

Education and Student Affairs Committee
Board of Regents, State of Iowa

Subject: Post-Audit Reports – University of Iowa

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Date Submitted: December 1, 2004

**Recommended
Actions:**

1. Receive the following Post-Audit Reports from the University of Iowa:
 - a. Ph.D. in Second Language Acquisition
 - b. Master of Computer Science
 - c. Graduate Program in Translational Biomedicine
2. Approve continuation of the programs.

Executive Summary:

Regent Policy Regent policy requires that a post-audit report be prepared for each new program five years after initial approval by the Board to: (1) assess its progress during the five-year time period; and (2) ensure that the program is meeting original expectations.

The Regent post-audit process requires institutions to respond to a series of questions outlined in the Policy Manual §6.07. Institutions must begin to collect information when the program is approved by the Board of Regents and during each succeeding year in order to make the post-audit report accurate and informative.

Responses to Regent Questions The responses to the Regent questions on post-audits are included on pages 5-18 and indicate to what extent the program has met its originally stated purpose, the accuracy of enrollment estimates, employment patterns, and accuracy of expenditure projections for faculty, staff, and equipment.

Post-Audit Reports Review The post-audit reports have been reviewed by the Board Office and the Interinstitutional Committee on Educational Coordination (ICEC) and are recommended for approval.

**Link to
Strategic
Plan:**

This report addresses Objective 1.1 in the Board's Strategic Plan:

Offer high-quality programs through ongoing program improvement for undergraduate, graduate, professional, and non-degree students, and special school students.

Analysis:

**Ph.D. in Second
Language
Acquisition**

Second Language Acquisition is a multidisciplinary field whose goal is to understand the processes that underlie learning a non-native language. The study of Second Language Acquisition draws from other academic disciplines, including linguistics, psychology, psycholinguistics, sociology, sociolinguistics, discourse analysis, conversation analysis, and education.

**Program
Characteristics**

- ◆ The program was approved in May 1999 and implemented in September 2000.
 - ◆ A related program (Ph.D. in Applied Linguistics and Technology) will be implemented at Iowa State University in Fall 2005. ISU's program will focus on English applied linguistics and technology while SU's program focuses on the processes that underlie learning a non-native language.
 - ◆ The current enrollment is 18 graduate majors which coincides with the projected enrollment in the proposal; the projected future enrollment is 20 majors.
 - ◆ There have been no graduates of the program because the average time-to-completion is expected to be 6-7 years. In the program proposal, the expected average time-to-completion was described as 4.5 years. The difference has been explained as relating to the type of master's level work students bring with them.
 - ❖ Twelve out of the 18 current students have completed their comprehensive examinations and are in the process of writing dissertations. Some of these students are expected to complete their dissertations in time for a spring or summer 2005 graduation.
 - ❖ Current students are receiving recognition for the high quality of their work, including fellowships and conference presentations.
 - ◆ In the program proposal, the projection was for \$0 incremental costs in the first three years of the program because the program anticipated receiving support from various foreign language departments and the department of Linguistics, as well as ongoing grant work through its connection with International Programs; the actual costs were approximately \$33,000, primarily for director compensation and graduate assistants.
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Meets Board Requirements

A review of the post-audit report indicates that the program meets the Board's criteria for post-audit review (Attachment A, pgs 5-9).

Master of Computer Science

The Master of Computer Science (MCS) provides an alternative master's degree to the Master of Science which requires a research-oriented master's thesis. The MCS program offers a non-research program based primarily on coursework. Students interested in working in professional computing positions in technology-oriented companies are better served by additional course, especially when it includes substantial software development projects.

Program Characteristics

- ◆ The program was approved in July 1998 and implemented during the 1998-99 academic year.
 - ◆ No other Regent university offers an MCS degree; however, the University of Northern Iowa offers a non-thesis Master of Science degree in Computer Science with similar requirements.
 - ◆ Enrollment and dropout information was not available. In the program proposal, the projected enrollment of majors was 70 each year for the next five years and an enrollment of 5 for non-majors. Enrollment in the MCS program brought about an expected (and desired) drop in the MS program. Improvements in enrollment tracking are expected by advertising the distinction between MS and MCS programs.
 - ◆ There have been 68 graduates of the program since its inception; however, employment information about graduates was not available. A survey of recent graduates is underway.
 - ◆ The program did not require additional expenditure of salary or other funds and none are projected for the next three years.
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Meets Board Requirements

A review of the post-audit report indicates that the program meets the Board's criteria for post-audit review (Attachment B, pgs 10-15).

