Upward Bound (CFDA No. 84.047)

I. Legislation

Higher Education Act (HEA) of 1965, as amended, Title IV, Part A Subpart 2, Chapter 1, Sec. 402C (20 U.S.C. 1070a-11 and 1070a-13) (expires September 30, 1997).

II. Funding History

Fiscal Year	Appropriation <u>l</u> /	Fiscal Year	Appropriation 1/
1967	\$28,000,000	1987	\$74,548,185
1970	29,600,000	1988	80,413,638
1975	38,331,000	1989	98,830,000
1980	62,500,000	1990	100,600,000
1981	66,501,000	1991	131,643,731
1982	63,720,000	1992	158,759,000
1983	68,366,514	1993	157,589,899
1984	70,754,376	1994	162,500,000
1985	73,614,193	1995	190,563,469
1986	72,338,636	1996	191,269,332

1/ The allocations represent the amount allocated administratively by the Department from funds appropriate jointly for all six federal TRIO programs: Upward Bound, Talent Search, Educational Opportunity Centers, Student Support Services, Ronald E. McNair Postbaccalaureate Achievement program, and the Training Program for federal TRIO programs.

III. Analysis of Program Performance

A. Goals and Objectives

The goal of the program is to generate among low-income youths and potential first-generation college students enrolled in high school the skills and motivation necessary for success in education beyond high school.

B. Strategies to Achieve the Goals

Population Targeting

To participate in Upward Bound (UB), students must be between the ages of 13 and 19 (except for veterans), have completed the 8th grade, and have a need for academic support to successfully pursue a program of postsecondary education. Participants are selected on the basis of recommendations from their counselors, teachers, and social agencies. Two-thirds of the project participants must be low-income persons (defined as 150 percent of poverty level) who are also potential first-generation college students. The remaining one-third must be either low-income or potential first-generation college students.

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There are now 601 Upward Bound grantees serving 44,700 students. Grants are usually for four years, but applicants whose grant proposals are scored in the top 10 percent of a competition are awarded five-year grants. In FY 1990 the Department also awarded additional funds to establish Upward Bound summer residential programs emphasizing math and science learning. There are now 81 Upward Bound math-science projects serving 3,712 students.

Services Supported

FY 1996 Awards

	Program Regular	Math/Science Summer
Number of projects	601	81
Average award	\$286,540	\$235,292
Number of persons served	44,750	3,712
Average federal cost per	\$3,848	\$5,134
participant		

Students are recruited for participation in Upward Bound through their high schools, known as "target schools." These target schools are listed in the application; approximately 3,300 such schools are served by UB projects throughout the country. Students in UB programs generally participate in an intensive six-week summer residential or nonresidential program held on a college campus. They continue to receive academic and support services during the school year, typically on weekends or after school.

All Upward Bound project must provide instruction in the following areas:

- Math (through precalculus);
- Laboratory science;
- Foreign language;
- Literature; and
- Composition.

In addition, the following services are typically provided in the academic year and summer components of the project:

- Instruction in reading, writing, study skills, and other subjects necessary for success in education beyond high school;
- Academic or personal counseling;
- Exposure to cultural events and academic programs;
- Tutorial services;
- Information on student financial assistance:
- Assistance in completing college entrance and financial, and preparing for admissions tests;
- Exposure to a range of career options; and.
- Mentoring.

A current Education Department evaluation of Upward Bound (V.4) has concluded that "the great majority of Upward Bound projects today strive to engage students in an academically intensive precollege program. Several indicators from this study provide evidence of the academic cast of Upward Bound: (1) Upward Bound projects offer a substantial number of academic courses (a median of 17 during summer session); (2) course content emphasizes a traditional core of math and science subjects, with more emphasis placed on material that enriches or supports high school curriculum than on remediation;) (3) an Upward Bound participant typically attends about 180 academically oriented instructional sessions yearly; and (4) short-term program effects show that Upward Bound participants earn more high school credits in academic courses than nonparticipants in a control group.

Programs may be sponsored by institutions of higher education, public and private nonprofit agencies, or combinations of such entities. In exceptional cases, secondary schools may sponsor a project or be part of a combination of entities sponsoring a project.

