



***Minn-Link Child Welfare
Special Topic Report No. 1***

***High School Graduation and
Child Welfare:***

**A Description of the Education Status of
Older Minnesota Adolescents in the
Academic Year After Substantiated Child
Maltreatment Findings**

Anita Larson
Marcie Jefferys

*Center for Advanced Studies
in Child Welfare*

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Executive Summary

The educational outcomes of older adolescents are a focal point for policymakers and advocates monitoring the transition of teens to adulthood. This is especially the case for adolescents who are at higher risk of school failure such as those who have been in contact with the child protection system (or child welfare). Much of the literature on educational outcomes of child welfare adolescents focuses on teens in long-term foster care. This report examines the educational outcomes of older adolescents who have had recent involvement with the child protection system. Since a small proportion of the study group experienced placement the report provides a broader review of this at-risk population than many previous studies. While there is no question that adolescents in long-term foster care constitute one of the highest risk populations for school failure, the broader population of adolescents involved in child protection are similar in many ways and are often in and out of placements over the course of their experience with both child protection and the public school system. The primary reason for this study was to provide Minnesota with a glimpse of the high school graduation rates of adolescents who have had contact with child protection – some of whom have been in placement and some who have not. It also allowed for the exploration of the linkage of separate statewide data sets to answer an important question about child outcomes.

Using secondary administrative data sets, the Minn-LInK project at the University of Minnesota School of Social Work in the College of Human Ecology, for the first time examined a group of 999 older Minnesota adolescents who had experienced a substantiated maltreatment finding over a range of 30 months prior to the 2002-2003 school year. Child welfare record selection was based on child birth dates by projecting whether the student would be at or near graduation age by the end of the 2002-2003 school year.

Data about the adolescents revealed that they share many of the characteristics of child protection populations described in other studies; they are disproportionately of color, tend to be poor, and have high rates of disability (indicated in this case by receipt of special education services). The most common form of maltreatment experienced by this group is neglect, and the placement rate for the group is relatively low at 7% - something that would be expected with a relatively older group of adolescents (in their late teens at the time of substantiated maltreatment).

The data linkage process (between child welfare and education records) for these adolescents achieved a match rate that was as high as 70% for 18 year-olds when examined by age cohort. Overall, 50% of the entire adolescent group could be located in the 2002-2003 public education records. When the education outcomes of 12th graders were examined (N=387) the graduation rate was 47% - considerably lower than the overall high school graduation rate averaged by Minnesota students. Various agencies and calculation methods produce an overall Minnesota high school graduation rate of around 80%. While a 47% graduation rate is low by Minnesota standards, it is in line with the graduation rates of foster care populations from studies done in other states which range between 45 and 50%. Graduation rates were significantly different when examined by whether the student was from a metro or non-metro county, whether they were gifted or talented, and whether they were of color.

Foremost, the educational outcomes of this particular group will not surprise anyone who works with them. Social workers, case workers, teachers, juvenile justice staff, and county agencies will very likely find that these findings resonate with their professional experiences. This analysis seeks to “put numbers on” the educational outcomes of these youth and prompt a substantive discussion about whether or not these results are acceptable in Minnesota.

Reviewing the educational status of all students revealed a group that is experiencing many changes and moves during the year that disrupt learning and academic progress. While almost 75% of the entire group was showing overall educational progress, a substantial proportion (21%) was experiencing major set-backs that included pregnancy, entering treatment facilities, and dropping out of school.

Since this study was as much an exploration in cross-system data matching for a distinct population as it was an examination of educational outcomes, the “unknowns” about the group are important to mention. Specifically, when the characteristics of the unmatched portion of the child welfare group were examined (those whose education records could not be located) there was a significant relationship between geography and whether or not the education record could be matched, with metro area child welfare records being much more match-able than non-metro. Logically, older students were significantly less likely to be located in the education records than younger students.

As an exploratory and descriptive analysis, this report is intended to prompt thought, discussion, and suggests a number of new directions for further research and

policy and practice considerations. It provides a baseline against which to compare the impacts of new practices or innovative services targeted at at-risk teens. Future research could include an examination of public assistance program use, wage data, or post-secondary education enrollment to help explain how these young adults are faring with and without having graduated from high school. Policy and practice implications are raised that point towards examining what proactive collaborative practices are currently in place in Minnesota schools that are intended to boost educational outcomes. (This is no small task with over 300 districts and 87 counties.) Where such joint-services are lacking, jurisdictions are challenged to experiment with new models and measure results. While educational outcomes are a case management priority for most youth who are in or about to leave out-of-home placement, Minnesota leaders in policy and practice should consider the ways in which education can also be a priority for youth who are without current case management, or who have had a history of contact with the child protection system. Although this is outside the traditional realm of responsibility and caseload capacity of most current county case workers, it bears serious consideration given that this adolescent group's high school graduation rates are very similar to those revealed by studies of foster care youth in other states and significantly lower than the overall high school graduation rates of all Minnesota students - consistently one of the highest in the nation.

Introduction

The adult outcomes of children who have contact with the child welfare system are important to communities, child advocates, and policymakers. Young adults with poor educational outcomes, untreated mental health problems or other personal and social challenges may not reach their full potential in terms of earnings, physical and mental health, aspirations, or become effective parents. Adults who cannot contribute positively, frequently generate costs to the larger community in terms of welfare utilization and crime. The economic growth of any country depends upon a workforce that is well-educated and productive (National Science Foundation, 1996).

Education is key to economic and personal well-being. This report provides information on the educational outcomes of older adolescents who have had contact with the child welfare system in Minnesota, over 30 months, prior to the 2002-2003 academic year. Very few of these youth were in out-of-home placement, and it is likely that many of them no longer had active county case workers when their educational status was reviewed.

The report also provides descriptive data on the study group that show similarities between them and national educational outcome trends observed for long-term foster care youth - a different, but related population. It suggests additional research questions and prompts consideration of policy and practice implications for the adult outcomes of Minnesota youth at risk for school failure. The scope of the examination captures older youth for whom there was a substantiated (i.e. confirmed after investigation) maltreatment findings in Minnesota during January 2001 through June 2003 (with no out-of-home placement at the time of maltreatment) as well as those few who were later placed out of home as a result of the maltreatment. This paper is the first in a series of Minn-LInK special topic reports related to child well-being in Minnesota.

The report is structured to focus first on the graduation outcomes of 12th grade adolescents with recent child protection system involvement, followed by an overview of the educational status of students in the entire group at all ages and grade levels (including, but not limited to 12th graders). Related analyses that describe the original child protection group and information on adolescents whose education records could not be matched are included in Appendices A and C respectively.

Background

Older Adolescents in the Child Welfare System

Literature on child welfare youth most often focuses on those who have been placed long-term out of their homes due to abuse and neglect. Many foster care youth - those who have spent some or a large portion of their childhoods in relative and non-relative homes - constitute a population that faces significant challenges to becoming successful adults. Foster care youth arguably represent the most at-risk of all children who have contact with the child welfare system. Although this study examines a broader population of adolescents having contact with the child welfare system in Minnesota, many children cycle in and out of placement and therefore the most current findings related to adult outcomes of foster care youth likely apply to a portion of the child welfare population in general and at any point in time.

Older adolescents constitute a bit more challenging group to study because their contact with the child protection system becomes more tenuous and inconsistent as they approach age 18. Some county agency staff indicated that they do not always investigate alleged maltreatment of older adolescents - or, if an older adolescent has contact with any public system, it is more often the corrections area. County agencies also acknowledge that staff cuts have created some limitations on what can and cannot be investigated with older youth. Youth without placement often do not have active case plans in place, which also limits the services they receive. For these reasons and probably many others, much of the literature on older adolescents in public child welfare systems focuses on those in long-term placement.

This study is different than most in that it casts a broader net to include older adolescents who have had contact with child protection (in this case, via a substantiated maltreatment finding) - acknowledging that many other adolescents are no longer even involved in child protection by this age and are, therefore, not represented here.

Social and Emotional Well-being and Disability

Most studies of foster care youth show that they have more developmental problems (including disabilities) than other children. These social and emotional challenges can continue into adulthood: over two-thirds of young adults discharged from foster care were found to have emotional disturbances (38%) or were using illegal drugs (40%) (Wertheimer, 2002). A study of foster care children preparing to leave state care

found that rates of special education receipt among sample subjects were as high as 47% (Courtney, et al, 2004) with similarly disproportionate rates for other studies (ranging from 19-36%) (MacArthur Foundation, 2005). Up to 38% of former foster care youth report being emotionally disturbed (Wertheimer, 2002).

Youth with child protection contacts and histories of placements are at risk for homelessness. Homeless youth surveyed in Minnesota reported high rates of suicidal thoughts (34%), attempts (67%), or a significant mental health problem (42%) (Owen, 2003). The Midwest Evaluation of the Adult Functioning of Former Foster Youth found that foster care youth had disproportionately higher rates of serious fighting, theft, running away and causing injury than the national average (Courtney, 2004). A 2004 study of need and use of mental health services among child welfare populations showed that only 25% of youth in need of mental health services received them (Burns, et al).

Contact with the Justice System

Juveniles with a history of foster care placement have high rates of crime and incarceration during their adolescence and after exiting care. There continues to be an important overlap between youth experiencing maltreatment, foster care, homelessness, and criminal activity. Of homeless youth surveyed, 10% reported that they had traded sex for shelter, clothing, or food (Owen, 2003). One-quarter to over 1/3 of adolescents exiting foster care reported that they had done something illegal for money (Barth, 1990; Casey Family Programs, 2001) and other studies indicate that the range of contact with the justice system can be anywhere from 18-45% of a given sample of former foster care children (Wertheimer, 2002; Casey Family Programs, 2001; Courtney, 2001). The interconnectedness of juvenile justice involvement, foster care involvement, and emotional well-being is also evident by 20% of juveniles arrested having a serious mental health disorder (Mac Arthur Foundation) and 50-75% of incarcerated youth having a diagnosable mental health disorder (National League of Cities, 2005).

Education and Work

The multiple effects of the challenges presented by social and emotional issues, disability, poverty, and contact with the justice system are manifested in the educational outcomes of former foster care youth. This is a critical issue because education is universally considered the foundation of economic and personal well-being in adulthood. In addition to having disproportionate rates of special education receipt, foster care students have high rates of tutoring, when available (35%), and low rates of high school completion. For those students still in foster care, academic failure becomes a risk factor for further

maltreatment and ongoing academic problems (Evans, 2004). While trying to finish school, older foster care youth experience a host of challenges.

A comparison study of foster care and non-foster care high school students showed that foster care youth experienced more discipline problems, higher rates of school changes, lower (foster) parent school involvement, and for those who graduated from high school, less financial aid for post-secondary education from their biological family. Foster care students were more likely than non-foster care students to be tracked into "general" post-secondary planning (e.g. vocational and community college or employment) than "college prep," even after controlling for test scores and grades. When student groups had similar post-secondary plans, there was a lag in former foster care students being able to keep up with those plans at the same rate as non-foster care students post graduation. Foster care students who were due to graduate were much more likely than non-foster care students to say that they would not be disappointed to not graduate with their classmates on time. Among drop-outs in the sample, 25% reported that not liking the teachers was a reason why they left school (Whiting Blome, 1997).

Follow-up studies show that former foster care youth graduate in lower numbers than non-foster care populations with graduation rates that range from 45% - 50% (Barth, 1990; Wertheimer, 2002; Casey Family Programs, 2001). By age 18, adolescents, who have had disrupted school attendance due to moves and foster care placements, poor academic performance because of multiple stressors, also abruptly lose access to the supportive services that could ease the transition to adulthood.

Challenges faced by adolescents in the child welfare system must also be viewed in the broader context of changes in how all youth now transition to adulthood in American society. A growing body of literature suggests that for most young people in the United States, traditional "adulthood" no longer actually begins at ages 18 or 21 (i.e., the legal voting or drinking age in most states). In fact, with many young adults remaining at home with parents during their college years or when first securing employment, it seems that youth without the assets of supportive families or economic resources begin adulthood even further behind their peers (Arnett, 2001).

Although older adolescents having contact with the child welfare system face significant challenges as they enter adulthood, this paper is intended to describe the secondary educational outcomes that result from these challenges, exploring potential new research and policy and practice innovations that could improve them.

