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## The Ohio postsecondary enrollment opportunities program (PSEO): understanding its under-utilization: a case study of non-participation among advanced placement (AP) students

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THE OHIO POSTSECONDARY ENROLLMENT OPPORTUNITIES PROGRAM

(PSEO): UNDERSTANDING ITS UNDER-UTILIZATION.

A CASE STUDY OF NON-PARTICIPATION

AMONG ADVANCED PLACEMENT

(AP) STUDENTS

DISSERTATION

SUBMITTED TO

The School of Education and Allied Professions

THE UNIVERSITY OF DAYTON

In Partial Fulfillment of the Requirements for

The Degree

Doctor of Philosophy in Educational Leadership

Marc Allen Smith, A.A.S., B.S., M.S., M.S.A.

THE UNIVERSITY OF DAYTON

DAYTON, OHIO

2006

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(AP) STUDENTS

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THE OHIO POSTSECONDARY ENROLLMENT OPPORTUNITIES PROGRAM  
(PSEO): UNDERSTANDING ITS UNDER-UTILIZATION.  
A CASE STUDY OF NON-PARTICIPATION  
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(AP) STUDENTS

By

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The University of Dayton, 2006

Dr. James Biddle

ABSTRACT

The 1989 Ohio PSEO Program is an educational reform legislated by the Omnibus Education Reform Act. The program is mirrored from the 1985 Minnesota PSEO Program that was the country's first legislated dual enrollment offering. Nationwide, such programs have various titles and are individually governed under each state's Department of Education. The programs generally provide higher educational courses that are concurrently credited at the high school and funded at state expense to qualified 9<sup>th</sup> through 12<sup>th</sup> grade students.

Although individual and institutional benefits of the program abound (i.e., accelerated postsecondary completion, decreased tuition and expenses, strengthened



articulation agreements, seamless education, elimination of duplicate courses, reduction in developmental college courses, and an additional secondary education choice), the utilization rate has not precipitously increased as expected. Competition from other thematic programs is one reason for the program's under-utilization, but other rationale had remained uninvestigated and undocumented.

This study utilized a designed research instrument and focus group interviews to determine the reasons AP students (most likely eligible for PSEO Program participation) do not utilize the program. Those included in the study were AP and PSEO Program students from 5 of the largest high schools in the Dayton, Ohio, metropolitan area, as well as the responses from 5 guidance counselors (one from each high school). Quantitative and qualitative response comparisons concluded (a) AP students are satisfied with their courses and believe the rigorous curricula is comparable to college classes, (b) guidance counselors and teachers are not program proponents, (c) AP students desire to remain with their peers, (d) AP students trust their qualifying courses will transfer into postsecondary institutions, (e) AP students' parents are not program proponents, (f) AP students are not concerned about course duplication or expediting their collegiate experiences, and (g) AP students are more concerned about the quality of their education than even the cost to complete the process.

The conclusions document the low participation rate and encourage the program's promotion and utilization to more students and parents. How the PSEO Program benefits participants, parents, community colleges, and universities is also addressed.

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## CHAPTER I

### INTRODUCTION

#### Educational Empowerment

The founders of the United States Constitution appreciated the need for national unity among autonomous states, while respecting their indigenous values and local economies (Eisner, 1995). To suit civil needs and address the personal choices of its citizenry (Manno, 1995), each state was constitutionally empowered to uniquely educate its constituency (Frazier, 1993). The resultant state and local educational mandates support the personal, occupational, and socially-important characteristics necessary to meld individual members into a unified society (Eisner).

Such strategic objectives necessitate flexible curricula policies that result in distinct districts and schools. Respective school boards are empowered to carry out citizen education by offering the broadest possible curricular and methodological options, while exercising fiscal and physical plant operations oversight (Manno, 1995). One recent and innovative educational undertaking is the removal of high school graduation requirements for student participation in higher education - states now permit the concurrent acquisition of secondary and postsecondary credits and the bi-directional articulation thereof.



## The Advent of Dual Enrollment Education

Greenberg (1991) argues dual credit programs were developed as a means to address (a) rising college tuition and costs, (b) taxpayer cynicism (surrounding increased secondary and higher education costs), (c) the relevance of cultural literacy, and (d) the public's perception about a college education's actual value. He submitted these concerns became principle issues embedded in the public consciousness following the release of the National Commission of Excellence in Education's, *A Nation At Risk* (1983). Greenberg went on to assert the report sensitized the public to an educational calamity that portends ominous future consequences within the public primary and secondary school systems. He concluded the report was the impetus for the public's demand for "other" educational choices, thereby increasing the range of high school instructional alternatives and dual enrollment programs in particular.

One of the country's earliest high school-to-college efforts, the Early Entrance Program (EEP), was created in 1977 by the University of Washington (UW) for the purpose of enabling academically exceptional junior high students to matriculate directly into UW - circumventing high school altogether (Noble & Drummond, 1992). Following the examples of other states' concurrent enrollment modifications that include ninth through 12<sup>th</sup> grade participation, Washington's dual enrollment program, currently known as "Running Start," requires high school students to pass a college placement examination (to demonstrate college-level math and reading mastery) in order to undertake equivalent and substitute postsecondary courses (Reisberg, 1998).

But it was Minnesota that revolutionized secondary education flexibility with its 1985 groundbreaking introduction of the Postsecondary Enrollment Options (PSEO)

Program, wherein high school students substitute college coursework in lieu of secondary courses. Governor Rudy Perpich personally observed his daughters' public school participation and determined coursework redundancy was commonplace, resulting in secondary students who were unchallenged by their curriculum and merely "marking time" until graduation (Gerber, 1987; Pearson, 1993).

Credited with "being the first state to institute concurrent enrollment policies for high school students" (Boswell, 2001, p. 11), Minnesota's impetus for dual enrollment legislation was borne on the premise that higher education's course choices and resultant competition would force public high schools to develop a more appropriate, competent, and responsive curriculum that would ultimately improve secondary education and satisfy the educational needs and choices of parents and students alike (Minnesota Office of Legislative Auditor, Executive Summary [MOLAES], 1996). Utilizing a "cost-containment" platform strategy, Governor Perpich and the state assembly enacted PSEO Program legislation that initially provided college class choices to eligible high school juniors and seniors at no personal cost (Gerber, 1987). Currently, program participants are permitted to attend community colleges, state universities, the University of Minnesota, and other higher education institutions (Gerber) in utilization of the state's dual enrollment educational offerings.

#### *Minnesota's PSEO Program*

Because Minnesota is primarily a rural state, most of its families reside in remote areas resulting in limited education choices for rural students compared to their urban counterparts (Montano, 1989). Surprisingly, Montano determined the highest PSEO Program participation rate occurs "among students in high schools outside [of the]

metropolitan areas” (pp. 175-176) where she found 49% of participants utilize community colleges as their higher educational institution of choice. Earlier, Boughton (1987) had reached the same conclusion. During the 1991 - 1992 academic year the Minnesota Office of Legislative Auditor (MOLA) confirmed Montano’s and Boughton’s findings, calculating that 41% of PSEO Program students do attend community colleges, in greater numbers than they do at any of the other program-eligible institutions (*MOLA Evaluation Background Paper* [MOLA], 1996).

In support of the program’s fiscal savings, the MOLAES (1996) determined participating postsecondary institutions benefit from the “reduce[d] future costs associated with the recruitment of these students” (p. xix). The MOLAES also concluded the anticipated postsecondary financial savings is intertwined with program satisfaction and participant motivation.

Although most other national PSEO Programs are tailored toward certain segments of the population (e.g., at-risk, technical; Greenberg, 1992), Minnesota’s program was originally legislated for secondary students of all ability levels. Nonetheless, during the 1992 - 1993 academic year, Minnesota’s Community College System adopted minimum admissions standards for program participation, requiring a top 25% high school class standing or a 3.0 grade point average (g.p.a.) for its 11<sup>th</sup> graders, as well as a top 50% class standing and a 2.5 g.p.a. for senior eligibility (Pearson, 1993).

In spite of the program’s original and noble intent, the 1992 Policy Studies Associates Report (Rubenstein, Hamar, & Adelman, 1992) determined Minnesota’s PSEO Program has the tendency to serve its better-educated, higher-income clientele. Support for this allegation emanates from the higher learning institution’s imposition of

“tougher admission requirements on secondary students than on regularly admitted postsecondary students” (MOLAES, 1996, p. xii). The MOLAES subsequently concluded the PSEO Program’s intent of “rigorous academic pursuits” (p. 1) for all of its 11<sup>th</sup> and 12<sup>th</sup> grade students was not being achieved. Such is not surprising given that Koker and Hendel (2003) categorically acknowledge dual enrollment program participants are typically high achievers who possess high academic abilities.

Under current guidelines, the cost of transportation (to the higher educational institution of choice) is the responsibility of the students and their families; but, if these costs cannot be fulfilled, Minnesota offers students from families with “incomes below the federal poverty line a transportation stipend...to cover the cost of commuting to a post secondary institution” (Wells, 1993, p. 100). Transportation reimbursement is essential as the state’s low-income students are methodically excluded from program participation and is an area that needs improvement (Nathan & Jennings, 1990).

Young and Clinchy (1992) established a significant difference between the satisfaction rates of nonparticipants (63%) and participants (90%) regarding their secondary educational experiences. Their findings augment Montano’s (1989) results that determined 87% of the participants’ parents felt their children are more studious in their postsecondary coursework than their high school classes – successful scholastic outcomes (Larose, Robertson, Roy, & Legault, 1998) are an integral part of program satisfaction and affirm the adoption of personal routines that bring about such desirable academic achievements (Pascarella & Terenzini, 1991). Because of the program’s high degree of satisfaction among participants, it is understandable why 12,000 Minnesota

high school seniors (approximately 20%, which does not count other eligible grades) took advantage of the PSEO Program during the 1999 – 2000 academic year (Hoffman, 2003).

### Program Replication

Duplication and modification of dual enrollment programs has become an integral part of other states' educational choice offerings (Boswell, 2001). Boswell (2001) and Reisberg (1998) independently determined 38 states had some type of state-supported dual-credit enrollment options programs. Using a more flexible interpretation, Crooks (1998) concluded every state has dual enrollment programs designed to encourage students to begin the acquisition of postsecondary credits during their high school years, although she acknowledged only 23 states (at that time) had dual accreditation for higher education courses taken as secondary substitutes. By 2001, Andrews (2001b) determined the number of states offering dual enrollment programs had grown to 48; currently, Andrews (2004) asserts dual enrollment programs (with assorted titles) exist in all 50 states, although no strict program definition has been settled.

As an example, Salt Lake Community College's (SLCC) dual enrollment program grew out of the state's Early Enrollment Program (Peterson, Anjewierden, & Corser, 2001) when the 1989 government successfully enacted legislation to save money by concurrently utilizing secondary school facilities (when not scheduled for instructional use) to deliver higher education courses ("The Inside Track," 2002). Although program participants buy their own college textbooks, tuition is not charged as a result of dual enrollment participation ("The Inside Track"). Peterson et al. (2001) determined the majority of these students are "very satisfied" with their collegiate classes, primarily

because college professors provide both advanced pedagogy and innovative instructional delivery methodology superior to their high school teachers.

Ohio enacted its PSEO Program legislation in 1989. The major impetus for its passage stemmed from the nation's prevailing "school choice" attitude of the mid-1980s (R. Howard [Ohio PSEO Program Director] personal communication, July 10, 1999). The freedom to choose the location as well as the type of education children receive was (and still is) felt to be a "right that the public school monopoly ha[d] restricted" (C. Ridenour, personal communication, September 16, 2001). Parents of modest to low socioeconomic status (SES) began to demand the same choices advantaged parents command when choosing primary and secondary education for their children. Subsequently, a national uprising resulted among taxpayers as they began to assert control in determining the educational direction of their children in spite of state-suggested educational preferences (Rentschler, 1991).

#### *Program Proliferation and Utilization*

Finn and Manno (1996) investigated the analogous benefits of 3-year high school graduation programs (resulting from year-round studies, curriculum compression, and increased reliance on college-level work) and found such programs to also be academically accelerative and cost-reductive. In those states with dual enrollment programs that permit and even finance high school students' college course undertakings in lieu of traditional high school curriculum, utilization has steadily increased (Finn & Manno; "Ohio students," 2000).

In 1991, Virginia's program had 2,800 student participants, but increased interest and satisfaction resulted in 6,700 dual enrollees by 1997 (a 140% increase; Andrews,

2001b; Reisberg, 1998). At the program's inception it was initially forecast vocational classes would be the most popular dual credit courses (due to the well-established 2+2 and Tech Prep Programs begun in the 1980s), but college transfer courses have come "to dominate dual credit [undertakings], accounting for 80 percent of all dual credit courses taken [since] 1997" (Catron, 1998, p. 17).

Unlike most other programs, Missouri does not pay the dual enrollee's full tuition at the institution of higher learning; nonetheless, the 1999 academic year witnessed a record 20,373 participants in the state's dual enrollment program (Coordinating Board for Higher Education [CBHE], 2001; Education Commission of the States, 2001). The program permits high-performing secondary students the opportunity to undertake introductory college courses and avoid unnecessary coursework duplication between high school and college (Office of the Coordinating Board for Higher Education [OCBHE], 1999). Missouri's program limits the number of transferable credits participants can earn, "expect[ing only] to transfer credit up to the equivalent of five courses" (OCBHE, 1999, p. 10) to in-state higher education institutions. However, students who earn more credits can appeal the policy to the admitting institution, which may result in the receipt of additional transfer credits. The overwhelming popularity and subsequent constituency pressure to expand participation resulted in the program's 1998 legislative amendment that currently includes high school freshmen and sophomores (CBHE, 2001).

Following Arizona's dual enrollment program inception, the 2000 academic year witnessed an 11% participation rate among its 100,000 high school juniors and seniors (Campbell, 2001). One reason for such vigorous utilization is almost certainly that program participation increases high school graduation and college continuation rates

(Puyear, Thor, & Mills, 2001). Touting another of the program's important benefits, Puyear et al. determined "Arizona[']s concurrent enrollment students [perform] as well, if not better than, students who [enter] college at the traditional age" (p. 33) and manner.

### Purposes of Dual Enrollment Programs

The elimination of redundant coursework that most frequently occurs between high school and the postsecondary freshman and sophomore curricula (Boswell, 2001; Silverberg & Hershey, 1995) is the keystone of dual enrollment programs. Duplicate coursework eradication results in a shortened timeframe (Mabry, 1988) and reduction of total expenditures to complete secondary and simultaneously begin higher education requirements (Boswell; Catron, 2001).

Gomez (2001) is a strong advocate of dual enrollment programs because early in their secondary education process participants (a) simultaneously earn postsecondary credits, (b) providing them with advanced collegiate preparation, while (c) profiting from cost reduction against future educational expenses; moreover, program participation is a basis for (d) stronger links to desirable kindergarten through college (K-16) "seamless" alignment as a result of the increased collaboration among education professionals.

Kulik and Kulik (1984) determined "talented students are able to handle the academic challenge that accelerated programs provide" (p. 421). Among the high school students they studied, those advanced one grade level because of academic talents commensurate with older pupils gain a year's advancement over secondary nonaccelerants. In addition to the advanced educational preparation that results from program participation (Mabry, 1988), Lieberman (1998) determined a higher percentage



of baccalaureate degree-seeking high school students continue into postsecondary education, compared to non-participants (although exact figures are not provided).

Peterson et al. (2001) also found the majority of the participants' decision to continue their collegiate education is enhanced as a result of their program participation, whereas only 42% report participation has no effect on their decision to attend college. They found only 1% are "discouraged" by the program, specifically concluding the majority of SLCC participants are "very satisfied with [their] concurrent enrollment courses" (p. 30).

### *Student Rationale for Utilization*

Huntley and Schuh's (2002) qualitative study of dual-enrollees found participants are very focused on two academic goals: Facilitation of collegiate transition and the creation of a more constructive college experience are major reasons for their program utilization.

Burch-Clay (1999) studied the Troy Academy (an integrated dual enrollment program) at Green Mountain College in Poultney, VT. Since its fall 1995 inception, between 20 and 30 high school juniors and seniors annually enroll in the program. She determined participants not only have strong personal desires to take college classes, but they have an overriding need to be treated as "mature" individuals who are respected for their capacity to make responsible decisions. However, she found the program primarily benefits high academic achievers who want the challenge of collegiate courses and early opportunities to accumulate college credits.

Her work revealed students also participate because they (a) are often bored with high school "busywork," (b) desire additional curricular choices, (c) want to leave high

school cliques (which ostracize some students, because of intellectual disparities, clothing preferences, and interest differences), and (d) some girls feel an overwhelming need to leave the male sports-dominated high school environment (Burch-Clay, 1999).

### Financing Higher Education

In the United Kingdom and most of Europe student tuition costs are primarily borne by the state; however, in the United States tuition funding originates chiefly from working capital, family savings, or money borrowed against future income – typically through the exploitation of home equity loans and/or second mortgages (Cross & Slater, 1997). President George H. W. Bush reauthorized the Higher Education Act (HEA) by signing Public Law 102-325, which continues to “shift federal support from direct grants to loan subsidies” (Hannah, 1997, p. 89). The 1992 HEA and its amendments have made it easier for students and parents to borrow money to finance higher education (Cross & Slater). As a result of improved access to student loans Hauptman and Merisotis (1997) paradoxically conclude the “increased availability of student aid has led colleges to raise their student charges” (p. 270) and tuition, resulting in greater student outlays, increased education debts, and, in many cases, the student’s early departure because of the inability to pay the higher associated costs (Pennington, 2002).

Spiraling tuition increases, combined with increasing federal aid eligibility restrictions significantly impair middle- to low-income students who fail to qualify for financial aid (Hannah, 1997) and result in tuition and fee payment difficulties that hinder and even inhibit higher educational objectives. The actual and projected tuition increases and the ancillary costs associated with a collegiate education are of major concern to the general public (Governor’s Commission on Higher Education & the Economy [GCHEE],

2004), and particularly impending high school graduates and their parents (Boswell, 2001). Earlier, Astin (1998) noted "recent entering freshman classes[es] show a clear pattern of increasing concern about financing college" (p. 129).

*Escalating Costs and Removal of Ohio's Higher Education Tuition Cap*

The Thomas G. Mortenson Report ("Is College," 1995) determined since 1980 college tuition and associated costs have increased "nearly 5 percent beyond the Consumer Price Index for each of the [subsequent] 15 years, while family incomes remained essentially flat" (p. 8). This reality, coupled with decreased federal and state higher education funding (Finn & Manno, 1996), has resulted in a shift of the tuition burden toward greater student and family outlays. Not to be overlooked, changes in tuition and related fees affect attendance at institutions of higher learning. Among high-SES males, Beattie (2002) determined an approximate 5% decrease in prospective student enrollment occurs when "the [annual] cost of college [is raised] approximately \$1000" (p. 31), whereas a 5% gain in college enrollment occurs when college costs decrease \$1000, specifically among low-SES men.

Since 1990, Ohio's state colleges and universities' annual tuition increases were limited to 6% until July 1, 2001, when lawmakers eliminated the 12-year tuition cap (Fisher, 2002b; "The States," 2002) and simultaneously denied budget increases to higher education (Sidot, 2002). Removal of the tuition cap resulted from Ohio's drastic revenue losses in its manufacturing-based sector. Since 1990 and relative to other state sectors, higher education appropriations have received the lowest priority (GCHEE, 2004). In the 2002 - 2003 budget, the General Assembly favored priority education funding for K-12,

effectively creating deficit funding in higher education; nonetheless, in 2001 Governor Taft signed the measure into public law.

As a result, every one of Ohio's 4-year public universities immediately increased their 2001 tuition; some added *midyear* tuition increases ("The States," 2002). During the 2001 - 2002 academic year, "tuitions [rose] by an average of 8.5 percent at the state's public universities, 6 percent at the universities' branch campuses, 7.6 percent at community colleges, and 10.8 percent at technical colleges" ("The States," p. 78), resulting in fiscal increases well beyond the Consumer Price Index (CPI) and the rate of inflation. Some of Ohio's public universities even moved to establish "two-tiered" tuition pricing schedules, with incoming freshmen scheduled to receive the brunt of the increases. In unprecedented actions, all raised their 2002 - 2003 academic year tuition approximately 10% (Brown & Zeleznik, 2002; Fisher, 2002b; Sidot, 2002) – the maximum allowed under state law. Finn and Manno (1996) aptly determined higher education tuition increases "continue to rise much more quickly than inflation" (p. 1), and to a large degree, persists unabated because the economic sector deems postsecondary education "essential criteria" in hiring practices (Finn & Manno).

#### *The Time – Savings Correlation*

To deal with invariable, annual, and even midyear tuition increases ("The States," 2002) as well as the immediacy of required and substantial remuneration - a significant source of dissuasion, particularly among first-year undergraduate students and their parents (Cross & Slater, 1997). Reisberg (1998) acknowledges the definitive value of dual enrollment programs, emphatically stating the earlier college credits are earned the more decisive the overall cost reduction.

Andrews and Marshall (1991) surveyed students in Illinois' High School-Community College Program and found overall program satisfaction among its participants, particularly in the areas of instructional delivery and academic pedagogy received from their college professors. When Marshall and Andrews (2002) revisited the program, they determined participants shave an average of 1.2 semesters off their collegiate requirements as a result of program participation. The student's ability to transfer earned college credits throughout the state and external higher educational institutions also figured prominently in the program's popularity.

During the 1992 - 1993 school year 19,375 Florida high school students took dual enrollment courses at community colleges; by 1996 - 1997, the number had increased 28% to 26,672 (Windham, 1997). Florida's primary rationale for implementation of its dual enrollment program was academic acceleration to reduce the time necessary to complete the collegiate degree (Bickel, 1986). The program has subsequently shifted its focus from shortening the time required to earn the college degree to a program that provides a greater enrichment of academic offerings for its participants (Wolcott, 2001).

Overall, dual enrollment programs allow participants the opportunity to save tuition expenditures while simultaneously expediting completion of collegiate education requirements (Chapman, 2001; GCHEE, 2004) and is a definitive approach in addressing higher education's escalating costs (GCHEE). Marshall and Andrews (2002) determined between \$5,000 and \$24,000 are saved against future collegiate expenditures as a result of the completion of a single year of college prior to high school graduation.

### Justification

Much of the concurrent enrollment literature has focused on legislative actions and policies (Boswell, 2001; Gomez, 2001; Jordan, 2001) regarding the creation, implementation (Catron, 2001), and critique (Windham, 1996) of various programs. Also described are the assorted states' program differences (Greenberg, 1992), program costs and states' total expenditures (Rousch, 1999). Additionally, the literature contains breakdowns of collegiate courses taken by participants (Puyear, 1998) and the assorted program revisions undertaken since their inception (Robertson, Chapman, & Gaskin, 2001).

As higher educational costs continue to escalate (often resulting in significant personal debt) and gainful employment's competition intensifies in the face of (international) outsourcing, under-utilization of Ohio's program - particularly by knowledgeable and eligible students - is central to this research. Unquestionably, PSEO Program participation is increasing; however, there is scarce research documenting reasons for its utilization and empirical data analyzing the basis for forgoing such opportunities is nonexistent.

### *Basis of Study*

The popularity of the Ohio PSEO Program has steadily increased since its 1990 inception when it "only had 630 Option B participants at the end of the 1991 school year" ("Ohio students," 2000, p. 8) to 6,361 public participants (out of 250,322 11<sup>th</sup> and 12<sup>th</sup> grade public school students, equivalent to a 2.5% participation rate) during the 1997 - 1998 academic year (J. Degen, personal communication, July 9, 1999); to 7,786 participants (out of 541,137 ninth through 12<sup>th</sup> grade public school students,

corresponding to a 1.4% participation rate) in 1998 - 1999 ("Ohio students"). For undetermined reasons, only 7,542 public and nonpublic high school students took part in the program (out of 540,101 ninth through 12th grade public school students, for a comparable participation rate of just under 1.4%) during the 1999 - 2000 school year (Bruns, 2000) – still a nearly 12-fold increase over the original participation rate.

Ohio's PSEO Program participation does not come close to, say, Arizona's (whose program commenced in 1995) 2000 academic year 11% participation rate (Campbell, 2001). Ohio's overwhelming majority ignores the PSEO Program (J. Degen, personal communication, February 17, 2004). That enigma begs the question: Why do so few Ohio students utilize such a munificent public offering (J. Degen, personal communication, February 26, 2004)?

#### The Research Questions

To examine possible reasons for this lack of PSEO Program usage, a pilot instrument was composed, preliminarily tested, and subsequently validated before being administered to two groups - AP English and math students. To address the research questions, the responses of the AP students were analyzed and compared against PSEO Program participants (from the same schools, utilizing the same survey instrument) who are concurrently in attendance at the community college.

The research questions follow:

Question 1: How knowledgeable are students about the PSEO Program and its advantages?

Question 2: How knowledgeable are students that PSEO Program participation reduces the amount of time necessary to complete the college degree?

Question 3: How aware are students that PSEO Program participation can save them and their parents against future college expenses?

Question 4: What is the level of support that students receive from parents, teachers, guidance counselors and administrators (authority figures) about PSEO Program Option B participation?

Question 5: How satisfied are students with their high school?

### Setting and Subjects

This research documents the rationale why so few students take advantage of the benevolent Ohio PSEO Program offering. Data collection utilized a survey instrument that compared the responses from equivalent numbers of AP and PSEO Program participants. Those students who agreed to be part of the focus groups participated in semi-structured interviews that were cassette-recorded and transcribed, thereby expounding on their instrument responses. The interviews added richness and depth of understanding to the students' high school experiences, while developing their rationale for both non-enrollment and enrollment in the PSEO Program.

Semi-structured interviews were also conducted with one guidance counselor from the five respective high schools. Their responses provided additional and relevant information about the secondary school system, postsecondary admissions procedures, PSEO and AP program regulations, as well as their own attitudes (and limited parental insight) relevant to the programs.

### Assumptions

This research hinges on a few key assumptions:



- The number of high school graduates will continue to increase (National Center for Education Statistics [NCES], 2001). Vocational curricular demands will also become more formalized, wherein over 70% of secondary students will enter postsecondary education within 2 years, post-graduation (Peterson, 2003; Ruiz, 1999).
- Student demand for education will remain strong (Finn & Manno, 1996), especially occupational education (Orr, 1998) as a result of necessary and advanced preparation to compete for employment positions and their important fringe benefits (Carnevale & Desrochers, 1997) in order to prosper in the 21<sup>st</sup> century economy (Pennington, 2002).
- The cost of higher education will continue to escalate (Brownstein, 2000, 2001; Galley, 1999), generating taxpayer, student, and parental concerns surrounding its affordability (Boswell, 2001; GCHEE, 2004; St. John 1989, 1995; "Young Grads," 2002).
- Government aid and appropriations will continue to provide smaller educational subsidies (Finn & Manno, 1996; St. John 1989, 1995) – employers, parents, and especially students will pay significantly larger proportions of instructional expenses (Cross & Slater, 1997).
- Dual enrollment program participation effectively reduces time, expenses, and debt in the pursuit of higher education (Boswell, 2001; Chapman, 2001; GCHEE, 2004). The earlier collegiate credits are earned, the more significant the tuition and ancillary cost reductions (American Association

of State Colleges and Universities, [AASCU], 2002; Hossler & Schmit, 1995; Ohio Senate Bill [S.B.] 6, 2005; Reisberg, 1998).

- The intent to attend, and the collegiate choice begins as early as junior high school (Schmit, 1991) and predisposition to attend remains relatively consistent throughout the secondary school years (Schmit & Hossler, 1995).

### Glossary of Terms

Advanced Placement (AP) courses – College-level courses taught to secondary students in their respective high school setting (Boswell, 2001) most often by a master high school teacher. Not aligned with secondary education standards, AP courses parallel college and university curricula and may be accepted directly into higher education for transfer credit (Boswell, 2000).

Articulation - the formal agreement among academic institutions that permits the transfer of earned credits. The *Sinclair Community College Bulletin* (2001) defines articulation as

Agreements with local universities to identify those courses that will transfer and guarantee junior status. [It] also refers to agreements with high schools where college credit may be given for selected course work taken in high school [or vice-versa]. Other articulation agreements exist with companies or agencies; these credits may only apply to specific degree programs. (Sinclair Community College, [SCC], 2001, p. 5)

Concurrent Enrollment can refer to high school programs wherein students take higher education courses and receive collegiate credit, but not high school credit (Puyear, 1998). Although Chapman (2001) does not specify concurrent enrollment courses are utilized

for high school graduation requirements, he restrictively indicates such programs “enable students to earn college-level credit while enrolled in high school” (p. 15).

Because of the ambiguity of terms described and used by various researchers (Andrews, 2001a), concurrent enrollment will also be used throughout this research to denote “courses taught by college faculty members on college campuses, where [secondary students] receive both high school and college credit for their coursework” (Boswell, 2001, p. 8). Such students are deficient of high school graduation requirements and have not received their diploma.

Dual Credit Courses are (also defined as) college courses offered to high school students who enroll and “receive both college credit and credit toward meeting secondary school credits toward graduation” (Andrews, 2001a, p. 14).

Dual Enrollment students are simultaneously enrolled in two or more educational institutions (DeCabooter, 2001); in particular, an institution of higher learning and high school where the student earns both college and secondary credit; the earned college credits effectively substitute for high school graduation requirements (Andrews, 2001a). Puyear (1998) supports this definition stating, “dual enrollment refers to high school students taking a course especially advertised as, or pre-established as, a course for which a student may receive both high school and college credit” (p. 6).

Matriculate – to enroll or enter in a register, admission, or membership with a body or society (*American Heritage*, 2000), particularly at a college or university (*Oxford*, 1996), usually by successful standardized examination (*Hutchinson*, 2000) and subsequent student admittance, most often as a candidate for a degree (*Webster’s*, 1996).

Ohio's Postsecondary Educational Opportunities (PSEO) Program is designed to provide higher educational coursework and opportunities to eligible ninth through 12<sup>th</sup> grade students (intellectually and socially capable of college-level work) as determined by secondary and postsecondary education officials (Ohio Department of Education [ODOE], 1998b). Qualified students may enroll in nonsectarian college-level courses and receive college credit as well as high school credits toward graduation (ODOE).

This research will accentuate Ohio's PSEO Program; however, synonymous program terminology (e.g., dual-, co-, concurrent-, enrollment) will also be utilized, particularly within direct quotes and/or when specific differences are noteworthy.

Traditional-aged student is an undergraduate learner enrolled in an institution of higher education between 17 and 22 years old (Kasworm, 1990). The ages vary slightly with Justice and Dornan (2001) defining the range to be 18 to 23 years.

University Parallel are community college "programs [and courses] designed [and accepted for] transfer to four-year colleges and universities [that count] toward a baccalaureate degree" (SCC, 2001, p. 6).

#### Applications to Education

Education has become known for its propensity to arbitrarily introduce changes (Ellis & Fouts, 1997; Fullan, 1993) that instead, often become "indefinite" social experiments with no correct or final solution. The results of this research provide supplemental and supporting documentation to guidance counselors (and other education professionals) in the facilitation of "relevant career-planning information and opportunities" (Constantine, Erickson, Banks, & Timberlake, 1998, p. 85) that effectively aids secondary students' seamless educational transition into postsecondary education.

The research is generally applicable to dual- and concurrent enrollment, and analogous programs, nationwide.

### Limitations

This research is limited by the integrity and accuracy of the students (and guidance counselors) and their responses to the designed and administered research instruments, as well as the semi-structured interviews. The responses and subsequent analysis of the findings are primarily applicable to PSEO Programs and high school students in southwest Ohio, specifically the Dayton metropolitan region of Montgomery County.

### *Scope and Delimitation*

The students in this study are limited to AP participants of English and math at five selected area high schools and PSEO Program participants from the same high schools attending Sinclair Community College during the spring quarter, 2005.

### Summary

This study is presented in five chapters. Chapter 1 consists of some preliminary history of the educational institution, its purpose, and mandates. The impetus for national "choice" in education was explored and some resultant dual enrollment programs are discussed. Ohio's (and a few other states') rationale for implementing its PSEO Program, the individual financing of higher educational endeavors, escalating costs, and some program benefits are discussed. Justification for the study, the research setting and subjects, research questions, definitions of applicable terms, assumptions, and limitations were also detailed. Chapter 2 provides a literature review, and discussion of the history, significance, and rationale for the Ohio PSEO Program legislation as well as applications and summary findings of selected other states' dual enrollment programs. Chapter 3

presents the setting, methodology, instrumentation, and data analysis adopted for this research study. The results are contained in chapter 4. Chapter 5 discusses the findings and offers recommendations for future program participants and administrators, as well as potential studies resulting from this work.

