Interim External Program Evaluation of National Center for Leadership in Visual Impairment Process and Short-Term Outcomes

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Executive Summary

In early 2000, there was a concern about the limited number of teachers and orientation and mobility specialists available to support the number of people with visual impairments in this country. There was at the same time a concern that universities were producing too few doctoral students needed to continue or expand the personnel training programs required to meet the demands for more local personnel. In response to what was viewed as a growing personnel crisis, an unsolicited proposal was made to the Office of Special Education Programs (OSEP) to fund a leadership personnel collaboration developed to provide quality leadership personnel in the area of visual impairments. This collaboration, the National Center for Leadership in Visual Impairment (NCLVI) was funded by OSEP beginning in October of 2004. During the subsequent year, all work focused on developing the collaborative activities and arrangements. The first cohort of 14 students began in the 2005-2006 academic year; the second cohort of 7 students became NCLVI Fellows in the fall of 2006.

The NCLVI collaboration was created with four sets of key players. First, the Pennsylvania College of Optometry (PCO) was the host university that housed the NCLVI staff but did not host any doctoral Fellows. The other three components of the collaboration were the 14 university consortium members, the 15 professional organizations constituting the Public Advisory Council, and the 21 NCLVI Fellows.

Fellows had a variety of experiences available both within their home institutions and developed uniquely for them by NCLVI, designed to prepare a cohort of students to move into leadership positions in universities at the state level and in the public policy arena. First, NCLVI Fellows had to meet all of the requirements of their home universities. Secondly, Fellows participated in NCLVI enrichment activities, part of what is described as an added-value training program to enrich the Fellows' "preparation as leaders in the field" (Huebner et al., 2005). These enrichment activities focused for 1 year on the following topics: public policy and advocacy, research, and higher education. Enrichment activities included a series of face-to-face meetings and Blackboard discussions on the topic for the year. Activities for the first cohort in 2005-2006 focused on public policy and advocacy. The 2006-2007 enrichment activities focused on re-

search in which all 21 Fellows participated. Lastly, Fellows had the opportunity to engage in internships with members of the collaborative including PAC members and faculty at other universities. To assess the extent to which these activities were having the desired outcomes, an external evaluation was begun.

This external evaluation focused on a process-output-outcome evaluation framework (Kellogg Foundation, 2004) to determine the success of the NCLVI project. Process evaluation measures included course work, enrichment activities, community of practice experiences, internships, etc. and focused on the depth and breadth of learning opportunities afforded Fellows. Outputs included, but were not limited to, the scope of activities experienced by the Fellows. Short-term outcomes focused on the Fellows' assessments and judgments of the benefits realized from their learning activities, and long-term outcomes focused on specific changes in Fellow status during and after completion of their doctoral degrees.

Since this interim evaluation was conducted at the beginning of the second year of the Fellows' participation, it provided information on the first three components, process measures, outputs, and short-term outcomes, that reflected mainly experiences of the 2005 cohort of Fellows. The 2006 Fellows participated in the evaluation as a comparison group since they had limited NCLVI experiences. In particular they had not experienced the public policy enrichment activities offered the 2005 Fellows. No information is available at this time concerning the NCLVI long-term outcomes.

Information used in this evaluation was collected from a variety of sources: NCLVI Fellows, university consortium members, Public Advisory Council (PAC) members, and two OSEP subcontractors. Twenty of the Fellows completed a self-report survey and 21 Fellows participated in individual interviews. Individuals from the university consortium participated in a focus group. Eleven members of the PAC participated by completing a six-item survey. Staff from the American Institutes for Research and Westat provided a variety of information on OSEP-funded Leadership Personnel grants used in the cost analysis conducted.

From this preliminary data, it is possible to assess the progress of the project to this point. NCLVI was able to recruit and enroll 100% of the 21 Fellows, the number of Fellows to be funded after negotiating with

OSEP staff. This enrollment rate compares favorably to other Leadership Personnel grants that report only enrolling between 50% and 75% of the students projected. These Fellows are housed in 10 different consortium universities.

NCLVI Fellows in the 2005-2006 year participated in a variety of enrichment activities that focused on public policy and advocacy. There were nine Blackboard discussions related to a variety of public policy issues. Though not all, most Fellows (79%) found the Blackboard experience at least somewhat positive. Fellows felt they were participating in a learning community of professionals. Several Fellows commented that hearing from professionals, both in and outside academia, as well as family members involved in the visual impairment field gave them a sense of being part of a bigger group. Most negative comments related to the time it took to respond regularly in the Blackboard discussions.

Three public policy and advocacy face-to-face enrichment events were held. Though Fellows attended and enjoyed all three, primarily because of the time they spent with leaders in the field and with each other, the enrichment activities in Washington, DC were clearly the highlight. Not only were Fellows able to spend time with federal administration and department officials and advocates, they actually participated in the legislative process. With Fellow colleagues, they wrote a legislative brief and presented it to a legislative aide from one of their home districts. Clearly from the results of the correlations and the ANOVA, these experiences made a difference in the degree to which Fellows who participated felt they had the necessary skills and knowledge in the area of public policy and advocacy to fulfill their professional obligations. As one Fellow summed up the experience "...I walked away with an appreciation for democracy, the fact that I could go in there and speak my mind. And knowing that, if one day I represent a bigger group of people, I can do it again."

The internships were another component of the enrichment activities available to NCLVI Fellows. Most, but not all, of the internships (sometimes referred to as externships) occurred with PAC members. After 1 year, four Fellows had participated in at least one internship. Sixteen Fellows were actively planning an internship during their tenure as a Fellow. The Fellows reported not only the value of the internship activities with PAC members, but also talked about the importance of hearing different perspectives and seeing people with different perspectives come together "for the kids."

One of the overwhelming impressions from the interviews concerning these Fellows had to do with expectations. It was very clear from Fellows, university consortium members, and PCO staff that there is a need for leaders to develop policy, conduct research, and train personnel in the field of visual impairment. It was also clear that there is an expectation that this group of 21 Fellows will play a major role in these activities. Some respondents called this reality pressure, some called it competitiveness, but this group of Fellows realized that a unique opportunity has been created for them. As one Fellow put it, "I feel like they've opened a door and it's up to us to take control of what we do with that door.... It's just not one door, they've given us different doors of opportunity and guidance to go through those doors." Another Fellow put it this way, "I've learned to think in ways that I never thought possible." Still another Fellow added, "We're realizing that we're in a university, but that's not all. Then we have this big umbrella saying 'You are the future. You're our leaders.'"

Of course the cost of such an ambitious project is a concern. Interim cost analyses were undertaken using data from AIR and Westat to determine the relative cost of the NCLVI to other Leadership Personnel grants. Leadership Personnel grants were identified and information concerning projected and actual data on the number of doctoral students served, the amount of stipend money provided per student, and the percentage of student stipend cost to the total grant cost were gathered and analyzed. There are a number of caveats concerning these data, which are explained in the full text, that are important when interpreting these findings.

The interim findings showed that NCLVI provided, even after adjusting for inflation, a higher stipend (tuition and living expense) than the AIR identified Personnel Leadership grants projected ($18,000–$27,200) and more than the Westat identified Leadership Personnel grants reported they paid ($5,437–$25,811). However, given the amount of money actually spent and the apparent low rate of doctoral students graduating from these programs, the projected cost per NCLVI Fellow may be comparable.

NCLVI provided a variety of enrichment opportunities for the NCLVI Fellows, yet the percentage of money spent on NCLVI Fellows was about the same percentage projected by other Leadership Personnel grants in the AIR data set. Depending on whether the first year project development stage is included in the calculations, NCLVI put 63%–68% of their budget in direct support to students. The average percentage across the 45 AIR grants was 63% with a range of 81% to 88%.

The evidence available at this time suggests that the NCLVI Fellows are receiving and participating in the enrichment events and opportunities provided. Preliminary data suggest that these events are having a positive effect on the skills and knowledge of these Fellows. However, the long-term outcomes of this project cannot be assessed until later to determine if the Fellows move into leadership positions and have the impact on the field as expected.

Contents

Introduction

The purpose of this report is to provide an interim program evaluation of the process and short-term outcomes for the National Center on Leadership in Visual Impairment (NCLVI). This report contains six major sections: (1) background information on NCLVI, (2) explanation of the evaluation plan, (3) research methodologies used for this report, (4) results from the interviews, surveys, and cost analysis, (5) conclusion, and (6) discussion of evaluation findings.

Background

The need to create additional personnel and to support their training through the addition of special education doctoral graduates in the field of low vision and blindness led to the development of the NCLVI proposal. The need for this project was determined by examining the requirements for direct service personnel in the field and for the doctoral-level personnel needed to produce the direct service personnel.

This issue was highlighted in 2000 by Mason, Davidson, and McNerney who completed an Office of Special Education Programs (OSEP) sponsored project that estimated the need for 5,000 new teachers of students with visual impairments (VI) and 10,000 new orientation and mobility specialists by the year 2010. When compared to numbers reported by the Association for Education and Rehabilitation of the Blind and Visually Impaired (AER) Division 17 (Pennsylvania College of Optometry, n.d.) indicating that fewer than 400 new personnel in blindness and low vision were being produced annually, the shortage of personnel is apparent. Mason and colleagues (2000) saw the need for 13 new special education doctoral graduates per year in order to support the needed increase in teacher training programs. Again from the annual survey conducted by AER Division 17, the number of universities reporting current doctoral enrollment varied from a high of 15 in 1997-1998 to only 9 in 2001-2002 (Association for Education and Rehabilitation of the Blind and Visually Impaired, 2003). Equally as important, however, is that only five universities (Arizona, Northern Colorado, Teachers College, Texas Tech, and Vanderbilt) reported doctoral enrollments in every one of the previous 7 years. The AER survey documented average annual enrollment at 38.3 students nationally, with 4 students graduating each year (Pennsylvania College of Optometry, n.d.). Production of new doctoral-level personnel in the blindness and low vision area appeared stagnant at an average of four graduates annually over the several years prior to the NCLVI proposal. As Sindelar, Smith, and Wald (1998) stated, the number of graduates with doctorates in visual impairment is alarmingly low.

The following, retrieved from the NCLVI Web site, provides an overview of the leadership training in the field of blindness and low vision at the time the proposal was written:

- Universities are unable to fill faculty positions (some recent examples: Vanderbilt, Ohio State, Illinois State, University of Massachusetts); in 2002-2003, 13 university tenure-track positions open or unfilled;

- One fourth of all VI faculty intended to retire by 2005 (Corn & Silberman, 1999);

- More than 60% of full-time faculty are over the age of 50 (Silberman, Ambrose-Zaken, Corn, & Trief, 2004);

- The number of institutions of higher education preparing doctoral students with an emphasis in blindness and low vision is dwindling (6 programs have closed since 1989, while only one has opened); and

- The absence of a critical mass of doctoral students at most universities creates concerns about the field's ability to develop a community of practice in the field of blindness and low vision.

In response to what was viewed as a growing personnel crisis at the local and university level, an unsolicited proposal was made to OSEP to fund a collaboration developed to provide quality leadership personnel in the area of visual impairments. This collaboration, known as the National Center for Leadership in Visual Impairment (NCLVI), was funded by OSEP beginning in October of 2004. During the subsequent year, all work focused on the development of the collaborative activities and arrangements. The first cohort of 14 students began in the 2005-2006 school year and the second cohort of 7 students began participation in the collaborative in the fall of 2006. The following components make up the NCLVI model as outlined in the original proposal and found on the Web site at http://www.pco.edu/nclvi.htm.

NCLVI Collaboration

The following section describes the NCLVI collaboration. The mission and objectives of the collaborative are described as well as the various groups who make up the collaborative. The last part of this section focuses on the program components designed to create a unique set of leadership experiences for the NCLVI Fellows.

One of the early accomplishments of the collaboration was to develop and agree upon a mission statement. The NCLVI mission is: "To increase, through specialized doctoral training, the number of quality leadership personnel competent in the areas of research, public policy, advocacy, administration, and higher education to improve services for individuals with visual impairments from birth through age 21." (www.pco.edu/nclvi/documents/mission.htm)

In order to accomplish this mission, the following six objectives for the project were developed:

Objective 1. Develop a collaborative model for producing leadership personnel in special education with an emphasis on VI through the establishment of a national consortium of Carnegie doctoral/research-intensive and doctoral research-extensive institutions.

Objective 2. Facilitate the preparation of leadership personnel in education of students with visual impairments to increase the number of doctoral graduates available for positions in one or more areas of emphasis, such as higher education teaching and research, public policy, administration at national, state, and/or local levels, curriculum development and supervision, and/or general research. In particular facilitate the preparation of sufficient leadership personnel to meet the needs of university personnel preparation programs.

Objective 3. Enhance the training of leadership personnel by the creation of enrichment activities such as special topic seminars, special meetings, specialized lectures, or listserv discussions developed for the cohort of doctoral fellows.

Objective 4. Increase the capacity of Higher Education Consortium for Special Education members and other universities that have existing doctoral programs, by helping them to establish new minors and emphases in visual impairment.

