

A Study of the Kentucky Educational Excellence Scholarship Program



Research Report No. 317

Legislative Research Commission

Frankfort, Kentucky

December 2003

Kentucky Legislative Research Commission

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Report Adopted by the Subcommittee on Postsecondary Education
and the Interim Joint Committee on Education
December 1, 2003

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FOREWORD

This report presents information compiled by the Subcommittee on Postsecondary Education of the Interim Joint Committee on Education, which was charged by the full committee to conduct a study of the Kentucky Educational Excellence Scholarship program and make recommendations to the 2004 Regular Session of the Kentucky General Assembly, as provided in HCR 141 in the 2003 Regular Session. The report, which was prepared by staff of the Interim Joint Committee on Education, was presented to and adopted by the full committee on December 1, 2003.

Robert Sherman
Director

The Capitol
Frankfort, Kentucky
December 2003

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SUMMARY

During the 2003 Interim, as required by House Concurrent Resolution 141, the Subcommittee on Postsecondary Education of the Interim Joint Committee on Education undertook a study of the Kentucky Educational Excellence Scholarship (KEES) program, which provides merit-based grants to Kentucky college students based on their high school grade point average (GPA) and ACT scores.

The subcommittee heard testimony from representatives of numerous agencies and organizations regarding the funding and administration of KEES, as well as the related issues of the cost of postsecondary education and student financial aid and their effects on college affordability and student access. In addition, LRC staff conducted research about the effect of different grading scales on KEES award amounts and the perceptions of teachers and guidance counselors about the effect of KEES on student and teacher motivation and behavior.

The KEES program provides grants to high school graduates to help pay for college at public and private postsecondary institutions in Kentucky. Eligibility and the amount of the merit-based KEES award is determined according to student achievement, as measured by a student's high school GPA and ACT score.

The 1998 legislation creating the KEES program mandated that proceeds from the Kentucky Lottery be used to fund it, along with the existing need-based financial aid programs, where eligibility is based on the ability of a student's family to pay for college. In fiscal year 2003, about \$57.3 million in KEES support was provided to more than 54,000 college students, with the average award being \$1,051 (KHEAA, "KEES Scholarships").

College Affordability and Enrollment

Between 1997 and 2002, tuition and fees at Kentucky public postsecondary institutions rose an average of \$188 annually from \$2,077 to \$3,019, representing an average annual increase of 9.1 percent. During the same period, per capita personal income in Kentucky rose at an average annual rate of 4 percent, from \$21,286 to \$25,579 (Layzell, IJCE 5). In 1997, tuition and fees represented 22.8 percent of the median annual family income of families in the lowest fifth of incomes. This increased to 26.8 percent in 2002 (Marks 8).

The rising cost of college has led students and families to rely more heavily on loans to pay for college. Between 1992 and 2002, the amount of loans to Kentucky students increased by more than 150 percent, from about \$113 million to \$288 million (McCormick, IJCE 28). Graduates of four-year public universities in Kentucky owe an average of \$13,500 in student loans (26).

At the same time, the Council on Postsecondary Education has been working to expand the number of people attending and graduating from postsecondary institutions; it set a goal that between 1998 and 2020, the number of students attending college will increase by 80,000. The Council on Postsecondary Education reported that since 1998, undergraduate enrollment in Kentucky has increased by 23.3 percent, from 160,926 to 198,378.

Given the rising cost of college and the greater number of students enrolling, several policy concerns have emerged regarding the KEES program and state-supported student financial aid overall:

- Will net lottery proceeds be sufficient to continue the program at current award amounts?
- Does the current combination of merit-based and need-based student financial aid effectively address the issues of college affordability and the promotion of access to postsecondary education?
- Are the standards for determining award amounts fair, and are they set at appropriate levels?

Lottery Revenue Projections

Over the next six years, the amount of lottery funds available to support KEES is projected to increase by 11 percent, from \$64.3 million to \$71.2 million. Need-based aid is projected to increase by 40 percent from \$62.4 million to \$87.1 million (Gleason 10). However, demand for student financial aid can be expected to increase more rapidly if enrollments continue to increase. Moreover, many students already eligible for need-based financial aid do not receive grants due to lack of funds (McCormick, SCOPE 34).

Lottery funds are expected to be insufficient to meet the demand for state-supported student grant aid in coming years. According to the Student Financial Aid Forecasting Workgroup, in FY 2006, total expenditures for KEES are projected to exceed total funds available by \$3.3 million, even taking into account funds from the KEES Program Reserve Account created by the 2003 General Assembly. In FY 2003 the KEES reserve account received \$3.6 million from unclaimed lottery prize money. For fiscal year 2004, the projected reserve amount is \$9.5 million.

The Kentucky Lottery Corporation projects relatively modest growth in total dividend transfers supporting student financial aid through 2010. According to the Kentucky Lottery Corporation, the rate of growth is expected to be limited due to the negative impact of the introduction of the Tennessee lottery, expansion of gaming in neighboring states, a maturing product mix, and the fact that few people know that proceeds from the Kentucky Lottery are used to fund scholarships for Kentucky students (Gleason 4).

Merit-based Versus Need-based Student Financial Aid

Since the implementation of KEES, Kentucky has increased its commitment to need-based financial aid, unlike most states that implemented merit-based programs similar to KEES (McCormick, IJCE 24).

Support for both need- and merit-based aid in Kentucky has increased more than fourfold since 1999. The Kentucky Lottery Corporation projects that for 2003-2004, KEES and need-based programs will each receive \$62.5 million in net lottery proceeds (Gleason 10). By FY 2006, almost all net lottery proceeds will go to student aid, with 45 percent of student aid dollars supporting KEES, and 55 percent supporting the need-based College Access Program (CAP) and Kentucky Tuition Grant (KTG) program.

Some researchers have argued that merit-based student aid has a negative impact on low-income and minority students by limiting access to higher education by diverting funds away from need-based programs and providing a greater proportion of aid to students from families with higher incomes (Heller xii). In Kentucky, many students who are eligible for need-based aid receive none, due to lack of funds.

In 2002-03, for example, there were more than 61,000 students eligible for need-based grants through the College Access Program (CAP) and Kentucky Tuition Grant (KTG) programs who did not receive them, though not all of those students would have enrolled in college, even if the aid had been available. Based on historical utilization rates of CAP and KTG awards, KHEAA estimated that more than 31,000 of those students would have been likely to attend college, and were eligible for more than \$34 million in unfunded need-based aid (KHEAA, “Need-based”).

There is a correlation between socioeconomic status and student achievement as measured by grades and test scores (Heller 21). On average, students from wealthier families tend to receive better grades and higher ACT scores than students from lower-income families, leading to larger KEES awards. In 2001-2002, a student in a family earning between \$15,000 and \$19,999 received an average KEES award of \$780, while a student in a family earning between \$105,000 and \$109,999 received an average of \$1,216, or 56 percent more (KHEAA, “Average”). This effect is mitigated for many low-income students because Kentucky allows KEES and need-based grants to be used together without penalty (McCormick, PS 24).

KEES Standards

The amount of a KEES award is determined by a student’s high school GPA. For a GPA between 2.5 and 4.0 during each year in high school, a student can earn between \$125 and \$500 in KEES awards. A student can receive an additional award between \$36 and \$500 for a score of 15 to 36 on the ACT test. The maximum a student can earn is \$2,500 for each year of college.

Some observers believe that the range of levels of achievement eligible to receive rewards is too wide and rewards students for mediocre work. Most other state programs require a 3.0 GPA, compared to the 2.5 GPA required in Kentucky, to receive a merit scholarship (McCormick, PS 18).

Others argue that providing incentives to students who are not high-achieving encourages them to consider college as a possibility and to increase their academic effort to attain that goal. Moreover, tightening eligibility requirements can be expected to mean that fewer low-income and minority students would receive KEES assistance, thereby creating an additional financial barrier to college access.

Another concern is that KEES awards are based on GPA, yet the grading scales used by high schools across the state are set at the local level and differ among individual high schools. An analysis by LRC staff of the grading scales from 182 of the 293 public and certified nonpublic high schools in Kentucky shows that there are 61 different grading scales currently in use, potentially affecting the amount of KEES awards by hundreds of dollars. In previous sessions of

the General Assembly, legislation has been introduced to require the determination of KEES awards be based on a uniform numerical scale of 0-100 to address this concern.

Effect of KEES on Student and Teacher Behavior

In order to gauge the possible effects of the KEES program on high student motivation and behavior, as well as on teacher behavior, grading rigor, and curriculum content, LRC staff developed an online questionnaire for high school teachers and guidance counselors. Responses were received from 223 high school teachers and 172 high school guidance counselors. While it can't be determined whether these responses are representative of the opinions of high school teachers and guidance counselors across the state, they do reflect the opinions of several hundred professional educators in Kentucky.

Teachers and guidance counselors responding to the questionnaire reported that there is widespread awareness of the KEES program among students and parents during the senior year of high school but substantially less awareness in the lower grades. Awareness increases as students move from 9th to 12th grade.

The responses of teachers and guidance counselors to the survey regarding the effect of KEES on student behavior, based on their observation of students who are aware of KEES, indicate that the KEES program may have both positive and negative effects on students. Teachers and guidance counselors responding to the questionnaire reported that in order to improve their GPA and receive larger KEES awards, many students demonstrate greater effort in their classes, while some students take less rigorous courses.

Many teachers and guidance counselors responding to the survey felt that awareness of the KEES program affects student decisions whether to attend college and encouraged students to remain in Kentucky to pursue postsecondary education. Evidence suggests that Kentucky has been successful in retaining a large number of its highest-achieving students for college.

Some teachers and guidance counselors believe that some teachers have adjusted their grading standards or the rigor of course content to help students qualify for larger KEES awards. While some also believed that some teachers feel pressure to adjust students' grades, half of the respondents believed that KEES had no such effects on teachers.

Additional Policy Considerations

In the course of the work of the Subcommittee on Postsecondary Education, there were several issues raised relating to the use of KEES awards and program administration by stakeholder agencies, teachers, guidance counselors, parents, and others. Issues discussed include:

- Whether high school students should be permitted to use KEES awards to pay for dual credit courses.
- Whether high school students should be permitted to use projected KEES awards to pay for the cost of Advanced Placement exams.
- Whether high school students who take an accelerated course load to graduate early should receive KEES awards equalized with awards for students taking four years to graduate.

- Whether students who attend a postsecondary institution in another state should be eligible for KEES scholarships.

Recommendations

Based on the results of the investigation of the KEES program and deliberations during the 2003 Interim, the following recommendations are presented for consideration by the 2004 Regular Session of the Kentucky General Assembly:

- Give priority to funding the need-based student financial aid programs over the merit-based KEES program, in the event that no funds beyond net lottery proceeds are made available for student financial aid and net lottery proceeds are insufficient to meet program needs.
- Use a student's numeric grade score average rather than grade point average to determine annual KEES base amount, beginning with the ninth-grade class for the 2005-2006 school year.
- Permit high school students to use projected KEES awards to pay for dual credit courses.
- Permit high school students to use projected KEES awards to pay for the cost of taking Advanced Placement exams.

CHAPTER I

INTRODUCTION

The Kentucky Educational Excellence Scholarship (KEES) program, created in 1998, provides merit-based grants to graduates of Kentucky high schools to help pay for college at public and private postsecondary institutions in the state. The amount of a KEES award is determined by two factors—a student’s high school grade point average (GPA) in five courses of study defined by the Council on Postsecondary Education, and a student’s ACT score. Over time, it has come to be funded almost entirely through net proceeds from the Kentucky Lottery, which also provides student’s funding for need-based student financial aid programs.