## CHAPTER II

### LITERATURE REVIEW

#### Different Titles, Comparable Programs

Although dual enrollment programs have grown steadily since their inception, few states keep sufficient data about these programs (Hoffman, 2003; Orr, 2002); as a result, the extent, participation rate, and effectiveness of dual enrollment program participation is unknown (Townsend, 2001). One major reason is due to indiscriminate data systems' usages that are commonly incompatible across higher and secondary education (Boswell, 2000). As a result, comprehensive national reporting is non-existent, and the related research is comprised mainly of individual and fragmented state program descriptions and/or statistics (Boswell, 2001): And a great deal of that available information reflects the positive program outcomes rather than the needed objectivity (Bailey, Hughes, & Karp, 2002).

Another issue that has resulted from independent administration of dual enrollment programs is the variability in each state's scope, intent, and program titles (Boswell, 2001). Robertson et al. (2001) summarize the inconsistency surrounding the diverse program titles acknowledging "the terms concurrent enrollment, dual credit, dual enrollment, postsecondary enrollment, [joint enrollment], and coenrollment are used interchangeably to describe a rising trend in academic programming at community colleges that supports seamless education" (p. 1).

Andrews (2001a) defines college courses taken as replacement for high school courses (and recorded on both transcripts) as “dual credit” (p. 14) courses; however, he also refers to such courses as “concurrent enrollment” (probably to be consistent with colleagues). Puyear (1998) agrees that dual enrollment courses are applicable for college credit, while fulfilling high school graduation requirements.

According to DeCabooter (2001) concurrent enrollment is a student’s simultaneous registration and attendance at two or more educational institutions – irrespective of academic levels. To distinguish the concepts, Puyear (1998) distinguishes dual enrollment from concurrent enrollment stating “only college credit is received and not high school credit” (p. 6) for concurrent enrollment courses; on the other hand, Boswell (2001) requires “concurrent enrollment” credits be earned at the college level, but also be applicable to secondary graduation requirements. Additionally, the term Postsecondary Enrollment Options (PSEO) Program is analogous terminology to various other states’ dual-, and concurrent enrollment programs (Robertson et al., 2001) and is also utilized.

Missouri officially defines its dual credit program as one that permits “eligible high school students to earn simultaneously both high school- and collegiate-level credit for *college-level* classes [which] they can take at the high school during the regular school day....as long as the subject matter is taught with college rigor to all students in the class” (OCBHE, 1999, p. 4). But they go on to stipulate the instructors must be college-affiliated faculty (approved adjuncts), who are required to “duplicate the identical course offerings [and assessment procedures] delivered on [college] campus to matriculated students” (p. 8).



Although some experts maintain subtle differences, this research does not treat the distinction unequivocally, as the definitions are largely semantic with individual preference utilization by noted authors and different nomenclature designations per state program. The archetype words, *dual enrollment*, *concurrent enrollment*, and *Postsecondary Enrollment Options (PSEO)* aptly describe the programs' agendas.

### Program Effects

#### *Seamless Education*

Ruiz (1999), a staunch proponent of "de-tracking" math, science, and English recommends all secondary students complete introductory college coursework to increase their academic exposure to, understanding of, and preparation for impending postsecondary education. In lieu of such lofty undertakings, dual enrollment programs afford those students advancing through secondary education an overall curricular continuum that is "seamless" in its progression (Chapman, 2001), providing students' uninterrupted academic advancement from primary to secondary grades into postsecondary education (Puyear et al., 2001; Richey, Mathern, O'Shea, & Pierce, 1997), as participants bypass duplicate courses (Just & Adams, 1997) that have only modest curricular distinctions. Silverberg and Hershey (1995) agree dual enrollment system integration eliminates "unnecessary redundancies in coursework across institutions, and where possible,...facilitates collaboration on curriculum development and ongoing working relationships" (p. 97): Boswell (2001), Chapman (2001), and Hugo (2001) are also of analogous persuasion.

In 1998, the New York City School District (NYCSD) founded the Middle College Program between La Guardia Community College and its adjacent high schools

(Greenberg, 1992) in an effort to better prepare and therefore increase the NYCSD pool of collegiate eligibles. The result was a shift toward a seamless strategy orientation that was accomplished, in part, by the college faculty who effectively influenced and restructured the high school's curriculum (Lieberman, 1998).

This program also permits high school participants to simultaneously take college courses, effectively alleviating curriculum redundancy between the educational institutions. Lieberman (1998) determined while the city's high school graduation rate among urban non-participants is only about one in four, the Middle College program's graduation rate is three times higher. As a result, the institutions' collaboration efforts have been strengthened while the college's public perception and reputation have been enhanced as well (Lieberman). During Chmelynski's (2004) examination of the program, it was also determined the participants outperform the La Guardia Community College traditional students in the "course pass rate" area.

While seamless K-16 curricular alignment ensures students will not repeat high school coursework during their initial college years, they are also prepared for college-level work (Bonesteel & Sperry, 2002; GCHEE, 2004) that results in their "comfortable transition for entry into college" (Puyear et al., 2001, p. 33). However, because postsecondary and K-12 education organizations are traditionally administered by separate governance structures, seamless education is not a current reality in the majority of educational systems, denoting proactive educational leadership is fundamental for seamless alignment of the two (Boswell, 2000; GCHEE, 2004). What has historically been considered "secondary" education needs to be realigned to reflect its continuum in-,

and integral part of "higher education" (Orrill, n.d.) in order to reconstruct and integrate the curriculum (Wolcott, 2001).

### *Articulation Agreements*

Dual-, concurrent-, and postsecondary enrollment programs have produced increased cooperation and improved articulation agreements between high schools and institutions of higher learning (Mabry, 1988; Marshall & Andrews, 2002). These programs result in the advanced preparation of secondary students who simultaneously accept the early challenges and rigors associated with higher education (Mabry).

In concerted statewide efforts to avoid unnecessary duplication of curricular requirements, Virginia introduced its dual enrollment program in 1988 (Catron, 1998) as a result of "an outgrowth of an increased emphasis on articulation between public schools and colleges during the 1980s" (Catron, p. 16). Articulation agreements serve as curriculum pacts between and among high schools, vocational-technical schools, postsecondary institutions, and business and industry by eradicating course replication; and, they create quality partnerships between educational institutions by ensuring all courses support academic requirements among consorting institutions (Just & Adams, 1997).

An outcome of the consequential collaboration that occurs among faculty and other education professionals because of articulation agreements are curricular modifications toward seamless education (Silverberg & Hershey, 1995). Lieberman (1998) determined such collaboratives not only bridge artificial education divides, but also enhance student academic motivation while increasing their postsecondary participation. Among the

concurrent enrollment program participants she examined, they represent a higher percentage of the baccalaureate degree-seeking aspirants compared to non-participants.

Just and Adams (1997) accentuate the overriding value of strong articulation agreements stems from its capacity to eliminate duplicate course content; and in most instances, successful program participation assures student admission at the postsecondary institution where the credits were earned. Reisberg (1998) found most dual enrollment students pass their courses with at least a "C" grade, and (with few exceptions) accredited institutions of higher learning readily accept the transference of such academic accomplishments as part of their articulation agreements, particularly when the institutions are within the state.

Early on, Mabry (1988) recommended dual enrollment programs as an effective way to increase inter-institutional cooperation and participation between high schools and colleges. However, in order to maximize the transitional benefits of seamless education, articulation agreements must be under constant negotiation and revision with other educational institutions to prevent loss of the student's academic time, efforts, and tuition (Mabry).

In 1995, the Maricopa County public schools entered into articulation agreements with the county's community colleges to ensure each secondary student would take "at least one college-credit course before graduating" (Cisneros, 1996, p. 28). Every Arizona community college participates in the dual enrollment program; however, for prospective students to participate they must pass the admitting college's entrance examination (Puyear, 1998).

Florida's public higher educational system has strong collegiate-high school articulation agreements that result in the generous acceptance of college credits earned as a result of dual enrollment participation (Wolcott, 2001). However, Wolcott could not determine the transference rate of dual enrollment credits (specifically in the arts program curriculum she examined) "outside the state" (p. 65) because no formal analysis of the program's matriculation rate or credit acceptance by postsecondary institutions external to Florida has been undertaken.

### *Collaboration*

Secondary and postsecondary education collaboration was not a prerequisite national agenda within other states' dual enrollment programs (Robertson et al., 2001), nor was it a formal goal of the Ohio PSEO Program (Ohio Board of Regents [OBR], 1988). Nonetheless, stronger links to the preferred K-16 alignment have resulted from dual enrollment programs due to increased collaboration (e.g., partnerships and/or cooperation) among local secondary and postsecondary educators (Gomez, 2001). As a result, concern over expensive coursework duplication is addressed and has become a key result of the collaboration dual enrollment programs foster (Boswell, 2000).

One of Missouri's concurrent enrollment program's unanticipated outcomes has been the enhancement of working relationships between participating professors and high school teachers, particularly in the area of instructional collaboration (OCBHE, 1999).

During Yung's (1995) qualitative research surrounding Ohio's PSEO Program, she recommended stronger articulation to address curriculum redundancy between institutions of higher learning and high schools in order to more efficiently utilize the state's dwindling educational allocations. As a result of recent budget reductions,

collaboration (and its outcomes) is a high-priority educational objective in Ohio (GCHEE, 2004; Ohio S.B. 6, 2005).

### Program Opposition

The proliferation of dual enrollment programs is not without detractors: Particularly vocal are professors concerned with students who by-pass entry-level courses only to end up unprepared in advanced course selections (Reisberg, 1998), even though the great majority of dual enrollment courses are taught by colleagues. From a 1990 survey of U.S. faculty, Summerfield (1994) determined 20% of professors believe undergraduate students are “[not] adequately prepared in written and oral communications skills” (p. 12). To be fair, some dual enrollment courses are taught by high school teachers; however, the overwhelming majority are like those at Utah’s SLCC, where they are also adjunct faculty (with graduate degrees), teaching their courses with SLCC approved curriculum, associated texts, and corresponding exams (“The Inside Track,” 2002).

Rentschler (1991) examined the Ohio PSEO Program while in its infancy, investigating the program’s perceived effects on school districts with 1,000 students or less. He found high school faculty and administrators generally object to the program and frequently discourage students from participation because they perceive the students as psychologically, socially, and academically unprepared for collegiate participation.

Many high school teachers and administrators resent “the loss of their strongest students” (Wolcott, 2001, p. 60) to program participation and subsequently do not favor dual enrollment programs as a learning alternative to high school instruction (Rentschler, 1991), particularly if Advanced Placement (AP) courses are offered. Then there are those

dual enrollment program administrators who question young students' (some less than 16 years of age) maturity to "handle collegiate material and the college environment" (Catron, 2001, p. 53).

Such negative conclusions conflict with Kulik and Kulik's (1984) findings that dual enrollment students have a greater propensity for overall postsecondary academic achievement. O'Neil's (1993) research of a first-year Ohio PSEO Program participant cohort resulted in the development of predictors for applicant success. She concluded a high secondary school g.p.a., and a high ASSET (a basic skills assessment examination developed by the American College Test Corporation and administered by the colleges) English score are the two strongest indicators of program success – attainable by many high school students.

Boswell's (2001) study of Minnesota's PSEO Program and the UW's Running Start Program determined participants generally receive higher grades than (non-participant) traditional-aged students. Wolcott's (2001) work with the Miami-Dade Community College-New World High School dual enrollment program also supports these findings, concluding the participants' high school "standardized test scores [are] consistently the highest in the district" (p. 62).

However, Bailey et al. (2002) advocate although research supports the finding students who proceed to college following program participation have more success than nonparticipants, such may be reflective of the dual enrollment student's characteristics rather than the effects of the program - the type of students might well do more to influence the program than the program's influence on the student. Additionally,

questions persist over the type, as well as amount of academic acceleration that actually occurs as a result of program participation (Southern & Jones, 1991).

*Secondary School Reluctance & State Funding Formula Reduction*

One of the chief policy concerns surrounding Ohio's PSEO Program is the source of reimbursement to the institution of higher learning (American Association of State Colleges & Universities [AASCU], 2002). Secondary school districts are understandably reluctant to forfeit the student's state education funding allocations because the student chooses to participate in the program (Fisher, 1997). In Ohio, the amount is significant: Elliott and Gulliver (2000) reported the annual allocation to be \$4,269 in the majority of the state while Montgomery County (2000) allocations totaled \$4,052 to educate each pupil. Based on the number of participants, the Ohio funding formula is subsequently adjusted to reflect "a reduction in daily funds to the high school for the dually enrolled student" (Boswell, 2001, p. 10) and payment directly reimbursed to the respective higher educational institution by the ODOE (1998b).

Although a significant amount goes to secondary schools, Ohio's "community colleges, post secondary-vocational technical institutions, state universities, and many private colleges and universities" (ODOE, 1998a, p. 1) that participate in the program accept a fixed amount of reimbursement for PSEO Program participants that "may not cover all costs directly associated with courses taken" (ODOE, p. 11). Nonetheless, bursars are not permitted to bill participants (or their families) for resultant cost shortages (Ohio Revised Code [ORC], 1995).



*Competition: The Advanced Placement (AP) Program*

The fastest growing components of high school last years are dual enrollment programs and AP courses (Pennington, 2002). AP courses "challenge students to analyze subjects at the kind of depth found in a college classroom" (Feller, 2004, p. A8) in preparation for impending postsecondary experiences. Not aligned with secondary education standards, AP classes parallel postsecondary curricula and come closest to establishing a national standard that postsecondary administrators utilize to determine the equivalency and transferability of secondary education courses (Boswell, 2000).

Generally, AP courses are more expensive than dual enrollment courses because high school students who seek to matriculate college credits for AP coursework must pay the Educational Testing Service ("Test-takers," 2004) approximately \$75 to \$100 for the end-of-course examination (Hebert, 2001; Reisberg, 1998) with no guarantee the student will attain the required minimum score for the course to be considered as equivalent college credit (Andrews, 2001a).

Admissions officers place a premium on AP courses that creates a "student edge" in undergraduate application considerations. Higher educational admission decisions are particularly weighted on recorded (completed), as well as current (pending completion) AP classes, even though the end-of-course exam results are not available until the following summer (well beyond the acceptance timeframe for the impending year's freshmen; Feller, 2004). Subsequent to the release of the AP scores, the admitting higher education institution determines the transfer equivalency credits given, if any.

Because high school instructors teach AP courses within their respective settings, faculty qualification is a concern (AASCU, 2002) that causes the collegiate equivalency of AP courses to come under suspicion (Juillerat, Dubowsky, Ridenour, McIntosh, & Caprio, 1997; Reisberg, 1998). Once again, many professors question the integrity of AP courses, alleging high school teachers stress testing skills over critical-thinking and writing skills (Reisberg).

Andrews and Marshall (1991) and Schwalm (1991) present very compelling, although indirect arguments that favor dual enrollment programs, reminding prospective students many colleges and universities do not accept AP scores for credit (or transfer) no matter the end-of-course score. Hebert (2001) cited Lafayette College and Tulane University as examples of higher educational institutions that do not accept dual enrollment courses taught by high school teachers in classrooms primarily composed of secondary students, even if the teacher is an adjunct professor at a nearby college.

Even though AP courses “permit secondary students to take college-level courses while still in high school” (Boswell, 2001, p. 8) not all secondary schools offer such expensive curricular offerings, as attested to by Reisberg (1998) who determined only 60% of the 17,200 national public high school districts offer AP courses, although Feller (2004) reports the figure to be 67%. Smaller school districts often utilize dual enrollment coursework options in lieu of expensive AP courses, as their budgets are often tightly constrained (“The Inside Track,” 2002).

Catron (1998) found dual credit programs are particularly beneficial in rural school districts that cannot support AP course offerings; thus, advanced coursework is alternatively offered at nearby colleges for eligible students. Like Minnesota’s PSEO

Program (Boughton, 1987), Catron (2001) determined Virginia's Community College System has its largest dual enrollment participants in predominantly rural areas; ironically, the greater the metropolitan area (with numerous and larger postsecondary institutions) the smaller the dual enrollment participation. Campus administrators attribute the disparity to "competition from well-established advanced placement (AP) programs" (Catron, 2001, p. 55).

Throughout the 1998 - 1999 academic year, 66 Ohio colleges participated in the PSEO Program with Washington State Community College having the highest student enrollment (J. Degen, personal communication, July 9, 1999). At that time, this Marietta, Ohio, college's participation rate coincided with and supported Montano's (1989) finding that greater PSEO Program participation occurs among rural students compared to urban utilization. Haglund's (1995) more recent analysis of all Wisconsin's school districts inversely determined the closer the institution of higher learning to the high school the higher the dual enrollment program participation rate, although no reason was offered. During the 2004 academic year, the Cleveland Municipal School District had 461 PSEO Program participants, with Cuyahoga Community College having 1,102 PSEO Program students among its three campuses (ODOE, 2006). These program figures lend support to Haglund's contention, as this metropolitan school district and the adjacent community college respectively had the state's highest number of participants for these two educational institutions during that time period.

Although it is not the intent of Ohio's General Assembly to suggest high school districts discourage, phase-out, or terminate AP course offerings as a result of the PSEO Program (ORC, 1995), AP courses can only expect to continue to experience competition

from dual enrollment programs (Catron, 2001) because of increasing pressure from students, taxpaying parents, and colleges, dubious of the value of honors classes.

### Program Benefits

Orr's (1998) review of the School-To-Work Act, Perkins Tech-prep Act, and Goals 2000 determined dual enrollment programs yield more realistic higher education expectations for students than these and other similar programs. Because of the seamless progression fostered by dual enrollment programs, Silverberg (1993) determined program participants' propensity to continue their educational endeavors following the initial acquisition of postsecondary credits is significantly increased. Puyear et al. (2001) indirectly support this finding as their studies affirm participants "accelerate [their] attainment of a baccalaureate degree" (p. 33) compared to non-participants. Although Townsend (2001) also claimed dual enrollment participation at both the community college and the 4-year college increases the rate of baccalaureate attainment for both groups, no statistics were offered in support thereof.

### *To First Generation Students*

The role and influence of parents' familiarity with higher educational processes, as a result of their own educational accomplishments, cannot be overstated. In general, students' parents who have not previously undertaken collegiate pursuits do not provide such expectations to emulate (Wallis, 1998). "Students whose parents did not attend college" (Hugo, 2001, p. 71) - "first-generation" college students - must surmount considerable obstructions to achieve higher educational accomplishments. Parents who have not attended college cannot fully comprehend and rarely assist with such unknown, yet vital postsecondary information (McIntosh & Geenlaw, 1990) sorely needed for

academic achievement (i.e., admissions, course/program selection, and financial aid processes).

The influences of parents' collegiate accomplishments and those resultant knowledge sets are second only to student high school academic performance in determining the likelihood they will attend college (Sedaie, 1998). Traditional postsecondary admissions criteria (i.e., SAT scores, g.p.a., and class rank) are not as predictive as "family influences related to expectation, supportiveness, and sense of direction" (Laycock, 1984, p. 91) in determining higher educational outcomes (i.e., graduation, delay, or withdrawal) among entering college freshmen. Lamentably, Hugo (2001) indirectly supports this finding concluding, "first generation students are generally less prepared academically and less likely to pursue college preparatory courses and take college entrance exams" (p. 71).

#### *Parental Support*

Expectations established by parents (Conklin & Dailey, 1981; Ekstrom 1985), parental education level and student academic performance (Carpenter & Fleishman, 1987; Jackson, 1986), as well as extracurricular school activities (Carpenter & Fleishman; Manski & Wise, 1983) are significant determinants signaling the student's intent to pursue postsecondary education. Stage and Hossler's (1989) sample of Indiana ninth graders found the father's educational attainment, and most predictably the parents' educational expectations, are the preeminent influences that surround higher educational goals accepted by students. Additionally, they determined parents' marital status and the frequency of college discussions among the family are also predictors that influence the students' educational decisions (Stage & Hossler).

Noble and Drummond's (1992) research with the University of Washington's EEP found participating students' parents initially apprehensive about alleged social and academic harm their children could undergo. Moreover, their principal concern was to assure program participation was not predicated on parental expectations, which (they feared) could cause their children to regret the decision, offsetting the scholastic benefits.

#### *Student Predisposition to Attend College*

Despite the obstacles, Beattie (2002) determined youth with high cognitive skills (e.g., superior test scores) have a "greater probability of attending college" (p. 32) as they are likely to have "greater access to financial aid, through merit-based scholarships, [that] offset the costs" (p. 36). Inversely, those who score lower on standardized tests are apt to view higher education more tentatively (Beattie).

Predisposition for eighth and even seventh graders to attend postsecondary institutions results from exposure to older friends' and siblings' forms of postsecondary searching and that decision solidified by the ensuing selection of curricular choices made during their remaining secondary school years (Schmit, 1991). Plank and Jordan (2001) add supplemental support to this finding as they determined communication and discussion with school personnel and (other) parents substantially increases the student's likelihood of higher educational persistence.

It is important to acknowledge the existence of a finite window of opportunity to encourage secondary students to explore, pursue, and continue their collegiate aspirations and plans, as determined by Stage and Hossler (1989) who found the predisposition phase to attend college takes place "as early as when students are in the ninth grade" (p. 304). According to Schmit (1991), the decision to participate in higher education is "all but

decided" (p. 36) by the end of the ninth grade year. While the college location and vocational decision may change from the original junior high choice and intent (Hossler & Gallagher, 1987), Schmit and Hossler's (1995) longitudinal studies acknowledge preference to attend college remains relatively consistent throughout the high school years. Appropriately, Plank and Jordan (2001) surmise by the sophomore year attempts to encourage the discussion of-, and/or direction of- collegiate planning is indeed a very late stage in the process.

*To Disadvantaged (and Minority) Students*

Although the high school student's academic transcript is the most significant factor in the college admissions process (Hugo, 2001), dual enrollment participation is an excellent way for disadvantaged students, as well as those who have not done well academically to "augment their academic portfolio [as a strategy to] enhance the academic profile they present for college admission" (p. 68). Hugo confidently asserts concurrent enrollment programs "provide[s] a long-term strategy to improve the preparation of minority students so that they will be competitive for college admission" (p. 69).

The University of Wisconsin at Milwaukee (UW-M) created a unique dual enrollment program variant in its school of nursing when the Health Careers Bridge Program was established in the early 1990s (Underwood & Fay, 1996). The admixture of higher education courses undertaken in high school is designed to facilitate minority high school students' recruitment, retention, and graduation in health career fields and to more effectively prepare and matriculate them for undergraduate work at the UW-M (Underwood & Fay).

To specifically address declines in minority admissions at the University of California-Los Angeles (UCLA) resulting from the state's 1997 post-affirmative action legislation, Early Start was instituted as a local collaboration between the Los Angeles public school system and Valley College. Valley College's Honor Transfer Program requires at least a 3.0 g.p.a. and attainment of the college's minimum entrance examination scores in algebra and English for program eligibility. Because of severe space limitations, analogous program expansion was necessary and now includes Los Angeles Community College District campuses. Such dual enrollment program participation genuinely increases university admissions consideration and is the major rationale for program involvement (Chiang, 1998). It is therefore possible for participants to simultaneously earn enough tuition-free credits to matriculate as juniors to UCLA (Chiang) - almost 2 collegiate years ahead of their non-participant peers.

*To Lower Socioeconomic Status (SES)*

Economic restrictions are a barrier to higher educational pursuits and as Hamrick and Stage (1998) determined, a family's SES is a significant predictor of a student's collegiate predisposition, particularly when paired with parental expectations and student g.p.a. "SES origins exert the greatest influence on college enrollment: Young men of low-SES origins in some cases face only a 44 percent probability of college enrollment, while their counterparts from high-SES families enjoy a 70 percent probability of enrollment" (Beattie, 2002, p. 29).

Although it is difficult to determine if future predictions surrounding wage earnings are arrived at in like manners by researchers, SES background clearly influences postsecondary enrollment (GCHEE, 2004). Sewell and Shah (1967) concluded students



from lower SES are less likely to plan to attend institutions of higher learning than are those from higher SES families. Beattie (2001) determined students from lower SES backgrounds are more likely to view the costs of higher education as prohibitive, thereby decreasing their likelihood and intent to pursue higher education that would improve their economic status.

“[A] student’s SES is an amalgam of parental education, parental occupational prestige, and family income” (Plank & Jordan, 2001, p. 973). Despite the absence of curbing forces to address spiraling postsecondary costs, the essence of a college education is considered by Cross and Slater (1997) to be the new “intergenerational transfer of wealth” (p. 80) and its receipt is vital to an individual’s future, particularly among the middle- and lower SES classes.

Although culmination of higher educational endeavors is essential, securing necessary funding is paramount and challenging, particularly for lower- and lower-middle SES students to surmount Robertson et al.’s (2001) conclusion that a “lack of financial support [is] a significant barrier to higher education” (p. 3). Even though collegiate costs may be difficult to meet, the completion of higher education is the middle class’ most effective way of improving and maintaining its SES. Carnevale and Desrochers (1997) underscore the importance of postsecondary education (regardless of associated costs) concluding, “there is only one course of action more costly than going to college, and that is *not* going to college” (p. 28). They go on to state “those with education beyond high school tend to have better earnings prospects than high school graduates, irrespective of their occupation” (pp. 28-29).

In general, human capital theorists calculate differences in expected and projected earnings results from educational attainment disparities (i.e., on-the-job training, continuing-education, and self-improvement offerings) particularly among wage earners (Becker, 1975; Schultz, 1961). That premise forecasts individual earnings are affected by personal educational attainment and the pursuit thereof is determined to occur when,

Individuals are posited to make decisions to continue or terminate their education on the basis of the increases in income, skills, and knowledge they can expect from each additional year of education, net of the opportunity costs of staying in school, including lost wages, and out-of-pocket costs, such as tuition. (Beattie, 2002, p. 20)

Regrettably, males of lower SES rarely overcome familial background barriers to allow them to surmount the postsecondary enrollment advantages of their more economically-fortunate peers. Such is an enigma of human capital theorists who recognize "SES is a durable predictor of college attendance" (Beattie, 2002, p. 30) in spite of higher education's recognized capacity to improve SES conditions. Despite the foregoing, among the dual enrollment programs examined by Pennington (2002), she found its primary beneficiaries were students from middle- to upper-middle SES, concluding the programs' greatest benefits (i.e., educational, social, and economic) are barred for whom it is most critical.

### *To Drop Outs*

The National Commission on the High School Senior Year (2001) determined nearly 29% of Hispanic youth and 12.6% of Black youth ages 16 to 24 drop out of school, compared to 7.3 % of White students. Lieberman (1998) determined secondary school dropouts are most prevalent among ninth and 10<sup>th</sup> graders, when leaving school

(as a result of age attainment) becomes legal (Hoffman, 2003). Plank and Jordan (2001) refer to this "dropping out" process as "talent loss," defining the process as "the occurrence of promising student[s] failure to reach] their full educational potential" (p. 947). They determined talent loss is most acute among students of lower SES, due in part to the lack of postsecondary guidance and educational information (most absent among lower SES members), which are contributing "factors in their non-continuance of higher education" (p. 972). Hoffman determined most underrepresented secondary students also lack information surrounding the opportunity to simultaneously earn postsecondary credits, because the majority attend schools that are deficient in rigorous curricula offerings and standards. However, when guidance and information are present the likelihood of the individual's postsecondary education continuance increases, suggesting that equalization of available educational information neutralizes the relationship between SES and talent loss (Plank & Jordan).

Wolcott (2001) determined both first-generation and minority students' opportunities to increase study skills and obtain higher educational information (i.e., entrance expectations and requirements) are enhanced by dual enrollment program participation. Such programs are innovative and alternative ways to address student retention rates, specifically among those unchallenged by their secondary course work (Burns & Lewis, 2000). Hoffman (2003) determined program participants have a higher retention rate and earn higher college grades than non-participants. In researching the Tech-prep program (a vocational dual enrollment offering), Silverberg (1993) confirmed increased retention and sustained academic interest results the earlier students enter that particular educational program.

The Phoenix (Arizona) Think Tank determined 100% of South Mountain and Central High Schools' program participants graduated between 1993 and 1996 (Rosenthal, 1999). Accentuating the optimism of dual enrollment programs is their capacity to contend with the (local) high school dropout phenomenon, such as in the Dayton and Northmont, Ohio, public school districts, where 40% of the incoming ninth grade classes "do not receive their high school diploma four years later" (Montgomery County, 2000, p. 3).

Because the elimination of coursework duplication results in time-to-degree reduction, both Shwalm (1991) and the Education Trust (1999) determined the earlier postsecondary collegiate credits are earned, the more likely the pursuit and completion of higher educational endeavors. With the 1999 amendment of Ohio's Revised Code, inclusion of ninth and 10<sup>th</sup> grade students in its PSEO Program (other states' dual enrollment programs have made similar modifications) the austere dropout statistics have another fundamental avenue of redress.

### *Scheduling Flexibility*

Ohio's PSEO Program permits evening, correspondence, and distance-learning courses as viable options (ODOE, 1998b), resulting in greater academic scheduling flexibility for its participants. Kiger and Johnson (1997) found the capacity to select desired courses to be a critical factor in both student participation and program satisfaction. Among the participants they surveyed, the majority positively perceive the program as "an opportunity to 'try out' the role of college student" (p. 692) and believe the program aids in their fundamental development of impending collegiate responsibilities (Kiger & Johnson), while nurturing independent and mature behavior.

Because student employment has become an increasingly popular part of the high school culture, those guidance counselors who responded to Pearson's (1993) survey recognize access to the job market is a major consideration for many dual enrollment students, as they "[can] escape the long[er], seven-hour days of high school and arrange their collegiate schedules around their jobs" (p. 28). Program participants command a valuable position in the labor market because of their capacity to expedite completion of the undergraduate degree requirements (Kiger & Johnson, 1997), affording them earlier access to employment opportunities. The researchers also maintain the PSEO Program provides a more globally-competitive education, as a result of its accelerated pedagogical delivery.

Although scheduling flexibility has primarily focused on dual enrollees in high schools, Kronholz (1999) attests to the programs' popularity, determining 80% of the University of Michigan's incoming freshmen have previously earned some college credits prior to their collegiate admission. Riesberg (1998) found a significant number of undergraduate students (who were previous program participants) take reduced college course loads, also increasing individual schedule flexibility, specifically at the University of Missouri.

#### *Lack of Student Motivation*

One problem plaguing teachers and students alike is how to prevent what Peterson et al. (2001) term "senioritis" (p. 23; defined as an apathetic attitude toward learning) from taking over, while simultaneously keeping impending graduates academically engaged. Nunley and Gemberling (1999) determined socialization has become a major reason for high school attendance due, in large part, to the reality students are not

required to take challenging courses and are mired in previously introduced (and now unfulfilling) coursework.

In 1972, the University of Syracuse initiated Project Advance (Andrews, 2004; Bonesteel, Fiset, & Newell, n.d.; Bonesteel & Sperry, 2003; Greenberg, 1992; Syracuse University Project Advance [SUPA], n.d.). Daly (1985) heralded this educational effort as “the premier program among those that provide college-level courses to pre-college students” (p. iii). This dual enrollment program sought to address high school student issues and problems surrounding the lack of student motivation and “senioritis” - reasons that emerged as the program’s impetus (Daly).

Following a review of several studies, Kirst (2001) generalized the overall sentiment of the senior year as a “waste of time” for many students. Amid growing concerns too many students leave high schools ill-prepared for future academic challenges and the economic demands of adulthood (Pennington, 2002), the U.S. Department of Education’s National Commission on the High School Senior Year (2001) characterizes the last academic year as one in which “time itself stands still” (p. 28), resulting in college freshmen who are poorly prepared for the academic expectations and demands associated with higher education (National Commission), all-too-often because of inadequate high school curriculum (Huntley & Schuh, 2002). McKay (2001) (paraphrasing the report) understood the commission to affirm “practically every college-bound student is aware that serious preparation for college ends at grade 11” (p. 4A) chiefly due to early fall acceptance notifications for the subsequent college year.

Noble and Drummond’s (1992) study of the UW’s EEP revealed most of these dual enrollment participants allude to boredom - beginning as early as junior high school - as

their major source of high school discontentment. Boredom is a key reason for the EEP students' participation, as the program provides accelerated educational pursuits, and the opportunity to participate in a more rewarding curriculum.

