

Detailed Assessment Report  
As of: 10/07/2013 01:51 PM EST  
2012-2013 Nutrition and Food Systems PhD

### Mission / Purpose

The mission of the doctoral program in Nutrition and Food Systems is to prepare individuals for leadership and scholarship in applied nutrition and food systems in institutions of higher learning, large food service programs and public and private agencies and organizations, focusing on the wellbeing of individuals, families, and communities.

### Student Learning Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

#### **SLO 1: Demonstrate research skills**

Students will demonstrate appropriate Ph.D.-level research skills.

#### Related Measures:

##### **M 2: Research paper**

Research papers are a part of each Nutrition and Food Systems PhD core course. They allow students to demonstrate competency in research synthesis and critical thinking, as well as in research writing. They are evaluated with a standardized rubric across courses.

Source of Evidence: Written assignment(s), usually scored by a rubric

#### **Target:**

75% of students will earn a mean score of 85 or higher on research papers completed in the PhD core courses.

#### Findings (2012-2013) - Target: Met

80% (4 of 5) students earned a mean score of 85/100 or higher on core course research papers.

##### **M 3: Research presentation**

Research presentations are a part of all Nutrition and Food Systems PhD core courses, and provide opportunities for students to demonstrate analysis and synthesis of published research, critical thinking skills, and skills related to presenting research orally.

Source of Evidence: Presentation, either individual or group

#### **Target:**

75% of students will earn a mean score of 85% or higher on the research presentation grading rubrics in the PhD core courses.

#### Findings (2012-2013) - Target: Not Met

60% (3 of 5) students earned an average of 85% or higher on the research presentations in PhD core classes.

#### Related Action Plans (by Established cycle, then alpha):

For full information, see the *Details of Action Plans* section of this report.

#### **Reinstitute qualifying examination as part of PhD seminar**

*Established in Cycle: 2010-2011*

in the recent past, we have allowed doctoral students to progress in the program who were maintaining adequate admission/GPA sta...

### **combine 2 research presentation measures**

*Established in Cycle: 2012-2013*

there is overlap between Measures 3 and 11, both of which are measured with performance in research papers in core courses. we ...

### **monitor research presentation performance**

*Established in Cycle: 2012-2013*

The target for this measure has been met over the past four years. One of the two students who did not achieve the designated p...

### **M 4:Alumni Survey**

We conduct an annual survey of the prior year's PhD graduates, to evaluate 1) their perception of their competency associated with various program goals, 2) their satisfaction with various logistical aspects of the program, 3) professional accomplishments since completing the program, and 4) job placement.

Source of Evidence: Alumni survey or tracking of alumni achievements

#### **Target:**

75% of respondents indicate adequate preparation in research skills, by responding with a 4 or 5 to the relevant item(s) on the survey response scale.

#### **Findings (2012-2013) - Target: Met**

Of the two 2011-12 graduates eligible to complete the survey, 100% responded with a 4 or above on this item.

### **M 6:Comprehensive Exam**

Students will demonstrate a comprehensive understanding in the nutrition and food systems core competency areas of research skills, behavioral management, and food and nutrition public policy, based on the professional judgment of the faculty, by completing comprehensive exam questions in these three areas.

Source of Evidence: Comprehensive/end-of-program subject matter exam

#### **Target:**

75% will achieve a passing score on the comprehensive exam research section, on the first attempt.

#### **Findings (2012-2013) - Target: Not Met**

Only 1 student took the PhD comprehensive exam during the 2012-13 academic year, and that student did not pass the research section on the first attempt.

#### **Related Action Plans (by Established cycle, then alpha):**

For full information, see the *Details of Action Plans* section of this report.

### **comprehensive exam performance-research/public policy**

*Established in Cycle: 2009-2010*

This action plan, established in 2009-10, was stated thus: "this action plan is intended to address failure to meet performance ...

### **M 11:Research presentation**

Students will demonstrate ability to deliver a presentation on a proposed research project in nutrition and food systems, reflecting appropriate content, organization, and analysis plan, as measured by these sections of the NFS 703 Grading Rubric for Research Presentation.

Source of Evidence: Presentation, either individual or group

**Target:**

90% of students receive a weighted mean score of 4.25/5 or higher on the content, organization, and analysis plan sections of the NFS 703 research presentation rubric.

