment outcomes of 659 foster care alumni who had been placed by the Casey Family Program and the state child welfare agency (Pecora et al., 2007). This study reviewed case records and conducted structured telephone interviews with 479 alumni who had been in foster care for at least 12 months. Alumni had an average of 6.5 different placements while in care, with a mean placement change rate of 1.4 per year. Almost one third of the sample had 8 or more placements while in care (Pecora et al., 2007). With the multiple placements came multiple school changes with almost a third of the sample reporting ten or more school changes from elementary to high school (Pecora et al., 2007).

Multiple moves from school to school often results in children who are old for grade. A study of foster children out of the Chapin Hall Center for Children at the University of Chicago found that students in care are 1.8 times more likely to be old for their grade (Smithgall et al., 2004). This same study found that students experiencing abuse and neglect but not in placements were still 1.6 times more likely to be old for grade, and students in permanent placements were 1.3 times more likely to be old for grade (Smithgall et al., 2004). The issue also comes with students' experiences prior to entering the system, which could attribute to them starting their educational experience older than their peers. In Illinois just under two-thirds of students enter care old for grade or scoring in the bottom quartile in reading (Smithgall et al., 2004). These students often enter care delayed and never catch up. This increases students' risk of being retained in the same grade the year after they enter care (Smithgall et al., 2004).

Out-of-home Placement

Since the installment of the Adoption and Safe Families Act of 1997 there have been increased efforts to reduce the amount of time children spend in care. Nevertheless, many children who are in care spend a lot of their time, sometimes even years, under the supervision of the child welfare system (Courtney, Roderick, Smithgall, Gladden, & Nagaoka, 2004). There is growing recognition that the system often remains the long-term parent for many children (Courtney et al., 2004).

The study out of Chapin Hall Center for Children at the University of Chicago found that 50% of third to eighth graders in out-of-home care scored in the bottom quartile in reading on the Iowa Test of Basic Skills (Smithgall et al., 2004). The study also found that a higher concentration of students in out-of-home care attended lower achieving elementary schools, which could also be contributing to achievement disparities among students (Smithgall et al., 2004). Beyond lower educational achievement, students in out-of-home care are twice as likely to commit delinquent acts than those receiving in-home services, often attributed to frequent disruptions in care (Bilchik & Nash, 2008). The Chicago study also found that students in out-of-home care were classified as eligible for special education three times more frequently that those not in care (Smithgall et al., 2004).

Special Education

Based on data gathered from the National Survey of America's Families (NSAF) from 1997 and 1999, it is estimated that nearly 27% of 6-17 year olds involved in the child welfare system have high levels of behavioral and emotional issues (Kortenkamp & Ehrle, 2002). This same data set estimates that 39% of students in the system display low engagement in school, and roughly 28% have a physical, mental health, or learning condition that may limit their activities (Kortenkamp & Ehrle, 2002). Between 23-47% of children in out-of-home care in the US receive special education services at some point in their education (National Working Group on Foster Care and Education, 2008). Children involved in child welfare are more likely to be in special education compared to children living with their parents (Kortenkamp & Ehrle, 2002).

In the Washington and Oregon study 38% of the alumni of foster care reported having been enrolled in special education classes (Pecora et al., 2007). Interviews conducted with caseworkers in the Chicago study found that many of the parties involved in the IEP (Individual Education Plan) process have a varied understanding how special education functions and their role in that process (Smithgall et al., 2004). Some research suggests that improper assessment of children in the system who are struggling with transitory behavioral problems may lead to the misguided labeling of these children as disordered (Smithgall et al., 2004; Courtney et al., 2004). The method in which these special education services are provided to children in care and whether or not an advocate is available can cause disruption in the child's education.

Effects of Delinquency on Academic Achievement

Literature commonly demonstrates the connection between childhood maltreatment and delinquency (Bilchik & Nash, 2008). Many maltreated youth who end up in the child welfare system cross over into the juvenile

justice system. Child abuse and/or neglect increase a youth's risk of arrest by 55% (Bilchik & Nash, 2008). Not every youth will experience negative outcomes and commit delinquent acts, but there is a significant number that do end up in the juvenile justice system. These crossover students are at high risk for negative educational outcomes. Many of these youths encounter educational difficulties such as truancy and poor academic performance (Bilchik & Nash, 2008). Children in care who are suspended from school are more likely to engage in delinquent behavior (Bilchik & Nash, 2008).