Similarly, Boughton's (1987) research determined 37½% of Minnesota's 11<sup>th</sup> and 12<sup>th</sup> grade PSEO Program students at Rochester Community College also cite boredom (with the overall high school process) as their rationale for initially choosing program participation. Marshall and Andrews (2002) have shown dual enrollment programs are successful in keeping high school participants meaningfully engaged in academic undertakings. Accordingly, Bailey et al. (2002) advocate opening program access to a wider range of students, as even less-motivated students might benefit from college course challenges.

#### Ohio Initiates its PSEO Program

After a joint appointment by the OBR and the State Board of Education, the Advisory Commission on Articulation Between Secondary Education and Ohio Colleges published its April 1981 report that focused on high school graduates' math and writing skills (OBR, 1981). The disquieting conclusion revealed "the graduates lacked basic math and writing skills and they were also deficient in critical thinking, analytical, and problem-solving skills" (OBR, p. 23). In 1984 the OBR subsequently established the Early English Composition Assessment Program (EECAP), with funding from the Ohio General Assembly (Richey et al., 1997).

According to the OBR (1988), EECAP's two main purposes were the identification of high school students' writing strengths and weaknesses (for early intervention prior to collegiate enrollment), and the improved cooperation between education professionals to

identify and address high school student weaknesses in order to decrease remedial coursework in college. However, despite persistent calls for enhanced ties between secondary and higher education, the Ohio Commission on Improving College Preparation's recommendations to develop better teaching and learning pedagogy "review[ed] information about a number of excellent collaborative programs and initiatives for improving teaching and learning...especially in the area of mathematics" (Secondary and Higher, 1997, p. 21) but did not include PSEO Program participation as a recommendation.

### *Legislative Action*

In a concerted effort to satisfy their constituency, Governor Richard Celeste and the Ohio Legislature ratified S.B. 140 (Sec. 3365.01) on June 29, 1989. "The Ohio PSEO Program was copied from Minnesota's program [which] was part of the push in 'choice concept' in public education" (R. Howard [Director of Ohio PSEO Program] personal communication, July 10, 1999). This education bill (a) appeased the public demand to provide students and parents more secondary education choices, (b) addressed the number of redundant courses between high school and the initial years in higher education, and (c) redressed the duplicate costs between educational institutions (Jordan, 2001).

Known as the Omnibus Education Accountability Reform Act, the act included over 40 education mandates in the initial PSEO Program portion (Rentschler, 1991). The original enactment permitted 11<sup>th</sup> and 12<sup>th</sup> grade public school students to enroll in nonsectarian higher education courses that simultaneously fulfilled high school graduation requirements (ODOE, 1998b). Following Folger's (1992) examination of the



PSEO Program at selected public high schools, his conclusion that the program would be a limited political fad - short-lived, at best - has indeed turned out to be more meaningful than he initially envisioned.

In 1997, the Ohio House of Representatives amended the PSEO Program (Ohio House Substitute Bill 215, Sec. 3365.01, 1997). The amendment expanded participatory privileges to eligible public ninth and 10<sup>th</sup> grade students and permitted participation by chartered, unchartered, and private secondary students (Jordan, 2001; ODOE, 1998b). On July 1, 1999, the Amended Substitute House Bill 282 further revised the ORC (1999) and the PSEO Program (Sec. 3365.02), permitting community school student participation but also increasing minimum eligibility criteria (Jordan, 2001).

#### PSEO Program Specifics

As a systematic reform, the Ohio PSEO Program is approximately 17 years old (ODOE, 1998b) and like other national dual enrollment programs it provides academic challenges and benefits to qualified high school students desirous of postsecondary pursuit at 2- or 4-year higher educational institutions (ORC, 1995). Ohio S.B. 140 (1989) mandates all public high schools participate in the PSEO Program (Rentschler, 1991) and its two options. Under Option A, students continue participating with their high school coursework; however, postsecondary participation and associated costs (i.e., admission, tuition, and texts) are the students' and/or their parents' responsibilities. Completed courses become part of the students' permanent collegiate transcript, but the earned credits do not qualify against their high school graduation requirements (ODOE).

Alternatively, Option B permits students to take undergraduate coursework in lieu of requisite high school classes, resulting in the concurrent earning of both Carnegie high

school and collegiate credits (Jordan, 2001; ODOE, 1998b) that become part of their undergraduate record. Option B pays the associated higher education tuition, fees, and costs, as well as requisite supporting materials (i.e., books, calculators, paper, even pencils). The applicable costs are borne by the secondary school district's state foundation funds and are directly credited to the student's institution of higher learning (Jordan; ODOE).

Under Ohio's PSEO Program guidelines private and public universities, community colleges, and vocational and trade schools are entitled to participate in the concurrent education of high school students (ODOE, 1998b). Participants are not prohibited from taking college courses, even if the same course is offered by the local high school (ODOE). They must have a 3.0 g.p.a. (Jordan, 2001), which is a more stringent admissions standard than the customary "open enrollment" criteria, and such restrictive participation is divergent with the mission of public education (Greenberg, 1988).

Participation in collegiate-sanctioned sporting programs is not permitted; however, program students continue to participate in their respective high school's extracurricular activities (Fisher, 1997; ODOE, 1998b) as long as they meet eligibility requirements. There are no room and board funding allowances, nor does the program pay for summer course participation (ODOE). No matter the higher educational institution, program participants are not charged different fees or tuition (Jordan, 2001; ODOE): Students are free to attend any institution of higher learning where they are admitted, making institutional choice selection an invaluable program aspect.

Nonpublic high school students are also permitted to utilize Option B since the Ohio General Assembly provides a specified \$1 million each biennium for their participation (Jordan, 2001; ODOE, 1998b). Application processing takes place "in the order in which the applications are received" (ORC, 1995, p. 750) essentially on a first-come, first-served basis until the amount is exhausted.

Currently, "foreign students who are not part of an exchange program, out-of-state students, [and those] coded as unauthorized through EMIS" (Education Management Information System) are excluded from program participation (ODOE, 1998b, p. 7). Although "home-school" learners are also ineligible (ODOE) Option A is a viable alternative, as postsecondary institutions generally permit their participation, albeit "at their own expense" (Jordan, 2001, p. 79).

Although Option B is certainly more advantageous, the choice to participate in Option A is ultimately up to the participant. Option A may be preferred because the student does not qualify for Option B, maybe because of a low g.p.a. or nonqualifying college entrance scores. Additionally, the student may prefer Option A to protect his or her g.p.a. against the possible receipt of a low postsecondary course grade.

### *Transportation*

Although the associated cost of transportation to the higher educational institution is not covered under Ohio's program rules (ODOE, 1998b), the cost can be reimbursed if the "students [are] eligible to receive free and reduced-priced lunches" (Jordan, 2001, p. 75). Based on the provisional guidelines established by the "National School Lunch Act and the Income Eligibility Scale for Free and Reduced-Price Meals as established annually by the United States Department of Agriculture" (ODOE, p. 6) the

parents/guardians of the participant can apply for transportation reimbursement with the local board of education for payment “under division (B) of section 3365.04 of the [Ohio] Revised Code” (ORC 1995, p. 749).

Transportation reimbursement is especially important since Young and Clinchy (1992) determined supplementary educational opportunities are “limited for students who do not live within commuting distance of a post-secondary institution or do not possess their own transportation” (p. 34). With the inclusion of transportation reimbursement provisions and guidelines (ODOE, 1998b), Ohio’s General Assembly provides program participation opportunities for the majority of its students.

### *High School Equivalencies*

Under PSEO Program rules conversion of 7 ½ quarter hours (qh) of collegiate work is equivalent to one secondary Carnegie unit (Jordan, 2001). Although Ohio postsecondary institutions are free to establish admissions criteria, they are required to accept all qualified students (ODOE, 1998b), with the caveat that PSEO Program participation “will not pay for developmental coursework” (Jordan, p. 77).

Ninth grade students cannot participate in the program for more than 4 academic years; 10<sup>th</sup> grade students, not more than 3 academic years; 11<sup>th</sup> graders, not more than 2 academic years; and 12<sup>th</sup> grade students may not participate for more than 1 year with proportional reductions made for PSEO Program students who participate for less than 1 academic year (ODOE, 1998b).

After examining various postsecondary enrollment option programs, Chapman (2001) concluded their purposes are “to complement rather than supplant the high school curriculum” (p. 20). In particular, under Ohio’s PSEO Program participation “no

graduation requirements will be eliminated or reduced” (Jordan, 2001, p. 75) or Competency-Based Education and Proficiency Testing requirements altered (ODOE, 1998b).

### *Guidance Counselors and Course Failure*

High school guidance counselors direct the bulk of the program’s local administration and assume the greatest workload increase (Rentschler, 1991). They are tasked to assist participants with determining courses that fulfill graduation requirements (Jordan, 2001; ODOE, 1998b). They annually notify all eighth through 11<sup>th</sup> grade students and their parents regarding the program specifics and options not later than March 1 (Jordan; ODOE), and interested students signify their intent by March 30. Students and their parents/guardians acknowledge their intent on a locally-composed and adopted form, indicating understanding of program risks and receipt of program information and instructions.

Examining the current PSEO Program guidelines, Jordan (2001) determined students who fail “because of nonattendance or failure to complete required assignments [or voluntarily withdraw] may be required to reimburse the district board all fees associated with the course” (p. 75) in addition to jeopardizing their graduation requirements and postsecondary opportunities. Ironically, if the participant fails a course but completes the assignments, exams, and requirements he or she is still entitled to have the expenses paid by the state (ODOE, 1998b). If they met the program prerequisites and in their attempt failed the course they are even permitted to repeat the course “at the expense of the school district, state private school funds, or community school” (Jordan, p. 78). However, the *Christian Citizen U.S.A.* (“Ohio students,” 2000) determined some

Ohio school districts “[hold] parents responsible for the cost of a failed college course” (p. 8) and restrict extracurricular activities, but such punitive measures are capricious and in violation of ODOE’s PSEO Program rules.

#### Program Benefit to Higher Education

Tinto (1993) reported over 60% of students who enter either 2- or 4-year colleges or universities exit before they complete their degree. Adelman (1999) established the best predictor of college completion is the student’s degree of high school curricular difficulty. Horn and Kojaku (2001) found 3 years after admission to a 4-year institution 87% of students who had been involved in a rigorous high school curriculum remain enrolled, whereas only 62% of students who did not have such challenges persisted – supporting Tinto’s findings. In fact, Boswell (2000) determined all higher education students in possession of rigorous secondary curriculum typically have advanced admissions, placement, and assessment scores.

Silverberg (1993) found dual enrollment participation increases higher educational retention (as a result of previously afforded postsecondary challenges). Such may be a means of addressing the dismal 20% matriculation rate among 2-year graduates who continue their education at 4-year institutions (Grubb, 1996) - 80% of 2-year students are not expected to complete the baccalaureate degree.

However, that completion factor is confounded by Koker and Hendel (2003) who determined PSEO Program students (at an anonymous Midwestern Research I institution) have the lowest rate of completion (16.9%) when they transfer to another institution of higher learning. If they persist to their junior year only 28.1% remain, which is a significantly lower percentage compared to 2- and 4-year institutions’ traditional-aged

students who persist at their current institution or transfer (although the reasons were not provided).

### Community Colleges

A uniquely American venture, community colleges were initially designed "to serve as a link between the lower schools and establishments of high learning" (Cohen & Brawer, 1987, p. xi). Their mission provides educational access and opportunity to all (Gillett-Karam, Roueche, & Roueche, 1991) regardless of prior academic achievements. Since their inception, one of the community colleges' most important accomplishments is student transfer preparation to 4-year educational programs (Grubb, 1996). Interestingly, concurrent enrollment is another important function, as Finn and Manno (1996) demonstrated at Eastern Michigan University, finding 20% of its students concurrently enrolled at the nearby and lower-priced Washtenaw Community College.

As a result of the 1972 Higher Education Act, the administrative oversight of community colleges was shifted from an elementary-secondary association to higher education (Prager, 1994). Consequently, the primary community college mission was altered from an agent of university transfer "to one of providing a comprehensive range of offerings" (Baker, Dudziak, & Tyler, 1994, p. xii); they also "provide workers with the applied skills training they need prior to entering the workforce" (Carnevale & Desrochers, 1997, p. 31).

Community colleges have been and are flexible enough to accommodate the educational priorities of their constituency (Orr, 1998) with numerous course offerings, program credibility, and well-established articulation agreements with 4-year colleges and universities (Hammons & Maignan, 1995). They also have open enrollment policies,

geographic accessibility (Callan, 1997; Grubb, 1996) and reputable partnerships that make them effective agents of secondary and postsecondary curriculum integration.

The students in Thompkins' (1989) study reported their attraction to community colleges went beyond these typical findings, noting that caring and accessible staff and instructors (who provide individual attention and academic support in small classes) as their major reason for attending community colleges (although lower tuition and program credibility are also cited as deciding factors).

"[C]ommunity colleges may well be considered a first choice of higher education [especially] in more rural areas" (Catron, 2001, p. 55) – a statement that is readily supported in Ohio's Miami Valley Area, where

community colleges such as Sinclair [Dayton], Edison in Piqua, and Clark in Springfield [bask] in a robust enrollment surge....as more high school students [sign] up for a community college for the first two years of a four-year degree, a strategy that can save thousands in tuition dollars. (Fisher, 2002a, p. 1A)

#### *Dual Enrollment and Developmental Courses in Community Colleges*

Dual enrollment programs at community colleges actually represent a return to their original mission and model (Orr, 1998) when the colleges were high school extensions (Dougherty, 1995) that provided (and currently provide) continuing and career training, and employment preparation. Community colleges are the largest postsecondary institutions participating in dual enrollment education (Hoffman, 2003), in spite of Townsend's (2001) assertion "the community college's first priority should be to serve those students not typically accepted into higher education" (p. 1).



Seventy-four percent of the PSEO Program participants Kiger and Johnson (1997) surveyed state their preference for 2-year colleges over 4-year, and 83% of the parents also prefer 2-year colleges for their children. They found 30% of PSEO Program participants are primarily interested in the Arts and Sciences curriculum offerings, while 28% prefer Health Technologies programs. Burch-Clay's (1999) study of Troy Academy's dual enrollment program determined the program enhances the higher educational institution's academic and community reputations – even to the state-level. She also found dual utilization of available campus instructors and space (as a result of program participation) augments the college's operating revenues.

Remedial courses are expensive (GCHEE, 2004) and disproportionately taught in 2-year institutions (Berry, 2003). They constitute higher education's fastest growing program-usage (Pennington, 2002) even though such courses do not count toward (any) graduation requirements (Fisher, 2001). Dual enrollment programs are an effective cost-reducing strategy to address developmental coursework for the postsecondary institutions, students, and parents (Orr, 1998) as their goal is to "[improve] the college preparation of all students, thus reducing the need for remediation at the postsecondary level" (Boswell, 2001, p. 13).

#### *Program Participants in Community Colleges*

Five and one half million students annually attend 1,086 community colleges (Roche, 1997). Typical community college students (a) have not previously done well academically, (b) have far less baccalaureate ambition, (c) are of lower SES (Dougherty, 1995), and (d) have parents who did not continue in higher education (Cohen & Brawer, 1996).

Kiger and Johnson's (1997) study of Toledo, Ohio's Owens Community College's (OCC) PSEO Program participants found them to be (a) 18 years of age (mean = 17.95 years, standard deviation = 1.06 years), (b) upper-middle SES (annual household income > \$40,000), (c) public high school attendees (83%), (d) first generation college students (23%) and, (e) White female. Beattie (2002) indirectly supported that last categorical find, when she determined "young women who have completed high school are somewhat more likely than young men to enroll in college" (p. 33) as they possess a "robust sense of self-efficacy...in order to fulfill the heavy demands from dual workloads of career and household" (Bandura, 1982, p. 136).

#### Promoting Dual Enrollment Programs

Dual enrollment programs disclose new passageways for colleges and universities to exploit, particularly in the areas of enrollment, recruitment, and retention (AASCU, 2002). Program publicity is particularly advantageous to community colleges, as top-caliber students who would not historically attend community colleges often remain to complete their degrees (AASCU, 2002; Fisher, 1997; Sullivan, 1999), but such is also true at 4-year institutions (AASCU).

Young and Clinchy (1992) acknowledge school districts must do a better job to "inform and educate parents about the specialized and thematic programs available to students" (p. 38). Boswell (2000) contends the majority of parents and students do not receive the necessary information relating to the importance of early preparation for postsecondary education; consequently, addressing non-existent dual enrollment program recruitment efforts is paramount (Chapman, 2001).

After analyzing their findings, Kiger and Johnson (1997) concluded marketing Ohio's PSEO Program is an incomplete yet important strategy the college needs to undertake in order to increase participation. In doing so, high school students could receive program information directly from the college, thereby bolstering its public perception (Kiger & Johnson) and engendering positive community images (Chapman, 2001), although the exact nature of either benefit was not identified.

Vogt (1991) determined colleges are doing little to provide the general public and high school students information surrounding dual enrollment programs, in spite of their inherent value as "an excellent recruitment tool" (Chapman, 2001, p. 21). Among the participants Huntley and Schuh (2002) interviewed, they report the higher education institutions make no effort to retain them following their high school graduation.

By touting the numerous benefits dual enrollment programs offer, higher educational institutions effectively develop recruitment tools for pipeline students (Catron, 2001; Chapman, 2001; Mabry, 1988). Kiger and Johnson (1997) advocate the marketing strategy does not have to be elaborate to be effective; for example, emphasis about the "opportunities for students to gain an advantage in the global marketplace by gaining a headstart on their college careers" (p. 692) is a valuable, simple, and effective program promotion strategy. In addition to college tuition savings, advocating the opportunities "to complete prerequisite college courses before high school graduation, to identify potential careers, to experience the college environment, and to establish independence" (p. 692) are additional and important aspects of program advertising.

### *Shortening Postsecondary Graduation Time*

Reichheld's (2000) examination of Ohio's PSEO Program found participants utilize the program because of their ability to build college credits and expedite college completion; accordingly, program participation diminishes the expenses associated with degree completion efforts (Andrews, 2001a; Boswell, 2001; Chapman, 2001; Gomez, 2001). Such outcomes are important and desirable since only 43% of students finish their baccalaureate degree within 4 years (Finn & Manno, 1996): Andrews (2004) recently determined baccalaureate degree completion for traditional freshmen averages between 5 and 5½ years.

The tangible value of Running Start is that 41% of program "participants who transferred to the University of Washington [graduate] in four years, compared with [the] 31% [graduation rate] of the more traditional-entry UW students" (Finken, 2003, p. 8). Its preparatory success is also touted in the admitting participants' 3.4 g.p.a. that is higher than the 3.1 g.p.a. among traditionally admitted students to the university (Finken; Hanson, 2000).

One of Virginia's primary program benefits results from participants' propensity to continue their postsecondary education following the initial acquisition of undergraduate credits (Virginia Community, 1988). Among the participants' parents interviewed, the majority "made reference to the time- and money-saving aspects of the program" (Catron, 2001, p. 19) as major reasons for their support.

### *Transferable Credits*

During the 1998 academic year the University of Syracuse enrolled approximately 3,900 dual enrollment students (Resisberg, 1998) from 115 New York, New Jersey,

Maine, Massachusetts, and Michigan high schools (SUPA, n.d.). One important reason cited for program participation is the ability to earn transferable undergraduate credits for the eventual accelerated completion of future degree requirements (Reisberg).

Andrews (2004) found Southside Virginia Community College (SVCC) successfully transfers 93.8% of dual enrollment program credits earned by program participants to their higher educational institution of choice, while transfer colleges report to SVCC they accept 98.2% of those earned dual credits. Although the two figures exhibit discrepancies, the number of transfer credits is very high, and indicate the strong program support within Virginia's educational systems.

Unique in its approach, the dual credits earned from Utah's SLCC are not identified as taken (earned) during the high school years and are more readily transferable among all other higher educational institutions ("The Inside Track," 2002).

#### *PSEO Program Participation Offsets Tuition Costs*

Increases in postsecondary tuition and fees continue to escalate in excess of inflation and the CPI ("Is College," 1995), in large part because higher education has been deemed indispensable in- and by the employment sector (Finn & Manno, 1996). Currently, over 70% of students continue into postsecondary education within 2 years of graduation (Ruiz, 1999). As vocational curricular demands continue to become more formalized, the numbers of high school graduates needing (and attempting) advanced education are only projected to increase (NCES, 2001). For numerous high school graduates and moderate- to low-income level students in particular (Cross & Slater, 1997) the affordability of higher education remains a significant barrier (GCHEE, 2004).

The messages from employers, politicians, college administrators, and parents categorically suggest students seek college credits as early as possible (GCHEE, 2004) to reduce higher educational costs (Bailey et al., 2002; GCHEE; Reisberg, 1998) and the projected time to complete the undergraduate degree (Boswell, 2001; Catron, 2001; Mabry, 1988).

During the inception years of Illinois' dual enrollment program, Andrews and Marshall (1991) determined just one full year of college completion prior to high school graduation saved between \$4,000 and \$15,000, dependent on the postsecondary institution and the number of credits previously earned: By 2002 Marshall and Andrews increased that amount to between \$5,000 and \$24,000. Such savings are significant considering the Associated Press' reference to the General Accounting Office report which stated that "students are graduating with an average of \$19,400 in student loans" ("Young Grads," 2002).

Cross and Slater (1997) found the immediate remuneration requirement of tuition (and associated fees) is a bona fide source of discouragement particularly among first-year college students and their parents. For Ohioans, student utilization of its PSEO Program is the most effective way to address and reduce higher educational tuition and costs (Boswell, 2001; Gomez, 2001; Robertson et al., 2001). Given St. John's (1989) demonstrated correlation that direct government subsidies to higher educational institutions increase attendance opportunities (e.g., for the economically disadvantaged), it would do students and parents well to understand direct reimbursement to Ohio's higher educational institutions for courses taken in lieu of secondary offerings (ODOE, 1998b) is indeed a great program benefit.

### *Social Capital*

Tinto (1987) determined social connections enhance student perseverance, while Astin (1993) ascertained a student's peer group is crucial to academic program persistence and satisfaction with the higher education institution. The importance of peripheral influences cannot be underestimated, as Broh (2002) defines external affiliations as indispensable "social capital" - important ties forged with various "others" who act as instruments for "educational resources, and/or the transmission of information that directly benefits students' achievement" (p. 73).

Because the majority of PSEO Program courses are undertaken at the postsecondary institution, participants are afforded a more diverse array of peer interactions (Catron, 2001) to identify, associate, and bond with, which is particularly important since multiculturalism is not a comprehensive high school priority (Wolcott, 2001). Although the importance of social capital and the influence such affiliations have on recipients is not uniformly measurable with regard to student academic achievement, Broh (2002) was able to determine participation in certain interscholastic sports enhances student academic achievement, as "individual sports may build a stronger individual work ethic and locus of control" (p. 86). However, she went on to convey disappointment over finding "not all sports activities are equal in [their] consequence" (p. 84) to enhance student academic achievement or success.

### *Collegiate Student Behavior Changes*

As a result of the inherent academic differences between secondary and higher education, it is imperative that students alter their learning approach in order to increase the likelihood of their academic success (Banning, 1990). Postsecondary students are

expected to quickly develop academic competencies (Banning) while controlling their freedoms. They must manage their independence, academic preparation and research expectations and time, as well as maintain faculty interactions in order to develop essential higher educational proficiencies (Astin, 1977, 1984).

Overall academic accomplishments (evidenced by earned grades) is a key indication of the student's collegiate adaptation (Larose et al., 1998) confirming the adoption of "not only requisite intellectual skills but also desirable personal work habits and attitudes" (Pascarella & Terenzini, 1991, p. 388). Early on, PSEO Program participation affords students opportunities to become more responsible for such time management (Wolcott, 2001) and behavioral modifications, which are decisive benefits of program participation.

#### *Apprehension, Self-Efficacy, and Retention*

Cvancara (1997) found the lack of student self-confidence creates anxiety, particularly at the possibility of failing higher education's "emotionally and financially costly" (p. 10) academic rigors, and is more common than previously reported. Using the Reynolds Adolescent Depression Scale, Smith (1997) found 38% of 11<sup>th</sup> grade students at Fort Lee High School (Bergen County, NJ) have anxiety over the college entrance application process; additionally, 12% are unsure of their collegiate success and 10% report trepidation about campus life and the impending adjustments.

Bandura (1982) researched the importance of self-referent thought (the relationship between knowledge and resultant action) and formulated the effects of self-efficacy on individual behavior and motivation. Perceived self-efficacy are judgments leading to, and resulting in courses of action thought necessary for the individual to deal with



situations and how such judgments influence the actions and/or the surrounding environments. His research determined people avoid activities they assume exceed their abilities; conversely, they confidently perform those tasks of which they consider themselves capable (Bandura, 1977). Persons who possess a strong self-efficacy exert advanced efforts to master obstacles (Bandura & Schunk, 1981); subsequently, high perseverance usually produces higher performance attainments (Bandura, 1982) – a difficult concept for the timid. Those who have constructive self-efficacy are “spurred to greater effort by obstacles” (Bandura, 1982, p. 123) and overtly exhibit such behavior. From his research, Bandura (1982) documented “performance varies as a function of perceived efficacy” (p. 124): The greater the self-efficacy, the more advanced the performances and subsequent accomplishments.

Bandura (1982) went on to apply his theory to “proximal goals [that] can also serve as an important vehicle in the development of self-percepts of efficacy” (p. 134).

Silverberg (1993) affirmed the dual enrollment programs’ potential to ease entry into postsecondary institutions, wherein participants are (more often than not) stimulated to pursue educationally proximal goals contained in the completion of the associate’s degree. To be careful, program participation may also convince some students that college is not what they are currently interested in pursuing (Bailey et al., 2002).

Higher educational retention is contingent on positive encounters with the institution, faculty, and supporting personnel (Tinto, 1987) – important factors in student persistence. Because dual enrollment programs increase interactions with faculty, peers, and associated others, the participants’ confidence, skills and goals are transformed and,

more likely than not, result in greater integration of the student to the postsecondary institution.

Peterson et al. (2001) determined positive collegiate aspirations and subsequent postsecondary enrollment occurs as a result of program participation. These researchers found the majority of SLCC's dual enrollment students' decisions to continue on to college are enhanced as a result of program participation, while "42 percent reported that [program participation] had no effect, and the courses discouraged fewer than 1 percent" (p. 30).

As a result of advanced curriculum challenges, PSEO Program students are better prepared for the rigors of higher education, ultimately experiencing fewer transition dilemmas (Kulik & Kulik, 1984; Robertson et al., 2001). McConnaha (1996) confirmed those students who take sole responsibility for participation report strong and positive personal feelings as a result of the program's challenges. However, the majority of the students reported participation ensued because of other people's influences (e.g., authority figures and peers) and consequently, those individuals negatively viewed the program's social and academic outcomes. Wolcott (2001) lends some validation to these negatives, discovering the students in her study feel their high school formal and social ties diminish as a result of PSEO Program participation.

#### Theory Application and Student Advantages

Participation in PSEO Programs finds application in Bandura's self-efficacy theory, as participants who may not have initially thought themselves capable of college course undertakings (possibly) meet academic success (Hugo, 2001). Catron (2001) indirectly alluded to self-efficacy as an important outcome of PSEO Program

participation, stating “dual enrollment students, who might not otherwise consider pursuing a college degree, see they are capable of doing college-level work” (pp. 55-56) and are encouraged in their postsecondary pursuit. Early academic successes amplify perceived self-efficacy, resulting in students’ increased poise and ability to manage and predict impending challenges within various educational environments (Hugo).

Dual enrollment programs introduce students to campuses and college curriculum during their secondary years (Pennington, 2002), indirectly reinforcing the importance of self-efficacy. Robertson et al. (2001) deduced program participants (previously exposed to a campus and experienced about collegiate expectations) “arrive [within higher education] better prepared academically, with more self-confidence and a positive attitude toward college work, [which] increases the probability of their success” (p. 4), although no research data were offered.

Successful academic undertakings “register notable increases in self-efficacy [from] their experiences [which] disconfirm [their] misbeliefs about what they fear and [consequently] gain new skills to manage threatening environments” (Bandura, 1982, p. 125). Burch-Clay (1999) determined program participants do acquire advanced intellectual and organizational skills that prove indispensable in future management of college-level studies. She also found increased self-confidence and higher academic goals result once participants realize how well they actually function in the program (Burch-Clay).

### Summary

Chapter 2 examined literature surrounding dual enrollment programs, specifically some comparable programs as well as those with different titles. The ambiguity of the

associated terminology surrounding dual enrollment programs was scrutinized, as well as their increasing popularity. The results of program participation were discussed, as well as program opposition explored. One of the program's major competitors, the AP Program, was examined. The benefits of PSEO Program participation to various groups were examined. Scheduling flexibility, innovative program usage, and examination of program specifics were analyzed, as well as the history (e.g., impetus, legislation, and the decline of the state's economic tax base) discussed, which have led to spiraling tuitions. The program and its relation to community colleges, developmental education, the ability to expedite postsecondary education, transportation reimbursement, parental support, program satisfaction and relevant theory applications were also developed. The advantages of seamless education, articulation agreements, and collaboration were explained, as well as guidance counselor responsibilities, and the attributes of program participants. Chapter 3 describes the methodology, data analysis, setting, and participants included in the research. Chapter 4 examines the quantitative and qualitative research findings and Chapter 5 discusses the findings and offers recommendations and suggestions for further research.

### CHAPTER III

#### METHODOLOGY

##### Introduction

Although Ohio PSEO Program utilization has appreciably increased since its 1990 inception, it is not clearly understood why a mere 2.5% (the highest cited participation rate) of 541,137 secondary students in 1999 utilized such a liberal public education program (J. Degen, personal communication, February 26, 2004). Comparatively, Arizona's dual enrollment program (instituted 6 years after Ohio's) witnessed an 11% participation rate among senior high school students during the 2000 academic year (Campbell, 2001). One important question remains: Why do so few (eligible) Ohio secondary students take advantage of its PSEO Program, which provides and pays for higher educational offerings that substitute for secondary coursework?

To this question, a series of statements (generated and anchored in the literature review of chapter 2; see Appendix A) from a designed survey instrument was administered to Option B-eligible students (who instead participate in AP math and/or English courses) at their respective high schools. Their responses were compared against analogous numbers of PSEO Program participants (who were given the equivalent survey instrument; see Appendix B) attending a large community college in southwest Ohio to determine the analyzed response differences between the two groups and document the rationale as to why so few eligible secondary students take advantage of this dual enrollment offering. The selected students originate from five high schools that

contribute the largest numbers of PSEO Program participants (providing approximately 42% of the total) at the local community college (Institutional Planning & Research [IPR], 2004); subsequently, comparable comparisons and statistical analysis were undertaken between these similar groups (Burns & Groves, 2001).

Even though much has been written, researched, and documented surrounding dual enrollment programs, no information in the literature has been found that directly investigates the rationale of eligible high school students concerning their non-participation (e.g., specifically regarding the Ohio PSEO Program). The purpose of this chapter is to describe the setting, present a review of the research questions, and describe the design employed in conducting the study.

### Research Design

This research elicited responses to a designed instrument administered to secondary AP math and English students (who are most likely eligible to participate in the PSEO Program) from five selected Dayton, Ohio, metropolitan area high schools.

In addition to the quantitative investigation techniques, qualitative methods were utilized that provided richer descriptions of the students' responses, and were obtained by semi-structured focus group sessions that augment the survey results. Such qualitative methods are appropriate to studies that involve attempts to learn how people interpret the experiences they have undergone (and the applications thereof) in order to make sense of, and understand their world's perceptions (Merriam, 1998).

The designed instrument underwent pretesting "to determine how [the pilot tool would be] interpreted by respondents" (Sudman & Bradburn, 1982, p. 121) so as to "develop good standardized questions [as well as] weed out the ambiguities" (Sudman &

Bradburn, p. 122). The piloted instrument was checked for content validity by 5 participating PSEO Program students – similar in composition to the sample (Sudman & Bradburn) - and 3 professional colleagues, all of whom were in attendance at the community college during March 2005. The 5 PSEO Program students who reviewed the pilot instrument were excluded from overall participation, as they were not from one of the high schools included in the study. The timing of the pilot instrument pre-testing was sufficient “to alert the researcher to any respondent difficulties that were not anticipated in planning the study” (Sudman & Bradburn, p. 298) in order to correct the instrument prior to its distribution. Subsequent to revisions and the University of Dayton’s Institutional Review Board approval (Appendix C), the survey was administered.

