Defining Merit: The Impact of Award Structure on the Distribution of Merit Aid

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The Kentucky Education Excellence Scholarship (KEES) is a merit-based scholarship program intended to increase college access, long-term academic commitment, and retention of top students within the state. KEES uses a heavily graduated award structure and both high school grade point average and standardized test scores to establish award amounts. Using school-level data, this study applied means tests, correlation, and multivariate analysis to examine the relationship between the demographic composition of high schools and the amount and number of KEES awards received. KEES was found to be regressive, and that regressivity is compounded by its graduated structure. Students from higher socioeconomic status schools, from schools with more Caucasian students, or from schools with more females received a higher proportion of KEES awards, in larger amounts, than those from other schools. The source of KEES funding was also found to be regressive: the more successful the program, the greater the strain on its static lottery revenue funding. Because awards are not indexed to inflation, their impact on college affordability diminishes as education costs rise. Recommended steps for addressing regressivity in the KEES program, including clearly defining the program's primary goal and introducing a need-based component, are discussed.

In April 1998, the Commonwealth of Kentucky joined a growing list of states that have a lottery-funded, broad-based merit scholarship program. Senate Bill 21 enacted by the Kentucky General Assembly established the Kentucky Educational Excellence Scholarship (KEES). The legislature designated a portion of state lottery revenues to fund this merit-based scholarship. Explaining the general goals of the program, the bill states:

"The general assembly of the Commonwealth of Kentucky hereby declares that the best interest of the Commonwealth mandates that financial assistance be provided to ensure access for Kentucky citizens to public and private postsecondary education at the postsecondary educational institutions of the Commonwealth. It is the intent and purpose of the General Assembly that the enactment of Sections 1 to 6 of this Act shall be constructed as a long term financial commitment to postsecondary education…"

In addition to the explicit goals of ensuring access and providing a symbolic, long-term commitment to postsecondary education, the sponsors of KEES argue that the scholarships also serve as a mechanism for keeping talented students in the state (KLTPRC, 2003; Hopkins, 2004).

Our study uses school-level data to evaluate how the award structure of KEES impacts the program's ability to satisfy the program's goals of increased access, long-term commitment, and retention of top students. It takes into account how a changing policy environment defined by static lottery revenues coupled with the growing number of KEES-eligible students affects the scholarship's ability to meet these goals. By examining the relationship between the demographic composition of high schools—particularly in terms of socioeconomic status, race, and gender—and the amount and number of KEES awards received, we analyze how a heavily graduated award structure impacts the distribution of the program funds.

Merit Scholarships

The Georgia HOPE Scholarship, established in 1993, has served as a model for many broad-based merit scholarship programs across the country. In addition to being the first, the Georgia HOPE Scholarship is also the most studied (e.g., Dynarski, 2000; Cornwell & Mustard, 2001; Rubenstein & Scafidi, 2002). Broad-based merit scholarship programs have also been the focus of two recent studies from the Civil Rights Project at Harvard University. In addition to exploring the effects of the HOPE Scholarship, researchers also examined the consequences of broad-based merit scholarships in other states including Florida, Michigan, New Mexico, Alaska, and Kentucky. The first report, *Who Should We Help? The Negative Consequences of Merit Scholarships,* investigated theories behind the use of these scholarships as well as how the different definitions of merit affect the distribution of awards (Heller & Marin, 2002). The researchers focused on the effects of merit structures on access to college for racial minorities and students from low-income families. In addition, the study researched how the presence of merit scholarships shaped tuition rates and financial aid packages from colleges within states implementing such programs.

The general findings from the study were as follows: 1) Definitions of merit and the structures of many existing merit scholarships overlook students with the greatest financial need. This exacerbates existing disparities for minority and low-income students. 2) Merit scholarships do not greatly expand access to college; instead they tend to benefit those students who would attend college anyway. In particular, scholarships seem to shape the school choice by students who qualify for them; 3) Merit scholarships seem to influence tuition and financial aid decisions at some institutions, which has the potential to increase the cost of going to college for students who do not qualify for the scholarships (Heller & Marin, 2002).

The follow up study by the Civil Rights Project, *State Merit Scholarship Programs and Racial Inequality*, looked in greater detail at the effects of scholarships on low-income and minority groups (Heller & Marin, 2004). This report confirmed the earlier studies' conclusion that although the effects of merit scholarships varied by state and structure, they tended to contribute to existing inequalities in access and awards. The study also included one of the few quantitative analyses of KEES. In a comparative analysis of five states, Farrell (2004) found a substantive gap between the size of KEES awards earned by Caucasian and African-American high school students.

