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STATEMENT OF GROVER J. (RUSS) WHITEHURST BEFORE THE SECRETARY OF EDUCATION'S COMMISSION ON THE FUTURE OF HIGHER EDUCATION

Grover J. (Russ) Whitehurst Director, Institute of Education Sciences United States Department of Education

Good morning. My name is Russ Whitehurst. I am the Director of the Institute of Education Sciences within the U.S. Department of Education. The Institute funds research, conducts evaluations, and reports statistics on a wide variety of topics in education, most certainly including higher education. I am pleased and honored to be here today.

In her remarks at your first meeting, Secretary Spellings said that, "The absence of good, sound data makes it difficult to set policy at the Federal, State, and institutional levels." She also noted that, "At the U.S. Department of Education, we can tell you almost anything you want to know about first-time, full-time, degree seeking, non-transfer students."

Reading between the lines of the Secretary's remarks, the Institute that I direct is responsible for most of the good, sound data we have on higher education, including, as the Secretary noted, everything you might want to know about traditional students in traditional institutions. Good for us. At the same time we bear some of the responsibility for the absence of data and research evidence in areas in which it is needed. Many of the gaps in data aren't our fault in the sense that we know what is needed but lack the statutory authority or funds to proceed. But there may well be areas in which our priorities are misaligned with those of the policy, practice, or user communities. That is why the Institute will be one of the keenest customers for the Commission's report. We want you to help us do a better job by identifying priorities for data and evidence on higher education. And if you want us to do things that we're not currently authorized or funded to do, we will need for you to generate the support that will be necessary for those things to happen.

Secretary Spellings requested that the commission focus its efforts in four areas: affordability, accessibility, quality, and accountability. I will organize my remarks around those topics.

Affordability. We know a lot about price and cost at the national level, including that the United States is a very high cost provider of higher education. Table 1 in the appendix to my testimony and your handouts is based on international data from the OECD. It indicates that the average expenditure per postsecondary student for developed nations is \$7,299 (excluding research expenditures). The comparable U.S. expenditure is \$18,574 per student, roughly 2.5 times the OECD average, and 60% higher than our closest competitor, Denmark. We are simply off the scale.

Expenditure, of course, is not the same as price to students and their families. It is price, that is most directly related the affordability. Figure 1 in the appendix presents total price and net price for four types of higher education institutions: public 2-year, public 4-year, private not-for-profit 4-year, and private for-profit less-than-4-year. Data are presented for 1989, 1999, and 2003. Net price is total price, minus loans and grants. There is a lot of information in this figure. Four points stand out for me:

- Public 2-year institutions are a bargain.
- The annual sticker price of attendance at a private not-for-profit university is staggering. I say this as the staggering father of a student at such a university.
- Total price has escalated substantially since 1989, particularly in public and private 4-year institutions. The increase is 39% in constant dollars for these two types of institutions.
- Net price hasn't changed much over this 14-year period. Thus loans and grants have filled in the gap between what students or their families pay annually and the rising sticker price.

As an aside, the definition of net price is this and other research on college costs subtracts loans. If you borrow money to purchase an automobile the net price of the vehicle includes the interest on the loan. Indeed, if you Google, "total cost automobile calculation," any number of web sites provide a calculator to let you determine the total cost of the vehicle, including the loan and interest payments. Nobody thinks about the sum of car payments over a year as the net price of the car. Yet we define the annual payment during the years of college attendance as the net price of higher education. And if you Google, "total cost college calculation," there are no readily available web-based calculators for the total price of college attendance, including interest payments on loans. Why is that?

Accessibility. There are many ways to approach accessibility. As was the case for affordability, insights can be gained from international comparisons. Table 2 in the appendix and your handouts presents international enrollment rates in higher education. The average postsecondary enrollment rate for these developed countries, combining vocational and academic programs, is 69%. The United States is below the mean at 63%. Our combined enrollment rate across vocational and academic programs is lower than the enrollment rate for academic programs only in countries such as Poland, Sweden, Hungary, and Iceland.

Table 3 presents international data on graduation rates. Our rate for academic programs is at the average of 32%. Countries such as Australia, Poland, Norway, Iceland, Ireland, Finland, and Denmark substantially exceed our graduation rates.