The instrument was designed to document and formatted to analyze the responses (Kratwohl, 1993) of PSEO Program-eligible nonparticipants (who choose to participate in their high school’s AP math and English classes), in comparison to those provided by PSEO Program participants. Examination of the two groups was anticipated to generate unlike responses - differences that would specifically identify rationale for non-participation in the Ohio PSEO Program (excluding student ineligibility).

Following the respective school administrators’ approval, the number and sections of AP math and English classes were ascertained and one section of each sampled from the five high schools, totaling 10 classes of nonparticipants. The number of AP math and English sections each high school offered determined how many teachers were petitioned to permit their classes (and those willing students) to be surveyed. The PSEO Program participants at the community college also attend the same five high schools and the

equivalent designed instrument was mailed to their addresses of record for solicitation of their responses.

The mailed instrument method was utilized because of the students' varied schedules, and the sizeable number of participants made it difficult to interview each student involved in the PSEO Program at the community college. Additionally, the delivered instrument could be filled out in privacy and mailed to the researcher, providing each respondent an enhanced sense of confidentiality that was anticipated to improve the return rate.

Although the PSEO Program participants' mailing addresses were obtained from the community college, anonymity was assured as the returned instrument contained the researcher's business address as both the originating and return addresses with no tracking sequence numbers assigned corresponding to the identity of any respondent. This information was explained in the appropriate survey's cover letter (see Appendixes D, E, F, and G); however, the respondents were asked to voluntarily provide their name, mailing address, phone number, and email if they were willing to participate in a focus group, semi-structured interview session. When the instrument was filled out and returned with the pertinent and personal information included, the respondents' anonymity was breeched, implying that participation was voluntary (Sudman & Bradburn, 1982) and written consent granted to further contact them for focus group follow up. Confidentiality is subsequently entrusted to the researcher's management of the private information offered by the respondents (Burns & Groves, 1997).

The education and experience levels of the sample populations was considered in an effort to determine the appropriate wording for the instrument items, so the



participants would understand the instrument's content and intent (Sudman & Bradburn, 1982). The numerical scale utilized in both groups' instrument provides the direction and intensity of the offered responses.

Qualitative interview techniques from among three groups (i.e., AP Students, PSEO Program participants, and high school guidance counselors) were also undertaken to collect in-depth responses surrounding each group member's program knowledge, perception, satisfaction, and dissatisfaction. The use of three different sets of qualitative questions (see chapter 4: PSEO, p. 102 – 103; AP, p. 108 – 110; counselors, p. 117) allowed the researcher to delve into program specifics (for each group) that the survey could not accomplish. The survey was not administered to high school guidance counselors; however, as one of the three groups, their qualitative responses were imperative in addressing the research questions. None of the semi-structured questions was known to the group members beforehand, as it was not necessary to prepare answers prior to the interview time and place: The PSEO Program focus group was conducted at the college; the AP focus group, at their high school; and the guidance counselors were interviewed at their respective high school offices.

### Survey Instrument

Because there was (and is) no comparable instrument found within the literature, nor even a "standard way" of asking questions of the sample population (Sudman & Bradburn, 1982), the use of a piloted survey with a 5-point Likert-type scale was utilized because of its ability to "indicate not only the direction of evaluation but also the intensity" (Sudman & Bradburn, p. 125). The use of a 5-point ordinal scale (as response categories) begins with positive connotation and progresses toward the negative: 5 =

*Strongly Agree*; 4 = *Agree*; 3 = *Neutral*; 2 = *Disagree*; and 1 = *Strongly Disagree*

(Sudman & Bradburn).

Following the final version of the pilot test, the amount of time estimated to fill out and complete the instrument was determined and included in the instructions (Sudman & Bradburn, 1982), indicating not more than 20 minutes was necessary. Each survey was accompanied by a single page cover letter (Sudman & Bradburn) that, (a) introduced the researcher, (b) overviewed the purpose and significance of the research, (c) stated the importance of the students' cooperation and participation, as well as (d) explained the return timetable to PSEO Program students. The mailed survey instrument package contained a (a) stamped, self-addressed return envelope, (b) with the written promise of confidentiality, (c) instructions (if questions arose), and (d) a cordial "Thank you" expressed (Dillman, 1978).

In order to answer the research questions stated in chapter 1, analysis of the two groups' demographic responses - presented towards the end of the quantitative assessment instrument (Sudman & Bradburn, 1982) – and the responses to the investigative statements offered by the AP math and English (nonparticipants) and PSEO Program participants was undertaken. The provided responses were statistically compared to ascertain what differences exist between the groups, with presentation of the results included in chapter 4. In analyzing the resultant data, the outcome and interpretation of the inferential statistics assisted the researcher in determining whether the data represented a relationship (Heimen, 1996; Krathwohl, 1993), since it was not known what (if any) relationship existed between the responses provided by the groups beforehand.

### *Timeline*

The researcher obtained permission from the five high schools' respective superintendents and principal administrators; subsequently, the designed instrument was administered to AP students (nonparticipants) during April and May 2005. Those surveys mailed to the PSEO Program participants (on 18 April) were requested to be returned not later than one day following its receipt (although returned responses trickled in for 24 additional days). On May 19, a second mailing of the survey was sent to the PSEO Program participants in an effort to increase the response rate (Appendix H). The researcher provided those students who participated in the semi-structured interviews the promised "token of appreciation" (i.e., \$2.00 for gas and \$1.00 for parking fees, totaling \$3.00) upon completion of their focus group sessions, concluded in May 2005.

### *Subjects*

At the beginning of the 2003 - 2004 academic year, the community college in the study had 352 PSEO Program Option B students enrolled from 58 surrounding public and parochial high schools, academies, and vocational schools (IPR, 2004). The researcher was selective of the sampled groups, choosing to study the five largest high schools that each offer AP math and English courses to their students and also have PSEO Program participants. Among the five feeder schools one school sent 44 students (12.5% of PSEOP Program participants); another sent 29 students (8.2%); still another sent 25 students (7.1%); another sent 23 students (6.5%); and yet another sent 26 students (7.4%) respectively, for a combined total of 147 PSEO Program Option B students, comprising 42% of the total PSEO Program participants at the community college.

### *Selection Criteria*

By employing such specific selection criteria, the researcher was somewhat able to control the number of participants in the study. Each nonparticipant was enrolled in AP math or English courses and was so identified by appropriate administrators from each of the respective high schools. Collectively, AP students have undoubtedly given serious consideration to the importance of postsecondary education (if not outrightly signaled their intent to pursue higher education; Schmit, 1991) since they currently participate in high school coursework that (depending on the end-of-course score) has a history of direct acceptance for postsecondary education credit (National Commission on the High School, 2001). The AP students were chosen as a subject group because their individual cumulative grades most likely reflect the minimum 3.0 g.p.a. required to participate in the PSEO Program Option B (ODOE, 1998b).

The same is implied of the PSEO Program participant group members who understand their college courses substitute for high school requirements and directly lead to the accumulation of higher education credits for subsequent transfer that can result in a more expeditious college degree acquisition process (Catron, 2001; Chiang, 1998; Just & Adams, 1997). The number of courses, the amount of time, or length of involvement in the program was not considered as a basis for inclusion or exclusion of the PSEO Program students (in attendance at the local community college) – identification as an Option B participant was the essential qualifier. Full- or part time participation was not considered differential criteria, as the aim of the research sought to analyze the responses of the nonparticipants and their rationale for not utilizing the program.

In case students from the two groups were taking AP math and/or English courses and participating in the PSEO Program, they were asked to identify themselves by answering the first demographic survey statement. An affirmative response from those students participating in both programs was basis for disqualification, as the purpose of this research sought to identify the differences between the groups (considered and treated as mutually-exclusive) based on their responses and chosen program alternative. No students self-identified as participants of both programs.

The qualitative aspect of this research sought additional (volunteered) information through in-depth interviews of the two student focus groups by the use of semi-structured inquiry techniques that provided auxiliary explanations and justification for enrollment and/or non-enrollment in dual credit college-level courses.

The remaining data included responses by high school guidance counselors, one from each of the five secondary schools. They individually participated in a semi-structured interview session about student, professional, and administrative impacts, and PSEO Program concerns that included their general attitudes surrounding the program.

#### Data Analysis

Responses were analyzed and reported by measures of central tendency and standard deviations for each of the 21 instrument items (see Appendix I). The strength and direction for those responses were determined, analyzed, compared, and discussed. Additionally, frequencies, and frequency and cumulative percentages were calculated and nominally displayed for each demographic item (see Appendix J).

### Research Questions

The following research questions were addressed by the quantitative and qualitative responses to both student groups:

Question 1: How knowledgeable are students about the PSEO Program?

Although eligible students can concurrently enroll in college courses that satisfy both high school graduation and college degree requirements (Pennington, 2002), this question examined the students' overall knowledge about the benefits, advantages (and disadvantages), and particulars surrounding the program. This question also sought to determine the amount of informal and formal program information made available to the students, which may impact their participation decision.

Question 2: How knowledgeable are students that PSEO Program participation reduces the amount of time necessary to complete the college degree?

Because program participants pursue college coursework while enrolled in high school, the amount of time to complete higher educational graduation requirements is expedited (Boswell, 2001; Chapman, 2001). Inclusion of this question ascertained how aware the students of both groups are of this advantage, which may reveal another facet surrounding their participation decision.

Question 3: How aware are students that PSEO Program participation can save them and their parents against future college expenses?

With government subsidies continuing to provide diminishing aid to college students (Finn & Manno, 1996; St. John 1989, 1995), they and their parents pay increasing postsecondary instructional expenses (Cross & Slater, 1997) that are only expected to continue to rise (Brownstein, 2000, 2001; Galley, 1999). Therefore, the

earlier undergraduate credits are earned, the more noteworthy are the associated postsecondary cost reductions (Reisberg, 1998).

Inclusion of this question determines the nonparticipants' level of understanding surrounding the program's capacity to save them against future postsecondary expenses, and documents their rationale to forego participation. As one of the prime benefits, the PSEO Program participants' category responses yield important aspects for their utilization.

Question 4: What is the level of support that students receive from parents, teachers, guidance counselors and administrators (authority figures) about PSEO Program Option B participation?

Although the influence that results from parents' collegiate experiences and accomplishments (and the ensuing postsecondary knowledge) is vital to the student's higher educational ambitions, the learner's academic performance is the greatest single factor in determining the likelihood he or she will continue with postsecondary objectives (Laycock, 1984; Sedaie, 1998). Nonetheless, Hugo (2001) concluded "first generation" college students are less likely to pursue higher educational opportunities.

Catron (2001) found various program administrators have difficulty trusting secondary students' ability to navigate the collegiate material and/or its environment. Additionally, many secondary teachers and administrators are not in favor of dual enrollment participation (Wolcott, 2001) as a curricular alternative (Rentschler, 1991), particularly when AP courses and instruction are available.

Inclusion of this question documents the level of support participants and nonparticipants receive about PSEO Program participation from pertinent authority figures.

Question 5: How satisfied are students with their high school?

Many secondary students develop academic apathy (Peterson et al., 2001) because they are most often not compelled to pursue challenging coursework, and are frequently enrolled in courses that, for the most part, were previously introduced or undertaken. Predictably, "boredom" is a major source of high school discontentment (Noble & Drummond, 1992); consequently, Nunley and Gemberling (1999) determined socialization has become the primary reason for attendance. In efforts to prepare students for postsecondary challenges, schools offer AP courses [that give participants college-level instructional quality (Feller, 2004)] as well as PSEO Program (e.g., dual credit courses) participation, both of which are effective in addressing curricular boredom issues.

The recorded responses assist in explaining the students' satisfaction with the curricular and extracurricular offerings at their respective high schools, and documents participant and nonparticipant satisfaction levels concerning their high school experiences.

### *Variables*

The designed instrument compared the attitudinal responses of both groups about their specific PSEO Program knowledge, as well as their demographic responses (Phillips, 1996). Analysis of the results was undertaken individually, collectively (within



each group), and comparatively (the responses of each group compared between them).

Variations between each groups' responses were identified.

### Instrumentation

A literature and data archives search for existing questions, questionnaires, and scales surrounding or surveying high school AP math and English students, specifically addressing their nonuse of dual enrollment programs was conducted. Overall, such relevant material was not available, making "it difficult to conduct research in an area for which there exists no generally agreed-on set of definitions of terms" (Ellis & Fouts, 1997, p. 98).

Only one quantitative research tool that directly sampled PSEO Program students was located among Kiger and Johnson's (1997) research conducted at Toledo, Ohio's, Owens Community College (OCC). The study's focus investigated the program's (in-) effectiveness; they strongly concluded the need for- and recommended PSEO Program promotion and advertisement be actively undertaken. Analysis of the OCC participants', their parents', and demographic survey responses were principal in that early and valuable program research, and that survey tool was considered in this instrument's design. However, those subsequent findings and conclusions were unique to that specific PSEO Program setting and were not generally applicable to this research aim.

### The Survey Design

To address the research questions, the survey instrument items were anchored and derived from the background and literature searches (of chapters 1 & 2; see Appendix K). Quantitatively, the use of closed questions was preferred, as they reduce subject response variation and have been shown to be consistently easier to process, analyze, and discuss

(Sudman & Bradburn, 1982). Unstructured comments, which often go underreported because they provide responses that are often erratic and difficult to code for quantitative statistical analysis (Sudman & Bradburn), were solicited in semi-structured, qualitative format for augmentation and inclusion in this study.

Subject participants were instructed to utilize a Likert-like scale ranging from 5 (*Strongly Agree*) to 1 (*Strongly Disagree*) as responses to the (quantitative) instrument statements, in order to obtain precise response measurements for subsequent statistical analysis (Phillips, 1996). The numerical intensity responses yielded single values that determined how far and in what direction from the mean were the offered values. Support for use of the Likert-type measurement scale emanates from Sudman and Bradburn (1982) who suggest

Perhaps the most frequent method of measuring intensity of attitude is to build an intensity scale into the response categories, so that responses indicate not only the direction of evaluation but also the intensity – or, for cognitive components, the perception that is asked about the certainty or intensity with which it is believed.  
(p. 125)

#### Treatment of the Data

The responses' intensities were evaluated and analyzed utilizing Statistical Program System Software (SPSS) version 16.00 statistical software. The significance level, or *p*-value [meaning "probability," represented by the Greek letter alpha ( $\alpha$ )] = .05 was utilized in this study as it expresses the desired confidence limit of 95% and is most frequently used as the level of data significance among the majority of education and

social science studies (Phillips, 1996). Scores outside of these limits ( $p = .025$  in each tail) were not expected to occur.

Because the researcher could not accurately “predict the direction of the relationship” (Heiman, 1996, p. 324) or anticipate the strength of the responses between or within the two groups, the two-tailed  $t$ -test was used for statistical discussion. The  $t$ -test is most often utilized in random comparison sampling procedures (Krathwohl, 1993), and in this instance, the use of the two-tailed  $t$ -test is supported because the two investigated groups represent similar, mutually-exclusive samples of the overall PSEO Program-eligible population.

Utilization of frequency distributions and some figures are also employed to reveal the individual responses and selected response comparisons between the two groups (Krathwohl, 1993).

The groups’ responses were compared to identify significant differences that suggest tendencies for non-participation. Inclusions of the qualitative responses emanating from the semi-structured interviews add to the understanding of the quantitative response sets.

#### Application to Higher Education

This study augments the overall body of dual enrollment knowledge and existent research and is applicable to other nationwide concurrent enrollment programs, particularly because the Ohio PSEO Program was modeled after Minnesota’s, coupled with the fact that other states Departments’ of Education (DOE) have enhanced and revised (i.e., by detracting from, or adding to) each other’s programs for their tailored utilization. As such, this research offers potential applications to those dual enrollment

programs that are similar in composition and function (Krathwohl, 1993; Phillips, 1996) and the results and information may be of considerable value to program users, high school and college administrators, as well as state level directors.

### Limitations

The accuracy of the instrument responses obtained by direct, on-site sampling, as well as returned U.S. Postal Service mail was dependent upon the subjects' truthful responses and their willingness to follow instructions (Sudman & Bradburn, 1982). Even though the survey instrument terminology was modified (following the pilot test), and thought to be understood by the respondents, there are no assurances the subjects correctly comprehended the statements or even the directions "in the way the researcher intended" (Sudman & Bradburn, p. 19). Because the PSEO Program participants received and returned their surveys by mail, a non-response rate resulted, most likely due to disinterest, refusal to participate, general subject discomfort, and/or the instrument itself and is reported in chapter 4.

Additionally, the inherent "halo effect" that often results from the participants' tendency to respond to the intensity scale in terms of their overall perception, rather than addressing the specific questions (Krathwohl, 1993) has been considered. However, the trade off comes in the knowledge the researcher could not realistically or effectively interview each of the subject individuals and must therefore trust the provided answers to be an accurate measure of their understanding of each instrument item.

### Delimitations

The findings are specifically applicable to PSEO Program (a type of dual- and/or concurrent enrollment program) participants in the southwestern Ohio metropolitan area.

This research differs from other research studies completed (e.g., specifically within Ohio) surrounding the PSEO Program as nonparticipants have not been studied or documented.

### Summary

This chapter described the general design description and methodology employed to answer the research questions. The credibility of the design methodology was investigated and supported, and the researcher's perspective examined. Chapter 4 presents statistical analysis of some summary data and is displayed in APA tabulated formats. Written explanation of the data analysis is also offered in support of the descriptive statistics, which includes measurements of central tendency. Chapter 5 concludes the research and offers recommendations and areas of further research.

## CHAPTER IV

### RESULTS

#### Quantitative

##### *Introduction*

The purpose of this research was to examine and document the reasons why the vast majority of Ohio's high school students do not take advantage of the state's PSEO Program, particularly Option B, which permits qualified students to receive higher education credits (at no personal cost) that simultaneously build a collegiate transcript and fulfill high school graduation requirements. In spite of such a munificent offering, the 1999 - 2000 academic year witnessed a less than 2.5% program participation rate among Ohio's eligible high school students.

To ascertain the rationale for such low participation, a Likert-type instrument containing 21 specific interest and seven demographic items was piloted in order to collect information concerning the research questions posed in chapter 1. Initially, 5 PSEO Program students (who were not included in the final sample population) and 3 colleagues (community college professors) were asked to answer and critically examine the piloted survey instrument.

The designed instrument was administered to high school AP math or English students (nonparticipants) and PSEO Program participants attending a large midwestern community college. The intent was to strengthen the internal validity of the study by comparing two response sets that emanate from the same high school student pool and

whose members have comparable academic qualifications and intentions. The two sampled groups are similar in composition as they (a) originate from the five largest secondary schools in the adjacent vicinity, (b) have a minimum cumulative g.p.a. of 2.5 (most probably greater), and (c) have demonstrated their personal intent to pursue higher educational endeavors.

Authorization was obtained from the superintendents of the five respective school districts and following coordinated permission of administrators at the high school levels, the researcher directly sampled 10 AP math and English classes. With the aid of the admissions department at the community college (Appendix L), the researcher was able to obtain the names and addresses of the PSEO Program participants (who are from the same five high schools) and mailed the identical survey instrument to those students.

The second part of the research includes qualitative interviews and focus group responses (that enhance and augment the quantitative data) and is described in this chapter's "Qualitative Results" section.

#### *Addressing the Research Questions*

The specific investigative items contained in the survey were "clustered" with the intent of addressing the research questions. The responses to survey items 3, 6, 20, and 21 addressed the first research question: "How knowledgeable are students about the PSEO Program and its advantages?"

The responses to survey items 7, 13, 16, and 17 addressed the second research question: "How knowledgeable are students that PSEO Program participation reduces the amount of time necessary to complete the college degree?"

The responses to survey items 14, 15, 18, and 19 addressed the third research question: "How aware are students that PSEO Program participation can save them and their parents against future college expenses?"

The responses to survey items 8, 9, 10, 11, and 12 addressed the fourth research question: "What is the level of support that students receive from parents, teachers, guidance counselors and administrators (authority figures) about PSEO Program Option B participation?"

Finally, the responses to survey items 1, 2, 4, and 5 addressed the fifth research question: "How satisfied are students with their high school?"

#### *General Demographics*

Both groups demonstrated that most thematic program participation occurs during their senior year. The PSEO Participants ( $n = 60$ ) reflect zero (0.0%) freshmen participation; 5 (8.3%) sophomores; 12 (20.0%) juniors; and 43 (71.7%) seniors and their respective percent of the total participation. Similarly, the AP group ( $n = 192$ ) showed no freshmen (0.0%) or sophomore (0.0%) participation, with 28 (14.6%) juniors, and 164 (85.4%) seniors taking (at least) AP math or English courses.

The ages of the participants for the AP group ( $n = 192$ ) were 11 (5.7%) 16-year-olds; 69 (36.0%) 17-year-olds; 111 (57.8%) 18-year-olds; and one (0.5%) 19-year-old. The PSEO Program participants ( $n = 60$ ) reported 4 (6.7%) 16-year-olds; 19 (31.6%) 17-year-olds; 36 (60.0%) 18-year-olds; zero (0.0%) 19-year-olds; and surprisingly, one (1.7%) 20-year-old. Kiger and Johnson's (1997) survey of PSEO Program participants at Ohio's OCC established the mean age of program participants to be 17.95 years and is similar to the age findings obtained within this study.



Pursuant to a PSEO Program participation decision, personal or reliable transportation is essential. Among the AP students ( $n = 187$ ), 157 (84.0%) stated they had reliable transportation, whereas 30 (16.0%) reported they did not. All (100%) of the PSEO Program participants ( $n = 60$ ) stated they had reliable transportation to attend the postsecondary institution (which is an expected finding, although such a unanimous response does not indicate students possess individual or personal modes of transportation, or that they are licensed drivers).

The g.p.a.'s sought to determine the similarity and composition of both groups' academic records. Of the AP students ( $n = 192$ ), 166 (86.5%) reported their g.p.a. to be 3.5 or higher; 19 (9.9%) had g.p.a.'s between 3.0 and 3.4; and only 7 (3.6%) reported their g.p.a. to range between 2.0 and 2.9. Among the PSEO Participants ( $n = 59$ ), 32 (54.2%) reported their g.p.a. to be 3.5 or higher; 16 (27.2%) had g.p.a.'s between 3.0 and 3.4; and 11 (18.6%) acknowledged their g.p.a. to range between 2.0 and 2.9. Comparatively, the cumulative g.p.a. percentage above 3.0 is demonstrably recognized, AP 96.4% and the PSEO group 81.4%. Although the PSEO Program participants reported a higher percentage of members with g.p.a.'s between 2.0 and 2.9, it is important to note their cumulative high school g.p.a. must only be above 2.5, as that is the cumulative minimum g.p.a. counselors must certify to permit program participation.

The gender of the AP respondents ( $n = 192$ ) was 102 (53.1%) males, while 90 (46.9%) were females. Among the PSEO Program participants ( $n = 60$ ), 40 (66.7%) were males and 20 (33.3%) were females. This gender participation finding is unexpected, particularly because Kiger and Johnson (1997) found a greater PSEO Program

participation rate among females than males at OCC. Such is not the case in this study, as the male participants outnumber females by a 2:1 ratio.

The information from item 22 sought to ascertain if any AP student was dually-participating in the PSEO Program, wherein an affirmative response would disqualify that survey, as that respondent's perspective of the two programs would have most probably resulted in a comparison of them. Of the 192 AP respondents, none (0.0%) were participants in the PSEO Program. Three surveys needed to be visually observed (because of blank responses), and were determined to be AP participants who were not also PSEO Program participants; therefore, all collected AP surveys were included in the overall analysis and results. The three surveys with this response item omitted were known to have originated at two different high schools, wherein the respective counselors were contacted, verifying that no AP members were PSEO Program participants.

### *Reliability Analysis*

When the first set of statements (items 3, 6, 20, & 21) was analyzed the number of PSEO Program survey participants ( $n$ ) was 59. Reliability analysis was obtained using SPSS version 16, yielding a Cronbach alpha coefficient of - .5333. Conversely, when the Cronbach alpha reliability coefficient was run against the 189 AP students it was calculated to be - .0591.

Item 20 was reverse-coded before its statistical evaluation as it was negatively worded; the rationale being that if it is "true" that the application process was "not discouraging," the students would have been expected to answer this question affirmatively; however, the rest of the instrument items were coded such that an affirmative response was answered with the selection of *strongly agree*, or *agree*. In this

case, such answers would actually be a “negative” response (e.g., the application process was indeed discouraging) in total opposition to the response direction pattern applicable for the rest of the instrument. Subsequently, the decision to reverse-code this question was made so that *disagree*, or *strongly disagree* would indicate a “positive” response (suggestive of “non-affirmation” of the statement) – meaning the process was “not discouraging.” Nonetheless, neither of the calculated alpha values indicated these items exhibited a good cluster to produce statistically acceptable response reliabilities.

The second set of statements (items 7, 13, 16, & 17) was analyzed, wherein the PSEO Program participants’ group number was reduced by two,  $n = 57$  (because 2 respondents did not completely fill in their responses). The reliability coefficient analysis for this group of statements was found to be .3158, while the AP group’s ( $n = 194$ , as more questions were properly filled in than the first cluster) reliability analysis was calculated to be - .1972. Once again, neither of these values indicated this cluster of statements had an alpha value to indicate they could be combined to determine if the respondents were aware of how much time the PSEO Program would save them in their quest to complete the college degree.

The third set of items (14, 15, 18, & 19) yielded a higher and more reliable Cronbach alpha coefficient, wherein evaluation of the PSEO Program participants ( $n = 59$ ) yielded a reliability coefficient of .6470, while the AP participants’ ( $n = 193$ ) reliability coefficient was determined to be .6223, indicating a degree of relatedness and consistency in the answers provided for this cluster of questions that sought to determine their awareness to save (them and their parents) impending college expenses as a result of program participation.

The fourth set of statements (items 8, 9, 10, 11, & 12) was intended to determine the level of support the students received (particularly from authority figures) regarding PSEO Program participation. Once again this cluster yielded less than desirable Cronbach alpha values: PSEO Program participants ( $n = 60$ ) was .2056, while the AP students surveyed ( $n = 192$ ) were determined to have a reliability coefficient of .5820.

Finally, the fifth set of survey items (1, 2, 4, & 5) was expected to ascertain the level of satisfaction the two groups have with their current high schools. Respectively, the PSEO Program participants ( $n = 59$ ) only yielded a .1075 reliability coefficient, whereas the AP respondents' ( $n = 189$ ) outcome was -.0996. Once again, this cluster of questions did not demonstrate the capacity to reliably measure the level of satisfaction present within or between the two groups.

### Statistical Results

In order to prevent the total negation of the project, the Bonferroni Correction of Multiple-Comparison was utilized. The Bonferroni correction was determined by taking the number of tests and subtracting those items within the cluster (i.e., recall that only one cluster, and its four items, was found to be acceptable) from the total number in the instrument ( $21 - 4 = 17$  remaining). The alpha value ( $*p < .05$ ) was divided by the 17 remaining items ( $.05/17$ ) resulting in a new, alpha of  $***p < .0029$  as the critical value to be used to test the individual obtained  $p$ -values for the 17 outstanding statements. Summarily, the alpha value was lowered to account for the number of comparisons being performed in order to avoid insignificant or unauthentic positive values (Shaffer, 1995).

As a result, 11 individual instrument items resulted in significant differences (as their obtained  $p$ -values were less than  $***p \leq .001$ ), while six items remained

nonsignificant (e.g., the obtained  $p$ -values were shown to be greater than  $***p \geq .0029$ ). Item 11 (initially nonsignificant) became significant when the seven nonsignificant items were considered and the Bonferroni adjustment for this item determined after taking  $*p < .05$  and dividing by those seven nonsignificant items ( $.05/7$ ), yielding a subsequent adjusted alpha value of  $***p < .0071$ . Consequently, item 11 resulted in a significant finding of  $***p = .006$ , which is less than the recalculated Bonferroni adjusted value of  $***p < .0071$ .

Summarily, results from items 1, 2, 4, 6, 9, 11, 12, 13, 16, 20, and 21 indicate significant differences between the responses provided by the PSEO Program group and the AP group. Whereas, items 3, 5, 7, 8, 10, and 17 showed nonsignificant differences ( $***p \geq .001$ ) between the responses provided by the two groups in the study.

### *Cluster 3: Statistical Interpretations*

Four items were designed to address the research question, "How aware are students that PSEO Program participation can save them and their parents against future college expenses?" Item 14, "The cost of college tuition, fees and textbooks are free for me (and my parents) under PSEOP Option B"; item 15, "If I meet federal guidelines, it is possible to be reimbursed for transportation costs to the institution of higher learning as a PSEOP Option B participant"; item 18, "PSEOP Option B participation will reduce the necessary cost to complete my higher education"; and item 19, "The college credits earned as a result of PSEOP participation will transfer into most higher education programs" were contained in the only cluster that yielded acceptable Cronbach alpha values of .6470 (for PSEO Program participants) and .6223 (for AP students), making it unnecessary to individually consider Bonferroni's adjustment procedure for these items.

To this cluster, the AP group ( $n = 195$ ) responded with a mean average value of 3.33 (towards *neutral* - calculated by adding the four response mean totals and dividing by 4) for the four items, while the PSEO Program group's responses netted a mean average value of 3.88 (towards *agree* - determined in like manner). A  $t$ -test was completed on the two values, subsequently revealing a  $***p = .000$  (the exact probability value is unknown, because the SPSS version 16 program only displays to 3-significant places). The calculated  $p$ -value was determined to be less than the established critical value of  $***p < .001$ , thereby indicating a significant difference between the responses offered by the two groups relevant to this item cluster. The numeric outcomes confirm the responses are indeed different.

#### *Individual Statistical Interpretations*

When asked if, "[they] believe AP courses are as challenging as the equivalent college courses," the AP group responded with a mean score of 3.85 (answering more towards *agree*) while the PSEO Program group yielded a mean score of 3.34 (towards *neutral*). A  $t$ -test was run on both mean outcomes, yielding  $t = 4.015$ ,  $***p < .001$ , indicating a significant difference in their responses; wherein, the AP group felt more strongly their academic coursework to be as challenging as (what they believed to be) similar college courses. The AP group felt more strongly than the PSEO Program group that AP courses (and their level of difficulty) are commensurate with the level of difficulty expected in college of the equivalent courses.

The two groups were asked if "[they are] satisfied with [their] high school's current offering of AP courses." The mean score for AP participants was 4.16 (towards *agree*) (they were satisfied with the curricular offerings) while the PSEO Program participants

mean score of 3.47 (towards *neutral*) indicated their level of satisfaction was not as strong as that of the AP students. A *t*-test was run against the two mean scores, yielding  $t = 4.752$ ,  $***p < .001$ , verifying a significant difference between the level of satisfaction surrounding AP course offerings between the groups. Those AP participants who remain at the high school voiced stronger satisfaction with the AP curricular offerings than those who participate in courses away from the secondary institution.

When queried that "admitting colleges or universities may not accept AP courses for transfer credit," the mean score for the AP group was 2.87 (towards *neutral*) and the PSEO Program group's mean score was 2.71 (also towards *neutral*). A *t*-test was conducted between the mean scores (due to unequal variances, the *t*-test assuming unequal variances was used), yielding  $t = 1.194$ , resulting in a nonsignificant finding (i.e., Bonferroni adjustment was employed, and the null was subsequently not rejected). Both groups are aware that AP courses may not be accepted for higher education credits, no matter the end-of-course score.

"High school is boring," was included as a possible reason for program participation. The mean score for the AP group responses was 3.01 (generally *neutral*), while the mean score for the PSEO Participants was 2.12 (towards *disagree*). A *t*-test of the mean differences was conducted, yielding  $t = 5.475$ ,  $***p < .001$ , resulting in a significant difference between the groups' responses. The AP group was *neutral* about the level of boredom they perceived as a result of their high school experiences; however, the PSEO Program group was more definitive, generally *disagreeing* that high school is boring.

Does “[a] loss of closeness with high school classmates results because of PSEO Program participation?” The AP group yielded a mean score of 2.71 (towards *neutral*) while the PSEO Program participants’ mean score was 3.13 (also generally *neutral*). A *t*-test of mean differences was computed (due to unequal variances, the *t*-test assuming unequal variances was used) and found to be  $t = 2.181$ ,  $*p < .05$ , revealing a nonsignificant difference between the responses of the two groups, neither group convinced that PSEO Program participation causes a loss of closeness among classmates.