Prior experience points are earned by grantees that have conducted an Upward Bound project during the three years prior to the year in which a new application is submitted. Up to 15 points can be awarded based on the applicant's prior program performance as an Upward Bound grantee. The goal is to promote continuity in the delivery of services.

Strategic Initiatives

The Department is planning several initiatives to improve service delivery and customer satisfaction, increase the dissemination of information on TRIO programs, and improve program effectiveness. These efforts include conducting periodic customer surveys, streamlining the grants award process, and improving project performance report data and feedback to grantees.

The Department has recently revised program regulations to improve the reliability of it criteria for selection of participants and for allocation of points for prior experience. The revised regulations improve project accountability and help the Department develop a better working relationship with the Upward Bound grantees.

C. Program Performance—Indicators of Impact and Effectiveness

Objectives	Indicators	
High school completion	Upward Bound participants will complete high school at higher rates than nonparticipants.	
College enrollment	Upward Bound participants will enroll in postsecondary education at higher rates than comparable nonparticipants.	
College completion	Upward Bound participants who enroll in postsecondary education will complete 2- or 4-year postsecondary education programs at rates higher than comparable nonparticipants.	

Two major activities are under way to obtain accurate and timely data measuring program performance. First, The Department has undertaken a large nationally representative evaluation of Upward Bound that includes a longitudinal survey of 2,800 randomly selected program participants and controls. This evaluation has assessed the short-term impacts of Upward Bound while participants are enrolled in high school. Impacts on high school graduation and college enrollment are currently being analyzed, with future data collection planned to assess long-term program effects on college completion. The Department is revising requirements for the annual performance reports submitted by all grantees to better align them with the objectives and performance indicators described above.

High School Completion

Upward Bound has been evaluated several times in the past. The most comprehensive evaluation of the program was undertaken by Research Triangle Institute (RTI) between 1973 and 1979 (V.2). This study followed a sample of approximately 3,700 Upward Bound participants from 54 sampled projects and 2,300 nonparticipating matched comparison group students.

This study found that Upward Bound had no effect on high school graduation rates.

Other analyses from the High School and Beyond survey for 1982 high school graduates found similar results--no significant difference in rates of high school graduation for Upward Bound participants and a similar comparison group of nonparticipants(V 3 and V.5).

Despite results indicating little impact on high school graduation rates, all studies have found that more than 90 percent of Upward Bound participants complete high school. This largely reflects the program's tendency to attract students with strong academic motivation.

College Enrollment

Previous studies have found that Upward Bound has a significant positive impact on rates of college enrollment and the type of institutions attended. In the RTI study, significantly more Upward Bound participants entered postsecondary education than nonparticipants; in addition, those who enrolled in college were more likely to attend a four-year institution than were nonparticipants. This study also found that minorities, economically disadvantaged students, and students classified as academic risks were particularly more likely to enter college from among Upward Bound participants than from the comparison group.

An analysis (V.3 and V. 5) of students in the High School and Beyond survey of senior found similar effects of program participation. Upward Bound participants were more likely to enter college than nonparticipants.

Since 1992, the Department has conducted a national evaluation to assess the impact of Upward Bound. This evaluation, including results to date, is summarized below.

College Completion

Data on the college completion rate of recent Upward Bound participants is not available but an RTI evaluation found that Upward Bound participants experience postsecondary success, including likelihood of graduation from college, more frequently than a comparison group of nonparticipants.