Another way to look at accessibility is by examining enrollment and completion as a function of race/ethnicity, socioeconomic status, and readiness for college-level work. Table 4 presents data from NELS:88, a longitudinal study conducted by my office that followed a nationally representative sample of students who were high school

sophomores in 1990 through the next 10 years of their education careers. Among the points that emerge from this table are that:

- White students are twice as likely as black students and three times as likely as Hispanic students to obtain a bachelors degree or higher.
- Students from the highest quartile of family socioeconomic status are 9 times more likely to graduate from college than those from the lowest quartile.
- Students who score in the highest quartile on high school tests of reading and mathematics are 13 times more likely to graduate from college than those who score in the lowest quartile.

If accessibility means that students whose families are poor or minority should have equal access to higher education, then we have an accessibility problem as measured through these outcomes.

To address this issue, the Institute is in the final stages of a funding competition to establish a national research center on postsecondary education. Two tasks are high priorities for the work of this center. The first is to provide answers to practical questions regarding the relative impact of alternative approaches to student financial aid on access to and completion of postsecondary education. We are interested, for example, in determining whether extending grant aid eligibility to high school students would spur development of dual enrollment programs and increase college enrollment of at-risk students. The second task is to identify programs that enhance enrollment in and completion of postsecondary education. For instance, would dual enrollment or increased access to a rigorous high school curriculum increase postsecondary enrollment for students from low-income or minority backgrounds?

Quality and Accountability. Quality and accountability go hand-in-hand, and are tied to outcomes of higher education that are valued and can be measured. A case can be made for the value of a variety of measurable outcomes, and accountability involves assumptions about who is to be held accountable for what. At a minimum, quality and accountability schemes have to distinguish between institutional and individual accountability. For example, if timely student progress to a degree is a societal value, should institutions be held accountable for achieving that goal, or students, or both? Some of the dimensions of quality and accountability that have been considered by the higher education policy and research community include:

- 1. graduation rates, e.g., the Institute publishes data at the level of individual institutions on the proportion of full-time, first-time enrollees in degree earning programs who graduate within 150% of the defined length of the program -- 6 years for a 4-year program
- 2. labor market outcomes, i.e., the degree to which graduates of particular institutions or courses of study obtain jobs and how much they earn
- 3. student knowledge and ability, e.g., as measured by GRE or other selection exams for graduate study, or competency exams ideally these measures would be value-added; that is they would take account of entering abilities

- 4. faculty productivity, e.g., grant dollars earned, publication citations, patents
- 5. institutional efficiency, e.g., number of students or graduates per teaching faculty, costs of instruction, utilization of physical plant
- 6. reputation, e.g., rankings of graduate schools based or surveys of faculty in that field
- 7. consumer satisfaction, e.g., surveys of student attitudes about the institution
- 8. employer satisfaction with graduates as measured by surveys
- 9. effectiveness of graduates in their careers, e.g., the degree to which graduates of teachers colleges improve learning for their students

One role the Commission might consider is to give direction to the nation as to which of these or other dimensions of quality and accountability should be high priority.

IES data collections. The Institute collects and reports data on some of these dimensions but not others. It may be helpful for you to have a better understanding of the nature of our data collections in higher education.

On the dimension of student knowledge and ability, the Institute is set the release the initial results of the National Assessment of Adult Literacy. Information will be provided on the prose, document, and mathematical literacy of adults, by levels of educational attainment. The last national assessment of adult literacy was in 1992, so the results are eagerly awaited. The data will not be released until Thursday of next week, so, unfortunately, I cannot share results with you now. However, I can tell you the report compares the level of literacy skills of college graduates in 2003 versus 1992. The numbers are provocative. I recommend that the Commission attend to this report.

The Education Longitudinal Study of 2002 (ELS:2002) is designed to monitor the transition of a national sample of young people as they progress from tenth grade in 2002 through high school and on to postsecondary education or the world of work. For students who continue on to higher education, ELS:2002 will measure the effects of their high school careers on subsequent access to postsecondary institutions, their choices of institutions and programs, and as time goes on, their postsecondary persistence, attainment, and eventual entry into the labor force and adult roles. For students who go directly into the work force (whether as dropouts or high school graduates), ELS:2002 will be able to help determine how well high schools have prepared these students for the labor market and how they fare within it. To date our publications from this study have taken the sample through their senior year in high school. Over the next couple of years we should begin to report results that speak to a number of dimensions of quality and accountability, including labor market outcomes of higher education.