Do “PSEOP participants have greater control (and flexibility) over their academic schedules?” The AP respondents had a mean score of 3.06 (generally *neutral*), while the PSEO Program participants’ mean score was determined to be 4.48 (in between *agree* and *strongly agree*). A *t*-test was employed, yielding  $t = 10.719$ ,  $***p < .001$ , resulting in a significant difference between the two groups’ responses. The PSEO Program participants definitively responded that they exercise more control over their schedules than the AP group, who were generally *neutral* to the statement.

When asked whether “[they] expect to repeat high school level coursework during [their] first 2 years of college,” the mean score of the PSEO Program group was 3.58 (towards *agree*) while the mean score of the AP group was 3.53 (again, towards *agree*). When the *t*-test of mean differences was run,  $t = 0.345$ , a nonsignificant finding resulted. Both groups responded similarly, generally believing the secondary and postsecondary curriculums are comparable, specifically during the initial higher educational years.

When asked if “PSEOP information was provided to [their] parents/guardians,” the mean score value for the AP group was 3.39 (towards *neutral*) and the PSEO Program participants’ mean score was 3.55 (towards *agree*). The *t*-test of the mean differences



was determined to be  $t = 0.943$ , resulting in a nonsignificant finding between the two groups. Both groups' responses indicate that PSEO Program information was disseminated to their parents/guardians by their respective high schools.

When asked to respond to the statement, "the decision to investigate or not to investigate the PSEOP was my choice," the PSEO Program participants yielded a mean score of 4.55 (towards *strongly agree*) while the AP students had a mean score of 4.15 (more towards *agree*). A  $t$ -test of mean differences was run and  $t = 3.393$ ,  $***p < .001$ , offering a significant difference between the responses of the two groups. Although both groups stated they were instrumental in their decision to investigate PSEO Program specifics, program participants *agree* more that they were responsible for that choice than the AP group.

The response to the statement, "my participation in the PSEOP was primarily at my parents' suggestion," yielded the AP group's mean score of 2.33 (towards *disagree*) whereas the PSEO Program participants' mean score was 2.22. A  $t$ -test of mean differences was undertaken and  $t = 0.785$ , the result between the two groups was not significant. Both groups generally *disagree* that their parents were responsible for their decision to participate or not in the PSEO Program.

When the participants were asked if "[their] high school counselors informed [them] about the PSEO Program," the mean score for the PSEO Program participants was 3.00 (*neutral*) while the mean score for the AP students was 3.48 (also towards *neutral*). A  $t$ -test of the mean differences was run with  $t = 2.797$ ,  $**p = .006$ , which initially was not a significant finding utilizing the Bonferroni adjustment of the 17 nonclustered items, the critical alpha value was calculated to be  $*p = .0029$  (as noted on page 93).

Subsequent to 10 significant findings, utilization of the modified Bonferroni adjustment ( $*p = .05$ , divided by the seven remaining nonsignificant items) yielded the new critical  $*p = .0071$ , which was greater than the obtained  $**p = .006$ , resulting in a significant difference between the two groups' responses for this item. The AP students more affirmatively perceive the guidance counselors present PSEO Program information to them; however, the PSEO Program participants expressed indifference surrounding the program information they received from their guidance counselors.

Do the "[students'] high school teachers [inform them] about the PSEO Program[?]" The mean score for PSEO Program participants was 2.32 (towards *disagree*) while the AP group's 3.10 mean score was a *neutral* finding regarding this issue. When the  $t$ -test of mean differences was run against these two scores,  $t = 4.833$ ,  $***p < .001$ , resulting in a significant difference between the two groups. The PSEO Program students' statistical results suggest their teachers generally do not inform them about the program (a finding that is also qualitatively supported by the program participants); in opposition, the AP students offered that their teachers are informative about the PSEO Program.

To the statement, "I am aware that the PSEOP Option B courses successfully passed will substitute for my high school courses and fulfill my graduation requirements," the PSEO Program students' mean score was 4.53 (toward *strongly agree*) while the AP students' mean score was 3.70 (toward *agree*). A  $t$ -test of mean difference was run (due to unequal variances, the  $t$ -test assuming unequal variances was used), and  $t = 6.705$ ,  $***p < .001$ , yielding a significant difference in the way the two groups responded to this item. Although both groups know dually-credited PSEO Program

courses also fulfill high school graduation requirements, the PSEO Program participants are more positive than AP members about the substitution value of postsecondary courses.

The responses to "PSEOP Option B participation will reduce the time necessary to complete my higher education degree," were 4.25 (towards *agree*) for PSEO Program participants, while the AP students' mean score was 3.22 (towards *neutral*). A *t*-test of mean differences was run on these two scores and  $t = 7.618$ ,  $***p < .001$ , and determined to be a significant difference. Although both groups are aware of the benefits of obtaining collegiate credits early on, and the resultant advantage of time reduction to complete postsecondary education, the PSEO Program participants responded with more conviction about this point than did their counterparts.

When asked of the groups' awareness that "only 43% of all students finish their baccalaureate (bachelor's) degree within 4 years," the AP students yielded a mean score of 2.76 (towards *neutral*) while the PSEO Program participants had a mean score of 2.71 (also towards *neutral*). A *t*-test of the mean differences was calculated between the two scores resulting in  $t = 0.394$ , which turned out to be a nonsignificant difference between the groups' responses. When the raw scores of this question were examined the AP group had 106 *neutral* responses (54.6%;  $n = 194$ ), while the PSEO Program participants had 40 *neutral* responses (67.8%;  $n = 59$ ), indicating this item was not worded in such a way as to elicit a response that could demonstrate knowledge of the stated fact without some prior knowledge.

Item 20 stated, "The PSEOP program application process discouraged me from program participation." As previously explained (see pp. 91 – 92), this item was reverse-

coded before being statistically evaluated because it is negatively worded; therefore, *disagree*, or *strongly disagree* became a “positive” response, while *agree* and *strongly agree*, were changed to show “negative” responses (and the assigned values adjusted accordingly), suggesting the process was not discouraging. The AP group had a mean value of 3.39 (slightly *neutral*) while the PSEO Program participants had a mean score of 3.98 (toward *agree*). A *t*-test of the mean differences was completed, with  $t = 4.413$ ,  $***p < .001$  resulting in a significant difference between the responses provided by the two groups. The PSEO Program participants firmly *agree* the application process is discouraging, wherein the AP group also affirms the process is discouraging but with a decreased degree of conviction.

The final statement, “As a PSEOP Program Option B participant, I can still participate in my high school athletic and/or extracurricular activities,” resulted in the AP group having a mean score of 3.40 (towards *neutral*) while the PSEO Program participants’ mean score was 3.83 (towards *agree*). A *t*-test of mean differences was calculated resulting in  $t = 3.310$ ,  $***p < .001$ , a significant difference between the responses offered by the two groups. Although the AP group is aware that extracurricular participation is permitted under the PSEO Program rules, the program participants are more certain of this guideline than their counterparts.

### Qualitative Results

Qualitatively, two essential focus groups were identified for investigative analysis regarding their rationale as to why so few students participate in the Ohio PSEO Program Option B: PSEO Program participants and AP Students (nonparticipants). Additionally, 5 guidance counselors were individually interviewed and their recorded responses

collectively examined for recurrent themes about the PSEO Program and incorporated into the research.

### *PSEO Program Participants*

During the month of April 2005, the quantitative instrument was mailed to each of the PSEO Program participants (from the five largest “feeder” high schools) who were in attendance and participating at the community college during January through March 2005 (winter) term. On the returned form, the researcher requested volunteers identify themselves for inclusion into a focus group; subsequently, volunteers provided their contact information. The researcher contacted the volunteers, and May 21, 2005, was scheduled for the PSEO Program focus group session. Nine out of the 17 volunteers met with the researcher in an in-depth session to explore the following questions:

- Please provide three major reasons that you choose to participate in the PSEO Program?
- PSEO Program Option B participation yields increased high school academic scheduling flexibility in the selection of your classes, which may or may not be important when considering part-time employment opportunities. Could you explain how significant this fact is in your decision to participate in the program?
- FOLLOW-UP:
  - Did you ever take AP math or English courses?
  - How do you compare college course work to high school course work?

The session lasted approximately 75 minutes and was cassette tape-recorded and subsequently transcribed (after receiving permission from those PSEO Program focus group volunteers). Two overarching themes emerged among the group: Their objections surrounding the "high school atmosphere" and the advantages of participating in the PSEO Program.

### *High School Objections*

Strong and consensus opinions surrounding high school faculty quickly materialized, foremost of which centered on "lack of teacher respect." One individual stated "the teachers know they *own* you from 8 [a.m.] to 3 [p.m.]; they know they got you and can do anything they want to you!" In support, one student stated because he was not doing as well as he should have been (and was in danger of failing the class), his teacher offered "busywork" requirements to pass the course, knowing the student could not turn down the request because the course was needed for graduation. He stated he knew he could not leave high school without the diploma (because of its far-reaching significance); whereas, (in contrast) he felt even if he was not doing well in any college course, he would not have been "put upon" in such a manner by its instructor, and could have even taken the course again (without the teacher's callous "badgering").

It was collectively stated the secondary teachers "do not respect the students," as they are often treated like "little kids." In contrast, all of the participants agree with one focus group member's statement that their professors make "no [perceptible] treatment differences between [participants] and other [postsecondary] class members." One student, who stated he had "never experienced [such] freedom," did not initially think it was necessary to study (for a particular college class). He stated sometime later the

professor calmly said to him, "You are flunking this class!" As a result, the student proclaimed the incident to be a "turning point in my life; I grew up, knowing that I had to take on personal responsibility and do this work" to pass the class. He went on to say because, "no one was standing over me to do it" the challenge became personally gratifying and he has not been slacking in any more of his academic undertakings since that incident.

Such issues of "control" of the students were also asserted in the "punishments" that could be capriciously doled out, particularly if students are late to class. They reported times when being late to class was "not intentional" (i.e., personal hygiene issues, or excessive traffic difficulties) wherein "Saturday school was still given as punishment." This was stoutly resented because it meant 4 additional hours that they could have gone to work, studied, or at least not had their time impinged upon because of "the power the teachers exercise over [them]."

Collectively, they agreed with one participant who took exception to "the bells," stating "the bells run your life, demanding you be in this place or that place at this time or that time!" Another student stated the difference in the community college is that "if you come in late to the class (for whatever reason, and are for the most part respectful) there is nothing said" or penalties exacted.

They also detested the lockstep "eight [a.m.] to three [p.m.]" inflexibility associated with "school times." One student stated, "I am a 'night owl'" and could not "honestly get to sleep before 1:30 [a.m.]," which attributed to her "numerous failures to arrive at school on time." She was really appreciative of the fact she could "get her [PSEOP] classes scheduled for late mornings and early afternoons, or anytime of the day

[she] wanted.” These PSEO Program students strongly feel, and agree with another volunteer’s statement that they benefit from “the ability to set their own class schedules” and such privileges result “in higher academic grades,” because they can study “when they want to, [and] at the best times for [them]” – day or night.

One student firmly stated he was an “opponent of compulsory education” because at the high school level, “most of the students don’t even want to be there; they are there to socialize – not to learn!” Another supporting student went on to say, “Who cares about the party that you went to last night, or who’s ‘going with’ whom?” She adamantly said because such students are “not there to learn” they “weigh down the speed of the [entire] class.” The general consensus of the PSEO Program focus group participants is that “high school is ‘boring’ because of the immaturity of [their] classmates; the slow pace of the classes; and the instructional style” employed by many of the high school teachers. In contrast, one participant said collegiate classes are “more exciting, making you want to do the work, because everyone – your classmates and your professors – are excited to be there!” She went on to declare such in spite of the fact “the [collegiate] pace takes some getting used to,” but is acceptable particularly since “everyone is there to learn [the curriculum] and do the work.”

Four focus group participants described “ridiculous amounts of ‘busywork’” as required homework assignments that dominate secondary school curricular requirements. They stoutly contend most of the homework at the high school level is excessive – sometimes not counting toward their course grades - and “not very beneficial” in the overall intent of improving academic excellence. Such objection is in comparison to the alternative that “either you study and turn in the required homework, if there is any, or



face the consequences,” stated by another focus group member about the academic work required at the college level.

### *PSEO Program Advantages*

The focus group’s focal point centered around the advantages associated with PSEO Program participation, and their supporting views were strongly vocalized. Initially, the researcher expected the program’s ability to save participants against future collegiate costs to dominate the session. Surprisingly, although cost advantages were mentioned, that benefit appeared somewhat inconsequential in comparison to some of the other stated advantages the participants enjoyed.

They are enamored by the “college atmosphere” that foremost includes the respect of the faculty, who, one focus group volunteer said, “do not care about age – they treat everyone equal, regardless.” Every member of the group strongly valued the “tremendous diversity” found at the community college campus. Such was not limited to race (although included), as they were more appreciative of the various age groups and vast experiences common to the student body. One student stated from among such a diverse assemblage “role models are easy to find, because there are so many!” The researcher found this statement to be of particular interest since diversity issues were not anticipated to be significant, particularly among youthful high school students.

As previously alluded to, the focus group students feel they have markedly matured since their immersion in the community college (because of the PSEO Program). Although one participant stated his “personal commitment to getting good grades increased [his] dedication to learning the material,” the group admitted they did not seriously undertake such endeavors while in their respective high schools. Three focus

group members felt because "no one was forcing [them] to do it," both their personal responsibility and self-motivation to academically perform increased in importance as a result of program participation.

All of the PSEO Program participants approve of and appreciate the "flexibility in scheduling classes" afforded them at the college level. Seven of the 9 participants reported they hold "part-time employment and [that] participation [at the college level] affords [them] more time to devote to work," with one individual stating his employer "better utilizes [him] because of [his] flexible hours of availability." Surprisingly, another member stated because of her flexible schedule she actually possesses "*more* time to devote to academic studies and homework," which (they collectively agree) ultimately frees participants for other extracurricular and personal undertakings.

Overall, program satisfaction was anticipated to be high, since the students voluntarily chose to participate in the PSEO Program. Indeed, the session revealed and conveyed enthusiastic satisfaction for the program; however, such program support and fervor were explained from a contrasting standpoint of what they epitomized as *wrong* with their individual (and collective) high school program(s). When directly asked for negatives associated with the PSEO Program, the researcher uncovered only one: (Because of the high school core course requirements), the students categorically resented and agreed with one student's statement about "the limited number of postsecondary courses [they] are permitted to take," which precludes their ability to undertake PSEO Program participation on a full-time basis (as all of the focus group members were part-time program participants).

### AP Students

Permission was granted (by appropriate superintendents, principals, and AP teachers) to enter and directly distribute the quantitative instrument in either AP math or English classes at the same high schools, which are the five largest PSEO Program feeder schools to the community college. During the data collection, the researcher once again appealed to the AP participants to consider volunteering to be part of a focus group, by providing contact information. A modest list of volunteers ( $n = 26$ ) was collectively compiled from the high schools and a one-hour session request (to conduct the focus group interview) made to each of the respective principals during May 2005. Unfortunately, the requests were made during the month of high school graduation, wherein four of the high schools did not accommodate the request. However, one high school eagerly assisted, scheduling an AP Focus Group interview 6 days before commencement.

The initial interview was scheduled to include 10 AP students, but only 6 participated. The following questions were discussed, recorded, and transcribed (after the participants' verbal permission was obtained):

- Are you aware that if the minimum end-of-course AP score is not attained the course probably will not be considered for college equivalency credit?
  - Are you aware of the approximately \$100 costs necessary to take and score the AP end-of-course course test for the course to be considered transferable?

- Because high school teachers teach AP courses, are you aware that college admissions officers may question the course's collegiate equivalency and not accept the course for college credit?
- Are you aware that the majority of PSEO Program students pass their college courses with a "C" or better, and institutions of higher learning more readily accept transference of these courses than AP courses?
- FOLLOW-UP:
  - Did you know that PSEO Program participation is an excellent way to enhance your academic profile with higher educational admissions officers?
- PSEO Program participants at the community college have the opportunity to complete their postsecondary General Education requirements for subsequent university transfer credits. Are you aware that in doing so students can save between \$5,000 and \$24,000 (depending on the postsecondary institution and the number of credits earned) for every full year of full time PSEO Program participation?
- FOLLOW-UP:
  - With higher education costs continuing to rise more than the CPI or inflation, please explain how you will fund your higher educational endeavors.
- Are you a "confident" person? Do you think yourself capable of successfully undertaking the PSEO Program Option B?

- Explain how your high school peers en-/discourage you from PSEO Program participation?
- FOLLOW-UP:
  - How strongly do you feel about remaining in high school (with your friends) than participating in the PSEO Program? Please explain your answer.

During the 60-minute session, the following themes emerged: (a) Their knowledge of the AP end-of-course tests, (b) transferability of PSEO Program and AP coursework, (c) support of PSEO Program, (d) social importance of high school cohort, (e) knowledge of PSEO Program, (f) parents' education level, and (g) funding of their postsecondary education.

#### *End-of-Course Test Knowledge*

All of the AP students are aware of the \$82 end-of-course test cost (for the admitting postsecondary institution to consider granting collegiate credit for equivalent classes). They are very aware the highest score they can receive on the test is a "5," wherein one AP focus group member stated "no credit would be considered if [they] do not earn a minimum '3' on the [applicable] AP end-of-course test."

#### *Transferability of PSEO Program and AP Coursework*

The AP focus group participants are well aware if the admitting postsecondary institution grants them undergraduate credits for their successful AP course efforts the "\$82 end-of-course fee is well-worth the [invested] cost," extra time, and supplementary efforts. The researcher asked if they thought the postsecondary institutions preferred PSEO Program courses to AP courses, or vice-versa. One focus group member

responded the admitting institutions would be “more [inclined to] accept PSEO Program courses over AP courses” (yet the group chooses to forego such an opportunity). Another member stated “admitting colleges and universities are becoming increasingly ‘stingier’ [in accepting] AP credits,” evidenced by friends who “did not receive the number of transfer credits they [initially] anticipated” from their completed AP classes and satisfactory end-of-course test results. The students are resigned to the fact many classes they successfully completed in high school may very well be repeated at the postsecondary institution, particularly if transfer credits are not awarded.

### *Support of PSEO Program*

The researcher was interested in the amount of PSEO Program information made available to the students by their school administrators. One AP focus group member reported “the [respective] high school counselors freely disseminate [such] program information.” Each of the students also reported their counselors “answered all of the questions concerning the program” to those who further pursued program information. Following interviews with both the counselor and the AP students at their specific high school, the researcher is convinced its counselors conscientiously make diligent efforts to (a) support the state mandates associated with the PSEO Program, (b) disseminate relevant program information, (c) support the personal education desires of the students and parents, while (d) working with the community college personnel to manage PSEO Program requirements and requests.

### *Social Importance of High School Cohort*

One collective and prevailing reason given by the AP focus group for their decision not to participate in the PSEO Program is “the reputation of the teachers who teach the

AP classes.” One student went on to say the “strenuous assignments and [associated] homework are beneficial for [college] preparation” essential at the ensuing postsecondary institution. The group went on to say such participatory decisions are supported from the positive reports offered by previous AP students who subsequently return from colleges and universities during recess periods, and share their “success testimonies” with current secondary students.

These students’ decision to favor AP class participation is closely associated with the opportunity to “remain associated with their high school,” and its extracurricular activities. This decision to forego the generous PSEO Program participation is directly attributed to the importance they place on their peer associations. One focus group member’s mother was adamantly opposed to her son’s participation, citing “she missed her high school years because she participated in a similar program.” Another student revealed her parents do not support the PSEO Program (nor did they entertain the thought of their child’s participation), although no specific reason was offered.

In contrast, one student stated he particularly “loved my AP classes” because “everyone in those classes are [sic] there because they really want to be there!” Another student went on to say “AP participants work harder because they want to be there.” Additionally, the student revealed AP participants “closely associate with each other, because we are in most of the same classes.”

During the session, the researcher asked, “Do such associations lead to ‘elitism’ among AP students?” In response, one student humorously admitted, “yes, it does” but went on to say such associations were acceptable because these “students are among the

hardest working students in the school” and “are more focused on preparing themselves for [postsecondary] success and opportunities than the majority of non-AP students.”

### *Knowledge of PSEO Program*

One of the advantages the PSEO Program focus group cited for participation is the known scheduling flexibility that is unavailable to AP students; nonetheless, such an advantage was/(is) not enough to persuade these AP focus group students to utilize the PSEO Program. One of the critical disadvantages 3 of the students offered as to their reasons for non-participation in the PSEO Program surrounds the transportation issue. One student “[does] not want to leave high school to attend college and have to return [to the high school] for other classes or extracurricular activities.”

Four of the students also cited they do not feel comfortable going to school with so many people of diverse ages (i.e., not specifically eliminating culture or ethnic differences, either). One student promptly explained she “feel[s] more comfortable with students of my own age,” wherein the others all agreed. After further discussion, the researcher accepts and understands the students’ apprehension about being with others who would be significantly older, as they feel the college students are most likely to possess more social, cultural, and practical experiences. Such justification supports their explanation for nonparticipation, if for no other reason than their intense feelings associated with remaining among their own age cohort; although they will soon enter that same “intimidating” collegiate environment when they depart for their respective postsecondary institutions.



*Parents' Education Level*

The researcher was interested in the education level of the AP Focus Group's parents, hypothesizing these students' parents to be in possession of advanced education. All but one of the student's parents possesses advanced education (i.e., associate, baccalaureate, & master's degrees). One student who received a unique, full scholarship to a renowned school of journalism reported her parents had started but "not completed higher education[al]" endeavors, realistically making her a "first-generation" college student.

Item 24 of the quantitative instrument asked, "Will you be a 'first generation' college student (the first person in your family to attend a college or university)?" When this item was analyzed, the AP students ( $n = 192$ ) reported 25 (13%) consider themselves "first generation" college students, whereas 167 (87%) do not. Of the PSEO Program participants ( $n = 60$ ), 9 (15%) responded they would be "first generation" college students, while 51 (85%) indicated they would not be the first person in the family to attend a college or university. Considering the overall findings that transect five different high schools, both groups' parents have demonstrated their commitment to postsecondary education as both groups reflect similar parental educational accomplishments.

The responses of these two groups were compared, using Fisher's Exact Chi-Square Test, resulting in a .670 (2-sided) significance value. Additionally, Chi-Square Linear-by-Linear Association comparison value yielded .153, resulting in an asymptotic (2-sided) value of .696. Each of these values is beyond the critical  $*p < .05$ . Accordingly, the differences between educational experiences of the two groups' parents is not a significant finding. This finding is applicable only to the parents of these two

groups, as the educational accomplishments of the general student body's parents was not sampled.

### *Postsecondary Education Funding*

Because the overwhelming majority of secondary students do not participate in the PSEO Program, the researcher was very interested in determining how the focus group students would fund their higher educational opportunities: Is tuition an issue this group of students is even concerned with?

Not surprising, all but one student reported their parents had previously saved for their higher education. All of them stated they would augment their incomes by working during school breaks or throughout the school year, as opportunities and schedules permitted. The student (previously mentioned) who received the full scholarship stated if she had not received that financial reward she "didn't know how [she] would have funded college" – such was the impetus for her academic determination and excellence. In this specific case, AP and Honors courses were definitely most beneficial to her higher educational outcomes, despite the benefits of PSEO Program participation.

The researcher sought to determine how much the students thought they would save as a result of their AP course accomplishments. One female stated she expects to save \$19,000 (that amount equivalent to the cost of one academic year), because she had successfully "taken and scored 4's and 5's on so many AP end-of-course tests." Another female student stated she expects to save \$15,000, based on the number of AP classes she had successfully completed in relation to the first year's tuition at her admitting university.

Although the AP participants stated their efforts would result in substantial reduction in the courses they would be required to take during their initial years in higher education, they surprisingly stated such earned credits would not reduce the time they would spend at the postsecondary institution, because (as one student collectively summarized) they would “be able to take classes [they are] more interested in, particularly in [their] major.”

Following the end of the prescribed questions, one student stated she “did not truly investigate the benefits of the PSEO Program,” but wanted to relay to successive students she “should have given more serious consideration to PSEO Program courses, because [she] really wouldn’t have missed ‘that much’ of [her] ‘senior year experience’ - besides it wasn’t all it was ‘cracked up to be.’”

#### High School Guidance Counselors

Of the five largest PSEO Program feeder high schools to the community college in the study, one guidance counselor from each high school agreed to meet with the researcher and was subsequently interviewed (and cassette-tape recorded) in an effort to document their professional and personal input to four predetermined questions.

Although specific questions were posed to the counselors, the interview session was actually conducted in an “open” format; as a result, whatever additional information was offered by the counselors became part of the transcribed record, invariably supplementing the quantitative and qualitative portions of the study. The interviews each took place at the respective high schools during the April through May 2005 timeframe.

The predetermined questions are:

- Do you feel the PSEO Program is a good idea for high school students?  
Why/(Why not)?
- Do you select the courses that will fulfill the PSEO Program participants' high school graduation requirements?
  - Will you describe your role in preparing the PSEO Program briefings for the students and their parents?
  - To what extent do you develop the local form that the students utilize to acknowledge their intent to participate in the PSEO Program?
- FOLLOW-UP: What additional responsibilities do you incur because of the program?

The recorded interviews were transcribed and subsequently analyzed, wherein six emergent themes prevailed throughout the counselors' interviews: (a) Additional responsibilities imposed by the PSEO Program, (b) student advantages to program participation, (c) student disadvantages to program participation, (d) counselors' personal biases, (e) general authoritative program support, and (f) perceived program problems.

#### *Additional Responsibilities*

Among the 5 counselors interviewed, no school has a specified PSEO Program Coordinator; rather, all counselors assume myriad responsibilities in their administrative governance of the program, and are generally perceived to be the PSEO Program "experts." Administratively, one counselor reported they (i.e., she and her counselor colleagues) were "tasked to report the general number of program participants, the courses taken, the postsecondary school of participation, the course grade received, and

the number of classes each student undertakes" (essential for remuneration to the postsecondary institution) to the ODOE. The interval of reporting varies by month, quarter, semester, to annual depending on the specified report and the postsecondary institution's academic schedule.

Three counselors collectively agree they are responsible for "changing [the] students' schedules to coincide with PSEO Participation" at the respective colleges, because AP, honors, and college prep classes are not offered specifically before or after the designated lunchtime. She went on to say high school "class schedules must be individually adjusted to permit [participants] ample time to attend PSEO Program courses at the college." Additionally, she said they have to "determine the courses that will substitute for elective and/or core courses requirements."

The counselor said they must "determine the high school Carnegie credit equivalency for each collegiate class undertaken, and are required to ensure the PSEO Program classes are properly recorded to the students' high school transcript." She went on to say the counselors are also obligated "to track and monitor the number of postsecondary courses the students request and are [under]taking," because they are "not allowed to exceed the number of attempted credit hours with respect to the number of high school hours they are currently enrolled in" (determined by ODOE guidelines).

During the mid-January through February timeframe, one guidance counselor relayed that they are tasked "to inform all eighth through 11<sup>th</sup> grade students" (and eventually their parents) "about their opportunity to participate in the Ohio PSEO Program" for the ensuing academic year. They are subsequently "responsible for documenting and monitoring the students' respective decision to participate in the

program" (made sometime in March). Another counselor said they "schedule and present the program particulars to parents," ensuring locally-composed "consent forms are signed by the parents, students, and the respective guidance counselors" - often having to "remind students to turn in the required forms," in a timely manner. Continuing, the counselors must frequently "inform the students of their need to take a PSEO Program qualifying entrance examination" at their admitting postsecondary institution. Those test results are "one important factor in determining the applicants' program eligibility," she said, wherein counselors ultimately "verify and endorse the applicant's suitability for program participation."

Four counselors agreed with one colleague's statement that they are required to "determine whether the candidates' respective g.p.a. qualifies them for PSEO Program participation" (the state requires students have both a minimum cumulative 2.5 high school g.p.a., as well as a 3.0 curricular area g.p.a. in order to undertake those curricular-related higher education courses). She continued, although the counselors "do not actually select the courses for eligible students," they must "review and approve the applicant's postsecondary course selections" (which is also the case for all high school students - program participants or not).

#### *Student Advantages*

All of the students in this study were Option B participants; no Option A students (who choose to take collegiate courses at their own expense) were identified from among the five high schools.

One counselor summarized three other's views, by stating the program's Option B "benefits [both] parents and students because postsecondary expenses are immediately

eliminated, and the transferability of successfully completed classes ultimately reduces both the time and costs associated with higher education" - the principal reason cited among the counselors for the persistent increase in PSEO Program participation.

Because of the scheduling flexibility associated with the program, one counselor stated "participants are generally free to come and go to the high school campus" - nonparticipating secondary students do not have such opportunities. She went on to say "the majority of program participants are part-time; only two of the participants are full-time" (between the 5 high schools). As a result, two counselors reluctantly acknowledged, "scheduling flexibility permits students increased [part-time] employment opportunities."

A counselor stated the PSEO Program participants are generally engaged in "elective high school course equivalents" at the postsecondary institutions, "in lieu of the required 'core' courses that are most commonly taken at the [respective] high school" - a view consistent with four other counselors' views.

Although possible, one counselor reported "the overwhelming majority of program participants do not complete a postsecondary degree [concomitant] with their high school graduation." (Among the 5 respective high school counselors interviewed, and since the program's 1989 inception, only one student was reported to have simultaneously achieved both his high school diploma and respective associate's degree).

One counselor summarized the general consensus among the counselors, stating "it is to the students' advantage to take postsecondary courses." However, 3 counselors perceive such coursework to be, as one counselor put it, "less difficult than [the arduous] AP or Honors classes" offered at their respective high schools. Another counselor

construed that because the program rules state “the grade earned at the collegiate level is [what is] recorded on the high school transcript,” such may benefit program participants. Among the counselors, it is unclear why the level of difficulty at the postsecondary institution is perceived to be “easier” than the AP high school curriculum, particularly when the opposite is thought to be most generally true at the postsecondary institution.

One counselor’s comment epitomized what 3 counselors stated about the surrounding postsecondary institutions, “universities exhibit the most restrictive [PSEO Programs] participation policies.” She stated such was the case “because postsecondary institutions are free to supplement program participation rules, universities set higher overall high school g.p.a. requirements than the community college.” Locally, the largest public university has established an overall 3.0 cumulative and course specific g.p.a. as its minimum admission requirement, while the largest private university has set its cumulative g.p.a. requirement at 3.25 for program acceptance; conversely, the community college has a lower 2.5 high school cumulative g.p.a. requirement for program participation eligibility. The counselor is well aware that “the community college has no program limitations on the classes the participants can take - as long as course prerequisites are satisfied,” wherein, participation is not restricted. Such is not the case at the public or private universities, where the counselor understands “the majority of classes are restricted for the PSEO Program participants.” It is therefore not surprising to hear her continue, “the community college has the bulk of the PSEO Program participants” among the surrounding higher educational institutions, as “the universities appear to restrict program participation,” if not overtly dissuading it.



*Student Disadvantages*

One counselor's sentiment is adequate for 3 colleagues, who offer the fact that "because the AP, Honors, and college prep class grades are weighted [greater than the standard 4.0 g.p.a.], and the grades received from postsecondary coursework are not," as an important reason "the majority of students do not participate in the PSEO Program." When the researcher asked one counselor why weighted averages are important, the counselor stated the "collegiate admissions officers are aware that a g.p.a ranging from a 4.0 to 5.0 indicates the student has been involved in upper-level [e.g., rigorous] high school courses." She went on to say, "competitively, colleges offer increased scholarship opportunities commensurate with higher [secondary] g.p.a.'s." She subsequently said high school students "may view PSEO Program coursework as counterproductive to their overall g.p.a determination."

Another counselor added that when making the decision to award financial assistance, "postsecondary admissions officers favor the completion of upper-level high school coursework over PSEO Program equivalents." The researcher wanted to know "how would the college have knowledge of 'upper-level' coursework?" To which the counselor stated "the high schools provide course profile catalogs to colleges and universities." She subsequently stated "the PSEO Program equivalent courses are not viewed as a 'positive' by admission officers, particularly if the equivalent upper-level [curricular offering] is available at the high school." Ironically, the researcher learned that collegiate admissions officers report (to the high school counselors) "AP and Honors classes are more demanding than PSEO Program courses" (even though they are taken at the institution of higher learning). In opposition to such positions and practices, one

counselor (who had “previously worked at a small high school that could not afford the expansive AP and Honors curricular offerings” of her current and larger high school) “definitely encourage[s] PSEO Program participation” (as a way to increase curricular challenges) “particularly for the top performing students” because of her direct knowledge that admitting postsecondary institutions “oftentimes favor such academic accomplishments.”

