

An Education Panacea? Implementation of *Navigation 101* in Washington State as a
Provision for Public Education Retention

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Problem Statement: Effects of Dropping Out of Public Education

Dropping Out: National-Level. Currently, America is in a situation requiring immediate action. This situation faces disconnected students leaving the public education system: 1.2 million students drop out every year across the nation and no state is immune to the crisis.¹ In 2008, the national dropout rate was estimated at 8% of individuals ages 16 to 24 either not enrolled in school or without their diplomas/GEDs. Broken down by race, estimated dropout rate frequency occurs in certain populations more than others² (Table 1).

Table 1. Percentage of High School Dropouts 16 through 24 years old by Race/Ethnicity in 2008³

White	4.8%
African-American	9.9%
Latino	18.3%

Additionally, poverty has shown to have the strongest correlation with dropouts: the National Center for Education Statistics provides that the estimated “dropout rates for students living in the lowest quartile of family income were more than 7 times higher than those of students in the highest family income quartile.”⁴

Compounding the impact of poverty on education retention is the parallel occurrence of negative economic effects. Both individual (Table 2) and societal impacts of students leaving the education system are dire. On a global scale, the U.S. is underperforming its competitors and ranks eighth from the bottom in a comparison of high school graduation rates among the 30 member countries of the Organization for Economic

¹ Jobs for the Future (2011). “Effective Dropout Prevention and Recovery: States Must Keep Off-Track Youth in School and Put Them Back on Track to Postsecondary Success”. Jobs for the Future: Education for Economic Opportunity: <http://application.jff.org/dropout/index.php> Accessed: November 29, 2011.

² American Psychological Association (2010). “Facing the School Dropout Dilemma”. Washington, D.C.: Author. <http://www.apa.org/pi/families/resources/school-dropout-prevention.aspx> . Accessed: November 29, 2011.

³ National Center for Education Statistics (2011) *Digest of Education Statistics*, Table 108: “Percentage of high school dropouts among persons 16 through 24 years old (status dropout rate), by sex and race/ethnicity: Selected years, 1960 through 2008”. Accessed May 24, 2012: http://nces.ed.gov/offcampus.lib.washington.edu/programs/digest/d09/tables/dt09_108.asp

⁴ American Psychological Association (2010). “Facing the School Dropout Dilemma”. Washington, D.C.: Author. <http://www.apa.org/pi/families/resources/school-dropout-prevention.aspx> . Accessed: November 29, 2011. (p. 1)

Cooperation and Development.⁵ In addition to the significant risk of incarceration for male dropouts, it has been estimated that if dropouts from the Class of 2009 had graduated, the nation's economy would benefit from nearly \$353 billion in additional income over the course of their lifetimes.

Table 2. Reduced Earning Capacity of Dropouts as Compared Other to Levels of Education Completion⁶

High school diploma	27%
Bachelor's degree	55%
Master's degree	63%
Doctoral degree	71%

Despite the seemingly insurmountable reality between dropping out of public education and subsequent negative economic effects, legislation—at federal, state, and local levels—are making changes to contest devastating effects of dropping out of the public education system.

To create a plan of action around how to combat the dropout problem, federal regulations have progressively attempted more routine and accurate ways to measure attrition from the system. In 2008, federal legislation required states to use more accurate ways of counting dropouts and holding districts and schools more accountable; improved data collection would give way to better research around school based variables that are highly effective in predicting future dropouts.⁷

Washington state in particular is a working example of the above legislation. In general, states that have reviewed their data about students' academic performance, attendance, behavior, and other related areas have experienced success in using this information to inform their statewide program development and implementation.

⁵ American Psychological Association (2010). "Facing the School Dropout Dilemma". Washington, D.C.: Author. <http://www.apa.org/pi/families/resources/school-dropout-prevention.aspx> . Accessed: November 29, 2011.

⁶*Ibid.*

⁷ Jobs for the Future (2011). "Six-Pillars of Effective Dropout Prevention and Recovery: An Assessment of Current State Policy and How to Improve It". Jobs for the Future: Education for Economic Opportunity: <http://www.jff.org/publications/education/six-pillars-effective-d> . Accessed: November 29, 2011.

Washington is the only western state engaged in the exact type of comprehensive progress described in the federal legislation: enhanced data collection, measuring, and proscribing programs for accountability.⁸

Dropouts: State-Level, Washington. Compared to Washington’s labor force of today, tomorrow’s labor force will be older, more racially and ethnically diverse, and will grow at a slower rate. There is a need to provide new arrivals and historically underutilized populations with education and training to participate more successfully in tomorrow’s economy.⁹ In 2006, over sixty thousand Washington teenagers between the ages of 15 and 19 were not enrolled in school and just over twenty thousand were neither enrolled in school or in the labor force. The Washington State Report Card issued by the Washington Office of the Superintendent of Public Instruction (OSPI), indicates that only 72% of the 2007 class graduated on-time after four years of high school and only 77% of that year’s class is expected to graduate by age 21.¹⁰

In Washington, to address the impending realities of a changing workforce measures within the policy *High Skills, High Wages 2008-2018* (HSHW 2008) provided tactics needed to deliver an effective workforce, as an economic driver, through a concerted effort between two government institutions: the Workforce Training and Education Coordinating Board (Workforce) and the Office of the Superintendent of Public Instruction (OSPI). By focusing on three categories: adults, youth, and industry, the underlying plan of HSHW 2008 offers a clear look at challenges and opportunities to “ensure our workforce development system

⁸ National Dropout Prevention Center for Students with Disabilities (2011). “An Analysis of States’ FFY 209 Annual Performance: Report Data for Indicator 2 (Dropout)” A Report Prepared for the U.S. Department of Education Office of Special Education Programs.

⁹ Workforce Training and Education Coordinating Board (2009). *High Skills, High Wages 2008 – 2018: Washington’s Strategic Plan for Workforce Development*. www.wtb.wa.gov. Accessed: November 30, 2011.

¹⁰ *Ibid.*

functions as a highly effective, collaborative team” between stakeholders and previously mentioned Washington state government institutions.¹¹

Adopted in April 2009, the Washington state Legislature passed HSHW 2008 as the state’s comprehensive plan for workforce training.¹² Along a 10-year horizon, HSHW 2008 will implement several key strategies to boost the state’s workforce system, spanning seven state agencies, 18 programs, and nearly \$900 million in state and federal funds.¹³ Under HSHW 2008’s “Youth” category, progress depends on ensuring, “all youth receive the education, training, and support they need for success in postsecondary education and/or work.”¹⁴ This goal is achieved through specific objectives, each defined within the legislation (Table 3).