Study Data and Design

Minn-LInK

The Minn-LInK project at the Center for Advanced Studies in Child Welfare at the University of Minnesota School of Social Work relies on secondary administrative data obtained from statewide public programs. Minn-LInK provides a unique collaborative, university-based research environment with the express purpose of studying child and family well-being in Minnesota. The administrative data sets used in this descriptive analysis originate in the Minnesota Department of Human Services (utilizing the Social Services Information System, or SSIS), which oversees the state child protection system in Minnesota and student public school education records from the Minnesota Department of Education. All data use has been within the personal privacy guidelines set by strict legal agreements between these agencies and the University of Minnesota.

The Data

Human service programs collect data for multiple purposes: program administration, compliance with federal and state reporting, fiscal management, and local outcome measures. Policy and practice research has rarely been the focus of either automated system development or data collection. While these realities do not prohibit the successful design, implementation, and completion of research, it does present researchers with unique challenges related to study design and time-frames for study group selection that do not occur when collecting and working with primary data. Instances in which data system conditions drove the structure of this study have been noted in this report.

In this study, the entire universe of adolescents experiencing substantiated (confirmed) maltreatment or neglect for a given time period and meeting age criteria were selected. There is no comparison group, and the ability to match the child protection records to education records was a function of unknown factors. For these reasons, statistical tests were not run on the data.

Graduation Rates

The graduation percentage rates for this study were calculated by creating a ratio of the number of students in 12th grade who graduated over all 12th grade students. This is different from the methodology used in some other studies. In fact, over the past five years there has been a great deal of interest in and reconsideration of the ways in which school districts across the nation calculate and report their high school graduation rates largely

driven by the passage of the No Child Left Behind (NCLB) education act.

The national research group, the Urban Institute, and others, recommend a multi-year method that takes into account the status of 9th graders by 12th grade, following those students over the entire time period. The Urban Institute method, called the Cumulative Promotion Index or CPI, is similar to that used by schools to report for NCLB (Swanson, 2004). In 2001, the Manhattan Institute, using National Center for Education Statistics data, used a method that creates a ratio of the number of public high school diplomas awarded by an estimate of the number of students who would have received diplomas had the graduation rate in that school been 100 percent. This method also requires multiple years of data, as it follows students who begin in eighth grade and adjusts by student population changes over six years (Greene, 2001). Because the child welfare adolescent group consisted of students of different age and grade ranges, many years of education data would have been required to calculate graduation rates in this manner.

Studies of specific populations of students - such as adolescents in long-term foster care - frequently rely upon student report for information about graduation or are limited by the number of years of administrative data they have available for study (Courtney, et al, 2004; Burley, et al, 2001). This study was also limited in the number of years of data available for study, and while the method used for calculating graduation did not involve multiple years, it is intuitive, and the same method was used to calculate the graduation rates for all 12th grade Minnesota graduates as for the child welfare adolescent Graduate group. Further, while the method relies upon a single year of data, it did produce an overall graduation rate for all 12th grade graduates that is similar (within four to five percentage points) to most other sources reporting on Minnesota graduation rates (in this report, the overall graduation rate for 12th graders in June 2003 was 74%). What is most important to keep in mind, is that this report is about the gap between the graduate rates - however it may be calculated - between all Minnesota 12th graders and 12th graders who have had recent contact with the child protection system. For more detailed information on the calculation of graduation rates, see Appendix D.

Match for Graduation Status

The child welfare and education data systems in Minnesota do not share a unique identifier by which individual child records can be easily matched. Recordmatching must be accomplished according to algorithms that combine first and last name and birthdates and occasionally, social security numbers.

The education records for some adolescents simply cannot be matched because of insufficient or inaccurate information in either or both files (or because adolescents are not enrolled in the public education system).

Prior to matching to education records, a group of child protection records were selected. This group was comprised of all adolescents who experienced substantiated maltreatment or neglect over the period of January 2001 and June 2003, and who were projected to be near graduation age (at least 18) by

June 2003. (For more information on the characteristics of this group, see Appendix A.)

In addition to the inevitable inability to match some records due to inaccuracies and lack of data, the oldest members of the adolescent sample were less likely than younger members to appear in the education record. In particular, 115 students were projected to turn 20 during the 2002-2003 school year and have a lower likelihood of being enrolled in the K-12 school system. The best assessment of the match rate takes into account matches by the age of the student as shown in Table 1.

Table 1. Education Match Rate for Child Welfare Adolescent Group, by Age Cohort

Age at Maltreatment (January, 2001 - June, 2003)		Age as of June 2003	Number of Adolescents in Base Group	Number Matched to Education Records	Match Rate by Age Cohort
Age	Number				
15	28	18	564	397	70%
16	274				
17	228				
18	34				
16	39	19	320	92	29%
17	191				
18	69				
19	21				
17	14	20	115	12	10%
18	58				
19	33				
20	10				
Total = 999		Total	999	501	50%

Grade Level

Unless students have a diagnosed disability, this study assumes they will be enrolled at a particular grade level based on age. During the 2002-2003 school year, the 501 matched students were enrolled in the grade levels shown in Table 2. About 6% (or 28 students) are age 18 but are in only 9th or 10th grade.

Similarly, 12 20-year-olds are enrolled in either 11th or 12th grade.

Table 2. Grade Levels for Child Welfare Adolescent Group, 2002-2003 School Year

Projected Age as of June 2003	Actual Grade Level Enrolled in 2002-2003 School Year				Total
	Grade 9	Grade 10	Grade 11	Grade 12	
18	3	21	76	297	397
19	0	3	8	81	92
20	0	0	3	9	12
Total	3	24	87	387	501

Education Statuses

Education records are updated throughout the school year each time student status changes in a variety of ways. There are a total of 33 status-end update codes that are recorded on student records - only two of which specifically pertain to graduation (codes eight and nine). For the following analyses, the graduation status of the child welfare adolescent group will be described, along with some of the other statuses that indicate educational progress.

Table 3. Age at Maltreatment of 12th Grade Graduates and Non-Graduates

Age at Maltreatment	Graduates		Non-Graduates		Total
	N	%	N	%	
15 -16	86	49.4	88	50.5	174
17	77	44.5	96	55.4	173
18-20	21	52.5	19	47.5	40
Total	182		205		387

Results

Education Status, 12th Graders

Three-quarters (N=387) of the adolescent group were in 12th grade during the 2002-2003 school year. Of these, 182 successfully graduated. With the assumption that all 12th graders were potentially eligible for graduation, based on their age and grade level during the school year, this is a 47% graduation rate. Seven graduates were enrolled in 11th grade for a total of 189 high school graduates. (The details as to how these graduates managed to exit in the 11th grade are unknown, but it is assumed that they did so by completing the academic requirements to graduate.) For more detailed information on the calculation of graduation rates, see Appendix D.

Characteristics of 12th Grade Child Welfare Adolescent Graduates

The following analysis examines the characteristics of 12th grade graduates and non-graduates (a total of 387 students). It excludes the status of adolescents who were in grades lower than 12, since they were not expected to be eligible for graduation based on their grade level. The status of overall educational progress for the entire group will be addressed in the following section.

Age at Maltreatment

While adolescents who were age 17 at the time of maltreatment constituted the largest proportion of graduates, they likewise comprise the greatest proportion of non-graduates - probably a function of the structure of the study (focusing on the child protection maltreatment findings occurring the year prior to graduation). There were more graduates than non-graduates among those who had been between the ages of 18 and 20 at the time of maltreatment.

Race

When examined by race, graduates constituted greater proportions of Caucasian and American Indian/Alaskan Native adolescents. Black or African-American adolescents were disproportionately comprised of non-graduates.

Table 4. Primary Race of 12th Grade Graduates and Non-Graduates

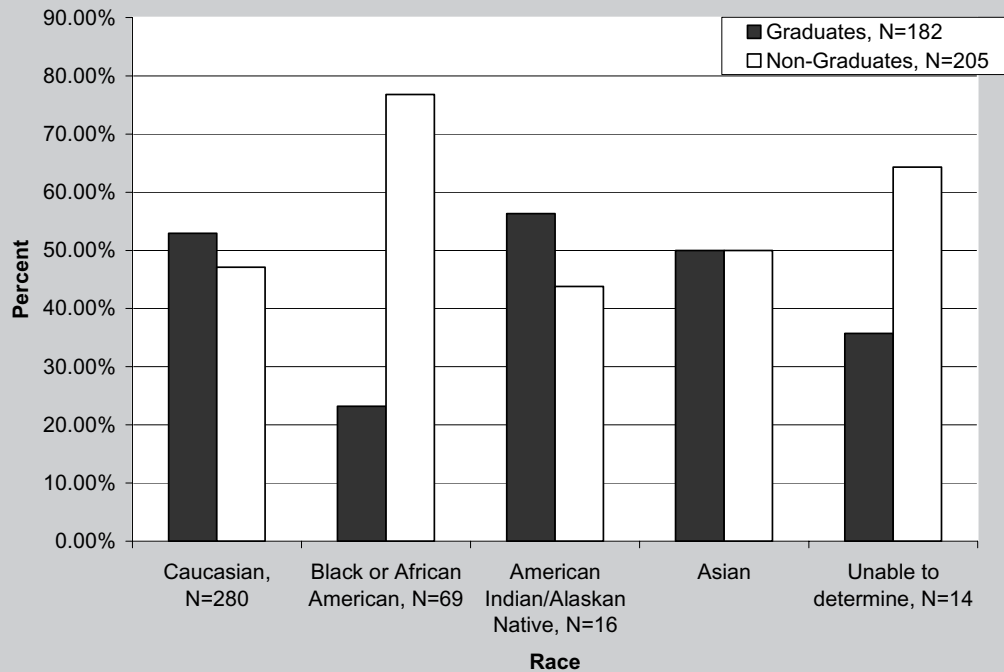
Primary Race	Graduates		Non-Graduates		Total
	N	%	N	%	
Caucasian	148	52.9	132	47.1	280
Black or African American	16	23.2	53	76.8	69
American Indian / Alaskan Native & Asian	13	54.2	11	45.8	24
Unable to Determine / Unknown	*	-	*	-	14
Total	182		205		387

*cell values less than 10

Chart 1. Race of 12th Grade Graduates and Non-Graduates of the Child Welfare Adolescent Group

Race

When examined by race, graduates constituted greater proportions of Caucasian and American Indian/Alaskan Native adolescents. Black or African-American adolescents were disproportionately comprised of non-graduates.



Primary Maltreatment Type

Table 5 shows that graduation outcomes were proportionally worse for adolescents who experienced general neglect types of maltreatment. There was a higher proportion of graduates in "threatened abuse and mental harm." However, this group is quite small.

Table 5. Primary Maltreatment Type of 12th Grade Graduates and Non-Graduates

Maltreatment Type	Graduates		Non-Graduates		Total
	N	%	N	%	
General Neglect	73	42.9	97	57.1	170
General Abuse	100	49.8	101	50.2	201
Threatened Abuse & Mental Harm	*	-	*	-	16
Total	182		205		387

*cell values less than 10

Table 6. Sex of 12th Grade Graduates and Non-Graduates**Sex**

A greater proportion of females were graduates than males.

Sex	Graduates		Non-Graduates		Total
	N	%	N	%	
Female	109	49.3	112	50.7	221
Male	73	44.0	93	56.0	166
Total	182		205		387

Placements

Among 12th graders, there were a total of 27 placements that occurred within 90 days of the maltreatment substantiation date. (For the entire matched group, there were a total of 70 placements - 33 child welfare adolescents with placements could not be matched to education records.) The majority of both the graduate and non-graduate 12th graders were not placed as a result of the substantiated maltreatment event. For 12th graders, there were 15 placements among graduates and 12 for non-graduates. Although there are very few in placement, these students did have higher graduation rates.

Table 7. Placement Status of 12th Grade Graduates and Non-Graduates

Placement within 90 days	Graduates		Non-Graduates		Total
	N	%	N	%	
Placement	15	55.6	12	44.4	27
No Placement	167	46.4	193	53.6	360
Total	182		205		387

Free and Reduced Price Meal**Eligibility**

Based on free and reduced price meal eligibility, results appear mixed with non-graduates making up higher proportions of those who were either ineligible for the meal program (implying more economic advantage) or eligible for free meals. Although a relatively greater proportion of those eligible for reduced-price meals graduated, this sub-group is comprised of only 23 students.