**Findings (2012-2013) - Target: Met**

100% (2 of 2) students completing the NFS 703 research presentation achieved a score of 4.79 or higher on the content, organization and analysis plan sections of the research presentation rubric.

**Related Action Plans (by Established cycle, then alpha):**

For full information, see the *Details of Action Plans* section of this report.

**combine 2 research presentation measures**

*Established in Cycle: 2012-2013*

there is overlap between Measures 3 and 11, both of which are measured with performance in research papers in core courses. we ...

**SLO 2: Evaluate behavioral management theories**

Students will evaluate behavioral management theories relevant to nutrition and food systems.

**Related Measures:****M 1: Case analysis**

Case studies are a part of each applied nutrition and food systems management course. They demonstrate critical thinking, analysis and synthesis, and are evaluated with standardized grading rubrics.

Source of Evidence: Project, either individual or group

**Target:**

75% of students will receive an average score of 43/50 or higher.

**Findings (2012-2013) - Target: Not Reported This Cycle**

The course from which this measure is derived is offered every 2-3 years, and no new data are available since that reported in 2011-12

**M 4: Alumni Survey**

We conduct an annual survey of the prior year's PhD graduates, to evaluate 1) their perception of their competency associated with various program goals, 2) their satisfaction with various logistical aspects of the program, 3) professional accomplishments since completing the program, and 4) job placement.

Source of Evidence: Alumni survey or tracking of alumni achievements

**Target:**

75% of respondents indicate adequate preparation in behavioral management theories relevant to nutrition and food systems, by responding with a 4 or 5 to the relevant item on the survey response scale.

**Findings (2012-2013) - Target: Met**

Of the two 2011-12 graduates eligible to complete the survey, 100% responded with a 4 or above on this item.

**M 6: Comprehensive Exam**

Students will demonstrate a comprehensive understanding in the nutrition and food systems core competency areas of research skills, behavioral management, and food and nutrition public policy, based on the professional judgment of the faculty, by completing comprehensive exam questions in these three areas.

Source of Evidence: Comprehensive/end-of-program subject matter exam

**Target:**

75% will achieve a passing score on the comprehensive exam behavioral management section, on the first attempt.

**Findings (2012-2013) - Target: Met**

Only 1 student took the comprehensive exam in 2012-13, and that student passed the behavioral management section on the first attempt.

**SLO 3: Evaluate food and nutrition public policy**

Students will evaluate public policy as it relates to food, nutrition and food systems.

**Related Measures:**

**M 4: Alumni Survey**

We conduct an annual survey of the prior year's PhD graduates, to evaluate 1) their perception of their competency associated with various program goals, 2) their satisfaction with various logistical aspects of the program, 3) professional accomplishments since completing the program, and 4) job placement.

Source of Evidence: Alumni survey or tracking of alumni achievements

**Target:**

75% of respondents indicate adequate preparation in food and nutrition public policy, by responding with a 4 or 5 to the relevant item on the survey response scale.

**Findings (2012-2013) - Target: Not Met**

Of the two 2011-12 graduates eligible to complete the survey, 50% responded with a 4 or above on this item.

**Related Action Plans (by Established cycle, then alpha):**

For full information, see the *Details of Action Plans* section of this report.

**Program Review**

*Established in Cycle: 2011-2012*

We are undergoing an internal program review for the PhD, and will be evaluating curriculum and student performance, as well as ...

**integrate public policy across curriculum**

*Established in Cycle: 2012-2013*

We have a single PhD core course dedicated to food and nutrition public policy, but for this content area to be a meaningful part...

**M 6: Comprehensive Exam**

Students will demonstrate a comprehensive understanding in the nutrition and food systems core competency areas of research skills, behavioral management, and food and nutrition public policy, based on the professional judgment of the faculty, by completing comprehensive exam questions in these three areas.

Source of Evidence: Comprehensive/end-of-program subject matter exam

**Target:**

75% will achieve a passing score on the comprehensive exam public policy section, on the first attempt.

#### **Findings (2012-2013) - Target: Met**

Only one student took the comprehensive exam in 2012-13, and that student passed the public policy section on the first attempt.

