

Postsecondary enrollment patterns among recent graduates who received social and health services during high school

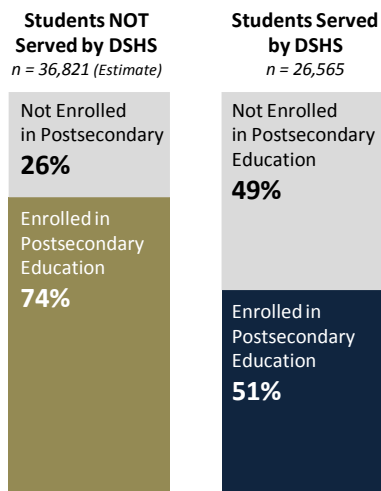
Liz Coker, PhD • Lijian He, PhD • Barbara Lucenko, PhD • David Mancuso, PhD
 Qinghua Liu, PhD • Barbara E.M. Felver, MES, MPA

In collaboration with the Education Research and Data Center, Office of Financial Management

This project was funded by a grant for statewide longitudinal data systems under the American Recovery and Reinvestment Act of 2009 (Grant Number R384A100016).

POSTSECONDARY EDUCATION has become a standard occupational requirement and a key predictor of lifetime earning potential. Despite a growing menu of educational options, students who receive publicly funded social and health services face barriers to accessing postsecondary education. This study uses Washington State’s first individual-level administrative data link between social and health service records and education data from the Washington State P-20 data warehouse to describe postsecondary enrollment patterns for youth served by the Washington State Department of Social and Health Services (DSHS). This report focuses on experiences in the year following graduation for 2008-09 Washington State public high school graduates who received social or health services during their high school years.

Youth who received DSHS services are less likely to go to college



Key Findings

- Graduates who received DSHS services in high school were less likely to enroll in higher education in the year following graduation compared to graduates who did not receive DSHS services, even after controlling for differences in high school grade point average.
- Graduates who received DSHS services associated with behavioral, family, or economic risk factors were less likely to enroll in postsecondary education than those who received only medical assistance.
- Among graduates who participated in postsecondary education, those who received DSHS services were more likely to enroll in a public 2-year community or technical college than a 4-year public or private institution.
- Graduates who received DSHS services during high school were less likely to be “college-ready,” and more likely to need remedial coursework during their first year of postsecondary education.
- Graduates who received DSHS services and subsequently enrolled in a community or technical college were more likely to pursue professional training rather than transfer to a 4-year college.



The Study Population

The population described in the present study included all 26,565 youth in Washington State who met the following criteria:

1. Graduated from a Washington State public high school with a regular high school diploma at the end of the 2008/09 academic year;¹ and
2. Received services from the Washington State Department of Social and Health Services (DSHS) or Medicaid and related medical assistance (now provided by the Washington State Health Care Authority) at any point during State Fiscal Years (SFY) 2006 through 2009.²

Analyses were conducted using the *INVEST* cross-agency limited data set, containing linked individual-level data from the DSHS Integrated Client Database (ICDB) and the P-20 education data warehouse developed and maintained in the Education Research and Data Center (ERDC) of the Washington State Office of Financial Management (see Coker, et al, 2012 for more details).

The ICDB was used to identify the following categories of DSHS or medical assistance services used during the study time period (many students received services in more than one category):

- Division of Behavioral Health and Recovery, Mental Health (DBHR – Mental Health)
- Division of Behavioral Health and Recovery, Chemical Dependency (DBHR – Substance Abuse)
- Juvenile Rehabilitation (JJ&RA)
- Children’s Administration, Foster Care (CA – Foster Care)
- Children’s Administration – Other³ (CA – Other)
- Economic Services Administration, Temporary Assistance for Needy Families (ESA – TANF)
- Economic Services Administration, Basic Food (excluding TANF recipients) (ESA – Basic Food)
- Medical Assistance-Only

The medical assistance-only group received medical assistance at some point during the study period, but no additional DSHS services that might indicate behavioral or familial risk factors or the presence of greater financial need. For this reason the medical assistance-only group is used as a relatively low-risk reference group in the analyses that follow.

Table 1 (page 11) presents the demographic and DSHS service characteristics for the 26,565 graduates included in the study population. Although the population of graduates did include clients of the Developmental Disabilities Administration (DDA) and the Division of Vocational Rehabilitation (DVR), as well as a small number served in other programs, students served by these programs tend to graduate at different times and have different patterns of college enrollment compared to students who use other DSHS services. Therefore, higher education participation for clients of DDA and DVR will be the focus of a separate upcoming analysis.

Education data from the ERDC P-20 data warehouse included the following: high school progress and graduation; 2-year Washington State community and technical college enrollment; Washington State public 4-year college or university enrollment; and private and out-of-state enrollment from the National Student Clearinghouse (see technical notes for more detail). The design of the present study was modeled on two prior reports examining postsecondary enrollment and remedial course-taking in 2009/10 for all Washington State 2008/09 high school graduates, allowing for comparisons between graduates who did and did not receive DSHS services during high school (ERDC Research Brief 2010-05 and ERDC Research Brief 2011-03).

¹ Recipients of General Educational Development degrees (GED), Individual Education Plan (IEP) certificates of completion, or adult diplomas were excluded from the present analysis. See Coker, et al, 2012 for detailed definitions and source information for graduation outcomes.

² This time period spans July 1, 2005 through June 30, 2009, and corresponds to the four academic years up to and including the year of graduation.

³ The CA – Foster Care category included all children who received foster care services (alone or in combination with any other CA services), while the CA – Other category includes children who received only non-foster care Children’s Administration services.