Table 8. Meal Program Eligibility of 12th Grade Graduates and Non-Graduates

Meal Program Eligibility	Graduates		Non-Graduates		Total
	N	%	N	%	
Ineligible	76	45.0	93	55.0	169
Reduced Meals	*	-	*	-	23
Free Meals	64	45.1	78	54.9	142
Total	182		205		387

* cell values less than 10

Special Education Receipt

Non-graduates were disproportionately represented among those receiving special education.

Table 9. Special Education Receipt of 12th Grade Graduates and Non-Graduates

Special Education Receipt	Graduates		Non-Graduates		Total
	N	%	N	%	
No	136	49.1	141	50.9	277
Yes	46	41.8	64	58.2	110
Total	182		205		387

Gifted and Talented Status

Gifted and talented students comprised a relatively small percentage (3.6%) of the overall 12th grade child welfare adolescent group, but there were more graduates among them than non-graduates.

Table 10. Gifted and Talented Status of 12th Grade Graduates and Non-Graduates

Gifted & Talented Status	Graduates		Non-Graduates		Total
	N	%	N	%	
Yes	*	-	*	-	14
No	171	45.8	202	54.2	373
Total	182		205		387

* cell values less than 10

Geography

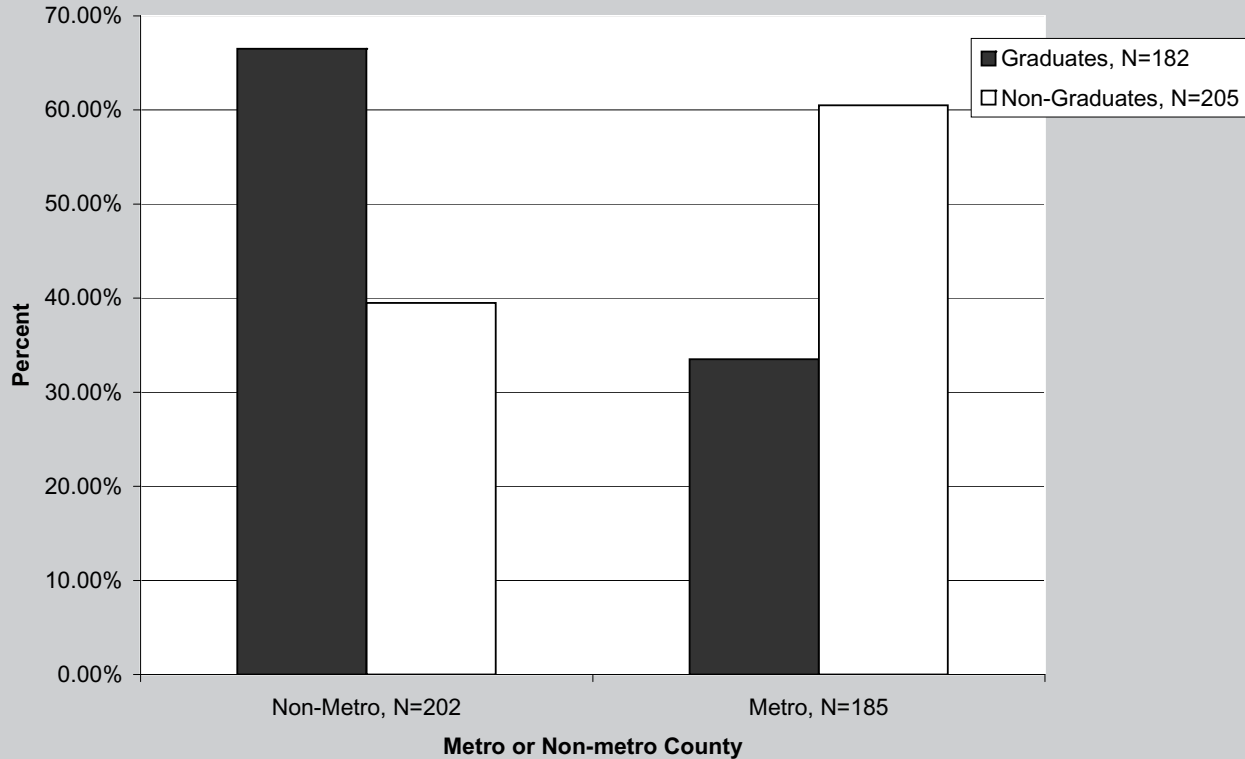
Child welfare adolescents from non-metro counties were more likely to be high school graduates than adolescents from metro counties. Analyzing 12th grade graduation rates by school district produces extremely small sub-groups (very small Ns) to be helpful. With the exception of Districts 1 (Minneapolis) and 625 (St. Paul), no other districts in this 12th grade group have more than 10 students associated with them.

Table 11. Geography of 12th Grade Graduates and Non-Graduates

Geography (county type)	Graduates		Non-Graduates		Total
	N	%	N	%	
Metro	61	33.0	124	67.0	185
Non-Metro	121	59.9	81	40.1	202
Total	182		205		387

*county refers to the county where the substantiated maltreatment finding was determined

Chart 2. Metro or Non-Metro County* of 12th Grade Graduates and Non-Graduates of the Child Welfare Adolescent Group



12th Grade Non-Graduates

Finally, it is important to consider why some 12th graders did not graduate. A brief examination of some of the education statuses for 12th grade non-graduates revealed that many experienced considerable change and disruption throughout their school year. Most often disruptions were related to moves or transfers.

Table 12. 12th Grade Non-Graduate Status Information

Status	N
Transferred to another public school in same district	56
Student moved outside of district	35
Student left for unknown reasons	33
Student transferred to another dist/state but did not move	28
Withdrawn after 15 consecutive days absence - expected back	24
All others	46
Total	222*

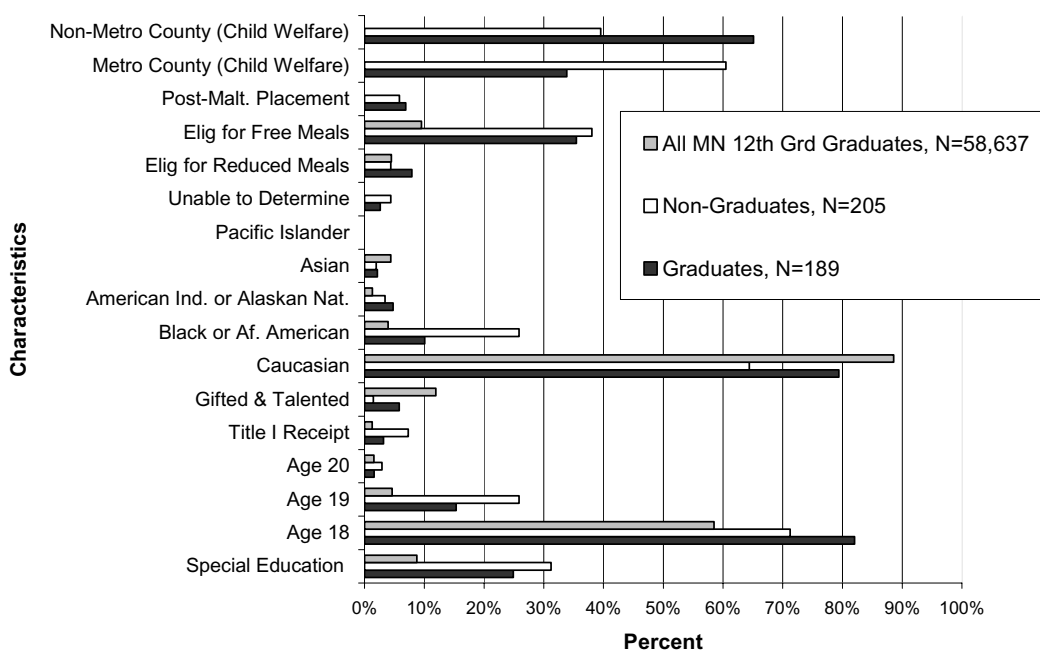
* Statuses are duplicated. Non-graduates totaled 205 students.

Summary

Overall, for the 12th grade child welfare adolescent group graduation outcomes are poorer for those who experienced neglect-related maltreatment types, received special education or were male. Less conclusive but interesting relationships relate to economics (free and reduced-priced meal eligibility) and whether or not the student had experienced placement within 90 days of the maltreatment finding. Graduation appears significantly related to geography (whether the adolescent's maltreatment finding is from a metro or non-metro county, but not by district - due to small numbers), race, and whether or not the student is gifted or talented. The characteristics that were found to be particularly related to graduation rate in the 12th grade child welfare group appear quite pronounced when compared to available characteristics of the entire population of Minnesota graduates for the 2002-2003 school year in Chart 3.

When compared to all 12th grade graduates in 2003, the 12th grade adolescent group overall is much poorer, more likely to be of color (non-Caucasian), more likely to be older, and much more likely to receive special education. Minnesota has historically had one of the highest high school graduation rates in the country at around 78% (Minnesota Planning, 2005). This is significantly higher than the 47% graduation rate exhibited by the adolescents in the child welfare group profiled in this report - and no better than other studies that have examined the graduation rates of similar populations of youth in other states.

Chart 3. Characteristics of 12th Grade Adolescent Group Graduates and Non-Graduates and All Minnesota 12th Grade Graduates, 2002-2003 School Year



Source: Minnesota Department of Education MARSS data for 2002-2003 School Year.

Note: Not all characteristics were available for all Minnesota graduates (such as county of child welfare finding and post-placement counts). And, race data comes, not from the child welfare data system, but from the education data. Child welfare adolescent group graduates are included in the 58,637 graduates, but constitute less than 1% of the graduate population, and are unlikely to significantly skew characteristics for comparison.

Education Status, All Grades

The study focuses on high school seniors who comprised three-quarters of the study group. To have the most complete picture of progress for this group, it is important to consider the educational progress of students in the lower grades, who will be eligible to graduate in the near future. To make a group-wide determination about educational progress, each non-graduate record was reviewed and, based on the progression and combination of education status codes over time, a judgment was made as to whether or not the student had experienced a set-back or had shown progress during the academic year. A set-back was determined to be any status update code progression that indicated a significant and negative disconnection from school (e.g. commitment to a treatment facility, leave due to pregnancy, or leave for another reason). Only if the disconnection indicated ongoing education (such as leaving school to attend a GED program, or transferring to another school in the district) was it considered progress. Given the negative impact of school change disruptions to a student's progress, the assumption of "progress" for this particular type of change is probably debatable. However, in this study, maintenance of school attendance was considered positive and indicated a bare minimum for school participation. A very conservative approach was taken.

If a student returned to school after a leave, they were considered to have experienced a set-back during the year (for instance, when compared to students who stayed enrolled all year). Certainly the return to school is positive, but in terms of ongoing progress towards graduation, any significant time period of disconnection from school could have adverse affects. Only if students moved outside of the state or country, transferred to a non-public school, or left a district with no other subsequent enrollment information was their education status considered "unknown." Table 13 summarizes this logic and more information on the rationale can be found in Appendix B. Chart 4 illustrates the proportions of child welfare adolescents who fell into each group, applying the educational progress criteria described in Table 13. Almost three-fourths (70%) of the adolescent child welfare group were making educational progress. Note that progress includes students who have graduated, which casts a broader net in terms of discussing educational outcomes.