#### **Related Action Plans (by Established cycle, then alpha):**

For full information, see the *Details of Action Plans* section of this report.

#### **integrate public policy across curriculum**

*Established in Cycle: 2012-2013*

We have a single PhD core course dedicated to food and nutrition publicpolicy, but for this content area to be a meaningful part...

#### **SLO 4:Communicate NFS research concepts in writing**

Students will effectively communicate NFS research concepts in writing.

#### **Related Measures:**

##### **M 2:Research paper**

Research papers are a part of each Nutrition and Food Systems PhD core course. They allow students to demonstrate competency in research synthesis and critical thinking, as well as in research writing. They are evaluated with a standardized rubric across courses.

Source of Evidence: Written assignment(s), usually scored by a rubric

#### **Target:**

75% of students will earn an average score of 85/100 or higher.

#### **Findings (2012-2013) - Target: Met**

80% (4 of 5) students earned a mean score of 85/100 or higher on core course research papers.

##### **M 4:Alumni Survey**

We conduct an annual survey of the prior year's PhD graduates, to evaluate 1) their perception of their competency associated with various program goals, 2) their satisfaction with various logistical aspects of the program, 3) professional accomplishments since completing the program, and 4) job placement.

Source of Evidence: Alumni survey or tracking of alumni achievements

#### **Target:**

75% of respondents indicate adequate preparation in research writing, by responding with a 4 or 5 to the relevant item on the survey response scale.

#### **Findings (2012-2013) - Target: Met**

Of the two 2011-12 graduates eligible to complete the survey, 100% responded with a 4 or above on this item.

#### **SLO 5:Communicate NFS research concepts orally**

Students will effectively communicate nutrition research concepts orally.

#### **Related Measures:**

##### **M 3:Research presentation**

Research presentations are a part of all Nutrition and Food Systems PhD core courses, and provide opportunities for students to demonstrate analysis and synthesis of published research, critical thinking skills, and skills related to presenting research orally.

Source of Evidence: Presentation, either individual or group

**Target:**

75% of students will earn a mean score of 85/100 on research presentations in the NFS PhD core courses.

**Findings (2012-2013) - Target: Not Met**

60% (3 of 5) students earned an average of 85% or higher on the research presentations in PhD core classes.

**Related Action Plans (by Established cycle, then alpha):**

For full information, see the *Details of Action Plans* section of this report.

**Reinstitute qualifying examination as part of PhD seminar**

*Established in Cycle: 2010-2011*

in the recent past, we have allowed doctoral students to progress in the program who were maintaining adequate admission/GPA sta...

**monitor research presentation performance**

*Established in Cycle: 2012-2013*

The target for this measure has been met over the past four years. One of the two students who did not achieve the designated p...

**M 4:Alumni Survey**

We conduct an annual survey of the prior year's PhD graduates, to evaluate 1) their perception of their competency associated with various program goals, 2) their satisfaction with various logistical aspects of the program, 3) professional accomplishments since completing the program, and 4) job placement.

Source of Evidence: Alumni survey or tracking of alumni achievements

**Target:**

75% of respondents indicate adequate preparation in communicating nutrition research concepts orally, by responding with a 4 or 5 to the relevant item on the survey response scale.

**Findings (2012-2013) - Target: Met**

Of the two 2011-12 graduates eligible to complete the survey, 100% responded with a 4 or above on this item.

**Details of Action Plans for This Cycle (by Established cycle, then alpha)**

**Evaluate NFS elective course rotation.**

Evaluate NFS elective course rotation and instructor assignment in light of new faculty.

**Established in Cycle:** 2006-2007

**Implementation Status:** In-Progress

**Priority:** Medium

**Implementation Description:** October 2007

**Responsible Person/Group:** NFS Graduate Faculty

**Include integration emphasis in PhD core courses.**

Faculty teaching NFS 811, 810, 774, and 703 will review course content to ensure that the integration of NFS is included in these courses.