Graduate Program in Translational Biomedicine

One of only a few clinical graduate programs in the U.S., this program trains clinical scientists in hypothesis-oriented, patient-based research that allows scholars to transcend traditional academic disciplines and conduct state of the art innovative research. This program not only trains the next generation of academic health science researchers in the United States, but also trains future leaders in clinical research funded by the National Institutes of Health (NIH).

Program
Characteristics

- ◆ The program is not available elsewhere in Iowa; there are only a few programs in the country that are training in this field.
 - ◆ The program was approved in July 1999 and implemented in January 2001. The program implementation was delayed due to a leadership change.
 - ◆ The current enrollment is seven majors; the program proposal anticipated 3-4 students per year. If the program receives a K-12 grant from the National Institutes of Health, it would support the salary of 20-25 trainees.
 - ◆ There was one graduate completion in 2002 and another one is scheduled for completion in 2004. Both graduates have received teaching positions.
 - ◆ The operating budget for the program is \$163,465; the funding is provided by the Carver College of Medicine. If the K-12 grant is funded, the expenses will increase, but they will be covered, in large part, by the NIH grant.
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Meets Board
Requirements

A review of the post-audit report indicates that the program meets the Board's criteria for post-audit review (Attachment C, pgs 16-18).

dg/h/aa/postaudit/Dec04/EDU6a.doc

**6.07 Post-Audit of New or Expanded Programs:
Ph.D. IN SECOND LANGUAGE ACQUISITION**

1. Is this program now available in other colleges and universities in Iowa? Where? Describe need for program.

This program is available only at the University of Iowa. The Ph.D. in Second Language Acquisition provides a high quality doctoral program for students interested in this area and who have M.A.'s in Linguistics, Foreign Language Education, and Foreign Languages. A related program (Ph.D. in Applied Linguistics and Technology) has just been approved at Iowa State University. The two programs serve different populations (SUI is for languages other than English; ISU focuses on English as a Second Language).

2. Date program was approved by Board of Regents and date program was implemented.

The program was approved in May 1999 and implemented in September 2000.

3. Projected Enrollments:

a. List actual headcount enrollments and credit hours generated by majors and nonmajors in this program for the last five years and estimate these items for the next three years.

	Actual					Estimated		
	Year 1	Year 2	Year 3	Year 4	Current	Next	Second	Third
Undergrad. Major	NA	NA	NA	NA	NA	NA	NA	NA
Undergrad. Non-Major	NA	NA	NA	NA	NA	NA	NA	NA
Grad. Major	4	4	9	13	18	20	20	20
Grad. Non-Major	0	0	0	0	0	0	0	0

b. How many dropouts of this program can be identified over the last five years? What reasons were given for leaving the program?

There have been no dropouts.

4. What have been the employment (placement) experiences of any graduates of this program?

We expect the first cohort to complete their dissertations and degree beginning spring 2005.

We expect students to take between 6 and 7 years to complete their Ph.D. work (depending to a large extent on the M.A. work they bring with them). Our doctoral program now numbers 18 students, of whom 12 have completed their comprehensive examinations and are in the process of writing dissertations. We will have 2 students in our fifth cohort (starting fall 2004), for a total of 20 students — a number we consider the maximum that our faculty group can responsibly handle. We anticipate some of our students will complete their dissertations in time for a spring or summer 2005 graduation.

Our current students are increasingly receiving recognition for the high quality of their work. In internal competitions, one student has just received the Ballard-Seashore Dissertation Year Fellowship for 2004-2005. Two students were awarded Graduate College Summer Fellowships for summer 2004, and two others are recipients of the FLAS Second Language Study Fellowships for summer 2004. Outside the UI, our students have presented their work at refereed national and international conferences, and some have had their work published or have manuscripts under consideration. One student received a grant from the National Foreign Language Resource Center at the University of Hawaii to participate in a summer workshop on corpus linguistics. It is worth noting that these graduate student scholarly offerings have already reached an international audience.