TRIO				
Goal: To increase educational participation of disadvantaged students through effective management of the federal Trio Programs.				
Objectives	Indicators	Source and Next Update	Strategies	
Student outcomes				
1. Increase participation and completion rates of disadvantaged persons through the academic pipeline from middle and high school through postsecondary enrollment.	Bound participants (as evidenced by analysis of 9th grade cohorts) will complete high school at higher rates than comparable non-participants. (Only 66.6 percent of low-income persons graduate from high school. "Postsecondary Education Opportunity," November 1995)	1.1 Mathematica Upward Bound evaluation, 1997 (graduation rates of Upward Bound participants and comparison group available spring 1997) TRIO projects' annual performance reports, 1998	• Redesigned performance reports (some still to be cleared by OMB) will allow OPE staff to better measure the success of funded projects in meeting the goals of the federal TRIO programs. OPE staff will use the data to provide better feedback to grantees on project and student performance that may be used to improve the quality and effectiveness of funded projects.	
	 1.2 Postsecondary enrollment. Upward Bound participants (as evidenced by analysis of 9th grade cohorts) will enroll in postsecondary education programs at higher rates than comparable non-participants. The ratio of Talent Search and Educational Opportunities Centers (EOC) participants who apply to college and/or apply for student financial aid compared with the numbers served will increase. (Only 59 percent of high school graduates who are both low-income and first-generation college students enroll in postsecondary education compared to 93 percent of those who are neither low-income or first-generation college students. NELS 88) 	1.2 Mathematica Upward Bound evaluation, 1997 (postsecondary enrollment rates of participants and comparison group available spring 1997);TRIO projects' annual performance reports, 1998; National Educational Longitudinal Survey 1988 (NELS), 1996	 Further, data obtained from performance reports along with data from the national evaluation studies will provide baseline information on student success rates that can be compared with national data on low-income, first-generation students. In addition, OPE staff will disseminate information on effective Practices and strategies obtained from OERI research and other national evaluations. 	

TRIO Goal: To increase educational participation of disadvantaged students through effective management of the federal Trio Programs.			
Objectives	Indicators	Source and Next Update	Strategies
2. Increase participation and completion rates of disadvantaged persons through the academic pipeline from middle and high school through community or four year colleges.	 2.1 Postsecondary persistence and completion. Upward Bound participants who enroll in postsecondary education will complete 2 or 4 year postsecondary education programs at rates higher than comparable non-participants. Student Support Services participants will persist and complete 2 or 4 year postsecondary education programs at higher rates than comparable non-participants. The persistence and graduation rates of Student Supports Services participants will increase. 	2.1 Trio annual performance reports, in conjunction with Title IV Applicant and Recipient System (four- year graduation rates for Upward Bound participants available December 2001) Westat, Inc. data on persistence rates for students still enrolled in college in third year, available July 1996, and completion (graduation) rates, available March 1999	See previous strategy.
	(55 percent of low-income, first-generation college students who began at two-year schools and 76 percent who began at four-year schools were still enrolled in college in the third year (Beginning Postsecondary Students) For low-income, first-generation college students participating in the Student Support Services program 61 percent who began at two-year schools and 80 percent who began at four-year schools were still enrolled in college in the third year. (Westat)	TRIO annual performance reports, 1997 Beginning Postsecondary Students study (BPS) 1990/94 and Westat (benchmark data available July 1996)	

Objectives	f the federal Trio Programs. Indicators	Source and Next Update	Strategies
Objectives	Only 15.3 percent of low-income, first-generation college students complete a BA program within 5 years and only 22.3 percent complete an AA program within 5 years. The comparable rates for those who are not low-income, first-generation college students are 32 and 13.4 percent respectively. Beginning Postsecondary Students)	Source and Next Optiate	Sualegies
3. Increase participation and completion rates of disadvantaged persons through the academic pipeline from colleges and universities through graduate school.	3.1 Graduate school enrollment and completion. — McNair participants will enroll in and complete graduate and doctoral programs at higher rates than comparable non-participants. — The percentage of McNair participants who enroll in and complete graduate and doctoral programs will increase. (Only 13.1 percent of low-income, first-generation college students with baccalaureate degrees enroll in graduate school compared with 18.5 percent of those who are not low-income, first-generation college students. Baccalaureate and Beyond)	3.1 McNair annual performance reports, 1997 (preliminary enrollment data available late 1997; completion rates for 1989-90 cohort group available March 2001) Baccalaureate and Beyond survey (benchmark data available July 1996)	