One counselor reported “one of the problems associated with these upper-level courses is the fact that [even though] a minimum high school g.p.a. is not established, the classes do have prerequisite courses” that must be accomplished in order to participate. She went on to say “most AP and Honors participants are seniors, while a few are juniors,” due to the “prerequisite courses that must be taken, beginning as early as the freshman year.”

The counselor continued, “most students who participate in the PSEO Program are [limited to] less than full-time” status because of the trepidation that “high school core courses [that could be taken at the postsecondary institution] will not be completed in the allotted timeframe to allow students to graduate with their cohort;” hence, most PSEO Program participants are part-time, “mainly taking elective courses.” Additionally, because one Carnegie credit is equivalent to 7½ qh (used at the community college), coupled with the fact that many classes are 3 qh, she noted “more postsecondary coursework is necessary to complete the same high school equivalents,” and was reported to be another source of dissuasion.

One counselor stated because Ohio has mandated that "a 3.0 cumulative g.p.a. is necessary for program participation, a majority of those [students] who may be interested in the PSEO program are immediately deemed ineligible."

Although the state permits program participation beginning at the ninth grade level, the lack of school-provided transportation coupled with the participant's age, limits program participation, particularly since PSEO Program participants must provide their own transportation to the postsecondary institution. If their parents do not or cannot provide personal transportation or public transportation is not readily available, the ages of ninth and 10<sup>th</sup> grade students generally preclude their ability to obtain a driver's license, thereby (possibly) impairing their ability to participate in the program. Because transportation issues abound, one counselor realizes "transportation is a major limiting factor to program participation" and "is the main reason the majority of PSEO Program participants are seniors and juniors," respectively.

The only male guidance counselor interviewed relayed that high school students, and particularly parents, express concerns about "the age differences between high school program participants and postsecondary students." Such concerns stem from maturity issues that may be disparate between the groups due to chronological age differences. He went on to add that because extracurricular activities (e.g., sports and academic) take place at the high school campus, "making return arrangements is often [pejoratively] viewed as a reason for nonparticipation." For this reason, another counselor said "the majority of students have strong desires to remain with their high school [peer] cohort." Taken as a whole, the counselors generally agree with the statement offered by one of their colleagues that "the overwhelming majority of students feel remaining with their

peers during their high school years is the most important factor, [precluding] their decision to participate in the PSEO Program.”

### *Acknowledged Biases*

When queried about their personal feelings and opinions surrounding the PSEO Program, no shortage of answers was forthcoming. Without specifically asking the counselors, 3 adamantly agreed with one who stated “if the equivalent courses are offered at the high school, the students should not be allowed to pursue the same courses at the higher education institution,” because such practices “are a duplication of spending taxpayer’s money.” However, one of the counselors went on to say “if the class was not offered at the high school, no objections [would be] raised, particularly if all the core high school class requirements have been met.” He implied such strong objections emerge because of the “proven success associated with AP, Honors, and college preparatory participation,” evidenced by the personal testimonies of previous students (that are in no short supply) who, upon returning from their first quarter or semester, tell the guidance counselors, pertinent teachers, and underclassmen how “prepared [they are] for their first year’s college classes [because of] upper-level high school class participation,” which only legitimizes the counselors’ stance, while strengthening the reputation of those AP, Honors, and college-prep courses. The counselor who had previously worked at a smaller school district defended the PSEO Program, supporting smaller districts’ elevated participation rates as they cannot provide the comprehensive, rigorous, upper-level secondary curricular offerings of the larger, better-funded schools.

Other objections to program participation recorded among the counselors centered around a colleague’s statement about the “[im-]maturity issues of the high school

students." That counselor was resolute in stressing "the ability to gain admission into the PSEO Program is no substitute for [individual] cognitive and behavioral development."

From their collective experiences linked to the program's intent and administration, 4 of the counselors agreed with a colleague who said "current PSEO Program participation guidelines are out-of-line with their original intent" (e.g., to provide "exceptionally prepared" students equivalent postsecondary courses if they are not available at the secondary schools). Reluctantly, one counselor admitted most of the program participants "do not want to remain in high school during the prescribed hours of operation," and thereby take advantage of the flexible scheduling "as a way to leave school early, in order to bypass state attendance requirements." Another counselor described this privilege of program participation as "[providing] the students too much freedom, too soon."

It is important to note not one counselor appeared sympathetic with the student rationale for program participation that centers around scheduling flexibility in order to take advantage of extended times for employment opportunities/responsibilities. Rather, they collectively hold negative views of students who (as one counselor said), "work too much, causing decreased emphasis on their academic responsibilities."

One colleague's summary befitted all 5 counselors' admission that the main reason for parental program support emanates around "their ability to save against future postsecondary tuition costs." Among those PSEO Program participants, such support is specifically exhibited in the parents' transportation efforts to and from the postsecondary institution, because, as one counselor reminded the researcher, "transportation is the responsibility of the students and/or their parents."

Regardless, one counselor is opposed to the program because “the high school district has to pay the higher educational institution for the cost of the class, [further] reducing state education funds.” Particularly distressing to her is the fact that “if participants drop out [of the postsecondary class], [they] do not receive notification [from the postsecondary institution] until the end of the term.” If the student fails the postsecondary class (remember, the high school is not notified until after the end of the class date) his or her parents are, in most cases, responsible for remuneration – both reasons require the district to undertake collection efforts that, as one counselor acknowledged, “often proves unsuccessful, leaving the district[s] to ‘foot the bill.’” She was opposed to such students “receiving their high school diploma until their debts are cleared;” however, no such policies currently exist.

When the counselors were asked if the PSEO Program application process was cumbersome and discouraging, 4 said “no.” However, one counselor went on to state “if the student thinks so, they should not be in the program,” as the obstacles in postsecondary education “will only increase, and this [application] process serves as initial preparation” for future academic challenges.

### *Program Support*

When asked about their colleagues’ support of the PSEO Program, each one succinctly stated support to be “mixed, with some colleagues not favoring the program, while others support the program” and its intent. One counselor said the majority of his colleagues feel “the high school years are very important to the academic and social development” of the high school students - implying the students profit by remaining under the secondary school influence.

All 5 counselors exhibit what the researcher would describe as “professional objectivity” - presenting the program specifics to the parents and students, while professionally supporting the spirit and intent of the program. When asked about the “general feelings” of their district’s administrators surrounding the program, one counselor said what they all affirmed about their principals’ and superintendents’ “[public] support [for] all aspects of the PSEO Program” – none stated the contrary, even when specifically questioned about their administrators’ private stances. One counselor also reported “athletic coaches have no [public] opposition to program participation; however, most students opt out of program participation so they can retain easier access to their [selected] extracurricular activities.”

In spite of the overall benefits, the counselors acknowledge, and one stated, “most parents do not [lend] support for their children’s participation,” particularly after the counselors’ program presentation to the parents (during February and March), “when the consequences of course failure are revealed.” Additionally, one counselor relayed because of the fact that the parents’ young adolescents would freely and continually “[intermingle] with older, more mature and secular students” there is genuine cause for concern, wherein most parents “opt for their children to remain with their [high school] cohort.”

### *Program Problems*

As previously stated (by one of the counselors), major program complaints are directed at the postsecondary institution’s inability to “notify the secondary institution of a change in the students’ status or schedule” (e.g., drop or withdrawal), and “the college’s non-issuance of term progress reports” so the high school counselors “can attempt earlier

academic intervention.” She went on to say such delayed notification causes the “[counselors] to appear ineffective in monitoring the student’s PSEO Program academic progression” - continuing late in the term, or even the next term.

Because “high school graduation occurs before most colleges’ and universities’ spring term is completed,” one counselor said “the majority of high school seniors do not utilize PSEO Program participation [particularly during spring term] because all coursework must be completed, and counselor certified in order for graduates to participate in commencement exercises.” Such unsynchronized academic calendars essentially limit the numbers of PSEO Program postsecondary courses students are able to complete during their high school years.

Of common concern is what one counselor affirmed to be “the inconsistent dissemination of PSEO Program information - from the postsecondary institutions to the [various] high schools.” For example, she stated “PSEO Program classes available at the universities are strictly regulated, whereas classes offered at the community college are not.” (The counselor stated this is the primary reason the community college has the greatest portion of PSEO Program participants among the surrounding postsecondary institutions). She went on to say “although the State of Ohio requires a 3.0 cumulative g.p.a. for program participation, each postsecondary institution is free to determine the g.p.a. of the [selected] discipline [as well as] the entrance [examination tool] and minimum score for their program participation requirements.” She recommends “the postsecondary institutions should agree on [comparable] participation requirements, which would result in more [equitable] program participation among [all] the postsecondary institutions.”



### Summary

A purpose of this chapter has been to describe the results of the responses offered by the two groups (participants and nonparticipants) to 28 statements (including seven general demographic items) of a piloted, quantitative survey. An additional purpose of the chapter was to report the qualitative responses offered by AP (nonparticipants) and PSEO Program (participants) focus groups to a predetermined set of questions, as well as additional qualitative responses offered by 5 guidance counselors from each of the largest PSEO Program participant feeder schools (central in the study) to the community college. The qualitative responses enhance and support various positions of PSEO Program participation, wherein the guidance counselors' responses yielded further insight into PSEO Program participation resistance among the overwhelming majority of eligible secondary students and their parents.

Specifically, to research Question 1, "How knowledgeable are students about the PSEO Program and its advantages?" both groups were familiar with the PSEO Program; however, the specific survey items determined the degree of the response variability among the two groups.

Question 2: How knowledgeable are students that PSEO Program participation reduces the amount of time necessary to complete the college degree? Both the AP and PSEO Program groups were well-informed that collegiate courses completed prior to high school graduation could indeed reduce the time necessary to complete a higher education program or degree.

Question 3: How aware are students that PSEO Program participation can save them and their parents against future college expenses? Again, the AP and PSEO

Program groups were very aware that program participation has the capacity to save them and their parents tuition and expenses before, as well as during, their higher educational pursuits.

Question 4: What is the level of support that students receive from parents, teachers, guidance counselors and administrators (authority figures) about PSEO Program Option B participation? From the quantitative and qualitative research components, both groups felt authority figures supported their program participation and nonparticipation decisions, although the level of support was interpreted differently by the groups.

Question 5: How satisfied are students with their high school? Overall, the AP students were generally more satisfied with the challenges and experiences their high schools present than are the PSEO Program participants, who generally hold their higher educational experiences to be more ideal.

Chapter 5 explores the researcher's findings, the implications of this research, and possible directions of future studies.

## CHAPTER V

### CONCLUSIONS, RECOMMENDATIONS, AND SUGGESTIONS FOR FUTURE RESEARCH

#### Introduction

It has been determined that utilization of Ohio's PSEO Program is a student's and his or her parent's most effective way to reduce future higher education tuition and costs (Boswell, 2001; Gomez, 2001; Robertson et al., 2001), and the financial indebtedness that so often accompanies the process (St. John, 1995). Since its 1990 inception, the program's highest participation rate (2½%) occurred during the 1997 - 1998 academic year when only junior and senior high school students were permitted to participate (J. Degen, personal communication, July 9, 1999). In 1999 state legislation expanded participation privileges to freshmen and sophomores, but an increase in program participation has not been forthcoming as might have been anticipated, particularly when dual-enrollment utilization rates of some other states are compared and considered.

The researcher has documented the responses and rationale offered by AP math and English students (who, by virtue of their g.p.a.'s, are most likely eligible to participate in the program), PSEO Program participants, and high school guidance counselors to empirically determine why the Ohio program is so widely "ignored." This chapter discusses the research questions and their conclusions, offers recommendations, as well as suggestions for future research.

## Conclusions and Discussion Surrounding the Research Questions

*"How knowledgeable are students about the PSEO Program and its advantages?"*

Among the AP respondents 53.1% were males and 46.9% were females, and within the PSEO Program group 66.7% were males and 33.3% were females. The students in both groups are aware that "admitting colleges or universities may not accept AP courses for transfer credit," particularly if the minimum end-of-course score is not achieved. Both groups were *neutral* to this statement, but during the focus group session the nonparticipants expressed that they realize higher educational institutions are becoming more restrictive in granting undergraduate credits for AP coursework, and believe colleges and universities prefer awarding PSEO Program transfer credits. Their supposition that colleges are becoming more restrictive in awarding AP credits is supported by Juillerat et al. (1997) and Reisberg (1998) who have determined that AP courses are under professorial scrutiny because professors believe high school teachers advocate testing proficiency over writing and critical-thinking skills, resulting in students who are unprepared for higher academic challenges. This is the main reason numerous institutions do not accept AP courses (Andrews & Marshall, 1991; Schwalm, 1991). Undaunted, the AP students are also cognizant of the \$82 end-of-course cost, but affirm that if they are awarded transfer credits the tuition waiver of even one college class will have been worth their rigorous academic efforts.

### *Grade Point Averages (g.p.a.)*

The guidance counselors acknowledge weighted grades, with the g.p.a. above 4.0 (not applicable to college courses), are indicative of rigorous curricular undertakings. Generally, the higher the g.p.a. the greater the likelihood of receiving all forms of

postsecondary financial assistance and, more than not, that amount increases proportional to the g.p.a. The PSEO Program rules require the grade earned at the collegiate level be directly recorded on the high school transcript, which may benefit PSEO Program participants and their g.p.a., but most likely undermines the weighted g.p.a.'s of the nonparticipants.

Although the cumulative percentage of the AP group with a g.p.a. above 3.0 was 96.4%, and the PSEO group was 81.4% (validating the similar composition of the groups g.p.a.'s), the counselors reported college admissions officers favor upper-level coursework that is evidenced by (a) the transcript's weighted g.p.a.'s, (b) the "AP" course designation, or (c) the high school catalog course description. Counselors revealed the college admissions officers view AP (and other rigorous courses) as "more demanding" than comparable secondary classes or even undergraduate courses taken within the PSEO Program, and they readily relay such information to the students.

#### *AP Courses Are Limited*

Not all secondary schools can afford expensive AP course offerings (Boswell, 2001); in fact, only 67% of 17,200 public high school districts offer AP courses (Feller, 2004). Of the remaining 33%, the smaller districts and their constrained budgets are increasing their usage of dual enrollment programs (Catron, 1998; "The Inside Track," 2002), supporting Boughton (1987) and Catron's (2001) findings that the largest dual enrollment participation does occur in predominantly rural areas. Conversely, metropolitan college campus administrators cite lower dual enrollment participation rates as the result of AP program competition, particularly among larger, better-endowed school districts (Catron, 2001). Although 4 out of the 5 counselors interviewed generally

oppose the PSEO Program (particularly if the equivalent courses are offered at the high school), one counselor (who had previously worked for a rural school district) still favors PSEO Program participation as a way to further bolster AP and general high school students' curricular experiences.

### *Schedule Flexibility*

How important is it that "PSEO Program participants have greater control (and flexibility) over their academic schedules?" The AP students were *neutral* about scheduling flexibility indicating that it is not an issue. However, to the participants this issue was strongly viewed as an important program benefit. They understand when they are released to attend the college, returning to the high school is their option. Kiger and Johnson (1997) determined the opportunity to select desired times and courses is a significant aspect of PSEO Program satisfaction. One PSEO Program focus group participant who described herself as a "night owl" appreciates her capacity to schedule her college classes in the afternoon and/or evening.

Because student employment is such a popular part of high school culture, PSEO Program participants realize they can "arrange their collegiate schedules around their jobs" (Pearson, 1993, p. 28). Seven out of 9 PSEO Program focus group participants stated they can more effectively manage their part-time employment while maintaining their academic standing. Even though the counselors acknowledge scheduling flexibility is a program advantage, all 5 objected to student employment as a reason for PSEO Program participation. Three counselors also stated many participants utilize the program to bypass regimented attendance schedules.

The researcher wanted to know if “the PSEO Program application process discouraged [the students] from program participation.” The AP group slightly *agreed*, but the PSEO Program participants firmly *agreed* with this statement. Because the participants underwent the admissions process, their responses suggest the ordeal is somewhat onerous and is most likely in need of modifications. However, one counselor stated “if the student thinks [the application process is so difficult], they should not be in the program,” because challenges in higher education “will only increase” and this admissions process serves as an initial preparation for future difficulties. Because the AP students did not undertake the PSEO Program admissions process, their slightly *agree* response is not as noteworthy as it might be, particularly if they had attempted the process.

Item 21 sought to determine if participation in athletic and/or extracurricular activities precluded PSEO Program participation. Once again, the AP group’s responses were slightly beyond *neutral* toward *agree*, while the PSEO Program participants’ responses were staunchly toward *agree*. Although high school students cannot participate in collegiate-sanctioned sporting programs (ODOE, 1998b), the PSEO Program participants are very aware of their ability to continue participation in high school extracurricular activities, as long as they meet qualification guidelines (Fisher, 1997; ODOE). By their responses, the PSEO Program participants are more aware of those rules that involve them. In contrast, because the AP students are not engaged in education external to their campus, they need not concern themselves with this issue, and their responses once again indicate an indifference to the issue.

*"How knowledgeable are students that PSEO Program participation reduces the amount of time necessary to complete the college degree?"*

When the students were asked if "[they] expect to repeat high school level coursework during [their] first 2 years of college" both groups *agreed* they expect to do so. Although both groups are aware that curricular redundancy often occurs between secondary education and the first 2 years of higher education, it was expected that the PSEO Program students would offer a stronger negative reaction to this statement since they are simultaneously taking college classes that will preclude repeating such courses. The AP group is resigned and *agrees* that if AP credits are not forthcoming, some of their required undergraduate classes will only be modest curricular modifications of secondary courses they have already completed.

This lack of a "seamless" curriculum was a central reason why dual enrollment program legislation was created. Program proponents anticipated collegiate competition would improve secondary education and align its outcomes to ultimately prepare students to successfully continue into higher education (Puyear et al., 2001), eliminating redundant course costs (Boswell, 2001) and reducing college tuition (Bailey et al., 2002; GCHEE, 2004).

How aware are the students that PSEO Program courses successfully passed substitute for high school courses and fulfill graduation requirements? As anticipated the PSEO Program group *strongly agreed* while the AP group *agreed* resulting in a significant difference in their responses. PSEO Program participants are keenly aware of the program's benefit to eliminate secondary and postsecondary course redundancy. Nonetheless, the overwhelming majority of program participants are part-time, and most



undergraduate courses they take are electives, while their core courses are generally completed at the high school. The counselors cited nonalignment of the academic calendars as one reason this occurs, particularly for seniors. Because the college schedules (often) run beyond the high school graduation dates, those spring quarter courses would not receive counselor certification and, if needed to fulfill graduation requirements, would prohibit their commencement participation. Subsequently, PSEO Program courses are not generally utilized by seniors during their final quarter.

No Option A participants were identified in the study. This indicates that in spite of the AP students' knowledge of the PSEO Program's ability to simultaneously accumulate college credits, they knowingly forego such opportunities.

It takes 7½ qh to equate to one Carnegie high school unit (Jordan, 2001). Because most of the community college's courses are either 3 qh or 4 qh, it not only requires added classroom hours, but it may take two or three quarters to earn the high school equivalent and is another reason for nonparticipation.

Although PSEO Program participation can reduce the time to complete the higher education degree, the nonparticipants were *neutral* to the benefit, whereas the participants *agreed* with this statement, generating a significant difference in the responses. Both groups are aware the simultaneous earning of college credits could reduce the time in higher education – as much as 1.2 semesters off the baccalaureate degree (Marshall & Andrews, 2002) that, on average, takes 5 to 5½ years to complete (Andrews, 2004).

In spite of the fact that many admitting colleges and universities award transfer credits for AP coursework with at least a "3" end-of-course score, the AP focus group interviewees all unexpectedly revealed they would not reduce their time in higher

education as a result of their awarded AP credits. Instead, they viewed the potential transfer credits as a way to devote their time to the pursuit of additional classes within their major and/or classes they were more interested in. This group of students stated they are not in favor of expediting the time to complete their collegiate degree; rather, they already appreciate and value the postsecondary process and the years of sacrifice that are required. Such behavior is evident as these students are committed to the rigorous academic undertakings currently experienced in their AP classes, coupled with the disciplined behavior necessary to continue at the subsequent educational levels. The AP students' commitment to the rigors and challenges of their current coursework advocate they are more interested in the quality of their education, despite their awareness and concern of higher education's associated costs – they are dedicated to the entire “collegiate experience” and display confidence that they will (somehow) secure the funds to complete the process. This explanation is supported by the AP group's *neutral* responses concerning higher educational costs, and is discussed in the next section.

*“How aware are students that PSEO Program participation can save them and their parents against future college expenses?”*

In the only cluster to yield reliable Cronbach alpha values, the responses offered to survey items 14, 15, 18, and 19 indicate the cost of higher education, including its tuition, textbooks, and fees are concerns shared by both groups. During the PSEO Program focus group session, every student stated that the college credits they earned were expected to transfer to their admitting college or university; consequently reducing their overall educational expenses while expediting their time to completion.

Collective statistical analysis of the cluster items' averages demonstrated that the participants' responses are more certain than nonparticipants' that present PSEO Program participation definitively addresses such future higher educational expenses. Despite their nonparticipation, the responses of the AP group confirm that they are aware of the program's ability to reduce future educational outlays. That understanding was also affirmed during the AP focus group session, where the students stated their awareness of the PSEO Program's capacity to address future academic costs; however, remaining in AP classes (with their peers) was indeed a more paramount concern.

During the AP focus group session the researcher determined all but one student's parents possessed postsecondary education – of the 6 interviewees, only one was a “first generation” college student. This is an important finding because first generation students are commonly less informed and not as prepared for higher educational challenges due to the lack of “family influences” about academic direction and expectations, (Laycock, 1984). Sedaie (1998) found that parents' collegiate accomplishments are second only to student academic performance in determining their likelihood to pursue higher education; indeed all the AP focus group's parents had previously completed or attempted postsecondary education. Additionally, the guidance counselors provide PSEO Program information sessions during February, and coupled with their parents' postsecondary experiences and knowledge, the AP group members are generally aware of the monetary benefits associated with PSEO Program participation; nonetheless, they remain nonparticipants.

Only one student received a full scholarship, stating that if it had not been received she “didn't know how [she] would have funded college.” When asked how they intend to

finance their higher education, all of the AP focus group members reported their parents had previously sacrificed and saved for it (although the amounts were not discussed). They also acknowledged the amount was more than likely insufficient, wherein they all affirmed they would personally supplement those costs through part-time and seasonal employment.

The PSEO Program is open to students in the ninth through 12<sup>th</sup> grades but transportation to the postsecondary institution is the participant's responsibility. Subsequently, the lack of transportation is an obstruction to participation, particularly if students (a) are not licensed drivers, (b) have no vehicle to use, (c) parents (or others) do not provide transportation, or (d) public transportation is unavailable. It is therefore not surprising that counselors identify transportation as a major limiting factor to program participation and is the chief reason seniors and juniors compose the majority of the PSEO Program participants. Although 100% of the participants have reliable transportation, 84% of the AP students also stated they have reliable transportation; yet they do not participate in the PSEO Program. The counselors stated that AP students participating in extracurricular activities negatively view returning to the high school once they leave. This was confirmed during the AP focus group session when 3 students frankly affirmed transportation is a major reason they do not participate, reiterating they do not want to commute between schools for other classes or extracurricular activities and prefer to remain at the high school for all their activities.

Parents who have previously experienced higher education appreciate its value and are models for their children (Wallis, 1998). To their credit, the transporting of children to the college affirms their support of the student's participation, if not also the program.

However, both groups had overwhelming *neutral* responses to transportation reimbursement, which appears to be a relatively unknown benefit – only 23% of the AP group *agreed* or *strongly agreed* and 67.2% were *neutral*; 15% of the PSEO Program participants *agreed* or *strongly agreed* and 68.3% were *neutral*.

The PSEO Program group *agreed* participation reduces the cost to complete higher education. However, the nonparticipant's *neutral* responses about this issue resulted in a significant difference between the groups' responses.

Continual increases in higher education tuition and costs are a legitimate concern of the public (Boswell, 2001; GCHEE, 2004; St. John 1989, 1995; "Young Grads," 2002), high school students, and parents (Boswell, 2001), particularly now as government aid provides smaller subsidies (Finn & Manno, 1996; St. John 1989, 1995). As a result, students, parents, and employers continue to pay appreciably more for postsecondary education (Cross & Slater, 1997); the average college graduate amasses \$19,400 in loan debt ("Young Grads," 2002). Unfortunately, affordability is a significant barrier to higher educational access (GCHEE), particularly for moderate to low-income level students (Cross & Slater). Reisberg (1998) affirms the earlier college credits are earned, the greater the overall cost reduction. Andrews and Marshall (2002) determined one full year of college prior to high school graduation saves the students and their parents between \$5,000 and \$24,000, depending on the institution and number of credits previously earned. Although not dual enrollees, one AP focus group member stated she expects to save \$19,000 because she scored "4's" and "5's" on enough AP end-of-course tests to equate to "at least one year's worth of tuition" at the university to which she is

applying. Another AP focus group student expects to save \$15,000 the first year, based on the AP classes she had successfully completed.

When the ease of transferability of concurrently earned college credits was considered, the PSEO Program participants *agreed* that its importance is a factor in their participation decision, but the AP students again were *neutral* to this aspect of the program, resulting in a significant difference in the groups' responses.

Making use of the flexible program rules, higher education institutions are at liberty to supplement admissions requirements for PSEO Program participants. Subsequently, the surrounding universities set higher g.p.a. admissions requirements than the local community college, resulting in more restrictive participation policies. The largest local public university requires an overall 3.0 cumulative g.p.a., while the largest private university requires a 3.25 g.p.a.; comparatively, the community college adheres to the state minimums and requires only a 2.5 cumulative g.p.a. with a 3.0 g.p.a. for eligibility in the subject area of interest. The universities also restrict participation in the majority of their classes, whereas the community college does not (as long as the prerequisites are met), resulting in the bulk of program participation at the community college.

Adelman (1999) established that the level of high school curricular difficulty is the strongest predictor of college completion, wherein rigorous programs of study enhance postsecondary assessment outcomes (Boswell, 2000). During the AP group interview the nonparticipants supported Adelman's and Boswell's findings in that they were confident their rigorous AP academic undertakings would result in the awarding of transfer credits, as well as increase their postsecondary preparation and subsequent success and is a major

reason they cited for choosing not to participate in the PSEO Program. Based on the level of difficulty associated with AP courses, they do not consider themselves as “traditional” high school students who have no postsecondary credits; rather, they staunchly believe their AP courses are already an accumulation of higher education transfer credits.

Because of state imposed regulations that offset the number of PSEO Program classes that can be taken in relation to high school courses, part-time participants are limited to the number of courses they can take. During the participants’ focus group session, their stated awareness of the counselors’ responsibility to enforce the course limitation policy was one of their key objections about the program, as they desire the ability to take more classes than they are currently permitted to take. The AP students also stated their awareness of this limitation during their focus group session, and was another reason they cited surrounding their nonparticipation.

As previously alluded to, the counselors adamantly reported PSEO Program courses are not positively viewed by college admissions officers, particularly if the equivalent courses are available at the high school, wherein the counselors support the position of their colleagues. However, one counselor who previously worked for a smaller district continues to defend the program (particularly for smaller high schools) and resolutely recommends participation for all eligible students, specifically as a means to augment their college admissions application.

*“What is the level of support that students receive from parents, teachers, guidance counselors and administrators (authority figures) about PSEO Program Option B participation?”*

Following the Omnibus Education Act of 1989, Rentschler (1991) determined high school administrators and faculty generally object to the PSEO Program and commonly deter participation. Their primary objection was their belief that students are too immature to handle college curricula and/or its environment (Catron, 2001).

When asked if PSEO Program information was provided to their parents/guardians, the participants' and nonparticipants' responses indicated no significant difference, *agreeing* their parents/guardians were informed about the program options. This finding is contrary to Boswell's (2000) contention that the majority of students and their parents do not receive such information.

When the groups were asked if their decision to investigate the program was their own choice, the AP students *agreed*, but the participants came very close to *strongly agreeing* with this issue, resulting in a significant difference in their survey responses. In spite of their adolescence, both groups affirm they have decision-making authority about their educational opportunities and, during the interviews, evidenced pride in their pertinent decisions. Such is particularly important considering McConnaha's (1996) finding that students who enroll because of external (i.e., parental) influences negatively view dual enrollment and jeopardize their scholastic performance (Noble & Drummond, 1992).

As a result of conducting the AP and PSEO Program focus group sessions, the researcher determined both the nonparticipants and participants possess a high degree of



self-confidence. Such self-confidence was also evident when the survey instruments were administered to the AP students during their class time. From the groups' discussions and through direct observation, Robertson et al's. (2001) finding that self-confidence is an instrumental and personal asset to address and minimize postsecondary transition and its associated challenges is supported. Both groups are optimistic that their program decisions will ultimately accomplish that end. It was also evident both groups' behaviors and mannerisms typify discipline (accepting the rigors of undertaking advanced courses) and academic motivation that results in an "educational focus" reflective of their overt self-confidence.

Was the student's program participation at the suggestion of his or her parents? Both groups *disagreed* that their decision was made because of their parents and resulted in a nonsignificant difference, reiterating their parents' empowerment to them to make such an important academic decision. This response outcome concurs with their previously stated decision that it was their responsibility to investigate and choose to participate or not participate in the program.

However, the counselors indicated that some parents are apprehensive about the older individuals their (immature) children would mingle with at the college. Four AP focus group members also stated they are much more comfortable with students their own age, who possess the same social, cultural, and practical experiences: The AP students are less comfortable with a more diverse age group that most likely also includes cultural and ethnic differences.

One AP focus group member's mother resolutely opposed her son's entertainment of the thought to participate in the PSEO Program because she participated in a similar

program and denounces the experience. Still another stated her parents also do not support participation, although no reason was detailed. The counselors admit the greater majority of parents do not favor their child's participation or the program in general, especially after hearing the counselors' PSEO Program information session that reveals the consequences of course failure.

The information session may not be unbiased, as evidenced by one counselor's general objections to the program, stating "the ability to gain admission into the PSEO Program is no substitute for cognitive and behavioral development." Continuing, she said the "counselors are genuinely concerned about [im-]maturity issues associated with high school students" participating in the program.

One survey item inquired about the extent the counselors went to inform the students about the PSEO Program. While the participants were *neutral* to this statement, the AP students responded midway between *agree* and *neutral*, initially resulting in a nonsignificant difference that later resulted in a significant difference following the Bonferroni adjustment (see explanation in chapter 4).

Although the AP group indicated the guidance counselors presented PSEO Program details, the partiality of the information is unknown but must be considered as evidenced by the AP students' course continuances. Also to be considered is that during the PSEO Program focus group session the respondents stated their guidance counselors did not present the program information "in the most positive way," which is understandable since they are employed by the school district.

During the counselor interviews, they all stated their principals and superintendents publicly support the program. However, when asked what level of program support

exists among their colleagues, 3 stated support is "mixed" - some not in favor, while others support the program and its intent. The reasons for nonsupport offered by 2 counselors is the importance they place on "the fleeting developmental high school years," going on to say other colleagues also feel these years are critical to the students' social and academic maturation.

The counselors agree the program's greatest asset is its cost-savings capabilities, but one counselor adamantly opposes the program, stating participation rules take the funding portion from the public schools and reroutes it to the postsecondary institution, which supports Boswell's (2001) similar assertion. In 2000 Elliott and Gulliver (2000) reported the statewide allocation averaged \$4,269 and was \$4,052 in Montgomery County (2000) per pupil. That amount is substantial and during every counselor's interview session, they each stated their objection to the transfer and proportional loss of state funding as a consequence of the student's PSEO Program participation choice. They also feel strongly that if the analogous course is offered, PSEO Program participation should not be an option; one counselor even stating their participation results in duplicate taxpayer spending since the program is already funded at the high school. No counselor objected if the desired course was unavailable or all the core class requirements were satisfied.

One counselor went on to inform the researcher that if a participant fails the class his or her parents are responsible for reimbursement to the district, but because the college does not notify the school until the course is completed they are often left "foot[ing] the bill," as many times collection efforts are futile (although no specific reasons were offered). This counselor feels the student should not receive his/her high

school diploma until the outstanding tuition is paid, although no such rule exists. In fact, under current program rules, certain students who fail the undergraduate course may not be required to reimburse the district, particularly if all assignments, exams, and requirements are satisfied (ODOE, 1998b), attendance documented and the student did not withdraw. Surprisingly, they are even allowed to retake the course and again receive PSEO Program funding (Jordan, 2001).