FINDING 1 | Graduates who received DSHS services in high school were less likely to enroll in higher education in the year following graduation, even after controlling for differences in high school grade point average

Forty-two percent of the 2008/2009 Washington State high school graduating class received social or health services during high school. However, only 51 percent of DSHS-served high school graduates enrolled in any type of post-secondary education in the year following graduation from high school, compared to an estimated 74 percent of those students who did not receive any DSHS services during high school (Figure 1, below and Table 2, page 11).⁴

FIGURE 1.

Enrollment in postsecondary education

Percentage enrolled during any month in the Academic Year after high school graduation



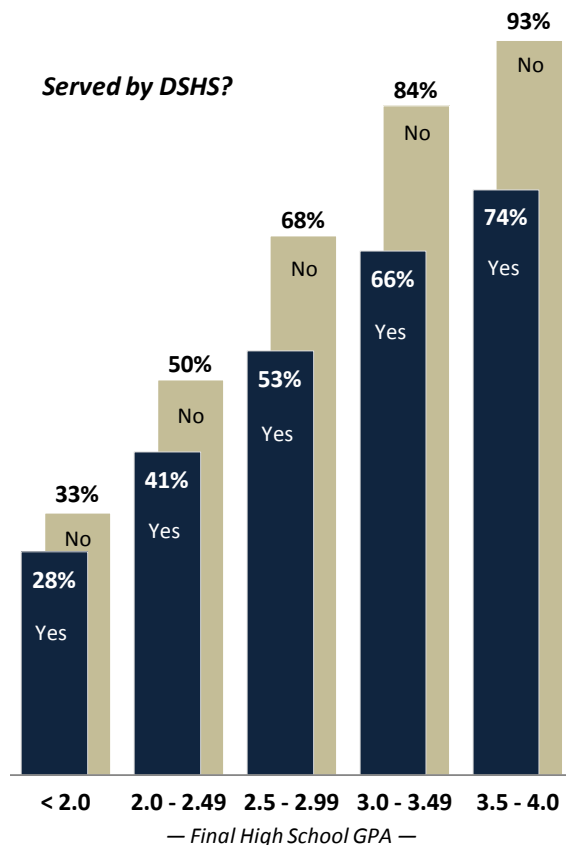
The postsecondary enrollment gap between DSHS-served and non-DSHS served graduates was present for high achievers as well as for low achievers. Figure 2 (right) and Table 3 (page 11) present the proportions of students who enrolled in postsecondary education by final high school grade point average (GPA), comparing DSHS-served graduates with the statewide and estimated non-DSHS cohort.

Postsecondary enrollment rates were progressively higher for students who earned higher grades in high school. However, graduates who received DSHS services in high school were approximately 20 percent less likely to enroll in college than those who did not receive DSHS services, regardless of their high school achievement levels.

On average, DSHS-served students graduated with lower GPAs than those who did not receive DSHS services (See Table 4, page 12). As the present results indicate, however, high school performance alone cannot account for the lower levels of postsecondary enrollment among DSHS-served graduates.

FIGURE 2

Postsecondary enrollment rates by high school GPA: DSHS versus non-DSHS-served graduates



⁴ Source of statewide figures: ERDC Research Brief 2010-05, Participation in Postsecondary Education: Washington State High School Graduates, 2008/09 (ERDC, December, 2010). Available online at www.erd.c.wa.gov. The postsecondary enrollment proportions for the non-DSHS-served portion of the statewide population were estimated by subtracting the DSHS total from the corresponding statewide total, based on the assumption that the DSHS cohort represents a subset of the larger statewide population reported in the ERDC research brief noted above (see Table 2, page 11).

FINDING 2 | Graduates who received DSHS services associated with behavioral, family, or economic risk factors were less likely to enroll in postsecondary education than those who received only medical assistance

The use of DSHS services implies the presence of one or more risk factors affecting the wellbeing of an individual or a family. The type of DSHS service received points to a certain category of risk; for example, Children’s Administration services are associated with family instability, DBHR services with behavioral disorders, and so on. Many students received services from more than one DSHS program at the same time, however a multivariate analysis is beyond the scope of the present paper. An earlier study in this series found that the type of DSHS service received during the 9th grade year was very highly correlated to the likelihood of graduating from high school within the following 6 years. The results showed that only 14 percent of students involved in the Juvenile Rehabilitation system and 16 percent of those who received substance abuse services graduated within 6 years. Students in foster care had a 6-year graduation rate of 34 percent, and for ESA-Basic Food recipients the rate was 49 percent. In contrast, the 6-year graduation rate was 70 percent for those who received only medical assistance (see Coker, et al., 2012 for the complete results).

The present study shows that risk factors leading to the use of certain services over others during the high school years not only negatively affect high school graduation rates, but postsecondary enrollment rates for those who do graduate (Figure 3 and Table 5, page 12).

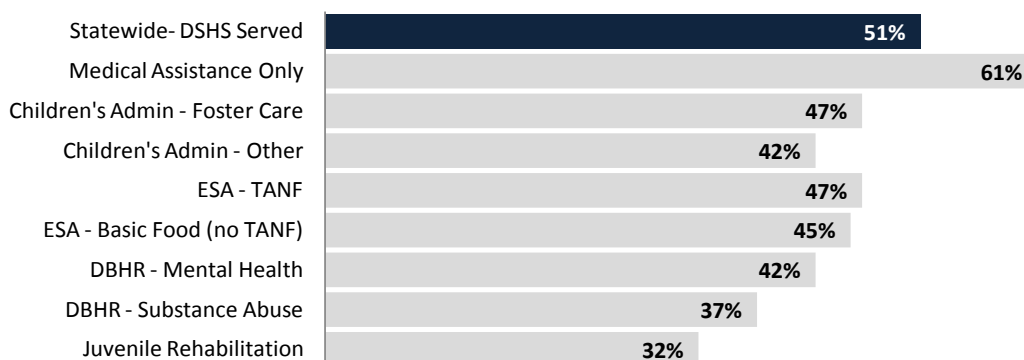
- Only 32 percent of graduates with a history of Juvenile Justice and Rehabilitation involvement attended a college or university the following year, compared to 61 percent of graduates in the medical assistance-only category.
- The presence of mental health problems (DBHR-Mental Health) or substance abuse (DBHR-Substance Abuse) during high school was also associated with lower rates of postsecondary enrollment, as was the use of non-foster care related Children’s Administration services. Recipients of TANF or Basic Food services also had relatively low postsecondary enrollment rates.
- Graduates who had been in foster care had a postsecondary enrollment rate of 47 percent, which, while higher than might be expected given their relatively lower rates of high school graduation, was still well below that of the the medical assistance-only group.

