



INDICATORS

of Opportunity in Higher Education

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REPORT

THE PELL INSTITUTE
for the Study of Opportunity in Higher Education

THE PELL INSTITUTE

The Pell Institute for the Study of Opportunity in Higher Education conducts and disseminates research and policy analysis to encourage policymakers, educators, and the public to improve educational opportunities and outcomes of low-income, first-generation, and disabled college students. The Pell Institute is the first research institute to specifically address the issues impacting educational opportunity for this growing population.

The Pell Institute for the
Study of Opportunity
in Higher Education
1025 Vermont Avenue, NW
Suite 1020
Washington, DC 20005
Tel.: 202-638-2887
Fax: 202-638-3808

www.pellinstitute.org

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COUNCIL FOR OPPORTUNITY IN EDUCATION

The mission of the Council is to advance and defend the ideal of equal educational opportunity in postsecondary education. As such, the focus of the Council is assuring that the least advantaged segments of the American population have a realistic chance to enter and graduate from a postsecondary institution.

Acknowledgements

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*Colleen T. O'Brien
Director
The Pell Institute*



CONTENTS

Foreword	2
Setting the Stage Postsecondary Education in the United States	3
The Indicators	
Indicator One: Who Goes to College?	4
Indicator Two: Where Do They Go?	4
Indicator Three: What Do Students Pay for College?	5
Indicator Four: Who Graduates from College?	6
What Does It Mean?	7
Looking To The Future	8

FOREWORD

IN THE SUMMER OF 1999, the Council for Opportunity in Education, The Education Resources Institute (TERI), and the Institute for Higher Education Policy collaborated to produce a publication, *What Is Opportunity? Defining, Operationalizing, and Measuring the Goal of Postsecondary Educational Opportunity*. The goal of this publication, as well as a related seminar, was to stimulate dialogue about defining opportunity for postsecondary education and ways to measure progress. It was hoped that this dialogue would inform the decision-making process of policymakers as they tackled policy challenges ranging from reform of K-12 education to improvement of postsecondary education.

Now, in 2004, the Pell Institute for the Study of Opportunity in Higher Education—sponsored by the Council for Opportunity in Education—takes up the charge. The purpose of *Indicators of Opportunity in Higher Education* is threefold:

- to measure the opportunities for low-income students to access and succeed in higher education;
- to track progress and improvement over time; and
- to use the findings to advocate for increased understanding and support of programs that improve access to higher education.

Why a status report on opportunity in higher education? The increased public policy attention on education over the past decade can be seen in the proliferation of report cards and other publications that grade or rate the performance and outcomes of education. Most frequently the lens through which performance is assessed is at the state level. For example, Education Week's *Quality Counts* and the National Center for Public Policy and Higher Education's *Measuring Up* focus on how well each state is performing in specific categories. In the case of *Measuring Up*, states' efforts and performances in higher education in six areas (preparation, participation, affordability, completion, benefits, and learning) are evaluated and graded relative to the highest performing states in the country.

Indicators of Opportunity in Higher Education differs from these report cards in several important ways:

1) First and foremost, the focus and unit of

measurement is *students*: who goes to college, what they pay, etc. It is not the purpose of this publication to report on the performances of individual higher education institutions or states, although their performance is certainly integral in providing opportunity for students to participate in postsecondary education. 2) Second, the scope of this report is *national*. As the goal of postsecondary educational opportunity for all is a national goal, we therefore want to know how the nation as a whole is doing. Furthermore, while opportunity to participate in postsecondary education can vary greatly from one state to another, we chose to focus on national trends and performance in light of the increased mobility of students and the growing impact of distance education to blur the importance of state lines or other political boundaries.