Objective 5. Conduct an evaluation of the collaboration—both outcomes and process—that will provide formative and summative data to assist in improving the project and detailed information about the development of the collaborative model for replication purposes.

Objective 6. Disseminate information about the model, including evaluative findings, for possible replication in other areas of leadership training.
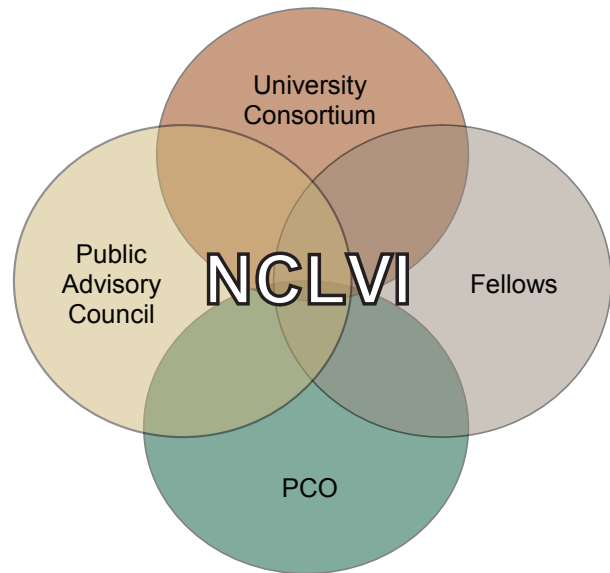

Figure 1. NCLVM Collaborating Components.

In order to accomplish NCLVI's mission and objectives, a collaboration was created, with four sets of key players. First, the Pennsylvania College of Optometry (PCO) was the host university that housed the NCLVI staff but did not host any doctoral Fellows. Because PCO did not have a doctoral program in visual impairment or receive any financial gain from housing NCLVI, it was viewed as a neutral place to develop the collaboration. The other three components of the collaboration, university consortium members, Public Advisory Council, and the Fellows, will be described below. Key players in the NCLVI collaboration are displayed in Figure 1 developed for the OSEP 1 + 4 Review (Huebner, Wormsley, & Garber, 2005).

NCLVI University Consortium Members

Consortium members consisted of faculty from universities that made a commitment to participate in the consortium. Every university program known to have a doctoral program with an emphasis in blindness was approached about the NCLVI collaboration.

The 14 NCLVI university consortium partners were:

- California State University
- Florida State University
- Northern Illinois University
- Ohio State University
- San Francisco State University
- Teachers College, Columbia University
- Texas Tech University at Lubbock

- University of Arizona
- University of Louisville
- University of Northern Colorado
- University of Pittsburgh
- University of Utah
- Vanderbilt University
- Western Michigan University

(www.pco.edu/nclvi/pact.university2.htm)

During the first year of the project, the members of the consortium determined how the collaboration would be governed and how the activities for the Fellows would function. Members volunteered for various consortium activities such as policy and guideline development, competency identification, and development of this enrichment program.

Public Advisory Council (PAC)

One of the unique elements of the NCLVI collaboration was the participation of professionals in the field beyond those working in the university system, including a wide range of individuals with disabilities, parent groups, state departments of education, and others throughout the blindness and visual impairment community. Fifteen individuals representing national organizations, institutions, or projects participated as members of the NCLVI Public Advisory Council. See Table 1 for a list of the PAC members.

The NCLVI proposal stated the role of the NCLVI Public Advisory Council was to:
- "Serve as entry points into a greater community of practice in blindness and visual impairment,
- Participate in all communication related to the NCLVI PAC,
- Meet face-to-face at least twice during the project,
- Host PAC meetings and face-to-face meetings with Fellows,
- Communicate to constituencies about the NCLVI project,
- Participate in the development of recruitment, enrichment, and evaluation components of NCLVI,
- Recruit potential Fellows,
- Assist in the development, facilitation and implementation of enrichment activities,
- Host Fellows for short-term residencies and/or internships,
- Participate in the evaluation of NCLVI activities,
- Participate in continuous revision of objectives and activities of NCLVI,
- Participate as agents of change in the field of blindness and visual impairment, and
- Link the blindness and visual impairment community of practice to organizations and agencies in other disability areas" (Huebner et al., 2005, p. 8).

NCLVI Fellows

The fourth group in the collaborative was the doctoral students referred to as the NCLVI Fellows. Though the submitted grant proposed to train 40 Fellows, the number of Fellows was reduced to a total of 21 students after negotiation with OSEP. Fourteen students were admitted to the NCLVI program in 2005 and seven more joined in 2006. Figure 2 displays the location and number of Fellows at each of the 10 universities that housed the Fellows. As outlined in the Briefing Book, the role of NCLVI Fellows was to:

- "Proceed full-time through the doctoral program at their University Consortium host institution and complete their degree within four years,
- Participate in the community of practice in the field of blindness and visual impairment,
- Receive full tuition funding and annual living stipend, about $20,000,
- Agree to and fulfill OSEP Payback Agreement,
- Remain students in good standing at their host institutions,
- Travel to two national conferences per year (supported by NCLVI) and participate in an additional day of NCLVI enrichment activities attached to each conference,
- Participate in a three-day concentrated enrichment seminar annually,
- Participate in all NCLVI enrichment activities, including face-to-face seminars, online discussion boards, monthly biopic board, and listservs,
- Participate in all evaluation of NCLVI activities,
- Participate as agents of change in the field of blindness and visual impairment, and
- Serve as leaders" (Huebner et al., 2005, pp. 9-10).

NCLVI Fellows were full-time doctoral students. They were supported with a living stipend of $20,000 (adjusted with a cost of living index by location of university) and payment of their tuition.

NCLVI Program Components

NCLVI Fellows had access to a variety of activities and events designed to develop a cohort of students prepared to move into leadership positions in universities, the public policy arena, as well as state and program leadership positions. Fellows had a variety of experiences available including those at their home institutions and those developed uniquely for them by NCLVI.

Fellows were expected to engage in a number of activities. First, NCLVI Fellows had to meet all of the require-

Table 1
Key Personnel: NCLVI Public Advisory Council

Organization	Representative for NCLVI
American Council of the Blind (ACB)	Melanie Brunson, Executive Director
American Foundation for the Blind (AFB)	Susan Spungin, Vice President, International Programs and Special Projects
American Printing House for the Blind (APH)	Bob Brasher, Vice President, Advisory Services and Research
Association for the Education and Rehabilitation of the Blind and Visually Impaired (AER)	Mark Richert, Executive Director
Association of State Education Consultants for the Visually Impaired	Karen Blankenship, Representative and Iowa State Vision Consultant
Council of Schools for the Blind (COSB)	William Daugherty, President and Superintendent, Kansas State School for the Blind
Early Intervention Training Center for Infants and Toddlers with Visual Impairments	Deborah Hatton, Principal Investigator
Galludent University	Tom Jones, Professor, Department of Education
Higher Education Consortium in Children with Visual Impairments	Herbert Reith, President and Professor, University of Texas at Austin
National Association for Parents of Children with Visual Impairments	Mary Zabeliski, President and Parent
National Association of State Directors of Special Education (NASDE)	Bill East, Executive Director
National Center on Low-Incidence Disabilities (NCLID)	Kay Ferrell, Project Director
National Council of Private Agencies for the Blind and Visually Impaired (NCPABVI)	Chris Tompkins, Executive Director Foundation for Blind Children
National Federation of the Blind (NFB)	Betsy Zaborowski, Executive Director, Jernigan Research Institute
National Organization of Parents of Blind Children (NOPBC)	Barbara Cheadle, President and Parent

ments of their home university. Fellows also participated in the enrichment activities planned by the NCLVI collaborative and described below. Lastly, Fellows had the opportunity to engage in externships with members of the collaborative including PAC members and faculty at other universities.

Enrichment Activities

NCLVI was designed to support full-time students as they completed their university studies and participated in a variety of enrichment activities developed by PAC members, university consortium faculty, and PCO staff. During the second year of the project, a Fellow joined the development group helping to design and implement the research enrichment activities for the 2007-2008 academic year.

The enrichment activities were part of what is described as an added-value training program to enrich the Fellows' "preparation as leaders in the field" (Huebner et al., 2005). During 2004-2005, the general focus and content was developed by NCLVI collaborative members for the yearly focus of the following enrichment activities:

- Public Policy and Advocacy (Project Year 2 for Cohort 1, Project Year 5 for Cohort 2),
- Research (Project Year 3),
- Higher Education (Project Year 4),
- Internships (Project Year 5 for Cohort 1, Project Year 6 for Cohort 2)

The individuals from the NCLVI university consortium, the PAC, and staff formed workgroups to take primary responsibility for the development of a multidimensional enrichment program in each area. The topical issue forums were conducted using multiple formats including face-to-face seminars prior to or following a national conference, online discussion groups provided through the use of the Blackboard platform, and Public Advisory Council members as well as outside consultants.

Public policy and advocacy enrichment. Public policy and advocacy was one of the three major foci of the enrichment experiences. The 2005 cohort of 14 Fellows focused on this area during their first year, and the 2006 cohort of Fellows will participate in these activities in the fifth year of the project. The goal of these enrichment activities was to enable Fellows to articulate and demonstrate the skills needed to effectively develop policy and advocate for the improvement of educational outcomes for persons who are blind and visually impaired (www. pcu.edu/NCLVI/enrichment.xls).

For the 2005 cohort of Fellows, the first component of the public policy enrichment program consisted of a series of three face-to-face meetings. The first public policy enrichment meeting was held in Louisville, Kentucky, October 16, 2005. The second public policy enrichment event was held in Washington, DC, February 4–7, 2006. This event focused on national public policy and included presentations of Fellow-written legislative briefs presented to legislative staff on Capital Hill and meetings with government personnel from Office of Special Education Program (OSEP), National Institute on Disability and Rehabilitation Research (NIDRR), and Rehabilitation Services Administration (RSA). The final public policy face-to-face enrichment event was in Atlanta, Georgia, March 5, 2006. This followed the attendance of the Fellows at the Josephine L. Taylor Leadership Institute.

The second component of the NCLVI enrichment activities was developed through the use of a discussion board. During the 2005-2006 year, the first cohort of Fellows participated in monthly Blackboard discussions in the following areas:

Sept. 2005	Legislation
Oct. 2005	Highly Qualified Teachers
Nov. 2005	Assessment
Dec. 2005	The Role of State Vocational Rehabilitation and Transition
Jan. 2006	State Policy and Legislation
Feb. 2006	Monitoring and Compliance
Mar. 2006	Litigation
Apr. 2006	Parent and Consumer Partnerships
May 2006	The Daily Implementation of IDEA-NCLB

These monthly discussions were designed to bring together NCLVI university consortium members, NCLVI Fellows, parents, consumers, and PAC professionals. Every discussion topic was co-facilitated by an NCLVI university consortium member and an NCLVI Fellow. Participation of the Fellows was required weekly, but the participation of other members of the learning community varied. (See Public Policy Enrichment Program Summative Evaluations, 2006, www.pco.edu/nclvi/enrichment/pub_policy_summary_Sept2006.pdf).

NCLVI Internships

A third activity in the NCLVI enrichment component was internships for NCLVI Fellows, sometimes referred to as externships. These experiences occurred most frequently away from the university the Fellow attended and were in addition to any internships required by the students' university programs. These internships were offered by a variety of organizations such as American Foundation for the Blind and National Association of State Directors of Special Education. These internships offered Fellows a wide range of experiences in policy development, advocacy activities, research development and data collection, and higher education. Internships varied in time from a few weeks to 6 or 8 months. In many of the internships, students are paid.

Individual Fellows could also work with leaders in the field to develop an internship which met their unique needs or interests. An example of this type of internship was spending time with a faculty member at another university to learn about a data collection method.

The external evaluation now in progress, for which this is an interim report, is intended to supplement NCLVI's internal evaluation efforts by focusing on the ultimate success of the National Center—the number and quality of leadership personnel and their subsequent contributions to higher education, research, and leadership in the field of blindness and visual impairment. The overall framework of the external evaluation consists of a process, output, and outcome evaluation focusing on NCLVI Fellows as the unit of analysis. The influences of the activities were assessed to determine whether they build the capacity of the Fellows to fill leadership positions. The complete plan for the external evaluation is provided in order to set the context for the internal evaluation, which focuses mainly on process, outputs, and short-term outcomes.

Evaluation Plan

NCLVI Fellows' training experiences and accomplishments are the target of the external evaluation using a process-output-outcome evaluation framework (Kellogg Foundation, 2004) for measuring project success. Process evaluation measures include course work, enrichment activities, community of practice experiences, and internships, and focuses on the *depth* and *breadth* of learning opportunities afforded Fellows.

NCLVI enhances Fellows' experiences through value-added enrichment activities in which all Fellows must participate. These experiences previously described include, but are not limited to, several annual face-to-face meetings and regular (currently monthly) Blackboard discussions. Together these experiences are the "processes, tools, events, technology, and actions that are used [by NCLVI] to bring about intended program results" (Kellogg Foundation, 2004, p. 2). These activities, both individually and collectively, constitute the *infrastructure* that is intended to have a range of Fellow capacity-building influences and consequences.