In other words, high school graduates who received services indicating the presence of emotional or behavioral risks (JJ&RA and DBHR services); family instability (foster care or other Children’s Administration services) or poverty (TANF or Basic Food assistance) had low rates of postsecondary enrollment in the year following graduation compared to their peers who received only medical assistance.

FIGURE 3.

Enrollment in postsecondary education by type of DSHS service received in high school

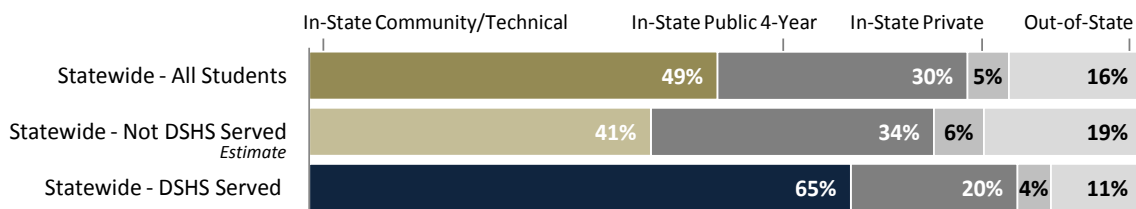
Percentage enrolled during any month in the Academic Year after high school graduation



FINDING 3 | Among graduates who participated in postsecondary education, those who received DSHS services were more likely to enroll in a public 2-year community or technical college than a 4-year public or private institution

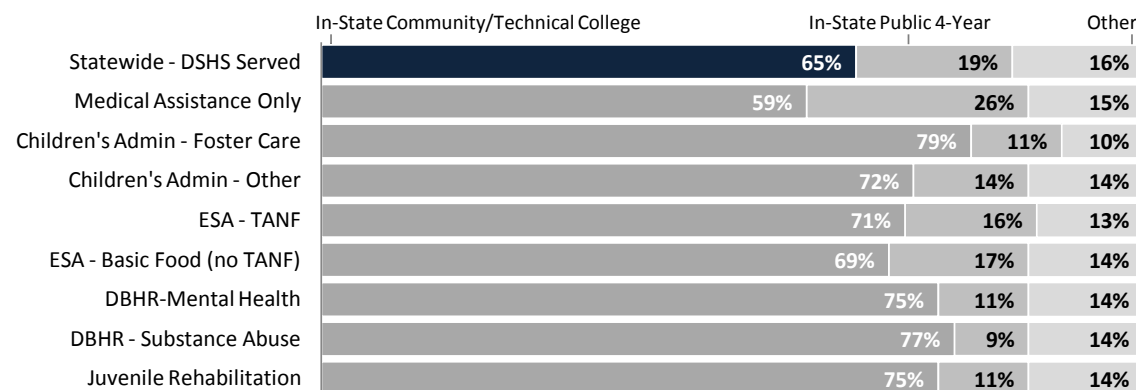
Two-year public community or technical colleges are the largest single entry point to postsecondary education for all high school graduates in Washington State, and proved to be particularly important to graduates who received DSHS services.⁵ Among graduates who enrolled in postsecondary education, approximately two-thirds of those who received DSHS services enrolled in a 2-year community or technical college compared to 4 in 10 of those who had not received social services (Figure 4 and Table 5, page 12). Community and technical colleges offer a broader range of courses than the typical 4-year institution, including professional-technical certificates and degrees, and can accommodate students with a wide range of previous experiences and future goals (Prince, 2005; SBCTC, 2010).

FIGURE 4.
Type of postsecondary institution attended in the year following graduation⁶



Graduates who received DSHS services associated with behavioral or familial risk factors or poverty were especially likely to enroll in a community or technical college rather than 4-year or private institutions. More than three-quarters of graduates who received foster care, JJ&RA, mental health or substance abuse services during high school attended a community or technical college, compared to 59 percent of the medical assistance-only group. Similarly, between 69 and 72 percent of graduates who received TANF, Basic Food, and non foster care-related Children’s Administration services enrolled in community and technical colleges (Figure 5, below, and Table 5).

FIGURE 5.
Type of postsecondary institution attended in the year following graduation, by type of DSHS service received in high school



⁵ See Prince & Andreas (2013) for a thorough analysis of the relationship between socioeconomic status and enrollment and completion in community and technical colleges.

⁶ Students were assigned a “primary” school if they attended more than one in the academic year. Due to data availability the business rules for the DSHS cohort were slightly different from that of the statewide cohort. See technical notes for details.