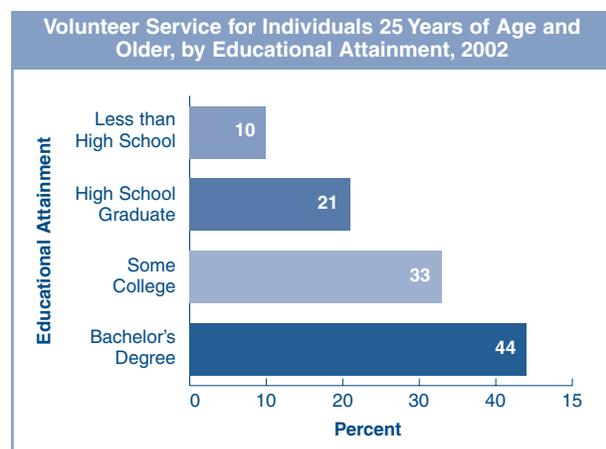
This initial edition of *Indicators of Opportunity in Higher Education* is presented in a concise format, with straightforward language and indicators that are narrowly defined in order to reach a broad audience and to introduce the concept of tracking opportunity over time. This first report is a snapshot of opportunity in American higher education; these data will serve as a baseline in future reports to show changes on a time-series basis. In the future, additional indicators will be included to present a more comprehensive picture of education beyond the secondary level. The data sources used for the indicators in this year's and subsequent reports include original data analysis, as well as the compilation of research efforts of other individuals and organizations.

Some of the findings presented in this report and succeeding editions may be well known, particularly to those within higher education. But for the larger audience of policymakers, the media, and the public, these facts may not be common knowledge. *Indicators of Opportunity in Higher Education* will remind people of not only the progress that has been made, but also how far we, as a nation, must go in order to open wide the doors of postsecondary education for all students.

SETTING THE STAGE

DISCUSSIONS OF PARTICIPATION in postsecondary education frequently tout the public and private benefits of going to college. A brief examination of a few key statistics dramatically highlights the importance of postsecondary education for individual citizens and the nation as a whole:

- On average, college graduates experience lower rates of unemployment than high school graduates do (Bureau of Labor Statistics, 2004).
- According to data from the Census Bureau, individuals with a bachelor's degree are estimated to earn almost twice as much over a lifetime as those who only finished high school (Census Bureau, 2002).
- College graduates enjoy healthier lifestyles than those with less than a bachelor's degree, including lower rates of smoking, higher rates of exercise, and longer life expectancies on average (Mortenson, 1999).
- College graduates are more likely to vote—75 percent of those with bachelor's degrees voted in the 2000 election, compared to 53 percent of high school graduates (Mortenson, 2002)—and more frequently perform volunteer work, 44 percent, compared to 21 percent of high school graduates (Mortenson, 2003a).



Source: Mortenson, 2003a.

- College graduates make greater contributions to government revenues: in 2000, households headed by persons with at least a bachelor's degree paid

51 percent of all federal individual income taxes, despite accounting for only 27 percent of all households and 42 percent of all household income (Mortenson, 2003b).

Despite these and other oft-cited statistics on the benefits of participating in postsecondary opportunity, there is a lack of information about the status of educational opportunity—that is, how well students, particularly those from low-income backgrounds, are able to participate in postsecondary education. This report is an effort to fill that void and thereby educate those who make and inform higher education policy.

Postsecondary Education in the United States

Before examining the specific indicators, it may be helpful to offer an overview of postsecondary education in the United States. It is certainly a diverse and complex enterprise. Overall, there are nearly 4,200 two-year, four-year, and for-profit degree-granting institutions¹ in the American higher education system. Forty-one percent are public institutions (26 percent two-year institutions and 15 percent four-year institutions), 40 percent are private, not-for-profit institutions (3 percent two-year institutions and 37 percent four-year institutions), and 19 percent are private, for-profit institutions. In 1999-2000, the average tuition and fees varied by sector, ranging from \$1,338 at public two-year institutions, to \$3,349 at public four-year institutions, to \$14,588 at private four-year institutions (Chronicle of Higher Education, 2002).

In Fall 1999, a total of approximately 12,681,000 students were enrolled in undergraduate programs; another 2.1 million were enrolled at the graduate level. Fifty-six percent of the students were women, 27 percent were minorities, and nearly 60 percent attended full-time. In 1999-2000, 1.8 million undergraduate degrees were awarded; over two-thirds were bachelor's degrees.