Outputs include, but are not limited to, the *scope* of activities actually experienced by the Fellows and their assessments and judgments of the benefits realized from the activities. Special focus and attention is placed on the capacity-building consequences of NCLVI processes to increase or improve knowledge, skills, competence, and confidence associated with Fellows.

Outcomes focus on specific changes in Fellow status during and after completion of their doctoral degrees. This will include, but not be limited to, research activity, publications and presentations, participation in policy and advocacy activities, and teaching.

The external evaluation plan was developed to focus on each of the three topic areas—public policy and advocacy, research, and higher education. The necessary information for this interim evaluation was gathered from NCLVI staff, NCLVI Fellows, university consortium members, and the Public Advisory Council members.

Since this interim evaluation was conducted at the beginning of the second year of the Fellows' participation, it will provide partial information on the first three areas, process measures, outputs, and short-term outcomes, that reflected mainly the first year of experiences for the 2005 cohort of the Fellows. Information from the 2006 cohort provided a comparison since they had only been in the NCLVI Program for three months. No information was available concerning the long-term outcomes for this interim evaluation.

OSEP Evaluation Goals

OSEP has developed proposed measures to determine the effectiveness of their goals. (S. Brown, personal communication, May 1, 2006.) Below are the goals and OSEP-proposed measures appropriate for this evaluation that were used when determining long-term outcomes.

Long-term Goal 2: The Individuals with Disabilities Education Act (IDEA) Personnel Preparation Program will ensure an adequate supply of personnel serving infants, toddlers, children, and youth with low-incidence disabilities.

Objective 2: Increase the supply of teachers and service providers who are fully qualified for and serve in positions for which they are trained.

Indicator: Scholars exiting programs: The percentage of scholars who exit training programs prior to completion due to poor academic performance.

Indicator: Employed upon completion: The percentage of degree/certification recipients employed upon program completion who are working in the area(s) for which they were trained.

Indicator: Employed for 3 or more years: The percentage of degree/certification recipients who maintain employment for 3 or more years in the area(s) for which they were trained and who are fully qualified under IDEA and meet additional state requirements that may exist.

This evaluation gathered information available from Westat on several of these measures and compared the information with preliminary information available from NCLVI.

Cost Analysis

OSEP had a special interest in the cost-effectiveness of NCLVI and this, therefore, constituted a secondary focus of the external evaluation. OSEP staff helped identify sources of information concerning other OSEP funded personnel preparation projects. An interim comparative cost/benefit analysis with other types of OSEP-funded Leadership Personnel preparation models was done.

Evaluation Summary

Figure 2 shows the framework used for putting together the process, outputs, short-term outcomes (including an interim cost analysis), and long-term outcomes.

In order to determine the long-term success of the collaboration, it will be necessary to conduct an evaluation during the summer or fall of 2009 and if possible repeat it in the fall or summer of 2012. These later evaluations would provide available data concerning the Fellows' activities and accomplishments during their entire NCLVI experience as well as their professional accomplishments after graduation. This long-term evaluation would provide richer data concerning the process, outputs, and long-term outcomes experienced by the 21 Fellows. Using this full body of information concerning the strengths and weaknesses of this type of collaborative model with the long term information about the effectiveness of the collaboration, including a cost analysis, would make it possible to determine more accurately what components of the model were important to produce high quality leaders in the field of blindness and visual impairment. This full body of information would be more helpful in determining the merits of this unique training model.

Processes (Activities)	Outputs	Short-Term Outcomes (Pre-Graduation)	Long-Term Outcomes (Post-Graduation)
Number of consortium Universities enrolling NCLVI Fellows	Number of NCLVI Fellows enrolled	Number of Fellows who exit prior to completion due to poor academic performance (OSEP)	Number of degree recipients employed upon program completion who are working in the area trained (OSEP)
Number of internships available	Number of internships completed	Number and types of public policy and advocacy activities engaged in by the Fellows	Number of degree recipients who maintain employment for 3 years or more in the area trained (OSEP)
Number of enrichment activities planned/available in public policy and advocacy	Assessment of capacity-building consequences of internships	Number and types of research activities engaged in by the Fellows	Number of Fellows employed/ hired at program completion who are working in leadership positions (OSEP)
Number of enrichment activities planned/available in research	Assessment of capacity-building consequences of public policy and advocacy activities	Number and types of higher education activities engaged in by the Fellows	Conduct the final cost analysis
Number of enrichment activities planned/conducted in higher education	Assessment of capacity-building consequences of research activities	Conduct an interim cost analysis	
	Assessment of capacity-building consequences of higher education activities		

Figure 2. Framework for conducting the external evaluation of NCLVI with examples.

Method

The focus of the evaluation conducted in the fall of 2006 was on the process measures, the outputs, and the short-term outcomes that had been accomplished. Since the first enrichment activities were public policy and advocacy, most of the information from this evaluation was on the capacity-building consequences of this topic area. During the 2006-2007 school year, both cohorts of Fellows are focusing on research. Information was gathered on all enrichment areas and with all Fellows (except one who did not return the survey), and with the seven new Fellows thought to be acting as a "comparison" group. Though, as it turns out, this comparison group had received some "treatment," because at least one student in the 2006 cohort had participated in some aspects of the enrichment activities.

The majority of the data collection for this initial evaluation occurred during September 2006. At this time the original 14 Fellows had completed 1 year in the program and the second cohort of seven Fellows had just begun their program. The primary source of information was the Fellows themselves. Data collection included surveys gathered from 20 of the Fellows, interviews with all 21 Fellows individually, and a conversation held with the NCLVI staff. Also at the 2006 university consortium meeting, a focus group was conducted with the consortium representatives of NCLVI on the development of the Fellows. Lastly, information was gathered from PAC members who were asked to complete a short survey concerning their involvement with the Fellows in the winter of 2006.

An interim cost analysis of the NCLVI project was also conducted. Information for these analyses were gathered from the NCLVI financial staff, the American Institutes for Research staff, who provided access to information concerning other Leadership Personnel grants, and Westat, who provided information gathered from the annual survey of Leadership Personnel grants regarding the status of doctoral students receiving support from these grants.

Participants

Fellows

The focus of this evaluation was on the NCLVI Fellows who began the program in 2005 and 2006. Table 2 provides information on the background characteristics of the 21 NCLVI Fellows. Of the 21 NCLVI Fellows, 14 students were accepted into the program in 2005 and another 7 students in 2006. The students ranged in age from 25 to 45 years with the majority (57%) of the students between the ages of 31 and 40. Nine (45%) of the students had a bachelor's degree in special education or visual impairments and 17 (81%) of the students had a master's degree in special education or visual impairments when they entered the program.

The majority (85%) of the students had worked in the field of visual impairment for at least 1 year prior to entering into the program. Forty percent of these students had been in the field 6 or more years. When asked about their future plans, 62% (n=13) of the participants said their goal was to be in a higher education setting, with the majority of Fellows focused on research and teacher preparation activities. Five (24%) Fellows reported interest in leadership positions in either local or state agencies.

NCLVI University Consortium

A total of 10 individuals representing 13 consortium institutions participated in a focus group. This focus group lasted about 1 hour and occurred during the university consortium meeting that followed the face-to-face meeting in Vale, Colorado in September, 2006.

PAC Members

There were a total of 11 of the 15 Public Advisory Council members who provided feedback for this evaluation by the fall of 2006. Two of the PAC members who responded indicated they had little contact with the Fellows because they served an adult population.

Measures

Information for this interim evaluation report was gathered from a number of sources in order to provide a range of perspectives. Three sources (Fellows, university consortium members, and Public Advisory Council members) provided information on the Fellows' experiences and the impacts of these experiences. Fellows completed a self-report measure and participated in an interview. University consortium members participated in a focus group, and Public Advisory Council members were asked to complete an online survey.

Table 2
Background Characteristics of the NCLVI Fellow

Characteristics	Number	Percent
Age (*N* = 21)		
25-30	6	29
31-40	12	57
41 or above	3	14
Bachelor's degree (*N* = 20)		
Special education or visual impairment	9	45
Other areas	11	55
Master's degree (*N* = 21)		
Special education or visual impairment	17	81
Other areas	4	19
Years working in field (*N* = 20)		
0	3	15
1-5	9	45
6-10	4	20
11 or more	4	20
Future plans (*N* = 21)		
Direct service with clients	2	10
Agency director	1	5
State director or consultation	3	14
Federal policy/advocacy position	2	10
Higher education	13	62

Fellow Survey

The scale completed by the Fellows had several sections. In the first section, Fellows provided some general background information concerning their experiences prior to entering their doctoral programs. Fellows were also asked to provide information concerning their university course work, research experiences, and higher education activities that they had been or were involved in as part of their degree program. Fellows provided information about their NCLVI internships, public policy and advocacy activities, research activities, and Blackboard activities. They answered open-ended questions about their professional goals and most important experiences to date.

In order to determine the extent to which the enrichment activities were having an influence on the Fellows, a section on this self-report scale was developed to assess the students' levels of confidence with their knowledge and skills needed to carry out professional responsibilities in three areas: public policy and advocacy, research, and higher education. The Fellows were asked to rate the extent to which NCLVI activities prepared them to en-

gage in the professional activities as a measure of short-term outcomes. The number of items per scale ranged from six to eight and each item was rated on a 5-point Likert scale from "Not At All" to "Completely." The principal component factor analysis computed a Cronbach's standardized alpha.

Public policy and advocacy measure. A six-item investigator-developed public policy and advocacy scale was used to evaluate the extent to which variations in the Fellows' experiences were associated with variations in Fellows' confidence of their skills in the public policy area. Table 3 presents, for each item on the national policy scale, the percentage of Fellows' responses for each of the five ratings. The last column shows the percentage of those answering "Adequately" or "Completely" prepared. These scores range from 65% to 85% of the Fellows indicating they felt adequately to completely prepared to carry out these professional activities with a mean of 73% across all six items. Principal component factor analysis of these items produced a one-dimensional solution for the policy items (*a* =.95).

Research measure. An eight-item investigator-developed measure of various research activities (e.g., using a variety of methodologies) was used to evaluate the

Table 3
Public Policy and Advocacy Items from the Outcome Measure

Items	Percentage					
	Not Yet	A Little	Some	Adequately	Completely	Sum of 4 & 5
Identifying and analyzing critical issues for people who are blind or visually impaired	5	0	15	50	30	80
Increasing your participation in professional advocacy groups	5	5	20	45	25	70
Understanding systems change issues related to people who are blind or visually impaired	5	10	20	60	5	65
Developing a personal network of national leaders, university colleagues, and practitioners	5	5	5	35	50	85
Developing policy statements related to people who are blind or visually impaired	10	15	5	35	35	70
Advocating for services at the national level	15	5	15	40	25	65

extent to which variations in the Fellows' experiences were associated with variations in the Fellows' confidence of their skills in research. Table 4 displays, for each of the eight research items, the percentages for individual items, as well as the percentage of Fellows who rated "Adequately" to "Completely" prepared for each item. The range for those who felt adequately to completely prepared is 30% to 55% with a mean of 43%. Principal component factor analysis of these items provided a one-dimensional solution for the research items ($a = .96$).

Higher education measure. A seven-item investigator-developed higher-education scale of various higher-education activities (e.g., developing meaningful learning experiences) was used to evaluate the extent to which variations in the Fellows' enrichment and academic experiences were associated with variations in the Fellows' confidence in skills to perform higher-education activities. The seven items used to make up the higher-education scale are presented in Table 5. Again, the table contains the items, the percentage of Fellows' ratings of the individual items, as well as the percentage who answered "Adequately" or "Completely." The percentage in the last column ranges from 30% to 70% with a mean of 45%. A principal component factor analysis of these items produced a one-dimensional solution for the seven higher-education items ($a = .90$).

Fellow Interviews

Fellows were interviewed individually during the fall of 2006. Face-to-face interviews were conducted with the 14 original Fellows during their NCLVI meeting in Vail, Colorado in September 2006. Phone interviews were conducted with the seven new Fellows about 1 month after the Vail meeting. These Fellows were interviewed after the face-to-face in order to allow them about 3 months of experience as Fellows before being interviewed.

The same questions were asked of all Fellows regardless of when they entered the program. The interview questions focused on their experiences in their universities, in the enrichment activities, including face-to-face meetings and the Blackboard discussions, interactions with members of the PAC, and their plans for the future. The interviews were conducted by the investigator to probe deeper into individual responses. Interview data were coded by an outside researcher. A second outside researcher did reliability coding on one third of the interviews. Interrater reliability was 95% agreement.

From the information gathered from the surveys and the interview, measures of university experience (e.g., size of the doctoral program, perceptions of course quality, number of courses taken or taking in different areas of public policy, research, and higher education) and a number of enrichment measures were developed. The en-

richment items included assessments of the Blackboard experiences (e.g., positive and negative experiences, overall rating), face-to-face policy meeting in Washington, DC (e.g., developing of the policy brief, presenting policy brief, meeting with key officials, and overall perception of the event), and experiences with the Public Advisory Council (e.g., internships, experiences).