Table 3. Youth Objectives under HSHW 2008 (p. 34)

Objective 1	<i>A K-12 Guidance and Counseling System provides students and their parents with a curriculum to individually plan their pathways and prepare for future education and/or work after high school.</i>
Objective 2	All students leave high school prepared for success in further education and/or work.
Objective 3	All students graduate from high school.
Objective 4	Reduce unemployment rates among older youth, and improve their career prospects.

Under Objective 1, HSHW 2008 mandated the implementation of *Navigation 101* (Nav101) as Washington’s program for dropout prevention, retention, and as a strategy that engenders a workforce to become better educated, better skilled, and better paid.¹⁵ In the face of the problems presented before building a stronger workforce for the “public good”

¹¹ Workforce Training and Education Coordinating Board (2009). *High Skills, High Wages 2008 – 2018: Washington’s Strategic Plan for Workforce Development*. www.wtb.wa.gov. Accessed: November 30, 2011. (p. 2).

¹² *Ibid.*

¹³ *Ibid.*

¹⁴ *Ibid.* (p. 31)

¹⁵ *Ibid.*

of the state of Washington, one issue remains: assessing the chosen program, Nav101, for successfully delivering reduced dropout rates by adhering to the comprehensive counseling and guidance methods not only designated in HSHW 2008, but also as supported by the American School Counselor Association (ASCA) and Comprehensive School Counseling Program (CSCP).¹⁶

Following the original implementation of Nav101 in 2006, several program evaluations have followed. While those have ranged from implementation fidelity to the effect of Nav101 on on-time graduation rates, this study focuses on dropout rates for reasons previously mentioned. Under the assumption that “the whole is more than the sum of its parts” this study seeks to affirm the Washington state Legislature’s belief that Nav101 can reduce high school-level public education attrition by establishing that increasing exposure to Nav101 is influential in reducing school dropout rates.¹⁷

Literature Review: A Focus on Navigation 101

Washington will use the *Navigation 101* program (Nav101) to secure increases in high school graduation rates by provision of supportive career guidance and planning. Based upon the fundamental aspect to any method of learning, the “delivery system” in place ensures the message or content of the lesson is mastered by the students involved.¹⁸ Put another way, Nav101 is a learning tool that provides supportive activities and interventions to students to ensure academic performance and grade progress.¹⁹

¹⁶ Newell, Dan (2010). “Navigation 101: College & Career Readiness”. Office of Superintendent of Public Instruction, Comprehensive Guidance & Counseling Program Development.

¹⁷ Kester, Kyra; Stern, Paul; & Pitman, Kirby (2009). “Navigation 101 2008 Annual Performance Evaluation”. Social and Economic Sciences Research Center – Puget Sound Division, Washington State University: Olympia, WA.

¹⁸ Bergeson, Dr. Terry (2008). “Charting our Course: Navigation 101 and the “Road Map” to a Washington State Comprehensive School Counseling Program”. Office of Superintendent of Public Instruction: Washington.

¹⁹ *Ibid.*

Background: Nav101 in Washington. The first occurrence of Nav101 in Washington state occurred nearly a decade before its showcase in 2006. The leaders of Franklin-Pierce School district, at the time, recognized and wondered what to do about the plight of students and the troubling dropout rate. Prior to implementation of Nav101:

“The traditional high school guidance system in the Franklin Pierce School District had some fundamental problems. Counselors spent only a few minutes with students each year, so students were given minimal guidance on how to choose their classes, and how to plan and prepare for their lives after high school... moreover, students who were more assertive about their need for assistance were more likely to get extra help from counselors than those who did not specifically request the assistance. It was usually the students who didn’t ask who were most adrift and in need of help”.²⁰

This reality of public education—that some students do not assert themselves to use the available resources—motivated the search for a strategic counseling practice resulting in the eventual implementation of Nav101.

Franklin-Pierce school district leaders faced the challenge that “students with different backgrounds had very different experiences even while at the same school.”²¹ Unused resources (career and/or academic counseling services) in public education are only unused since effective “delivery methods” vary from student to student; just showing up to class is not enough, for some, to receive content and messages of a lesson. The Franklin-Pierce school district officials were convinced the answer lay in counseling and guidance programs, but they needed a comprehensive model before they could take action.

²⁰ Navigation 101 (2011). “Case Study: Franklin Pierce School District”. Author. <http://envictus.com/Results/Case-Studies> . Accessed: November 30, 2011. (p. 1)

²¹ Bergeson, Dr. Terry (2008). “Charting our Course: Navigation 101 and the “Road Map” to a Washington State Comprehensive School Counseling Program”. Office of Superintendent of Public Instruction: Washington. (p. 12)

The American School Counselor Association (ASCA) first endorsed the notion of comprehensive school guidance in 1974.²² This national model encompasses the four critical elements creating, “a blueprint that

increases the effectiveness and efficiency of school counselors and shapes how they use their time.”²³ **Foundation** articulates

program mission, vision, and emphasizes commitment from the student. **Delivery**

System emphasizes how the program will be implemented and encompasses logistical measures such as: curriculum, individual student planning, responsive services, and

system support. **Management Systems**

embody the *When* (calendar planning), *Why* (use of data) and, the notion of *on whose authority?* (management agreement and advisory council). Finally, the element of **Accountability**

Systems serves to answer the question “How are students different as a result of the system?”²⁴ All of these measures are conceptualized in Figure 1 demonstrating the relationships between the four elements.²⁵

It is upon the ASCA model that Comprehensive School Counseling Programs (CSCPs) are based. Validating the importance of a proper counseling model such as the ASCA, CSCPs are mandated in Washington state. In late 2007, the legislature acknowledged



Figure 1. ASCA Comprehensive School Guidance Elements

²² Bergeson, Dr. Terry (2008). “Charting our Course: Navigation 101 and the “Road Map” to a Washington State Comprehensive School Counseling Program”. Office of Superintendent of Public Instruction: Washington.