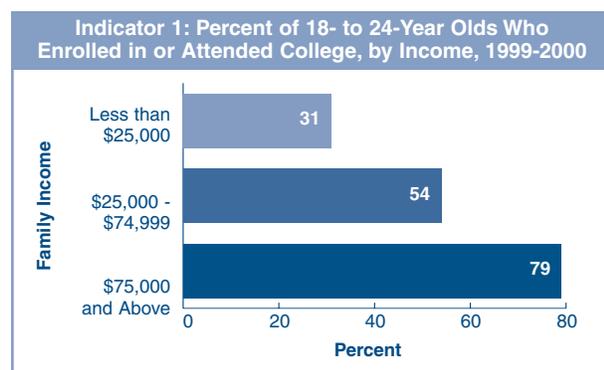
¹This number represents all "Title IV eligible institutions," that is those that are deemed eligible according to U.S. Department of Education standards to participate in the federal financial aid programs that are authorized by Title IV of the Higher Education Act.

THE INDICATORS

THIS FIRST EDITION of *Indicators of Opportunity in Higher Education* asks four core questions about students' opportunities for postsecondary education: Who is going to college? Where do students go? What do students pay for college? Who graduates from college? These questions are examined by breaking the student population down into income levels to determine if there are differences in students' opportunities for postsecondary education based on their economic situation.

Indicator One: Who Goes to College?

The opportunity to participate in college may be determined early in the education process through such choices as high school classes and pre-college tests. However a critical measure of postsecondary opportunity is whether a student actually enrolls in college. Using Census data, we can see who is going to or has attended college. In 1999-2000, approximately 56 percent of 18- to 24-year olds were in college or had attended college. When this information



Source: Census Bureau, 2001.

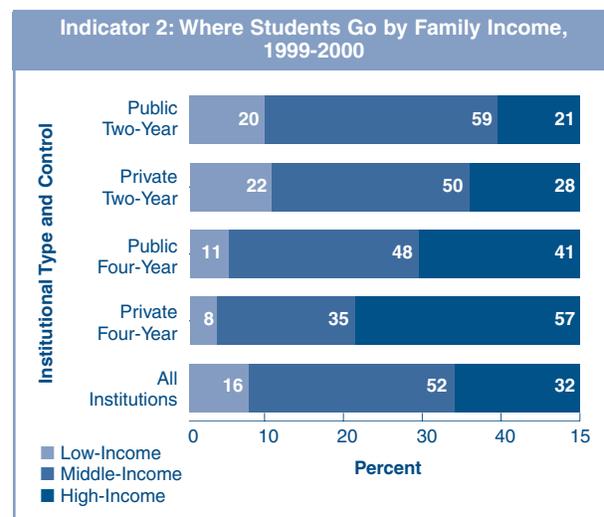
is broken down by income, gaps between students from low- and high-income families emerge: 31 percent of low-income students, compared to 79 percent of high-income students, were enrolled in college or had attended college.² Opportunity for postsecondary education advances incrementally as income rises, with over 20 percentage points separating each income level (Census Bureau, 2001).

²The Census question breaks down individuals into three groups: not currently enrolled (including those who did not graduate from high school, those who graduated high school, those who had less than a bachelor's and those who had a bachelor's or higher), enrolled below college, and enrolled full-time or part-time. For the purpose of this indicator, individuals who were not currently enrolled but had less than a bachelor's or a bachelor's degree or higher were combined with those who were currently enrolled.

Why do these differences in participation matter? If it is a broad public goal that all students are able to participate in postsecondary education, regardless of family background, these data show us that large gaps remain that inhibit the realization of that goal. An examination of historical data shows that progress has been made in terms of higher percentages of students from low-income backgrounds (and for both middle and higher income students as well), but the gap between the lowest and highest income groups has remained. For example, Census data show that in 1972, the gap between students from the lowest income and highest income group was about 38 percentage points in 1972, 26 percent compared to 64 percent. By 1998, the gap had only narrowed to approximately 31 points, 46 percent compared to 77 percent (NCES, 1999).

Indicator Two: Where Do They Go?

Understanding trends in college participation, it is also important to examine where students are enrolled. One of the great assets of American higher education, envied around the world, is the diversity of institutions that students may choose to attend. For opportunity to be equal, then, students of all income levels should be enrolled in approximately representative proportions in all types of institutions. Using data from the Higher Education Research Institute's *American Freshman* survey (Sax, Astin, et al., 1999), we can examine where students are going to college by family income:



Source: Sax, Astin, et al., 1999.