While merit scholarships have vocal critics, some of the programs earn praise from scholars. For example, Ackerman, Young, & Young (2005) argue that Nevada's Millennium Scholarship Program has been successful in achieving many of its goals. They find evidence that the Nevada Program improves access to higher education and encourages students to attend in-state institutions. The program also seems to promote persistence among award recipients. Ackerman et al. note the importance of having the scholarship program tied to a stable source of revenue.

The Structure of KEES

When compared with other merit programs, KEES has several distinctive characteristics. Noteworthy differences include a substantially graduated award schedule and the inclusion of two measures of merit. KEES awards are calculated using two measurements: high school GPA determines a base award, and ACT test score determines a supplemental amount. The annual base award is earned

for each of the four years of high school and ranges from $125 for a high school grade point average (GPA) of 2.50 to $500 for a GPA of 4.00. Students with higher ACT scores receive an additional supplemental amount. Students who score a 15 on the ACT receive $36 a year while those scoring 28 or above receive $500 a year. Students have up to five years after completing high school to use up to eight semesters in KEES awards. The maximum they can receive in a year is $2,500 with a total of $10,000 over the eight semesters. Students must maintain at least a minimum GPA to continue receiving the maximum awards. After the first award period the minimum GPA is 2.50; after the second award period, the minimum GPA is 3.00 for the maximum award. Following the second and third award years, students can retain half of the scholarship amount with a GPA of 2.50 through 2.99.

The graduated structure of KEES, in both the calculation of the award amounts and the retention criteria, has implications for which students benefit from the program and how well KEES meets its policy goals.

Variation of KEES Awards Across Schools

To explore how KEES awards are distributed across schools, we employ four aggregate school-level variables: the percentage of high school students who earned KEES awards during the 2002-03 school year; the average size of base awards earned by students; the average amount of KEES base awards per student attending the school; and the average size of the supplemental awards earned by students.

This study explores the effect of school variations across several demographic characteristics. Our primary emphasis is on the relationship between economic factors and KEES awards, but we also look at the racial and gender composition of schools. To test these relationships we employ means tests, correlation, and multivariate analysis.

Our analysis includes 232 public high schools that are categorized as a "regular school" by the National Center of Education Statistics (NCES) Common Core of Data. Before comparing regular public schools, however, it is instructive to look at variations across types of schools. Figure 1 illustrates the average base and supplemental award by type of high school including "regular" public high schools, public schools that have been classified as "alternative" by the NCES Common Core of Data, and private high schools. Figure 1 indicates that students who attend private high schools receive disproportionately larger awards than students who attend regular and alternative public schools. The average base award earned at a private school is $351, which is $28 more than the average of $323 earned at regular public schools. Over a four-year period, this would translate to a difference of $112 in mean awards earned. The difference between the average supplemental award for students attending a private high school versus a regular public high school reveals the same pattern: the average $310 award amount for private schools is $60 larger than the average award for regular public high schools. As would be expected, significant gaps exist between the size of awards between regular and alternative public schools as well. It is worth noting that the schools with the nine largest average base award means are private.[1]

1. Because the data are from the 2002-03 school year, comparisons between private and public schools, which require measures of student enrollment size, are limited. The demographic data for public schools come from the Common Core of Data for the 2002-03 school year. Data for the Private School Universe Survey are gathered every other year so there is not updated private school data for the 2002-03 school year.

Figure 1: Average KEES Award Earned (by Type of School)