The job market for graduates of the Ph.D. in Second Language Acquisition remains robust, and we anticipate no problems in our students securing suitable employment after completing the doctorate.

a. List the number of graduates (completions) by year.

Year 1 2000-01	Year 2 2001-2002	Year 3 2002-2003	Year 4 2003-2004
0	0	0	0

b. What has been the success rate for graduates with respect to certification and/or licensure, if applicable?

There have been no graduates to date.

c. How many undergraduate completers of the program have been accepted into graduate study programs?

Not applicable because it is not an undergraduate degree program.

d. What has been the success rate for obtaining jobs for graduates of the program:

There have been no graduates to date.

After Graduation	Number	Percent
Pursued additional educational opportunities	0	
Employed in field or related field	0	
Employed in non-related field	0	
Unemployed	0	

e. What has been the success rate for obtaining the preferred first job in the field by graduates of the program?

There have been no graduates to date.

5. Has this program been unconditionally accredited? By whom? If not, why, and when is such accreditation anticipated?

There is no accreditation program available currently.

6. Outline the current FTE staffing of the program and estimate future staffing needs for the next three years.

Staff needs for FLARE (Foreign Language Acquisition, Research, and Education – the acronym for the second-language programs) are as follows:

Leadership of the program: Two faculty co-directors (Professors Heilenman and Liskin-Gasparro) serve as the co-directors of the program. They oversee all program activities, principally the administration of all aspects of the doctoral program in Second Language Acquisition.

Administrative support for the program: Administrative support is provided by International Programs staff as needed (e.g., maintaining student records, generating monthly budget reports). The program is also served by a graduate assistant (10 hours per week during the academic year).

Teaching and advising is done as part of FLARE Faculty's normal teaching assignments.

7. Provide operating budget for proposed program or the unit that houses the program if an individual program budget is not available.
8. Outline the increases in expenditures that resulted in the adoption of this program, as well as estimate the increases that will occur over the next three years.

	Actual			Estimated			
	Year 1 FY 01	Year 2 FY 02	Year 3 FY 03	Current Yr FY 04	Next Yr FY 05	Second Yr FY 06	Third Yr FY 07
Faculty ¹		\$3,050	\$8,466	\$13,804	\$14,218	\$14,645	\$15,084
Grad Asst (Other staff)			\$8,508	\$8,623	\$8,882	\$9,148	\$9,422
General Expense (excluding computer use)		\$250	\$250	\$250	\$275	\$300	\$325
Equipment	0	0	0	0	0	0	0
Space Needs (amt. & cost of new and/or remodeled)	0	0	0	0	0	0	0
Computer use		0	\$1,000	0	0	\$500	0
Other Resources (explain)							
Travel		\$1,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Recruitment		\$1,750	\$1,750	\$1,575	\$1,575	\$1,600	\$1,650
Talks		\$1,000	\$1,300	\$2,000	\$2,000	\$2,225	\$2,500
Total		\$7,050	\$26,274	\$31,252	\$31,950	\$32,627	\$33,981

- b. If these expenditures were covered by reallocations, please describe the reallocations.

There were no reallocations.

¹ Director compensation.

- c. **If the expenditures reported in #8 above represent an increase for expenses estimated at the time the new program was proposed, please explain.**

Not applicable. Even though we have not been asked to describe how the SLA doctoral students are funded, we would like to take this opportunity to do so. As students in an interdisciplinary program, SLA students have found graduate assistantships in many units on campus. These include the following:

- teaching assistantships in foreign language departments
- graduate assistantships in various offices of International Programs (e.g., Office of International Students and Scholars, Study Abroad)
- instructional technology centers (Language Media Center, Information Commons of the Hardin Library for Health Services)

Most of the assistantships our students receive are funded by the hiring units. However, we also receive some funding from a special allocation to SLA from the College of Liberal Arts and Sciences, which enables language departments to hire SLA students as teaching assistants without sacrificing the TA lines that are dedicated to support their own graduate students. Both SLA and the language departments benefit from this arrangements: SLA students receive valuable professional experience; and the language departments enjoy the collaboration of specialized and talented teaching assistants.