Students can receive up to \$2,500 for each year of college from the KEES program. In fiscal year 2003, students received more than \$58 million in KEES support, with the average award amount being \$1,184 (McCormick, IJCE 25).

While approximately 70 percent of all student financial aid is federal financial aid (Marks), federal assistance has “shifted away from grants and toward loans as the major way the federal government supports higher education” (Smith-Mello 86). Thus, state grant aid has become even more important to students, particularly as costs of postsecondary education rise. Kentucky provides both “merit-based” grant aid, where eligibility is determined by student achievement; and “need-based” grant aid, where eligibility is based on the ability of a student’s family to pay for college.

The KEES program was developed with the intent of ensuring access to Kentucky's public and postsecondary education institutions. The nation's first statewide merit-based program, the HOPE scholarship program in Georgia, guaranteed every student with at least a "B" average a full-tuition scholarship to a Georgia public postsecondary institution. In contrast, the Kentucky design was predicated on a graduated award based on student achievement. The goal of the graduated structure is to encourage high school students of all abilities to work to achieve larger awards for college. Therefore, students with less than a "B" average are eligible for partial awards.

Further, Kentucky's program design provided a level of cost containment to the state by identifying a maximum benefit of \$2,500 per year per student, although the financial burden increases to the state as the number of eligible students who attend college increases. The KEES statute permits the Council on Postsecondary Education to adjust the amount of KEES awards based on the amount of funds available to support the program. A full description of how Kentucky's program works is provided in Appendix A.

In the five years since the KEES program began, numerous changes have been made to take into account the unique circumstances of some students, including students who study religion at non-sectarian schools, students whose parents serve in the military, students who are enrolled in postsecondary programs lasting longer than four years, GED students, and students who participate in the U.S. Congressional Page School.

Several policy concerns have emerged regarding the program and student financial aid overall. The 2003 General Assembly adopted House Concurrent Resolution 141 to determine whether additional changes to the KEES program are needed. Some of the policy questions that arose include:

- The fairness of using a student's grade point average to determine award amounts.
- The effectiveness of KEES in encouraging improved high school student achievement.
- The effectiveness of KEES in increasing college-going rates and encouraging high-achieving students to remain in Kentucky for college.
- Whether lottery revenues will keep pace with demand for KEES scholarships in the future.
- The declining value of KEES awards as the cost of college increases.
- Whether Kentucky has struck the appropriate balance between merit-based and need-based student grant aid.
- Whether changes need to be made to KEES program administration or to the uses to which KEES funds may be applied.

House Concurrent Resolution 141 required the Interim Joint Committee on Education to make recommendations to the 2004 General Assembly. The interim joint committee assigned the study to the Subcommittee on Postsecondary Education, which heard extensive testimony and collected data regarding KEES and college affordability. Based on the deliberations of the subcommittee, recommendations for legislative action have been incorporated into this KEES study report.

Sources of Information

Information incorporated into this document was collected from a variety of sources.

- Testimony before the Subcommittee on Postsecondary Education and the full Interim Joint Committee on Education from the
 - Kentucky Higher Education Assistance Authority (KHEAA)
 - Council on Postsecondary Education (CPE)
 - Kentucky Lottery Corporation
 - Council of Kentucky Public University Presidents
 - Kentucky Community and Technical College System (KCTCS)
 - Southern Regional Education Board (SREB)
 - Association of Independent Kentucky Colleges and Universities (AIKCU)
- Staff review of research regarding
 - Postsecondary education costs and funding
 - Trends in college affordability, access, and student financial aid
 - Merit-based scholarships in general
 - Effect of merit-based versus need-based scholarships on access to college

- Data sets
 - KEES data from KHEAA
 - Tuition, enrollment, and college-going rate data from the Council on Postsecondary Education
- Collection and analysis by LRC staff of grading scales used in Kentucky high schools
- Online survey of Kentucky high school guidance counselors and teachers conducted by LRC staff regarding
 - Student and parent awareness of the KEES program
 - Effect of KEES on college-going decisions
 - Effect of KEES on student motivation and course-taking behavior
 - Effect of KEES on teacher behavior, grading rigor, and curriculum content

A description of how the survey was conducted and the responses of teachers and guidance counselors are provided in Appendix B.

CHAPTER II

COLLEGE ACCESS AND AFFORDABILITY

The 2002 report “Losing Ground: A National Status Report on the Affordability of American Higher Education” from the National Center for Public Policy and Higher Education highlights five national trends regarding the affordability of postsecondary education. Evidence from Kentucky reveals that many of these trends exist in the Commonwealth, limiting the opportunity for many Kentuckians to pursue higher education, even as “education and training beyond high school is no longer discretionary for those who aspire to full social and economic participation in American life” (NCPPE, “Losing Ground” 4).

The trends identified by the report are that:

- Increases in tuition have made colleges and universities less affordable for most American families.
- Federal and state financial aid to students has not kept pace with increases in tuition.
- More students and families at all income levels are borrowing more money than ever before to pay for college.
- The steepest increases in public college and university tuition have been imposed during times of greatest economic hardship.
- State financial support of public higher education has increased, but tuition has increased more.

Tuition and fees at Kentucky postsecondary institutions have been increasing faster than the personal income of Kentuckians and increasing at a faster rate than in the United States as a whole. Between 1997 and 2002, tuition and fees at Kentucky public postsecondary institutions rose an average of \$188 annually, from \$2,077 to \$3,019, representing an average annual increase of 9.1 percent. During the same time period, per capita personal income in Kentucky rose at an average annual rate of 4.0 percent, from \$21,286 to \$25,579 (Layzell, IJCE 5). For the academic year 2002-2003, in-state tuition and fees at the various public postsecondary institutions represented between 6.0 percent and 12.6 percent of per capita personal income in Kentucky, as shown in Table 1.

Adjusting for inflation, between 1997 and 2002, tuition and fees at public four-year colleges in Kentucky increased by more than 21 percent, outpacing the percentage increase of 16.8 percent for the entire United States (Marks 4). At Kentucky two-year public institutions, the increase after inflation was 19.7 percent, while the U.S. as a whole experienced a 9.5 percent increase (Marks 5).

College tuition and fees represent an increasing share of the income of low-income families. Nationally in 1997, the average cost of tuition and fees at a four-year public institution equaled 26 percent of the median annual income of families in the lowest fifth of incomes; by 2002, it equaled 29.3 percent, an increase of 3.3 percentage points. In Kentucky, the cost of tuition and

fees represented 22.8 percent of the median annual family income of families in the lowest fifth of incomes, which increased by 4 percentage points to 26.8 percent in 2002 (Marks 8).

Table 1
Academic Year 2002-03 Kentucky Undergraduate In-State Tuition and Fees
as a Percentage of Per Capita Personal Income

Institution	In-State Tuition & Fees	% of Per Capita Personal Income (\$25,579)
Eastern Kentucky University	\$2,928	11.4
Kentucky Community and Technical College System	\$1,536	6.0
Kentucky State University	\$3,134	12.3
Lexington Community College	\$2,247	8.8
Morehead State University	\$2,926	11.4
Murray State University	\$3,032	11.9
Northern Kentucky University	\$3,216	12.6
University of Kentucky	\$3,975	15.5
University of Louisville	\$4,082	16.0
Western Kentucky University	\$3,120	12.2

Source: Layzell, PS 5-6

While tuition has been rising faster in Kentucky than in the United States as a whole, postsecondary education in Kentucky remains relatively affordable in comparison to other states. According to "Measuring Up 2002: A State-by State Report Card for Higher Education," even though Kentucky's affordability grade declined from a "B" to a "C" from 2000 to 2002, it moved up from being the 10th to the 8th most affordable state in the report's ranking of states on college affordability. The report measures affordability using a number of indicators including family ability to pay, state strategies to address affordability, and student reliance on loans (Layzell, PS 9). Reflecting the national affordability situation, only five state were given better than a "C" on this report card, and 48 states had a declining grade from 2000 to 2002 (Todd 4).

The rise in tuition and fees has affected students at both public and private postsecondary institutions. As shown in Table 2, the percentage increases at Kentucky public four-year institutions in annual tuition and fees between fall 1997 and fall 2003 ranged from 24.8 percent to 73.3 percent. At independent colleges and universities in Kentucky, between fall 1997 and fall 2002, the average tuition and fees rose by 35.5 percent from \$9,589 to \$12,991.¹ In the academic year 2002-03, tuition in Kentucky was 36 percent lower than the national average for independent public colleges and universities and 26 percent lower than the regional average (Cox 2).

The rising cost of college has led students and families to rely more heavily on loans to pay for college. Nationally, between 1992 and 2002, the proportion of student financial aid in the form of loans increased from 62 percent of approximately \$29 billion in total aid to 74 percent of

¹ Does not include Alice Lloyd and Berea College, which do not charge tuition.

about \$51 billion. In Kentucky, the amount of loans increased by more than 150 percent between 1992 and 2002, from about \$113 million to \$288 million (McCormick, IJCE 26).

Table 2
Annual Tuition and Fees for Fall 1997 to Fall 2003
Kentucky Public Postsecondary Institutions

	EKU	KCTCS²	KSU	MoSU	MuSU	NKU	UK	LCC	UofL	WKU
1997	\$2,060	\$1,100	\$2,050	\$2,150	\$2,120	\$2,160	\$2,736	\$1,956	\$2,630	\$2,140
1998	\$2,190	\$1,140	\$2,170	\$2,270	\$2,300	\$2,264	\$2,516	\$1,956	\$2,420	\$2,260
1999	\$2,390	\$1,180	\$2,300	\$2,440	\$2,400	\$2,408	\$3,296	\$1,956	\$3,406	\$2,390
2000	\$2,542	\$1,230	\$2,440	\$2,510	\$2,556	\$2,700	\$3,446	\$1,956	\$3,608	\$2,534
2001	\$2,706	\$1,450	\$2,648	\$2,710	\$2,754	\$2,820	\$3,734	\$2,084	\$3,954	\$2,844
2002	\$2,928	\$1,536	\$3,134	\$2,928	\$3,032	\$3,216	\$3,974	\$2,246	\$4,082	\$3,312
2003	\$3,198	\$1,896	\$3,570	\$3,364	\$3,436	\$3,744	\$4,547	\$2,441	\$4,450	\$3,232
% Increase 1997-2003	55.2	72.3	74.1	56.5	62.0	73.3	66.1	24.8	69.2	51.0

Source: CPE, "Kentucky"; Layzell, IJCE 5.

Increased reliance on student loans has led to increased indebtedness of college graduates. According to KHEAA, graduates of four-year public universities in Kentucky owe an average of \$13,500 in student loans (McCormick, IJCE 28). The Council on Postsecondary Education reported that according to the 2003 National Survey of Student Engagement, 21 percent of all college seniors have credit card debt that will not be paid off in one year (Layzell, IJCE 7).

Even as the cost of college rises, the value of postsecondary education as an investment in the future for both individuals and the state as whole is clear. As shown in Table 3, there is a strong correlation between level of education and economic success.

Table 3
2000 Median Earnings and Unemployment Rate
by Degree Earned

Level of Education	Median Earnings	Unemployment Rate (%)
Less the High School	\$19,587	11.3
High School Graduate	\$24,656	5.7
Some College, no degree	\$25,656	5.2
Associate's degree	\$33,434	2.9
Bachelor's degree	\$50,145	2.0
Graduate/Professional degree	\$72,420	1.2

Source: Layzell, IJCE 3³

² KCTCS data for fall 1997 reflect rates for the UK Community College System.

³ From 2000 Census data. Earnings for year-round full-time workers 18-64.