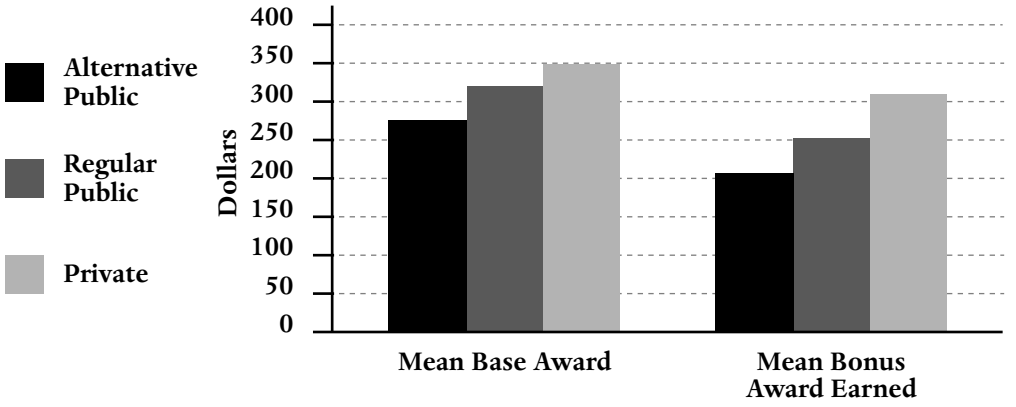

Table 1 presents descriptive statistics for the four KEES award variables as well as three demographic variables for the 232 regular public schools. The most striking results are the differences in standard deviation between the average base awards and the average supplemental awards. The base average stays fairly stable with a standard deviation of only $20, while the supplemental average exhibits a much greater range with a standard deviation of $41. The range between minimum and maximum awards is also a much wider for the average supplemental award measure than for the average base award variable. Since these two awards base their values on different criteria (GPA for base and ACT for supplemental), the results suggest that the way merit is defined and measured has a significant impact on the size of merit awards. Clearly, there is much less variance across schools for the GPA-based measures than for ACT-based measures.

Table 1: Descriptive Statistics for KEES Award Measures (Regular Public Schools)

Measure	Mean	Standard Deviation	Minimum	Maximum
Percent of students earning award	58%	9%	28%	90%
Average base award	$322	$20	$246	$374
Average award per student	$190	$37	$69	$318
Average bonus award	$234	$41	$107	$370
Percent of female students	49%	3%	33%	65%
Percent of Caucasian students	90%	13%	16%	100%
Percent of students receiving free or reduced-price lunches	61%	24%	3%	99%

Table 2 is a correlation matrix of the four measures of KEES awards. As might be expected, the variables correlate with each other at a significant level. Interestingly, there is a weaker correlation between the average supplemental award and the three base award variables. Although the supplemental and base awards all work on the assumption that they measure the merit of the award recipient, these measures, which are related, appear somewhat independent of each other. This suggests that the measure used to define merit significantly influences the distribution of awards.

Table 2: Correlation Matrix for KEES Award Measures

Measure	Average Base	Average Award	Average Bonus
Percent of students earning award	.67***	.97***	.43***
Average base award		.82***	.31***
Average award per student			.42***

*** *statistically significant at .001*

Evidence from individual level studies finds students from higher socioeconomic status levels receive a disproportionate amount of merit scholarships. Our primary focus is on the relationship between schools rather than within schools. To explore how the economic backgrounds of schools affect the distribution of awards, we first compare means between the wealthiest and poorest schools. The free or reduced-price lunch is commonly used to denote school population socioeconomic status. Using an independent *t*-test, we compared 20 schools with the largest number of students receiving free or reduced-price lunch with 20 schools with having the fewest number of students receiving free or reduced-price lunch (see Table 3). In terms of base awards, the gaps between the wealthy and poor schools result primarily from the difference in the number of students who earned the awards versus those who did not. The difference between the two groups for average base awards was just over $20, but the schools with fewer subsidized lunches had 15% more students earning awards. The gap for the supplemental award was more than four times the base award difference. The means tests attained statistical significance at $p=.01$ (two-tail test) for all four comparisons. These findings suggest that schools with a higher share of students receiving free or reduced-price lunches earn fewer awards *and* receive smaller award amounts. The simple bivariate comparison of means provides evidence that that the graduated awards structure increases the regressivity of KEES distributions.

Table 3: *t*-test for Independent Means

Measure	20 Schools with Lowest Percentage Subsidized Lunches	20 Schools with Highest Percentage Subsidized Lunches	Statistical Significance
Percent of students earning award	67%	52%	0.000
Average base award	$332	$312	0.003
Average award per students	$223	$164	0.000
Average bonus award	$284	$190	0.000

An analysis of the correlations between the percentage of students receiving free lunches and distribution of KEES awards (presented in Table 4) reinforces the findings from Table 3. The correlations between the number of students receiving free or reduced lunch and the three base awards measures are moderate but attain significance at the .001 level. The correlation (-0.64) is much stronger between the size of the supplemental award and the percentage of students receiving subsidized lunches. The bivariate analysis indicates that granting awards

based on GPA mitigates some of the regressivity across schools when compared with the awards based on standardized test results, and it is likely that variations in grading standards could be a factor. This is consistent with evidence from the Georgia HOPE Scholarship research findings that some localities do better than expected in number of scholarships obtained (Campbell & Finney, 2005).