6.07 Post-Audit of New or Expanded Programs:

MASTER OF COMPUTER SCIENCE

In 1998, the Computer Science Department at The University of Iowa began to offer a new Master's degree program, the Master of Computer Science (MCS). The Computer Science Department already had two existing graduate degree programs, Doctor of Philosophy (PhD) and Master of Science (MS). Introduction of the MCS had no connection to or impact on the PhD program. The MCS was introduced to provide an alternative Master's degree to the MS. Completion of the MS degree requires producing a research-oriented Master's thesis. It is now common practice in Computer Science graduate programs to offer a non-research Master's program based primarily on course work. Such coursework-only Master's degrees are often more appropriate for students wishing to gain broader and deeper computer science knowledge in order to enhance their professional careers. Completing a MS thesis is a worthy endeavor but one best suited for students interested in research careers. Students interested in working in professional computing positions in technology-oriented companies are better served by additional coursework, especially when it includes substantial software development projects.

The MCS program did not require additional resources. With enrollment in the MCS program came a corresponding (and desired) drop in MS program enrollment. Many of the students enrolled in the MS program in 1998 and 1999 quickly switched to the MCS program since it better suited their goals and interests.

The slight additional cost (almost exclusively faculty and staff time) of ensuring that we offer a strong set of courses appropriate for MCS students is offset by the reduction in time spent advising MS thesis research. Thus, the new program enables the department to better serve students at no net additional cost.

We feel that the program has been and will continue to be successful at preparing students with advanced computer science knowledge that will enhance their professional career prospects.

1. Is this program now available in other Regent universities or in other colleges and universities in Iowa? Describe need for program.

No. As far as we know, no other Regent institutions offer a Master of Computer Science degree. The University of Northern Iowa offers a non-thesis Master of Science degree that has somewhat similar requirements.

2. Date program was approved by the Board of Regents and date program was implemented:

The program was approved by the Board of Regents in July 1998 and it was implemented during the 1998-99 academic year.

3. Projected Enrollments

- a. List actual headcount enrollments and credit hours generated by majors and separately for all others in this program for the last five years and estimate these items for the next three years.

	Actual				Estimated			
	Year One	Year Two	Year Three	Year Four	Current Year	Next Year	Sec Year	Third Year
	1999	2000	2001	2002	2003	2004	2005	2006
Undergraduate	NA	NA	NA	NA	NA	NA	NA	NA
Graduate								
Majors								
Nonmajors								

We did carefully track enrollments in the first few years, in part because it was a transition period where enrollment numbers were unstable and unclear. Many students still apply to and are accepted into our MS program but then switch to the MCS program near graduation time. So, enrollment numbers over this short transition period would not be very meaningful. We have begun to clearly advertise the distinction between MS and MCS programs so it should be easier to get and track consistent MCS enrollment number in the future. Beginning Fall 2004, our web site and advertising materials strongly encourage research-oriented students to apply directly to the Ph.D. program and other students to apply to the MCS program.

Similarly, we do not have credit hour numbers for the MCS students, especially as distinguished from MS students. However, nearly all MCS students take approximately 9 credit hours per semester. To graduate, MCS students must complete at least 30 credit hours of coursework.

- b. How many dropouts of this program can be identified over the last five years?

We do not yet have this data, but the dropout rate is low (less than 20% probably.)

c. What reasons were given for leaving the program?

We do not have data on this yet, but will collect it as part of our outcomes assessment process described in the answer to the following question. Informal reports indicate that the primary reason for leaving the program is taking a job. (When a good job opportunity arises, the financial rewards can be hard for many students to resist. Students can then often complete their Master's degree in a part-time program located near their place of employment.)

4. What have been the employment (placement) experiences of any graduates of this program?

Informally collected reports and feedback indicate that MCS graduates are highly successful at finding employment in the field of computer science.

The department recently initiated a formal process to assess program outcomes. We are conducting a survey of recent graduates (covering all students – undergraduates, Master's, and PhD – graduating over the last four years) and will conduct yearly updates in the future. We have not yet completed the gathering of our initial data, so cannot provide any statistics yet. Our first formal outcomes assessment report will be presented within one year as part of the completion of the review of the Computer Science Department that was initiated in 2003 by the College of Liberal Arts and Sciences and the Graduate College.

a. How many students have graduated (completed) this program (by year)?