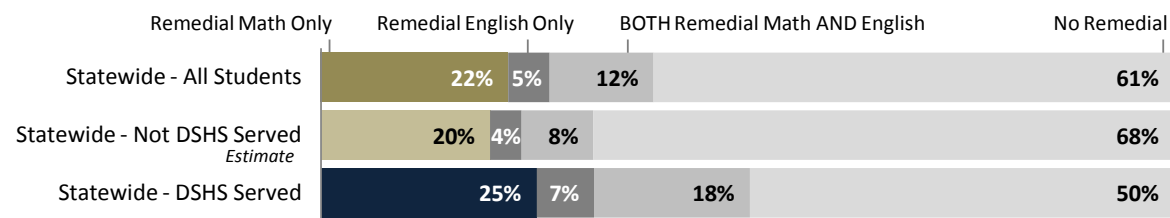
FINDING 4 | Graduates who received DSHS services during high school were less likely to be “college-ready” and more likely to need remedial coursework during their first year of postsecondary education

Graduates who received DSHS services were more likely than their non-DSHS-served peers to have graduated with an average or a low GPA, even within the cohort who enrolled in postsecondary education (see Table 4). This implies that many DSHS-served graduates may not be sufficiently “college-ready”, or prepared to succeed in college-level coursework. To address the academic needs of less prepared students, 2-year community and technical colleges and many 4-year colleges and universities in Washington State offer remedial courses in areas such as English and math. High school graduates served by DSHS who enrolled in Washington State public postsecondary institutions were much more likely than their peers statewide to require remedial coursework during their first year of postsecondary education (Figure 6 and Table 7, page 12).⁷

About half of DSHS-served graduates who attended an in-state public college or university took at least one remedial course during their first year, compared to a statewide average of 39 percent, and an estimated non-DSHS average of 32 percent (see Figure 6).⁸ Students who received DSHS services were twice as likely as non-DSHS-served students to require remedial coursework in both math and English.

FIGURE 6.

Postsecondary remedial coursework in the year following graduation

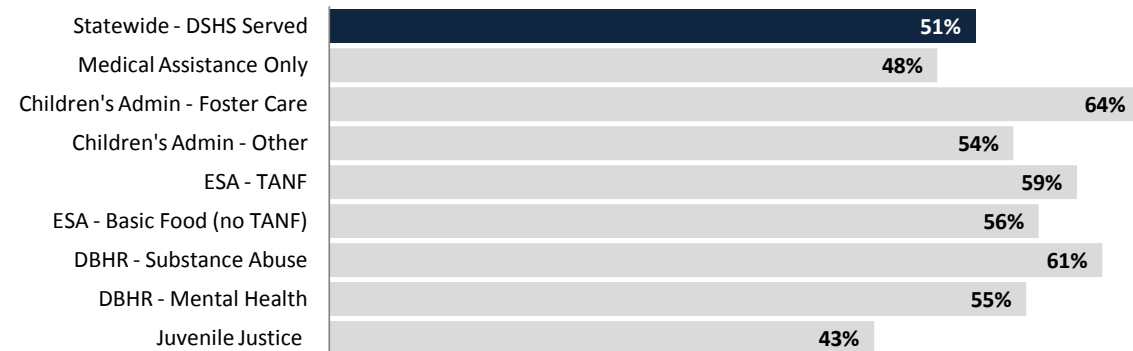


High school graduates who had been in foster care or received treatment for substance abuse were slightly more likely to require remedial courses than recipients of other services. On the other hand, students with a history of Juvenile Justice and Rehabilitation services were the least likely of all DSHS service users to require remedial coursework (Figure 7 and Table 8, page 13).

FIGURE 7.

Remedial course-taking in the year following graduation

By DSHS service category



⁷ According to a recent report by the State Board for Community and Technical Colleges (SBCTC, 2011), math is the most commonly-needed remedial course, followed by writing and reading.

⁸ Statewide averages for remedial coursework among 2008/09 high school graduates enrolled the following year in community or technical colleges were based on an earlier study (ERDC, 2011).

FINDING 5 | Graduates who received DSHS services and subsequently enrolled in a community or technical college were more likely to pursue professional training rather than transfer to a 4-year college

As mentioned, community and technical colleges in Washington State offer an array of curriculum options including professional or technical degrees . To be responsive to the needs of their diverse student population, the State Board for Community and Technical Colleges (SBCTC) regularly asks their students to state their “intent”, or specific goals for attending college. Response options include “transfer to a 4-year college”, “pursue professional or technical training” or “earn a GED”, among others (see technical notes for details).⁹

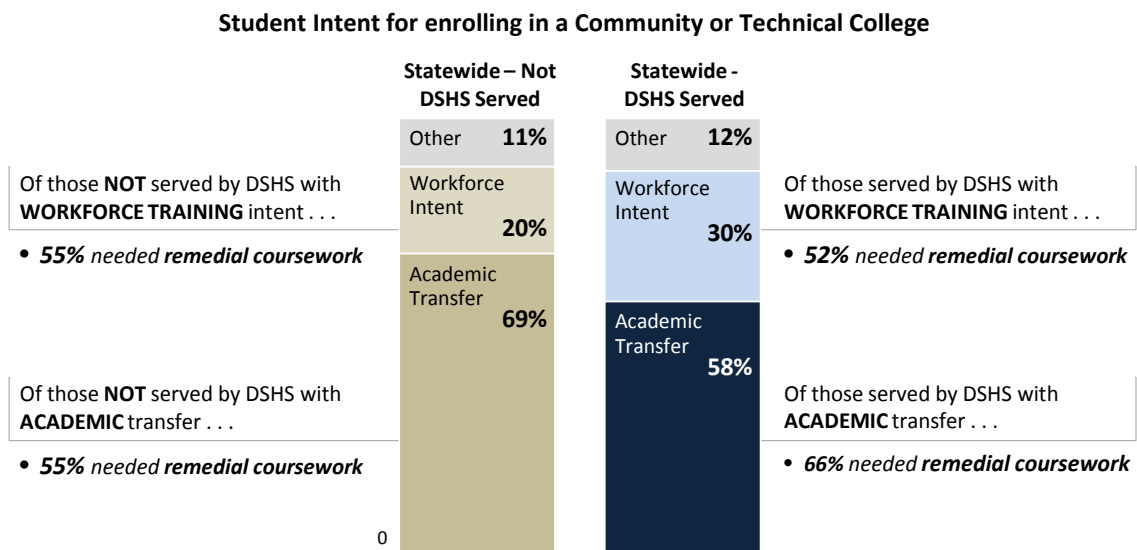
All community and technical college students were more likely to state an intention to pursue professional or technical training rather than a transfer to a 4-year institution. However, those who received DSHS services during high school were more likely to endorse professional-technical goals, particularly those who received foster care, Juvenile Justice and Rehabilitation, ESA-TANF or substance abuse services (Figure 8 and Table 9, page 13).