- At public two-year colleges, students from families with income under \$25,000 account for 20 percent; students from families with incomes from \$25,000 to \$74,999 account for 59 percent; and students from families with incomes \$75,000 and above account for 21 percent.
- At private two-year institutions, 22 percent of all students are from the lowest income group, compared to 50 percent from the middle-income group and 28 percent from the highest income group.
- At public four-year universities, 11 percent are from the lowest income group, 48 percent are from the middle-income group, and 41 percent are from the highest income group.
- At private four-year universities, 8 percent are from the lowest income group, 35 percent are from the middle-income group, and 57 percent are from the highest income group.

Who Attends For-Profit Institutions?

Using data from the U.S. Department of Education's National Postsecondary Student Aid Study (NPSAS), we can look at another important aspect of the postsecondary education options available to students, private for-profit or proprietary institutions. Attendance at these institutions is not captured in the *American Freshman* data as proprietary institutions do not participate in that survey. They do participate in the NPSAS survey, but it is administered approximately every four years. NPSAS data can provide a snapshot of institutional attendance by income, but not annually. Nonetheless, determining the attendance patterns, including at for-profit institutions, is important.

According to NPSAS data, 6 percent of all low-income students attend private for-profit institutions, compared to 2 percent of middle-income students, and 1 percent of high-income students (NCES, 1999-2000).

Why does it matter where students go to college? It is often said that if some opportunity is good, more opportunity is better. Long-term, the impact of higher education, specifically a bachelor's degree and beyond, is greatest in terms of career choices, wages and earnings, and the other benefits associated with increased educational attainment. If students from low-income backgrounds have the opportunity to participate only in two-year colleges or for-profit institutions, their aspirations and achievements will be limited. For some students, specific career training and preparation (as offered at for-profit institutions) or a certificate or an associate's degree may be their aspiration, but for those with

the desire and ability to achieve a four-year degree, it is important they have the opportunity to attend a four-year institution. One concern raised about where students attend is that there is increased stratification by students' income, meaning low-income students are increasingly attending two-year and non-degree granting institutions, and decreasing their numbers in four-year institutions.³ Furthermore, despite the opportunities for transfer, research has shown that the chances for completing a bachelor's degree are greatest when the student starts at a four-year institution (NCES, 2003).

Indicator Three: What Do Students Pay for College?

One of the biggest factors associated with whether students go to college or where they choose to attend is how they pay for it. Much attention has been paid to increases in tuition over the past several years, with a considerable amount of media coverage chronicling the rise from year to year. But for policymakers and students and families alike, the increased attention has not translated into greater understanding. The cost of higher education is a complex issue. At the institutional level, there are many factors that go into determining what it costs to educate a student, how much a student will be charged, and how much a student will pay.

The following indicator uses NPSAS data to show three different "prices of attendance" for students from three income groups. The three types of prices are:

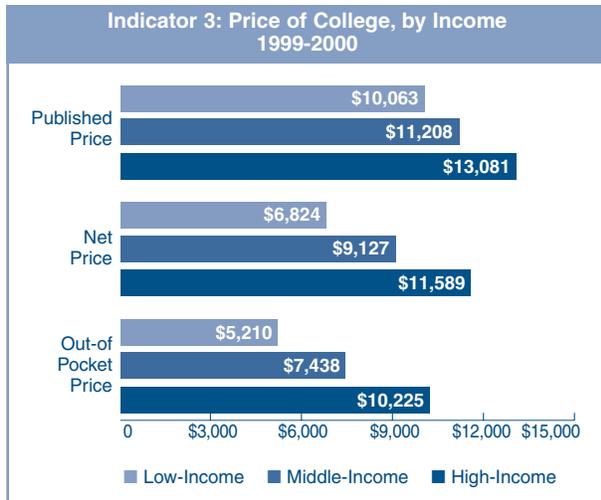
- *published price of attendance*: sometimes referred to as what colleges charge students, this is the weighted average price of attendance of all full-time dependent undergraduate students;
- *price of attendance minus grant aid, or net price*:⁴ this is the published price reduced by the average grant aid per enrolled student; and
- *price of attendance minus grant and loan aid, or out-of-pocket cost*:⁵ this is the amount that a student and his or her family has to pay, once grants and loans have been subtracted.

³For a more in-depth discussion of the stratification of higher education, see *The Policy of Choice: Expanding Student Options in Higher Education* (The Institute for Higher Education Policy, 2002), which includes an update of McPherson and Shapiro's important analysis of this issue.