The domain of higher education in which the Institute has been involved for the longest period and for which our products and activities are best known is the Integrated Postsecondary Education Data System (IPEDS). Through it we are the principal source of annual data at the level of individual postsecondary institutions with respect to characteristics of students, staff, finance, student aid, graduation rates, and a number of

other variables. IPEDS is a census of all Title IV institutions (6,800). It also includes a small sample of non-Title IV. It is collected through the web in three waves each year.

Fall IPEDS collects information on:

Types of institutions
Directory information
Control and offering
Structure
Prices for last 3 years
Tuition and fees, including in- and out-of-state
Books, room and board, other expenses
Degrees awarded by gender and race/ethnicity
Certificates, Associates, Bachelors
Masters, Doctorates, First-Professional

Winter IPEDS collects information on:

Employees by assigned position
Full- and part-time
Faculty, other instructional staff, other employees
Faculty salaries and fringe benefits
Fall staff for EEOC

Spring IPEDS collects information on:

Fall enrollments by gender and race/ethnicity, age, and residence Student financial aid Finance Graduation rates by gender and race/ethnicity and by sport

IPEDS results are disseminated over the web through a peer analysis system that allows institutions to compare themselves with similar institutions, through College Opportunities On-Line, which provides information to prospective students, and through a data analysis system, which allows on-line custom queries and analyses against the IPEDS database.

IPEDS also establishes the sampling frame for a recurring set of sample surveys that collect more detailed information than is available through IPEDS. These include the National Postsecondary Student Aid Study (NPSAS), which occurs every 4 years. It is a sample of 1,100 institutions and 80,000 students. Topics include percentages of students receiving student aid and amounts received, total and net price, employment while in college, financial aid as related to family composition, institution characteristics, and subgroups such as first generation students, STEM majors, and delayed entrants.

The Beginning Postsecondary Students (BPS) study occurs every 8 years. It is based on a subsample from NPSAS that is followed-up 3 and 6 years after entry into college. Topics include persistence and attainment, labor force participation, family formation, and civic participation.

The Baccalaureate and Beyond (B&B) study also occurs every 8 years and is derived from a subsample from NPSAS that is followed-up 1, 4 and 10 years after graduation. Topics are similar to those in the BPS study, with the addition of graduate school access, and teacher pipeline and retention.

The National Survey of Postsecondary Faculty is coordinated with NPSAS. Topics include instruction, research, service distribution, salary and other earnings by tenure rank, gender, race/ethnicity, publications/productivity, and retirement plans.

I hope you will agree that through IPEDS, the longitudinal studies, and the National Assessment of Adult Literacy, the Institute is collecting a wide array of information about postsecondary education that is relevant to quality and accountability.

But there are notable gaps and problems, particularly in IPEDS. One critical distinction to keep in mind is between a census data collection, which allows information to be collected and disseminated at the level of individual institutions, and a sample survey, which typically allows only statistics that are aggregated to the regional and national level. Thus NPSAS, which allows calculation of net price in relation to student and institutional characteristics, is a sample survey. If a prospective student wanted to determine the average net price at the University of Texas at Austin for someone with his or her characteristics, family income, etc., that would be impossible using data from NPSAS. The best we could provide would be the average net price for a broad category of institutions that include UT Austin. This point applies to the information collected by the other sample surveys as well. Thus it would be impossible using results from the Baccalaureate and Beyond to compare the success rates of graduates from UT Austin vs. Texas A&M in entering graduate school or employment. Yet it is just these types of quality and accountability dimensions on which one would want to make institutional comparisons as a prospective student or a policy-maker.

Why can't the census data that are collected and reported out annually through IPEDS incorporate at the level of individual institutions the type of detailed information that is reported out at the regional and national level through the Beginning Postsecondary and Baccalaureate and Beyond studies?