TRIO				
Goal: To increase educational participation of disadvantaged students through effective management of the federal Trio Programs.				
Objectives	Indicators	Source and Next Update	Strategies	
4. Improve service delivery and customer satisfaction and increase communication and information dissemination for the federal TRIO Programs.	 4.1 Burden reduction for applicants and grantees. Customer survey data will indicate that new program regulations and redesigned application packages reduced burden (Baseline to be developed from first survey.) 4.2 Streamlined grants award process. The time from receipt of applications to the notification/awards to grantees will be reduced. (The current average time elapsed is approximately ten months.) 4.3 Number of information requests. The amount of information requested by the public, including electronic requests and inquiries, will increase. (Baseline to be developed.) 4.4 Number of applications. The number of applications received will increase (competitive years only). Baselines for applications are as follows: —Talent Search, 650 applications, FY1994 —EOC, 300, FY 94 —Upward Bound, regular, 820, FY 95 —Upward Bound, math/science, 212, FY95 —McNair, 226, FY 95 —TRIO Training, 32, FY 96 —Student Support Services, 1,102, FY 97 	 4.1 Customer survey (PES & OPE), 1998 4.2 Schedule for grant review process, annual, 1997 4.3 Annual data on number of customer inquiries (program office, Higher Education Programs assistance line, WWW hits), 1997 4.4 Annual data from ED's Application Control Center, Grants and Contracts Service (in competitive years), 1997 	 OPE has undertaken a number of initiatives to better serve our customers, including: streamlining the grants award process, developing new program regulations and application packages to reduce burden, and increase accountability, and providing increased access to information. A customer survey planned for fiscal year 1997 will provide baseline information that will be used to measure our progress in meeting these objectives. Also, the high quality of the Training Program for the federal TRIO Programs will increase the quality and effectiveness of funded projects. 	

TRIO			
Goal: To increase educational participation of disadvantaged students through effective management of the federal Trio Programs.			
Objectives	Indicators	Source and Next Update	Strategies
	4.5 Customer satisfaction. Customer survey data will indicate improved satisfaction with response to information requests, and the usefulness of the information received (Baseline will be developed from first survey.)		
5. Improve program effectiveness and extend the impact of the federal TRIO programs beyond the funded projects by disseminating information on effective practices.	5.1 Use of effective practices. Applications proposing and programs using effective practices will increase (Baseline to be developed.)		 OPE has undertaken a number of initiatives to improve program effectiveness and increase dissemination of information on effective practices, including: Funding a two-year grant to the National Council of Educational Opportunity Associations (NCEOA) to develop a national clearinghouse of information on effective intervention and opportunity programs for low-income and minority secondary and postsecondary students. Disseminating information on effective practices and strategies obtained from the national evaluation studies of the Student Support Services and Upward Bound Programs and encouraging applicants to include effective practices in new applications. Using the project annual reports for help in identifying effective practices.

TRIO			
Goal: To increase educational participation of disadvantaged students through effective management of the federal Trio Programs.			
Objectives	Indicators	Source and Next Update	Strategies
S.J.Cu., e.S			 (4) Using a strong and effective peer review process to select quality applications for project funding. (5) Providing through grants made under the TRIO Training Program training for over 2000 TRIO personnel per year to improve project management and service delivery. OPE and the national clearinghouse will track the number of requests for information. Further, a customer survey
			planned for fiscal year 1997 and subsequent years will provide information on customer satisfaction with the quality and usefulness of the information and training provided.

Please see also Office-Wide Performance Indicators for the Office of Postsecondary Education displayed in the Overview (OPS) to the postsecondary education programs.

IV. Planned Studies

An ongoing national evaluation of Upward Bound (V.4) has reported the following findings:

- Two effects emerge early on from Upward Bound: (1) Students who participate in the program expect to complete more schooling than similar students who do not. (2) The program has a positive effect on the number of academic courses that participants take during high school.
- The students who benefit most initially are those with lower academic expectations.
- When impacts are examined by racial/ethnic groups, Hispanic students benefit the most from Upward Bound.
- The program shows no impact in the first year on participants' high school grades.
- Many students leave the program in the first year.
- Most Upward Bound projects focus on providing a rich and challenging academic program.

A Closer Look At Specific Findings

Expectations About Continuing in School

During the first year that students participate, Upward Bound bolsters the expectations for continued schooling that they and their parents hold.

- Participants expected to complete almost 0.25 more years of school on average than nonparticipants. Both groups of students typically experienced some decline in educational expectations between the time of application to the program and the follow-up survey. The decline, however, was much larger for the control group.
- According to participants, their parents expected them to complete about .3 more years of schooling than did parents of children in the control group. The expectations of participants' parents changed little; but the expectations of control group parents declined substantially.