**Chart 4. Educational Progress: Entire Child Welfare Adolescent Group
(all ages, all grades)**

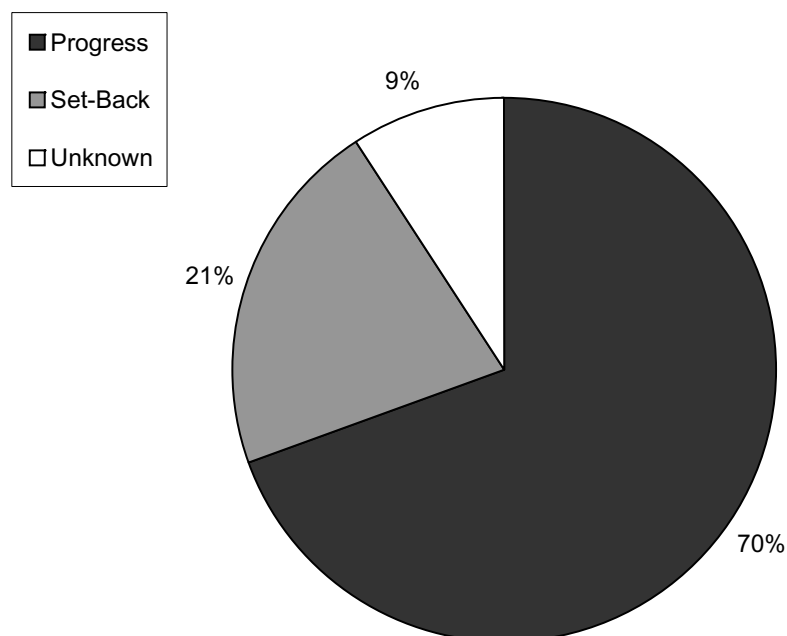


Table 13. Education Status According to Student Record Codes

Unknown	Set-Back	Progress	
		Graduated	Graduated
Student moved outside of district	Left for social reasons Left for financial reasons	Left to attend GED program	Graduated (non-IEP/IIIP)
Transferred to another district or state but did not move	Withdrew to enter care or treatment program Left due to pregnancy	End of year - Student enrolled on last day of school year	Graduated (IEP/IIIP)
Withdrew and transferred to a non-public school	Committed to treatment facility Died Left after turning 21	Continued enrollment Fall reporting	
Moved outside state/country	Student left for unknown reasons Withdrawn after 15 consecutive day's absence - expected back Student dropped out, but re-enrolled by October 1 Met district graduation requirements but did not pass BST	Transferred to another public school in the same district	

***Characteristics of Child Welfare Adolescents Making Progress,
Experiencing Set-backs, and for whom Status is Unknown***

Age at Maltreatment

Table 14 shows that those age 17 at the time of maltreatment experienced more educational set-backs (around 24%).

Table 14. Age at Maltreatment by Educational Status for Child Welfare Adolescent Group (All Ages, All Grades)

Age at Maltreatment	Progress		Set-Back		Unknown		Total
	N	%	N	%	N	%	
15	*	-	*	-	*	-	22
16	150	72.8	43	20.9	13	6.3	206
17	141	62.9	53	23.7	30	13.4	224
18-20	*	-	*	-	*	-	49
Total	348		107		46		501

*Cell values are less than 10.

Who Are Child Welfare's Legal Adults?

The child welfare adolescent group includes a sub-set of older members - technically legal adults - who were between the ages of 18 and 20 at the time of maltreatment (acknowledged by many to be unusually old for a maltreatment finding). It is important to take a brief look at them to try to understand why they appear in the child welfare data.

One reason why older adolescents appear in child protection records is because they are disabled or have special needs. (Likewise, these students are more likely to be in the public education system longer than non-disabled students.) Because disability coding in the early years of the SSIS system was not particularly reliable, some hints at the characteristics of these older adolescents could not be obtained until their records were matched with the public education system.

Seventy percent of matched adolescents who were between the ages of 15 and 17 at the time of maltreatment were coded as non-disabled in the education record, compared to 57% of those who were between the ages of 18 and 20. The nature of the disabilities for the two age groups provides a glimpse of some of the possible reasons for their continued connection with the two public systems.

While students between the ages of 15 and 17 at maltreatment had a wide array of disabilities associated with their education record (12 different types in all), the number of disabilities noted for 18 - to 20-year-olds was fewer (only five), and there were considerable differences in the types. Emotional and behavioral disorders constituted 16% of the 18 - to 20-year-old maltreatment group, compared to only 10% of the 15 -to 17-year-olds. There were higher rates of mental impairments - both mild to moderate and moderate to severe - for the 18 to 20-year-olds (at 6% and 12%), compared to the 15 -to 17-year-olds (at 4% and 2%). Older child welfare adolescents also had higher rates of autism (2% compared to 0% for 15-to 17-year-olds). The only disability category for which 15 to 17-year-olds had higher rates was for "specific learning disabilities" at 11%, compared to 6% for 18 - to 20-year-olds. While this does not provide a definitive answer about the nature of these older students for whom the child protection system has a continued interest, it does shed light on one of the reasons why. Most likely, it is because some of these adolescents are facing additional challenges related to disability or emotional and behavioral issues.

Race

The racial group with the highest proportion of adolescents making educational progress was Asian, followed by Caucasians, "unable to determine race", black/African American, and American Indian had the lowest proportion making progress and the highest proportion experiencing set-backs. The proportion of unknown educational status is relatively stable for each racial category, between 9% and 13%.

Table 15. Race by Educational Status of Child Welfare Adolescent Group (All Ages, All Grades)

Race	Progress		Set-Back		Unknown		Total
	N	%	N	%	N	%	
Caucasian	257	74.1	58	16.7	32	9.2	347
Black/African American	*	-	*	-	*	-	98
American Indian/Alaskan Native	*	-	*	-	*	-	29
Asian	*	-	*	-	*	-	11
Unable to Determine	*	-	*	-	*	-	16
Total	348		107		46		501

**cell values are less than 10*

Primary Types of Maltreatment

The maltreatment type category with the highest proportion of adolescents experiencing educational progress is “general neglect,” but it is only slightly higher than “general abuse” (at 69.0).

Table 16. Type of Maltreatment by Educational Status for Child Welfare Adolescent Group (All Ages, All Grades)

Maltreatment Type	Progress		Set-Back		Unknown		Total
	N	%	N	%	N	%	
General Neglect	158	70.2	50	22.2	17	7.6	225
General Abuse	174	69.0	53	21.0	25	9.9	252
Threatened Abuse & Mental Harm	*	-	*	-	*	-	29
Total	348		107		46		501

*cell values are less than 10

Sex

Males are somewhat disproportionately represented in the group for whom educational status is unknown (11.5% compared to 7.4%). Females tend to have slightly higher rates of both educational progress and set-backs than males - most likely because they are still enrolled in school and their status is known.

Table 17. Sex by Educational Status for Child Welfare Adolescent Group (All Ages, All Grades)

Sex	Progress		Set-Back		Unknown		Total
	N	%	N	%	N	%	
Female	199	70.3	63	22.3	21	7.4	283
Male	149	68.3	44	20.2	25	11.5	218
Total	348		107		46		501

Placements

The educational status of adolescents who experienced placement as a result of their maltreatment finding was very similar to the status of those who did not. The number of placed adolescents is small (N=37), and generalizations should be made with caution.

Table 18. Placement by Educational Status for Child Welfare Adolescent Group (All Ages, All Grades)

Placement	Progress		Set-Back		Unknown		Total
	N	%	N	%	N	%	
Yes	*	-	*	-	*	-	37
No	323	69.6	100	21.6	41	8.8	464
Total	348		107		46		501

*cell values are less than 10

Free and Reduced Price

Meal Eligibility

Adolescents who experienced set-backs had a greater likelihood of being eligible for free meals - the program with the lowest income eligibility threshold (i.e. serving the poorest families). Students making progress were slightly more likely to be eligible for reduced price meals than those experiencing set-backs or whose status was unknown - however, there were very few of them, with a total of only 26. Students whose status is unknown are overrepresented among those adolescents who are not eligible for either meal program.

Table 19. Free & Reduced Price Meal Eligibility by Educational Status for Child Welfare Adolescent Group (All Ages, All Grades)

Meal Program Eligibility	Progress		Set-Back		Unknown		Total
	N	%	N	%	N	%	
Ineligible	141	70.9	33	16.6	25	12.6	199
Reduced Price	*	-	*	-	*	-	26
Free	133	64.3	60	29.0	40	9.3	432
Total	348		107		46		501

*cell values are less than 10

Special Education Receipt

The educational progress of adolescents receiving special education lags that of students who do not receive special education - however, the proportion of non-special education students for whom educational status is unknown is higher.

Table 20. Special Education Receipt by Educational Status for Child Welfare Adolescent Group (All Ages, All Grades)

Special Education	Progress		Set-Back		Unknown		Total
	N	%	N	%	N	%	
No	247	70.0	69	19.5	37	10.5	353
Yes	*	-	*	-	*	-	148
Total	348		107		46		501

*cell values are less than 10

Gifted and Talented Status

Although gifted and talented adolescents made up a small proportion of the group overall (N=14) none of them fell into the set-back group.

Table 21. Gifted & Talented Status by Educational Status for Child Welfare Adolescent Group (All Ages, All Grades)

Gifted & Talented	Progress		Set-Back		Unknown		Total
	N	%	N	%	N	%	
No	335	68.8	107	22.0	45	9.2	487
Yes	*	-	*	-	*	-	14
Total	348		107		46		501

*cell values are less than 10

Geography

Adolescents whose maltreatment finding was determined in a metro county had higher rates of set-backs and lower rates of educational progress than adolescents from non-metro counties. The proportions of unknown status for metro and non-metro counties are nearly identical.

Table 22. Geography by Educational Status for Child Welfare Adolescent Group (All Ages, All Grades)

Geography	Progress		Set-Back		Unknown		Total
	N	%	N	%	N	%	
Non-metro	199	74.5	44	16.5	24	9.0	267
Metro	149	63.7	63	26.9	22	9.4	234
Total	348		107		46		501

Summary

Students experiencing set-backs are disproportionately Black/African-American or Native American/Alaskan Native, eligible for free meals, and from a metro county. The gifted and talented receipt rate for the entire group was small, but none of those students fell into the set-back group. Students not receiving special education were disproportionately represented among adolescents with unknown status which could call into question the fact that a higher proportion of special education students are experiencing set-backs when compared to non-special education students.

Limitations

Accuracy of Early SSIS Sometimes Unreliable

The newness of the SSIS system needs to be taken into account. In many respects, data accuracy and some early coding may be inaccurate.

Considerations for Use

The following list of considerations are important to keep in mind when generalizing from these results or drawing broader conclusions.

Child Welfare Group May Have Metro Area Overrepresentation

Any issues related to the metro area (i.e. unique community concerns, service issues, availability of resources, etc.) that can influence the data will be overrepresented in this report. However, metro counties generally constitute a majority of all child protection maltreatment activity in the state. So depending upon perspective, there may or may not be metro overrepresentation.

Maltreatment and Placement Events Are Not Necessarily the First

Any findings from this study cannot be assumed to be associated with the child's first contact with the child protection system. Because of the time period covered by the child protection data, adolescents in this study group may have had previous contacts with the child protection system that were undetectable in this study. Many counties converted to the SSIS system from paper files during 1999 and 2000, and history on these adolescents, is not readily available. This lack of child protection history is relevant, because many studies link child outcomes to age at first contact with the child protection system. Likewise, placements experienced by these adolescents are not necessarily the first or only placements ever experienced. Although the group was selected based on whether or not there was a maltreatment finding between the dates of January 1, 2001, and June 1, 2003, these may or may not have been the first times these adolescents had contact with the child welfare system in Minnesota. This is due to the nature of the administrative data used for the analysis. In Minnesota, an accurate accounting of the history of these adolescents' contacts with the child welfare system would require a by-hand review of hard copy files. Ongoing use of the SSIS system data for research will eventually eliminate this problem.

Out-of-Home Placement Rates Are Low

The placement rate for this group of adolescents is low. In particular, there were a total of 70 placements associated with the child welfare "base" group before matching to education records. A total of 33 records with a recent placement could not be matched to education records. This dramatically limits the ability to describe patterns between out-of-home placement and educational outcomes, and prohibits the direct comparison of the results of this study to those of other studies that focused on only long-term foster care adolescents.

Poverty Data Likely Skewed

The study relies on the use of free and reduced price lunch eligibility as a proxy for income level. In Minnesota, family income for school food program eligibility is usually not verified; it is declaratory. In greater Minnesota, families tend to under-access the free and reduced price meal program, while in cities (metro counties), families tend to utilize the program at much higher rates. Since the sample is heavily weighted by metro county youth, the poverty rate, which is based on eligibility for the meal program, is probably over-estimated, and youth in the sample may not be quite as low-income as the data implies.