Remedial coursework is commonly required before students can advance to the higher-level courses required for a professional or technical degree or a transfer to a 4-year college. As shown in Figure 8 and Table 10 (page 13), community and technical college students who received DSHS services in high school and who intended to pursue a 4-year transfer were more likely to require remedial coursework than those pursuing a professional/technical track (66 compared to 52 percent). For students who had not received DSHS services however, the choice of a 4-year transfer or workforce track had no relationship to the need for remedial coursework.

These findings provide additional evidence that the risk factors associated with the use of DSHS services in high school are also linked to a lack of preparation for college-level work. In summary, graduates who received DSHS services during high school were more likely to pursue professional-technical goals. Students served by DSHS who chose to pursue a transfer to a 4-year college were more likely to require remedial coursework before advancing to college-level courses, compared to graduates who did not receive DSHS services in high school.

FIGURE 8.

The relationship between student intent for enrolling in SBCTC course, the need for remedial coursework, and DSHS service use during high school



⁹ Because the majority of recent high school graduates state that they either want to earn an academic or a vocational credential, the present responses were rolled up into “academic”, “vocational” or “other.”

DISCUSSION | Barriers to postsecondary enrollment and the implications for at-risk high school graduates

Forty-two percent of Washington State 2009 public high school graduates received DSHS services during high school. The postsecondary education experience of graduates who received social services will therefore have an important impact on higher education enrollment and outcomes statewide. The present study found that ***graduates who were served by DSHS in high school were less likely to enroll in postsecondary education in the year following graduation, regardless of their high school performance as indicated by their final grade point average.*** Postsecondary enrollment rates were particularly low for students who received DSHS services typically associated with higher risks, such as economic services, mental health or substance abuse treatment, Children’s Administration services, or Juvenile Justice and Rehabilitation.¹⁰

On average, graduates who required DSHS services were not as “college ready” as their peers. Students who received DSHS services graduated with lower high school grade point averages than did non-DSHS graduates, even within the subgroup who went on to enroll in postsecondary education. Compared to their peers, new college students who received DSHS services were less prepared for college level coursework as indicated by a history of lower academic achievement in high school. Not surprisingly, DSHS-served college students were more likely than their non-DSHS counterparts to require remedial coursework before progressing to college-level classes.

Community or technical colleges were the most common postsecondary option for all graduates, but particularly for students who received DSHS services. ***Among students who enrolled in a 2-year community or technical college, those who received DSHS services were more likely to pursue professional or technical training rather than a transfer to a 4-year college.*** DSHS-served students who enrolled in a community or technical college were more likely to require remedial coursework if they intended to transfer to a 4-year institution as opposed to professional or technical training, while there was no relationship between student intent and remedial coursework for the non-DSHS group.

An earlier study showed that students who required DSHS services in the 9th grade were less likely to graduate from high school than those who did not require these services, especially if the services were associated with behavioral or familial risk factors (Coker, et al., 2012). The present study goes a step further to conclude that even when children with these particular risk factors do graduate, they will face additional challenges in accessing higher education, and those who do enroll may have goals that differ from obtaining a 4-year degree.

Additional work is needed in order to more fully understand the challenges and potential benefits of postsecondary education for students facing economic, behavioral, or familial challenges. First, risk factors that negatively impact college enrollment are also likely to negatively impact completion rates, and additional years of follow-up are necessary to observe these outcomes. Second, the present finding that DSHS-served youth are more likely to pursue professional or technical pathways merits attention. While the high-school to 4-year college trajectory may remain the ideal for some, many youth may benefit from alternative postsecondary options. Students may use the community college system to earn a GED or a professional-technical degree rather than a high school diploma. Others may begin to earn college credits while still in high school via a dual enrollment program such as *Running Start*. Still others may return to college after years spent working, in military service, or raising a family.

Understanding the different pathways by which individuals gain access to and derive benefit from postsecondary education will help service providers, policymakers and educators to develop effective strategies to help at-risk students achieve success.

¹⁰ See Militello, et al, 2011 for a complete review.