Credits Earned

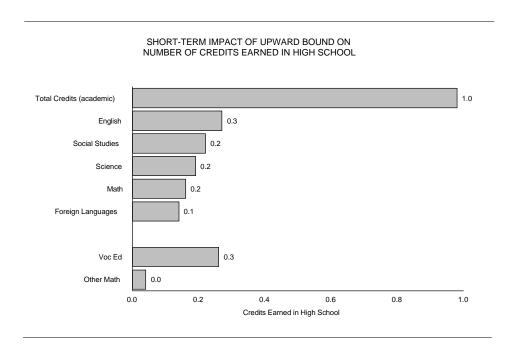
Upward Bound increases the number of high school academic credits students earn during the first year of participation (see Figure 1).

Participants earned about one credit (Carnegie unit) more than nonparticipants. This impact is
quite large when compared with the experiences of a typical high school student, who each year is
expected to complete about five academic or elective credits.

- Participants earned substantially more credits in science, math, English, foreign languages, and social studies than nonparticipants.
- Participants also earned more credits than nonparticipants in vocational education and remedial math courses.

Students Who Benefit Most

Before participating in Upward Bound, almost three-quarters of applicants who are eligible for the program expect to complete at least a four-year college degree. But those who benefit most from Upward Bound are those who do not expect to complete a four-year college degree.



- Parents' educational expectations for their children increased when their children started Upward Bound with lower expectations. For example, Upward Bound increased fathers' expectations by 1.2 years for these participants.
- In contrast, parents of children with higher initial expectations for continued schooling neither increased nor decreased their expectations.

In terms of academic preparation, Upward Bound has a large positive impact on the high school credits that students with lower expectations earn in math, English, and social studies.

- Participants with lower educational expectations gained almost 0.6 more math credit than their counterparts in the control group; did the corresponding figure for students with higher expectations was 0.1 credit.
- Participation in Upward Bound also led to an increase of about 0.8 credit in English and social studies for students with lower expectations and less than 0.1 credit for those with higher expectations.
- Across all academic subjects, Upward Bound increased the number of credits earned by 3.1 for participants with lower expectations and by 0.5 credit for those with higher expectations.

Course taking for the three largest racial/ethnic groups in Upward Bound follows a consistent pattern: Hispanic students routinely experience larger gains from participation than either African American or white students.

- Hispanic students gained more than 2 credits; African American and white students gained less than 0.5 credit.
- Larger gains for Hispanics are apparent in several subjects: math, English, foreign languages, social studies, and vocational education.

First-Year Program Dropouts

Although Upward Bound has a substantial effect on educational expectations and course-taking, the effect could be even larger if more students stayed in the program. Participants who leave Upward Bound in the first year, for example, do not earn as many credits in high school as those who remain. Despite the value that comes from staying, many students do choose to leave Upward Bound in the first year. Furthermore, attrition from Upward Bound may be substantial by the time a group of entering students finishes high school.

- About 32 percent of those who entered Upward Bound before summer 1993 left by the end of the 1993-94 academic year.
- Projections based on the experience of all students in the study suggest that 37 percent of those who
 participate will leave within the first 12 months.
- The program's dropout rate is very likely to increase at the end of the junior year, when project staff have reported that students are most likely to leave Upward Bound for summer and afterschool jobs.

The Academic Challenge of Upward Bound

Most Upward Bound projects offer programs that emphasize academic preparation for college. Although an evaluation conducted in the 1970s by Research Triangle Institute prompted concern that Upward Bound projects did not devote enough time to academic instruction, recent evidence counters this view. The academic intensity of projects is evident from four perspectives.

- 1. *Number of Courses Offered*. Fifty percent of the Upward Bound projects offer more than 17 academic courses in the summer and more than 10 academic courses during the regular school year. These courses are in addition to the tutoring, academic counseling, study skills, and SAT/ACT test preparation courses that almost all projects provide.
- 2. *Nature and Content of Courses*. More than two-thirds of the projects focus on instruction that is not remedial. These projects either support the curricular content in the college preparatory program of the high school, or they adopt an enrichment focus that teaches content the schools are unlikely to teach. Most projects offer courses that reflect a traditional precollege preparatory curriculum and a wide range of subjects.
- 3. *Course Requirements*. Eighty percent of the projects require students to complete at least six courses in the Upward Bound program. The majority prescribe the set of courses that must be taken. Projects that specify courses fall into two groups. The first, which represents one-third of all projects, emphasizes completing a "foundational" curriculum comprising reading, writing, algebra I and II, and geometry. The second, which represents a slightly larger fraction of projects, has a math/science orientation, with requirements for precalculus, calculus, and science courses in addition to the foundational requirements.
- 4. *Intensity of Contact with Students*. Among first-year participants, the typical number of academic and nonacademic sessions attended was 274. Two-thirds of these sessions took place during the summer and the rest took place during the academic year.