**Established in Cycle:** 2006-2007

**Implementation Status:** In-Progress

**Priority:** Medium

**Implementation Description:** August 2007

**Responsible Person/Group:** Graduate Coordinator and faculty teaching core

### **comprehensive exam performance-research/public policy**

This action plan, established in 2009-10, was stated thus: "this action plan is intended to address failure to meet performance targets in the PhD core areas of research and public policy using the measure comprehensive exam performance. We will track admission scores and score components in relationship to student performance on these measures, and adjust admission score cutoffs to ensure that students entering the program have sufficient readiness for doctoral study to achieve student learning outcomes. Failure on the part of one student who presented weak admission scores when admitted several years ago resulted in our not meeting targets for these two measures, whereas targets for other measures related to the same student learning outcomes, which did not include the particular student in question, were met." This year we adjusted our target to a rate of 75% passage among the cohort taking the exam. This rate seems more realistic given the small numbers of students completing this milestone each year. Had we previously had a target of 75%, we would have met the target over the past 5 years. Poor performance this year was also possibly associated with poor program readiness evidenced by weak admission scores for the student taking the exam, so that aspect of this action item continues to be appropriate.

**Established in Cycle:** 2009-2010

**Implementation Status:** Finished

**Priority:** High

#### **Relationships (Measure | Outcome/Objective):**

**Measure:** Comprehensive Exam | **Outcome/Objective:** Demonstrate research skills

**Implementation Description:** Evaluate relationship between admission component scores and comprehensive exam performance. Discuss admission criteria during faculty graduate programs retreat during which PhD program review document is discussed among departmental graduate faculty.

**Responsible Person/Group:** PhD program coordinator

### **Reinstitute qualifying examination as part of PhD seminar**

in the recent past, we have allowed doctoral students to progress in the program who were maintaining adequate admission/GPA status, but who demonstrated deficiencies relative to skills needed for dissertation work, especially related to research writing and synthesis of research literature. therefore we are reinstating a qualifying examination, which will involve a diagnostic assessment of research writing skills early in program enrollment, usually in the first semester of enrollment, in the doctoral seminar NFS 811 course. We will develop a progression policy, grading rubrics, and a remediation policy.

**Established in Cycle:** 2010-2011

**Implementation Status:** Finished

**Priority:** High

#### **Relationships (Measure | Outcome/Objective):**

**Measure:** Research presentation | **Outcome/Objective:** Communicate NFS research concepts orally | Demonstrate research skills

**Implementation Description:** Develop a PhD qualifying examination policy to include diagnostic assessment of research writing skills, assessment rubrics, and a remediation policy.

**Projected Completion Date:** 08/14/2011

**Responsible Person/Group:** PhD program coordinator and graduate faculty.

## **Program Review**

We are undergoing an internal program review for the PhD, and will be evaluating curriculum and student performance, as well as internal and external environmental factors.

**Established in Cycle:** 2011-2012

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Alumni Survey | **Outcome/Objective:** Evaluate food and nutrition public policy

### **combine 2 research presentation measures**

there is overlap between Measures 3 and 11, both of which are measured with performance in research papers in core courses. we will eliminated Measure 11 after this cycle.

**Established in Cycle:** 2012-2013

**Implementation Status:** Planned

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Research presentation | **Outcome/Objective:** Demonstrate research skills | Demonstrate research skills

### **integrate public policy across curriculum**

We have a single PhD core course dedicated to food and nutrition publicpolicy, but for this content area to be a meaningful part of our core curriculum, it needs to be integrated in multiple courses, as was the case in the past. We will begin offering elective courses that include public policy content on a more regular basis, such as NFS 662, Community Nutrition.

**Established in Cycle:** 2012-2013

**Implementation Status:** In-Progress

**Priority:** Medium

**Relationships (Measure | Outcome/Objective):**

**Measure:** Alumni Survey | **Outcome/Objective:** Evaluate food and nutrition public policy

**Measure:** Comprehensive Exam | **Outcome/Objective:** Evaluate food and nutrition public policy

### **monitor research presentation performance**

The target for this measure has been met over the past four years. One of the two students who did not achieve the designated performance level this year left the program after the first semester. Had that student's data not been included, the target would have been met. Given these circumstances, student readiness for program expectations may be the main issue. Two other action items are in place that likely address the cause of the failure to meet this target - comprehensive exam performance (with accompanying admission and outcomes monitoring) and re-institution of the qualifying examination, followed by remediation where appropriate. Therefore, continued monitoring of this target over the next year or two is warranted before additional steps are taken.