Hispanic Ethnicity not Well Represented

The analyses in this report that examine race in relation to outcomes do not consistently or adequately represent Hispanic ethnicity. With this particular group, when Hispanic ethnicity is broken out, Hispanic adolescents constitute a very small portion (with only 60 identified as such out of the 999 base group). It is unclear whether this is due to coding errors (the SSIS system was still relatively new) or a true lack of Hispanic representation within this group within this time frame. Regardless, this very small number makes further breakouts into sub-categories challenging. The exploratory nature of this report, the limitations of the number of youth in race and ethnic categories, and the newness of the SSIS system all contributed to what is arguably an overly-simplified racial picture of these data. Any subsequent related studies will take the need for improved Hispanic reporting into account.

Discussion

Older adolescents involved with the child protection system have been recognized as a population facing additional challenges to those normally experienced by all youth during this time of transition. This study has described the graduation rates and educational outcomes of a group of adolescents with recent involvement in the Minnesota child welfare system that are consistent with studies of the educational outcomes of long-term foster care youth done in other states. The study was also an exploration of the ability to match administrative records from separate public systems to answer a question about educational outcomes.

Less than half of 12th graders in this study graduated. For this particular group, some characteristics emerge as more or less related to whether or not students graduate. The data indicates that an adolescent's race has bearing on graduation. In particular, Caucasian and Black/African-American adolescents have very different graduation outcomes. Another relationship exists in terms of whether or not the adolescent resided in a metro or non-metro county (based on the county of maltreatment finding) with non-metro county adolescents having higher graduation rates. While one might expect important relationships to emerge from other characteristics such as receipt of special education, type of maltreatment, sex, or family income (based on meal program eligibility), this was not necessarily the case with this particular group.

When a broader analysis of the group was completed, taking into account all ages and grades, and according to "educational progress," "set-backs," or "unknown status," new questions emerge. Whereas race was an important factor for 12th grade graduation, its effect is nearly absent when examined broadly in relation to educational progress. Similarly, the impact of geography is also not as salient when the educational progress of the entire group is examined. The examination of other variables such as age at maltreatment, maltreatment type, special education receipt, meal program eligibility, and placement show interesting patterns but fewer distinct relationships between them and overall educational progress. This could be a factor of many things including the nature of the final "matched" sample or a need for more refinement in the use of the status codes to assess progress (Table 13).

This is intended to be a descriptive study. And, it is important to note that the educational records of nearly half of the original child welfare group could not be found in education system records for analysis.

It will be important to investigate the degree to which there are any discernable patterns to those missing records. Analysis depended upon a reliance on the child welfare data alone and a number of interesting relationships emerged. (See Appendix C for charts and tables related to this analysis.) In particular (though perhaps not surprising), the older an adolescent was at the time of maltreatment, the less likely it was that their educational record could be located. Race was a significant determinant of whether or not an education record could be found - with a greater likelihood of black/African-American adolescent records being available compared to Caucasian or Asian adolescents. While primary maltreatment type and sex were not factors, it was easier to match the records of adolescents from metro counties. These findings are particularly intriguing because they raise administrative and process questions that if answered, could improve the match-rates for similar studies that rely upon cross-system data use.

The findings of this descriptive study of the characteristics of older child welfare youth mirror the results of other studies of foster care youth transitioning out of care in terms of high school graduation rates. If this study group's graduation rate is representative of all youth in the child welfare system, Minnesota child welfare youth are not faring any better than those in other states. Given Minnesota's considerable success in other aspects of educational attainment - in particular, having one of the highest high school graduation rate in the nation - this graduation rate gap should prompt important discussions among policy-makers and practitioners.

In terms of discussions about these findings, as with all similar studies, it is important to be mindful that correlation is not causation. That is, the fact that being black or African American or living in a metro county is significantly related to not graduating from high school does not mean that these factors *cause* this outcome. It should be interpreted to indicate that there are important factors present in the experience of youth possessing these characteristics related to education. As with any descriptive study, the complexity of the causal factors must be acknowledged and are reflected in the following recommendations. Note that some recommendations spring from the literature, this study, and the study advisory group which was comprised of a number of state, county, and school practitioners.

Recommendations

Recommendations for practice, further research, and policy originate from both the study findings and the study advisory group.

Practice

Have a clear idea of current practice and potential enhancements and examine them.

Minnesota has over 300 school districts and 87 counties. This study examines the condition of graduation and educational outcomes for a group of adolescents, but does not examine current or innovative practices. County staff observe that they are doing the best that they can with current resources and wonder if other jurisdictions are having better results with other models of delivery. In particular, outcomes may be different in schools where county social work staff are housed in the schools. Schools are the most logical (and sometimes only) point of contact for adolescents who are in danger of school failure but may be without an ongoing relationship with county social services staff.

Consider options for proactive, rather than reactive relationships between county, school-based social work staff, and juvenile justice.

In many counties, current practice - and funding realities - result in these three support systems not interacting until there is a crisis. This can be aggravated by how cases are assigned to county social workers (making it challenging for school social workers to locate their county counterparts) or by the physical locations of social work staff (on site at schools versus elsewhere in county government buildings).

Consider a different role for Guardian ad Litem in the process of assuring older child welfare adolescents who are at risk of not graduating have the necessary services for success. Likewise, examine the need for another academic support role such as an education surrogate.

Case workers in county agencies have responsibility for connecting youth with needed services particularly when the child cannot stay with their biological family after maltreatment occurs. In this study, the average number of placements was 1.4 - usually a short-term placement followed by another of longer duration. It may be unrealistic for county social workers to expect a short-term caregiver to take a great deal of

responsibility for the school attendance, homework, test performance, or school engagement of the youth. If out-of-home placement case plan outcome expectations do not include attention to academics, who *is* giving this attention? Is it appropriate to expect social workers to take the lead in making sure foster care youth are engaged in their schools and working up to their full academic potential? How much time should pass between a placement start date and a regular "check-in" on academic status? Are some counties already doing so, and at what points in time? Does this indicate a need for an educational surrogate or advocate?

A recent national Child and Family Services Review (CFSR) summary notes that for Minnesota, areas of needed improvement related to educational outcome were: 1) there was too much reliance on foster parents to see to children's educational needs; 2) there were multiple school changes related to placement changes; and 3) the inclusion of school records in case records was the exception rather than the rule (Minnesota Department of Human Services, 2003). Although educational needs are recognized as an important performance measure for the state, there is no statutory or rule-based requirement that county agency staff track academic outcomes for child welfare youth, and monitoring varies by county agency across the state.

When students are not placed out of their homes - a condition that applied to the majority of this group - are steps taken to be sure that biological families take an active role in the educational outcomes of their children? Given that this study found considerable challenges to fully matching a group of child welfare adolescents using administrative data (likely due in part to the mobility of these youth and their families), it would seem that other options for monitoring academic progress should be considered. For those adolescents whose situations do not warrant out of home placement, what county-school system strategies can be employed to assure ongoing educational support in the absence of an active social services case plan? What positive and respectful supports can be put in place for parents to keep their adolescents in school and progressing?

Counties may consider closer monitoring of child welfare adolescents who are receiving special education.

This may prevent some portion of the low graduation rates observed for special education recipients.

When a youth is involved in the child welfare system, there are multiple workers and entities involved in the services they receive. Some research implies that there is sometimes a bias at work in schools in which, regardless of their academic performance, foster care youth are not encouraged to set their post-secondary sights any higher than vocational education or immediate employment (Whiting Blome, 1997). Minnesota schools must be vigilant to potential biases about child welfare youth and assure objectivity when making post-secondary recommendations. Failure to do so sends a message to these youth that the educational system does not have faith in their ability to graduate, earn college degrees, and reach their fullest potential. Programs, teachers, and advisors supporting the educational outcomes of child welfare youth would be well-advised to monitor their working relationships with youth and be aware of any potential limitations they unintentionally convey that may be based on anything other than academic performance and ability.

Further Research

Further examine the educational outcome differences observed between metro and non-metro counties in Minnesota.

Explore some of the reasons why non-metro counties have higher rates of educational progress as well as higher rates of adolescents for whom educational status is unknown. Explore differences in practice, resources, or philosophies of agencies serving these geographical areas of the state. Surely some child welfare youth possessing all of the risk factors repeatedly associated with educational failure have “made it” and graduated. Some of them will also go onto college and earn degrees that will assure them a much higher standard of living than had they gone straight to employment after high school, or dropped out of high school altogether.

Qualitative methods could be used to complete detailed, case-level analyses of the services received, and educational outcomes of all child welfare adolescents (not just those in placement), thereby controlling for as many independent variables as possible (e.g. race, income, special education receipt, etc.) Detailed case studies of these successes and those with less successful outcomes may reveal what specific factors make key differences. Case studies should take into account the specific policy and practice differences in place that affected the outcomes of students. Giving attention to the outcomes of students who were expelled could also lend insight into long-term outcomes. Some of those factors may vary by other attributes and assets the

youth possesses. These studies can advise the ways in which specific service delivery practice can change and where additional investments of time and money should be made or existing investments shifted.

Quantitative methods employed in these evaluations could statistically measure the relationships and the related effect sizes of particular interventions - something that could not be done in this descriptive study. Careful randomized group construction could remove the effects of the various factors shown here as potentially confounding (for example, race and geography) in order to isolate the effects of specific interventions. On future evaluations of interventions and ongoing tracking of graduation rates, the results of this study should provide a baseline measure for future studies of educational outcomes.

Study what proportions of graduates and non-graduates are later found to have entered the higher education system.

Examine the post-secondary status of graduates and non-graduates, exploring what types of programs they enter and complete can give an indication of future earnings potential.

Examine wages one, two, or more years after June 2003 for graduates and non-graduates.

Study whether there are differences between the average wages earned, hours worked, and industries of employment for these students to get a better sense of the degree to which completing high school (or not) influences their later ability to earn a livable wage.

Examine public assistance program (welfare) use of graduates and non-graduates for time periods after June 2003.

“Use” could include public assistance program receipt as well as applications for programs that were denied (indicating that the individual applied for assistance, but may have been denied due to wage level or other reasons).

Study whether these adolescents appear in vital statistics birth records as new parents, during their high school year or years immediately thereafter, to determine whether they are facing additional new responsibilities as young adults leaving the child welfare system.

Explore how the educational outcomes of this group compare to others for whom we know we provide ongoing supportive services - such as those in the adoption system, those in long-term placement, those who are state wards, etc.

In addition to racial disparities, one of the differences between 12th grade child welfare youth who do not graduate on time, or at all, or experience great challenges compared to those who do graduate, and all other 12th grade graduates in Minnesota are their high rates of special education receipt. Further research is needed into some of the adult outcomes of these youth, to consider the challenges they face and the difficulties they have getting through high school in comparison with their peers.

Explore the reasons why records from some racial and geographic groups are more “match-able” than others.

Are the child welfare records in better condition for matching (i.e. names more likely to be correctly spelled, social security numbers more likely to be present, etc.) if a child has been in placement? What practices and conditions might be in place in metro counties that are lacking in non-metro counties that dramatically improve the match-ability of their child welfare records? Maximizing match rates are critical to building the very best populations from which to generalize findings.

Policy

Experiments with funneling more services through schools could require funding shifts or increased funding that might need legislative or policy change to support.

School-based initiatives would need to be sensitive to current pressures related to No Child Left Behind and recent public school funding changes. True partnerships targeted at shared outcomes would be necessary, along with sufficient financial supports. All new service models should be rigorously evaluated.

Revisit the Structure of the Family Services Collaboratives.

The Collaboratives showed promise, but were under funded. Additional modifications might be needed to improve service delivery outcomes. For instance, some parents served by the Collaboratives are quite challenged by service choice. A more family-specific approach might help in general, and improve educational outcomes of children in particular.

Consider expansion of out-of-home placement related services to serve young adults after age 18. (see CASCW’s online conference proceedings from “Leave No Adolescent Behind.”)

Evaluations of these investments have shown positive education and earnings results. This model represents

added expense for Minnesota as it is currently structured, but may save tax dollars in other systems.