²³ *Ibid.* (p. 9)

²⁴ *Ibid.* (p. 9)

²⁵ *Ibid.*

that, “school counselors play a vital role in maximizing school achievement...and addressing the needs of all students through prevention and intervention programs.”²⁶ Moving forward on the CSCPs mandate, the Washington School Counselor Association (WSCA) developed a “Road Map” identifying Nav101 as a way to implement important facets of CSCPs.²⁷

Nav101 invokes the ASCA model in Washington state since it based on the tenets put forward by CSCPs. When Nav101 was first implemented in Franklin-Pierce, it was:

“...initially implemented through advisory classes, which met twice a month throughout the school year. Each high school teacher would lead a class of about 20 students through the Nav101 curriculum. This curriculum included lessons on goal setting, skill development, planning for each year’s high school course selection, managing money, and developing a student portfolio. Teachers and students in Navigation classes stayed together throughout the student’s four-year high school career. Students regarded the teacher as their personal advisor for the purposes of course selection and for advice on post-secondary planning. Thus, teacher and students were able to build a meaningful and personal relationship over four years.”²⁸

The importance of the relationship building within and academic setting is as, if not more, important than the individual, more traditional academic elements of the Nav101 program.

The often-cited research of *The Silent Epidemic: Perspectives of High School Dropouts* (2006) provides evidence that the academic-mentor relationship between a teacher and a student is significant for success in progressing and completing high school. While there are no simple solutions to the dropout crisis, there are clearly “supports” that can be provided. While most dropouts blame themselves for failing to graduate, there are things that schools can do to help them to finish: (1) Build a school climate that fosters academics and (2) *ensure*

²⁶ Bergeson, Dr. Terry (2008). “Charting our Course: Navigation 101 and the “Road Map” to a Washington State Comprehensive School Counseling Program”. Office of Superintendent of Public Instruction: Washington. (p. 33)

²⁷ *Ibid.*

²⁸ Navigation 101 (2011). “Case Study: Franklin Pierce School District”. Author. <http://envictus.com/Results/Case-Studies> . Accessed: November 30, 2011. (p. 2).

*that students have a strong relationship with at least one adult in the school.*²⁹ This notion of building a strong relationship within the school walls—be it a teacher, a counselor, or other official—is a documented necessity for dropout intervention and prevention³⁰, and building strong relationships serves as a fundamental condition for success in the Nav101 program.³¹

At its core, Nav101 is a program based upon clear plans coupled with immediate action. It operates on the premise that “every student deserves help and attention, not just those who are high-risk or high-achieving.”³² This assertion mirrors the worries of the aforementioned Franklin-Pierce school district leaders, who were looking for means to serve every student.³³ Further supporting this claim, the OSPI of Washington state published *Navigation 101: College and Career Readiness: Comprehensive Guidance & Counseling Program Development, 2010 Summary Report* (2010) finding that two types of students get most of the attention: the high-risk and the high-achieving. Nevertheless, regardless of the status-quo, every student deserves the attention and guidance of a caring adult at school and a plan for life after high school.³⁴ To achieve this “every student” outlook, the Nav101 engages five central themes, based upon the CSCP model and drawing influence from the ASCA framework, to create one comprehensive package (Table 4).

²⁹ Bridgeland, John M.; Dilulio, Jr., John J; & Morison, Karen Burke (2006). *The Silent Epidemic: The Perspectives of High School Dropouts*. Civic Enterprises / Peter D. Hart Association for Bill & Melinda Gates Foundation: Seattle, WA.

³⁰ Dorn, Randy (2011). *Graduation and Dropout Statistics for Washington in 2009 – 10*. Office of Superintendent of Public Instruction: Olympia, WA.

³¹ Bergeson, Dr. Terry (2007). “Nine Characteristics of High Performing Schools: A Research Based Resource for Schools and Districts to Assist with Improving Student Learning”. Office of Superintendent of Public Instruction: Olympia, WA.

³² Office of the Superintendent of Public Instruction (2010). “Navigation 101 FAQ”. <http://www.k12.wa.us/SecondaryEducation/CareerCollegeReadiness/FAQ.aspx>. Accessed: November 30, 2011. (p. 2).

³³ Navigation 101 (2011). “Case Study: Franklin Pierce School District”. Author. <http://envictus.com/Results/Case-Studies>. Accessed: November 30, 2011.

³⁴ Newell, Dan (2010). *Navigation 101: College & Career Readiness: Comprehensive Guidance & Counseling Program Development*. Office of Superintendent of Public Instruction, Comprehensive Guidance & Counseling Program Development.

Table 4. Elements of the Navigation 101 Curriculum Package³⁵

	Type of Nav101 Program Delivered	Implementation Technique
Element 1: Personalizing	Curriculum Delivered Advisories	Personalizes student education through small group advisories that students are to attend once a month. Includes: applied goal setting, exploration of interests, and individual student planning.
Element 2: Planning	Portfolios	Throughout their time in Nav101, students are expected to keep their work to be able to tell their own personal story. The Nav101 program provides handouts and worksheets to supplement student-generated material.
Element 3: Demonstration	Student-Led Conferences (SLCs)	Each year, students present their achievements to parents and advisers at SLCs. Nav101 curriculum specifically builds toward this final presentation. This domain is specifically crafted on ASCA standards for academic and career development.
Element 4: Empowering	Student-Driven Scheduling	Through the planning and preparation of Navigation staff, students are encouraged to chose “gatekeeper” courses ¹ . This element is essential for making long-term impact in students’ lives and is the hardest for Nav101 to implement due to funding and registration constraints.
Element 5: Evaluating	Data Analysis	Evaluation, self-assessment, and reflection are built into the Nav101 curriculum. Measurement of outcomes is essential to help guide modifications, funding, and overall participation in the Nav101 program.

Implementation and Funding. During the recession of 2001-2003 in Washington State, employers had trouble finding skilled applicants. In fact, in the stronger labor market that followed, the workforce skill shortages became even more severe.³⁶ At the same time, workers from minority groups account for a greater slice of Washington’s labor force with projections for that percentage to rise faster and farther in the years to come; education levels, wages and employment rates among minority worker continue to lag behind whites—troubling problems that have far-reaching implications for our economy as a whole.³⁷

State leaders are well aware of this dilemma and have taken action. The effects of Nav101 in the Franklin Pierce school district garnered attention from neighboring districts

³⁵ Bergeson, Dr. Terry (2008). “Charting our Course: Navigation 101 and the “Road Map” to a Washington State Comprehensive School Counseling Program”. Office of Superintendent of Public Instruction: Washington.

³⁶ Workforce Training and Education Coordinating Board (2009). *High Skills, High Wages 2008 – 2018: Washington’s Strategic Plan for Workforce Development*. www.wtb.wa.gov. Accessed: November 30, 2011.