**Established in Cycle:** 2012-2013

**Implementation Status:** Planned

**Priority:** Medium

**Relationships (Measure | Outcome/Objective):**

**Measure:** Research presentation | **Outcome/Objective:** Communicate NFS research concepts orally | Demonstrate research skills



**Implementation Description:** Track performance on this measure over a multi-year period, to determine if this year's performance represented the start of a trend or an aberration.

**Responsible Person/Group:** PhD program coordinator

### Analysis Questions and Analysis Answers

#### **What specifically did your assessments show regarding proven strengths or progress you made on outcomes/objectives?**

For three SLOs, evaluate behavioral management theories, communicate nutrition and food systems concepts in writing, and communicate nutrition and food systems concepts orally, targets were met for all measures over the past 5 (or in the case of 1 measure, 4 years, suggesting that curriculum content and teaching and mentoring approaches support student learning and achievement in these areas.

#### **What specifically did your assessments show regarding any outcomes/objectives that will require continued attention?**

It is challenging to draw meaningful conclusions from our outcome assessments, because of the small number of students enrolled in our program, and the rate at which students matriculate through the program, such that only a few are in the evaluation pool each year for each measure. For example, if one of three does not achieve the outcome, the proportion of those achieving is 67%, lower than any target we have established. Evaluating multi-year trends is more helpful. Regarding the SLO related to evaluating food and nutrition public policy, which stems from one of the core areas/competencies of our program, the targets for both the direct and indirect measure were met in 3 of the 5 past years. In discussing these findings in our graduate programs faculty retreat, the faculty concurred that in past years this competency area permeated the curriculum, which now, associated with faculty turnover and changing faculty interests, it does not. We expect to increase the frequency of offering multiple courses that address this content area in the future.

For the 4 measures linked to the outcome "demonstrate research skills," 3 direct (one added in the 2012-13 cycle), and 1 indirect, the direct measures were for the most part Not Met over the past 5 years, whereas the indirect measure was met each year. This apparent discrepancy stems from the fact that the measures assess 2 pools of students. The indirect measure is an alumni survey 1 year post graduation, where data is obtained from those who successfully matriculated through the program. The direct measures over the past few years, in addition to being based on a small n, were obtained from performance of students who have matriculated more slowly and less successfully through the program. In recent years, we have added content to build competencies that address identified weaknesses earlier in the program.

### Annual Report Section Responses

#### **Program Summary**

The PhD in Nutrition and Food Systems (NFS PhD) was approved in May 1994, and admitted its first student fall 1995. The mission of the PhD in Nutrition and Food Systems is to prepare individuals for leadership and scholarship in applied nutrition and food systems in institutions of higher learning, large food service programs and public and private agencies and organizations, focusing on the well-being of individuals, families, and communities. The program was established to address the need for individuals doctorally prepared in applied nutrition and in food systems management to fill faculty positions in Mississippi and the southeastern U.S. The NFS PhD is the only doctoral program in Mississippi in applied nutrition and food systems management. Further, the program is on the Southern Regional Education Board Academic Common Market, evidence of its uniqueness within the SREB service area.

The goals of the NFS PhD are to prepare individuals 1) for teaching and research positions in universities, administrative positions in institutional food service programs and public agencies and programs, and research positions in the public and private sectors; and 2) to address nutrition related chronic diseases in health disparate populations through nutrition intervention at the community level, whether through foodservice management and operations changes in the K-12 school setting or through environmental and lifestyle changes within communities as a whole. The NFS PhD core competencies in applied research, integration of food systems and nutrition, food and nutrition public policy and behavioral management were adopted to ensure

that students are prepared to understand and address the unique needs and challenges to which our research efforts are directed. Southern Miss through the National Food Service Management Institute (NFSMI) - Applied Research Division, is the principal institution conducting research on issues relevant to management of Child Nutrition/school nutrition programs in the United States, currently one of the most visible and promising channels for addressing child obesity. Since its inception, the NFS PhD has been closely tied to long term federally funded research units and initiatives at the University of Southern Mississippi, such as NFSMI, and to a research agenda that addresses health disparities through nutrition intervention research. Doctoral students are critical to carrying out the funded research of the unit, including the Delta Obesity Prevention Research program, funded by the U.S. Department of Agriculture for a total of over \$5.2 million since initial Congressional authorization in 1995, and the HUB City Steps nutrition and physical activity intervention, funded by the National Institute of Minority Health and Health Disparities, for a total amount of \$3.6 million.