<u>Year One</u>	<u>Year Two</u>	<u>Year Three</u>	<u>Year Four</u>	<u>Current Year</u>	<u>Next Year</u>	<u>Sec Year</u>	<u>Third Year</u>
1999	2000	2001	2002	2003	2004	2005	2006
0	29	21	18	21*	20-22**	20-22**	20-22**

* During 2002-03, there were 10 graduates in Summer/Fall 2002 and 11 are scheduled to graduate in May 2003.

** We project 20-22 MCS graduates per year for each of the next three years, and expect to keep the program in the 20-30 graduates per year range for the next five to ten years.

b. What has been the success rate for graduates with respect to certification and/or licensure, if applicable?

Not applicable.

c. How many undergraduate completers of the program have been accepted into graduate study programs?

Not applicable. This is a graduate program only.

d. What has been the success rate for obtaining jobs for graduates of the program:

As stated above, we cannot yet provide formal statistical data. Such data is being collected and will be presented, within one year, in a report that is part of the completion of the College of Liberal Arts and Sciences and Graduate College's review of the Computer Science Department. Informal reports and feedback suggest that MCS graduates are highly successful at finding employment in the field of computer science.

1) In the field or related field?

Nearly 100%, we believe. Data is being collected for a formal report, as described above.

2) In non-related fields?

We don't know. Data is being collected for a formal report, as described above.

3) Unemployed?

We don't know. Data is being collected for a formal report, as described above.

e. What has been the success rate for obtaining the preferred first job in the field by graduates of the program?

We don't know. Informal reports indicate the success rate is high. Data is being collected for a formal report, as described above.

5. Has this program been unconditionally accredited? By whom? If not, why, and when is such accreditation anticipated?

No. We do not seek accreditation for this or our other graduate or undergraduate computer science program. We have been satisfied with general accreditation of the University.

6. Outline the current FTE staffing of the program and estimate future staffing needs for the next three years.

This program has no specific staffing for this program. As mentioned in the introduction above, the program's growth came with a corresponding decrease in MS program size. Department staff handle the combined undergraduate and graduate programs, and the staffing needs did not change with the introduction of the MCS.

	<u>Actual</u>				<u>Estimated</u>			
	<u>Year</u>	<u>Year</u>	<u>Year</u>	<u>Year</u>	<u>Current</u>	<u>Next</u>	<u>Sec</u>	<u>Third</u>
	<u>One</u>	<u>Two</u>	<u>Three</u>	<u>Four</u>	<u>Year</u>	<u>Year</u>	<u>Year</u>	<u>Year</u>
	1999	2000	2001	2002	2003	2004	2005	2006
Faculty								
Graduate Assistants (other staff)								
General Expense (excluding computer use)								
Equipment								
Library Resources								
Space Needs (amount & cost of new space and/or remodeled space)								
Computer								
Other Resources (explain)								
TOTAL								

7. Provide operating budget for proposed program or the unit that houses the program is an individual program budget is not available.

Because this program did not require additional expenditure of salary or other funds, we simply provide here the general budget information for the Computer Science Department as a whole.

Operating Budget

CS salaries	\$2,051,133*
Graduate TA and RA salaries	604,663
Summer Session salaries	129,144
Admin/general expense	50,469
Computer Support	156,805**
Non-recurring***	<u>89,739</u>
	\$3,081,953

* This is faculty, staff, and Computer Support Group. The Computer Support Group serves three departments, but their full cost is charged to CS.

** This is computer support for three large departments – Mathematics, Statistics, and Computer Science.

*** This includes visitors, faculty travel, recruiting costs, start-up funds, etc.

8. Outline the increases in expenditures that resulted from the adoption of this program, as well as estimate the increase which will occur over the next three years.

There were no expenditure increases. Once again, the introduction of the MCS program brought about a planned decrease in size of the MS program. The net result is a program that more effectively serves students with no net cost increase.