REFERENCES

1. Coker, L., He, L., Lucenko, B., Mancuso, D., Mayfield, J., Liu, Q. & Felver, B. (2012). High school outcomes for DSHS-served youth. Graduation and drop-out rates for students who were 9th graders in 2005-2006. Olympia, WA: WA State Dept. of Social and Health Services, Research and Data Analysis Division; 11.181.
2. Coker, L., Sharkova, I., Mancuso, D., Lucenko, B., Liu, Q., He, L., Felver, B (2013). Educational Disabilities among At-Risk Students. The overlap between social service use and special education participation among school-aged children in Washington State. Olympia, WA: WA State Dept. of Social and Health Services, Research and Data Analysis Division; 11.190.
3. ERDC Research Brief (2010). Participation in Postsecondary Education: Washington State High School Graduates, 2008-09. ERDC Research Brief 2011-03. December, 2010. www.erd.wa.gov.
4. ERDC Research Brief (2011). Enrollment in Pre-College Coursework: Washington State High School Graduates, 2008-09. ERDC Research Brief 2011-03. November, 2011. www.erd.wa.gov.
5. Militello, M., Schweid, J. & Carey, J. (2011). ¡Sí se Puede en Colaboración! Increasing College Placement Rates of Low-income Students. *Teachers College Record* Volume 113 Number 7, 2011, p. 1435-1476. <http://www.tcrecord.org> ID Number: 16074.
6. Prince, David (2005). Building pathways to success for low-skill adult students: Lessons for Community College policy and practice from a longitudinal student tracking study (The "Tipping Point" research). April, 2005. Washington State Board for Community and Technical Colleges. Research Report No. 06-2.
7. Prince, David & Andreas, Michelle (2013). Low-income students in Washington's Community and Technical Colleges: An analysis of educational attainment and student characteristics over the past 10 years. April 2013. Washington State Board for Community and Technical Colleges. Research Report No. 13-3.
8. Rowen-Kenyon, H.T. (2007). Predictors of delayed college enrollment and the impact of socioeconomic status. *The Journal of Higher Education* 78(2): 188-214.
9. Washington State Board for Community and Technical Colleges (SBCTC), (2006). The socioeconomic well-being of Washington State: Who attends Community and Technical College? September, 2006. Research report 06-4.
10. Washington State Board for Community and Technical Colleges (SBCTC), (2010). Academic Year Report (2009/10). Washington State Board for Community and Technical Colleges. December, 2010.
11. Washington State Board for Community and Technical Colleges (SBCTC), (2010). Mission Study: Washington State Community and Technical Colleges. Washington State Board for Community and Technical Colleges. May, 2010.
12. Washington State Board for Community and Technical Colleges (SBCTC), (2011). Role of Pre-College (Developmental and Remedial) Education 2008/09 Public High school graduates who enroll in Washington Community and Technical Colleges in 2009-10. December, 2011 (Revised April 2012). Research report 11-3.

POSTSECONDARY ENROLLMENT

The Education Research and Data Center (ERDC) of the Office of Financial Management provided the data linkage between the DSHS client population and the information stored in the P-20 data warehouse, including all of the K-12 and postsecondary data. ERDC then delivered de-identified, individual-level data including enrollment and completions records through AY2009/2010 for Washington State 2-year colleges from the State Board for Community and Technical Colleges (SBCTC) and for Washington State 4-year colleges from the Public Centralized Higher Education Enrollment System (PCHEES). The ERDC also provided AY2009/2010 enrollment information for private Washington State Institutions and out-of-state institutions from the National Student Clearinghouse (NSC). Graduates who took only Basic Skills courses at the postsecondary level were not counted as enrolled in college.

Approximately 8 percent of the study population attended more than one of the following 4 types of postsecondary institutions identified above during the 2009/2010 academic year, defined as ranging from summer term, 2009 through Spring term, 2010. To facilitate direct comparison with the statewide data presented in the ERDC (2010) research brief, a primary postsecondary institution type was identified for each individual using the following business rules: If a student attended more than one postsecondary institution during the academic year, they are identified with the institution type that they first attended. For example, a student who attended a community college in the Fall of 2009 and then transferred to 4-year college in the Winter of 2010 was identified as having attended a community college. However, we did not have access to enrollment dates for the in-state private or out-of-state institutions. Therefore if the student attended an institution in either one of those categories, the following hierarchy was used to identify primary institution: 1) in-state private institution; 2) out-of-state institution; 3) If students attended both a Washington State public 2 year and 4 year institution during the academic year in question, the one that they attended first was primary, following the previously-stated business rules from ERDC (2010). As the number of students enrolled in multiple types of institutions was small, the maximum possible overestimation of the proportion of DSHS clients attending out of state or in-state private institutions, compared to the ERDC statewide estimates, is approximately 2 percent.

REMEDIAL COURSEWORK

Enrollment in any pre-college (remedial) math and English courses in AY2009/10 for all students who attended either a 2-year CTE or a 4-year public college or university was derived from data provided by the ERDC and originating from SBCTC (2-year institutions) and PCHEES (4-year institutions). This analysis was designed to replicate a 2011 study using the statewide population of 2008/2009 high school graduates enrolled in an in-state public 2-year or 4-year college in 2009/10. Remedial English (reading and writing) and math course flags were available from SBCTC and PCHEES. Remedial coursework information was available for individuals in the original cohort who had enrolled in either a 2-year or 4 year college, or both, during 2009/10. The data were unduplicated so that a person was not represented twice if s/he attended both a 2-year and 4-year institution in the same year, and the yearly flag for remedial coursework was retained if they took the course at either institution.

Institutional intent is a variable created by SBCTC based upon the type of courses the student is enrolled in a particular term. Students are flagged according to whether they enrolled the following types of courses any time during a particular term: Academic; vocational (professional/technical); developmental (corresponding to remedial); and basic skills. The developmental/remedial flag was used to corroborate the remedial flags (described above) for the CTC students, and to provide the cross tabulation for student intent by remedial course-taking, again available for the CTC students only.