Limitations of IPEDS. The units of analysis in IPEDS are institutions of higher education. Institutions report institutional data on an aggregate basis. Data are limited to full-time, first-time degree- or certificate-seeking students in a particular year (cohort), by race/ethnicity and gender, that graduate within 150 percent of normal time to completion. No data are available on time to degree for individual students. Nor are data available by family income. Students who transfer and graduate from a subsequent institution are not counted in the statistics; students who enroll on a part-time basis are not counted in the

statistics; students who start – drop out – restart are not counted in the statistics. Yet research has shown that 73 percent of postsecondary students are nontraditional, with characteristics such as part–time attendance and delayed enrollment. In addition, 40 percent of students now enroll in more than one institution at some point during their progress through postsecondary education, including transfer to other institutions as well as co-enrollment. Thus IPEDS as currently designed collects and reports information on individual institutions for aggregates of first-time, full-time students that are a minority of students in higher education. How do you measure quality or design accountability systems for institutions that serve an appreciable number of non-traditional students (and that is all but the elite private universities) with data that ignore these students? You can't.

Can IPEDS be fixed? One possibility would be what we refer to colloquially as Huge IPEDS. Institutions would still submit data to us in aggregates, but the aggregates would be much smaller slices. For example, every Title IV institution could be required to calculate and submit net price for different categories of students in different programs. The "huge" in Huge IPEDS refers to the burden this would impose on institutions. But Huge IPEDS couldn't handle many of the issues raised by nontraditional students. For example, an individual institution has no way of knowing whether a student who enrolled but didn't complete a degree on time dropped out or transferred or will restart.

We published in March of this year a feasibility study of another approach, a student unit record system within IPEDS (http://nces.ed.gov/pubs2005/2005160.pdf). The essence of a unit record system is that institutions would provide student-level data to us, rather than aggregate data. The student-level data would be tagged with a unique identifier for each student – more about that in a minute. This would allow us to calculate everything now in IPEDS, plus critical information on graduation and transfer rates, time to degree, net prices, persistence, transfer, and graduation for Pell grants and loans by student characteristics. Institutions could use these data to address their own questions and policy makers could design sophisticated accountability systems using it.

There is nothing exotic about a unit record system. Today, 39 states have at least one student unit record system. Many governmental and other organizations also maintain unit record systems on specific groups of students. For example, the National Student Loan Data System within the office of Federal Student Aid compiles information on all recipients of federal student loans, including verification of enrollment by academic term. In addition, the National Collegiate Athletic Association (NCAA) collects unit record data on 1,800 institutions with Division I, II, or III varsity athletic programs, and about 2,800 colleges and universities currently contract with the National Student Clearinghouse to perform enrollment verification and other services using student unit record data uploaded from member institutions.

And as many of you are aware, states have been moving aggressively to build their k-12 education records system around unit records. In fact, the Institute has just committed approximately \$50 million to 14 states to establish or upgrade unit record systems in k-12. What if we had unit record systems that linked k-12 records to higher education

records? That would give researchers a powerful tool to address a number of access and persistence issues that are now virtually intractable because of lack of good data; for example, the effects of different high school experiences, or dual credit programs, or coursework rigor or teacher qualifications. The same linked data could be used for more sophisticated and targeted accountability systems in k-12 and higher education. As I have indicated, IPEDS only picks up a percentage of students who attend universities and colleges. It picks up none who could attend but don't.

The challenges to establishing a unit record system are primarily in two areas. The first is burden on smaller institutions that may have to update their data systems to conform to unit record requirements. The second is privacy and confidentiality – there are valid concerns about potential abuse of a national record system. These concerns are, of course, as applicable to the current national unit record databases, e.g., the NCAA's, as they are to a unit record system within IPEDS, but they are nevertheless real and important.

We have proposed and conducted preliminary design work on a technical solution that should lessen risks to privacy: Education Bar Codes. Students would apply to obtain an individual bar code through a web site we would administer. The bar code, as illustrated below, would not contain student names, addresses, or social security numbers; nor would this information reside in the database behind the bar code. Compared to current systems that include such information, including those maintained by nearly all higher education institutions, it would lower the risk of financial identity theft, lower problems with mismatched or incorrect social security numbers, and remove the burden of institutional collection of race/ethnicity.