CHAPTER III

FUNDING FOR KEES

Since the passage of Senate Bill 21 in 1998, which created the KEES program and specified that lottery revenues be used to fund student financial aid, there has been an increase in total student aid provided by the Commonwealth of Kentucky. By statute, the manner in which lottery funds are to be allocated is shifting incrementally so that, by fiscal year 2006, all net lottery proceeds, minus \$3 million to support early childhood literacy programs, will be directed to support need-based (55 percent) and merit-based (45 percent) student financial aid (Table 4). This phased-in approach permits policymakers to address a reduction in unencumbered lottery revenues to the General Fund as more lottery dollars are earmarked for college scholarships.

Table 4
Allocation of Net Lottery Proceeds

Fiscal Year	KEES (Merit-based)	CAP/KTG (Need-Based)	Total Net Lottery Proceeds
1999		\$14 million	\$14 million
2000	\$7 million	\$15 million	\$22 million
2001	15 %	32 %	47 %
2002	25 %	32 %	57 %
2003	32 %	32 %	64 %
2004	40 %	40 %	80 %
2005	45 %	45 %	90 %
2006	45 %	55 %	100 %

Source: KRS 154A.130

As can be seen in Table 5, in FY 1998, Kentucky spent approximately \$27 million for tuition assistance to postsecondary students through the need-based College Access Program (CAP) and Kentucky Tuition Grant (KTG) programs. By FY 2003, with the implementation of KEES and increased need-based funding, that amount of tuition assistance had increased more than 400 percent to \$109 million. According to KHEAA, by FY 2006, disbursements for KEES, CAP, and KTG programs are projected to exceed \$150 million (McCormick, IJCE 8).⁴

During the first four years of KEES, annual disbursements increased quickly due to the incremental manner in which the program was implemented. For the academic year 1999-2000, eligible college freshmen received KEES awards based only on the GPA from their senior year in high school. The next year, eligible first-year college students received larger base KEES awards, calculated from two years of high school grades. Only in the academic year 2002-03 did

⁴ KEES, CAP, and KTG represent 91 percent of all state student grant aid provided by Kentucky (McCormick, SCOPE 10).

first-year college students begin to receive KEES awards based on four years of high school grades.

Table 5
KEES, CAP, and KTG Disbursements
Actual and Projected, in Millions
FY 1998 to FY 2006

Fiscal Year	KEES (Merit-based)	CAP/KTG (Need-based)	Total	Actual/ Projected
1998	\$0	\$27	\$27	Actual
1999	\$0	\$38	\$38	Actual
2000	\$8	\$40	\$48	Actual
2001	\$22	\$45	\$67	Actual
2002	\$38	\$49	\$87	Actual
2003	\$58	\$51	\$109	Actual
2004	\$63	\$63	\$126	Projected
2005	\$70	\$70	\$140	Projected
2006	\$69	\$84	\$153	Projected

Source: McCormick, IJCE 7

Another cause of increased annual costs came about as the total number of enrolled college students eligible to receive KEES increased. In the academic year 1999-2000, only first-year college students were receiving KEES. The next year, freshmen and sophomores were eligible. By the 2002-03 academic year, students in each of the four years of college were receiving KEES, though upperclassmen were still receiving awards based on less than four years of high school GPAs. The academic year 2005-06 will be the first year where students in all four years of college will be eligible for KEES awards based on four years of high school grades.

The effect of increasing numbers of eligible students receiving larger KEES awards is diminished somewhat by declining utilization rates throughout students' college eligibility periods. During the academic year 2002-03, for example, 61 percent of first-year college students who earned KEES awards used them, but only 39 percent of second-year students used KEES awards. Thirty-three percent of third-year and 30 percent of fourth-year students used the KEES awards they had earned (KHEAA, "Scholarships"). This trend, which appears to have remained relatively stable since the inception of KEES, may be attributed to students leaving college, losing their eligibility based on grades, or completing a two-year program and leaving the postsecondary education system.

The total amount of money generated by the Kentucky Lottery for KEES is projected to be insufficient to cover expenditures in Fiscal Year 2006.

According to the Student Financial Aid Forecasting Workgroup,⁵ by FY 2006, total expenditures for KEES are projected to exceed total funds available by \$3.3 million, as shown in Table 6, even taking into account funds from the KEES Program Reserve Account.

House Bill 269, the executive branch budget passed by the 2003 General Assembly, created a KEES Program Reserve Account, to be used in case KEES funding is otherwise insufficient to meet the program's needs. In FY 2003, the budget bill provided that all unclaimed lottery prize money in excess of \$9.3 million was to be transferred to this new reserve account. In FY 2004, all unclaimed prize money is to be transferred to the new account. The KEES reserve account received \$3.6 million dollars in unclaimed lottery revenue in FY 2003. For fiscal year 2004, the estimated amount of unclaimed lottery prize money to be used for that purpose is \$9.5 million. In addition, \$750,000 in interest income for FY 2003 was transferred to KHEAA from the Student Financial Aid and Advancement Trust Fund administered by CPE to support the KEES program.

**Table 6
Comparison of Projected Funds Available vs. Expenditures
for KEES, FY 2004 to FY 2006**

Source of Funds	<i>Revised</i> FY 2004	<i>Proposed</i> FY 2005	<i>Proposed</i> FY 2006
Lottery Proceeds			
Baseline	\$ 64,320,000	\$ 64,320,000	\$ 64,320,000
Expansion (Statutory)	0	2,280,000	1,065,000
Total Statutory Amount	\$ 64,320,000	\$ 66,600,000	\$ 65,385,000
Carry Forward	6,152,700	9,309,500	5,757,700
Interest Income & Other	502,800	250,000	250,000
KEES Reserve	9,500,000	9,500,000	9,500,000
Total Funds Available	\$ 80,475,500	\$ 85,659,500	\$ 80,892,700
Expenditures			
Scholarships	\$ 70,698,800	\$ 79,294,600	\$ 83,591,100
Administration	917,200	917,200	917,200
Refunds	(450,000)	(310,000)	(325,000)
Total Expenditures	\$ 71,166,000	\$ 79,901,800	\$ 84,183,300
Difference	\$ 9,309,500	\$ 5,757,700	\$ (3,290,600)

Source: Council on Postsecondary Education⁶

⁵ The Student Financial Aid Forecasting Group includes representatives of KHEAA, CPE, KDE, and the Office of the State Budget Director.

⁶ See Appendix C for a description of the methodology used to forecast the KEES expenditures and funds available.

Transfers from the Kentucky Lottery Corporation to support KEES through FY 2006 are a reflection of the statutory requirements for the allocation of net lottery proceeds. For FY 2007 through FY 2010, the Kentucky Lottery Corporation projects relatively modest growth in total dividend transfers to the General Fund for support of KEES. The allocation of lottery funds to support KEES is projected to increase by 11 percent, from \$64.3 million to \$71.2 million between 2004 and 2010. The rate of growth is expected to be limited due to the negative impact of the introduction of the Tennessee lottery, expansion of gaming in neighboring states, a maturing product mix, and the fact that few people know how proceeds from the lottery are used (Gleason 4).

The Kentucky Lottery Corporation is prohibited by KRS 154A.020 from mentioning government programs and services in advertising or promoting lottery games. In testimony before the Subcommittee on Postsecondary Education, the president and CEO of the Kentucky Lottery Corporation stated that marketing surveys had shown that consumers would be more interested in participating in the lottery if they were aware that the proceeds were used primarily to support education. Some, however, have expressed concern regarding whether such advertising is appropriate and how the content of advertising would be regulated.

Lottery funds supporting student financial aid are projected to increase somewhat, but demand for student financial aid is expected to increase by a greater amount, and the increase in need-based support is less than would be required to cover the current unmet need. Kentucky's education system has a goal to increase the number of students attending college by 80,000 from 1998 to 2020 (Layzell, IJCE 2), and the college-going rate of recent high school graduates increased from 49.2 percent in 1997 to 52.5 percent in 2001 (CPE, "College-going").⁷

As shown in Table 7, Kentucky has increased total undergraduate enrollment by an estimated 23.3 percent since fall 1998, from 160,926 to 198,378.⁸ The largest increase has been in enrollment at public two-year colleges, which experienced a 54.4 percent increase in enrollment. The public universities have increased undergraduate enrollment by 9.3 percent since fall 1998, and independent colleges and universities have increased enrollment by 5.9 percent during the same period.

As more high school graduates enter college, the number of eligible students utilizing KEES awards will increase. The number of students with financial need that will go unmet can also be expected to increase. After the 2006 fiscal year, however, the per-student cost of KEES can be expected to stabilize, since in subsequent years students in all four years of college will be eligible to receive full KEES awards for all four years of high school.

⁷ The Council on Postsecondary Education provided this information based on KDE Transition to Adult Life Data.

⁸ Final 2003 fall enrollments will be available January 2004. Recent estimates have varied from actual enrollments + or - 2 percent.

Table 7
Changes in Undergraduate Enrollment
in Kentucky, Fall 1998 to Fall 2003

Institution Type	Fall 1998 Actual Enrollment	Fall 2002 Actual Enrollment	% Change Fall 1998 to Fall 2002	Fall 2003 Estimated Enrollment	Est. % Chg. Fall 1998 to Fall 2003
Public 4-Year	84,937	90,711	6.8%	92,833	9.3
KCTCS/LCC	51,647	76,082	47.3%	79,761	54.4
Independent	24,342	26,845	10.3%	25,784	5.9
Total	160,926	193,638	20.3%	198,378	23.3

Source: CPE, from CPE comprehensive database and AIKCU

Planning for the Possible Need to Lower KEES Award Amounts

In the event that the amount of KEES awards earned exceeds the amount of funds available from net proceeds of the Kentucky Lottery, as is projected to occur in FY 2006, and no other source of funding is provided to address the gap, KEES awards will have to be reduced. The manner in which this would need to happen would be affected by the degree to which cuts are required to address an immediate shortfall, or if they are needed to ensure longer-term budgetary balance.

KRS 164.7879 requires that CPE review the KEES base and supplemental award amounts each academic year. The statute also permits the council to promulgate an administrative regulation to make adjustments after considering the availability of funds. The CPE has not promulgated an administrative regulation to make adjustments, and has requested direction from the General Assembly regarding the manner in which cuts should be made, if that action becomes necessary.

The determination of how cuts are to be made, if needed, should take into account the manner in which students flow through the system. A student begins accruing KEES funds in the ninth grade, and at the conclusion of each year, receives notification of the amount of KEES awards he or she has earned. A modification to the amount a ninth grader earns does not affect KEES expenditures for at least four years until the student enrolls in a postsecondary institution. Adjustments to awards for 10th graders would not result in savings for three years, and so forth. If savings were required within a more immediate timeframe, students already enrolled in college, or at the very least, juniors and seniors in high school who had been notified of award amounts in previous years would be affected.

Implications of Raising the Minimum Requirements for KEES Awards

Awards could be lowered for high school students through decreasing the amount a student receives using the existing scales for GPA and ACT; or awards could be lowered by raising the minimum standards. Either option could have a negative effect on college access and affordability: in the first instance by lowering student aid in the face of expected increases in college costs, and in the second by excluding students with marginal academic performance from receiving support.