STUDENT INTENT

“Student intent” is collected every term for students attending community and technical colleges, and refers to the students’ stated intention for enrolling. Intent is reported for all students who attended a 2-year college, whether or not the institution was primary. Student intent choice options include earning an academic degree (without or without or transfer to a 4-year college), a high school diploma or GED, basic skills or remedial courses, general studies, or a variety of technical or job-skills options. Following SBCTC protocols, we used only the student intent variable from the last term of enrollment during the year. Furthermore, for the purpose of the present study, student intent was rolled into three categories: 1) 4-year transfer: the intention to take academic courses for the purposes of receiving an academic degree or transferring to a 4-year institution; 2) Vocational/Workplace skills: the intention to earn a vocational or technical certificate, upgrade job skills, etc.; or 3) other intent: refers to intent such as receiving a GED, learning English, etc).

SUPPORTING TABLES

TABLE 1.

Demographic characteristics of DSHS-served students graduating from public high school in AY 2008/09

Age (October 1, 2008)	NUMBER	PERCENT	Gender ¹¹	NUMBER	PERCENT
TOTAL	26,565	100%	Male	11,321	42.6%
15 or younger	24	0.1%	Female	15,231	57.4%
16-18	24,907	93.8%			
19 or older	1,634	6.2%			

Race/Ethnicity (OSPI categories)	NUMBER	PERCENT	DSHS Service Use (SFY 2006 – SFY 2009)	NUMBER	PERCENT
White	16,918	63.7%	DBHR – Mental Health	2,217	8.3%
Hispanic/Latino any race	4,375	16.5%	DBHR – Substance Abuse	1,171	4.4%
Asian	2,081	7.8%	Juvenile Justice and Rehabilitation	146	0.5%
Black/African American	1,872	7.0%	Medical Assistance	19,943	75.1%
American Indian/AK native	815	3.1%	Medical Assistance -Only	2,103	7.9%
Native Hawaiian/PI	109	0.4%	ESA – TANF	3,734	14.1%
2 or more races	318	1.2%	ESA – Basic Food (no TANF)	8,013	30.2%
Not provided	77	0.3%	Children’s Administration – Foster Care	409	1.5%
			Children’s Administration – Other	3,949	14.9%

TABLE 2.

Postsecondary enrollment in the year following graduation (AY2009/10)

Students who were served by DSHS at any point during their first three years of high school, compared to a statewide cohort and an estimate of the non-DSHS-served population

	DSHS clients: 2008/09 high school graduates		Statewide: 2008/09 high school graduates		Non-DSHS 2008/09 high school graduates (estimated)	
TOTAL	26,565	100%	63,386	100%	36,821	100%
Enrolled in postsecondary	13,652	51.4%	40,708	64.2%	27,056	73.5%
Not enrolled in postsecondary	12,913	48.6%	22,678	35.8%	9,765	26.5%

TABLE 3.

High school achievement and postsecondary enrollment in relation to DSHS service use

High School Grade Point average	Statewide – All		Statewide – DSHS Served		Statewide – Non-DSHS-Served	
	TOTAL	Percent enrolled in postsecondary	TOTAL	Percent enrolled in postsecondary	TOTAL	Percent enrolled in postsecondary
TOTALS	63,386	64.2%	26,565	51.4%	36,821	73.5%
3.5 to 4.0	14,008	87.7%	3,617	73.7%	10,391	92.5%
3.00 to 3.49	14,517	77.6%	5,354	66.0%	9,163	84.3%
2.5 to 2.99	13,659	61.0%	6,472	53.4%	7,187	67.9%
2.00 to 2.49	10,905	44.7%	6,085	40.7%	4,820	49.8%
<2.00	6,250	29.8%	4,125	28.1%	2,125	33.0%
Not reported	4,047	51.8%	912	40.1%	3,135	55.2%

TABLE 4.

DSHS service use in high school and final grade point average: All students compared to those who enrolled in higher education

High School Grade Point average	Statewide – All		Statewide – DSHS-Served		Statewide – Non-DSHS-Served	
	Proportion of total in each GPA category	Postsecondary enrollees only	Proportion of total in each GPA category	Postsecondary enrollees only	Proportion of total in each GPA category	Postsecondary enrollees only
TOTALS	63,386	40,708	26,565	13,652	36,821	27,056
3.5 to 4.0	22.1%	30.2%	13.6%	19.5%	28.2%	35.5%
3.00 to 3.49	22.9%	27.7%	20.2%	25.9%	24.9%	28.5%
2.5 to 2.99	21.5%	20.5%	24.4%	25.3%	19.5%	18.0%
2.00 to 2.49	17.2%	12.0%	22.9%	18.1%	13.1%	8.9%
<2.00	9.9%	4.6%	15.5%	8.5%	5.8%	2.6%
Not reported	6.4%	5.2%	3.4%	2.7%	8.5%	6.4%

¹¹ Gender data was missing for 13 individuals.

TABLE 5.

Higher education enrollment, statewide cohort compared to DSHS-served graduates by service category and institution location and type¹²

Primary institution only (unduplicated) as proportion of total number of graduates enrolled in higher education

	Total Graduates	Any Postsecondary AY 2009/10		Washington State Postsecondary Institution			Out-of-State Postsecondary Institution
		NUMBER	PERCENT	PUBLIC 2-YEAR	PUBLIC 4-YEAR	PRIVATE	
ALL STATEWIDE	63,386	40,708	64.2%	48.7%	29.5%	5.3%	16.5%
<i>Statewide non-DSHS (estimate)</i>	36,821	27,056	73.5%	40.7%	34.4%	5.8%	19.1%
ALL DSHS¹³	26,565	13,652	51.4%	64.5%	19.7%	4.2%	11.5%
DBHR – Mental Health	2,217	941	42.4%	74.7%	11.2%	3.3%	10.9%
DBHR – Substance Abuse	1,171	437	37.3%	77.1%	9.4%	2.5%	11.0%
Juvenile Rehabilitation	146	47	32.2%	74.5%	10.6%	2.1%	12.8%
Medical Assistance-Only	2,103	1,281	60.8%	58.6%	26.4%	6.0%	8.9%
ESA – TANF	3,734	1,748	46.7%	71.1%	15.6%	4.9%	8.4%
ESA – Basic Food (no TANF)	8,013	3,610	45.0%	69.4%	16.6%	4.2%	9.7%
Children’s Admin – Foster Care	409	192	46.9%	79.2%	10.9%	4.7%	5.2%
Children’s Admin – Other	3,949	1,657	41.9%	72.3%	14.1%	3.5%	10.2%

TABLE 6.