PAC Survey

This survey focused on the roles the PAC members played in the development of the collaborative as well as information concerning interactions with the Fellows. PAC members were asked to answer six questions concerning the roles and activities they had engaged in with the Fellows.

University Focus Group

The focus group discussion was related to four major areas. The first question for consideration was the members' impressions of the development of the university consortium and the NCLVI collaboration. The second area of discussion concerned what they felt were the positive

effects of the NCLVI model for NCLVI Fellows. The third area of discussion covered any negative aspects of the model for the Fellows. Lastly the consortium members were asked to reflect on how, if at all, this collaboration had or might influence their universities.

Data Analysis

Information gathered from both the interviews and surveys completed by Fellows was used to describe the Fellows' experiences and their perspectives. The initial analysis provides a description of the Fellows and their experiences within their university programs and NCLVI activities. Spearman rank order correlations were computed for a variety of measures that focused mainly on the experiences of the Fellows and the three outcomes.

A 2 Between Cohort (Cohort 1 vs. Cohort 2) x 3 Within Outcomes (public policy vs. research vs. higher education) ANOVA was used to evaluate the effectiveness of the NCLVI experiences and the Fellows' level of confidence in the ability to perform necessary activities in the areas of public policy and advocacy, research, and higher education. The effect sizes for the three comparisons were ascertained by calculating Cohen's d.

Table 4
Research Items from the Outcome Measure

Items	Percentage					
	Not Yet	A Little	Some	Adequately	Completely	Sum of 4 & 5
Identifying the most important research articles in this area	10	10	25	45	10	55
Collaborating with practitioners and parents to conduct research in this area	30	20	5	30	15	45
Designing and implementing research studies in this area	15	20	10	35	20	55
Writing a grant proposal to obtain external research funding	30	25	5	30	10	40
Using a variety of methodologies (e.g., qualitative, quantitative) to collect data	20	10	20	40	10	50
Conducting statistical analyses to answer research questions	25	10	30	25	10	35
Translating research findings into implications for practice	30	15	25	20	10	30
Writing and publishing research findings in peer reviewed journals	20	15	30	25	10	35

Table 5
Higher Education Items from the Outcome Measure

Items	Percentage					Sum of 4 & 5
	Not Yet	A Little	Some	Adequately	Completely	
Making professional presentations	20	10	35	25	10	35
Preparing syllabi for university courses	35	10	10	25	20	45
Articulating skills needed to effectively educate children and youth who are blind or visually impaired	10	10	10	40	30	70
Teaching at the undergraduate level	40	15	5	25	15	40
Developing meaningful learning experiences for undergraduate students	40	15	5	25	15	40
Providing graduate students with experiences relevant to their future work in the field	35	5	5	35	20	55
Planning professional training events	35	20	15	15	15	30

In this section, the results are described in terms of each respondent group. The first and by far the largest amount of information comes from the Fellows since at this time the evaluation can only focus on process and short-term outcomes. The quantitative results are presented first, followed by supporting quotes gathered during the interviews in order to show the strength of the Fellows' responses. The reflections of the PAC members gathered from the surveys completed are presented next. The last set of participant responses are presented as a summary of the focus group discussion with the university consortium members.

Fellows

Descriptive Data

Table 6 provides information concerning the university programs where NCLVI Fellows were enrolled. With the addition of the 2006 cohort, there were a total of 10 universities that housed NCLVI students. Figure 3 displays the number of Fellows and the locations of the universities. Texas Tech had four Fellows in the program, with the University of Arizona and the University of Colorado both having three Fellows in the program. Four universities each had two Fellows and three universities each had one NCLVI Fellow.

Sixty-seven percent of the students expect to receive a PhD, while 33% will receive an EdD. The majority (62%) of the students were planning to complete their program in 3 years. Many students from this group though hoping to complete the program in 3 years felt that, in order to reap the full benefits of the internship opportunities, it may require 4 years to complete. Eight (38%) of the Fellows expected the program to take a full 4 years to complete.

Several questions to the Fellows gathered information concerning their doctoral experiences with their universities. Eight (38%) of the Fellows were in doctoral programs
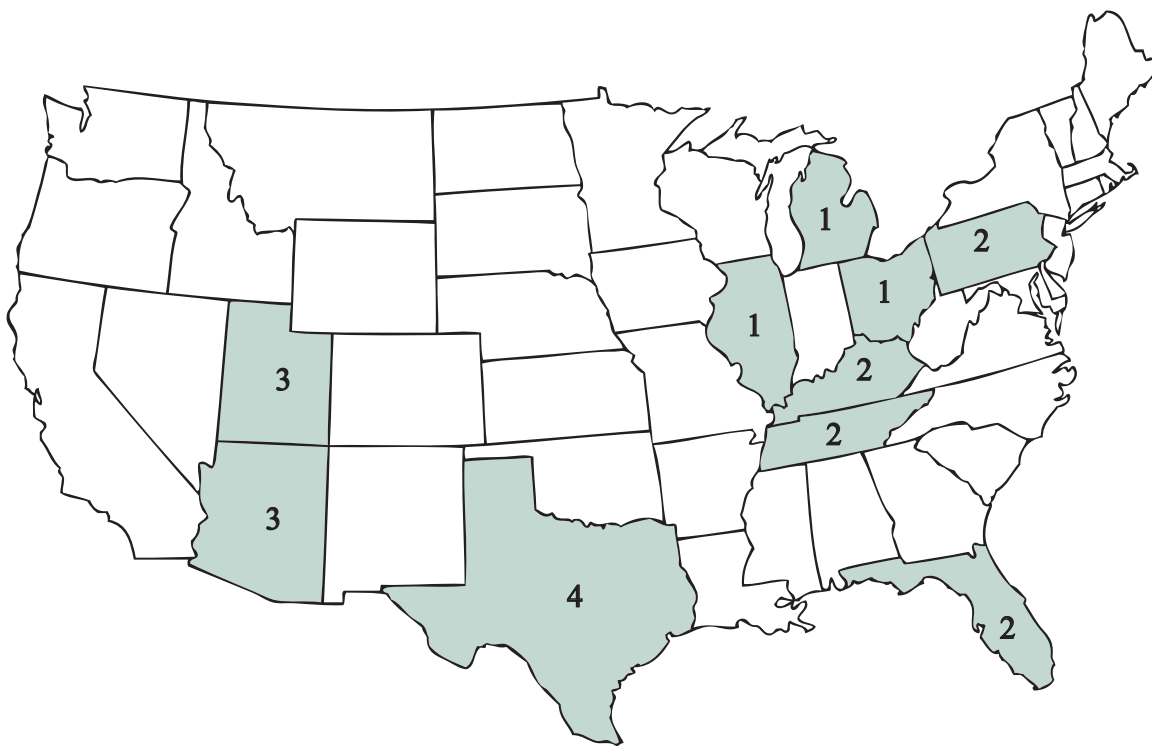

Figure 3. Geographic distribution of NCLVI Consortium.

Table 6
Description of University Experiences

	Number	Percent		Number	Percent
Current university (*N* = 21)			Number of completed or enrolled courses (*N* = 20)		
Texas Tech	4	19	3-4	5	25
University of Arizona	3	14	5-10	5	25
University of Colorado	3	14	11-15	8	40
Vanderbilt University	2	9	16-18	2	10
Florida State University	2	9			
University of Louisville	2	9	Number of research courses taken/taking (*N* = 20)		
University of Pittsburgh	2	9	0	1	5
Northern Illinois	1	5	1-2	3	15
Ohio State University	1	5	3-5	14	70
Western Michigan University	1	5	6-8	2	10
Number of doctoral students at university (*N* = 21)			Number of VI courses taken/taking (*N* = 20)		
0	2	9	0	12	60
2	6	29	1-2	5	25
3	9	43	4-5	3	15
4	1	5			
7	3	14	Number of higher education activities (*N* = 20)		
			0	6	30
Degree type (*N* = 21)			1-2	11	55
PhD	14	67	3-4	3	15
EdD	7	33			
			Quality of courses (*N* = 21)		
Expected number of years in program (*N* = 21)			Disappointing	1	5
2	1	5	Good	11	52
3	12	62	Very good	9	43
4	8	38			
Number of visual impairment professors (*N* = 21)					
0	1	5			
1-2	9	43			
3 or more	11	52			

that, including themselves, had two or fewer doctoral students in the field of visual impairment (see Table 6). Nine (43%) of the Fellows were in programs with three doctoral students. The majority of the students (52%) attended university programs that according to the Fellows had at least three professors who specialized in visual impairment.

Fellows were asked to provide information about the number and types of classes they had completed or were currently enrolled in as of the fall semester 2006. Table 6 shows that 50% (*n* = 10) of the Fellows had completed or were enrolled in between 11 and 20 courses. One fourth (25%) of the Fellows were enrolled or had completed 5-10 courses. Five of the Fellows had only completed or were enrolled in fewer than five classes.

Examination of the types of classes experienced found that all but one Fellow was currently enrolled in or had completed at least one research class (see Table 6). In fact, 16 (80%) Fellows were enrolled in or had taken three or more research courses. Two students (10%) had taken or were taking 6-8 research courses. Less than half (40%, *n* = 8) of the Fellows had taken or were taking courses in the area of visual impairment, though three Fellows (15%) had taken or were taking 4-5 courses in this area. Fellows were also asked about their experiences in different types of higher-education activities and courses. Six Fellows had no exposure to any higher-education activities including, but not limited to, courses, undergraduate supervision, or teaching experiences. An observation made from

the interviews was that some of the Fellows had or would have a lot of direct interaction with undergraduate- and master-level students while other Fellows, though higher-education issues would be addressed, would have limited direct exposure to some situations that as future university professors they would experience.

Fellows were asked to talk about and rate their perceptions of the quality of their experiences with their institutions (see Table 6). Only one student reported that the quality of his/her experience was disappointing. Forty-three percent ($n = 9$) of the Fellows felt that the quality of their experiences within their respective institutions was very good, and 52% ($n = 11$) felt the quality was good.

A series of chi-square tests was computed to determine if there were any background differences between the two cohorts. There was no difference in the age of the Fellows, $\chi^2 (2, N = 21) = 1.05, p = .31$, or area of master's degree, $\chi^2 (2, N = 21) = 0.15, p = .69$. There were differences between the cohorts in terms of the bachelor's degree area, $\chi^2 (2, N = 21) = 4.10, p = .04$, with the 2005 cohort having more Fellows with bachelor's degrees in special education or visual impairment. The 2006 cohort had significantly more (6 or more) years working in the field of visual impairment than the 2005 cohort, $\chi^2 (2, N = 21) = 9.37, p = .002$.

Enrichment activities. As explained previously, the opportunities Fellows were provided within the enrichment component to enhance their leadership capacity was a unique feature of the NCLVI collaborative. The enrichment activities included participation in the Blackboard discussions, attendance at the face-to-face meetings, and participation in internships with PAC members. Table 7 presents the Fellows' perceptions of the enrichment activities. Most of these responses came from the 2005 cohort of Fellows since they had the most experience with the enrichment activities.

Blackboard discussion. The Blackboard discussion group was a major enrichment component of the NCLVI experience. Though originally planned to be held throughout the summer, nine discussion groups were held between September 2005 and May 2006. Fellows were asked a variety of questions during the interviews concerning their experiences and participation in the Blackboard discussions. Table 7 contains the results from the Fellows' perceptions of the Blackboard experience. The majority (79%) of the Fellows reported the Blackboard experience as positive or a mix of positive and negative aspects. Six Fellows (36%) reported that their experiences with Blackboard had been positive. When asked to describe specific aspects of the Blackboard discussion they liked, 14 (67%) of the Fellows described particular topics that were addressed during the first year of Blackboard discussion that they found very

helpful and informative. Clearly the topics of most interest varied among the students depending on the Fellow's particular area of interest. A second aspect of the Blackboard experience that nine Fellows (43%) found useful was hearing directly from experts in the field, including parents. The participation of these "outside" people contributed to the fact that 33% of the Fellows reported a sense of being connected with a larger NCLVI community through their participation in Blackboard. The sense of being connected to a larger community of Fellows, consumers, academics, and providers all concerned with the same issues for people with visual impairments was important to many of the Fellows.

Five (43%) of the Fellows reported both positive and negative aspects of the Blackboard experience. The majority of negative comments concerned the time requirement to participate twice a week in the Blackboard discussion regardless of whether or not the student felt they had something of significance to contribute. Related to this was the concern expressed by several Fellows that they found the mechanical process of opening and reading responses for each person very awkward and time consuming. A number of these students had participated in other discussion boards and felt that the way this Blackboard was designed was cumbersome.

The following statements represent the positive feelings expressed by the Fellows during the interviews:

Fellow 1: "I enjoyed the Blackboard experiences [and] having the input from the experts. It was really good to have a different perspective."

Fellow 2: "I really liked the communication we were able to have with some of the professors and professionals in the field and from those who are consumers themselves, and parents."

Fellow 3: "I found the functioning of the Blackboard to broaden my understanding of the many different realms of public policy."