Accessibility, affordability, quality and accountability all must begin with good data and information. Sometimes it seems we're awash in data, but the challenges facing higher education in the United States in the context of globalization are considerable. We are, as Secretary Spellings said, going to need good, sound data to set policy at the Federal, State, and institutional levels. I look forward to this Commission providing us and the nation with guidance and direction.

Appendix

Table 1. Public and private expenditures per student for higher education in OECD countries, by country: 2002

	Higher e	ducation,	Higher education,			
	including Ra	&D activities	excluding R&D activities			
		As an index of		As an index of		
Country	Per student	OECD average	Per student	OECD average		
OECD average\1\	\$13,343	100	\$11,945	100		
OECD country mean\2\	\$10,655	80	\$7,299	61		
Australia	12,416	93	8,816	74		
Austria	12,448	93	7,781	65		
Belgium	12,019	90	8,302	70		
Canada		†		†		
Czech Republic	6,236	47	4,963	42		
Denmark	15,183	114	11,604	97		
Finland	11,768	88	7,332	61		
France	9,276	70	7,302	61		
Germany	10,999	82	6,617	55		
Greece	4,731	35	4,372	37		
Hungary\3\	8,205	61	6,498	54		
Iceland	8,251	62		†		
Ireland	9,809	74	7,721	65		
Italy\3\	8,636	65		†		
Japan	11,716	88		†		
Korea, Republic of	6,047	45		†		
Luxembourg		†		†		
Mexico	6,074	46	5,298	44		
Netherlands	13,101	98	7,977	67		
New Zealand		†		†		
Norway	13,739	103		†		
Poland	4,834	36	4,204	35		
Portugal\3\	6,960	52	4,693	39		
Slovak Republic	4,756	36	4,407	37		
Spain	8,020	60	6,030	50		
Sweden	15,715	118	7,832	66		
Switzerland\3\	23,714	178		†		
Turkey\3\		†	4,267	†		
United Kingdom	11,822	89	8,966	75		
United States	20,545	154	18,574	155		

⁻⁻⁻Not available.

[†]Not applicable.

 $[\]$ Cauchy country contributes in proportion to the number of students in that country. $\$ Cauchy country contributes equally.

^{\3\}Public institutions only.

NOTE: Data adjusted to U.S. dollars using the purchasing-power-parity (PPP) index. SOURCE: Organization for Economic Cooperation and Development (OECD), $Education\ at\ a\ Glance$, 2005.

Figure 1. PRICE OF ATTENDANCE: Average total price, loans, grants, and net price for full-time, full-year dependent undergraduates, by type of institution: 1989–90, 1999–2000, and 2003–04.



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90, 1999–2000, and 2003–04 National Postsecondary Student Aid Studies (NPSAS:90, NPSAS:2000, and NPSAS:04).

Table 2. Entry rates into higher education and enrollment rate in OECD countries, by country: 2002 and 2003

	Net entry rates in	Percent of 20-	
	education, 2	to 29-year olds	
			enrolled in
Country	Academic	Vocational	school,\1\ 2002
OECD country mean\2\	53	16	22.7
Australia	68		32.9
Austria	35	9 \3\	17.0
Belgium	34	33	27.4
Canada			
Czech Republic	33	9	15.9
Denmark	53	11	31.4
Finland	73		39.5
France	39	34	19.6
Germany	36	16 \3\	25.5
Greece			24.5
Hungary	69	7	21.2
Iceland	83	9	32.0
Ireland	41 \4\	17 \4\	17.8
Italy	54	1 \3\	18.4
Japan	42 \3\	31 \3\	
Korea, Republic of	50 \3\	51 \3\	26.5
Luxembourg			6.3
Mexico	28	2	9.4
Netherlands	52	1	23.4
New Zealand	81 \3\	53 \3\	25.4
Norway	68	1	26.3
Poland	70 \3\	1 \3\	27.3
Portugal			22.2
Slovak Republic	40	3	12.6
Spain	46	21	23.3
Sweden	80	7	33.6
Switzerland	38	17	20.0
Turkey	23	24	
United Kingdom	48	30	26.8
United States	63 \4\	(\4\)	25.2

⁻⁻⁻Not available.