Do teachers inform students about the PSEO Program? By *disagreeing*, the PSEO Program participants indicated teachers do not inform students about the program, whereas the AP group's *neutral* responses resulted in a significant difference. During the focus group session the program participants reiterated their teachers do not provide them PSEO Program information. On the other hand, the AP students' survey results indicate their teachers do inform them about the program, but "how" they inform and to what degree was not definitively ascertained. It is possible AP teachers "petition" students for their classes – in effect, "disseminating" program information through (adverse) comparison.

Although coaches were not interviewed, the counselors were asked if coaches oppose the program. They stated that the coaches make no objection to its usage. However, the AP students did state they opt out of PSEO Program participation in order to have easier access to their extracurricular activities.

*"How satisfied are students with their high school?"*

Do students think "AP courses are as challenging as the equivalent college courses"? Although both groups *agreed*, the PSEO Program participants were more toward *neutral* in their responses while the AP group was in definitive *agreement*,

resulting in a significant difference. Even though the AP students are not and have not participated in higher education courses, they believe their academic coursework is as challenging as comparable college courses. Even the PSEO Program participants *agree* AP courses are challenging, although their responses do not indicate if they believe the level of difficulty is equivalent to their higher education classes.

Surprisingly, even the interviewed counselors perceive the collegiate coursework that PSEO Program participants receive is both less rigorous and not as demanding as that of AP classes. Such conclusions are due, in part, to previous AP students (now college freshmen) who, when they return to their former high schools, proclaim their successful higher education transition is a result of those rigorous curricular undertakings.

The groups were asked how satisfied they are with their current selection of AP course offerings. The AP students who remain at the high school voiced stronger satisfaction with the AP curricular offerings (firmly *agreeing*) than the PSEO Program participants, whose responses were between *neutral* and *agree*, resulting in a significant difference. However, these findings do not align with Young and Clinchy's (1992) conclusion that 63% of students are satisfied with their high school experiences, which is lower than the 90% satisfaction rate among dual enrollment participants they studied. It is important to note they did not just examine AP students; rather, their conclusions are based on high school populations in general.

The AP focus group interviewees revealed the reputation of the AP teachers is the most noteworthy reason they do not consider PSEO Program participation, believing their stringent pedagogical delivery translates to higher educational success. One student fervently stated he "loves [his] AP classes" because the students (who are generally in

other AP classes) are “there because they really want to be.” Another student offered that AP participants “work harder,” resulting in a peer group that associates more with each other than those in other academic tracts. The researcher inquired if such close associations lead to “elitism,” to which one student affirmed was a consequential byproduct. Nonetheless, they feel such associations are acceptable because they are the school’s “hardest working students,” as they are “more focused on preparing themselves for [collegiate] success and opportunities.”

The groups were asked if “high school is boring.” Inclusion of this item was grounded in Burch-Clay’s (1999) study that revealed dual enrollment participants are bored with “busywork” and desirous of more meaningful academic challenges. As a direct result of “senioritis” (Daly, 1985), defined as decreased student motivation that results in academic apathy (Peterson et al., 2001), the University of Syracuse initiated Project Advance in 1972 (Andrews, 2004; Bonesteel, Fiset, & Newell, n.d.; Bonesteel & Sperry, 2003; Greenberg, 1992; Syracuse University Project Advance [SUPA], n.d.) to address the unchallenging and final high school grade. Although Kirst (2001) went so far as to generalize the senior year as “unnecessary,” Marshall and Andrews (2002) determined dual enrollment programs are effective programs that address boredom, as they engage and challenge participants with more meaningful academic undertakings.

Unexpectedly, the AP group was *neutral* while the PSEO Program participants totally *disagreed* that high school is boring, generating a significant difference between their responses. It was not anticipated AP students would *agree* that high school is boring, stating their boredom is due to their fatigue of the “routine” demands common to high school programs. On the other hand, the PSEO Program participants’ opportunities

to not only go to their high school but to the college as well increases their variety of activities, and may address the surveyed participants' issues surrounding boredom.

However, during the PSEO Program focus group an incongruent consensus emerged, as they affirmed high school is boring; but their program support stems from what they passionately perceive as wrong with their high school programs. They justified high school's boredom was due to (a) the immaturity of their classmates, (b) the slowed pace of the classes, and (c) the style of teaching. They appreciated the "college atmosphere" foremost because of the respect granted to them by everyone at the institution. Harsh, negative opinions about high school teachers were quick and uniform, with a focus on teacher "disrespect." The PSEO Program focus group members all stated the high school teachers have no genuine respect for them, treating them "like little kids." They detested issues surrounding "student control" with illustrations of capricious punishments doled out for the smallest of infractions, particularly tardiness. They resent such treatment because of the humiliation and additional hours of "confined punishment."

Although the collegiate pace is initially difficult, the participants accepted and appreciated it because "everyone[']s learning the curriculum and doing the work." Consequently, the "environmental press" (e.g., others' success challenges the individual to improved personal efforts) results in a more valued and enthusiastic educational experience because of the synergism generated by classmates and faculty.

The PSEO Program participants also expressed appreciation for the college's diversity, one member stating "role models are easy to find because there are so many," including international students. Catron (2001) supported the claim, finding postsecondary participation results in more diverse peer interactions, which is particularly

valued since Woolcott (2001) determined multiculturalism is not a high school priority. This is yet another surprising finding that addresses the boredom participants have with high school, especially since the researcher was not aware of the importance of diversity issues among teenage students.

Is a decreased sense of closeness common among classmates as a result of PSEO Program participation? The AP group and the PSEO Program participants were generally *neutral* to this item, resulting in a nonsignificant difference between their responses. The students in Wolcott's (2001) study reported their social ties are diminished as a result of dual enrollment participation. On the other hand, the survey responses indicate the AP group maintains social ties and remains associated with PSEO Program participants.

However, during the AP focus group session the students affirmed they remain "closely associated" with their high school by forgoing PSEO Program opportunities. Every AP focus group member emphatically stated that remaining with their peers is the single most important factor precluding PSEO Program participation – AP course popularity is attributable to the importance they place on personal associations. Such is supported by Tinto's (1987) findings that indicate social connections enhance student persistence, and Astin's (1993) work that found the students' peer group is vital to their satisfaction and subsequent persistence at the educational institution and with their selected program of study.

#### *Codicil*

- Although the researcher assumed cost advantages would emerge as the major reason for program participation and once the economic benefits were



revealed to the nonparticipants they would be persuaded, that benefit proved inconsequential to the other advantages stressed by both groups.

- According to the AP focus group members, their parents advocate AP program utilization and are opposed to alternate thematic programs, regardless of those programs' ability to offset future tuition costs. Such is a contrary finding to the survey results, which indicated the students' autonomy in choosing educational tracks.
- Whereas the AP program's purpose is to attain collegiate classroom challenges at the high school level (Feller, 2004), by virtue of space limitations and g.p.a. requirements, not all students will be able to participate – they serve a special interest (small and elite) constituency. Consequently, Pennington (2002) determined dual enrollment courses are the fastest growing high school components. AP courses can only expect increased competition (Catron, 2001) as the popularity of dual enrollment programs increases (Finn & Manno, 1996; "Ohio students," 2000).
- As a result of the counselors' candid responses, they are effective "gatekeepers" of academic information and thematic programs. In this capacity, they influence the academic tracks of their students – how such decisions affect the students' future academic and economic aspirations is undeterminable.
- Counselor indifference to the PSEO Program is known among high school students. In spite of their "certainty" that AP courses are both more rigorous and therefore "beneficial," counselors must examine and explore their

perspectives in order to be able to customize academic programs that are most beneficial to everyone's future interests.

- AP students are content in their choice: The challenging classes (and effort they exude to be successful); their AP teachers (and the rapport and reputation of excellence); and their peers (i.e., academically, socially, and by age).

Locally, these AP students attend the top-rated programs, as they are located in the largest, best subsidized school districts. By the 11 (out of 21) relatively *neutral* (indifferent) responses to the survey instrument, it is evident they are not interested in the PSEO Program or its "advantages."

- In this case, the program of choice is staunchly defended and supported. Both groups are comfortable in their selection and that is not apt to change. From the PSEO Program focus group responses, it appears they are interested in part-time employment opportunities, and time away from the high school. On the other hand, the AP members do not appear to work as much and are more focused on their studies.
- University admissions officers promote the preference for the high school class's "top" tier students, and do not promote dual enrollment participation. PSEO Program utilization is concentrated at the community college, where a "stigma" is present and must be realistically addressed, as it does dissuade some youthful minds: It is not a truth that education commenced at the community college is destined to terminate there.

## Recommendations

### *Community Colleges*

Nationwide, dual enrollment programs and their participants primarily and comfortably utilize community colleges (Hoffman, 2003) as seamless curricular extensions (Dougherty, 1995). Montano (1989), Boughton (1987), and the MOLA (1996) confirmed such utilization about Minnesota's PSEO Program. Similarly, among Ohio's 66 public colleges and universities, rural Marietta's Washington State Community College had the greatest number of participants during the 1998 - 1999 academic year (J. Degen, personal communication, July 9, 1999).

Thompkins (1989) found accessible and caring instructors (in small classes), lower tuition, and program credibility to also be deciding factors. Catron (2001) determined community colleges are often the higher educational institution of choice because of their open enrollment policies and geographic accessibility, particularly among rural students (Callan, 1997; Grubb, 1996). Because so many PSEO Program students attend community college, an area of distress and concern surrounds the fact that the high school counselors do not receive notification of student failure or withdraw until the end of the postsecondary term. Additionally, the college does not notify the school of changes in student status, does not provide mid-term progress, or notify the counselors of schedule changes so they could attempt academic intervention or action, thereby resulting in the counselors' ineffectual appearance at managing the participants.

Because the largest majority of PSEO Program participants do attend the community college, progress notification reports (if only handwritten test results and behavioral adjustment profiles) should somehow be implemented so that mid-term the

forms could be returned to high school counselors. Such an effort could satisfy secondary administrators and lead to their increased promotion of the program that does benefit the community college.

### *Articulation*

Community colleges have entrenched articulation pacts (Hammons & Maignan, 1995) that enhance collaboration among various educational institutions, as well as businesses (Just & Adams, 1997). Their inherent value resides in their capacity to eradicate course redundancy among consorting institutions, thereby resulting in more efficient usage of decreasing educational resources (Yung, 1995). Strengthened agreements assist in secondary and postsecondary curricula alignments and modifications (Silverberg & Hershey, 1995) that fortify seamless education.

In an effort to more effectively disseminate program information, the community college could consider promoting the program during February, as the PSEO Program is being introduced to and discussed with the candidates and their parents during the high school counselors' presentation. Introducing the community college and providing additional program information could also address parental concerns, while continuing to enhance the articulation agreements that are currently in place between the high schools and the college.

Although Boswell (2000) and the GCHEE (2004) contend that legislative leadership is imperative to truly align Ohio's two educational systems, the researcher realizes educational professions are more knowledgeable about the advantages and benefits increased articulation pacts could provide, as opposed to reliance on inept and inexperienced political oversight.

*Program Marketing*

Although school districts need to better inform parents about the thematic programs available to students (Young & Clichy, 1992), colleges and universities should also market the PSEO Program as a strategy to increase its participation rate (Kiger & Johnson, 1997). Colleges do little to provide students and the public information about dual enrollment programs (Vogt, 1991). The program is not a free public offering, as the higher education institution utilizes campus resources and receives remuneration (Helfgot, 2001) that augments the college's operating revenues (Burch-Clay, 1999), while increasing local and state-level awareness (Burch-Clay) that enhances the program's image (Chapman, 2001).

Indeed PSEO Programs are new areas to develop, but will become particularly beneficial in student enrollment, retention (AASCU, 2002), and appreciation for its inherent "pipeline" value (Catron, 2001; Chapman, 2001; Mabry, 1988), which both eases the admissions process (Silverberg, 1993) and the recruitment costs (MOLAES, 1996) for those students who are already in place. In assessing the program's value, interviewed program students stated the postsecondary institutions made no effort to retain them following their graduation (Huntley & Schuh, 2002); nonetheless, it is in higher education's interest to develop (non-existent) dual enrollment retention plans (Chapman).

PSEO Program students who are already in-place at the community college could be persuaded to continue at the college to complete their associate degree. The benefits of completing their degree could be more definitely touted, particularly because of the numerous transfer scholarships available at the universities for community college degree

recipients, as well as their academic scholarship opportunities, in addition to the advantages of completing university parallel course offerings at subsidized rates.

### *Access*

Bandura's (1982) self-efficacy theory explains how well individuals execute judgment and action in probable situations. Those with constructive self-efficacy are "spurred to greater effort by obstacles" (Bandura, p. 123). Clay (1999) found participants have increased self-confidence and academic goals following program participation. By increasing program access, the PSEO Program could benefit less-motivated students because of the diversified curriculum (Bailey et al., 2002) and the instructional environment.

Although Minnesota's PSEO Program was originally enacted for students of all ability levels (Greenberg, 1992), the program morphed into serving its better-educated, higher-income students (Policy Studies Associates, 1992). Koker and Hendel (2003) found program participants generally possess high academic aptitudes, wherein Nathan and Jennings (1990) concluded low-income, low achieving students are methodically excluded. Such is particularly important since lower-SES students are more apt to prohibitively view higher education because of its costs (Beattie, 2002; Robertson et al., 2001), decreasing their likelihood to participate (Sewell & Shah, 1967) in the very process that could improve their economic status. Not only does SES influence postsecondary enrollment (Beattie, 2002; GCHEE, 2004), but it also dictates the individual's area of residence, which influences the overall quality of education and the availability of thematic programs the student receives. Because the primary beneficiaries of dual enrollment programs are middle- to upper-middle SES students, Pennington

(2002) emphasizes those individuals the program could help the most are the least accessible to it.

The Ohio PSEO Program has more stringent admissions requirements for participants than generally admitted postsecondary students (MOLAES, 1996) and given the program's general benefits and financial savings, restrictive participation practices are contrary to the mission of public education (Greenberg, 1988). As a result of the continuing escalation of costs associated with higher educational endeavors, the economic advantages of PSEO Program participation could be better advanced, despite the "protective" nature of school districts that results from the resident tax dollars provided to it. Such a consistent supply of funds breeds defensiveness (as illustrated by the counselors during their interviews) to alternative and available thematic programs. Parents and students must be better informed of the availability and advantages of the PSEO Program so that they are able to make informed choices for the educational preparation of their offspring.

#### *Student Development*

Banning (1990) determined the need for learning style and behavior changes in order for high school students to experience successful academic transition into postsecondary education. "Requisite intellectual skills [and]...desirable personal work habits and attitudes" (Pascarella & Terenzini, 1991, p. 388) personally build the changes needed in time-management, academic preparation, and faculty interaction (Astin, 1977, 1984). During the PSEO Program focus group interview, one student in particular pointed out the program had benefited him as a result of his professor informing him that because he was not performing up to expectation in the class, failure indeed loomed as a

consequence. The student went on to say he had to alter his study habits, his overall behavior, and assume self-discipline in order to successfully transition into higher educational expectations and its demands. As a result, the student went on to say he had matured to a point he had never experienced, and was doing much better than he did in high school as a result of the experiences the program afforded. This student's changes support Larose et al. (1998) who have determined that transition to a new academic environment is reflected in the grades earned, wherein successful adaptation indicates the transformation has commenced.

### *Program Uniformity*

Although PSEO Program participation officially requires a 2.5 cumulative g.p.a., and a 3.0 g.p.a. in the selected discipline, the higher educational institutions are at liberty to determine ancillary qualification requirements. The inconsistent and often contradictory PSEO Program information disseminated by the colleges and universities to the high schools is of grave concern, principally among the counselors who discussed this issue during their individual interview sessions. They went on to say the universities in this study significantly restrict the classes PSEO Program participants can enroll in, whereas the greater majority of community college courses are readily available (assuming that prerequisites are met). The restrictions caused one counselor to express tremendous frustration, stating the universities should be made to uniformly agree on participation requirements (which would result in wider, more equitable program utilization). For this reason the community college has (and will retain) the "lion's share" of PSEO Program participants – adding to their increasing participation numbers.



*Applications to Educational Practices*

Increased understanding of the PSEO Program and its rules enables educators and counselors to better advise students about the array of courses and programs appropriate to their academic needs. Counselors should genuinely assess all eighth, ninth, 10<sup>th</sup>, and 11<sup>th</sup> grade students and encourage those eligible students who are not in AP courses to utilize the PSEO Program.

*Suggestions for Further Study*

- The examined population could be expanded statewide to include more PSEO Program participants in order to increase the data set with a larger, more diverse population. In this study the sample was taken from the five largest high schools, with no rural, parochial, or urban schools selected. Other independent variables could also be considered, such as public or private high school, urban and/or rural 2-year colleges, 4-year public or private colleges and/or universities.
- Exclusively examine rural PSEO Program participation rates and their effectiveness (for example, at rural Marietta Ohio's Washington State Community College) and compare the results with this study.
- Examine another large, Ohio urban community college, utilizing the same student selection parameters and also asking the same questions of counselors and focus group members, then compare the results of this study to those of the comparable sample population.

- A study of AP students versus PSEO Program participants' parents' education level, occupation, and income could be undertaken in order to determine the role SES has on program (non-)selection.
- A study that focuses on the program's effects on local school districts, specifically the effect decreased enrollment and reduced revenue causes. Investigation should also examine the effects of PSEO Program students on the postsecondary classrooms (including the instructor) – an emerging dilemma, particularly at Edison State Community College, Ohio (E. Thompson, personal communication, October 16, 2005), as its dual enrollment numbers have grown precipitously since 2003.
- An investigation focusing on the success differences (i.e., earned grades, and/or g.p.a.) in high school core courses (i.e., math, English, and sciences) of nonparticipants and PSEO Program students. Additionally, the academic courses (of interest) could be tracked, examined, and analyzed among program participants (Kiger & Johnson, 1997).
- Initiated at the beginning of the 2005 academic year, Centerville High School (CHS) began its own "Dual Enrollment" Program as an exclusive partnership with the University of Dayton (UD). The high school students receive university credits at the rate of \$106 per semester hour (sh; as compared to \$708/sh, with a maximum of \$10,623 per semester for full-time [12 to 17 sh], regularly admitted undergraduates) in classes taught at the secondary school by university approved, high school faculty who have graduate degrees and

utilize both UD approved texts and the course syllabus (T. Riley [Assistant Superintendent] personal communication, 15 February 2006).

The program currently offers English 101 and 102; Geology 115 and 116; Computer Information Systems 151; and Sociology 101, with more courses scheduled to be added in fall 2006. The program appeals to parents and students because the courses are taught on-site, and count towards graduation while the students simultaneously create their undergraduate transcript. Hypothetically, the student could graduate with 18 sh and paid only \$1,908 in tuition.

An investigation that centers on the students' SES, their resulting g.p.a., the affect of non-weighted average grades on scholarship outcomes, program satisfaction among parents and participants, the number of pipeline students that continue to UD, instructor satisfaction, instructor benefits, and the overall cost savings are areas of the program that could be compared and studied. Additionally, the program's effect on AP and Honors participation rates, course offerings, PSEO Program participation, as well as other thematic programs could be explored.

Other important points that could be examined are this program's immediate and broader acceptance (65 dual enrollment participants, with 80 projected for fall 2006) over PSEO Program participation (37 students); the application/admissions processes; the community college "stigma" versus a university program; the program's promotion techniques; as well as the

problems and benefits this dual enrollment offering has created for both UD and CHS.

### Summary

This study principally examined the under-usage surrounding Ohio's PSEO Program. The results indicate the program is a viable alternative for students desirous of escape from the (adolescent) high school environment. Such program participants were found to be mature and possess a strong self-motivation, and willing to undertake the program and its challenges. Students who possess good academic skills (as evidenced by their 3.0 g.p.a.), and are self-disciplined, and committed to personal excellence are candidates for program participation.

Because advanced educational preparation is essential to compete in the workplace for higher paying positions and their fringe benefits (Carnevale & Desrochers, 1997), student demand for higher education will remain strong (Finn & Manno, 1996), especially occupational education (Orr, 1998), in order to prosper in the 21<sup>st</sup> century economy (Pennington, 2002). This research provides high school guidance counselors additional supporting documentation to facilitate seamless, "relevant career-planning information and opportunities" (Constantine et al., 1998, p. 85). It is therefore important to extend the PSEO Program's availability to greater numbers of students by making them aware of, and presenting such an alternate educational choice.

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## Appendix A

SURVEY OF HIGH SCHOOL STUDENTS IN AP MATH & ENGLISH CLASSES  
NOT PARTICIPATING IN THE OHIO PSEO PROGRAM

The following investigative statements about AP classes and the Ohio PSEO Program (PSEOP) Option B are provided. Please consider the extent to which you agree or disagree with each statement and indicate your choice by circling the appropriate category value.

|  | Strongly<br>Disagree | Disagree | Neutral | Agree | Strongly<br>Agree |
|--|----------------------|----------|---------|-------|-------------------|
| 1. I believe AP courses are as challenging as the same college courses                         | 1                    | 2        | 3       | 4     | 5                 |
| 2. I am satisfied with my high school's current offering of AP courses                         | 1                    | 2        | 3       | 4     | 5                 |
| 3. I am aware my admitting college or university may not accept AP courses for transfer credit | 1                    | 2        | 3       | 4     | 5                 |
| 4. High school is "boring"   | 1                    | 2        | 3       | 4     | 5                 |
| 5. A loss of "closeness" with high school classmates results because of PSEOP participation    | 1                    | 2        | 3       | 4     | 5                 |
| 6. PSEOP participants have greater control (and flexibility) over their academic schedules     | 1                    | 2        | 3       | 4     | 5                 |
| 7. I expect to repeat high school-level coursework during my first 2 years of college          | 1                    | 2        | 3       | 4     | 5                 |
| 8. PSEOP information was provided to my parents/guardians                                      | 1                    | 2        | 3       | 4     | 5                 |
| 9. The decision to investigate or not investigate the PSEOP was my choice                      | 1                    | 2        | 3       | 4     | 5                 |
| 10. My lack of participation in the PSEOP was primarily at my parents' suggestion              | 1                    | 2        | 3       | 4     | 5                 |

|  | Strongly<br>Disagree | Disagree | Neutral | Agree | Strongly<br>Agree |
|--|----------------------|----------|---------|-------|-------------------|
| 11. My high school guidance counselors informed me about the PSEOP   | 1                    | 2        | 3       | 4     | 5                 |
| 12. My high school teachers informed me about the PSEOP  | 1                    | 2        | 3       | 4     | 5                 |
| 13. I am aware that the PSEOP Option B courses successfully passed will substitute for my high school courses and fulfill my graduation requirements             | 1                    | 2        | 3       | 4     | 5                 |
| 14. The cost of college tuition, fees, and textbooks is free for me (and my parents) under PSEOP Option B  | 1                    | 2        | 3       | 4     | 5                 |
| 15. If I meet federal guidelines, it is possible to be reimbursed for transportation costs to the institution of higher learning as a PSEOP Option B participant | 1                    | 2        | 3       | 4     | 5                 |
| 16. PSEOP Option B participation will reduce the time necessary to complete my higher education degree   | 1                    | 2        | 3       | 4     | 5                 |
| 17. Only 43% of all students finish their baccalaureate (bachelor's) degree within 4 years   | 1                    | 2        | 3       | 4     | 5                 |
| 18. PSEOP Option B participation will reduce the necessary cost to complete my higher education degree   | 1                    | 2        | 3       | 4     | 5                 |
| 19. The college credits earned as a result of PSEOP participation will transfer into most higher education programs  | 1                    | 2        | 3       | 4     | 5                 |
| 20. The PSEO Program application process discouraged me from program participation   | 1                    | 2        | 3       | 4     | 5                 |
| 21. As a PSEO Program Option B participant, I can still participate in my high school athletic and/or extracurricular programs                                   | 1                    | 2        | 3       | 4     | 5                 |



## DEMOGRAPHICS

22. Are you presently participating in the PSEO Program?

- a. ☐ Yes
- b. ☐ No

23. Please indicate your present high school class.

- a. ☐ Freshman
- b. ☐ Sophomore
- c. ☐ Junior
- d. ☐ Senior

24. Will you be a "first generation" college student (the first person in your family to attend a college or university)?

- a. ☐ Yes
- b. ☐ No

25. What is your present age?

- a. ☐ 13 years old
- b. ☐ 14 years old
- c. ☐ 15 years old
- d. ☐ 16 years old
- e. ☐ 17 years old
- f. ☐ 18 years old
- g. ☐ 19 years old
- h. ☐ 20 years old

26. Do you have reliable transportation (i.e., your own, parents, or someone else) to take you to a college or university (instead of your high school) on a daily and regular basis?

- a. ☐ Yes
- b. ☐ No

27. What is your current high school grade point average (g.p.a.)?

- a. \_\_\_\_\_ 4.0 (or higher) to 3.5
- b. \_\_\_\_\_ 3.4 to 3.0
- c. \_\_\_\_\_ 2.9 to 2.0
- d. \_\_\_\_\_ 2.0 or below

28. What is your gender?

- a. \_\_\_\_\_ Female
- b. \_\_\_\_\_ Male

*Thank you for your time and participation!*

Would you be willing to be part of a Focus Group and interviewed by me to obtain additional, in-depth material this questionnaire did not cover?

\_\_\_\_ Yes (Provide the essential information below) \_\_\_\_ No (Do not fill in your name, etc.)

Name: \_\_\_\_\_ (please print)

Grade: \_\_\_\_\_

Phone number: \_\_\_\_\_

Email: \_\_\_\_\_

Student signature: \_\_\_\_\_

## Appendix B

SURVEY OF COMMUNITY COLLEGE  
STUDENTS PARTICIPATING IN THE OHIO PSEO PROGRAM

The following investigative statements about AP classes and the Ohio PSEO Program (PSEOP) Option B are provided. Please consider the extent to which you agree or disagree with each statement and indicate your choice by circling the appropriate category value.

|   | Strongly<br>Disagree | Disagree | Neutral | Agree | Strongly<br>Agree |
|---|----------------------|----------|---------|-------|-------------------|
| 1. I believe AP courses are as challenging as the equivalent college courses                | 1                    | 2        | 3       | 4     | 5                 |
| 2. I am satisfied with my high school's current offering of AP courses                      | 1                    | 2        | 3       | 4     | 5                 |
| 3. Admitting colleges or universities may not accept AP courses for transfer credit         | 1                    | 2        | 3       | 4     | 5                 |
| 4. High school is "boring"  | 1                    | 2        | 3       | 4     | 5                 |
| 5. A loss of "closeness" with high school classmates results because of PSEOP participation | 1                    | 2        | 3       | 4     | 5                 |
| 6. PSEOP participants have greater control (and flexibility) over their academic schedules  | 1                    | 2        | 3       | 4     | 5                 |
| 7. I expect to repeat high school-level coursework during my first 2 years of college       | 1                    | 2        | 3       | 4     | 5                 |
| 8. PSEOP information was provided to my parents/guardians                                   | 1                    | 2        | 3       | 4     | 5                 |
| 9. The decision to investigate or not investigate the PSEOP was my choice                   | 1                    | 2        | 3       | 4     | 5                 |
| 10. My participation in the PSEOP was primarily at my parents' suggestion                   | 1                    | 2        | 3       | 4     | 5                 |

|  | Strongly<br>Disagree | Disagree | Neutral | Agree | Strongly<br>Agree |
|--|----------------------|----------|---------|-------|-------------------|
| 11. My high school guidance counselors informed me about the PSEOP   | 1                    | 2        | 3       | 4     | 5                 |
| 12. My high school teachers informed me about the PSEOP  | 1                    | 2        | 3       | 4     | 5                 |
| 13. I am aware that the PSEOP Option B courses successfully passed will substitute for my high school courses and fulfill my graduation requirements             | 1                    | 2        | 3       | 4     | 5                 |
| 14. The cost of college tuition, fees, and textbooks is free for me (and my parents) under PSEOP Option B  | 1                    | 2        | 3       | 4     | 5                 |
| 15. If I meet federal guidelines, it is possible to be reimbursed for transportation costs to the institution of higher learning as a PSEOP Option B participant | 1                    | 2        | 3       | 4     | 5                 |
| 16. PSEOP Option B participation will reduce the time necessary to complete my higher education degree   | 1                    | 2        | 3       | 4     | 5                 |
| 17. Only 43% of all students finish their baccalaureate (bachelor's) degree within 4 years   | 1                    | 2        | 3       | 4     | 5                 |
| 18. PSEOP Option B participation will reduce the necessary cost to complete my higher education degree   | 1                    | 2        | 3       | 4     | 5                 |
| 19. The college credits earned as a result of PSEOP participation will transfer into most higher education programs  | 1                    | 2        | 3       | 4     | 5                 |
| 20. The PSEO Program application process discouraged me from program participation   | 1                    | 2        | 3       | 4     | 5                 |
| 21. As a PSEO Program Option B participant, I can still participate in my high school athletic and/or extracurricular programs                                   | 1                    | 2        | 3       | 4     | 5                 |

## DEMOGRAPHICS

22. Are you presently participating in the PSEO Program?

- a. ☐ Yes
- b. ☐ No

23. Please indicate your present high school class.

- a. ☐ Freshman
- b. ☐ Sophomore
- c. ☐ Junior
- d. ☐ Senior

24. Will you be a "first generation" college student (the first person in your family to attend a college or university)?

- a. ☐ Yes
- b. ☐ No

25. How old are you?

- a. ☐ 13 years old
- b. ☐ 14 years old
- c. ☐ 15 years old
- d. ☐ 16 years old
- e. ☐ 17 years old
- f. ☐ 18 years old
- g. ☐ 19 years old
- h. ☐ 20 years old

26. Do you have reliable transportation (i.e., your own, parents, or someone else) to take you to a college or university (instead of your high school) on a daily and regular basis?

- a. ☐ Yes
- b. ☐ No

27. What is your current high school grade point average (g.p.a.)?

- a. \_\_\_\_\_ 4.0 (or higher) to 3.5
- b. \_\_\_\_\_ 3.4 to 3.0
- c. \_\_\_\_\_ 2.9 to 2.0
- d. \_\_\_\_\_ 2.0 or below

28. What is your gender?

- a. \_\_\_\_\_ Female
- b. \_\_\_\_\_ Male

*Thank you for your time and participation!*

**Consent to Participate:** I (the participant) have voluntarily decided to participate in this research project. The investigator has adequately answered all questions that I have about this research, the procedures involved, and my participation. I also understand that I may refuse to participate or voluntarily terminate my participation in this research at any time without penalty. The investigator may also terminate my participation in this research if he feels this to be in my best interest.

Student signature: \_\_\_\_\_ Date: \_\_\_\_\_

Would you be willing to be part of a Focus Group and interviewed by me to obtain additional, in-depth material this questionnaire did not cover?

\_\_\_\_ Yes (Provide the essential information below) \_\_\_\_ No (Do not fill in your name, etc.)

Name: \_\_\_\_\_ (please print)

Grade: \_\_\_\_\_

Phone number: \_\_\_\_\_

Email: \_\_\_\_\_

## Appendix C

4 April 2005

Dear Mr. Smith:

The Committee for the Protection of Human Subjects in Research has reviewed your revised proposal entitled "The Ohio Postsecondary Enrollment Opportunities Program (PSEO): A Study of nonparticipation among Advanced Placement Students versus PSEO program, participants." The study has been approved for a period of one year. If the study is not completed by April 4, 2006, you are required to seek re-approval from the committee at that time. The committee must approve any changes in the protocol prior to the implementation of the change unless such a delay would place your participants at an increased risk of harm. In such situations, the committee is to be informed of the changes as soon as possible. The committee is to be informed immediately of any ethical issues that arise in your study. Please let me know if you have any questions.

Sincerely,  
Jon Nieberding  
Chair

UNIVERSITY  
OF DAYTON  
RESEARCH  
INSTITUTE  
Contracts and Grants  
Administration  
300 College Park  
Dayton, OH 45469-0104  
(937) 229-2919  
FAX (937) 229-2291

## Appendix D

March 31, 2005

Dear Sinclair PSEO Student;

Enclosed is a cover letter and survey instrument from Mr. Marc Smith, a faculty member at Sinclair Community College. The Office of Admissions is interested in reviewing the responses to this survey and is sending this survey to you for Mr. Smith.

I would appreciate it if you could take approximately 20 minutes to complete the survey and return it in the enclosed, postpaid envelope. Thank you. Your assistance is appreciated!