Table 4: Correlations for Subsidized Lunches and Racial Composition

Measure	Percent of Students Receiving Free or Reduced-Price Lunch	Percent of Caucasian Students
Percent of students earning award	-.33***	.29***
Average base award	-.20***	.30***
Average award per student	-.31***	.29***
Average bonus award	-.64***	-----

*** *statistically significant at .001*

Table 4 presents the correlations between the earning of KEES awards and the percentage of the student populations that are Caucasian. There is a modest, statistically significant relationship between the percentage of students that are Caucasian and the three base award measures. Conversely, no relationship emerges between supplemental awards and the racial makeup of the school.

The relationship between receiving free or reduced-price lunch and earning a KEES award was also tested using a multivariate model. OLS Regression was used to measure the effects of demographic composition on KEES awards. The three independent variables of primary interest are percentage of students who receive free or reduced-price lunch, percentage of students who are Caucasian, and percentage of students who are female. A control for school locale as categorized by National Center for Education Statistics (NCES) was also included when generating results, which are presented in Table 5.

Table 5: Summary of OLS Regression Results

Measure	Percent of Students Earning KEES Awards	Average Base Award	Average Award Per Student	Average Bonus Award
Percent of students receiving free or reduced-price lunch	-0.16***	-0.27***	-0.66***	-1.19***
Percent of Caucasian students	0.16***	0.33**	0.66**	-0.00
Percent of female students	0.32*	0.52	1.13	-0.82
N	232	232	232	232
Adj. *R*	0.26	0.19	0.26	0.49

*** *Statistically significant at .001 (one-tail test)*

** *Statistically significant at .01 (one-tail test)*

* *Statistically significant at .05 (one-tail test)*

The subsidized lunch variable attains statistical significance at the .001 level in models using each of the four dependent variables (three base award variables and the average supplemental award).[2] The relationship between receiving a subsidized lunch and earning a KEES award by school is substantively larger for the average bonus awards variable than it is for the average base award. A school with 25 percent of its students receiving free or reduced-price lunch would have average supplemental awards of about $59 greater than a school with 75 percent of its students receiving subsidized lunches. The gap would average $14 for the average base award, while the difference in the number of students earning awards would be about 8 percent between the schools.

Racial makeup has an effect on the earning of base awards by school but does not have a statistically significant effect on the supplemental award average. As expected based on the correlation results presented in Table 4, schools with a higher percentage of minority students have lower average base awards, fewer awards earned, and a lower total of base awards per student. Statistical significance is attained at the .01 level (one-tail test) for each of the three base award models. For example, a school with a student body that is 75 percent Caucasian will, on average, have 8 percent more of its students earning KEES awards than a school that is 25 percent Caucasian. The difference in the average size of base award is about $17.

Gender composition is a statistically significant factor (at the .05 level) only in the percentage of students who earn KEES awards. A 3 percent increase in the percentage of female students translates into about a one percent increase in the percentage of students who earn KEES awards per school.

Aggregate school level results provide support that, like other merit-based scholarships, the KEES program is regressive in its award structure and that the graduated award structure compounds the regressivity across Kentucky's public schools. Schools with fewer students receiving free or reduced-price lunch have a higher percentage of students receiving awards *and* have higher average awards than schools with more students receiving subsidized lunches. This is consistent with individual data gathered by the Kentucky Higher Education Assistance Authority and the Kentucky Legislative Research Commission (LRC, 2003). Racial composition of schools also effects the distribution of base awards. Schools with a higher percentage of minority students receive fewer and smaller awards.

Diminishing Returns

Even if KEES has had some success in attaining its goals so far, the impact of KEES is declining and will continue to decline over time due to two factors. First, the program is fully funded by the Kentucky Lottery. For the fiscal year that ended in June 2005, the Kentucky Lottery saw a decline in revenues and the projected amount of dividend transfers from the lottery to the state fell about $10 million short of expectations. Part of the decline can be traced to the creation of the Tennessee Lottery.

Second, and more significantly, KEES awards are not indexed for inflation. Many other programs, including the Georgia HOPE Scholarship, provide full or a percentage of tuition for qualified recipients, rather than a fixed dollar amount. Thus, the HOPE Scholarship and similar programs are automatically indexed for increases in college tuition.