SOURCE: Organization for Economic Cooperation and Development (OECD), Education at a Glance, 2004, and Education at a Glance, 2005.

 $^{\1\}$ Includes students enrolled at the secondary school level.

^{\2\}Each country contributes equally.

^{\3\}Gross enrollment rate (includes entrants of all ages).

^{\4\}Vocational entrants included with academic entrants.

Table 3. Higher education graduation rates in OECD countries, by type and length of award, and country: 2003

Vocational programs Total less than 5 to 6 years 6 years			Academic programs, by length			
Country programs Total 5 years 6 years 6 years OECD country mean\lambda 9.3 32.2 19.4 12.2 0 Australia				3 to		More
OECD country mean\l\ 9.3 32.2 19.4 12.2 0 Australia 49.0 42.2 6.8 Austria 49.0 42.2 6.8 Austria 19.0 3.1 16.0 16.0 Belgium		Vocational		less than	5 to	than
Australia 49.0 42.2 6.8 Austria 19.0 3.1 16.0 Belgium 19.0 3.1 16.0 Grada	Country	programs	Total	5 years	6 years	6 years
Austria	OECD country mean\1\	9.3	32.2	19.4	12.2	0.6
Belgium	Australia		49.0	42.2	6.8	
Canada	Austria		19.0	3.1	16.0	†
Czech Republic\2\ 3.6 17.0 3.4 13.6 Denmark\3\ 9.7 42.2 27.5 14.7 0 Finland 1.6 48.7 30.4 17.7 0 France 18.6 26.7 8.6 17.1 1 Germany 10.0 19.5 7.0 12.5 Greece Iceland 7.0 43.1 35.9 7.3 Ireland 19.3 36.8 28.2 8.6 Italy\3\ 1.1 26.7 4.3 22.4 Japan 26.4 34.2 29.5 4.7 Korea, Republic of Luxembourg Netherlands Norway 4.5 39.8 32.0 4.1 3	Belgium					
Denmark\3\ 9.7 42.2 27.5 14.7 0 Finland 1.6 48.7 30.4 17.7 0 France 18.6 26.7 8.6 17.1 1 Germany 10.0 19.5 7.0 12.5 Greece Hungary\2\ 2.3 35.2 Iceland 7.0 43.1 35.9 7.3 Ireland 19.3 36.8 28.2 8.6 Italy\3\ 1.1 26.7 4.3 22.4 Japan 26.4 34.2 29.5 4.7 Korea, Republic of Luxembourg Mexico New Zealand Norway 4.5 39.8 32.0 4.1 3	Canada					
Finland 1.6 48.7 30.4 17.7 0 France 18.6 26.7 8.6 17.1 1 Germany 10.0 19.5 7.0 12.5 Greece Hungary\2\ 2.3 35.2 Iceland 7.0 43.1 35.9 7.3 Ireland 19.3 36.8 28.2 8.6 Italy\3\ 1.1 26.7 4.3 22.4 Japan 26.4 34.2 29.5 4.7 Korea, Republic of Luxembourg Mexico New Zealand Norway 4.5 39.8 32.0 4.1 3	Czech Republic\2\	3.6	17.0	3.4	13.6	†
France	Denmark\3\	9.7	42.2	27.5	14.7	0.1
Germany	Finland	1.6	48.7	30.4	17.7	0.7
Hungary\2\ 2.3 35.2	France	18.6	26.7	8.6	17.1	1.0
Hungary\2\	Germany	10.0	19.5	7.0	12.5	†
Iceland 7.0 43.1 35.9 7.3 - Ireland 19.3 36.8 28.2 8.6 - Italy\3\ 1.1 26.7 4.3 22.4 Japan 26.4 34.2 29.5 4.7 Korea, Republic of	Greece					
Ireland 19.3 36.8 28.2 8.6 - Italy\3\ 1.1 26.7 4.3 22.4 Japan 26.4 34.2 29.5 4.7 Korea, Republic of Luxembourg Mexico Netherlands New Zealand Norway 4.5 39.8 32.0 4.1 3	Hungary\2\	2.3	35.2			
Italy\3\ 1.1 26.7 4.3 22.4 Japan 26.4 34.2 29.5 4.7 Korea, Republic of	Iceland	7.0	43.1	35.9	7.3	
Japan 26.4 34.2 29.5 4.7 Korea, Republic of	Ireland	19.3	36.8	28.2	8.6	
Korea, Republic of	Italy\3\	1.1	26.7	4.3	22.4	†
Luxembourg	Japan	26.4	34.2	29.5	4.7	†
Mexico	Korea, Republic of					
Netherlands	Luxembourg					
New Zealand	Mexico					
Norway 4.5 39.8 32.0 4.1 3	Netherlands					
	New Zealand					
	Norway	4.5	39.8	32.0	4.1	3.7
Poland † 44.1 11.0 33.1 -	Poland	†	44.1	11.0	33.1	
Portugal	Portugal					
Slovak Republic\2\ 2.4 25.2 4.6 20.5	Slovak Republic $\2\\dots$	2.4	25.2	4.6	20.5	†
Spain	Spain	15.7	32.1	13.4	18.7	
Sweden 4.0 35.4 34.0 1.4	Sweden	4.0	35.4	34.0	1.4	t
Switzerland 18.7 21.6 10.0 7.4 4	Switzerland	18.7	21.6	10.0	7.4	4.1
Turkey 10.5 9.1 1.2 0	Turkey		10.5	9.1	1.2	0.2
United Kingdom	United Kingdom	13.8	38.2	35.4	2.6	0.1
United States	United States	8.8	32.9	18.0	12.8	2.1