Sincerely,

Sara P. Smith  
Director and Systems Manager for Outreach Services

Enc.



## Appendix E

31 March 2005

Dear Ohio PSEO Program Option B Student:

You have been selected to participate in a research study investigating why some students elect the Ohio Postsecondary Enrollment Options (PSEO) Program Option B while others chose Advanced Placement (AP) courses. The purpose of this research is to investigate factors contributing to the low numbers of students who utilize Ohio's PSEO Program. Your candid responses are needed for this investigation to be successful, as your responses will be compared and analyzed along with approximately 150 other PSEOP students also requested to participate in this survey.

Please read, consider, and complete each statement or question of the accompanying survey. The first section utilizes a rating scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) wherein your selection of the most appropriate response category will be helpful. The second section requests essential demographic information. There are no physical risks to you for participating in and filling out the survey; however, it is possible that some eye fatigue could occur, but since the survey should only take 15 minutes, such fatigue and test boredom will be minimal. You may refuse to participate or voluntarily terminate participation in this research at any time without penalty. The investigator may also terminate your participation in this research if he feels this to be in your best interest.

No records of your participation in this research will be disclosed to others. Your data will be pooled with data from other research participants and only summary results will be made public. In order to protect student confidentiality once the data has been collected, all students will be assigned a number. Records containing names of student participants will then be destroyed.

Your address of record is not indicated on the return envelope. However, I would like to further interview you by asking you five(5) in-depth questions in a group forum. I hope that we can meet individually at the college, or at your high school in a Focus Group (for approximately 45 minutes) with about nine(9) more of your peers. If you desire to assist me in this additional effort, I can provide a nominal giftcard for your time and effort. Providing your name, address, and phone number with your signature on the questionnaire will GIVE YOUR CONSENT to contact you concerning the group interview.

If there are any questions or concerns, feel free to contact me. Questions concerning confidentiality and the rights of the subject (you) about this study can be addressed to Jon Nieberding of the University of Dayton's Institutional Review Board at (937) 229-4053. Please return the signed and completed questionnaire within 1 day of its receipt in the enclosed postage-paid envelope. *Retain this cover letter* for your records, as it is your record of consent to participate in this study.

Again, *thank you* for your responses and your invaluable time!

MARC.SMITH @Sinclair.edu

Associate Professor, Biological Sciences, Room #3011  
937.512.5390 Office phone

(Retain this cover letter for your records)

## Appendix F

31 March 2005

Dear AP Math or English High School Student:

You have been selected to participate in a research study investigating why some students elect Advanced Placement (AP) courses while others chose the Ohio Postsecondary Enrollment Options (PSEO) Program Option B. The purpose of this research is to investigate factors contributing to the low numbers of students who utilize Ohio's PSEO Program. Your candid responses are needed for this investigation to be successful, as your responses will be compared and analyzed with approximately 150 other AP students also requested to participate in this survey.

Please read, consider, and complete each statement or question of the accompanying survey. The first section utilizes a rating scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) wherein your selection of the most appropriate response category will be helpful. The second section requests essential demographic information. There are no physical risks to you for participating in and filling out the survey; however, it is possible that some eye fatigue could occur, but since the survey should only take 15 minutes, such fatigue and test boredom will be minimal. You may refuse to participate or voluntarily terminate participation in this research at any time without penalty. The investigator may also terminate your participation in this research if he feels this to be in your best interest.

No records of your participation in this research will be disclosed to others. Your data will be pooled with data from other research participants and only summary results will be made public. In order to protect student confidentiality once the data has been collected, all students will be assigned a number. Records containing names of student participants will then be destroyed.

Your address of record is not indicated on the return envelope. However, I would like to further interview you by asking you five(5) in-depth questions in a group forum. I hope that we can meet at your high school in a Focus Group (for approximately 45 minutes) with about nine(9) more of your peers. If you desire to assist me in this additional effort, I can provide a nominal giftcard for your time and effort. Providing your name, address, and phone number with your signature on the questionnaire will GIVE YOUR CONSENT to contact you concerning the group interview.

If there are any questions or concerns, feel free to contact me. Questions concerning confidentiality and the rights of the subject (you) about this study can be addressed to Jon Nieberding of the University of Dayton's Institutional Review Board at (937) 229-4053. Please return the signed and completed questionnaire within 1 day of its receipt in the enclosed postage-paid envelope. *Retain this cover letter* for your records, as it is your record of consent to participate in this study.

Again, **thank you** for your responses and your invaluable time!

MARC.SMITH @Sinclair.edu  
Associate Professor, Biological Sciences, Room #3011  
937.512.5390 Office phone

(Retain this cover letter for your records)

## Appendix G

19 April 2005

Dear Parents of AP Math or English High School Students:

My name is Marc Smith and I am a PhD candidate in Higher Education at the University of Dayton's School of Education. I have completed the first three chapters of my dissertation and from the supporting research literature, I have piloted a survey instrument that will provide me with a response set from among one AP math and one AP English class at your child's high school. The preliminary title of my dissertation is *The Ohio Post Secondary Enrollment Options (PSEO) Program: A Study of Non-participation Among Advanced Placement (AP) Students Versus PSEO Program Participants*. Succinctly, I am interested in investigating the perceptions of Advanced Placement (AP) students about the PSEO Program.

I would like to administer this 12 minute survey instrument in your child's AP math class. I am also requesting that participants self-identify their willingness to participate in a Focus Group of no more than 10 participants for one additional in-depth question session - anticipated to take between 45 minutes and 1 hour. I will ask those students willing to participate in the focus group to provide me with their name, email address, and phone number to arrange the group interview. (I am requesting this focus group meet at the high school at a future session to be determined following completion of the survey). For their additional time and effort, I can provide them with a nominal giftcard.

No records of the students' participation in this research will be disclosed to others. The student's name will not be revealed in any document resulting from this research. The data will be recorded anonymously and then pooled with data from other research participants: whereas, only summary results will be made public.

I hope you will not object to the attitudinal survey that I wish to administer to your secondary education student (and child). Questions concerning the rights of the study subjects can be addressed to Jon Nieberding of the University of Dayton's Institutional Review Board at (937) 229-4053. Please understand that your child does not have to participate in this survey and by filling out and returning the attached form to their high school math teacher, they will be excused from participation during that time. **If you do not object, there is no need to return this form;** however if you do object the form should be returned NLT 21 April 2005. Thank you.

MARC.SMITH@Sinclair.edu

Associate Professor, Biological Sciences, Room #3011.  
937.512.5390 Office phone

**(Retain this letter for your records)**

----- Cut and Return to the Student's High School Math Teacher, only if you say "No" -----

I do NOT give \_\_\_\_\_ (your student's name) permission to take part in the "PSEO Attitudinal Survey" to be administered by Marc Smith and request that he/she be excused during its administration.

\_\_\_\_\_ (Parent's printed name)

\_\_\_\_\_ (Parent's Signature)

\_\_\_\_\_ (Date)

## Appendix H

19 May 2005

Dear Ohio PSEO Program Option B Student:

Hello, once again!

In April you received a mailing, which included a survey requesting your valuable input about participation in the Ohio PSEO Program. The number of surveys that I have received has been very low! Be assured, I need your *valuable* input to authenticate my research undertaking.

- *If you returned that survey*, accept my sincere appreciation and ***do not fill out the enclosed duplicate survey*** (discard this letter and its contents).
- **If you did not fill out and return the previous survey**, could you please take this time to fill out the enclosed survey and return it in the provided envelope *today*?

Know that you are integral to this study - without your input I would not be able to complete this important research. Again, ***thank you*** for your candid responses and your invaluable time!

If you are graduating, accept my heartfelt *congratulations* that have resulted from your sacrificial efforts! In any case, enjoy your summer by being safety-minded and by all means, keep up the good work!

MARC.SMITH @Sinclair.edu

Associate Professor, Biological Sciences, Room #3011  
937.512.5390 Office phone

**(Retain this letter for your records)**

*"Don't fall short of completing your higher education.... no matter the obstacles!"*

## Appendix I

## Instrument Items Means and Standard Deviations

| Question/Statement  | Group | <i>M</i> | <i>SD</i> |
|---|-------|----------|-----------|
| 1. I believe AP courses are as challenging as the equivalent college courses.               | AP    | 3.85     | .84       |
|   | PSEOP | 3.34     | .88       |
| 2. I am satisfied with my high school's current offering of AP courses.                     | AP    | 4.16     | .96       |
|   | PSEOP | 3.47     | 1.01      |
| 3. Admitting colleges or universities may not accept AP courses for transfer credit.        | AP    | 2.87     | 1.11      |
|   | PSEOP | 2.71     | .81       |
| 4. High school is boring.   | AP    | 3.01     | 1.10      |
|   | PSEOP | 2.12     | 1.12      |
| 5. A loss of closeness with high school classmates results because of PSEOP participation.  | AP    | 2.71     | 1.02      |
|   | PSEOP | 3.13     | 1.38      |
| 6. PSEOP participants have greater control (and flexibility) over their academic schedules. | AP    | 3.06     | .90       |
|   | PSEOP | 4.48     | .89       |
| 7. I expect to repeat high school level coursework during my 2 years of college.            | AP    | 3.53     | 1.10      |
|   | PSEOP | 3.58     | 1.03      |
| 8. PSEOP information was provided to my parents/guardians.                                  | AP    | 3.39     | 1.11      |
|   | PSEOP | 3.55     | 1.21      |
| 9. The decision to investigate or not to investigate the PSEOP was my choice.               | AP    | 4.15     | .81       |
|   | PSEOP | 4.55     | .72       |

| Question/Statement  | Group | <i>M</i> | <i>SD</i> |
|---|-------|----------|-----------|
| 10. My participation in the PSEOP was primarily at my parents' suggestion.  | AP    | 2.33     | .90       |
|   | PSEOP | 2.22     | 1.08      |
| 11. My high school guidance counselors informed me about the PSEOP.   | AP    | 3.48     | 1.14      |
|   | PSEOP | 3.00     | 1.26      |
| 12. My high school teachers informed me about the PSEOP.  | AP    | 3.10     | 1.10      |
|   | PSEOP | 2.32     | 1.10      |
| 13. I am aware that the PSEOP Option B courses successfully passed will substitute for my high school courses and fulfill my graduation requirements. | AP    | 3.70     | 1.00      |
|   | PSEOP | 4.53     | .77       |
| 16. PSEOP Option B participation will reduce the time necessary to complete my higher education degree.   | AP    | 3.22     | .89       |
|   | PSEOP | 4.25     | .99       |
| 17. Only 43% of all students finish their baccalaureate (bachelor's) degree within 4 years.   | AP    | 2.76     | .79       |
|   | PSEOP | 2.71     | .74       |
| 20. The PSEOP program application process discouraged me from program participation.  | AP    | 3.39     | .89       |
|   | PSEOP | 3.98     | .98       |
| 21. As a PSEOP Program Option B participants, I can still participate in my high school athletic and/or extracurricular programs.                     | AP    | 3.40     | .83       |
|   | PSEOP | 3.83     | 1.08      |

| Question/Statement  | Group | <i>M</i> | <i>t</i> -score<br>Significance |
|---|-------|----------|---------------------------------|
| 14. The cost of college tuition, fees, and text-books are free for me (and my parents) under PSEOP Option B.  | AP    | 3.45     | $t = 11.80$                     |
|   | PSEOP | 4.75     | *** $p < .001$                  |
| 15. If I meet federal guidelines, it is possible to be reimbursed for transportation costs to the institution of higher learning as a PSEOP Option B participant. | AP    | 3.16     | $t = 1.22$                      |
|   | PSEOP | 3.02     | Nonsig                          |
| 18. PSEOP Option B participation will reduce the necessary cost to complete my higher education.  | AP    | 3.29     | $t = 6.83$                      |
|   | PSEOP | 4.25     | *** $p < .001$                  |
| 19. The college credits earned as a result of PSEOP participation will transfer into most higher education programs.  | AP    | 3.31     | $t = 4.41$                      |
|   | PSEOP | 4.22     | *** $p < .001$                  |
| * <u>Total</u> : Cluster no. 3  | AP    | 3.33     | $SD = .605$                     |
| <u>(Items 14 + 15 + 18 + 19) =</u>  |       |          |                                 |
| 4   | PSEOP | 3.88     | $SD = .599$                     |

## Appendix J

Cumulative and Relative Frequencies and Percentages  
per Demographic Instrument Item 22 through 28

| Question/Statement  | Group | Response  | <i>N</i> | Percent |
|---|-------|-----------|----------|---------|
| 22. Are you presently participating in the PSEOP Program?   | AP    | Yes       | 0        | 0.0     |
|   |       | No        | 192      | 100.0   |
|   | PSEOP | Yes       | 60       | 100.0   |
|   |       | No        | 0        | 0.0     |
| 23. Please indicate your present high school class.   | AP    | Freshman  | 0        | 0.0     |
|   |       | Sophomore | 0        | 0.0     |
|   |       | Junior    | 28       | 14.6    |
|   |       | Senior    | 164      | 85.4    |
|   | PSEOP | Freshman  | 0        | 0.0     |
|   |       | Sophomore | 5        | 8.3     |
|   |       | Junior    | 12       | 20.0    |
|   |       | Senior    | 43       | 71.7    |
| 24. Will you be a "first generation" college student (the first person in your family to attend a college or university)? | AP    | Yes       | 25       | 13.0    |
|   |       | No        | 167      | 87.0    |
|   | PSEOP | Yes       | 9        | 15.0    |
|   |       | No        | 51       | 85.0    |



| Question/Statement  | Group | Response | <i>N</i> | Percent |
|---|-------|----------|----------|---------|
| 25. How old are you?  | AP    | 16 years | 11       | 5.7     |
|   |       | 17 years | 69       | 36.0    |
|   |       | 18 years | 111      | 57.8    |
|   |       | 19 years | 1        | 0.5     |
|   |       | 20 years | 0        | 0.0     |
|   | PSEOP | 16 years | 4        | 6.7     |
|   |       | 17 years | 19       | 31.6    |
|   |       | 18 years | 36       | 60.0    |
|   |       | 19 years | 0        | 0.0     |
|   |       | 20 years | 1        | 1.7     |
| 26. Do you have reliable transportation (i.e., your own, parents, or someone else) to take you to a collage or university (instead of your high school) on a daily and regular basis? | AP    | Yes      | 157      | 84.0    |
|   |       | No       | 30       | 16.0    |
|   | PSEOP | Yes      | 60       | 100.0   |
|   |       | No       | 0        | 0.0     |

| Question/Statement   | Group | Response     | <i>N</i> | Percent |
|--|-------|--------------|----------|---------|
| 27. What is your current high school grade point average (g.p.a.)? | AP    | 3.5 or above | 166      | 86.5    |
|  |       | 3.4 – 3.0    | 19       | 9.9     |
|  |       | 2.9 – 2.0    | 7        | 3.6     |
|  |       | 2.0 or below | 0        | 0.0     |
|  | PSEOP | 3.5 or above | 32       | 54.2    |
|  |       | 3.4 – 3.0    | 16       | 27.2    |
|  |       | 2.9 – 2.0    | 11       | 18.6    |
|  |       | 2.0 or below | 0        | 0.0     |
| 28. What is your gender?   | AP    | Male         | 102      | 53.1    |
|  |       | Female       | 90       | 46.9    |
|  | PSEOP | Male         | 40       | 66.7    |
|  |       | Female       | 20       | 33.3    |

## Appendix K

### Individual Item Validation

Each question contained in the pilot study is discussed and individually supported by the references in Chapters 1 and 2.

Item 1: "I believe AP courses are as challenging as the equivalent college courses." Reisberg (1998) and Juillerat et al. (1997) report the collegiate equivalency of AP courses has come under suspicion by academic professors who contend high school teachers do not stress critical thinking and writing skills.

The item asks nonparticipants if they think the level of difficulty associated with AP math and English courses is what they expect in similar higher education classes. Comparatively, the responses offered by PSEO Program participants may reflect an increased appreciation for the level of coursework difficulty they currently perceive subsequent to attending higher educational offerings.

Item 2: "I am satisfied with my high school's current offering of AP courses." Catron (2001) found Virginia's Community College System had its largest dual enrollment participants in rural areas. This was due to the competitive advantage of well-established AP programs in the metropolitan areas.

This item's inclusion centers on whether the AP math and English group is indeed so pleased with the AP program at their respective metropolitan high school that their nonuse of the PSEO Program results. The item also seeks to understand if PSEO Program participants were generally "unsatisfied" with AP course offerings, and have subsequently chosen to seek curricular satisfaction within higher education's realm.

Item 3: "Admitting colleges or universities may not accept AP courses for transfer credit." Andrews and Marshall (1991) and Schwalm (1991) determined that many colleges and universities do not accept AP coursework for college transfer, no matter what grade or end-of-course score is earned.

This item seeks to determine if AP students are aware of the fact that many colleges and universities do not accept AP coursework for academic transfer; additionally, the item asks PSEO Program participants if this point is a reason for their current utilization decision of this dual enrollment option over AP courses.

Item 4: "High school is 'boring.'" Noble and Drummond (1992) studied Washington State's EEP and determined the majority of that program's participants cited "boredom" – as early as junior high school – as their impetus for dual enrollment program participation. Similarly, Boughton (1987) determined 37.5% of Minnesota's 11<sup>th</sup> and 12<sup>th</sup> grade PSEO Program participants at Rochester Community College also reported "boredom" with the overall high school process as their rationale for opting to partake in that concurrent enrollment offering.

This item's inclusion asks PSEO Program participants what role (if any) did "boredom" have in their program participation decision. The item also seeks to determine if those AP math and English students are *not* "bored" with their respective high school program.

Item 5: "A loss of 'closeness' with high school classmates results because of PSEOP participation." Nunley and Germberling (1999) determined "socialization" has become a major rationale for high school attendance. Wolcott's (2001) study of PSEO

Program participants reported both their formal and social high school ties underwent diminishment as a result of program participation.

This item seeks to determine the perceived importance of the peer relationships between AP math and English (nonparticipants) and their high school classmates. Such results may indicate the strength of existent social bonds among high school youth – possibly dissuading eligible students from program participation. Among the program participants' responses, an internal and personal "peer detachment" from their high school classmates may be alleged, indicating a possible individual personality-type who place an increased importance on academic advancement over peer association.

Item 6: "PSEOP participants have greater control (and flexibility) over their academic schedules." Pearson (1993) surveyed guidance counselors who acknowledged that many students choose to participate in the PSEO Program in order to arrange their college schedules around their work schedules – an improbable high school option because of its inherent inflexibility. Kiger and Johnson (1997) also determined PSEO Program participants' ability to control their academic schedules was a major reason offered for their program participation.

The inclusion of this item seeks to determine if AP math and English students are indeed aware of the flexible schedule advantage, and subsequently elect to forego such an option. Among the PSEO Program participants, the question seeks to determine the importance of scheduling flexibility when considering program participation.

Item 7: "I expect to repeat high school-level coursework during my first 2 years of college." Just and Adams (1997) determined one of seamless education's most important

benefits permits students to eradicate the coursework duplication that frequently occurs between secondary and higher education curricular offerings.

This item seeks to determine if AP math and English high school students are aware that much of the first 2 years of college repeats the basic secondary curriculum and PSEO Program participation is a way to eliminate such redundancies. If they are aware, the item requests the respondents' reflection of such knowledge: Offering positive responses to such known information would suggest course redundancy is not a nonparticipant concern (for whatever reason). Among the program participants, their responses may reflect prior knowledge of the propensity of curricular redundancy in higher education and such information may have influenced their decision to participate in the program.

Item 8: "PSEOP information was provided to my parents/guardians." Fisher (1997) reported losing secondary school districts have been reluctant to forfeit the student's state education funding allocations as a result of program participation. However, in accordance with the rules of the Ohio PSEO Program, counselors are required to notify all eighth through 11<sup>th</sup> grade students and their parents/guardians regarding program specifics, not later than March 1<sup>st</sup> (Jordan, 2001; ODOE 1998a).

This item seeks to determine if students and their parents/guardians (i.e., among the 5 high schools in the study and those program participants at the community college) have been informed about the program in accordance with the established notification criteria in the Ohio Legislative Codes. Specifically, this question would determine if the two groups received program information in like manners, or whether the PSEOP participants were treated differently (or more favorably) than the nonparticipants.

Item 9: "The decision to investigate or not investigate the PSEOP was my choice."

McConnaha (1996) reported students who participated in the dual enrollment program as a result of the influence of "others" viewed the program as having negative social impact on their lives. Noble and Drummond's (1992) research with the EEP found parents were adamant their children's program participation was not based on their expectations, as they feared such parental pressure could cause their children to regret program participation and subsequently detract from their scholastic performance.

This item seeks to determine if program participants' decision to participate was principally their own. Among AP math and English students, the item also seeks to determine if the decision not to participate was primarily theirs as well. Among both groups, this item does not specifically identify who those "others" may be.

Item 10: "My lack of participation in the PSEOP was primarily at my parents' suggestion" (AP Students, only). "My participation in the PSEOP was primarily my parents' suggestion" (PSEOP Students, only). The justification for inclusion of this item is also found in item 9. Inclusion of this item among nonparticipants seeks to determine if the student overrode the parents' suggestion. Among the community college PSEO Program participants, the item seeks to determine if the parents' initial desire for the child to participate somehow influenced the student's decision.

Item 11: "My high school guidance counselors informed me about the PSEOP"; and Item 12: "My high school teachers informed me about the PSEOP" have similarly related justification for their inclusion in the survey instrument.

Rentschler (1991) determined high school faculty and administrators generally objected to the PSEO Program and went on to say they frequently discouraged students

from program participation, although the ODOE (1998a) requires Ohio institutions of higher education to accept all eligible ninth through 12<sup>th</sup> grade students desirous of program participation. Wolcott (2001) went so far as to state many high school teachers and administrators resent “the loss of their strongest students [to dual enrollment programs’ participation]” (p. 60) and subsequently do not favor such programs as a learning alternative (Rentscher), particularly when AP courses are offered. Nonetheless, AP courses can only expect to continue to fend off PSEO Program competition due to increasing pressure from savvy parents and students (Catron, 2001).

Inclusion of these questions seeks to determine if guidance counselors did provide the students with program information, as they are required to notify all eighth through 11<sup>th</sup> grade students and their parents/guardians regarding program specifics, not later than March 1<sup>st</sup> (Jordan, 2001; ODOE 1998a). The responses to this item may also indicate if there is a difference between the AP math and English group and the participant group’s interpretation of the information the guidance counselors may or may not have provided regarding the program. Additionally, these questions seek to determine if teachers, and/or administrators (in their roles as authority figures and education information “gatekeepers”) minimize the program information available to students and to what degree did they encourage or discourage program participation (overtly or covertly), and whether or not nonparticipants’ responses are different than participants’, and to what degree.

Item 13: “I am aware that the PSEOP Option B courses successfully passed will substitute for my high school courses and fulfill my graduation requirements.” The premise for the Ohio PSEO Program Option B permits students to take undergraduate



coursework in lieu of requisite secondary courses, resulting in the concurrent earning of both collegiate and Carnegie high school credits (Chiang, 1998; Jordan, 2001).

This item seeks to determine if nonparticipant's knowledge of higher education's ability to substitute for secondary coursework is significantly different from the program information known among participants (and to what degree), and whether program knowledge among nonparticipants is as comprehensive as PSEO Program participants.

Item 14: "The cost of college tuition, fees, and textbooks is free for me (and my parents) under PSEOP Option B." Gomez (2001) and Puyear et al. (2001) have determined dual enrollment program participation is a very effective way for parents and students to substantially reduce the costs associated with higher education, particularly since the Ohio PSEO Program Option B (and the earning of college credits) is essentially free to those who qualify.

In this era of spiraling higher educational costs, it is difficult to understand why more students do not participate in such a benevolent program. Inclusion of this item seeks to determine if nonparticipants are aware program participation assuages future costs associated with higher education and whether there is a noteworthy difference between the nonparticipants' and participants' understanding of the program's cost-saving benefits, and to what degree.

Item 15: "If I meet federal guidelines, it is possible to be reimbursed for transportation costs to the institution of higher learning as a PSEOP Option B participant." Under Minnesota's program guidelines (Wells, 1993), as well as the Ohio PSEO Program rules (ODOE, 1998a), students may be reimbursed for the transportation costs associated with attending the institution of higher education (as a result of program

participation) as long as they are “eligible to receive free and reduced-priced lunches” (Jordan, 2001, p. 75) - in all probability, this point removes transportation issues as a barrier to program participation.

Inclusion of this item seeks to determine if the students are aware of the PSEO Program transportation benefit and, whether awareness of this program specific differs between the two groups and to what extent.

Item 16: “PSEOP Option B participation will reduce the necessary time to complete my higher education degree”, and Item 17: “Only 43% of all students finish their baccalaureate (bachelor’s) degree within 4 years.” The study done by Puyear et al. (2001) affirmed that program participants “accelerate [their] attainment of a baccalaureate degree” (p. 33) over nonparticipants, which is very important in light of the fact only 43% of undergraduates finish their degrees within the preferred 4-year timeframe (Finn & Manno, 1996). Finken (2003) supported this point when he determined only 31% of the traditional-entry students to the University of Washington finished baccalaureate degrees within 4 years, while 41% of those students who had earned transfer credits from Washington State’s Running Start dual enrollment program finished their bachelor’s degree within 4 years.

Inclusion of these two items seeks to determine if the nonparticipants are aware of the difficulty in graduating college in the touted 4 years; and if the nonparticipants are unaware of this struggle, they may also not be considering the quicker undergraduates attain their degrees, the less financial outlay will be forthcoming. Their responses will be compared against the participants, who may be participating because they are aware of these two points (and to what degree).

Item 18: "PSEOP Option B participation will reduce the necessary cost to complete my higher education degree." In addition to the same justification offered for Items 14 and 16, Boswell (2001), Catron (2001), Gomez (2001), Puyear et al. (2001), Reisberg (1998), Cross and Slater (1997) and Hossler and Schmit (1995) all emphatically defend dual enrollment programs' ability to save significant higher education dollars as a result of participation.

With such widespread program support stemming from the financial reprieve against higher education's future costs, inclusion of this item seeks to determine if nonparticipants are aware (or unaware) of the financial advantage of the program. Simultaneously, the participants (who might answer in the affirmative) may offer this point as another reason for their program participation.

Item 19: "The college credits earned as a result of PSEO Program participation will transfer into most higher education programs." Reisberg (1998) determined most dual enrollment students pass their higher education courses with at least a "C"; whereby, most accredited institutions of higher learning readily accept such courses for transfer credit. Wolcott (2001) and Andrews and Marshall (1991) are of similar persuasion and in support of this finding.

Since the transferability of AP credits has come under stricter scrutiny (see Item 3), successful participation in the PSEO Program definitively results in transfer credits that significantly reduce the overall costs associated with higher educational quests. This item seeks to determine if nonparticipants are aware of the cost- and time saving benefits associated with the program. The outcome of this item also seeks to determine its relative importance as a reason for program participation among PSEOP students.

Item 20: "The PSEOP application process discouraged me from program participation." Puyear (1998) reported in order for Arizona's perspective dual enrollment students to participate they must pass the admitting college's entrance examination. In Reisberg's (1998) examination of Washington State's Running Start Program, the participants must first demonstrate college-level mastery in math and English in order to undertake the desired college courses. A similar policy exists for program participation in Ohio (ODOE, 1998a).

In addition to the application forms and the COMPASS ("computer assisted") admissions test required by the community college (in this study) for PSEO Program participation, there are various meetings required by the state at the secondary schools, as well as local permission forms for both the students and their parents to muse over and sign in order to be granted participation permission. Such an application process can be daunting, especially for timid students. This item seeks to determine if the application process is perceived as intimidating, particularly to nonparticipants, and whether the application process subsequently discouraged their participation. Even though the participants persevered to program participation, their answers may provide insight about the two groups' self-efficacy, as well as reflect the difficulty of the application process itself.

Item 21: "As a PSEOP Option B participant, I can still participate in my high school athletic and/or extracurricular programs." In accordance with the ODOE (1998a), PSEO Program students remain eligible to participate in their respective high school's extracurricular activities (as long as they remain academically eligible). However, the *Christian Citizen U.S.A.* ("Ohio students," 2000) concluded some Ohio school districts

restrict extracurricular activities for Option B participants – actions that are capricious and in violation of the ODOE's PSEO Program rules.

This item's inclusion seeks to determine if nonparticipants know they remain eligible to participate in all sanctioned secondary school activities; or, if they do not know such, whether this lack of knowledge is another reason students choose not to participate in the program. Additionally, is this information readily known among participants and is there a difference in this group's knowledge on this item versus the nonparticipants'?

*Demographics.* The following demographic items are included in order to compile descriptive statistics that may reveal some detailed graphics about the individual members, as well as the two groups, upon completion and return of the pilot instrument.

Item 22: "Are you presently participating in the PSEO Program?" This question will identify students from the two groups who are participating in high school AP courses as well as PSEO Program Option B courses. By answering this question, students will voluntarily identify themselves, and if they are participating in both programs they will be disqualified, because this research seeks to identify the differences between the two groups.

Item 23: "Please indicate your present high school class." The PSEO Program is open to ninth through 12<sup>th</sup> grade students. Inclusion of this item will allow demographic breakdown by grade year of the respondents' responses.

Item 24: "Will you be a 'first generation' college student (the first person in your family to attend a college or university)?" Kiger and Johnson's (1997) survey found 23% of the PSEO Program participants at OCC were first generation college students. Such

students must surmount considerable obstructions to achieve postsecondary educational success (Hugo, 2001). Hugo also concluded first generation students are less likely to be academically prepared, and therefore less inclined to pursue college preparation or even take college entrance examinations.

The majority of first generation students do not have the parental resources to mimic or realistically assist their higher education decision-making efforts; nonetheless, participation in the PSEO Program is a major way of addressing such obstacles. Inclusion of this item will determine the number of first generation college students and the subsequent response variations between the groups.

Item 25: "How old are you?" Kiger and Johnson's (1997) study of OCC found the mean age for PSEO Program participants to be 17.95 years.

Inclusion of this item seeks to establish measurements of central tendency regarding age, which can then be compared to Kiger and Johnson's findings to understand if participation rate is occurring at an earlier age than previously determined.

Item 26: "Do you have reliable transportation (i.e., your own, parents, or someone else) to take you to a college or university (instead of your high school) on a daily and regular basis?" If the student participates in the PSEO Program, transportation to the institution of higher education is the participant's responsibility (ODOE, 1998a). Young and Clinchy (1992) determined supplementary educational opportunities are "limited for students who do not live within commuting distance of a postsecondary institution or do not possess their own transportation" (p. 34).

This item seeks to determine if nonparticipants lack reliable transportation and whether this point is an impediment to program participation, specifically among

nonparticipants. It is anticipated there will be disparity between the responses provided by the groups.

Item 27: "What is your current high school grade point average (g.p.a.)?" Since the revision of the ODOE's (1998a) PSEO Program guidelines, a 3.0 high school g.p.a. is a requisite to program enrollment. Although O'Neil (1993) determined a high g.p.a. to be a strong indicator of the success of PSEO Program participants, no mean g.p.a. for dual-enrollment participants could be attained.

Inclusion of this item seeks to determine if a significant difference exists between the participants' and nonparticipants' high school g.p.a. The researcher does not anticipate a substantial disparity in the cohorts' g.p.a.'s; however, documentation of such is necessary in order to discount allegations the nonparticipant's g.p.a. may not be high enough to qualify for PSEO Program participation.

Item 28: "What is your gender?" Kiger and Johnson's (1997) study of OCC's PSEO Program determined the overwhelming majority of participants to be both female and Caucasian. Beattie (2002) indirectly lent support to this finding when she determined, "young women who have completed high school are somewhat more likely than young men to enroll in college" (p. 33).

Inclusion of this item seeks to determine if more females than males are taking advantage of the PSEO Program Option B at the sampled high schools, specifically among the participant group. Among the nonparticipants, a clearer set of descriptors may emerge in relation to each group's responses.

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## Appendix L

Marc:

I have no objections to the human subjects research you're proposing with PSEO students enrolled at Sinclair. You have my permission to proceed. However, it's IPR's policy not to assist with individual dissertation projects, so please strike the reference in your proposal to IPR's assistance with the mailing of your survey instrument. I understand from Sara Smith that her office will provide you that assistance.

For what it's worth to you, based on IPR's considerable experience with survey instruments over the years, you might want to consider adding a "don't know" response option to your survey items.

Best wishes with your research.

Doug

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