	<u>Actual</u>				<u>Estimated</u>			
	<u>Year One</u>	<u>Year Two</u>	<u>Year Three</u>	<u>Year Four</u>	<u>Current Year</u>	<u>Next Year</u>	<u>Sec Year</u>	<u>Third Year</u>
	1999	2000	2001	2002	2003	2004	2005	2006
Faculty								
Graduate Assistants (other staff)								
General Expense (excluding computer use)								
Equipment								
Library Resources								
Space Needs (amount & cost of new space and/or remodeled space)								
Computer use								
Other Resources (explain)								
TOTAL								

- a. **If these expenditures were covered by reallocations, please describe the reallocations.**
- b. **If the expenditures reported in 8 above represent an increase of expenses estimated at the time the new program was proposed, please explain.**

6.07 Post-Audit of New or Expanded Programs

GRADUATE PROGRAM IN TRANSLATIONAL BIOMEDICINE

1. **Is this program now available in other colleges and universities in Iowa? Where? Describe need for program.**

This Program is not available at any other colleges, or universities in Iowa. The Graduate Program in Translational Biomedicine provides much-needed training in the area of patient-oriented research. This area is fast becoming a priority to the NIH; however there are only a few degree granting programs in the nation that are training in this field. We have recently applied for an NIH grant. If it is funded, this Program will be expanded to include seven colleges in the University of Iowa.

2. **Date program was approved by Board of Regents and date program was implemented.**

The Board of Regents approved the Graduate Program in Translational Biomedicine in July of 1999. The program was implemented in January of 2001. The implementation of this program was delayed because of a leadership change. The faculty member who had led the early development of this program relocated to another university before the program was established. Subsequently Dr. Hunninghake assumed leadership and immediately began its implementation.

3. **Projected Enrollments**

- a. **List actual headcount enrollments generated by majors and nonmajors in this program for the last five years and estimate these items for the next three years.**

Graduate	2000	2001	2002	2003	2004	2005	2006	2007
Majors	0	1	3	6	7	10	12	15
Nonmajors	0	0	0	0	0	0	0	0

The National Institutes of Health, the primary funding agency for medical research, has placed a new emphasis on clinical research. Part of this emphasis is to increase training for clinical research. NIH K-12 awards support this training and provide salary for the trainees. The Carver College of Medicine has a K-12 award that supports 6 trainees. This award supports one of the Translational Biomedicine Graduates. Recently, the NIH released a K-12 grant that would support the salary of 20-25 trainees. On behalf of the Translational Biomedicine Program, we applied for this new K-12 award. The Translational Biomedicine Program is a very important component of the plan for the University of Iowa to position itself to be competitive for clinical research and training awards from the NIH.

- b. List actual credit hours generated by majors and nonmajors in this program for the last five years and estimate these items for the next three years.

Graduate	2000	2001	2002	2003	2004	2005	2006	2007
Majors	0	24	36	72	84	120	144	180
Nonmajors	0	0	0	0	0	0	0	0

4. What have been the employment (placement) experiences of any graduates of this program?

- a. List the number of graduates (completions) by year.

One graduate completion in 2002, and another one is scheduled for completion in 2004.

- b. What has been the success rate for graduates with respect to certification and/or licensure, if applicable?

NA

- c. How many undergraduate completers of the program have been accepted into graduate study programs?

NA

- d. What has been the success rate for obtaining jobs for graduates of the program?

The one graduate is an Assistant Professor in the Carver College of Medicine. The upcoming graduate has also received an appointment as an Assistant Professor in the Carver College of Medicine.

- e. What has been the success rate for obtaining the preferred first job in the field by graduates of the program?

100%

5. Has this program been unconditionally accredited? By whom? In not, why, and when is such an accreditation anticipated?

NA

- 6. Outline the current FTE staffing of the program and estimate future staffing needs for the next three years.**

100% FTE Program Associate, Emily Avgenackis
25% FTE Program Director, Gary Hunninghake
For the future we would like 50% FTE secretary support.

- 7. Provide operating budget for proposed program or the unit that houses the program if an individual program budget is not available.**

100% FTE Program Associate salary = \$55,465
25% FTE Program Director salary = \$83,000
\$25,000 for tuition and supplies

The source of funding for this Program is the Carver College of Medicine.

- 8. Outline the increases in expenditures that resulted in the adoption of this program, as well as estimate the increases that will occur over the next three years.**

These are outlined in question 6 above.

- a. If these expenditures were covered by reallocations, please describe the reallocations. If the expenditures reported in 8 above represent an increase for expenses estimated at the time the new program was proposed, please explain.**

The expenses noted in question 6 above represent funding for a new program. The funding for the Program will continue at its current level, unless the new NIH K-12 award (see question 3) is funded. If the K-12 is funded, the expenses will increase, but these will come, in large part, from the NIH grant.