⁻⁻⁻Not available.

SOURCE: Organization for Economic Cooperation and Development (OECD), $\it Education$ at a $\it Glance$, 2005.

[†]Not applicable.

^{\1\}Each country contributes equally.

 $^{\2\}$ graduation rate includes some double counting of academic and vocational programs.

 $^{\3\}$ Data are for 2002.

^{\4\}Vocational entrants included with academic entrants.

NOTE: Detail may not sum to totals because of rounding.

Table 4. Percentage distribution of 1990 high school sophomores, by highest level of education completed through 2000 and selected student characteristics

		1			1	
Student characteristic	Less than high school completion		Some college			Bachelors or higher
Student characteristic	COMPICCION	Compiction				
mata 3	8.8	17.8	30.2	7.9		28.7
Total	***	17.8	30.2	7.9	6.6	28.7
Race/ethnicity						
White, non-Hispanic	6.8	17.8	27.6	7.2	7.2	33.3
Black, non-Hispanic		17.9	38.5	12.0	4.1	16.4
Hispanic	16.3	18.5	37.8	8.5	7.3	11.6
Asian/Pacific Islander	6.5	6.2	32.2	5.7	3.5	46.1
American Indian/Alaska						
Native	21.6	40.1	23.0	6.4	3.0	5.9
Socioeconomic status\1\ (1990)						
Low quartile	19.9	31.7	25.4	10.6	5.4	6.9
Middle two quartiles						
High quartile						
nigh quartife	0.3	3.2	23.3	1.3	4.0	39.0
Test score composite\2\						
(1990)						
Low quartile	19.3	31.8	28.1	11.2	4.9	4.7
Middle two quartiles	4.9	17.0	34.4	8.9	9.2	25.5
High quartile	0.7	5.3	23.4	2.7	4.7	63.2
Parents' educational						
attainment in 1990						
No high school diploma	25.9	26.7	26.8	11.0	3.7	5.9
High school graduate						
Vocational/some college .						
Bachelor's degree						
Master's degree						
First-professional or		2.3		1.0]	""
Doctor's degree	0.6	1.8	18.3	2.0	4.1	73.3
bootor b degree		1.0	10.5	2.0	1	'3.3

\1\Socioeconomic status (SES) was measured by a composite score on parental education and occupations and family income.

\2\Standardized quartile of composite of student assessments in mathematics and reading.

SOURCE: National Center for Education Statistics, National Education Longitudinal

Study of 1998 (NELS:88/2000), "Fourth Follow-up, Student Survey, 2000."

(This table was prepared December 2005.)