2. Controls for the different locales as defined by the U.S. Census were included in the OLS Regression models. Since no particularly strong or interesting patterns emerged, they are not presented here.

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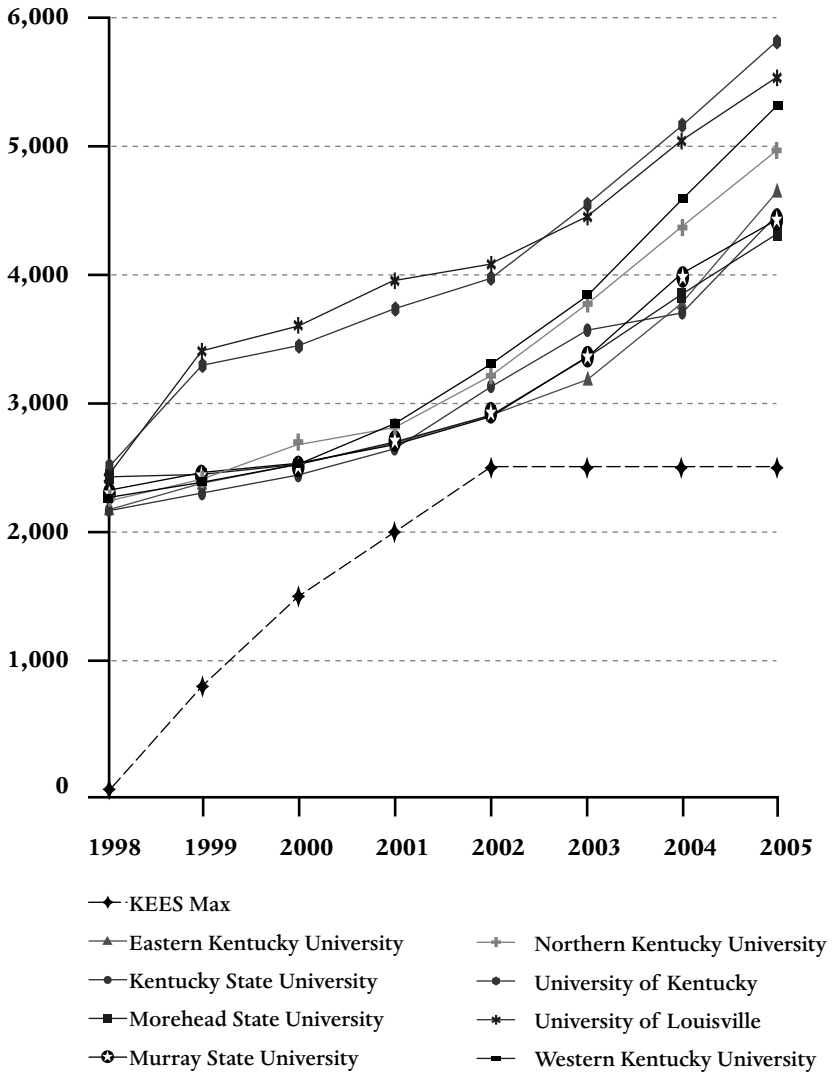

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0 >; H;IB7J?EDI>?F 8; JM; ; DJ>; : ?IJH8KJ?EDE<' □□/'I I9>EB7HI>?FI 7D J>; FHE=H7C 'I 78?BJOJE 7: : H;II FEB9O=E7B ?I 9EDI?IJ; DJ M?J>; <9JI <EKD; ?DIJK: ?; I