³⁷ *Ibid.*

and even the state legislature. After a decade of Nav101 implementation, the Franklin Pierce school district’s on-time graduation and dropout rates improved (Table 5).

Table 5. Franklin Pierce School District – On-Time Graduation and Dropout Rates in 2004 and 2008 Following Nav101 Implementation

	2004	2008
On-Time Graduation Rate	56%	67.9%
Dropout Rate	7%	5.4%

What started in Franklin Pierce was the beginning of a CSCP unlike anything before it wherein “it quickly became apparent that this was an invaluable approach to increasing student engagement, reducing the dropout rate, and helping students become more engaged in planning for the future.”³⁸

Then, in 2006, in recognition of Nav101’s success, ESSB6386 was passed allowing the Legislature to fund grants for implementing the Nav101 program into Washington state schools. This legislation cemented a relationship between Washington State Legislature, Workforce, OSPI, and Envictus: a “social entrepreneurial”³⁹ company that houses, monitors, and delivers the Nav101 program to clients, based in Chantilly, Virginia.

In the original ESSB6386 legislation, OSPI allocated \$6,440,000 to fund the implementation of Nav101 at different grade levels across the system of Washington State public schools (Table 6).

Table 6. Navigation 101 Schools (By Category) From Passage of ESSB6386 (2006)

	No. Received Nav101 Grants
High Schools	100
Seventh through 12 th grade programs	15
Alternative Learning Experiences collude	18
Middle Schools	77
Elementary Schools	11

³⁸ Newell, Dan (2010). “Navigation 101: College & Career Readiness”. Office of Superintendent of Public Instruction, Comprehensive Guidance & Counseling Program Development. (p. x)

³⁹ *Ibid.*

During a preliminary evaluation of Nav101 implementation, measures indicated improvement in two domains: on-time graduation and more students taking higher level math and science courses.⁴⁰

Viewed as a success since its initial implementation, successive legislation has significantly amplified the exposure of Nav101 in Washington State year after year. In addition to having Nav101 imbedded in HSHW 2008 as a “best practice” measure for uplifting youth and sagging dropout rates, 2009-2011 and 2011-2013 legislation sought to provide a broader scope for the program and expand its impact through increased grant funding.⁴¹

Finally, the most conclusive example of the Nav101-Washington state relationship rests under a HSHW 2008 heading, “Steps to Get Us There.” Eventually, the goal of the 10-year plan is to implement Nav101 statewide by:

“...expand[ing] implementation of the best practice guidance system, *Navigation 101*, across the K-12 system including establishing goals for expansion each year. This would ultimately result in full funding of *Navigation 101* as a basic program of education”.⁴²

With an aim to become the “basic program of education,” as evidenced by accepted legislation, could Nav101 be considered a panacea for public education? Should Nav101 be allowed consideration as a supposed “cure-all” to the problem of high school dropout prevention, intervention and retention?

The school-level, district-level, and state-level reliance on Nav101 make evident the need for a comprehensive counseling program that can deliver public education success: in which the purpose “of the diploma is to declare that a student is ready for success in post-

⁴⁰ Newell, Dan (2010). “Navigation 101: College & Career Readiness”. Office of Superintendent of Public Instruction, Comprehensive Guidance & Counseling Program Development.

⁴¹ Newell, Dan (2010). “Navigation 101: College & Career Readiness”. Office of Superintendent of Public Instruction, Comprehensive Guidance & Counseling Program Development.

⁴² Workforce Training and Education Coordinating Board (2009). *High Skills, High Wages 2008 – 2018: Washington’s Strategic Plan for Workforce Development*. www.wtb.wa.gov. Accessed: November 30, 2011. (p. 36).

secondary education, gainful employment, and citizenship, and is equipped with the skills to be a lifelong learner.”⁴³ Confidence in Nav101 to generate academic success as defined is the result of documented academic improvements within the Franklin-Pierce case study⁴⁴ and several established program evaluations.

Evaluations of Nav101

The Washington State University Social & Economic Sciences Research Center – Puget Sound Division (SESRC) released a report titled *Navigation 101 2008 Performance Evaluation* (2009). It measured the effects of Nav101 on six indicators for overall academic performance.⁴⁵ Despite indicator five (on-time graduation rates), dropout data was not included in the report. Further, of the over 160 grantee schools receiving the Nav101 program, the sample was limited to twenty “high-implementing” high schools. According to authors Kester et al (2009), this delimitation is logical since it takes a year or more of planning before all elements of the Navigation 101 program are in place; and, reflects more accurately on the performance of implementation of the program on noted indicators.⁴⁶

The trouble with only surveying just over 12% of total schools receiving the program is that it limits application of the results or drawing conclusions to the total population. The breadth of research and literature on the implementation of Nav101 on several student outcome indicators is made more robust by including all Nav101 despite level of

⁴³ Newell, Dan (2010). “Navigation 101: College & Career Readiness”. Office of Superintendent of Public Instruction, Comprehensive Guidance & Counseling Program Development. (p. x).

⁴⁴ Navigation 101 (2011). “Case Study: Franklin Pierce School District”. Author. <http://envictus.com/Results/Case-Studies> . Accessed: November 30, 2011.

⁴⁵Six Indicators: Participation in and Satisfaction with Student-Led Conferences; on-time matriculation from grade to grade; “Gatekeeper” course requested, enrolled in, and passed: Algebra II, Physics and Chemistry; Passing rates on the reading and math portions of the Washington Assessment of Student Learning (WASL); On-Time graduation rates; and, Enrollment of graduates in pre-college courses in the post-secondary system (remedial rates) . Kester, Kyra; Stern, Paul; & Pitman, Kirby (2009). “Navigation 101 2008 Annual Performance Evaluation”. Social and Economic Sciences Research Center – Puget Sound Division, Washington State University: Olympia, WA.

⁴⁶ *Ibid.*

implementation. Supporting this idea of fully surveying Nav101 schools, the authors contribute that all previous performance evaluations “represented all the contributed data from any of the schools receiving Navigation support or funding, regardless of the stage of implementation”⁴⁷ and “as the number of schools increased, however, incomplete data also rose.”⁴⁸

Methodology

This study evaluates the influence of increased Nav101 implementation over time, regardless of the stage of implementation, on reduced dropout rates at the high school level since 2006. The SESRC’s *Navigation 101 2008 Performance Evaluation* (2009) and previous annual Nav101 program evaluation methodologies inform the approach taken in this study. Before the SESRC Nav101 program evaluation publication in 2009, previous SESRC annual Nav101 program evaluation methods reflected all data from schools receiving Navigation support or funding. Then, in *Navigation 101 2008 Performance Evaluation* (2009), the SESRC focused solely on fully implementing (a complete Nav101 program; all 5 elements) or, “high-implementing” high schools, limiting the sample size to only twenty.