⁴Using NPSAS, the amount of grant aid by source awarded to undergraduates in each of the income groups is identified. The amount is averaged over all students in the income group, regardless of whether they received the aid or not. Low-income students also get more aid, on average than do higher income students.

⁵This measure does not consider tax credits, employer aid, or other private aid from sources other than federal, state, or institutional sources.

Using NPSAS data, we can break down these three types of prices for low-, middle-, and high-income students. The average price of attendance differs among the three income groups in part because of the original institutional choices the students make. Low-income students are more likely to go to less



Source: NCES, 1999-2000.

expensive colleges than are higher income students. In each price category, low-income students “pay” the lowest amount.

Why does this variation in the price of college matter? In the discussions about increases in tuition and fees, one of the primary concerns is that low-income students are being “priced” out of the market, especially for four-year institutions. These data show that institutional prices—and aid policies—are having a positive impact on what students really pay, particularly low-income students. However, there are two important issues to consider:

1) It is difficult to measure what impact the published price of attendance—what is sometimes called the “sticker price”—has on an individual’s choice not to attend. Particularly among low-income students, who may be the first in their family to aspire to postsecondary education, the lack of understanding about financial aid programs could inhibit their interest in attending college. Indeed, research has demonstrated that low-income students are more sensitive to price—that is, their behavior is more likely to be influenced by, or respond to, changes in price—than their counterparts from middle- and high-income families (Heller, 1997). This means that when prices increase, regardless of coinciding increases in financial aid, low-income students are more likely to change their attendance patterns or not attend at all.

2) While low income students may be “paying” lower prices to attend college, the relative share of family income that college costs represent are much higher. According to the College Board, for students from low-income families, total charges for attending a four-year public institution accounted for approximately 60 percent of family income in 1999-2000.⁶ For students from middle- and high-income families, the share was substantially less, 17 percent and approximately 5 percent, respectively. The differences are even greater when private four-year institutions are considered (College Board, 2003).

Indicator Four: Who Graduates from College?

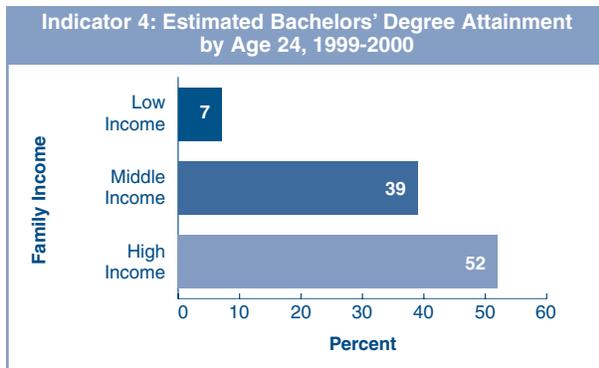
In recent years, discussions about opportunity for postsecondary education have expanded from focusing on simply providing access to education beyond high school to examining what happens to students once they are enrolled. Specifically, do students earn degrees and graduate? What are the differences between students from different groups?

There are many complicated issues in determining graduation rates, with some of the biggest being how to account for students who transfer either in or out, and how long of a period over which to measure degree completion, most commonly called time to degree. Nationally, degree completion data are hard to find. Recently, the U.S. Department of Education has begun to require that institutions participating in federal Title IV student aid programs submit information annually regarding their graduation rates for four, five and six years. This information is further broken down by gender and minority status, but it is not reported by student income level.

However, using Census data, it is possible to estimate the percentage of those 24 year olds who have completed a bachelor’s degree. Among those students in the lowest income group, an estimated 7 percent attain their bachelor’s degree by age 24, compared to 39 percent for those students from the middle-income group, and 52 percent for those from the highest income group (Mortenson, 2001).⁷

⁶Total charges are defined as tuition, fees, room and board. The College Board uses slightly different income categories, breaking them down into quintiles, with the lowest income range being approximately \$25,000, middle income ranging from approximately \$43,000 to \$65,000, and highest income at nearly \$99,000 and above.

⁷Mortenson uses quartiles for reporting income levels. The bottom quartile ranges from \$0 to \$33,902; the second quartile from \$33,903 to \$59,595; the third quartile from \$59,596 to \$86,222, and the top quartile from \$86,223 and above. The second and third quartiles comprise the middle-income group for the indicator.



Source: Mortenson, 2001.