3. C□□□□:/B□□□/□/:GATA/:A□□B7□□□□3AB63□/B8□□□A4□C□2 7□B63□AC:BA4□□2748□□□13□4□3/□ABABA

E<EJ>; HBEJJ; HO<KD; ; : ; : K97J?EDFHE=H7C I () ?B; HBX, ?; H9; , 1997; 7JED2000, . K8; DIJ; ?D& /97<: ?, 2002; HHD9>& /J7DB;Q2003). 3 >?B; J>; H;I=H;III?L; D7JKH;I E< ' / ?I 7D?IIK; , ?J ?I I?C FBIJ?9 JE 9HJ?qK; 8HE7: -87I; : C ; HJ 7?: IEB; KEDJ>; H;I=H;III?L; : ?IJH8KJ?EDE<8; D; <JI. HEC 7 FEB9O7D7KOJ?I F; HIF; 9J?L; ?J ?I C EH;I ?C FEHJ7DJ JE : ; J; HC ?D; JE M>7J ; NJ; DJ ' / ?I 78B; JE C ; ; J I>EHJ-7D BED=J; HC =E7B. 0 E J>; ; NJ; DJ J>7J ' / >7I 8; ; DIK99; II<KB?D7JJ7?D?D=?JI IJ7J; : E8@9J?L; I, J>; FHE=H7C 'I 78?BJOJE 79>?; L; ?JI =E7B M?BB: ; 9BD; EL; HJ?C ; . /?D9; J>; F7II7=; E< J>; ' / B; =?IB7J?ED; J>; 9EIJ E<JK?J?ED>7I C EH;I J>7D: EK8B; : 7J ' ; DJK9AOI FK8B9 KD?L; HIJ?; I. 1 J?BP7J?EDH7J; I >7L; 8; ; D: ; 9BD?D=I?D9; J>; 8; =?DD?D=E<J>; FHE=H7C, FHEL?: ?D=; L?: ; D9; J>7J J>; FHE=H7C ?I 8; 9EC ?D=B; II ; <9J?L; ?DI; HL?D= 7I 7D?D9; DJ?L; <EH7JJ; D ?D=9EB; =; ?D' ; DJK9AO

%FHJ: K; JE H;IL?I?EDI ?DqK7B<97J?EDIJ7D 7H-I 7D IJ78?BP; : <KD ?D=; A9A; HC 7D; J 7B(2005) 7H-K; J>7J ; L7: 7 FHEL?: ; I 7 C E: ; BE<7 C ; HJ 7?: FHE=H7C J>7J MEHAI H;I7IED78KOM; BB ' /, >EM; L; H;I 7D; N7C FB; E<7 FHE=H7C J>7J ?I DEJ IJHK9JKH;I: JE C 7N?C ?P; ; <9J?L; D; II. 3 ?J>EKJ 9>7D=; I, ' / M?BBDEJ <KB?BB?JI =E7B; E<?D9H;I7I; : 799; II, BED=J; HC 9EC C ?JC ; DJ JE FEIJI; 9ED 7HO; : K97J?ED; 7D J>; H;IJ; DJ?EDE<JEF IJK: ; DJI %OJ; HC I E<799; II, ' / >7I FHEL?: ; : <KD ?D=<EH7 I?=D?<97DJ DKC 8; HE<IJK: ; DJI ?D' ; DJK9AOI?D9; ?JI ?D9; FJ?ED; D; C 7@FHE8B; C ?I J>7J M?J>?D9H;I7I?D=DKC 8; HIE<; B=?8B; IJK: ; DJI 7D IJ7J?9 BEJJ; HOI7B; I, ' /' 78?BJOJE E<; J J>; 9EIJ E<9EBB; =; <EHIJK: ; DJI M?BB: ?C ?D?I>EL; HJ?C ; .[4] AI FH;II; DJKOIJHK9JKH;I: , ' / M?BB9EDJ?DK; JE 8; 7D M?BB8; 9EC ; ; L; DC EH;I BC ?J; : ?D?JI 78?BJOJE ?C FHEL; 799; II JE 9EBB; =; <EHJ>EI; M>E 97DJ 7<EH-I ?J. (?A; M?I; , J>; <?D7D9?7B?D9; DJ?L; I <EH-H;IC 7?D?D=?D-IJ7J; M?BB: ; 9BD; H;IB7J?L; JE JK?J?EDH7J; I. %OJ>; ; D , F; H-7FI J>; 8?==; IJ E8IJ79B; <79?D=' / ?I JHOD=JE C ; ; J JME : ?L; H-; DJ =E7B: CH;I7J?D=7D; <9J?L; I9>EB7HI>?F FHE=H7C JE A; ; F J>; 8; IJ 7D 8H-=>J; IJ ?DIJ7J; I>EKB; BEEAL; HO: ?<H;IDJ <HEC 7 FHE=H7C : ; I?=D; : JE ?D9H;I7I; 799; II JE >?=>; H ; : K97J?ED; BOJHOD=JE 79>?; L; 8EJ>=E7B; M?J>J>; I7C ; FHE=H7C, ' / ?I H;ID; ; H;I: ?D; <9J?L; 7J 79>?; L?D=; ?J>; HED; .