By combining the attributes of different SESRC evaluations, this study focuses on only high schools, as in the SESRC’s *Navigation 101 2008 Performance Evaluation* (2009) and includes all high schools eligible for Nav101 grants in 2006, following passage of ESSB6386, at *any level* of implementation, as in SESRC methodologies prior to the 2009 evaluation.

This study ultimately seeks to establish with empirical data the confidence that the Washington state Legislature has in Nav101 to influence reduced dropout rates over time. It tests the premise that increasing implementation of Nav101 should be associated with

⁴⁷ Kester, Kyra; Stern, Paul; & Pitman, Kirby (2009). “Navigation 101 2008 Annual Performance Evaluation”. Social and Economic Sciences Research Center – Puget Sound Division, Washington State University: Olympia, WA. (p. 4).

⁴⁸ *Ibid.* (p. 4).

reduced dropout rates since it is the effects of the Nav101, all elements and their combined influence, in question. In support, the SESRC finds that, “schools with the longest experience with Navigation 101 believe that each element is essential and that the effect of the whole is greater than the effect of any single part.”⁴⁹ This importance of the passage of time—each additional year—highlights the fact that, “it will be several years before evidence of the academic effect of differently structured relationships between students and educators will appear statewide”.⁵⁰

This evaluation of the level of Nav101 implementation counseling package will also attempt to capture or control for the effects of belonging to certain populations in accordance with receiving the Nav101 program. As the HSHW 2008 legislation strives to support a thriving Washington state economy, the growing racial and ethnic diversity of the workforce makes boosting education levels increasingly pressing, due to the academic disparity between students of non-white backgrounds (Black and Latino specifically) and white students.⁵¹ This highlights that the Washington state Legislature confidence in Nav101—as demonstrated by increased state funding to become a “basic program of instruction”⁵²—assumes the program will deliver results with regard to specific race populations above what current education levels can provide. Similarly, as poverty is shown to have the strongest correlation with negative public education outcomes,⁵³ the Nav101

⁴⁹ Kester, Kyra; Stern, Paul; & Pitman, Kirby (2009). “Navigation 101 2008 Annual Performance Evaluation”. Social and Economic Sciences Research Center – Puget Sound Division, Washington State University: Olympia, WA. (p. 4).

⁵⁰ *Ibid.*

⁵¹ Workforce Training and Education Coordinating Board (2009). *High Skills, High Wages 2008 – 2018: Washington’s Strategic Plan for Workforce Development*. www.wtb.wa.gov. Accessed: November 30, 2011.

⁵² *Ibid.*

⁵³ American Psychological Association (2010). “Facing the School Dropout Dilemma”. Washington, D.C.: Author. <http://www.apa.org/pi/families/resources/school-dropout-prevention.aspx>. Accessed: November 29, 2011.

program is assumed to deliver reduced dropout rates when accounting for influences of socio-economic indicators, beyond what current public education levels can provide.

From these determinations—approach, sample designation, and data analysis requirements in controlling for certain factors—the following questions target the purpose of this study for establishing the belief that the adoption of Nav101 will deliver on the potential for a reduced dropout rate:

- **Question 1:** Does increasing implementation of Navigation 101 counseling resources make an impact on high school-level dropout rates?
- **Question 2:** Does increased implementation of Navigation 101 counseling resources make an impact on high school dropout rates controlling for student race?
- **Question 3:** Does increasing implementation of Navigation 101 counseling resources make an impact on high school dropout rates when controlling for students receiving free/reduced lunch?

Corresponding to these questions, respectively, my first hypothesis is that increasing Navigation 101 implementation will be associated with reduced dropout rate at the high school level over the years. The second hypothesis is that increasing Navigation 101 will be associated with reduced dropout rates at the high school level when controlling for student race over the years following its implementation. And, thirdly, this study hypothesizes that increasing Navigation 101 exposure will be associated with reduced dropout rates when controlling for socio-economic factors—Per Pupil Expenditure and free/reduced lunch—over the years following the passage of ESSB6368 in 2006.

Sample. This study includes all high schools eligible to receive state funded Nav101 grants since 2006, regardless of implementation stage. The total number of eligible schools to receive Nav101 funding as compared to those that actually did in a given year is seen in Table 7.

Table 7. Number of Eligible Navigation 101 Schools Compared to Number of Schools Receiving Nav101 Awards

	2006	2007	2008	2009
No. Eligible Schools				
68	27	—	—	—
70	—	20	—	—
70	—	—	41	—
70	—	—	—	56

The passage of ESSB6386 in 2006 only allowed for school districts to receive state funding for Nav101 implementation, and did not award grants across all eligible schools. A prior approach to this study was to compare the dropout rates of Nav101 schools since ESSB6386 passage (2007 – 2010) to the dropout rates of those schools in years prior (2000 – 2006). The nature of this comparison in the former study approach does not reflect the “whole is more than the sum of its parts”: each year the Nav101 variable was either, “received a grant for that year” and given a “1” or “did not receive a grant for that year” and given a “0”. This dichotomous variable approach did not reflect the nature of the Nav101 elements building each year a grant is awarded and so, was abandoned. A clearer operationalization of the Nav101 will appear in the “Variables and Coding” section of this study.

Variables and Coding. Using only secondary data as provided by the Nav101 schools to OSPI, this study includes the following school level data in Table 8. Table 8 also defines the operationalization of each variable that dictates the following interpretation in the analysis. Variables requiring additional operationalization (use for interpretation) are found below in the “Definitions, Conceptualization, and Operationalization” section of the study.

Table 8. Study Operationalizations and Coding Specifications

Variable	Variable Name	Variable Type	Operationalization
1. School Name	Schl	Nominal	Name of the Nav101 School
2. Navigation 101	Nav(7 – 10)	Ordinal	Represents the total number of grantee years, for a given school, up to that year.
3. Dropout Rate	DrpRate(7– 10)	Scale	Student who drop out of public education for any reason; without a regular diploma, or are not confirmed as transfers. ⁵⁴
4. Student Count	StdCnt(7 – 10)	Scale	Total number of students (9 th – 12 th) for years 2000 – 2010 in potential Nav101 grantee schools.
5. Per Pupil Expenditure	PPE(7 – 10)	Scale	The amount of money spent on a single student per district (proxy)
6. Black Student Count	Black_Count(7 – 10)	Scale	Number of African-American students in a Nav101 grantee school.
7. Hispanic Student Count	Hisp(7 – 10)	Scale	Number of Hispanic/Latino students in a Nav101 grantee school.
8. Free/ Reduced Price Lunch	Free(7 – 10)	Scale	Percentage of a Nav101 schools population receiving vouchers for Free/Reduced lunch.