We are currently undergoing a program review process with preparation of a self study. We look forward to the findings and the ability to reassess our program from a broad and thorough perspective. Here we highlight major aspects of our program based on our last comprehensive assessment. There are three major areas that we would note with regard to the impact of the NFS PhD. They are 1) its role in meeting needs for food and nutrition university faculty in the state and southeast region of the U.S., 2) its synergy with externally funded research in the Department of Nutrition and Food Systems, and 3) the impact of the research the NFS PhD program supports on health disparities in Mississippi.

Currently there are 570 accredited nutrition and dietetics programs at U.S. universities and there are approximately 5608 dietetics professionals employed in education and research (category includes university faculty as well as clinical research dietitians). To meet the demand for faculty to serve nutrition and dietetics programs, a relatively small number of doctoral degrees are conferred annually, although available data are limited to degrees awarded in Family and Consumer Sciences/Human Sciences (FCS/HS), since doctoral degrees in nutrition and food systems are not systematically tracked as a separate category. Besides foods and nutrition, Family and Consumer/Human Sciences includes disciplinary areas of family and consumer economics, housing and human environments, human development and family studies, and apparel and textiles. Total FCS/HS doctoral degrees awarded numbered 357 in 2011, with a range of 349 to 421 over the period 2004-11 and with no annual increases projected through 2015. In contrast, anecdotally each year we see numerous NFS faculty position announcements posted on our professional listservs. Thus our program was created to address this particular need for faculty prepared in nutrition and food systems to fill positions at universities with nutrition and dietetics programs, especially in our state and region.

The NFS PhD is the only doctoral program in Mississippi in applied nutrition and food systems management. Further, the program is on the Southern Regional Education Board Academic Common Market, evidence of its uniqueness within the SREB service area. Other doctoral programs in the region either have a laboratory science focus, such as the LSU focus on molecular nutrition, or do not include food systems, such as the MSU program which offers a concentration in nutrition as part of a Food Science, Nutrition and Health Promotion degree. Our small doctoral program has played an important role in meeting demands for nutrition and food systems faculty in the state and region since its inception (12 graduates have been employed as faculty or research scientists at four Mississippi universities since program inception; other graduates have obtained tenure track appointments at other universities in the southeast region).

Nonetheless, faculty turnover within our department and consequent shifts in faculty expertise, and changing demands and interest in our program, warrant review of markets targeted by the PhD program. Under consideration is including an option by which students can complete the requirements to earn the registered dietitian (RD) credential while completing doctoral requirements, since many advertised faculty positions include this professional credential as a requirement, and we currently offer the programs that lead to credentialing. As stated previously, individuals with a PhD in applied nutrition and food systems who also have the RD credential are in high demand for faculty positions across the U.S.

It is important to note the enrollment of students of color in our program, particularly in light of the fact that among our profession of some 70,000 dietetics professionals, only 12% are persons of color and 3% Black/African American (Compensation and Benefits Survey 2009). In 2008, among Family and Consumer Sciences/Human Sciences faculty, only 4.2% were black (FAEIS, 2009). Among currently enrolled students and

program graduates in the NFS PhD program, 21% are black or African American. These individuals help to address the overall need for more persons of color in the professoriate, serve as professional role models for students of color, bring important and different perspectives to food and nutrition and dietetics education programs and research, and help meet the demand for scientists of color in the biomedical and behavioral areas, identified as critical needs by NIH and others.