Some observers contend that the current standards to receive KEES awards are not sufficiently meritorious to warrant merit-based support. Other states with merit-based scholarship programs typically require a minimum 3.0 GPA to receive an award (McCormick PS 18), while Kentucky begins providing KEES awards to students earning a 2.5 GPA. Also, KEES supplemental awards are provided to students based on ACT scores of 15 to 36, yet the Council on Postsecondary Education requires college freshmen at public institutions with ACT scores less than 18 to enroll in remedial classes or entry-level classes with “supplementary academic support.”⁹

The number of students who would be affected by an increase in the minimum requirements to receive KEES awards is substantial. As can be seen from the figures in Table 8, during the 2002-03 academic year, 13,208 students with cumulative high school GPAs of less than 3.0 utilized KEES awards, representing about 24 percent of the total number. Those students received an average award of \$505, for a total cost to the KEES program of \$6.67 million. The number of students with less than a 3.0 cumulative high school GPA utilizing KEES is highest during the first year of college, but drops sharply during each succeeding year after high school graduation.

Table 8
KEES Funds Utilized in Academic Year 2002-03
by Cumulative High School GPA

High School Graduating Class	Cumulative High School GPA	2002-03 Number of Students	2002-03 KEES Used	2002-03 Average Award
Combined	3.0 or greater	41,818	\$51,168,043	\$1,224
	Less than 3.0	13,208	\$6,674,694	\$505
1999	3.0 or greater	8,243	\$4,051,299	\$491
	Less than 3.0	729	\$136,074	\$187
2000	3.0 or greater	8,911	\$8,345,502	\$937
	Less than 3.0	1,959	\$762,105	\$389
2001	3.0 or greater	10,394	\$14,626,228	\$1,407
	Less than 3.0	3,051	\$1,489,579	\$488
2002	3.0 or greater	14,270	\$24,145,014	\$1,692
	Less than 3.0	7,469	\$4,286,936	\$574

Source: LRC Staff calculations using data provided by KHEAA.

This dynamic reflects two related policy issues facing Kentucky. As discussed earlier, the state has dramatically increased the number of high school graduates who pursue higher education. And, while statewide student achievement as measured by Commonwealth Accountability Testing System (CATS) scores at the high school level has shown moderate improvement between 1999 and 2003 (KDE 2), too many students arrive on college campuses academically underprepared. According to the Council on Postsecondary Education, 40.4 percent of first-time freshmen at Kentucky public four-year postsecondary institutions and 65.9 percent of first-time

⁹ See administrative regulation 13 KAR 2:020 – Guidelines for admission to the state-supported postsecondary education institutions in Kentucky.

freshmen at Kentucky public two-year institutions enrolled in at least one developmental education course during the 2002-03 academic year (CPE, “First-time”). Kentucky’s elementary and secondary education system and postsecondary education institutions are beginning to work collaboratively to improve student readiness prior to high school graduation and to provide meaningful support for college students to increase retention and graduation rates.

Implications of Lowering KEES Awards

Lowering KEES awards for students in college might undermine some of the goals of the KEES program. One of the goals of any merit-based financial aid program is to motivate students to increase their academic effort in order to receive a greater level of support. A decrease to the amount of funds students receive from the amount they were led to expect is likely to undermine the credibility of the program, limiting effectiveness to spur additional academic effort by current high school students.

Another goal of KEES is to affect the college-going choices of students—to encourage students, particularly high-achieving students, to remain in Kentucky for college and to encourage others to consider postsecondary education as a viable choice after high school. Students and their families make choices about how to invest their own resources in postsecondary education taking into account their understanding of the commitment Kentucky had made to them through KEES.¹⁰ In addition, many students and their families develop their budget to pay for college based on the KEES amounts they are expecting to receive; changes without sufficient advance notice could cause difficulties for some in finding the funds to cover costs.

¹⁰ Chapter VI. of this report has a more extended discussion of the possible effects of KEES on student behavior and college-going choices.

CHAPTER IV

MERIT-BASED AND NEED-BASED STUDENT FINANCIAL AID

In Kentucky, many students who are eligible for need-based aid, based on the completion of the federal student financial aid form, receive none due to lack of funds. In FY 2003, according to KHEAA, there were more than 61,000 students eligible for need-based grants through the College Access Program (CAP) and Kentucky Tuition College (KTG) programs who did not receive them, though not all of those students would have enrolled in college, even if the aid had been available. Based on historical utilization rates of CAP and KTG awards, KHEAA estimated that more than 31,000 of those students would have been likely to attend college, but did not.

As shown in Table 9, KHEAA estimated that more than \$34 million would have been required to provide need-based aid for all likely attenders. The maximum unfunded potential awards amount to more than \$70 million for FY 2003 (McCormick, IJCE 31). Similar gaps are projected for FY 2004. This gap in funding for eligible students has significant consequences in terms of access to postsecondary education. In 2002-03, about one-half of all these students who applied to receive aid for college but did not receive it, did not enroll in a Kentucky postsecondary institution (McCormick, IJCE 30).

Table 9
FY 2003 Unfunded Need-based Potential Awards
for Likely College Attenders and All Eligible Students

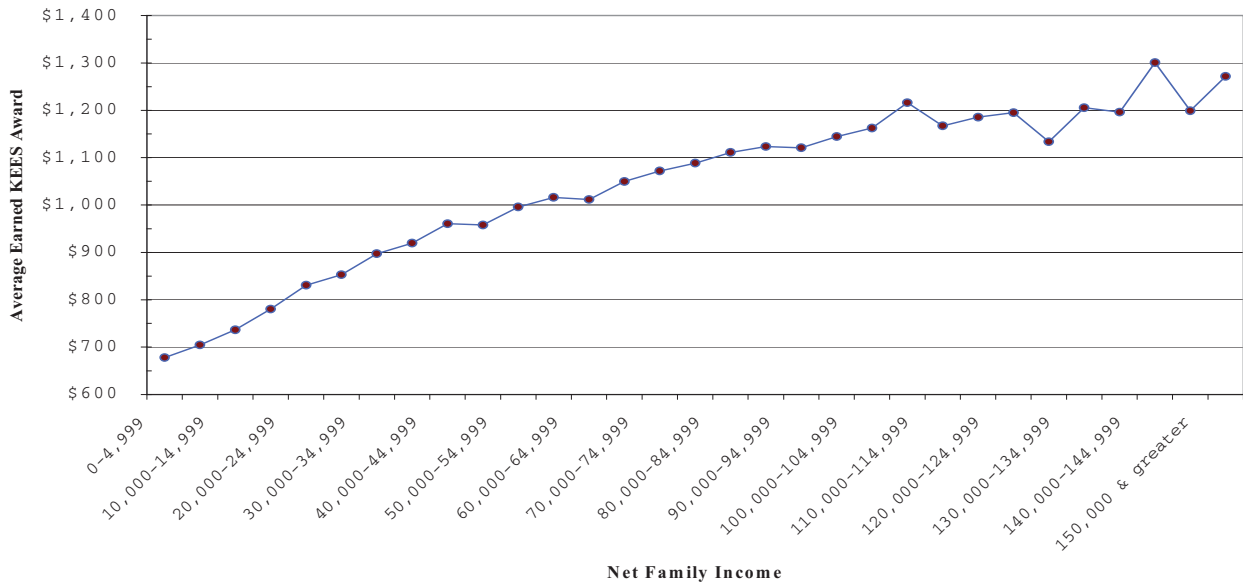
Program	Funded	Likely Attenders Unfunded	% Likely Attenders Unfunded	Maximum Potential Unfunded	% Eligible Unfunded
CAP	\$36.27 million	\$27.33 million	43	\$47.70 million	57
KTG	\$15.37 million	\$6.87 million	31	\$22.41 million	59
Total	\$51.64 million	\$34.20 million	40	\$70.11 million	57

Sources: KHEAA; McCormick, IJCE 31.

Students from more affluent families tend to have better grades and ACT scores, and therefore receive larger KEES awards.

Research indicates that there is a correlation between socioeconomic status and student achievement as measured by grades and test scores (Heller 21). On average, students from wealthier families tend to receive better grades and ACT scores than students from lower-income families, leading to larger KEES awards. As shown in Figure A, in FY 2002, students in families earning between \$15,000 and \$19,999 earned an average KEES award of \$780, while students in families earning between \$105,000 and \$109,999 received an average of \$1,216, or 56 percent more. This effect is mitigated for many low-income students because Kentucky allows KEES and need-based grants to be used together without penalty (McCormick, PS 24).

Figure A
Average KEES Award FY 2000 to FY 2003
by Net Family Income Range



Source: KHEAA, based on federal income data collected for FAFSA completers.

A large number of students from low- and moderate-income families receive KEES awards, even as the amount they receive tends to be smaller.

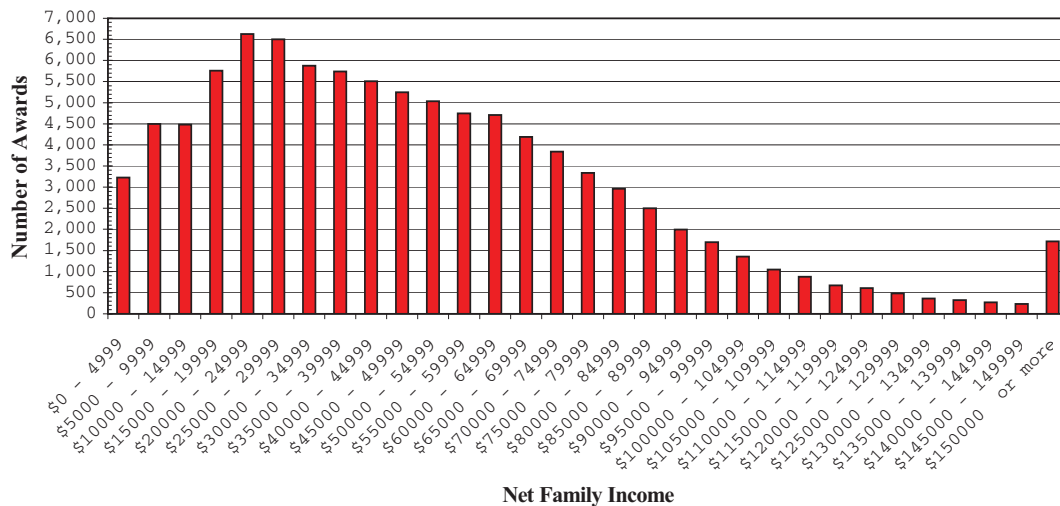
While lower-income students tend to receive smaller KEES awards, as discussed above, KEES has nonetheless helped many low- and moderate-income students be able to pay for college. The largest number of students receiving aid between 2000 and 2003, more than 12,000, were from families with incomes between \$25,000 and \$35,000. More than 12,000 additional students were from families with incomes below \$15,000, as shown in Figure B.

Low- and moderate-income families are also affected by an administrative problem that KEES has had since its inception. KEES awards are based on eight semesters of high school grades, including the spring semester of senior year. The calendar for submission of final grades and the processing required makes it difficult for students and parents to know the exact amount of their KEES award before school starts. Not knowing the exact amount of the KEES award creates difficulties for families who are struggling to budget for college. KHEAA has expressed interest in finding a solution to this problem.

Another administrative issue is whether to require students to fill out a Free Application for Federal Student Aid (FAFSA). This would make sure that low-income students are made aware of other student financial aid opportunities, however the need to fill out a complicated form can

be a barrier for students who are not sure of their post-high school plans until close to or after graduation.

Figure B
Number of KEES Awards FY 2000-FY 2003
by Recipient's Income Range



Source: KHEAA, based on federal income data collected for FAFSA completers.

Students who receive their GED are eligible for the supplemental award up to \$500 based on ACT scores.