Definitions, Conceptualization, and Operationalization. The 2nd variable, **Navigation 101**, does require additional clarification and operationalization for purposes of this study. Nav(n) represents the total number of years an individual school has received an award, up to that year, for Nav101 implementation. Each additional award represents an additional level of implementation; additional level of implementation can indicate: additional exposure of students to the Nav101 elements, additional experience of the faculty with the program, or each increasing year of a complete functioning program. This building aspect of the Nav101 curriculum or, each additional year a school receives a grant for Nav101, expresses more of the Nav101 program presence in a school than in year(s) prior. Hence, the Ordinal variable type designation of 1 – 4, across years 2006 – 2010 to indicate number of Nav101 grants received, where: “1” represents only one year as a Nav101 grantee school up to that year; “2” represents two years as a Nav101 grantee school up to that year; etc. As example, if School X receives a “2” for the Nav10 variable, the following can be understood: that, in the

⁵⁴ Dorn, Randy (2011). *Graduation and Dropout Statistics for Washington in 2009 – 10*. Office of Superintendent of Public Instruction: Olympia, WA. (p. 6)

duration of time from when school districts could receive state funding for Nav101 in 2006 through 2010, School X only received Nav101 funding for two years. Further, one of those two years, School X received a grant for additional Nav101 implementation in the academic year 2009 – 2010. It is beyond the scope of this study to examine *type* of school-level implementation or, *how* a school used state funding for implementing Nav101.

As the Washington State University SESRC did not conduct a review of the 3rd variable, **Dropout rates**, in its reports, the dropout concept will be defined as a,

“students who drop out for any reason, finish their schooling without a regular diploma, or whose status is ‘unknown’ because they are no longer enrolled but are not confirmed transfers or dropouts”.⁵⁵

From this definition, operationalization of the concept dropout rate is the percentage of those students reported as dropouts over the remaining high school population as reported by the OSPI.

Data Analysis. This study will use linear, stepwise regression to control for the effects of race and socio-economic factors on the dependent variable to isolate the influence of the Nav101 independent variable. First, the study establishes the use of linear regression as a means necessary to assess the relationship between the dependent variable dropout rate (DrpRate(n)) and the independent variable Nav101 (Nav(n)) to determine the validity of the HSHW 2008 confidence to implement Nav101 as a “basic program of education” across the public education system.⁵⁶ This study also controls for influences that might impact the

⁵⁵ Dorn, Randy (2011). *Graduation and Dropout Statistics for Washington in 2009 – 10*. Office of the Superintendent of Public Instruction: Olympia, WA. (p. 6).

⁵⁶ Workforce Training and Education Coordinating Board (2009). *High Skills, High Wages 2008 – 2018: Washington’s Strategic Plan for Workforce Development*. www.wtb.wa.gov. Accessed: November 30, 2011.

dependent variable—such as belonging to certain race population or socio-economic populations⁵⁷—as noted, to definitively ascertain the influence of Nav101 on dropout rates.

To control for these factors in linear regression, this study will use the stepwise linear regression method. Stepwise linear regression method allows for control, by entering the independent variable(s) into the linear regression upon the dependent variable in “steps”, or in a sequential manner. Independent variable(s) entered into the regression at earlier steps will be controlled for as subsequent independent variables are entered into the regression. Hence, the impact of the latter independent variable(s) are isolated in the final regression output,⁵⁸ having successfully controlled for the former independent variables. For purposes here, where applicable, racial variables (Black_Count(n), Hisp(n), White(n)) and socio-economic indicators (PPE(n), Free(n)) will always be entered in the first step for control; and, the corresponding Nav(n) will always be entered in the second step.

This study takes the null hypothesis (H_0) that Nav101 has no influence on dropout rates. This study also tests 3 affirmative hypotheses.

- H_1 : Over time, increasing Nav101 implementation negatively influences dropout rates.
- H_2 : Over time, when controlling for race (African-Americans, Hispanic/Latino Americans), increasing Nav101 implementation negatively influences dropout rates.
- H_3 : Over time, when controlling for free/reduced lunch and per pupil expenditure, increasing Nav101 implementation negatively influences dropout rates.

⁵⁷American Psychological Association (2010). “Facing the School Dropout Dilemma”. Washington, D.C.: Author. <http://www.apa.org/pi/families/resources/school-dropout-prevention.aspx> . Accessed: November 29, 2011.

⁵⁸ University of Texas (n.d.) *Stepwise Multiple Regression: Difference Between Stepwise and other types of Multiple Regression*. (PowerPoint slides). Retrieved from: http://www.google.com/url?sa=t&rcct=j&q=&esrc=s&source=web&cd=2&sqi=2&ved=0CGgQFjAB&url=http%3A%2F%2Fwww.utexas.edu%2Fcourses%2Fschwab%2Fsw388r7%2FSolvingProblems%2FMultipleRegression_BasicRelationships.ppt&ei=BQrBT7atI6r-iQKjucGpCA&usq=AFOjCNH41dZl6pkJtd68m_hGEIhITIMmg&sig2=aaZ5bG85UA4NICQA-RmOXg

Analysis and Results

The forecasting element inherent in HSHW 2008 dictates the use of stepwise linear regression for this study. If this study can successfully track the level of Nav101 implementation (by years a grant is received) and, from that level of implementation, estimate the expected dropout rate; that result effectively determines if HSHW 2008 is “working” according to plan and should continue to fund Nav101 as the eventual “basic program of education”⁵⁹.

Of Nav101 grantee schools available to receive a grant (Table 7) after the passage of ESSB6386 in 2006, the maximum dropout rate percentage decreased from 38% in 2006 – 2007, to 26% in 2009 – 2010, see Table 12 (Appendix A) A graphical display of the means of dropout students across Nav101 schools from 2000 - 2010 (Figure 2, Appendix B), illustrates a decidedly decreasing trend. The vertical line on Figure 2 during year-6 (2006) indicates the passage of ESSB6386.