As noted, the PhD program and its students provide critical support to the health disparities nutrition research program in the Department of Nutrition and Food Systems. The involvement of NFS PhD students in the departmental research agenda not only supports fulfillment of research objectives, but also trains future professionals in the skills needed to address important issues of health and health disparities that plague Mississippi and other states with similar demographics. The National Institutes of Health have identified the need to train future researchers to address the health disparities present in our population (NIH Office of Extramural Training). NFS PhD students have trained and participated in funded research in the department that includes community based nutrition and physical activity interventions to reduce blood pressure and improve eating and exercise behaviors and the community environment for physical activity in Hattiesburg and in the Mississippi, Arkansas, and Louisiana Delta; development and evaluation of policy interventions to combat child obesity through changes in beverage and snack vending choices in schools; evaluation of the role of parental attitudes and child feeding practices in the development of child obesity; development of measures to evaluate food insecurity in children; collaborative research with Social Work faculty to map obesity prevalence among our state's children over time in order to understand the magnitude of its effect and to evaluate the effectiveness of interventions aimed at reducing child obesity rates. Sixty-eight percent of completed and in-progress NFS PhD dissertations have examined questions related to the role of food and nutrition in reducing health disparities in the Gulf South region, and a considerable number of publications and conference presentations reflect the value of this research to advancing the science related to reducing health disparities through nutrition.

The annual PhD alumni survey provides data on alumni employment, research and leadership accomplishments. For the last nine graduates surveyed, seven of nine reported peer-reviewed papers and/or abstracts published; five reported individual or team research grants received; four reported leadership positions in professional associations; and five reported receiving research or service awards/recognitions. Examples of these include the following: receipt of the USM Innovation Graduate Student Award; receipt of competitive grant funding for dissertation research (\$34,944); receipt of a research grant award from the South Carolina INBRE; selection as one of eight Columbia University Earth Institute fellows from a field of 200 applicants; selection as one of 300 to attend the Academy of Nutrition and Dietetics (formerly American Dietetic Association) Leadership Institute from among the association membership totaling over 65,000; receipt of the School Nutrition Association's Child Nutrition Showcase Award.

Of the 12 most recent graduates, 11 have accepted faculty or research scientist positions at universities within a few months of completing the program and all of these remain in academic positions. Success with research dissemination and publication and grantsmanship, as reported above, is indicative of adequate preparation for academic employment.

### **Continuous Improvement Initiatives/Additional Action Plans**

In this reporting cycle, we have done some editing and clean-up of measures and action plans. For our measures, this included 1) rewording of measures to remove targets from the description of the measure; 2) where a single type of measure (e.g. alumni survey) is used to collect data for multiple SLOs, we consolidated targets under that single measure and deleted duplicate measures. To better account for our low enrollments and their impact on assessing targets, we lowered some targets to 75%. Likewise we cleaned up and updated our action plans, closing out those that were no longer active. These efforts will allow us to more effectively use the tools that the Weave system provides. As we enter the next program assessment cycle, we will consult with the Institutional Effectiveness director to explore using more cyclical or multi-year SLOs to allow for a more meaningful assessment of outcomes.

More substantively, we are in the midst of the Program Review for this program. In our recent graduate programs faculty retreat, we made the decision to modify our admissions metric, which assigns points based on various admission criteria. The modifications we made were based on the relationship of certain admissions

criteria to performance. These included requiring a minimum grade in statistics and research methods courses take as part of the master's degree coursework, requiring an IELTS score (or TOEFL equivalent) of 7.5 or higher, among others. Although we deferred making any curriculum changes at this time, we will recommend that students consider taking REF 889, proposal development, as an elective.

### **Closing the Loop/Action Plan Tracking**

In the 2010-11 cycle, we added an action plan to reinstitute a qualifying exam, which students take within the first two semesters of their enrollment in the PhD program, as part of NFS 811, the doctoral seminar class. We also added content on evidence analysis to NFS 811 as another action item. Both of these action items were intended to place greater emphasis on assessing research writing skills of students, including their ability to analyze and synthesize literature, and where needed, to provide remediation early in the student's program. These steps have helped to insure that students understand the importance of research writing as a major part of the PhD program, and that they develop evidence analysis skills which will be needed throughout the program as they read and interpret literature. One student elected to withdraw from the program at the completion of the course because expectations were beyond the student's capabilities. More time will be required to evaluate the impact of these action items on the research student learning outcome specifically.

In the 2009-10 cycle, we added an action plan to track admission scores and components in relationship to student performance on the comprehensive exam in the area of research. The resulting program action, as noted under Continuous Improvement, is that we made adjustments in our admissions rubric to more effectively assess prior experience and performance related to research writing, research methods and statistics, and consider these more fully as part of the admission decision.