Youth who move across systems experience disruption in their home lives as well as in the educational system. Because of their mobility, these children may also lose eligibility for educational, mental health, or behavioral health services and experience disruptions in important relationships (Bilchik & Nash, 2008). Poor academic performance has bee related to the prevalence, onset, and frequency, and seriousness of delinquency (Wasserman et al., 2003). Children with weak bonds to school as well as low educational motivation are also at risk for child delinquency (Wasserman et al., 2003). Children in the child welfare system who may move from school to school and struggle developing and maintaining connections with teachers, case managers, and peers may in turn be at risk for ending up in the juvenile justice system. To add to this struggle, many jurisdictions lack appropriate mechanisms for sharing information across agencies. Depending upon which agency is assigned primary responsibility, the youth in question may lose access to important services due to eligibility requirements (Bilchik & Nash, 2008). Efforts to improve educational outcomes for these youth will require collaborative efforts between all of the systems involved including juvenile justice, child welfare, and the education system (Courtney et al., 2004).

Many students are struggling with harsh zero and low tolerance punishment policies in the public education system. Zero tolerance policies require students to be expelled from school, which could interrupt and disrupt educational progress as well (Sweeten, 2006). This disruption takes place while the youth attempts to navigate the juvenile justice system without consistent educational support (Sweeten, 2006). First-time court appearances during high school have also been associated with more detrimental outcomes than first-time arrest without a court appearance (Sweeten, 2006). Reasoning behind this is explained through a labeling theory in the literature, which suggests that an official sanction stigmatizes youth, which then induces a deviant self-concept (Sweeten, 2006). Beyond a deviant self-concept, youth in the juvenile justice system may come in close contact with other delinquent youth who may encourage more negative behavior and less attachment to school, thus leading to poorer educational outcomes (Sweeten, 2006).

Early Intervention

Emotional and cognitive development has been associated with the ability to control social behavior within the first two years of life (Wasserman et al., 2003). Some research suggests that poor cognitive development and behavior problems in early childhood could be associated with academic achievement and delinquency (Wassserman et al., 2003). A study that looked at the Early Intervention Foster Care Program (EIFC) found that allocating resources to young children before strong behavioral patterns have been established prior to entering school has the potential to lessen many long-term risks (Fisher, Buraston, & Pears, 2005). This study specifically found that early allocation of resources could positively improve success rates in permanent placements following foster care.

The Chicago Longitudinal Study followed the development of over 1,500 low-income children served by the Chicago Child-Parent Center, an early education intervention center (Reynolds, Temple, Robertson, & Mann, 2002). The outcomes for children who participated in the centers programming had positive outcomes when compared to a peer group. Participants had a 41% lower rate of juvenile arrest for violent offenses, 41% fewer special education placements, and 51% fewer neglect and child abuse allegations (Reynolds et al., 2002).

Predictors of Educational Achievement

Literature focusing on a social development model highlights several processes that positively affect a child's educational outcomes. These include opportunity for involvement in activities, interaction and involvement with others, ability and skills to participate in interactions, and reinforcements received for performance (Wasserman et al., 2003). The failure to bond to school during childhood can lead to later delinquency (Wasserman et al., 2003). Therefore adequate socialization could be considered a positive factor associated with educational outcomes. This is often a challenge for children in the child welfare and juvenile justice system who may be in and out of care, in and out of the school setting, and lack opportunities to create secure bonds with adults and peers.

A study of 216 emancipated foster youth found that social support was a positive factor in educational success (Merdinger, Hines, Osterling, & Wyatt, 2005). Of the students in this study nearly 87% had either a friend or family member they could turn to for help or advice (Merdinger et al., 2005). Most of the young adults who found success and were educationally high achieving had a close relationship with a mentor or role model (Merdinger et

al., 2005). A study using data from the National Longitudinal Study of Adolescent Health found that youth in foster care who were mentored have a significantly higher number of positive outcomes that non-mentored youth (Ahrens et al., 2008).

In the Pecora et al. (2007) study, interviewed participants were asked what experiences or what changes would improve long-term educational outcomes for youth in the system. Responses indicated that improving placement history, specifically reducing the number of placement moves, was associated with a 17.8% improvement in educational outcomes (Pecora et al., 2007). Improving and optimizing the overall foster care experienced was associated with a 25% increase in positive outcomes. Improving resources when leaving care was also associated with a 14.6% increase in education outcomes.

A study about predictors of at-risk high school dropouts found that being suspended from school is a better predictor of dropping out than: low SES, not living with parents, high number of school changes, having a low number of peers planning to go to college (Suh, Suh, & Houston, 2007). Youths who dropout of school are 3.5 times more likely to be arrested than high school graduates (Coalition for Juvenile Justice, 2001). The study by Smithgall et al. (2004) found that in Illinois students in out-of-home care, in permanent placements, and those who were abused and neglected but not placed were twice as likely to drop out of high school than those with no record of maltreatment. Students who have never been suspended may be more likely to have positive educational outcomes.