Thus, linear regression is used to determine if receiving Nav101 grant over influences reduced high school dropout rates. An affirmative finding would accord with not only elements of Appendices A and B; but would give more credence and support to Nav101 becoming an eventual basic program of public education as stated in HSHW 2008.

The following study is conducted to determine if any level of Nav101 can determine a decrease in dropout rates across the following 3 hypotheses with corresponding findings.

Hypothesis 1: Over time, implementation of Navigation 101 influences reduced dropout rates

This hypothesis acknowledges the direct impact of Nav101 on dropout rates. Without controlling for the array of influences on a student in the public education, this first run of Dropout Rate regression on independent variable *Navigation 101* (Nav101) did not use

⁵⁹ Workforce Training and Education Coordinating Board (2009). *High Skills, High Wages 2008 – 2018: Washington’s Strategic Plan for Workforce Development*. www.wtb.wa.gov. Accessed: November 30, 2011.

stepwise regression. This is because there were no other variables that needed to be controlled.

Specifically, this study used an “Analysis of Variance” (ANOVA) regression. Though not significant in this first run of linear regression (because of just one independent variable against the dependent variable), interpreting later blocks of regression will be assisted by running ANOVA; so, to remain consistent throughout, the decision to run ANOVA on all blocks was determined.

For this first run of DrpRate7 on Nav7, the ANOVA was statically insignificant at $p = .431$. This means that the variation in DrpRate7 cannot be statistically attributed to the presence of Nav7. Or, for the 2006 – 2007 public education school-year in Washington state high schools, any changes in the dropout rate at the end of the academic year cannot be statistically attributed to the cumulative implementation of Navigation 101.

For this first run, the accompanying Pearson’s correlation and R^2 —respectively, measure of association and how much the independent variables can account for change in the dependent variable; i.e. weight of impact—of DrpRate7 on Nav7 are .092 and .009. These are both statistically insignificant and parallel the insignificant finding in the Coefficients, also reporting a significance of .431 with Beta (β) of .097.

For this study, the β will be reported for each finding regardless of significance. This is because, the formal regression equation for prediction of the dependent variable mandates a slope coefficient or β :

$$Y(\text{hat}) = a + b_1x + b_{(n)}x\dots$$

So, reporting coefficients will occur regardless of the level of attached significance; noting that level of significance dictates the possibility of generating a meaningful (properly estimating) regression equation.

The insignificance of DrpRate7 and Nav7 at both the ANOVA and the Coefficients at .431 leaves no other conclusion than failure to reject the null hypothesis.

Table 9. Regression Betas and Corresponding Significance for Dropout Rates on Nav101 variable

	Significance	Beta
Navigation 101 Grantee 2007 – 08	.301	.125
Navigation 101 Grantee 2008 – 09	.183	-.161
Navigation 101 Grantee 2009 – 10	.949	.008

Table 9 summarizes this finding that since initial implementation in 2006, the presence of Nav101 over time in a public education high school is not statistically associated with lowered dropout rates over time..

Hypothesis 2: Over time, when controlling for race (African-Americans, Hispanic/Latino-Americans), Nav101 influences reduced dropout rates.

This is the first run of stepwise linear regression of dependent variable DrpRate(n), on independent variable Nav(n) when controlling for race influences. As indicated in my methodology, the race variables to be considered are White (number of Caucasian students in the school population), Black_Count (number of African-American students in the school population), and Hisp (number of Hispanic/Latino-American students in the school population).

The stepwise linear regression with the “Enter” method allows for controlling these race influences and thus isolating the influence of Nav101 on dropout rates. This controlling effect is achieved by entering different “blocks” (a number of variables at once) of regression influence on the dependent variable in steps: the first step is to enter just the race influences; the second step is to enter the Nav101 variable. Because the SPSS program recognizes the request for stepwise, linear regression, the effect is controlling the influences of the first step before entering the second. In this manner, the influence of Nav101 on the dropout rate can be isolated from the influences of race factors since the will be successfully controlled.

The results for effect of Nav101 when controlling for these variables results in the following Table 10:

Table 10. Results – Influence of Navigation 101 when controlling for race since Implementation (Betas)

Variable	2006	2007	2008	2009
Nav	.135	.162	-.163	.091
Black	.104	.090	.103	.228
Hispanic	-.150	-.097	-.035	-.052
White	-.221	-.197	-.218	-.320*

* Significance Level $p < 0.05$

** Significance Level $p < 0.01$

Even controlling for race, almost none of the variables are statistically significant in any year.

The one variable in Table 8 that reported a significant result is the White student population at $p < 0.05$, at .012 corresponding β -.320 for academic year 2009 – 2010. This can be interpreted as: for every additional white student enrolled in the Navigation 101 program at a school in 2009 – 2010, the dropout rate at that school will reduce by .320 of a percent for that year. Further, is it worthwhile to note that the Nav101 program affects the majority of a schools population, since white students are consistently the largest student race (see Table 9, Appendix A).

Yet, despite this singular significant result, under this second hypothesis, this study fails to reject the null hypothesis and re-affirms that there is no influence of the *Navigation 101* program on the dropout rate in which the program was implemented in 2006 when controlling for White, Black, and Hispanic race populations.

Hypothesis 3: Over time, when controlling for socio-economic indicators, Nav101 influences reduced dropout rates.

Again, using linear, stepwise regression, this study controlled for socio-economic indicators free/reduced lunch (Free) and per pupil expenditure (PPE). As with H_2 , the stepwise method block 1 will be the factors to be controlled for, and block 2 will enter the Nav(n) variable subsequent to control.

Table 11, below, gives the Betas of these variables and indicates which values are statistically significant.

Table 11. Results – Influence of Navigation 101 when controlling for Socio-Economic Factors since Implementation (Betas)

Variable	2006	2007	2008	2009
Nav	.073	.091	-.214	.060
PPE	-.067	-.102	-.086	-.121
Free	.194	.194	.237	.294*

* Significance Level $p < 0.05$

** Significance Level $p < 0.01$

When controlling for socio-economic factors, the influence of the Nav101 program is only statistically significant on the percentage of the student population receiving free / reduced lunch in the 2009 – 2010 school year. As with the only other significant finding in this study (White students in 2009 – 2010, Table 8), this finding occurring in the last year of the study indicates, again, that increased exposure to the Nav101 program may give significant results. Under this result, for each additional percentage of students enrolled in the free / reduced lunch program, influence of Nav101 on the student population in that school results in an *increase* in the dropout rate by .294 percent for that year.