GED recipients are eligible for the supplemental KEES award based on ACT scores, with a maximum of \$500 for each year of college, while students who graduate from high school are eligible for up to \$2,500. Kentucky has succeeded in dramatically increasing the number of individuals enrolled in adult education classes from approximately 51,000 in FY 2000 to almost 110,000 in FY 2003. The number of Kentuckians students completing the GED increased by 16.9 percent from FY 2000 to FY 2002 (from 12,533 to 14,651). It then decreased in FY 2003 to 9,452¹¹ (King 1). Efforts to improve the overall level of educational attainment of Kentucky’s workforce include the need to create educational opportunities for people to move beyond attainment of the GED.

¹¹ The substantial increase and then decline in the number of GED completers can be attributed in part to changes in the GED exam, which made it more difficult to successfully complete. This created an incentive for students to complete the test prior to the changes.

CHAPTER V

EFFECT OF DIFFERING GRADING SCALES ON KEES AWARDS

The largest component of a student's KEES award is based on his or her GPA.¹² The amount of variation among schools in the grading scales used to determine letter grades is significant, which in turn affects students' GPAs and ultimately, KEES awards. Grading scales play a critical role in determining KEES base awards.

- KEES base awards are set by adding the amounts a student earns during each year of high school, based on his or her GPA.
- GPA means a student's score on a scale of 0 to 4 for the purposes of calculating KEES awards: A=4.0, B=3.0, C=2.0, D=1.0, F=0.0. Grades for Advanced Placement courses receive an extra point.
- Letter grades are determined against a scale of 0 to 100 (for example, A=90-100, B=80-89, etc...).
- Each school has the authority to set its own grading policy; however, in practice in Kentucky public schools, this is generally done at the district level.

In order to determine the degree to which grading scales vary across schools, a request was sent by e-mail from the Commissioner of Education to all district superintendents asking that they submit grading policies for high schools in their districts. Letters requesting the same information were sent to the principals of the 54 nonpublic high schools certified by the Kentucky Board of Education.

Of the 239 public high schools, 166 responded to the request for grading scales, representing a response rate of 69 percent.¹³ Of the 54 certified nonpublic schools, 16 responded, for a 30 percent response rate. For public and nonpublic high schools combined, grading scales were received from 182 of 293 high schools, an overall response rate of 62 percent.

Grading scales vary widely among high schools across the state, and the grade point averages determined according to these different grading scales also vary, which has a potentially significant effect on KEES award amounts.

Among the 182 schools for which grading scales were received, there are:

- 61 different grading scales setting the cut-points between A, B, C, D, F.
- 32 schools with policies that explicitly spell out numerical ranges for A-, B+, B-, etc....
- 46 schools with policies that outline various weighting or quality point structures.

¹² A student can earn up to a maximum of \$2,000 for each year in college based on his or her GPA. A student's supplemental award based on ACT score provides up to a maximum of \$500 for each year in college.

¹³ This set of high schools does not include alternative schools, day treatment centers, and other nontraditional school settings, because students are frequently assigned to these schools for short periods of time, then return to their home school.

Table 10 illustrates the diversity of grading scales among the 182 schools that provided information, showing the number of schools that assign each letter grade for given numeric score in a class.

Table 10
Number of Schools Using Each Numeric Grade
for Determining Letter Grades and GPAs

Num. Grade	A 4.0	B 3.0	C 2.0	D 1.0	F 0.0
100	182				
99	182				
98	182				
97	182				
96	182				
95	182				
94	176	6			
93	150	32			
92	80	102			
91	51	131			
90	50	132			
89	1	181			
88		182			
87		177	5		

Num. Grade	A 4.0	B 3.0	C 2.0	D 1.0	F 0.0
86		173	9		
85		137	45		
84		95	87		
83		82	100		
82		51	131		
81		49	133		
80		48	134		
79		1	179	2	
78		1	154	27	
77			145	37	
76			127	55	
75			109	73	
74			96	86	
73			67	115	

Num. Grade	A 4.0	B 3.0	C 2.0	D 1.0	F 0.0
72			58	124	
71			55	127	
70			52	130	
69				110	72
68				110	72
67				101	81
66				101	81
65				98	84
64				59	123
63				55	127
62				53	129
61				52	130
60				52	130
59					182

Source: LRC staff calculation based on school district responses.

Because base KEES amounts are determined using students’ GPAs and the grading scales used to determine GPAs vary widely, students at different schools with the same numeric scores earn differing amounts of KEES funds. The variety of grading scales and policies makes it difficult to determine the magnitude of this effect. The example below in Table 11 using a hypothetical set of grades a student might receive during four years of high school provides an illustration of the problem.

Table 11
Hypothetical High School Course Grades

<u>Freshman</u>		<u>Sophomore</u>		<u>Junior</u>		<u>Senior</u>	
English I	88	English II	95	English III	92	English IV	90
U.S. History	78	Economics	84	Government	90	World Civilization	93
Algebra I	96	Geometry	89	Algebra II	94	AP Calculus	87
Biology	79	Earth Science	84	AP Chemistry	85	Physics	91
Spanish I	88	Spanish II	88	Spanish III	87	Spanish IV	90

Source: Created by LRC staff, taking into account the definition of “KEES Curriculum” in KRS 164.7874.

By calculating annual GPAs, and the resulting base KEES amounts using the letter grade cut-scores for A, B, C, D, and F used by different school districts, an estimate of the scope of

variation can be determined.¹⁴ Depending on the school he or she attends, a student receiving the grades in the example could receive between \$650 and \$1,600 in KEES for each year in college. Most frequently, at 48 schools, a student would receive \$1,450, while a student with the same grades at 34 schools would receive \$1,050, as shown in Table 12. On average, a student with these grades would receive \$1,230 in KEES awards.

Table 12
Potential Grade Point Average and KEES Awards for a Student with Hypothetical Course Grades

Number of Schools	Total KEES Amount	Freshman KEES Amount	GPA	Sophomore KEES Amount	GPA	Junior KEES Amount	GPA	Senior KEES Amount	GPA
1	\$650	\$0	2.40	\$200	2.80	\$250	3.00	\$200	2.80
1	\$750	\$0	2.40	\$200	2.80	\$300	3.20	\$250	3.00
3	\$850	\$200	2.80	\$200	2.80	\$250	3.00	\$200	2.80
4	\$1,000	\$200	2.80	\$200	2.80	\$350	3.40	\$250	3.00
34	\$1,050	\$200	2.80	\$200	2.80	\$350	3.40	\$300	3.20
14	\$1,100	\$200	2.80	\$200	2.80	\$400	3.60	\$300	3.20
27	\$1,150	\$200	2.80	\$200	2.80	\$400	3.60	\$350	3.40
3	\$1,200	\$200	2.80	\$300	3.20	\$400	3.60	\$300	3.20
16	\$1,250	\$200	2.80	\$300	3.20	\$400	3.60	\$350	3.40
28	\$1,300	\$200	2.80	\$300	3.20	\$450	3.80	\$350	3.40
1	\$1,350	\$200	2.80	\$300	3.20	\$450	3.80	\$400	3.60
48	\$1,450	\$200	2.80	\$300	3.20	\$500	4.00	\$450	3.80
1	\$1,600	\$300	3.20	\$350	3.40	\$500	4.00	\$450	3.80

Source: LRC staff calculation of GPAs and base KEES awards.

If a uniform grading scale were adopted, or if numeric grade scores were used to calculate KEES awards, measuring the relative merit of student achievement statewide would still be difficult. Differences in course rigor and teacher grading policies create unavoidable discrepancies between the value of a given grade for students attending different schools, and KEES awards are affected by these differences.

Despite the effect that grading policies have on the amount of KEES awards students receive, public schools have not, in general, changed their grading policies since the inception of KEES. In 1998 the Kentucky Department of Education surveyed school districts to determine grading scales in their high schools. Of the 139 public schools for which both 1998 and 2003 grading scales are known, only five have changed the grading scales.

¹⁴ These figures are based on using the calculation of cumulative GPA set in administrative regulation 13 KAR 2:090, which does not differentiate for plus or minus letter grades, and includes an extra 1 point for AP courses. They do not take into account the possibility that some school districts submit GPAs for KEES purposes that are calculated in a manner different than that required by administrative regulation.

CHAPTER VI

EFFECT OF KEES ON STUDENT AND TEACHER BEHAVIOR

The KEES program has several goals: to make college more affordable for Kentucky students and encourage students to consider postsecondary education; to motivate high school students to work harder and improve their grades by rewarding achievement with larger KEES scholarships; and to encourage students, particularly high-achieving students, to remain in Kentucky to attend college.

It is also possible that the KEES program has unintended negative effects on student and teacher behavior. For example, students might take less rigorous courses in order to improve their GPAs, and teachers might adjust their grading standards or decrease the rigor of courses in order to improve student grades to increase the amount of KEES money students earn.

In order to gauge the possible effects of the KEES program on high school student motivation and behavior, as well as on teacher behavior, grading rigor, and curriculum content, LRC staff developed an online questionnaire for high school teachers and guidance counselors. The questionnaire and response frequencies for close-ended questions are provided in Appendix B.

High School Teacher Response

A request to complete the survey was sent by e-mail to 1,167 public high school teachers randomly selected from a list provided by the Kentucky Department of Education. A follow-up reminder e-mail was also sent. Fifty-one e-mails were returned as undeliverable, leaving 1,116 teachers who received the request. In addition, a letter was sent to the principals of the 54 certified nonpublic high schools requesting that they forward a request to complete the online questionnaire to their teachers.

Responses were received from 223 high school teachers.

- 195 public high school teachers completed the questionnaire, a response rate of 17.5 percent.
- 28 private high school teachers also responded, an indeterminable rate of response.

High School Guidance Counselor Response

A request to complete the survey was sent by e-mail to 491 public high school guidance counselors, representing all guidance counselors identified on the list Kentucky Department of Education website as working in a public high school, for whom an e-mail was available. Ten e-mails were returned as undeliverable, leaving 481 public high school guidance counselors who received the request. A follow-up reminder e-mail was also sent. In addition, a letter was sent to the principals of the 54 certified nonpublic high schools requesting that they forward a request to complete the online questionnaire to their guidance counselors.

Responses were received from 172 high school guidance counselors.

- 162 public high school guidance counselors completed the questionnaire, a response rate of 33.6 percent.
- 10 private high school guidance counselors also responded, an indeterminable rate of response.

The relatively low response rate¹⁵ and the modest total number of responses make it impossible to determine the degree to which the responses received are representative of the opinions of high school teachers and guidance counselors across the state. Nonetheless, they do represent the opinions of several hundred professional educators in Kentucky, and as such are worthy of consideration.

Teachers and guidance counselors were asked to respond to the survey based on their observations of students in grades with whom they have regular contact.

Student Awareness of KEES

The KEES program has the opportunity to affect student behavior only to the degree that students are aware of the program and how it functions. Teachers and guidance counselors responding to the questionnaire reported that there is widespread awareness of the KEES program among students and parents during the senior year of high school but substantially less awareness in the lower grades. As might be expected, teachers and guidance counselors reported that awareness of the KEES program increases as students move from 9th to 12th grade. Guidance counselors perceived a higher level of awareness of the program than teachers for students in each grade.

Of the 144 responding teachers who have regular contact with freshmen, 69 percent felt that only some or very few students were aware of the KEES program, compared to 41 percent of 137 guidance counselors. Fifty-nine percent of the guidance counselors responding felt that many or all ninth graders were aware of KEES.

Eighty-seven percent of the 188 responding teachers who have regular contact with seniors thought that many or almost all seniors were generally aware of the KEES program, while 98 percent of the 158 guidance counselors with regular contact with seniors felt many or almost all of them were aware of KEES.