Recommendations from the Literature

For the over 800,000 children served in foster care as well as those in the juvenile justice system, educational success can be a potential positive counterweight to abuse, neglect, separation, and impermanence (National Working Group on Foster Care and Education, 2008). The Fostering Connections and Increasing Adoptions Act of 2008 requires that a case plan of a child in foster care consider the appropriateness of the current educational setting and that the child welfare agency coordinate with the local education agency (CWLA, 2009). This law requires that the child remain in the school in which he/she is enrolled at the time of foster placement if it is in the best interest of the child (CWLA, 2009). The requirement of inter-agency communication is a significant step in improving educational outcomes for children in the system. Because youth move across systems and in and out of care, continuity of service for, combined with an assessment of the level of care being provided, is essential for positive outcomes (Bilchik & Nash, 2008). Working directly with the educational system and reducing the number of school moves a child experiences may positively affect educational outcomes for children within the system.

References

Badeau, S., & Gesiriech, S. (n.d.). *A child's journey through the child welfare system.* Washington, DC: Pew Commission on Children in Foster Care. Retrieved April 27, 2010 from http://pewfostercare.org/docs/index.php?DocID=24.

Bilchik, S. & Nash, J.M. (2008). Child welfare and juvenile justice: Two sides of the same coin. *Juvenile and Family Justice Today, Fall,* 17-20.

Center for Law and Social Policy [CLASP]. (2009). *Recommendations for improving education outcomes for children and youth in foster care through amendments to the McKinney-Vento Act: Education reauthorization in the No Child Left Behind Act.* Washington, DC: Author. Retrieved May 1, 2010 from www.clasp.org/admin/site/publication/files/0355.pdf

Child Welfare League of America [CLWA]. (2009). *Education and children in care.* Arlington, VA: Author. Retrieved April 27, 2010 from www.clwa.org/advocacy/fostercareeducation.htm.

Coalition for Juvenile Justice. (2001). *Abandoned in the back row: New lessons in education and delinquency prevention.* Washington, DC: Author. Retrieved May 1, 2010 from http://www.juvjustice.org/media/resources/resources_122.pdf.

Courtney, M.E., Roderick, M., Smithgall, C., Gladden, R.M., Nagaoka, J. (2004). *The educational status of foster children.* Chicago, IL: Chapin Hall Center for Children at the University of Chicago.

Farmer, E., Burns, B.J., Phillips, S.D., Angold, A., Costello, E.J. (2003). Pathways into and through mental health services for children and adolescents. *Psychiatric Services, 54*(1), 60-66.

Fisher, PA., Burraston, B., & Pears, K. (2005). The early intervention of foster care program: Permanent placement outcomes from a randomized trial. *Child Maltreatment, 10*(1), 61-71.

Kortenkamp, K., & Ehrle, J. (2002, January). The well-being of children involved with the child welfare system: A national overview. Washington, DC: The Urban Institute, *Assessing the New Federalism* Policy Brief B-43.

Legal Center for Foster Care & Education. (2008). *Collecting data to improve educational outcomes for children in out-of-home care*. Chicago, IL: American Bar Association & Casey Family Programs.

Leve, L.D., Chamberlain, P., & Reid, J.B. (2005). Intervention outcomes for girls referred from juvenile justice: effects on delinquency. *Journal of Consulting & Clinical Psychology, 73*(6), 1181-1185.

Massinga, R., & Pecora, P.J. (2004). Providing better opportunities for older children in the child welfare system. *Children, Families, and Foster Care, 14*(1), 151-173. Retrieved April 29, 2010 from www.futureofchildren.org.

National Working Group on Foster Care and Education. (2008, December). *Educational outcomes for children and youth in foster and out-of-home care: Fact Sheet.* Seattle, WA: Casey Family Programs. Retrieved April 27, 2010 from www.casey.org/Resources/Publications/EducationalOutcomes.htm.

Pecora, P.J., Kessler, R.C., O'Brien, K., White, C.R., Williams, J., Hiripi, E., et al. (2006). Educational and employment outcomes of adults formerly placed in foster care: Results from the northwest foster care alumni study. *Children and Youth Services Review, 28*(12), 1459-1481.

Smithgall, C., Gladden, R.M., Howard, E., George, R., & Courtney, M. (2004). *Educational experiences of children in out-of-home care.* Chicago, IL: Chapin Hall Center for Children at the University of Chicago.

Stein, M. (2006). Research review: Young people leaving care. *Child and Family Social Work, 11*, 273-279.

Suhyun, S., Jingyo, S., Houston, I. (2007). Predictors of categorical at-risk high school dropouts. *Journal of Counseling and Development, 196*, 196-203.

Sweeten, G. (2006). Who will graduate? Disruption of high school education by arrest and court involvement. *Justice Quarterly, 23*(4), 462-480.