Fellow 3: "The Blackboard discussion connected the community of NCLVI during the time when we were not together…"

Fellow 4: "…access to the people in the field who make the policies that led the discussion board. I think the topics were well defined."

Fellow 5: "…best utility of the Blackboard was the marketing that it did with the PAC members because then they were able to get to know us a little better…"

Fellow 6: "…great resources, great conversations, great questions came out of those discussions. A lot of the stuff I was doing in my courses kind of blended."

Only three Fellows felt like the Blackboard experience had been overall negative. Most of these Fellows felt the amount of time the Blackboard took was difficult to manage while completing the requirements of their universities.

Table 7

Fellows' Assessments of the NCLVI Enrichment Program

Activities	Number	Percent	Activities	Number	Percent
Blackboard			Policy meeting–Washington, DC (cont.)		
Overall experience (N = 14)			Development of policy brief		
Positive	6	36	Not mentioned	0	0
Mixed	5	43	OK/Good	7	43
Negative	3	21	Great	8	67
Specific highlights			Presenting policy brief		
Specific topics very helpful	14	67	Not mentioned	0	0
Hearing from experts	9	43	OK/Good	4	27
Connecting with NCLVI community	7	33	Great	11	73
Negative comments			Meeting with key officials		
Too much time	12	57	Not mentioned	2	13
Mechanics cumbersome	9	43	OK/Good	1	7
Not comfortable with the technology	3	14	Great	12	80
Policy meeting–Washington, DC (N = 15*)			Research meeting – Vail (N = 18)		
Overall perception of meeting			Good	9	50
OK/Good	2	13	Great	9	50
Great	13	87			

The comments below reflect some of the negative aspects of the Blackboard experience:

Fellow 7: "I think the time issue was a major problem."

Fellow 8: "…too much at once on top of everything else."

Fellow 9: "…when you have a topic that you really don't have any interest in it's very hard to contribute to it… especially if you don't have any knowledge in the area…"

Fellow 8: "…could have been stronger and would have meant more to us if it had been more structured. Something like, give us a prompt and respond to the following."

Face-to-face meeting. Enrichment activities in 2005-2006 for the first cohort of Fellows focused on public policy and advocacy. The face-to-face enrichment events occurred as planned three times during the year. When asked what was the most important face-to-face event, overwhelmingly 13 (87%) of the 15 Fellows who participated felt the face-to-face meeting in Washington, DC was an excellent experience (see Table 7). One component of this experience was the requirement that students develop a policy brief and then present this brief to members of the legislative staff representing one of the Fellows' legislators. The development of the legislative brief, once completed, was felt to be a helpful experience by the Fellows. Eight of the Fellows (67%) reported it was a great experience. However, several participants felt that more guidance concerning the format for developing a public policy brief would have been helpful, as well as the opportunity for feedback on their briefs earlier in the development process. Though the development process was difficult, Fellows reported that learning the importance of presenting facts in a succinct and jargon-free manner, in order for legislative staffers to comprehend the information, was an extremely valuable experience. Once the legislative briefs were developed, the Fellows attempted to meet with staff members from various legislative offices. Though a number of the

Fellows reported a degree of nervousness prior to this experience, 11 of the 15 Fellows felt, on reflection, that the experience had been very positive.

A second component of the trip to Washington, DC was to meet with advocacy groups in the field of visual impairment and officials and staff from a variety of federal agencies including the Office of Special Education Programs. The experience of getting to meet some of the major advocacy and policy professionals in the field was considered by the majority (80%, $n = 12$) of the Fellows attending as an excellent experience.

The following comments represent the positive statements of the Fellows about this experience:

Fellow 1: "…the Hill visit had a lot of impact on me because it…woke me up [to what] these people who are making these policies don't know. They don't have a clue about our kids and…if somebody is not here telling them it is going to continue to stay the way it is."

Fellow 2: "…the opportunity in DC is also a good way to have networked with different people who are in DC and who I know I could contact in the future."

Fellow 3: "The Hill in particular, the whole trip itself but really that time on the Hill was a chance to take your thoughts, everything you ever knew that needed to be adjusted in the field of blindness and visual impairment and put it onto a page. You had to fit it on a page but our page was powerful, I think. I know for me it's just the first time to do something like that. I needed it as a learning experience."

Fellow 4: "…being able to meet with congressmen and senators' aides and presenting our brief and actually getting thank you messages back from those individuals for bringing that to their attention…they had no idea that the situation was so grave. So they were sending us a thank you."

Fellow 5: "…I walked away with an appreciation for democracy, the fact that I could actually go in there and do that. Even if they don't listen to me, at least I can go in there and speak my mind. And knowing that if one day I represent a bigger group of people, I can do it again."

Fellow 6: "…I don't know that I would have ever thought to try and meet with people and talk with people on the Hill and so having that experience definitely makes me feel more open to that in the future."

Fellow 7: "Meeting with Glinda Hill and the OSEP crew…was really nice to hear it from them. Coming in I had no clue what any of this is all about, so being able to meet with them and getting a better understanding of the process, what it means to be on the Hill, the stuff that they do on the Hill, and then how it comes down to us in the field. That was very helpful, very good."

Fellow 8: "…I really enjoyed going to the meetings and learning who the players were in certain issues, even more than the other things that I did when I was writing

policy briefs. Those were interesting, but I didn't enjoy them as much as going to the meetings and really doing face-to-face contact."

Information gathered by NCLVI's summative evaluation supports the findings in this evaluation concerning the Washington, DC face-to-face meeting (www.pco. edu/nclvi/enrichment/ pub_policy_summary_Sept2006. pdf). The overall rating of the event was 94% indicating it was excellent to above average. One hundred percent rated the visit to Capital Hill and the messaging and media presentation as excellent or above average. The working lunch with OSEP's staff was rated by 93% of the participants as excellent or above average.

Though there were two other face-to-face meetings that focused on public policy and advocacy in the first year, the DC trip was extremely salient to the Fellows. Many mentioned that they enjoyed the other events including conversation with faculty and Fellows from other universities, but the DC trip had a major impact on them.

Research face-to-face meeting. In September 2006, the first of the research NCLVI face-to-face meetings was held as part of the Low Incidence Research Summit in Vail, Colorado. Fellows were interviewed throughout the research conference, so Fellows were reflecting on different aspects of the conference. It is important to understand that the reflections were of various components of the conference when interpreting the fact that the Fellows were evenly split in their feeling about the event. Exactly half of the Fellows felt the event was good and half felt it was great. Some of the comments regarding the experience are provided below:

Fellow 1: "…gave me some new skills to study what I'm interested in and gave me a little bit of that independence with guidance."

Fellow 2: "…there are definitely going to be naturally occurring opportunities for me to participate in that research as it's right there."

Fellow 3: "…I learned a lot from new information for some, and some of them were reinforcing some things I knew, which was nice. But, the part that I still find a little schizophrenic, in the popular sense, is this sense that we all understand that it's difficult to do level one research in low-incidence disabilities and that it's important to match the research message to the question that you have, not just trying to cram something in there that doesn't fit."

Fellow 4: "The quality and credentials of the speakers were just outstanding. Location was awesome."

Fellow 4: "One thing I would have liked to have seen would have been more time to meet as the NCLVI group."

Fellow 5: "Yea, it's kind of gone in a very nice series because I've gotten my literature reviews started for my

dissertation and how do I fund this? And it's gone in a nice progression."

Fellow 6: "…I've got a lot of good resources on campus if I get stuck on anything that has to do with research so it wasn't that helpful."

Fellow 7: "I also had an 'a ha' moment where I thought that, I think I really want to look at schools for the blind and how No Child Left Behind, especially the aspect of highly qualified personnel and the impact it's having on our special schools. And I think that's something that needs to be addressed and I think that could be done and probably needs to be done."

Fellow 7: "I would like more opportunity to interact informally with not only the leaders but with my other Fellows because these are the only times that we get to see each other."

Fellow 8: "I think that probably I would have liked to see…the things that were more practical in terms of applying to the students in the classroom…I would have liked to have seen a little bit more functional things as opposed to the broader professional academia."

Fellow 9: "I don't feel like it met my needs and a lot of what it talked about were things I already knew."

Fellow 10: "…some of the topics that we sat through during these days didn't really directly apply to doctoral students per se, some did and some didn't."

Fellow 10: "And I think some of the presenters assumed that we knew exactly what they were talking about but for many of us, it was over our head."

PAC contributions. The Public Advisory Council (PAC) provided a variety of direct support to the NCLVI Fellows and Table 8 displays the Fellows' assessment of the support they received from the PAC members. Fellows reported that the PAC members supported them with the gifts and memberships they received, input on the Blackboard discussions, as well as through direct interactions.

Many of the PAC members provided Fellows internships outside their home universities. At the time these data were collected, four students had participated in these internships. However 10 students were actively planning to participate in at least one internship, and 6 students were planning to participate in more than one internship during tenure as a NCLVI Fellow.

Overwhelmingly those few Fellows who had already participated in an internship found the experience very helpful. Beyond the internship experiences, it is clear from the following comments that the Fellows valued and appreciated the participation of PAC members in the Blackboard discussions and face-to-face meetings as well as the gifts they have received.

The following are some of the Fellows' quotes when asked what they thought of the participation of the PAC members in the NCLVI model:

Fellow 1: "…we had a lot of interaction with NFB (National Federation of the Blind) in DC, we had a lot of interaction with AFB (American Federation of the Blind) in DC and those were fantastic, absolutely fantastic interactions."

Table 8

Fellows' Perceptions of Public Advisory Council (PAC)

Response	Number[a]	Percent[b]
Best PAC experiences		
Gifts/memberships	11	52
Input on Blackboard	10	48
Networking with PAC	8	38
Individual support from PAC members	7	33
Overall support and encouragement	5	24
Number of NCLVI internships completed ($N = 21$)		
0	17	81
1	3	14
2	1	5
Number of NCLVI internships planned ($N = 21$)		
0	5	24
1	10	48
2	6	28

[a] Number of Fellows who endorsed the activity.   [b] Percent of the 21 students who endorsed the activity.

Fellow 2: "…if I needed something I feel like I could call them…"

Fellow 3: "…I think it's up to us at this point to contact ones that we might be interested in doing either an internship or externship with. So, in my view, anyway, the ball is kind of in our court…."

Fellow 4: "…they've been great. They asked, what are your interests? Tell me about what your interests are? And they knew that (public policy) was my ultimate goal. So, they were very good about getting me to appropriate meetings, getting me up on the Hill, and talking to my representatives and my senators."

Fellow 4: "I think it's good to see that people that don't normally work together and have philosophical differences can also come together on one project…. And to know that maybe we can work together, that knowing everybody is here for the kids, and we're not here for the glory."

Fellow 5: "…the outsider support that we're getting from the PAC and then the consortium definitely make me feel like all the doors are wide open…."

Fellow 6: "I think that the opportunities for externships are the evidence of how much the PAC can really do."

Fellow 7: "They [PAC Members] have done a lot of our training. A lot of our training has been conducted by NFB, AFB and some by ACB (American Council of the Blind)."

Fellow 8: "The member that I spoke to actually set me on my path for my proposal for dissertation, so that was very beneficial."

Fellow 9: "…a lot of PAC members have donated tremendous resources that will become really invaluable when it comes to teaching teachers. That's really nice. I'm developing more of a resource library geared more towards teaching."

Overall Assessment

Fellows were asked what they thought about their NCLVI experiences and what had been provided to them. They provided both positive and negative comments. Table 9 provides a list of the most mentioned positive and negative comments.

Positive comments from NCLVI Fellows. These comments ranged from the very global to the more specific. The first set of quotes came from eight different Fellows in the 2005 cohort speaking directly to the broad vision about what the NCLVI collaboration means for the field as well as what it meant to be an NCLVI Fellow.

Fellow 1: "…the idea that there's this consortium of universities that is doing this and doing it on a national level, I think it's wonderful because our field is so compartmentalized and this brings it up to where more people are seeing what's going on in the field."

Fellow 2: "It's really motivating to make this model look good. If we can make it look good, if we can really

do that, if the Fellows come out of it with all the thunder we've had the whole time carrying yourself well, then they will repeat it."

Fellow 3: "This is a closed field, there's a lot of difficulty letting new professionals come in. This has kind of broken down that barrier."

Fellow 3: "I feel like they've opened a door and it's up to us to take control of what we do with that door…. It's just not one door, they've given us different doors of opportunity and guidance to go through those doors."

Fellow 4: "I honestly think that this model is going to be an incredible thing for the future … I don't think you can create a change and have that happen only in isolation. I think it leads to other things that happen…. In our case, this is going to be something that's going to have ripple effects in our field for many, many years, probably."

Fellow 1: "When we're realizing that we're in a university, but that's not all. Then we have this big umbrella saying 'You are the Future. You're our leaders.'"

Fellow 5: "I realize this, now that I'm an NCLVI Fellow, that it's probably going to be a label that's going to follow me for a while. I will be known as one of those Fellows. This cohort of 21 folks will maybe not be the best of friends, but we're all going to have something we can look back on and say we went through something together."

Fellow 6: "I've learned to think in ways that I never thought possible."