Student Motivation and Behavior During High School

The responses of teachers and guidance counselors to the survey regarding the effect of KEES on student behavior, based on their observation of students who are aware of KEES, indicate that the KEES program may have both positive and negative effects on students. Teachers and guidance counselors responding to the questionnaire reported that

¹⁵ The response rate appears to have been somewhat depressed due to technical difficulties. Numerous teachers reported difficulty accessing the questionnaire online.

in order to improve their GPAs and receive larger KEES awards, many students demonstrate greater effort in their classes, while some students take less rigorous courses.

Seventy-five percent of the 223 teachers responding felt that many or some students demonstrate greater effort in the classes in order to improve their GPAs to receive larger KEES awards. Of the 172 guidance counselors responding, 83 percent felt many or some students demonstrate greater effort.¹⁶

On the negative side, more than 60 percent of both teachers and guidance counselors believed that at least some students take one or more less rigorous courses in order to improve their GPAs to receive larger KEES awards.

While some students may be taking less rigorous courses, some evidence indicated that high schools students in Kentucky have been taking more rigorous courses in recent years. The Council on Postsecondary Education reported that, for recent high school graduates, the number of college-level courses taken by high school juniors and seniors increased by over 280 percent between the academic years 1997-98 and 2002-03, from 79 per 1,000 students to 220 per 1,000 students (CPE, "Preparation").

The College Choices of Students

Many teachers and guidance counselors responding to the survey felt that awareness of the KEES program affects student decisions whether to attend college. Twenty-two percent of teachers and 35 percent of guidance counselors expressed the opinion that awareness of KEES has a significant effect on a student's decision whether to attend college, while 46 percent of teachers and 42 percent of guidance counselors felt it had a moderate effect. Seventy-seven percent of teachers and 86 percent of guidance counselors agreed that the KEES program has encouraged students who would not otherwise do so to consider college as an option after high school.

One of the goals of the KEES scholarship program is to encourage students, particularly high-achieving students to remain in Kentucky for postsecondary education, which may be based on the idea that students tend to settle where they go to college, providing a benefit to the economic and social vitality of the state. While the Kentucky Long-Term Policy Research Center reported that "research offers conflicting evidence that the 'best and brightest' actually stay put, that is, continue to live and work in the state where they are educated" (Smith-Mello 86), Kentucky appears to have succeeded in encouraging students, including high achieving students, to remain in Kentucky to attend college.

Of teachers and guidance counselors who have regular contact with high school seniors and responded to the survey, many report that awareness of the KEES program has a significant or moderate effect on students' decisions whether to remain in Kentucky to attend college. Of 188 responding teachers with regular contact with seniors, 49 percent believed that awareness of KEES has a significant effect, while 30 percent felt it has a

¹⁶ For the balance of Chapter VI, except as noted in the text, N= 223 for teachers, and N=172 for guidance counselors.

moderate effect. Guidance counselors who have regular contact with seniors are even more likely to attribute an effect on college-going decisions to KEES awareness: 73 percent of those who responded felt it has a significant effect, while 21 percent perceived a moderate effect. Slightly smaller though substantial percentages of teachers and guidance counselors felt that KEES has a significant or moderate effect on the decisions of high-achieving high school seniors whether to remain in Kentucky for college.

In addition, there were 759 students recognized as Senator Jeff Green Scholars in the academic year 2001-02 for receiving a 4.0 GPA during each year of high school and attaining a score of 28 or greater on the ACT.¹⁷ Of these 759 high-achieving students, 504, or two-thirds, remained in Kentucky to attend college. One hundred thirty-five attended an independent college or university, while 369 attended a public postsecondary institution in Kentucky (McCormick PS 5, 29).

Teacher Grading Rigor and Curriculum Content

A significant number, though a minority, of teachers and guidance counselors responding to the questionnaire believed that some teachers have adjusted their grading standards or the rigor of course content to help students qualify for larger KEES awards. Some also believed that some teachers feel pressure to adjust students' grades. More than half of the respondents, however, believed that KEES had no such effects on teachers.

One-third of teachers and 31 percent of guidance counselor responding to the survey believed that at least a few teachers have adjusted their grading standards to help students qualify for larger KEES awards. However, majorities—56 percent of teachers and 62 percent of guidance counselors—expressed the opinion that very few or no teachers ever adjusted their grading standards. Teachers and guidance counselors gave similar responses regarding the share of teachers who have ever decreased the rigor of course content and the share of teachers who feel pressured to adjust student grades to improve student GPAs and increase KEES awards.

These responses from teachers and guidance counselors lead to a concern as to whether grade inflation is a problem in Kentucky high schools. Yet, as shown in Table 13, the average GPAs of students in relation to ACT scores, have generally declined or remained flat between the high school graduating classes of 2000 and 2003, with a few exceptions. While there may be some schools where grade inflation is a problem, these data suggest it is not a major factor in Kentucky schools, taken as a whole.

¹⁷ Senator Jeff Green Scholars are eligible to receive the maximum KEES award of \$2,500.

Table 13
GPA's for KEEES-Eligible High School Graduates
Taking the ACT/SAT Exam

	Class of 2000		Class of 2003	
	N = 23,090		N = 26,963	
ACT Score ¹⁸	Senior GPA	Cum. GPA	Senior GPA	Cum. GPA
15	3.11	2.79	3.02	2.72
16	3.19	2.92	3.12	2.87
17	3.24	3.00	3.19	2.94
18	3.30	3.09	3.24	3.03
19	3.38	3.16	3.31	3.11
20	3.43	3.25	3.38	3.20
21	3.50	3.33	3.46	3.30
22	3.53	3.40	3.51	3.37
23	3.60	3.47	3.58	3.44
24	3.65	3.55	3.61	3.48
25	3.73	3.62	3.69	3.55
26	3.79	3.66	3.75	3.59
27	3.86	3.72	3.84	3.68
28	3.92	3.80	3.92	3.74
29	4.01	3.89	3.99	3.81
30	4.03	3.88	4.07	3.86
31	4.12	4.01	4.13	3.88
32	4.24	4.02	4.23	3.97
33	4.19	4.07	4.36	4.08
34	4.37	4.22	4.41	4.15
35	4.45	4.13	4.35	4.08
36	4.44	4.36	4.41	4.17

Source: KHEAA, "Cumulative"

¹⁸ ACT scores less than 15 (or Equivalent SAT scores) are not included.

CHAPTER VII

ADDITIONAL POLICY CONSIDERATIONS

In the course of the work of the Subcommittee on Postsecondary Education, there were several issues raised relating to the use of KEES awards and program administration by stakeholder agencies, teachers, guidance counselors, parents, and others. Below is a brief discussion of these issues.

Students are not permitted to use KEES awards to pay for dual credit courses.

A dual credit course is a course taken by a high school student for which he or she receives credit from both the high school and a postsecondary institution. It is seen by many as a way to improve student transition from high school to college without remediation. In a letter to the co-chairs of the Subcommittee on Postsecondary Education dated October 23, 2003, the Commissioner of Education identified dual credit as a "key leverage point, especially for students who may not be planning for college in their middle or early high school years" to make a successful transition to postsecondary education.

High school students enrolled in a postsecondary course for dual credit are frequently responsible for paying the tuition, but are not eligible for federal student financial aid. Thus, this opportunity is limited to students whose families can afford the cost of tuition.

Currently, students do not have access to KEES funds to pay for dual credit courses. If this were to change, KEES awards would be based on projections, since the final award is not calculated until graduation. Use of KEES funds during high school would lower the amount available to a student once he or she is in college. A change in statute so that KEES awards could be used to pay for dual credit course tuition could be permissive rather than mandatory.

High school students are not permitted to use projected KEES awards to pay for the cost of Advanced Placement exams.

The federal government has paid the cost of taking Advanced Placement (AP) exams for income-eligible and minority students who get a score of "3" or better on the exam; however, the funds for that purpose are expiring. Due to this financial barrier, low-income students may choose not to take the exam due to the cost, and thereby be denied the possibility of receiving college credit for rigorous high school work.

Currently, students cannot use KEES awards to pay for AP exams. Use of KEES funds during high school would lower the amount available to the student once he or she is in college.

In his October 23, 2003 letter to the subcommittee co-chairs, the Commissioner of Education stated that "there is a large population of students who are not able to sit for the exams unless the fee is paid or subsidized." He suggested consideration of a change to permit students who qualify for college credit by scoring a "3" or higher on the AP exam to voluntarily access KEES funds for reimbursement of the cost of the exam.

Students who take an accelerated course load to graduate early receive smaller KEES awards.

Students who graduate in three years now receive KEES awards based on the GPA earned in three years of high school (\$1,500 maximum) instead of four years (\$2,000 maximum). This creates a disincentive for a motivated student to pursue early graduation, despite the cost savings that accrue to the student's school district, and ultimately, to the state. Equalizing their base KEES awards would recognize these motivated students for their effort.

Students who attend a postsecondary institution in another state are not eligible for KEES scholarships, with certain limited exceptions.

Several teachers responding to the survey and individuals in contact with legislators have expressed the opinion that students should be permitted to use KEES awards at institutions outside of Kentucky. To do so would permit students greater options regarding their postsecondary education, but the cost to the KEES program would increase. Also, the incentive for students to remain in Kentucky for postsecondary education, one of the goals of the KEES program, would be eliminated.

Currently, the CPE permits students to use KEES awards outside of Kentucky only within the Academic Common Market (ACM). The ACM is a consortium of southeastern states and institutions that permit students to enroll in a course of study not available in their home state, at in-state tuition rates. CPE estimates that the annual cost of expanding KEES eligibility to permit students to enroll in any state and in any major not currently offered in Kentucky could potentially cost between \$3.33 and \$4.39 million annually. The cost of expansion of the program to permit students to use KEES awards in the five contiguous states where reciprocity agreements are already in place is estimated by CPE to have an annual cost of between \$935,000 and \$1.18 million (CPE, "Analysis").

Students enrolled at postsecondary institutions offering a degree program of study comprised solely of religious instruction are not eligible to receive KEES awards.

Several teachers responding to the survey and other citizens have expressed the opinion that students should be permitted to use KEES awards at schools offering a degree program of study comprised solely of religious instruction. Based on legislative action in the 2003 General Assembly, current law permits KEES funding to be used for pursuit of a degree in theology, divinity, or religious instruction, but only at an institution that offers an associate or baccalaureate degree program of study not comprised solely of sectarian

instruction. The current session of the United States Supreme Court will be deciding a case from Washington state, Gov. Gary Locke, et al. v. Joshua Davey, regarding the constitutionality of a similar prohibition in the use of merit-based scholarship funds.

Merit scholarship funds are not available to reward student achievement on CATS tests.

Several teachers and guidance counselors responding to the survey suggested that additional awards be given for student achievement on the CATS test. Supporters argue that this would create an incentive for students to try their best on CATS. In order to be appropriate, however, it would need to be determined that CATS is sufficiently valid and reliable at the student level to be used for determining monetary rewards.

CHAPTER VIII

RECOMMENDATIONS

Based on the results of the investigation of the Kentucky Educational Excellence Scholarship (KEES) program and deliberations during the 2003 Interim, the following recommendations are presented for consideration by the 2004 Regular Session of the Kentucky General Assembly:

Give priority to funding the need-based student financial aid programs over the merit-based KEES program, in the event that no funds beyond net lottery proceeds are made available for student financial aid and net lottery proceeds are insufficient to meet program needs.

Data provided by the Kentucky Higher Education Assistance Authority (KHEAA) shows that students' average KEES awards increase as family income increases, because higher-income students tend to earn better grades and higher ACT scores. At the same time, increases in the cost of college have a disproportionate effect on low-income students: the increases represent a greater percentage of family income, low-income families have substantially less discretionary income, and low-income students have more limited access to alternative means of financing postsecondary education.