The relationship between DSHS service type and high school achievement (GPA)

	All	MA Only	Foster Care	CA Other	TANF	Basic Food	DBHR MH	DBHR SA	JJ&RA
TOTALS	26,565	2,103	409	3,949	3,734	8,013	2,217	1,171	146
3.5 to 4.0	13.6%	22.2%	5.1%	8.5%	6.5%	9.6%	7.2%	3.6%	4.8%
3.00 to 3.49	20.2%	22.5%	16.1%	16.6%	15.9%	17.5%	17.5%	12.9%	13.0%
2.5 to 2.99	24.4%	24.0%	27.1%	25.5%	25.5%	23.4%	24.6%	19.0%	25.3%
2.00 to 2.49	22.9%	16.7%	29.1%	27.1%	27.0%	25.5%	27.7%	29.0%	26.0%
<2.00	15.5%	11.2%	16.6%	18.3%	20.8%	19.7%	19.0%	30.7%	25.3%
Not reported	3.4%	3.4%	5.9%	4.0%	4.3%	4.2%	4.0%	4.8%	5.5%

TABLE 7.

Remedial coursework in the year following graduation

Washington State public institutions only

	Statewide – All Students	Statewide – Non-DSHS	Statewide – DSHS-Served	DSHS – 2 yr College	DSHS – 4 yr Institution
TOTAL	30,966	19,215	11,751	9,709	2,889
Any Remedial Math or English Class	39.0%	31.9%	50.5%	57.2%	19.0%
Remedial Math Only	22.0%	19.8%	25.4%	28.8%	11.8%
Remedial English Only	4.9%	3.7%	6.8%	7.4%	3.4%
Both math and English	12.2%	8.4%	18.3%	21.0%	3.8%

TABLE 8.

Remedial course-taking in the year following graduation (AY2009/10) by DSHS services received during high school

2008/09 graduates enrolled in a Washington State Public Postsecondary institution, only

	TOTAL	Any remedial English or math	Any remedial math	Any remedial English
DSHS - ALL	11,751	50.5%	43.7%	25.1%
DBHR – Mental Health	825	54.8%	48.4%	27.2%
DBHR – Substance Abuse	383	60.6%	53.0%	29.0%
Juvenile Rehabilitation	40	42.5%	40.0%	20.0%
Medical Assistance-Only	1,107	47.9%	40.8%	26.6%
ESA – TANF	1,544	58.7%	48.4%	36.0%
ESA – Basic Food (no TANF)	3,157	56.3%	48.3%	31.0%
Children’s Admin – Foster Care	174	64.4%	52.3%	37.4%
Children’s Admin – Other	1,460	54.0%	47.2%	27.7%

¹² Percentage of total attending any postsecondary institution

¹³ Not all individuals included in the totals are represented in the DSHS service breakdowns.

TABLE 9.

Students' stated intentions or goals for enrolling in college: Students who received DSHS services in high school compared to statewide or estimated non-DSHS population

Student intent data is from the last term they were enrolled in the academic year, 2009/10

	TOTAL	Transfer to 4-year program	Vocational/ workplace skills	Other Intent
Statewide (ALL)	21,216	64.0%	24.3%	11.8%
<i>Non-DSHS (estimated)</i>	11,772	69.0%	19.6%	11.3%
DSHS - ALL	9,444	57.7%	30.0%	12.3%
DBHR – Mental Health	728	56.5%	30.9%	12.6%
DBHR – Substance Abuse	350	48.3%	36.9%	14.9%
Juvenile Rehabilitation	35	54.3%	37.1%	8.6%
Medical Assistance	6,981	57.4%	30.9%	11.7%
Medical Assistance-Only	816	59.3%	28.7%	12.0%
ESA – TANF	1,311	54.6%	34.0%	11.4%
ESA – Basic Food (no TANF)	2,620	57.6%	32.3%	10.1%
Children's Admin – Foster Care	156	51.3%	40.4%	8.3%
Children's Admin – Other	1,259	54.0%	33.0%	12.9%

TABLE 10.

Proportion of 2008/09 graduates who enrolled in remedial courses in the 2009/10 academic year, by students' stated intentions or goals for enrolling in college in their last term

Washington State Community/Technical college students only

	TOTAL	Transfer to 4-year program	Vocational/ workplace skills	Other Intent
Statewide (ALL)	21,216	13,575	5,147	2,494
Percent who took remedial courses by Intent category - Statewide	56.7%	59.5%	53.1%	48.6%
Non-DSHS (estimated)	11,772	8,128	2,310	1,334
<i>Percent who took remedial courses by Intent category – Non-DSHS</i>	54.6%	55.1%	55.1%	50.4%
DSHS – ALL	9,444	5,447	2,837	1,160
Percent who took remedial courses by Intent category – DSHS	59.3%	66.1%	51.5%	46.5%



RDA CONTACT

Liz Coker, PhD • 360.902.0782 • elizabeth.coker@dshs.wa.gov

Copies of this paper may be obtained at www.dshs.wa.gov/rda/ or by calling DSHS' Research and Data Analysis Division at 360.902.0701.

Please request REPORT NUMBER 11.196