Fellow 7: "…An unprecedented opportunity to meet people in this field and work with people in this field."

Fellow 7: "…I know that certain people have certain interests, so if I'm looking for a particular resource I know which Fellow to email and say, do you know where I can go look for this?...flood of response will come back from everybody else saying oh, I just did this or I just did that. I also think it's interesting that we're forming relationships now so that when we do go out there and are working at other universities or other professional organizations, we already have relationships instead of having to seek them out."

Fellow 8: "There's a little overflow to other doctoral students who aren't within NCLVI. I think that's really nice because there are doctoral students here now who are able to network with us and hear about our experiences and even the internship opportunities aren't being targeted just for NCLVI. I really think that it's creating a larger, some unexpected outcomes, like this overflow to other students, which is really nice."

The second set of quotes reflect specific experiences. Many of these experiences Fellows view as very valuable and likely would have never occurred without NCLVI.

Fellow 1: "The informal conversations with them are so much, that's what I value the most."

Fellow 2: "…they set up situations for us to meet leaders in our field."

Table 9
Fellows' Overall Assessment of NCLVI

	Number	Percent
Best aspects of NCLVI (*N* = 21)		
Contact with Fellows short term	16	76
Meeting leaders in field	13	62
Build future networks with Fellows	10	48
Worst aspects of NCLVI (*N* = 21)		
Pressure to be outstanding	13	62
Competition within	4	19
Could not mention one	4	19

Fellow 2: "…without NCLVI, I don't think I would have the same kind of access to people like George Zimmerman or other people at other universities, Robert Wall Emerson and you know, that's just incredible to be able to do that."

Fellow 3: "I'm going to be working on a couple of articles, as a second or third author, I may not have had the chance to do it except through NCLVI."

Fellow 4: "I can call and I can work on a project with her, which I never would have been able to work on a research project. Now, I can call Mark in DC or Paul in DC. I never would have been able to do that. That's been the most amazing thing, is the networking."

Fellow 5: "…don't change the face-to-face. Don't take that component out. I think it's important."

Negative comments from NCLVI Fellows. Fellows were also asked to provide feedback concerning things they felt should be changed. The most common "negative" response was the pressure the Fellows feel to be outstanding in their current work as well as in the future (See Table 9). A few people (*n* = 4, 19%) did comment on the competition among the Fellows. Though they felt the competition, a couple of Fellows said they thought it was to be expected and not necessarily bad. As one Fellow pointed out, "We are a bunch of high-achieving people, that's why they picked us. Of course there will be some competition."

The specific negative comments received when asked this question were all comments that have been previously recorded when discussing individual components of the programs so they are not repeated here.

Correlations

Table 10 presents the correlation data gathered from the Fellows' self-report survey and their individual interviews. The first three variables describe the Fellows' backgrounds (age and years working in the field prior to entering the doctoral program) and their NCLVI cohort. The next two variables describe university experience (number of doctoral students in visual impairments and the quality of the courses). Seven variables describe a variety of NCLVI experiences which are the process measures for this evaluation. The last three variables are the short-term outcomes measuring the Fellows' perceptions of their skills and abilities in the areas of public policy, research, and higher education. A Spearman rank order correlation was used due to the small sample size. A total of 105 correlations are reported. Forty-two correlations reflected a statistically significant relation between variables, $p < .05$.

There are a number of interesting significant correlations found in Table 10. Of particular interest is the relationship to whether NCLVI experiences enable Fellows to feel more confident in their abilities in the areas of public policy and advocacy, research, and higher education. Being in the 2005 cohort of Fellows was related to a greater confidence in their level of preparation in the area of public policy and advocacy ($r = .45, p < .05$). The visit to OSEP and Capital Hill ($r = .43, p < .05$) and the overall rating of the enrichment activities ($r = .46, p < .05$) were also positively related to the preparation level the Fellows reported in the area of public policy. These results were not surprising since the first year of enrichment experienced by the 2005 cohort focused on public policy and included a visit to Washington, DC to meet with OSEP staff and present policy briefs to legislative staffers on Capital Hill. Being in the 2005 cohort was not related to their confidence in how prepared they felt in the areas of research ($r = .08, p < .05$) or higher education ($r = .30, p > .05$).

If Fellows reported the quality of the coursework they experienced at the university as high, then they were likely to report feeling prepared in the areas of research ($r = .46, p < .05$) and higher education ($r = .40, p < .05$), but the perception of their university course work was not related to public policy ($r = .11, p > .05$).

Table 10

Correlations among Background Characteristics, University Experiences, NCLVI Experiences, and Outcomes

	Background			University		NCLVI Experiences						Outcomes		
	Age	Years in Field	Cohort	Number of Doctoral[a]	Course Quality	Intern-ships	Black-board	DC Visit	Research Meeting	Overall Enrichment Experience	Helpfulness of Consortium Faculty	PAC Members	Public Policy	Research
Years in field	.72**	-												
Cohort	-.29	-.59**	-											
Number of doctoral[a]	.25	.16	.34	-										
Course quality	-.43*	-.53**	.45*	.08	-									
Internships	-.51**	-.31	.12	-.08	.25	-								
Blackboard	.02	-.01	-.58**	-.54**	-.12	.08	-							
DC visit	-.15	-.47*	.75**	.38*	.40*	.38*	-.31	-						
Research meeting	-.55*	-.43*	.09	-.36	.13	.45	.33	.20	-					
Overall enrichment experience	-.39*	-.59**	.52**	-.01	.35	.70**	.13	.74**	.46*	-				
Helpfulness of consortium faculty	.11	-.13	.35	.41*	.11	.28	-.29	.46*	-.18	.42*	-			
PAC members	-.26	-.27	.36	.01	.07	.23	-.27	.26	-.12	.36	.39*	-		
Public policy	-.38*	-.39*	.45*	.18	.11	.18	-.10	.43*	.50*	.46*	.09	.05	-	
Research	-.49*	-.22	.08	.26	.46*	.38*	-.03	.20	.18	.29	.02	-.01	.58**	-
Higher education	-.54**	-.43*	.30	.12	.40*	.42*	-.12	.33	.15	.44*	.07	.21	.56**	.75**

* = .05.   ** = .01.   [a] Number of doctoral students at the university.

23

The experiences, particularly the enrichment experiences, constituted the major independent variable in this analysis. The 2005 cohort was exposed to one complete year of public policy and advocacy experiences that for the most part the 2006 cohort did not experience. It was hypothesized that there would be effect for Fellows' assessments of competence in the public policy and advocacy outcome, but not the research and higher education.

A 2 Between Cohort (Cohort 1 vs. Cohort 2) by 3 Within Outcome (public policy vs. research vs. higher education) ANOVA explored the difference between the 2006 cohort and the 2005 cohort in the three outcome subscales: public policy, research, and higher education. This was no significant main effect, $F(1,18) = 2.16$, $p = .15$, but there was an interaction between the cohorts and the three outcomes, $F(2,18) = 9.51$, $p = .04$. Figure 4 provides a visual display of the means of the three subscales for the 2005 cohort and the 2006 cohort. The analyses produced the predicted cohort X outcome interaction with the 2005 cohort

being associated with a higher assessment of competence in the area of public policy and advocacy, but there was no interaction with research and higher education.

To further demonstrate the difference between the two cohorts on the three outcome variables effect sizes (Cohen's *d*) were computed. The effect sizes for the mean differences between the two cohorts were public policy (1.21), research (.13), and higher education (.51). The effect size for the public policy measure was not only the highest, but was twice as large as the next highest, higher education.

Public Advisory Council Reflections

Data were also gathered through a short survey of the Public Advisory Council (PAC). Eleven of the 15 PAC members provided information about their participation in the NCLVI project, the number of Fellows they had contact with, and what they perceived as important
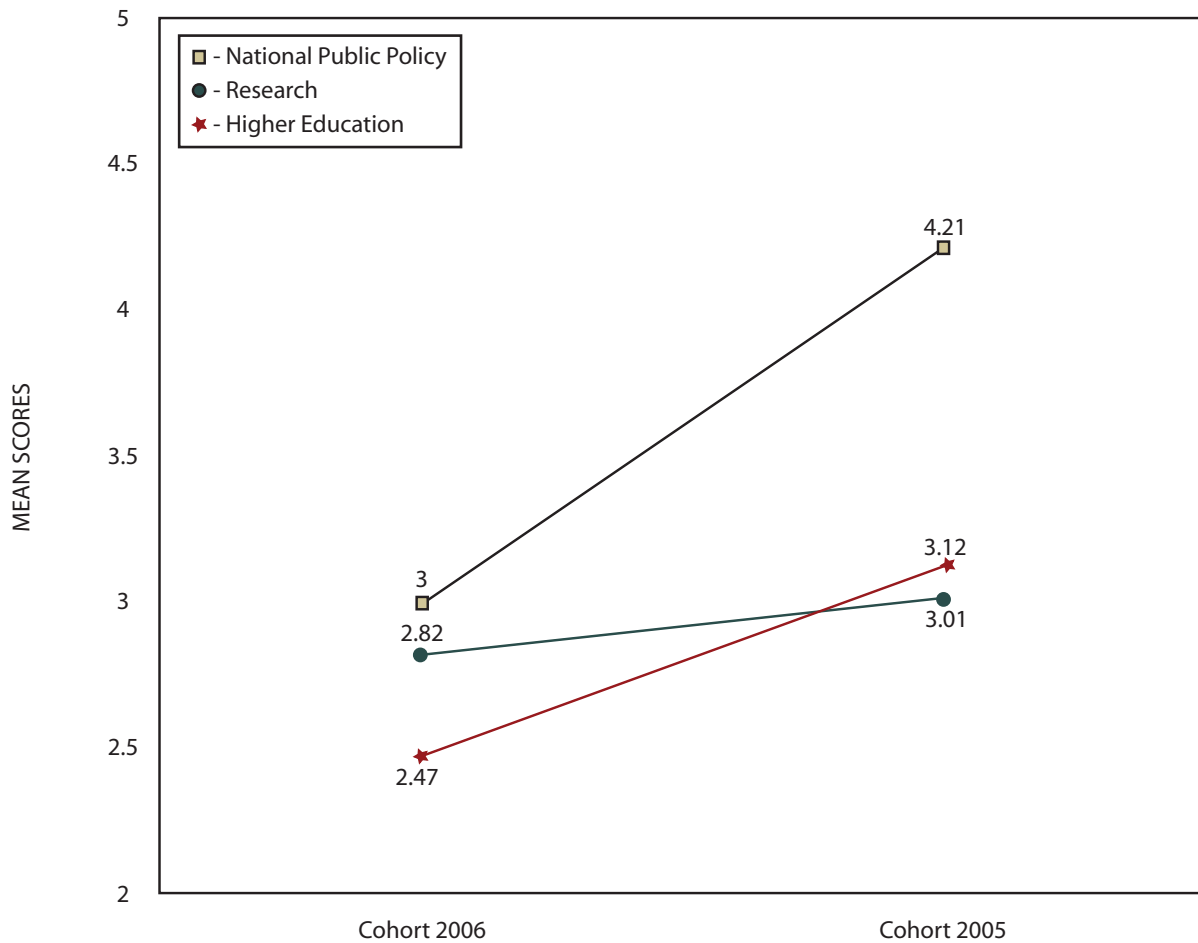

Figure 4. Differences between the 2006 and the 2005 cohorts on the three outcome measures.

aspects of their interactions with the Fellows. A summary of some of these results is presented in Table 11.

Public Advisory Council members were asked to describe the various ways they were involved in the NCLVI consortium. Being a PAC member, meaning their organization or institution had agreed to formally support and contribute to the development and existence of the consortium, was the most frequent response to this question. Participation in the face-to-face meetings with the Fellows, mentoring individual Fellows, and participation in the Blackboard discussions were three frequently mentioned types of participation. In the first year of the Fellows' participation in the NCLVI, 60% of the PAC members who responded to the survey had direct individual contact with at least one Fellow. Thirty percent of the respondents had contact with four or more Fellows.

The PAC members were asked to reflect on what they felt were the most important features or aspects of the NCLVI consortium in the development of the NCLVI Fellows. Fifty percent of the respondents mentioned the importance of the Fellows hearing diverse opinions from the PAC members. PAC members also identified the "real life" experiences that they were gaining through the enrichment activities as an important aspect of the experiences. The PAC members also reported that an important aspect for the Fellows was the national exposure the Fellows received, which provided them a greater understanding of how the federal system operated as well as exposure to national policy members.

Focus Group with University Consortium Members

In addition to the Research Conference at Vail, there was a meeting of the NCLVI university consortium. A focus group was held with 10 individuals who represented 13 consortium institutions. Four areas were explored with the university consortium members: the development of the consortium, the strength of the NCLVI model for the Fellows, concerns they had regarding the model, and the influences of the model on the university programs. Quotes from the transcript of the conversation during the focus group were culled to provide a sample of the discussion that followed each question.