The merit-based KEES program and the need-based College Access Program (CAP) and Kentucky Tuition Grant (KTG) programs are both funded primarily through net lottery proceeds. As discussed in Chapter III, in FY 2005, KEES and the combined need-based programs will each receive 45 percent of net lottery proceeds, providing an estimated \$70 million to each. In FY 2006, the need-based programs will receive 55 percent of net lottery proceeds, projected to be \$84 million, while the KEES share will remain at 45 percent, with a projected value of \$69 million.

In testimony before the Subcommittee on Postsecondary Education on December 1, 2003, the CPE President and the Executive Director of KHEAA both stated that adherence to the existing statutory division of net lottery proceeds (45 percent for KEES and 55 percent for need-based programs by FY 2006) reflected that priority is being given to need-based student financial aid.

According to the Student Financial Aid Forecasting Workgroup, by FY 2006, total expenditures for KEES are projected to exceed total funds allocated for KEES, creating a shortfall of an estimated \$3.3 million. Yet, KHEAA estimated that current annual unmet need for CAP and KTG awards to income-eligible likely college attenders was more than 10 times that amount, at approximately \$34 million.

Use a student's numeric score average rather than grade point average to determine annual KEES base amount, beginning with the ninth-grade class for the 2005-2006 school year.

The LRC staff analysis in this report of the differing grading scales and the effect on KEES awards shows that grading scales vary widely among high schools across the state, and that this variance can affect a student's KEES award by hundreds of dollars for each year of college. While it is the case that differences in course rigor and grading standards will continue to affect KEES awards if numeric scores are used to determine KEES awards, doing so would eliminate one significant factor in creating unwarranted disparities in merit-based financial aid provided to students.

Permit high school students to use projected KEES awards to pay for dual credit courses.

According to the Commissioner of Education, use of dual credit courses is one strategy that appears promising in increasing student preparedness for postsecondary success without remediation. Permitting the voluntary use of projected KEES awards to pay for dual credit courses where students are responsible for paying tuition would eliminate one barrier to access for low-income students.

Permit high school students to use projected KEES awards to pay for the cost of taking Advanced Placement exams.

Support from the federal government to pay the cost of taking an Advanced Placement (AP) exam for low-income and minority students is expiring, which will reinstitute a financial barrier for these students to be eligible to receive college credit for achievement in rigorous courses during high school. Allowing students who score a "3" or better on an AP exam to voluntarily access KEES funds for reimbursement of the exam cost would permit low-income students to decide whether to participate without regard to financial considerations.

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APPENDIX A

HOW THE KEES PROGRAM WORKS

Source: LRC staff summary of KRS 164.7871 to 164.7889.

KEES Award Determination

The KEES amount a student is eligible to receive is based on a student's cumulative grade point average (GPA) earned during each year of high school, with a supplemental award based on the student's ACT or SAT score.

Base Award - The base KEES scholarship amount is determined based on the student's GPA during high school. A student can earn between \$125 and \$500 on a graduated scale for a GPA of 2.5 to 4.0 for each high school year, for a maximum award of \$2,000 for each year of college.

Supplemental Award - A supplemental award, based on a student's best score on the ACT or SAT prior to graduation, provides additional support of between \$36 and \$500 for an ACT score of between 15 and 36.

The maximum annual award amount (base scholarship plus supplemental award) a student can earn is \$2,500 for each year of college.

Eligibility Criteria

Base Award - To be eligible for a base award, a Kentucky high school student must:

- Have been enrolled in a Kentucky public high school or a private high school certified by the Kentucky Board of Education;
- Achieve a minimum 2.5 GPA on a "KEES curriculum";
- Attend a participating postsecondary institution;
- Be a Kentucky resident; and
- Not be a convicted felon.

Students who participate in student exchange programs or the U.S. Congressional Page program, or who attend an out-of-state school due to the active duty military service of a parent are also eligible.

Supplemental Award - To be eligible for a supplemental award, a high school student must qualify for a base award, have a composite score of at least 15 on the ACT (or 710 on the SAT), and attend a participating postsecondary institution.

The supplemental award may also be earned by:

- Students who attended a noncertified, nonpublic high school, including home schools; and
- Students who obtain a GED within five years of their graduating class.

Using KEES Scholarships

A KEES award can be used at:

- All Kentucky public two- and four-year colleges and universities.
- All Kentucky private postsecondary institutions that:
 - ❖ Participate in the federal Pell Grant program;
 - ❖ Have been licensed in Kentucky and been in business for 10 years; and
 - ❖ Offer associate or bachelor degree program of study not comprised solely of religious study.
- Approved out-of-state schools offering a course of study not available in Kentucky.

Other requirements:

- Students must be enrolled full time to receive the full award, and at least half time to receive a proportionally smaller award.
- Students have eight semesters of eligibility for KEES support to be used within five years of high school graduation, with the exception that a student has 10 semesters of eligibility to be used within six years, if enrolled in a five-year undergraduate program or professional degree program identified by CPE to be eligible.
- To retain eligibility, a student must have a cumulative freshman year GPA of at least 2.5, and in subsequent years, must have 3.0 GPA to receive the full amount.
- A student must show adequate progress in college in order to remain eligible over his or her entire course of postsecondary study. If a student loses an award due to low grades, he or she can regain eligibility by achieving at least a 2.5 GPA at the end of the academic year.

KEES Award Amounts

KRS 164.7879 establishes the amount of KEES base and supplemental awards as shown in the tables below. The Council on Postsecondary Education is required to review the base and supplemental amount of the KEES award each academic year and may promulgate an administrative regulation to make adjustments after considering the availability of funds.

Base Award Amount

The base scholarship amount for students attaining a grade point average of at least 2.5 for each year of high school is determined as follows:

<u>GPA</u>	<u>Amount</u>	<u>GPA</u>	<u>Amount</u>	<u>GPA</u>	<u>Amount</u>	<u>GPA</u>	<u>Amount</u>
2.50	\$125	2.90	\$225	3.30	\$325	3.75	\$437
2.60	\$150	3.00	\$250	3.40	\$350	3.80	\$450
2.70	\$175	3.10	\$275	3.50	\$375	3.90	\$475
2.75	\$187	3.20	\$300	3.60	\$400	4.00	\$500
2.80	\$200	3.25	\$312	3.70	\$425		

Supplemental Award Amount

The KEES supplemental award is based on the eligible high school student's highest ACT score attained by the date of graduation from high school. The supplemental award shall be determined as follows:

<u>Score</u>	<u>Amt</u>	<u>Score</u>	<u>Amt</u>	<u>Score</u>	<u>Amt</u>	<u>Score</u>	<u>Amt</u>
15	\$36	19	\$179	23	\$321	26	\$428
16	\$71	20	\$250	24	\$357	27	\$464
17	\$107	21	\$250	25	\$393	28+	\$500
18	\$143	22	\$286				

APPENDIX B

RESULTS OF 2003 LRC SURVEY OF KENTUCKY TEACHERS AND GUIDANCE COUNSELORS

Kentucky Educational Excellence Scholarship Questionnaire (KEES) (Frequencies provided for closed-ended questions)

Introduction

Please answer the following questions based on your experience with students and teachers in your school. At the end of each section, space is provided for additional comment regarding the issues raised by the preceding questions.

Although participation is voluntary, our goal is to get responses from 100% of teachers surveyed. We encourage you to complete this survey so that your voice is heard. Your answers are confidential; any information that would identify you or your district **will not** be associated with your answers in any report or public communication.

For each question, please indicate the best answer for you. You may wish to print this page and complete it by hand before completing this web form. The “Submit” button is at the bottom of this form. We would like to receive your response by **October 10, 2003**. Thank you in advance for your prompt response.

Section 1. Student and Parent Awareness of the KEES Program

1. What are the grades of students with whom you have regular contact?
(Please check all that apply.)

		9th Grade		10th Grade		11th Grade		12th Grade	
		Number	Pct.	Number	Pct.	Number	Pct.	Number	Pct.
Guidance Counselors	N = 172	137	79.7%	150	87.2%	145	84.3%	158	91.9%
Teachers	N = 223	144	64.6%	178	79.8%	185	83.0%	188	84.3%

Please answer questions 2, 3, and 4 for students with whom you have regular contact for each of the grades you checked in Question 1.

2. What share of the students with whom you have regular contact do you believe are aware of the KEES college scholarship incentives for various levels of performance on grades and ACT scores?

Teacher Responses	9th Grade		10th Grade		11th Grade		12th Grade	
	Number	Pct.	Number	Pct.	Number	Pct.	Number	Pct.
N = 223								
Total	144	100.0%	178	100.0%	185	100.0%	188	100.0%
Almost All	17	11.8%	32	18.0%	79	42.7%	127	67.6%
Many	20	13.9%	53	29.8%	67	36.2%	38	20.2%
Some	56	38.9%	62	34.8%	25	13.5%	11	5.9%
Very Few	43	29.9%	22	12.4%	8	4.3%	5	2.7%
Not Sure	6	4.2%	8	4.5%	6	3.2%	7	3.7%
No Answer	2	1.4%	1	0.6%	0	0.0%	0	0.0%

Guidance Responses	9th Grade		10th Grade		11th Grade		12th Grade	
	Number	Pct.	Number	Pct.	Number	Pct.	Number	Pct.
N = 172								
Total	137	100.0%	140	100.0%	145	100.0%	158	100.0%
Almost All	48	35.0%	62	44.3%	105	72.4%	145	91.8%
Many	33	24.1%	48	34.3%	32	22.1%	10	6.3%
Some	43	31.4%	26	18.6%	5	3.4%	3	1.9%
Very Few	13	9.5%	3	2.1%	1	0.7%	0	0.0%
Not Sure	0	0.0%	0	0.0%	0	0.0%	0	0.0%
No Answer	0	0.0%	1	0.7%	2	1.4%	0	0.0%

3. Do you think, in general, that the students with whom you have regular contact are aware of the following specific elements of the KEES program?
- a. A student can receive scholarships for college tuition based on earning a high school grade point average between 2.5 and 4.0, with the award amount increasing as the student's GPA increases.

Teacher Responses	9th Grade		10th Grade		11th Grade		12th Grade	
	Number	Pct.	Number	Pct.	Number	Pct.	Number	Pct.
N= 223								
Total	144	100.0%	178	100.0%	185	100.0%	188	100.0%
Generally Aware	48	33.3%	92	51.7%	156	84.3%	171	91.0%
Not Generally Aware	94	65.3%	83	46.6%	29	15.7%	16	8.5%
No Answer	2	1.4%	3	1.7%	0	0.0%	1	0.5%

Guidance Responses	9th Grade		10th Grade		11th Grade		12th Grade	
	Number	Pct.	Number	Pct.	Number	Pct.	Number	Pct.
N = 172								
Total Responses	137	100.0%	140	100.0%	145	100.0%	158	100.0%
Generally Aware	40	29.2%	117	83.6%	138	95.2%	154	97.5%
Not Generally Aware	94	68.6%	17	12.1%	4	2.8%	1	0.6%
No Answer	3	2.2%	6	4.3%	3	2.1%	3	1.9%

- b. A student can receive a supplemental award based on his or her highest ACT score prior to graduation, with the award amount increasing as the student’s ACT score increases.