Explore the cost-benefit work done by others and consider doing it here in Minnesota.

Use the findings of institutions such as the Washington State Institute for Public Policy (WSIPP) that has analyzed the cost-benefit ratios of an array of prevention and early intervention programs for children and youth. Their analyses have shown remarkable savings to taxpayers for a number of programs aimed at improving child outcomes ultimately saving money for all taxpayers.

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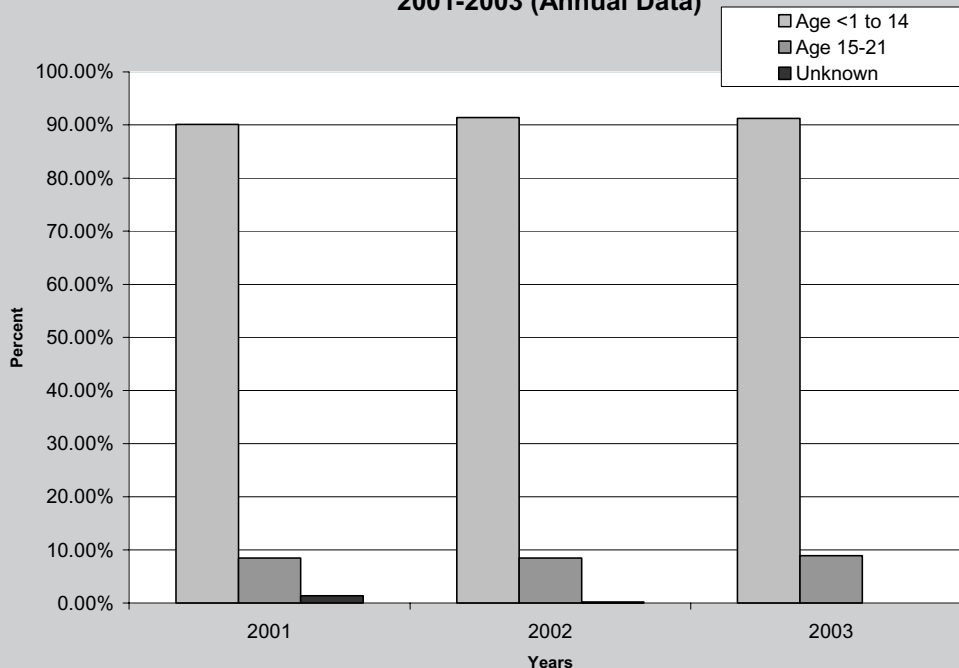
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Older Minnesota Adolescents in the Child Welfare System During One Time Period

The group selection criteria were determined, in part, by the time periods for which child welfare data and corresponding high school education data were available (i.e. the likelihood that the group from the child welfare system could be successfully matched in the available data from the education system). The 999 youth selected had experienced a substantiated child protection maltreatment finding sometime over the period of January 1, 2001, through June 1, 2003. "Substantiated maltreatment" means that the incident was reported, investigated, and that harm or neglect was determined to have occurred.

Based on their age at maltreatment and birth dates, the adolescents were projected to be near or at a typical graduation age (approximately age 18) during the 2002-2003 school year. Since these youth represent all older adolescents having contact with the child protection system in Minnesota during this time period, the group selected constitutes the total population "universe."

**Chart 5. Minnesota Percent of Child Maltreatment Victims, by Age,
2001-2003 (Annual Data)**



*Source: National Child Abuse and Neglect Data System
Annual Reports "Child Maltreatment" for years 2001-2003*

Description

Age at Time of Maltreatment

There are some variations in whether or not a child becomes part of the child welfare system, depending upon their age. As teens near legal adulthood, some county child welfare agencies report that they are less likely to investigate reports of abuse or neglect, compared to younger children. This can be driven by many factors: budgets, staffing, caseloads, perceived vulnerability of the child, local policies on the thresholds for investigation based on child age, or a combination of all of these factors. The public system that older teens are often involved with is corrections. (Administrative data was not available for this study.) These trends are reflected in data on maltreatment by child age. Of all children maltreated in Minnesota each year, the vast majority

experience maltreatment between the ages of 0 and 14. When older teens enter public systems, they are less likely to enter through the “child protection door” than others, if they enter at all. The study group of older adolescents were connected to child welfare, and they were selected by age at time of maltreatment over the period of January 1, 2001 and June 1, 2003. The selection criteria was based on birth date and projected age by June 2003 (the estimated graduation month). This produced an age at maltreatment range of 15 to 20 years. The maltreatment event used for group selection is not necessarily the first maltreatment finding for the adolescent, nor necessarily the first contact the adolescent has had with the child welfare system. (See Limitations.) The distribution of the adolescents’ age at maltreatment is shown in Table 23. (For more information on the 18- to 20-year-old group, see the Education Status, All Grades section.)

Table 23. Age at time of Maltreatment - Child Welfare Adolescent Group

Age (in years)	N	Percent
15	28	2.8%
16	313	31.3%
17	433	43.3%
18	161	16.1%
19	54	5.4%
20	10	1.0%
Total	999	100%

Race and Ethnicity

Race and ethnicity data is available according to federal reporting categories. There is a portion of the group for which no race data is available (the “Unable to Determine” category, which comprises 3% of the group, or 31 adolescents).

Table 24 describes the adolescents’ “primary” race (i.e., the race that is listed first in the child welfare system for that child’s record, if the child has more than one race listed). Comparison data from the 2000 Census is offered but is somewhat limited as the Hispanic breakouts are not available and the age groups are not in complete alignment with the child welfare adolescent group. The relatively small numbers of Hispanic youth also has an effect on subsequent racial analyses. There is indication that adolescents of color are overrepresented in the child welfare adolescent group - a finding consistent with other child welfare research. Just under one-third of youth (30.1%) reported more than one race, as shown in Table 25.

Table 24. Race and Ethnicity of Adolescent Child Welfare Group

Race	<u>Hispanic</u>		<u>Non-Hispanic</u>		Total Combined Race (all ethnicities)		2000 Census Ages 15-19 (non Hispanic)
	N	%	N	%	N	%	%
Caucasian	47	78.3	698	74.3	745	74.5	89.9
Black or African-American	*	-	140	14.9	142	14.2	4.4
American Indian or Alaskan Native	*	-	55	5.9	58	5.8	1.6
Asian Pacific Islander	*	-	23	2.5	23	2.5	4.2
Unable to Determine	*	-	23	2.4	31	3.1	
Total	60	100	939	100	999	100	100

*cell values are less than 10

Table 25. Multiple Races of Adolescent Child Welfare Group

Number of Races	N	Percent	2000 Census Minnesota- All Ages (percent)
No Race Identified	22	2.2	-
1	676	67.7	98.1
2	160	16.0	1.7
3	110	11.0	.1
4	29	2.9	
5	*	-	
Total	999	100	100

*cell values are less than 10

Primary Types of Maltreatment

More than half of all primary types of maltreatment were either physical abuse (32.2%) or neglect (24.5%). Adolescents may have had more than one type of maltreatment finding at one time (i.e., co-occurrence) but only the primary, or first maltreatment type listed in the record¹, was captured. The distribution of the types of maltreatment is shown in Table 26.

Chart 2 compares statewide maltreatment types for all ages of children from 2002 with maltreatment types for the adolescent child welfare group. For the child welfare adolescent group, maltreatment types were grouped as noted in Table 26 (e.g. General Neglect) and are used later in the analysis. The adolescent child welfare group contains more maltreatment types from the "other" category, which includes endangerment, inadequate supervision, threatened physical abuse, educational neglect, chronic and severe alcohol or controlled substance abuse, threatened sexual abuse, prenatal exposure, and abandonment.

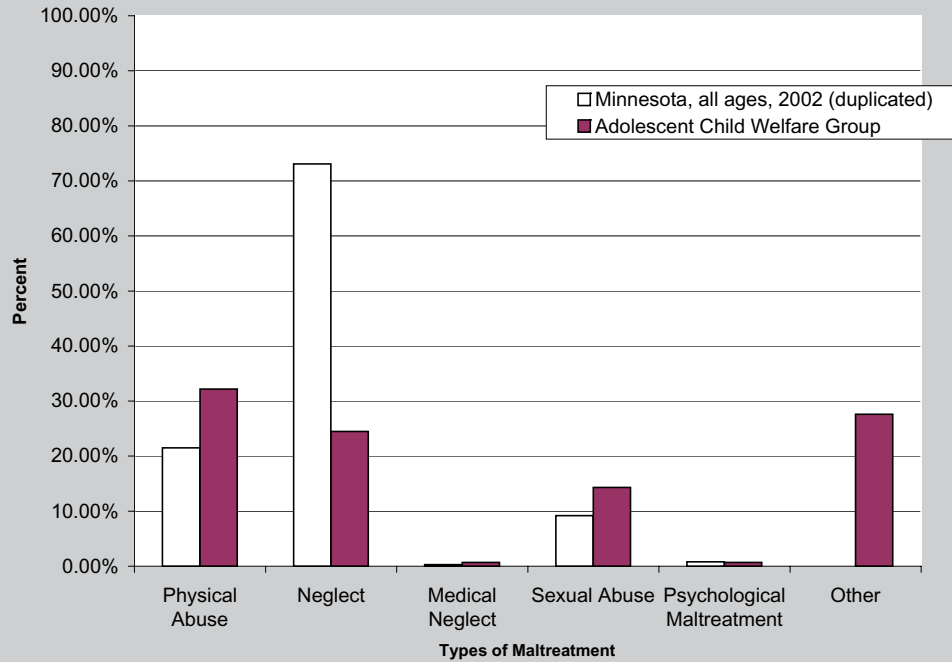
Table 26. Primary Types of Maltreatment of Adolescent Child Welfare Group

Maltreatment Type	N	Percent
<i>General Neglect</i>		
Neglect	245	24.5
Prenatal exposure	*	-
Endangerment	132	13.2
Inadequate supervision	43	4.3
Educational neglect	23	2.3
Medical neglect	*	-
Emotional neglect	*	-
Chronic & severe use of alcohol or controlled substance	17	1.7
Abandonment	16	1.6
<i>General Abuse</i>		
Physical abuse	322	32.2
Sexual abuse	143	14.3
<i>Threatened Abuse & Mental Harm</i>		
Threatened physical abuse	33	3.3
Threatened sexual abuse	10	1.0
Mental injury	*	-
Total	999	100%

*cell values are less than 10

¹For example, if there were three maltreatment types associated with a substantiation - neglect, mental injury, and physical abuse, the neglect finding is what would be counted in this summary.