Table 11

Fellows' Perception of Public Advisory Council Members

Item	Percentage	Item	Percentage
Direct contact with individual fellow		Important aspects of collaborations	
0	40	Understanding of diverse perspectives	50
1	30	Real life experience	21
4	20	National exposure	14
5	10		
Major roles			
PAC member	25		
Face-to-face meeting	21		
Mentored individual fellows	14		
Help with NCLVI start-up	11		
Blackboard participation	11		
Gifts for all fellows	7		
Hosted interns	4		
Other	7		

Development of the NCLVI University Consortium

One area of conversation focused on reflections of the university consortium members on the development of the NCLVI consortium.

"You know, that first meeting we had with the consumers and with state-level people, I think those were important and productive meetings, but that day was difficult."

"I really felt that when we were at that first meeting, that we were in agreement with everything that was decided. That was very positive."

"I would second that, because I wondered how it would be, not only as a new faculty member, but really as a university that offered a doctorate in special education. It's not specific to vision and they would have to have a co-faculty member serve as their chair along with me."

"It's been an education for the PCO faculty, because they haven't had any doctoral students, so for them it was, there was a lot of time put into explaining how doctoral programs work. But out of this, they know a lot more now than they did when it started."

"I think it's, yes, that was negative, but it's also a positive, because for this first round, I think it was important to have a university that had no stake in where the students went. Now, next time we do it, if we ever do it, I don't think that'll be as much of an issue because we've established all of these procedures."

One of the early problems which appears to have been resolved with the second group of Fellows was getting the contracts started with each of the universities. "It was a new process, not just for PCO, but it was a new process for the universities that weren't accustomed to dealing with these contracts and it took months, and when you have to live on that money it was stressful."

Benefits of the Model for Fellows

Another question was asked of the university consortium members concerning what they felt the benefits of the NCLVI model were for the Fellows. Many of the comments focused on the impact of community being developed as a result of this program.

"There is a strong feeling of camaraderie, which has been a great benefit."

"It has been a big deal that they have met the big names in the field, that they get to know them well and that they get to meet them and talk to them…at all these meetings. And I think that that's been very positive and I've heard that from them."

"In other programs students do get these opportunities, but it was done much more piecemeal, the occasional conference, the occasional phone call. So it took much longer (for students) to become familiar with the 'powers that be' and for the high mucky mucks to know the students well. This is much better. It happens quicker and at a deeper level here."

As a result of these collaborations among the students and with the faculty across the country, "once they go into their (new) positions, they're going to know other people in public policy or other faculty members who they might want to collaborate with and especially if they end up in programs where they are the only ones." They will be able to find mentors or others who are having similar experiences that can help in those early years of their postdoctoral careers.

"Some actually now have had an article published, they're teaming and being part of research teams."

One of the consortium members summed up what he felt the experiences had meant in terms of the differences he had heard for another faculty comparing these students and other doctoral students. "Another faculty member reported that they (the NCLVI students) were very assertive about the needs of visually impaired children, and they talked a lot more initially than the other students. They were basically assertive, very focused, but they had a lot of experiences through their networking and felt very comfortable coming into the class voicing their concerns and ideas. They would talk about what was happening with an issue and voicing what policy changes should happen. They had learned how to be more assertive than any of the other students sooner. I think the other thing is that they've been involved in research since many have research assistant positions (at this university). This gives them a vast array of experience because at my university they have worked for 20 hours with two different faculty members, some who were on the vision faculty and some who were not."

Concerns for the Fellows

The group was also asked what they felt the weaknesses or concerns of the NCLVI model were in terms of the Fellows. There were several areas of concern that came out of the discussion. Some of the concerns were also thought to have some positive benefits. First, there was one concern that the Fellows were becoming elitist because of their opportunities to interact with such high-level people. Though this concern was voiced at the meeting, several around the table felt that it was not true of the Fellows from their universities.

Another area of concern focused on other doctoral students. Sometimes the other doctoral students who were not part of NCLVI may have felt left out or unimportant when so much was made of the NCLVI students. There was often a difference in the financial assistance NCLVI Fellows and other doctoral students received.

An issue that was discussed was whether there was competition among the students. One opinion echoed by several individuals around the table was, "There is competition among them but that happens with doctoral students anyway." Another person commented, "I always thought that competition in our field is good because it places a little more rigor on what we are doing in order to make us more marketable for those positions out there."

There was also a concern about what having 21 new students hit the job market in a short time period would mean. One member suggested it was important to "define what leadership positions mean to us and articulate that to the Fellows. Especially for the ones that may not know what opportunities there are to be a leader. We want leaders in different capacities...and we need to keep talking about that with the Fellows."

Another response related to this concern was, "I think right now whether or not it is our role, we really should be thinking about enticing those universities that have closed their programs in this area to reconsider, because in two years, we are going to have people who can apply for their positions.... Now is the time to get started on that process so that there will be sufficient openings...the field needs this!"

Lastly one person commented on the need to help students find balance with all the demands, though they generally felt that this was true for all doctoral students and not just NCLVI students. NCLVI Fellows may have a few more demands, but they generally thought all doctoral students had to struggle with competing demands.

Influences on the University

The university consortium members were asked to reflect on whether there had been or might be any changes in their institutions as a function of their participation in this project. The following responses were collected as a result of this question.

"We had an opening for several years and it took a long time to the fill the vacancy. I think this project helped my university understand why and that on the federal level, there is some level of importance (being given) to the development of students to fill these positions in visual disabilities."

"Yes, I think in my university we have an open position and I fully expect that one of these people will be my new colleague in a couple years. I do not believe that I'll get one nibble this year. And I'll just leave it open until the right person comes along."

"A few things come to my mind. One is the visibility that having two students in visual impairment who are minoring in educational leadership creates. I had a professor in another department come to me and say, 'Hey, I had some of your students in class.' It's really interesting

because they were bringing such a focus on visual impairment, they really wanted more specific information and it changed what happened in class."

"I think it raised a question in my mind in terms of what an enrichment program should look like. When I have individuals in the future, what do I need to do so they leave ready to go into a variety of leadership roles?"

Interim Cost Analysis

One of the goals of this evaluation was to provide an interim assessment of the cost-effectiveness of training a group of doctoral students who will assume leadership positions using this model. The ultimate test of the cost-effectiveness will be, once the grant has been completed, to assess the number of students who received a doctorate and the number of students who entered leadership positions at the state and federal level as well as leadership positions in institutions of higher education. Once this information is gathered a final cost assessment can be determined. Since this project has only been working with Fellows for a little over a year, that type of analysis is not yet possible.

Though the NCLVI collaboration is too young to make a final cost analysis determination, an attempt was made to identify some data that would provide comparisons between the NCLVI project and OSEP-funded Leadership Personnel grants (Preparation of Leadership Personnel Doctoral and Post-Doctoral). The focus of the statistical analysis was primarily on the cost per student for stipends and tuition, and the ratio of total grant award to the amount of money provided directly to students.

There are a number of caveats concerning the data used in the interim cost analysis of the NCLVI project. First, information was gathered from the following three sources in order to create data sets for comparisons: American Institutes for Research (AIR), Westat, and the Pennsylvania College of Optometry (PCO). The PCO financial staff provided information for this report regarding the NCLVI budget. Information concerning student stipends and tuition were calculated for all 21 Fellows in the fall of 2006. NCLVI paid the full tuition of each Fellow, which varies according to the university the Fellow attends. NCLVI also paid a minimum student stipend of $20,000, which was adjusted based on the cost of living in each area. AIR and Westat staff both provided information on OSEP funded Personnel Leadership grants.

With the help of the staff at AIR, OSEP-funded personnel preparation grants were identified that supported doctoral-level students funded in 2002, 2003, and 2004. Once grants were identified, the following information concerning what projects planned to accomplish was retrieved on each grant: university who received the grant,

year grant was funded, the number of doctoral students that were to be supported by the grant, the amount of money allocated for student stipend and tuition, the area of focus of the grant such as learning disability, autism, etc., and whether the grant was active or had been completed.

The Westat data set contained information gathered from a survey sent out to all OSEP personnel preparation grant recipients asking for individual student information yearly. Westat compiled for Leadership Personnel grants from 2001 to 2004 the following information: the number of full-time students supported, the amount of money spent on student stipends, the number of doctoral students enrolled in the program, the number of students exiting with a doctoral degree, the number of students who were employed, and of those employed, the number of students employed in an administrative or coordinator position, or the number of students who were employed at a higher education facility. These data only represent the activity of the grant for 1 year.

Table 12 shows the overlap in the grants identified by both AIR and Westat. In 2002, 6 grants appeared in both data sets. In 2003 and 2004, 17 grants and 8 grants respectively overlapped in both data sets. Westat also provided information from 10 grants in 2001.

Another caveat is that grants were excluded from both data sets if they funded part-time doctoral students or served postdoctoral students. One important aspect of this analysis was to examine the relationship between the number of students and the amount of money that was being spent. Therefore, it was essential that a cost-per-student figure be determined. Since there was no way to determine from available data the amount of money spent on part-time students versus full-time students, those grants funding both types of students were not included in the analysis. All of the NCLVI students were full-time doctoral, therefore examining grants with only full-time doctoral students allowed for a better comparison.

A third caveat concerning these data relates to the data collection procedures. Neither AIR nor Westat had the ability to verify the information provided to them or to ensure that information from all OSEP grants was available.

Using data gathered from AIR for 45 Leadership Personnel grants funded in 2002, 2003, and 2004, the following calculations were made for each grant; the projected number of doctoral students funded by the grant, projected amount of money to be spent per student, and the projected percentage of the total budget spent on student stipends. Table 13 presents the mean and standard deviation of these three measures for each of the 3 years. The last column on Table 13 presents the same information from the NCLVI grant. In 2002 the projected number of doctoral students to be served was 10, in 2003 it was 8.8 students, and in 2004 9.4 students were expected to be supported while working on a doctoral degree through OSEP Leadership Personnel grants. NCLVI projected the number of doctoral students to be supported at 21. The average projected stipend per student in 2002 was $17,896, in 2003 it was $17,137, and in 2004 it was $10,434. The amounts below these costs are the stipend costs in 2006 dollars adjusted for inflation. The average projected stipend and tuition per student for NCLVI Fellows was $38,339. All of the OSEP Leadership Personnel grants except NCLVI were limited to a total yearly budget of $150,000–$200,000.

Another way of comparing the NCLVI budget was to examine the percentage of money being spent on student stipends with the total budget amount. The average amount of money allocated for student stipends was divided by the averaged total cost of the project to determine the percent of the total budget allocated for student stipends. As seen in Table 13, the percentage of the total budget allocated for student stipends in 2000 was 72%, in 2003 67%, and in 2004 47%. Across the 45 grants identified by AIR, 62% of the total grant funds were spent on student stipends. The percentages across the 45 grants ranged from 8% to 88%.

The percentage of the total NCLVI budget projected to be spent for student stipends was 63% or 68% depending on how the calculations were done. NCLVI was funded for 5 years, but as agreed by OSEP, a no-cost extension will occur for a sixth year. During the first year of the NCLVI budget, no students were supported by this money. The money was provided to help support the es-

Table 12

OSEP Grants Used in Analysis Gathered from AIR and Westat

Year funded	AIR N	Westat N	Number in both samples
2002	10	12	6
2003	21	19	17
2004	15	10	8

tablishment of the collaboration, including the universities' agreements as well as the Public Advisory Council. In the second through the sixth year, funds were provided to support students. When the total amount of money provided to NCLVI across all the years of the project is used, 63% of the total budget was used to support students. If the money that was spent in the first year to develop the collaboration is removed, 68% of the budget went to supporting students. The percentage of total budget to the cost of student stipends for NCLVI was very similar to the grants funded in 2002 and 2003 and was higher than the ratio spent in grants funded in 2004 (see Table 13). Though the overall NCLVI budget was larger, the percentage of budget that supports students with stipends and tuition was similar to 45 2000-2004 funded OSEP leadership development projects.

Using the AIR data, which reported what these 45 grantees planned to do, the number of students enrolled, and the level of support provided to these individuals, a number of comparisons were made and reported in Table 14. The projected per-student stipend calculation was used in a number of comparisons. The first comparison was to examine other leadership development grants received by the universities in the consortium with grants received by universities outside the consortium. There were no significant differences in the amount of per-student stipend. The second comparison was the training content area, to determine if this made a difference in the level of funding for students. Though it was only one grant, the grant in the area of high-incidence came very close to providing the same level of student support. Examining the number of students supported per grant showed that the larger the number of students supported, the less the amount of support was per student, which is not surprising. Again there were no significant differences.

An important distinction between the AIR and Westat data that needs to be highlighted again is that AIR data reflected what principal investigators *projected* they would accomplish, and Westat data reflected what really happened. For example, the AIR database contained the number of full-time students the grants were projecting they would support. The Westat database contained the number of full-time students actually supported.

Using the data collected in 2004 by Westat, it was possible to examine the actual number of full-time students being supported, total amount of stipend money paid, the stipend amount provided per student, number of students exiting the program with a PhD/EdD, and the number employed for grants whose funding started in 2000, 2001, 2002, 2003, and 2004. As seen in Table 15, grants beginning in 2001 reported in 2004, probably the last year of the grant, that an average of one student had graduated. Those same grants reported on average supporting seven doctoral students. For grants funded in 2002, it appears that one half of the doctoral students funded completed their degree.