Low-income Students Take Longer to Achieve Their Degree

One reason that graduation rates for low-income students are lower is that low-income students on average take longer to complete their degrees. Due to their economic circumstances, they may attend part-time, either because that's what they can afford, they are working full-time, and/or have other responsibilities, such as family to consider. In addition, as Indicator Two illustrates, more low-income students start their postsecondary education at two-year colleges, which increases the likelihood that it will take additional time to complete a four-year degree, given the complexities of transfer.

Using data from the U.S. Department of Education's Beginning Postsecondary Students Study, we can see how the rates of earning a college degree (both two- and four-year) vary by income. For example, among students from high-income backgrounds, 65 percent earned some type of college degree within six years, with 56 percent earning a bachelor's degree. However, only about 50 percent of students from the lowest income group earned some type of college degree within six years, with 26 percent earning a bachelor's degree, 14 percent an associate's degree, and slightly over 10 percent a less than two-year certificate (NCES, 2003). Without support, such as institutional retention efforts, it is unlikely that these gaps will improve, particularly given the concentration of low-income students in two-year institutions.

Why does degree completion matter? Degree attainment is important for career opportunities—more jobs require a bachelor's degree education. Furthermore, as was noted earlier, the more education, the greater the earnings. Thus, even though there is an increase for those students who have some college but no degree compared to those whose highest achievement was a high school diploma, the returns are substantially higher for those who achieve their bachelor's degree. For those students who enroll but don't finish, they may experience additional compli-

cations, such as having to pay off loans without the additional income to do so. This is a particular concern for low-income students.

Most of the recent political attention on degree completion at both the state and federal level has been driven by public accountability. Given the substantial amount of public funding that colleges and universities receive—whether it is through direct support from appropriations and subsidies or through the financial aid monies that enrolled students bring—policymakers want to ensure that these institutions are fulfilling their responsibility in providing an education for their students.

What Does It Mean?

Having examined the four indicators, what is the overall status of opportunity for postsecondary education? Without looking at trend data, the immediate picture suggests that relative to other groups:

- Low-income students have less opportunity for education beyond the high school level.
- Smaller percentages of young people in the lowest income group participate in college compared to students from other income groups.
- Low-income students more frequently attend for-profit institutions and two-year institutions, suggesting that these students have less of an opportunity for postsecondary education, particularly for a bachelor's degree.
- Low-income students take longer to complete their degrees—and do so at lower rates.

One aspect of opportunity that appears positive is that among all three income groups, low-income students have the lowest prices in each of the measures. This suggests that for those students who are able to participate, policies and programs aimed at helping them meet the cost of education are on target and should be continued, and expanded significantly. However, it is difficult to gauge the impact of the high published price of higher education on low-income students. How many students with aspirations for postsecondary education are dissuaded by the high prices? By one account, the Advisory Committee on Student Financial Assistance's report *Empty Promises*, nearly half of all college-qualified, low-income college graduates are prevented from attending four-year colleges by the financial barriers (Advisory Committee, 2002).

LOOKING TO THE FUTURE

AS PREVIOUSLY NOTED, this first edition of *Indicators of Opportunity in Higher Education* is a snapshot of what postsecondary opportunity looks like today, particularly for low-income students. The Pell Institute will produce this report every year, using the data presented in this and subsequent editions as baselines by which to judge whether opportunity for higher education is improving or declining. The four indicators presented in this report will continue over time, and additional indicators will be added to round out the opportunity picture. The following represent some of the potential indicators and/or broad areas that may be included in future reports:⁸

- Preparation for college: there are many steps identified as crucial to accessing higher education, such as a college prep curriculum and taking college admissions exams. What are the participation rates in these activities?
- Financial aid and affordability: Who receives aid? What type of aid do they receive? From what sources?
- Attendance patterns: Who goes to college immediately after high school? Who attends full-time?
- Achievement: At what levels are students achieving in postsecondary education?

It is our hope that this report becomes an important component in the national discussion of opportunity in higher education. The ability to gauge our progress towards making higher education available to all is essential to strengthening the policies and programs of today and developing the new directions we set for the future.



⁸The use of additional indicators in the future will be determined by their availability, their currency, and their relevance to other indicators in future reports.

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1025 Vermont Avenue, NW
Suite 1020
Washington, DC 20005