Chart 6. Types of Maltreatment for Adolescent Child Welfare Group Compared to Statewide Maltreatment Types, 2002, All Ages

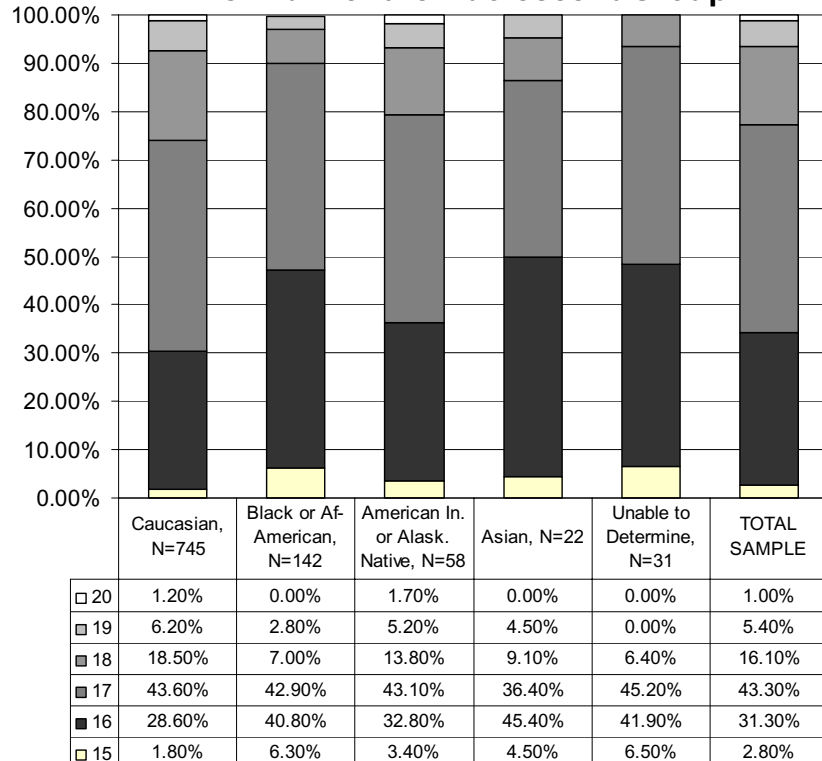


Source: Children’s Bureau, Child Maltreatment 2002

Race and Age at time of Maltreatment

Children of color in the group were slightly younger at the time of maltreatment than were white children. *Note: Pacific Islander race category not included due to small group size.*

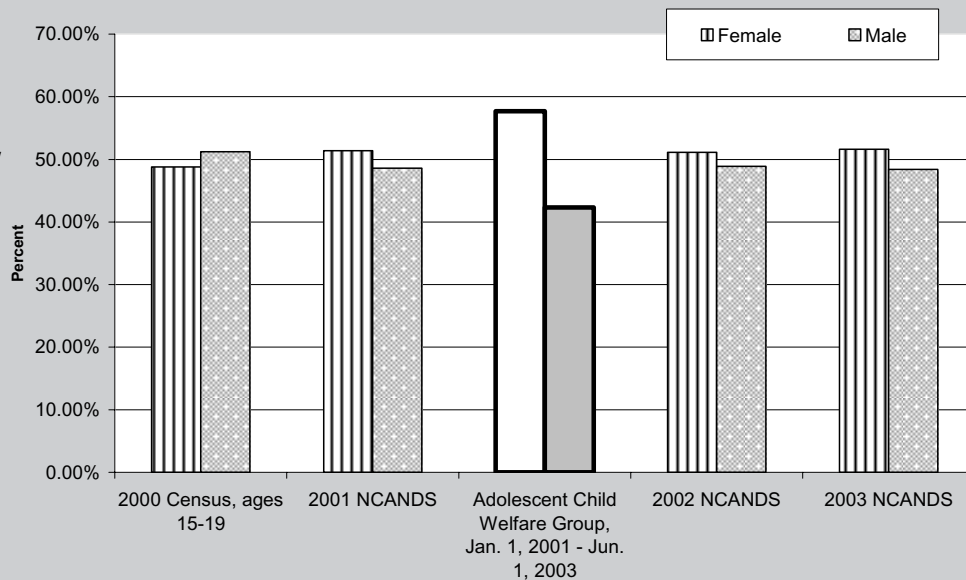
Chart 7. Race and Age at time of Maltreatment - Child Welfare Adolescent Group



Sex

The child welfare group was comprised of more females (N=576, or 57.7%) than males (N=423, or 42.3%). Females are disproportionately involved overall in the child welfare population, but particularly in the older child welfare adolescent group.

Chart 8. Minnesota Percentage of Child Maltreatment Victims by Sex (all ages) 2001-2003 and Adolescent Child Welfare Group



Sex and Maltreatment Type

Table 28 shows that with the exception of neglect and sexual abuse, males and females tended to experience maltreatment types in similar proportions. Males tended to experience slightly more neglect than females (27.4% compared to 22.4%, respectively) and rates of sexual abuse were higher for females (17.0%) than for males (10.6%).

Table 27. Sex and Maltreatment Type for Child Welfare Adolescent Group

Maltreatment Type	Females		Males		Total Percent
	N	%	N	%	
Physical abuse	184	31.9	138	32.6	32.2
Neglect (food, shelter, clothing)	129	22.4	116	27.4	24.5
Sexual abuse	98	17.0	45	10.6	14.3
Endangerment	77	13.4	55	13.0	13.2
Inadequate supervision	26	4.5	17	4.0	4.3
Threatened physical abuse	18	3.1	15	3.5	3.3
Educational neglect	10	1.7	13	3.1	2.3
Chronic & severe alcohol or controlled substance abuse (by parent)	*	-	*	-	1.7
All others	23	4.1	18	4.4	8.5
Total	576	100	423	100	100

*cell values are less than 10

Table 28. Sex and Age of Child Welfare Adolescents at time of Maltreatment

Sex and Age at Maltreatment

Females tended to be slightly younger at age of this maltreatment event than males.

Age (in years)	Females		Males		Total Sample Percent
	N	%	N	%	
15	23	4.0	5	1.2	2.8
16	185	32.1	128	30.3	31.3
17	254	44.1	179	42.3	43.3
18	83	14.4	78	18.4	16.1
19	26	4.5	28	6.6	5.4
20	*	-	*	-	-
Total	576	100	423	100%	100

* Cell values less than 10

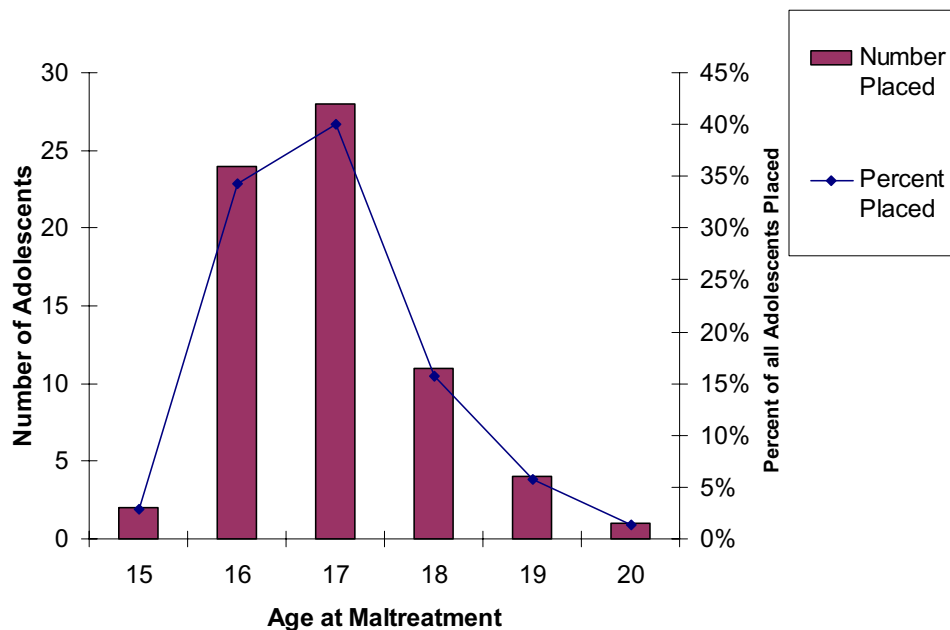
Geographic Distribution

Over half (60.1%) of the sample came from metro area counties.

Placements

Placement can be an indication of the severity of maltreatment, the willingness and ability of the family to cooperate with social services, and can indicate a cycle of instability for the child. In the SSIS data set used for this study, the direct linkage of a placement event record with a specific maltreatment incident is not possible. However, some fairly safe assumptions can be made about the likelihood of a placement being associated with a given substantiated maltreatment finding depending upon the period of time that passes between the date the maltreatment was substantiated and the start date of the placement. In current practice in Minnesota, a child protection case can be in intake for up to 45 days. Therefore, a placement that begins within 45 days of the maltreatment substantiation date is likely to be associated with that maltreatment event. However, for the time period this data reflects (the period of January 2001 through June 2003), the allowable timeframe for placement completion in practice was as long as 90 days. Therefore, this is the criteria used for identification of placement for this particular group.

Chart 9. Placements and Age at Maltreatment, N=70



Number of Placements

Seventy adolescents were placed within 90 days of their substantiated maltreatment finding. This is a 7% placement rate, and about what one might expect from a population of older adolescents for whom the placement rate lowers as they near age 18. Overall, rates of first admission to placement for older adolescents fall off dramatically by about age 16, according to data from a multi-state study of foster care dynamics (U.S. Department of Health & Human Services, 2002). However, this low placement rate limits the ability to draw conclusions between placements, type of placements, and later educational outcomes, but the data are included here for description and discussion (See Limitations.)

Placements and Age at Maltreatment

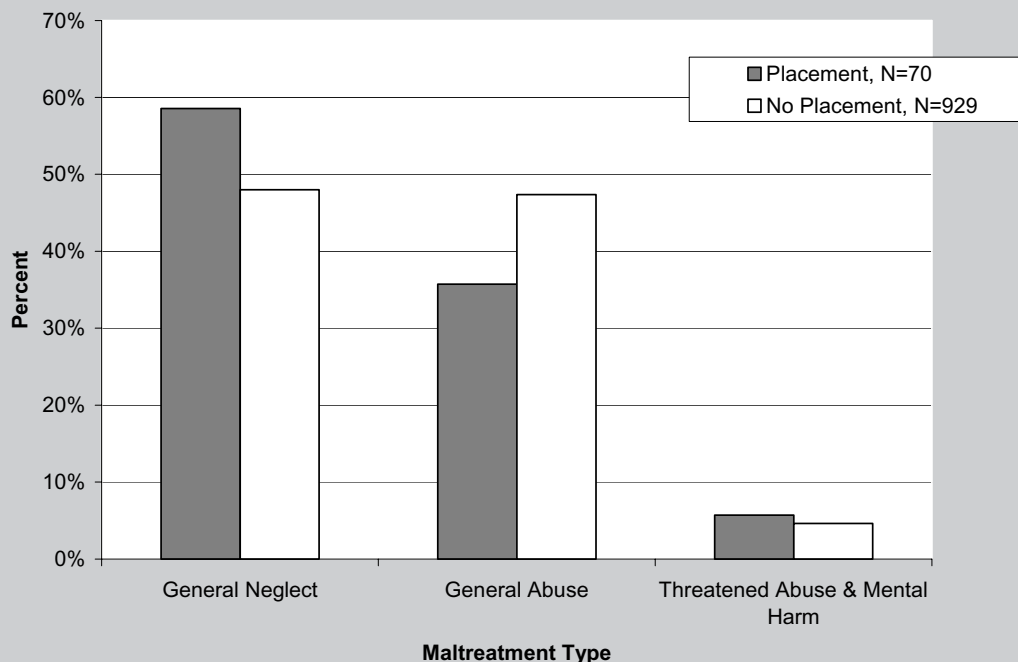
The majority of adolescents placed (77.1%) were age 17 or younger, and the types of preceding primary maltreatment were similar to those associated with the overall group.

Placement Type

There were 929 adolescents who did not experience out-of-home placement and 70 who did. The 70 adolescents who experienced out-of-home placements in the wake of their maltreatment findings sometimes had more than one placement within those 90 days. Since the SSIS system records each placement - including emergency placements - some placements are very short-term and are followed up with a second, lengthier placement. On average, each adolescent who was placed experienced 1.4 placements within the 90 days of the date of the maltreatment finding. The most common types of placement among all placement occurrences were, in order of frequency, residential treatment/institution, foster family home - non-relative, foster family home - relative, and group home.

Chart 10 shows that neglect seems to be associated more often with adolescents who experience placement, although the total number placed is very small (N=70). The grouping for the maltreatment types shown here is illustrated in Table 26.

Chart 10. Type of Maltreatment of Adolescents Placed compared to Types for Full Child Welfare Group



Summary

This analysis provides a starting point for an examination of subsequent education outcomes after older adolescents have had contact with the child welfare system. The group shares many characteristics of other child welfare populations. Namely, they are disproportionately of color, with the highest rates for neglect-types of maltreatment, and -because they are older, have relatively low rates of placement.

Rationale for Status End Coding Use for Educational Status

Rationale for Status End Coding Use for Educational Status

Educational Status Category and Status End Code Language	Rationale for Placement in Status Category
	Rationale is based on assumptions about meaning of status language and the conclusions that can be drawn from meaning about educational continuity or success.

“Unknown” Status

Student moved outside of district	The reason for the student move is unknown.
Transferred to another district or state but did not move	The reason for the student move is unknown - and, particularly if moving out-of-state, their future educational status will be unknown in Minnesota.
Withdrew and transferred to a non-public school	The reason for the move is unknown, and once the student is enrolled in the non-public school system, their status is no longer available in the statewide education data.
Moved outside of state/country	The reason for the move is unknown, and once the student moves outside of the state or country, their future educational status will be unknown in Minnesota.