But, this importance is overpowered by the lack of significance across all other years. Thus, under this final hypothesis, this study also fails to reject the null hypothesis.

Conclusion

In summation, this study yields the following results under H_0 : over time, Nav101 has no influence on reduced dropout rates.

- H_1 : Nav101 negatively influences dropout rates.
 - Failed to reject H_0
- H_2 : When controlling for race (African-Americans, Hispanic/Latino Americans), Nav101 negatively influences dropout rates.
 - Failed to reject H_0
- H_3 : When controlling for free/reduced lunch, Nav101 negatively influences dropout rates.
 - Failed to reject H_0

Across all hypotheses, the resulting failure to reject the null carries significant implications for the implementation of Nav101 in Washington state as a method to combat the dropout rate. Since HSHW 2008 estimates that Nav101 is a critical element in engendering a stable and thriving workforce to support the state economy, this contention might have to be revisited as results here have failed to establish the Nav101 as sufficiently capable of reducing the dropout rate in Washington state. Before expanding the Nav101 program as a part of the state's basic education program, this study suggests the need for future studies to verify Nav101's efficacy.

Returning to the illustration (Figure 2, Appendix B), the reduction each year in dropout student means from school districts eligible to receive grant Nav101 in 2006, implies that *something* is influencing the downward trend. Since the downward trend is numerically supported by reduced maximum dropout rates since 2006 (Table 11, Appendix A), also reducing from 2006 forward, the regression findings as statistically insignificant are surprising. Since a regression equation or model can only include statistically significant coefficients⁶⁰, and no model resulted from this study, the incongruities between the illustration and the regression results incite curiosity and suggestions for further study. Specifically, the results of this study begs the question: If Nav101 did not account for the reduction in maximum dropout rates over the years from 2006 – 2010, what phenomena could have influenced such a trend found in Figure 2?

⁶⁰ University of Texas (n.d.) *Stepwise Multiple Regression: Difference Between Stepwise and other types of Multiple Regression*. (PowerPoint slides). Retrieved from: http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&sqi=2&ved=0CGgQFjAB&url=http%3A%2F%2Fwww.utexas.edu%2Fcourses%2Fschwab%2Fsw388r7%2FSolvingProblems%2FMultipleRegression_BasicRelationships.ppt&ei=BQrBT7atI6r-iQKjucGpCA&usg=AFQjCNH41dZl6pkJtd68m_hGEIhITIMmg&sig2=aaZ5bG85UA4NICQA-RmOXg

Though significance was found after increasing implementation of the program—for both Free and White variables in 2009 – 2010 only—that the largest of the population of students, was influenced is not surprising. White students are most prevalent to Nav101 exposure (indicated in Table 9, Appendix A) and the sheer number or proportion of white students enrolled in Nav101 increases the likelihood of the Nav101 effects. This said, as time passes and more students of other races are exposed to the program, revisiting this study across more time might reveal other conclusions, hopefully with more significance.

Despite the lack of statically significant findings in this study, it is important to note that the ordinal, Nav(n) variable from 2006 – 2010, for some schools, did achieve level 4. Interpreting level 4 follows as: from 2006 to 2010, some Nav101 grantee schools received funding for increased Nav101 implementation every year since the passage of ESSB6386 allowed schools to receive state funding for Nav101. Additionally, this would mean that every year since 2006, there are some high school teens who received more exposure to the Nav101 package; similarly, faculty has more experience with facilitating and imbedding the Nav101 curriculum into their classes; and—most importantly and when accounting for school resources and size of student population—a level 4 Nav carries the implication that the rate of implementation for the entire Nav101 curriculum (all 5 elements acting in concert) to reach completion is higher; or, at least, that the school faculty and staff are receptive of the Nav101 program and support continual Nav101 implementation advances.

Conversely, lower levels of Nav (1 or 2) might indicate the opposite trend: that school faculty and staff are not as receptive to the program, that grants are not providing an immediate return on investment (i.e. after one or two years of Nav101 implementation, students dropping out has not changed or has worsened); or, simply, that the students are not “warming up” to the new, Nav101 curriculum via reports from teachers and counselors.

Possible limitations of this study, in addition to the amount of students and schools surveyed, could be interpretation of the Nav101 variable. For purposes of my study, the Nav101 program variable was ordinal to indicate the level of exposure to the program: where 1 was the first year a grant was received and subsequent years as a grantee (2, 3, or 4 in my study) added to the total effect of—or exposure to—the program. It has been proposed by colleagues to perhaps track the funding or actual dollar amount each school received to implement the program and then, in the similar stepwise linear regression methodology, perform the study of the influence of Nav101 on dropout rates when controlling for race and socio-economic factors.

Future studies might also isolate the Nav level 4 schools for either a broader, closer examination. Alternatively, following the 2009 SESRC study, future studies could isolate the Nav level 4 schools for individual case studies: examining access and availability to resources; in-school politics that could influence the presence of Nav101 in a particular school. Finally, future studies might investigate how the size of a school influences Nav101: impeding effectiveness of the elements and/or if size definitively hinders the rate of implementation and what implications that carries.

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APPENDIX A

Table 12. Frequencies of White, Black, and Hispanic students and Student dropout mean and maximum

Number of Schools	School Year	Total Student Sample	No. Nav101 Grantee Schools	Maximum Dropout Rate (%)	Total Race Characteristics (By Race)			Mean Student Dropout (Std. Deviation)
					Black Students	Hispanic Students	White Students	
65	2000 – 2001	48173	—	114 ¹	1922	4747	37157	40 (70)
63	2001 – 2002	49067	—	38	1977	4796	37615	48 (52)
65	2002 – 2003	49100	—	43	2056	5069	37600	48 (67)
66	2003 – 2004	49267	—	41	2100	5524	39306	37 (46)
65	2004 – 2005	50188	—	41	2152	5792	39695	37 (46)
67	2005 – 2006	50544	—	38	2319	6094	38064	36 (48)
68	2006 – 2007	52969	27	38	2353	6498	39458	38 (44)
70	2007 – 2008	53785	20	36	2496	6969	39131	36 (38)
70	2008 – 2009	53028	41	32	2528	7154	37775	32 (36)
70	2009 – 2010	52093	56	26	2513	7540	35947	27 (33)

APPENDIX B**Figure 2.** Mean Dropout Rates from All Eligible Navigation 101 High Schools From 2000 – 10