Teacher Responses	9th Grade		10th Grade		11th Grade		12th Grade	
	Number	Pct.	Number	Pct.	Number	Pct.	Number	Pct.
Total N = 223	144	100.0%	178	100.0%	185	100.0%	188	100.0%
Generally Aware	24	16.7%	55	30.9%	127	68.6%	151	80.3%
Not Generally Aware	115	79.9%	118	66.3%	55	29.7%	34	18.1%
No Answer	5	3.5%	5	2.8%	3	1.6%	3	1.6%

Guidance Responses	9th Grade		10th Grade		11th Grade		12th Grade	
	Number	Pct.	Number	Pct.	Number	Pct.	Number	Pct.
Total N = 172	137	100.0%	140	100.0%	145	100.0%	158	100.0%
Generally Aware	69	50.4%	99	70.7%	135	93.1%	154	97.5%
Not Generally Aware	66	48.2%	38	27.1%	8	5.5%	3	1.9%
No Answer	2	1.5%	3	2.1%	2	1.4%	1	0.6%

4. For students with whom you have regular contact, what share of students’ parents or guardians do you believe are aware of KEES incentives for various levels of performance on grades and ACT scores?

Teacher Responses	9th Grade		10th Grade		11th Grade		12th Grade	
	Number	Pct.	Number	Pct.	Number	Pct.	Number	Pct.
Total N = 223	144	100.0%	178	100.0%	185	100.0%	188	100.0%
Almost All	3	2.1%	9	5.1%	30	16.2%	62	33.0%
Many	21	14.6%	43	24.2%	65	35.1%	71	37.8%
Some	48	33.3%	64	36.0%	63	34.1%	33	17.6%
Very Few	50	34.7%	42	23.6%	14	7.6%	10	5.3%
Not Sure	19	13.2%	16	9.0%	11	5.9%	11	5.9%
No Answer	3	2.1%	3	1.7%	2	1.1%	1	0.5%

Guidance Responses	9th Grade		10th Grade		11th Grade		12th Grade	
	Number	Pct.	Number	Pct.	Number	Pct.	Number	Pct.
Total N = 172	137	100.0%	140	100.0%	145	100.0%	158	100.0%
Almost All	10	7.3%	17	12.1%	54	37.2%	93	58.9%
Many	41	29.9%	59	42.1%	59	40.7%	53	33.5%
Some	60	43.8%	53	37.9%	29	20.0%	10	6.3%
Very Few	22	16.1%	7	5.0%	2	1.4%	1	0.6%
Not Sure	4	2.9%	4	2.9%	0	0.0%	0	0.0%
No Answer	0	0.0%	0	0.0%	1	0.7%	1	0.6%

5. Please provide any additional comments you have regarding student and parent awareness and knowledge of the KEES program.

Section 2. Effect of KEES on College-going Decisions

6. In your experience, for students who are aware of KEES, what effect does that awareness have on the decision whether to attend college?

Teacher Responses	Number	Pct.
N = 223		
Total	223	100.0%
Significant Effect	50	22.4%
Moderate Effect	102	45.7%
Small Effect	51	22.9%
No Effect	7	3.1%
Not Sure	12	5.4%
No Answer	1	0.4%

Guidance Responses	Number	Pct.
N = 172		
Total	172	100.0%
Significant Effect	60	34.9%
Moderate Effect	73	42.4%
Small Effect	32	18.6%
No Effect	5	2.9%
Not Sure	2	1.2%
No Answer	0	0.0%

7. In your experience, for those high school seniors planning to attend college and who are aware of KEES, what effect does that awareness have on the decision whether remain in Kentucky to attend college?

(Responses of those who have regular contact with high school seniors.)

Teacher Responses	12th Grade	
N = 188		
	Number	Pct.
Total	188	100.0%
Significant Effect	92	48.9%
Moderate Effect	57	30.3%
Small Effect	24	12.8%
No Effect	5	2.7%
Not Sure	10	5.3%
No Answer	0	0.0%

Guidance Responses	12th Grade	
N = 158		
	Number	Pct.
Total	158	100.0%
Significant Effect	116	73.4%
Moderate Effect	33	20.9%
Small Effect	8	5.1%
No Effect	0	0.0%
Not Sure	0	0.0%
No Answer	0	0.0%

8. In your experience, for high-achieving high school seniors planning to attend college who are aware of KEES, what effect does that awareness have on the decision whether remain in Kentucky to attend college?

(Responses of those who have regular contact with high school seniors.)

Teacher Responses	12th Grade	
N = 188		
	Number	Pct.
Total	188	100.0%
Significant Effect	67	46.5%
Moderate Effect	63	43.8%
Small Effect	37	25.7%
No Effect	14	9.7%
Not Sure	7	4.9%
No Answer	0	0.0%

Guidance Responses	12th Grade	
N = 158		
	Number	Pct.
Total	158	100.0%
Significant Effect	86	54.4%
Moderate Effect	52	32.9%
Small Effect	18	11.4%
No Effect	1	0.6%
Not Sure	0	0.0%
No Answer	1	0.6%

9. Do you agree or disagree that the KEES program has encouraged students who would not otherwise do so to consider college as an option after high school?

Teacher Responses	Number	Pct.
N = 223		
Total	223	100.0%
Strongly Agree	45	20.2%
Agree	126	56.5%
Disagree	26	11.7%
Strongly Disagree	5	2.2%
Not Sure	20	9.0%
No Answer	1	0.4%

Guidance Responses	Number	Pct.
N = 172		
Total	172	100.0%
Strongly Agree	53	30.8%
Agree	96	55.8%
Disagree	17	9.9%
Strongly Disagree	1	0.6%
Not Sure	5	2.9%
No Answer	0	0.0%

10. Please provide any additional comments you have regarding the effect of the KEES program on student's college-going decisions.

Section 3. Student Course-Taking Behavior and Motivation

11. Based on you observations, what share of students who are aware of KEES demonstrate greater effort in their classes in order to improve their GPAs to receive larger KEES awards?

Teacher Responses	Number	Pct.
N = 223		
Total	223	100.0%
Almost All	11	4.9%
Many	93	41.7%
Some	74	33.2%
Very Few	26	11.7%
None	4	1.8%
Not sure	8	3.6%
No Answer	7	3.1%

Guidance Responses	Number	Pct.
N = 172		
Total	172	100.0%
Almost All	10	5.8%
Many	73	42.4%
Some	69	40.1%
Very Few	9	5.2%
None	0	0.0%
Not sure	4	2.3%
No Answer	7	4.1%

12. Based on you observations, what share of students who are aware of KEES take one or more less rigorous courses in order to improve their GPAs to receive larger KEES awards?

Teacher Responses	Number	Pct.
N = 223		
Total	223	100.0%
Almost All	13	5.8%
Many	34	15.2%
Some	87	39.0%
Very Few	50	22.4%
None	13	5.8%
Not sure	18	8.1%
No Answer	8	3.6%

Guidance Responses	Number	Pct.
N = 172		
Total	172	100.0%
Almost All	3	1.7%
Many	37	21.5%
Some	66	38.4%
Very Few	47	27.3%
None	9	5.2%
Not sure	5	2.9%
No Answer	5	2.9%

13. Please provide an additional comments you have regarding the effect of KEES program on students' motivation and choice of courses.

Section 4. Effect of KEES on Teacher Behavior, Grading Rigor, and Curriculum Content

14. In your opinion, what share of teachers, if any, have ever adjusted their grading standards to help students qualify for larger KEES awards?

Teacher Responses	Number	Pct.
N = 223		
Total	223	100.0%
Almost All	0	0.0%
Many	4	1.8%
Some	24	10.8%
Very Few	47	21.1%
None	124	55.6%
Not sure	23	10.3%
No Answer	1	0.4%

Guidance Responses	Number	Pct.
N = 172		
Total	172	100.0%
Almost All	0	0.0%
Many	1	0.6%
Some	6	3.5%
Very Few	46	26.7%
None	106	61.6%
Not sure	13	7.6%
No Answer	0	0.0%

15. In your opinion, what share of teachers, if any, feel pressured to adjust students' grades in order to improve student GPAs and increase KEES awards?

Teacher Responses	Number	Pct.
N = 223		
Total	223	100.0%
Almost All	0	0.0%
Many	4	1.8%
Some	24	10.8%
Very Few	47	21.1%
None	124	55.6%
Not sure	23	10.3%
No Answer	1	0.4%

Guidance Responses	Number	Pct.
N = 172		
Total	172	100.0%
Almost All	0	0.0%
Many	7	4.1%
Some	13	7.6%
Very Few	48	27.9%
None	94	54.7%
Not sure	10	5.8%
No Answer	0	0.0%

16. In your opinion, what share of teachers, if any, have decreased the rigor of course content so that students would be more likely to get better grades and qualify for more KEES funds?

Teacher Responses	Number	Pct.
N = 223		
Total	223	100.0%
Almost All	2	0.9%
Many	7	3.1%
Some	16	7.2%
Very Few	57	25.6%
None	119	53.4%
Not sure	20	9.0%
No Answer	2	0.9%

Guidance Responses	Number	Pct.
N = 172		
Total	172	100.0%
Almost All	0	0.0%
Many	1	0.6%
Some	5	2.9%
Very Few	45	26.2%
None	110	64.0%
Not sure	11	6.4%
No Answer	0	0.0%

17. Please provide any additional comments you have regarding the effect of the KEES program on teacher behavior, grading rigor, and curriculum content.

18. Please provide the following information. Individual questionnaire answers will not be associated with school and district information in any report or public communication.

School Name:

For public schools, District Name:

Position: *(Teacher/Guidance Counselor)*

For teachers, please list subject area(s):

APPENDIX C

THE FORECAST METHODOLOGY OF THE STUDENT FINANCIAL AID FORECASTING GROUP FOR DETERMINING PROJECTED KEES FUNDS AVAILABLE AND EXPENDITURES

Source: Council on Postsecondary Education. Document received November 20, 2003.

The Forecast Methodology

- Because of the complexity and sensitivity of the KEES estimates, the Office of the State Budget Director established the Student Financial Aid Workgroup to analyze the data on KEES and to develop forecasting models.
 - That group has been in existence since 2000. KHEAA, CPE, KDE, and the state budget office are represented on the workgroup.
- The state budget office, the Lottery Corporation, and the Consensus Forecast Group provide the Student Financial Aid Workgroup with lottery revenue estimates.
- It is important to keep in mind that KEES is funded on cash basis in that appropriations are based on estimated use of KEES awards by participating college students, not on the actual awards earned by high school students. The program is monitored closely to test whether the projections and actual disbursements are in line.
- The methodology employed is straightforward:
 - We look at the size of each graduating high school class, determine the number of KEES recipients and dollar amounts awarded in that class, and then estimate how many will go on to college in Kentucky and thus will use the award.
 - Each high school graduating class is tracked throughout their college career—we estimate how many return to college each subsequent year and we know how many retain the award by meeting the required grade point average.
 - We also analyze the average awards for all high school students to see whether the average award value is increasing.

- The workgroup looks at trend data to determine whether there are shifting patterns of use—are more graduating high school seniors going to college? Are more high school students earning KEES awards? Are more or fewer students staying in college?

The Forecast

- KEES receives a statutory share of the lottery proceeds: 40% in FY 2003-04; 45% in FY 2004-05; and, 45% in FY 2005-06 and thereafter.
- Lottery estimates are projected to decline in FY 2004-05 and FY 2005-06.
- Despite that fact, the allocation of lottery proceeds will increase in FY 2004-05 because the percentage assigned to KEES goes from 40% to 45%.
- The 2003 General Assembly approved using unclaimed lottery prize money to supplement the KEES program in 2002-04.
- By using carry-forward funds and the unclaimed lottery prize money, the KEES program will remain in balance in FY 2003-04 and FY 2004-05 but could be in deficit status in FY 2005-06.
 - The projected deficit for FY 2005-06 is \$3,290,600.