Data reported on the same grants from Westat for 2000-2004 and AIR for 2002-2004 provided an interesting snapshot of the amount of money that was actually spent to support students as opposed to the amount of money that was projected in budgets when the grants were initially funded. Examination of Table 16 reveals several interesting facts. First, the number of students projected to be enrolled in grants was always higher than the number of full-time students actually served across these grants. In 2002 79% of the projected students were enrolled, in 2003 71% and in 2004 59%. NCLVI was able to enroll 100% of the students as agreed upon with OSEP staff. Examination of the total money spent in sti-

Table 13

Yearly Data on Leadership Personnel Grants from AIR Data Set

	2002			2003			2004			
	N^a	M	SD	N	M	SD	N	M	SD	NCLVI[b]
Projected number of doctoral students	10	10	5.39	21	8.8	2.89	14	9.43	4.14	21
Projected money per student	10	17,896 (20,054)[c]	8,241	21	17,137 (18,776)[c]	7,173	14	10,434 (11,135)[c]	7,738	38,339
Projected percentage of student stipend to total budget	10	72.86	9.46	21	67.25	11.00	14	47.51	31.48	63-68%

[a] Number of grants.   [b] Information gathered from PCO financial personnel.   [c] Adjusted cost to 2006 dollars to account for inflation using the Consumer Price Index.

Table 14
Average Student Stipend of Leadership Personnel Grants from AIR Data Set

	N[a]	*MD*	*SD*
Universities			
Universities in consortium	7	15,668	1,129
Other universities	38	15,138	8,744
NCLVI[b]	1	38,339	-
Area of training			
Hearing impaired/audiology	3	11,673	5,265
Autism	3	18,344	16,482
Behavior/emotional	7	12,581	7,269
Speech/language	2	12,838	871
High incidence	1	32,483	-
General special education	9	15,152	6,688
NCLVI[b]	1	38,339	-
Number of students trained			
4-9	24	18,391	9,492
10-12	19	12,282	3,330
22-24	2	5,087	1,266
NCLVI 21 Fellows[b]	1	38,339	-

[a] Number of grants.　[b] Information from PCO financial personnel.

Table 15
OSEP Leadership Personnel Grants from Westat Data Set by Yea

	2001			2002			2003			2004		
	N[a]	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*
Number of doctoral students	10	7.40	2.27	12	6.25	2.16	19	5.74	2.35	10	4.60	2.55
Money per student	10	17,619	5,490	12	21,840	6,428	19	30,030	5,370	10	11,739	5,078
		(20,054)[b]			(24,474)[b]			(32,902)[b]			(12,528)[b]	
Number completed doctorate	3	1.33	.57	1	3.0	-	2	1.5	.70	1	1.0	0
Number working in higher education/admin.	4	1.2	.5	2	1.5	0.7	2	2	-	1	1.0	-

[a] Number of grants.　[b] Adjusted cost to 2006 dollars to account for inflation using the Consumer Price Index.

Table 16
Characteristics Reported to Westat in 2004 for Leadership Personnel Grants 2000-2004

Characteristics	*M*	*SD*	Characteristics	*M*	*SD*
2000 (2 grants)			2003 (19 grants)		
Projected students[a]	-	-	Projected students ($N = 13$)[a]	8.0	2.7
Full-time students	3	1.41	Full-time students	5.74	2.35
Total stipends	64,282	66,444	Total stipend	114,162	38,860
Per student cost	32,141	33,222	Per student cost	20,030	5,370
Adjusted per student cost[b]	37,628	-	Adjusted per student cost[b]	21,945	-
Exited PhD/EdD ($N = 1$)	2.0	-	Exited PhD/EdD ($N = 2$)	1.5	.70
Employed	0	0	Employed ($N = 4$)	1.75	.50
2001 (10 grants)			2004 (10 grants)		
Projected students[a]	-	-	Projected students ($N = 8$)[a]	8.0	2.4
Full-time students	6.30	3.02	Full-time students	4.60	2.54
Total stipends	123,794	38,226	Total stipend	44,954	20,363
Per student cost	17,619	5,490	Per student cost	11,739	5,078
Adjusted per student cost[b]	20,056	-	Adjusted per student cost[b]	12,508[b]	-
Exited PhD/EdD ($N = 3$)	1.33	.57	Exited PhD/EdD ($N = 1$)	1.00	-
Employed ($N = 7$)	2.43	1.51	Employed ($N = 1$)	1.00	-
2002 (12 grants)			Total (53 grants)		
Projected students ($N = 6$)[a]	7.8	2.7	Projected students ($N = 27$)[a]	7.9	2.5
Full-time students	6.17	2.82	Full-time students	5.62	2.64
Total stipends	129,147	47,184	Total stipend	104,432	48,920
Per student cost	21,840	6,428	Per student cost	18,878	8,307
Adjusted per student cost[b]	24,474	-	Exited PhD/EdD ($N = 8$)	1.63	.74
Exited PhD/EdD ($N = 1$)	3.00	-	Employed ($N = 15$)	2.00	1.195
Employed ($N = 3$)	1.67	1.15			

[a] Projected students information came from the AIR data set. The N size is smaller because not all of the Westat grants are in the AIR data set. [b] Per student cost adjusted to 2006 dollars to account for inflation using the Consumer Price Index.

pends for the number of full-time students reported produced a substantially larger cost per student than those found in the AIR data though the grants in both data sets were the same type of grants.

Using the Westat data, a data set was created that reported on the same grants from 2001 to 2004. Data provided the average number of doctoral students enrolled in each grant each year, the total number of students who graduated from 2001 to 2004 with a doctoral degree, the total number of students who were reported employed in administration or higher education upon completion, the total amount of money spent per student, and the average amount of money spent on student stipends for each doctoral graduate. The per-student costs were adjusted to 2006 dollars. Table 17 presents data for the 13 grants included in

Table 17
Westat 2001 Leadership Personnel Grants with Full-time Doctoral Students in 2002-2004

Grants	Average doctoral students funded	Total exited with PhD	Employed in higher education	Total funds spent for students	Average spent per PhD/EdD students	Average spent per PhD/EdD students adjusted to 2006 dollars
1	2.33	0	1	404,350	-	-
2	4.67	0	0	315,899	-	-
3	8.67	2	1	331,800	165,900	177,053
4	4.33	1	3	256,788	256,788	274,050
5	9.33	2	2	411,850	205,925	219,769
6	12.00	6	6	395,349	65,891	70,320
7	9.33	0	1	479,401	-	-
8	3.00	2	2	215,038	107,519	114,747
9	6.00	0	0	316,306	-	-
10	12.00	3	2	287,151	95,717	102,152
11	8.67	3	5	424,496	141,499	151,012
12	6.00	2	2	259,000	129,500	138,206
13	4.33	1	0	201,472	201,472	215,017
Mean	6.9	1.69	1.92	330,684	152,245	162,480
NCLVI	21.00	21[a]	-	3,204,000[b]	-	152,571

[a] 21 doctoral students are projected to graduate from this project. Westat does not have data on NCLVI because, though the grant was funded in 2004, enrollment of students occurred in 2005.   [b] 2006 NCLVI data is gathered from NCLVI financial staff.

this analysis. The average number of doctoral students supported on these grants was 6.9 and the average number of doctoral students who exited the program with a doctoral degree across all the years of the grants was 1.69. The average amount of money spent per graduated doctoral student was $152,245, or $162,480 adjusted for 2006 dollars. If all 21 NCLVI Fellows graduate, the cost spent per graduated student will be $152,571. If 19 (90%) NCLVI Fellows graduate, the cost spent per graduated student will be $168,631, still less than four of the grants listed in Table 17 when adjusted for inflation.

Cost Summary

The following statements represent some of the high-

lights of the findings from this interim cost analysis:

- NCLVI was able to recruit and enroll the number of full-time doctoral students they agreed to support compared to other grants that enrolled only 50% to 75% of the students projected.

- Leadership Personnel grants funded between 2000-2004 projected funding 7.9 doctoral students on average and had only enrolled an average of 5.6 doctoral students.

- NCLVI spent more money for student stipends and tuition than the average grant proposed to spend or actually did spend on stipends.

- Using projected amounts, NCLVI will spend between $27,000 (2004) and $18,300 (2002) more per student per year in stipends.

- Using actual amounts, NCLVI spent between $8,400 (2003) and $25,800 (2004) more per student per year in stipends.

- NCLVI spent the same percentage of their budget on supporting Fellows as many other Leadership Personnel grants spent. The cost of the enrichment and administrative activities did not appear to make up a larger percentage of the budget than the non-student supported activities of other Leadership Personnel grants.

- The percentage of the budget projected to be spent on student stipends ranged from 73% in 2002 to 48% in 2004. NCLVI projected to spend either 63% (full budget) or 68% (budget for the years serving students) of the budget for student stipends.

Conclusion

The bullets presented below attempt to summarize some of the major findings of this interim evaluation. These conclusions flow from the information provided by all the participants, Fellows, university consortium members, PAC members, and PCO staff.

• NCLVI recruited and enrolled 21 full-time doctoral students as agreed-upon with OSEP. Within the agreed upon timeline, the university collaboration was established, recruitment occurred, and 21 doctoral students entered 10 different universities as NCLVI Fellows.

• NCLVI Fellows at this point in the NCLVI process had a strong sense of wanting to make a difference in the quantity and quality of personnel available to support people with visual impairments. Many of the Fellows stated that they came back to school because of the personnel shortage they saw while working in the field. They expected to be training people to fill this shortage.

• NCLVI Fellows were actively involved in the university requirements. For example, 50% of the Fellows had taken or were enrolled in 11-18 courses in the fall of 2006.

• NCLVI Fellows viewed themselves as having a responsibility to the field as a result of the experiences they had received. Fellows felt the pressure that they were expected to make a difference in the field of visual impairment.

• Though they feel the pressure, NCLVI Fellows also felt they had the abilities and connections to make a difference in the lives of persons with visual impairments. The Fellows perceived that they were developing networks with national leaders that would enhance their opportunities to influence policy decisions later and that the connections they were making with each other would also enhance their collaboration in the future as leaders.

• NCLVI Fellows felt the experiences provided through the first year enrichment activities had heightened their awareness of advocacy and public policy. Many of the Fellows had not previously considered the importance of their role as advocates for people with visual impairments.

• NCLVI Fellows who participated in the enrichment activities in 2005-2006 had an increased sense of responsibility and enhanced capacity to influence public policy by advocating at the state and federal levels for people with visual impairments. Fellows reported a greater confidence in their advocacy knowledge and skills in the public policy arena as a result of the enrichment activities.

• NCLVI Fellows clearly felt that they received experiences that were not available to other doctoral students both within and outside their un iversities. They believed that these experiences were different and set them in a substantially better place to make an impact in the field of visual impairment. This perspective was echoed by the university consortium members and the PAC members.

• NCLVI provided more financial student support than other Leadership Personnel grants. However, the rate of graduation for doctoral students in the comparison grants was low. Perhaps the increased support will enable a high percentage of NCLVI students to graduate within the timeframe of this grant and begin assuming leadership positions.

• The percentage of the total NCLVI budget spent on students was similar to other Leadership Personnel grants, though the collaboration provided a wide range of enrichment activities including face-to-face meetings not regularly provided by other grants.

Discussion

The major goal of NCLVI is to produce high-quality students to fill the current and projected university vacancies for the next several years and to provide training for direct service personnel and leadership at the local, state, and national levels. It appears that the NCLVI collaboration is providing Fellows experiences that are likely to support those outcomes.

One of the university consortium members expressed concerns that these students, as results of these experiences, felt that they were "special." Many of the other consortium members agreed, but there was disagreement about whether this was a good or bad belief for the Fellows to hold. Some of the members felt that the belief that they were special was accurate because of the unique experiences that these students had and because they would now be in unique positions to collaborate and work together to achieve many things, not only for themselves but also for the field.

One of the effects of capacity-building activities is that the confidence level of individuals involved in the activities should be heightened (Bandura, 1978). Evidence from this interim evaluation suggested that was happening for the NCLVI Fellows as a result of the NCLVI experience. At least in the area of public policy and advocacy, Fellows reported having new skills and knowledge, faculty commented about their strong presence, non-NCLVI professors assessed Fellows as confident and assertive in classrooms, and the Fellows expressed a general sense of "pressure" to accomplish "great things."

Of course the real test of this program is not possible at this time. To date no Fellow has withdrawn from the program. They appear to be on course and headed toward careers for which this program was designed, but there are still many unanswered questions. Will the enrichment activities over the next few years continue to impact the Fellows' perception of their abilities to carry out leadership activities in the area of research and higher education? Will connections with the NCLVI community (PAC members, Fellows, university consortium members) continue to challenge and broaden their understandings of the problems facing the field and help them find solutions to these challenges? Will these 21 Fellows graduate with doctorates? Will they enter positions at the university level where they will impact the field through research and training direct service personnel? These are questions that simply cannot be answered at this time.

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