HEC 7 C EH;I FEI?J?L; F; HIF; 9J?L; , J>; H;I 7H;I IEC ; IJ; FI J>7J 97D8; J7A; DJE ?C FHEL; J>; ; <9J?L; D; II E<' /. 0 >; <?HIJ IJ; F ?I JE C EH;I 9B; 7HO: ; <D; J>; FHC 7HO=E7B<EH /. %J>; FHC 7HO=E7BJE FHEC EJ; 799; II JE >?=>; H; : K97J?ED EH?I ?J JE ; D9EKH7=; J>; 8; IJ 7D 8H-=>J; IJ IJK: ; DJI JE 7JJ; D 9EB; =; M?J>?D ' ; DJK9AO %J>; =E7B?I JE A; ; F J>; 8; IJ 7D 8H-=>J; IJ >EC ; <EH-9EB; =; ?J ?I D; 9; II 7HOJE ?D9H;I7I; J>; I?P; E<7M7H-I 8KJ I?=D?<97DJOH-I: K9; J>; DKC 8; HE< IJK: ; DJI M>E 7H;I ; B=?8B; <EHJ>; C . . ; IJH9J?D=J>; DKC 8; HE<IJK: ; DJI M>E H;I9; ?L; J>; 7M7H-I ?I FEBJ?97BKOH-IAO9EDI?: ; HID=J>7J 8HE7: -87I; : C ; HJ 7?: FHE=H7C I >7L; ; C ; H-; : 7I IJ7J; -B; L; B; DJ?JB; C ; DJI ?DC 7DOIJ7J; I. A C EH;I : ?H;I9J 7B; HD7J?L; ?I JE 9H;I7J; ?D9; DJ?L; I <EH-H;II?: ?D=?DJ>; IJ7J; 7<J; H-9EBB; =; , H7J>; H-9EBB; =; 9>E?9; .

%J>; FHC 7HO=E7B?I JE ; DIKH;I 799; II, J>; H;I=H;III?L; D7JKH;I E<' /?I 7 BA; KO 9ED9; HD AD; 7IOM7OJE C ?J?=7J; F7HJE<J>; H;I=H;III?L; D; II ?I JE ; BC ?D7J; J>; =H7: K7J; : 7M7H-I IJHK9JKH;I. /JK: ; DJI 7J M; 7B>?; H-I9>EEB MEKB IJ?BB8; C EH;I BA; KO JE H;I9; ?L; 7M7H-I 8KJ J>; : ?IF7HJO8; JM; ; D7L; H7=; 7M7H-I 7C EKDJI MEKB : ?I7FF; 7H-A C EH;I ?DDEL7J?L; 7B; HD7J?L; MEKB 8; JE C 7?DJ7?D7 C ; HJ-87I; : 9EC FED; DJ, 8KJ 7: : 7 D; ; -87I; : C KB?FB; H-I0 >; EH;IJ?97BKOJ>?I MEKB 7: : H;III IEC ; E<J>; 9HJ?9?IC J>7J 8HE7: -87I; : C ; HJ FHE=H7C I 7H;I DEJ L; HO; <9?; DJ C ; 9>7D?C I JE ?D9H;I7I; 799; II JE 9EBB; =; 8; 97KI; B7H-; 7C EKDJI E<J>; 7?: =E JE IJK: ; DJI M>E MEKB 8; 7JJ; D; ?D=9EBB; =; 7DOM7O%OD9EH-FEH-7J?D=7 D; ; : -87I; : C KB?FB; H-MEKB 7BEM J>; FHE=H7C JE J7H-; J IJK: ; DJI C EH;I ; <9?; DJKO7D I>EKB B; 7: JE 7 C EH;I ; <9?; DJ KI; E<H;II EKH9; I. 0 >; IJK: ; DJI H;I9; ?L?D=J>; B7H-; IJ 7M7H-I MEKB 8; J>EI; M>E >7L; J>; =H;I7J; IJ D; ; : 7D >7L; 79>?; L; : 797: ; C ?9 IK99; II : KH-D=>?=>I9>EEB

*4. , 67:3 CB:7H/B / BA6 /D 2 B2 AI 13 B3 7 :3 3 B/B 4 EE) , /: AB3,000 B3 ABC2 3 BA3/ B2 /E / A7 2007 B / 7 2002. * 67A:32 B / 7 I B / A: 4 1,500 ABC2 3 BAB / BCB:7HB2 B3 7 / E / A2 C 5 B3 4 BG / : E 5 2C / B / BB3 3 2 4 B3 5-G / B2 B / B3 037 5.*

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