Summing Up

The short-term impacts of Upward Bound, even though they are not evident for every kind of outcome, are both impressive and important. For just one year of involvement, Upward Bound offers real benefits to students. It exposes them to academically challenging courses in addition to those they take in high school. It results in participants, and their parents, holding higher expectations about future education. It leads to participants' earning more academic credits in high school. Moreover, Upward Bound is particularly beneficial for students who initially expect to complete fewer years of education and who come from Hispanic origins.

While these results are promising, they give only a partial view of how well Upward Bound works. Will the initial results endure and become larger as participants graduate from high school and face the challenge of college? Will the grades of participants and other outcomes that have yet to show impacts change as a result of students' involvement in the program? Answers to these questions will come as future reports about long-term program impacts are produced by the national evaluation.

About The Study

The national evaluation of Upward Bound is a six-year, longitudinal study commissioned by the Planning and Evaluation Service of the U.S. Department of Education. The evaluation incorporates data from many sources, including nationally representative samples of regular Upward Bound grantees and their target schools, and a nationally representative sample of students who applied to the program

between 1992 and 1994 and were randomly assigned either to Upward Bound or to a control group. Additional data were collected through field visits to a representative sample of 20 Upward Bound projects in the spring and the summer of 1993.

Because of the study design, findings on the impact of Upward Bound are generalizable to all Upward Bound projects hosted by two- and four-year colleges. The design uses a nationally representative sample of 67 Upward Bound grantees at two- and four-year colleges. Of students who were eligible applicants to these 67 projects, the evaluation randomly assigned 1,524 to Upward Bound and 1,320 to a control group. Short-term impacts are based on comparing students in the two groups across a range of measures, including high school grades and course-taking, attitudes and educational expectations, misbehavior in school, and parental involvement. All students completed an initial survey form before they were randomly assigned to Upward Bound or the control group; more than 97 percent responded to a follow-up survey in 1994. Students' high school transcripts also were collected in 1994.

The survey of Upward Bound grantees collected detailed information about project operations and staffing for the 1992-93 year. Questionnaires were mailed to a nationally representative sample of 244 projects, and 92 percent of the questionnaires were returned. The survey of target schools collected information from principals and Upward Bound liaisons in the schools (generally school guidance counselors) on a variety of topics, including the educational climate, availability of precollege programs in the school, contacts with Upward Bound, and perceptions of program effectiveness. Target school questionnaires went to a sample of 754 middle schools and high schools; 96 percent of these schools responded.

Particularly given concerns raised in the past about the academic preparation provided Upward Bound students.

Department of Education plans future data collections to assess the program's long-term impact on college graduation. These plans include an evaluation of the Upward Bound Math-Science initiative.

V. Sources of Information

- 1. Program files.
- 2. Graham Burkheimer, John Riccobono, Joseph Wisenbaker, *Final Report: Evaluation Study of the Upward Bound Program--A Second Follow-up*, (Research Triangle Park, NC: Research Triangle Institute, 1979).
- 3. Steven M. Jung and Applied Systems Institute, *Reanalysis of High School and Beyond Data to Estimate the Impact of Upward Bound* (Washington, DC: Applied Systems Institute, 1984).
- 4. National Evaluation of Upward Bound, conducted by Mathematica Policy Research; Mary Moore, "A 1990s View of Upward Bound: Programs Offered, Students Served and Operational Issues,

¹The focus of the national evaluation of Upward Bound is the regular Upward Bound program. Projects funded by the Upward Bound Math/Science initiative or Veterans' Upward Bound projects are not part of the national evaluation.

November 1996; David Myers and Allen Schirm, "The Short-Term Impact of Upward Bound: An Interim Report."

5. David Myers, "The Effects of Upward Bound and Supplemental Service Programs: Findings from Extant Data" (Rockville, MD: Westat, Inc., 1991).

VI. Contacts for Further Information

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Program Studies: David Goodwin, (202) 401-0263