“Set-Back” Status

Left for social reasons	The reason for leaving is due to disruption in a social aspect of the student’s life.
Left for financial reasons	The reason for leaving is due to something financial in the student’s life.
Withdrew to enter care or treatment program	The reason for leaving is due to a mental or chemical issue that prevents the student from remaining enrolled.
Left due to pregnancy	The reason for leaving is due to having a child. Parenthood at a young age interferes with completion of education.
Committed to treatment facility	The reason for leaving is due to a mental or chemical issue that prevents the student from remaining enrolled.
Died	Student will not return to education.
Left after turning 21	The student has left due to “aging out” of education system.
Student left for unknown reasons	Although reason for leaving school is unknown, this status is placed in the set-back category because it is assumed that the student may have chosen to leave.
Withdrawn after 15 consecutive day’s absence - expected back	The student plans to return (which is positive), but has experienced a significant absence from school.
Student dropped out, but re-enrolled by October 1	The student plans to return (which is positive), but has currently dropped out and is experiencing a significant absence from school.
Met district graduation requirements but did not pass BST	The student is eligible to graduate, but their inability to pass a Basic Standards Test requirement has blocked their complete graduation.

“Progress” Status

Left to attend GED program	Student has left school, but has indicated that they intend to pursue their General Equivalency Degree.
End of year - Student enrolled on last day of school year	This status code indicates that the student continued to be enrolled at the end of the academic year.
Continued enrollment	This status code indicates that the student continues to be enrolled.
Fall reporting	This status code indicates that there is reporting being done on the student’s record. (Somewhat neutral in meaning.)
Transferred to another public school in same district	The student remained enrolled in school and within the same district. Although disruptive, this is considered to be positive because they maintained their connection to the school district and remained enrolled.
Graduated (non-IIIP)	Pertains to non-special education students. Graduation is a successful outcome.
Graduated (IEP/IIIP)	Pertains to special education students. Graduation is a successful outcome.



Characteristics of Child Welfare Adolescents Whose Education Records Could Not Be Matched

Nearly half (N=498 or 49.8%) of the original 999 child welfare adolescent records could not be matched to corresponding education records. This constitutes a significant portion of youth for whom educational outcomes are unknown one to two years after having contact with Minnesota's child protection system. If this group is added to the 46 adolescents whose education records could be matched, but whose education status update codes indicated an unknown outcome, this equals 544 youth, or 54.4% of the original child welfare group. There are probably a number of reasons for this — entry of these students into charter schools, parochial or other private schools, or simply leaving school altogether. Since the 498 child welfare records could not be matched to the public education system, some education variables are missing, but based solely on the child welfare data that is available, the following overview shows how the child welfare system characteristics of the unmatched portion of the group compare to the matched portion. Examining the characteristics of matched and unmatched records could help identify some potential reasons for the inability to match records in the education files and prompt further discussion about the education status of these adolescents.

Age at Maltreatment

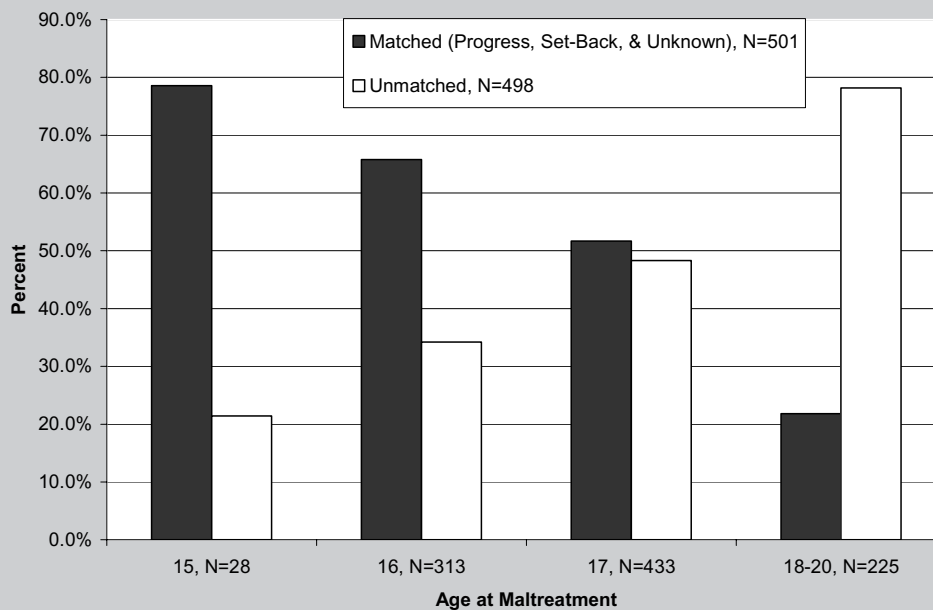
Many of the unmatched adolescents were much older than those whose records could be matched. Table 29 and Chart 11 show the relationship between age at maltreatment and match-ability with adolescents who are older at maltreatment having a much lower likelihood of being matched.

Table 29. Age at Maltreatment and Matched and Unmatched Records, N=999

	Matched		Unmatched		Total
	N	%	N	%	
15	22	78.6	*	21.4	28
16	206	65.8	107	34.2	313
17	224	51.7	209	48.3	433
18-20	49	21.8	176	78.2	225
Total	501		498		999

*cell values are less than 10

Chart 11. Age at Maltreatment for Matched and Unmatched Child Welfare Adolescent Group, N=999



Race

There was a much greater likelihood of successful record matching if adolescents were black/African American. Education records for Caucasian and Asian adolescents were slightly less likely to be unmatched.

Table 30. Race and Matched and Unmatched Records, N=999

	Matched		Unmatched		Total
	N	%	N	%	
Caucasian	347	46.6	398	53.4	745
Black or African/American	98	69.0	44	31.0	142
American Indian/Alaskan Native	29	50.0	29	50.0	58
Asian	11	50.0	11	50.0	22
Unable to Determine	16	50.0	16	50.0	32
Total	501		498		999

Primary Maltreatment Type

The education records of adolescents who experienced general neglect were slightly less likely to be found when compared to general abuse or threatened abuse.

Table 31. Maltreatment Type and Matched and Unmatched Records, N=999

Maltreatment Type	Matched		Unmatched		Total
	N	%	N	%	
General Neglect	225	46.2	262	53.8	487
General Abuse	252	54.2	213	45.8	465
Threatened Abuse & Mental Harm	24	51.1	23	48.9	47
Total	501		498		999

Sex

Females comprise slightly more of the unmatched than the matched group.

Table 32. Sex and Matched and Unmatched Records, N=999

Sex	Matched		Unmatched		Total
	N	%	N	%	
Female	283	49.4	293	50.9	576
Male	218	51.5	205	48.5	423
Total	501		498		999

Placements

Adolescents who had experienced placements within 90 days of their maltreatment substantiation are slightly more likely to be matched than those who did not experience placement.

Table 33. Placement and Matched and Unmatched Records, N=999

Placement	Matched		Unmatched		Total
	N	%	N	%	
Yes	37	52.9	33	47.1	70
No	464	49.9	465	50.1	929
Total	501		498		999

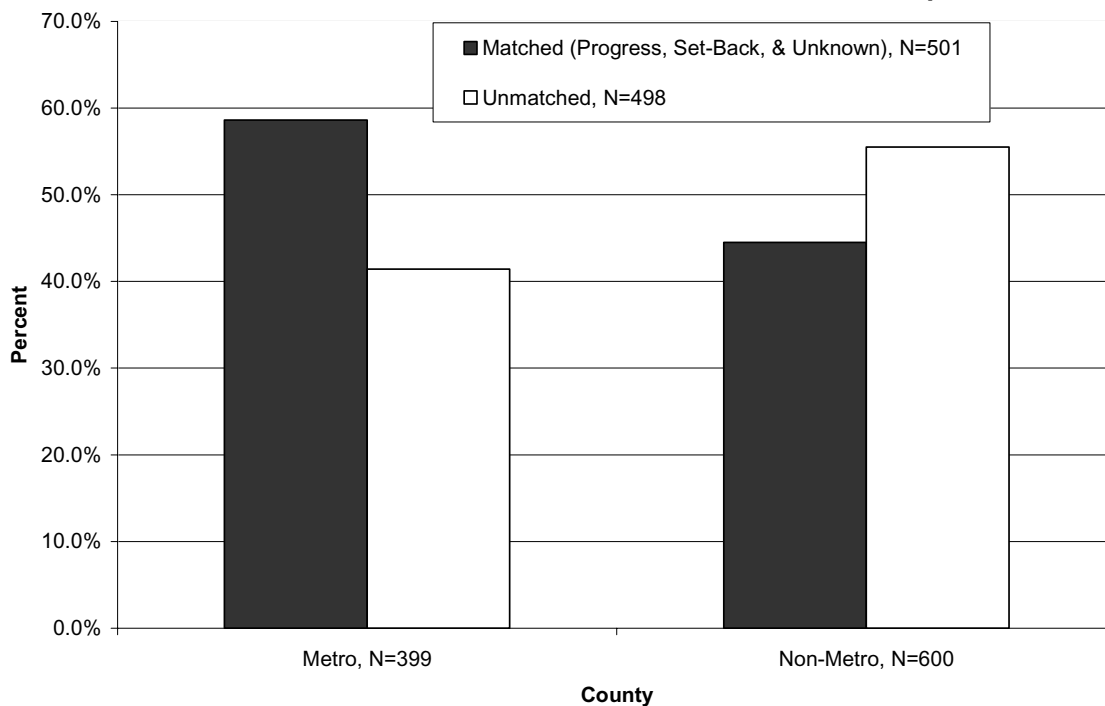
Geography

Unmatched adolescents are disproportionately from non-metro counties.

Table 34. Geography and Matched and Unmatched Records, N=999

Geography	Matched		Unmatched		Total
	N	%	N	%	
Non-metro	267	44.5	333	55.5	600
Metro	234	58.6	165	41.4	399
Total	501		498		999

Chart 12. Geography (Metro or Non-Metro County) of Matched and Unmatched Child Welfare Adolescent Group, N=999



Summary

One significant and logical reason why a portion of these records could not be matched to the education system was simply because the students were no longer enrolled due to their age. However, this does not account for all unmatched records and the education records of certain adolescents of certain races (such as black or African American students) were easier to locate than others. Whether or not the adolescent's maltreatment finding was determined in a metro or non-metro county was also a factor in match-ability. Geographic differences related to the ability to match records raises questions such as whether or not adolescents in urban areas are more likely to be connected to multiple public systems and are thus more "track-able" than non-metro adolescents.



Graduation Rate Calculation

The graduation rates calculated in this study for the 2002-2003 school year were based on unduplicated counts of 12th grade student records having a graduation "status end" code in relation to all 12th grade students (essentially a ratio of graduates to all students). Specifically, two codes indicate graduation status: Code 8 "Student graduated," and 9 "Student graduated after meeting IEP or IIP requirements." Any student enrolled at any point in time in 12th grade in the public education system in Minnesota, during the 2002-2003 school year who were coded at any time as an "8" or "9," were considered to be a graduate.

The denominator to which these graduates were compared (the numerator of the ratio) was calculated by the unduplicated count of all 12th grade students, enrolled at any time in the public education system in Minnesota during the 2002-2003 school year, with any status code. For all Minnesota 12th graders, this method produced a ratio of 56,187 graduates over 79,575 enrolled 12th graders for a graduation rate of 74%. This graduation

rate is somewhat lower than the historical high school graduation rate reported for Minnesota (that ranges anywhere from 78% to 92%, depending upon the method and source). The relatively low graduation rate noted here is probably due to the inclusion of students in the denominator who may not normally be included in other calculated and published rates.

The graduation rate for the child welfare adolescent group of 12th graders is calculated in the same manner, with child welfare students coded as "8" or "9" considered to have graduated (N=182), in relation to all other 12th graders from the child welfare group (N=387). This ratio produced a graduation rate for this specific sub-group of 47%. For the purpose of this study, the emphasis is on the gap between the graduation rates of 12th grade child welfare students compared to all 12th grade graduates in Minnesota.