Veysey, B.M., & Hamilton, Z. (2007). Girls will be girls: Gender differences in predictors of success for diverted youth with mental health and substance abuse disorders. *Journal of Contemporary Criminal Justice, 23*(4), 341-362.

Walker, L. & Smithgall, C. (November 2009). *Underperforming schools and the education of vulnerable children and youth*. Chicago, IL: Chapin Hall Center for Children at the University of Chicago.

Wasserman, G.A., Keenan, K., Tremblay, R.E., Coie, J.D., Herrenkohl, T.I., Loeber, R., et al. (2003). *Risk and protective factors of child delinquency.* Washington, DC: US Department of Justice, Office of Juvenile Justice and Delinquency Prevention. Retrieved May 1, 2010 from www.ojjdp.ncjrs.org

Yoshikawa, H. (1995). Long-term effect of early childhood programs on social outcomes and delinquency. *The Future of Children, 5*(3), 51-75.

Appendix B

Data Obtained from the Utah State Office of Education

SCHOOL ENROLLMENT DATA	
student_id	USOE internal student identifier
ssid	statewide student identifier
last_name	student last name
first_name	student first name
zip_code	student zip code
school_year	school fiscal year
district_id	USOE district identification number
district_name	character name, district
district_zipcode	district zip code
school_id	USOE school identification number
school_number	character value assigned to each school in addition to school_id
school_name	character name, school
short_name	short version character name, school for reporting purposes)
school_zipcode	school zip code
entry_date	date student entered school
validated_exit_date	date student transferred out of school
oct_1_enroll	0,1 flag, 1 indicates student was enrolled on Oct 1 -- for state reporting purposes
part_time*	identifies students who spend some part of their school day in a different environment than listed school
mobile	0,1 flag, 1 indicates student has less than 160 days of membership in school
grade_level	0-12, indicates student grade level in current year
special_ed_membership	days of membership for student in self contained special education setting, reported in 180 day equivalents
yic_membership_days	days of membership for youth in custody students, recorded in 180 day equivalents
total_membership	total membership for a student; calculated sum of regular membership days, special ed membership days, yic membership days. Reported in 180 day equivalents
attendance	number of days student was in physical attendance at school
exit_code*	reason for student transfer from one school to another
hs_completion_status*	code used to indicate the end result of a student's education
cumulative_gpa	only valid for students in grades 9-12; student grade point average
birth_date	student birth date
gender	student gender
low_income	0,1 flag, 1 indicates student is part of the free and reduced price lunch program and is thus considered to be from a low income family
race_merged*	indicates student race according to federal guidelines
limited_english*	indicates level of english language comprehension of student as measured by state UALPA test
special_ed*	indicates type of special ed services received by student

* = see associated code table for descriptions

CRT DATA FOR LANGUAGE ARTS, MATH, AND SCIENCE	
student_id	USOE internal student identifier
ssid	statewide student identifier
district_id	USOE district identification number
district_name	character name, district
school_id	USOE school identification number
school_number	character value assigned to each school in addition to school_id
school_name	character name, school
short_name	short version character name, school for reporting purposes)
zipcode	school zip code
school_year	school fiscal year
test_prog_id	internal USOE test identifier
test_program_desc	description of CRT test taken
test_participation*	code distinguishing type of student who took a CRT test
test_non_participation*	code distinguishing reasons a student did not participate in CRT test
scaled_score	CRT scaled score, range 130 to 199, passing = 160
validated_proficiency*	state proficiency scale, range 1-4, 1 and 2 = not proficient; 3 and 4 = proficient
value_table_score	score indicating whether or not a student made academic progress on CRT test from one year to next

* = see associated code table for descriptions

SCRAM/SPECIAL EDUCATION DATA	
student_id	USOE internal student identifier
ssid	statewide student identifier
school_year	school fiscal year
district_id	USOE district identification number
district_name	character name, district
school_id	USOE school identification number
school_number	character value assigned to each school in addition to school_id
school_name	character name, school
short_name	short version character name, school for reporting purposes)
zipcode	school zip code
scram_entry_date	date student first began receiving SPED services
resource*	identifies type of disability for which student is receiving SPED services
time*	indicator of minutes of SPED services received by student each day
scram_exit_date	day following last day student received SPED services
exit_code*	identifies reason student exited SPED services
membership	total aggregate days of membership in SPED services, reported in 180 day equivalents
regular_percent*	summarizes amount of time student is in a regular education class
environment*	type of educational setting in which the student receives SPED services

END NOTES

[i] Note that the DCFS annual report has 4664 children served in foster care. There was back entry of two cases since the data was pulled for the annual report, consequently this number is two higher.

[ii] Note that the DCFS annual report has 4664 children served in foster care. There was back entry of two cases since the data was pulled for the annual report, consequently this number is two higher.