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ABSTRACT

The Social Security Administrations' Announcement #SSA-ORES-00-1 marks the beginning of a new era of opportunity for the agency, research scholars, the population at-large, and most importantly, for recipients of SSA disability benefits. With an emphasis on unbiased, quality research and evaluation, education, training and dissemination of information through partnership with an external entity, SSA is assured of a clear focus on the reality and impact of programs on SSI and SSDI applicants' and recipients' lives. Facilitation of data usage of the wealth of information contained in SSA recipient files, and training and education programs based on solid research findings will enhance in critically important ways the knowledge base and skills of all interested parties.

The University of Illinois at Urbana-Champaign (UIUC) and its Affiliate Partners, Rutgers University, Northwestern University Medical Center/Rehabilitation Institute of Chicago, and the University of Chicago's National Opinion Research Center, have the capacity and experience to make this new paradigm, a successful, balanced partnership between SSA and the Disability Research Institute (DRI), a reality. UIUC and its Affiliate Partners are well qualified to respond to the challenge of establishing the DRI on the Urbana-Champaign campus. Co-principal investigators Tanya Gallagher and Chrisann Schiro-Geist have not only secured institutional support from their own institution but also from nationally and internationally respected affiliate institutions. They have forged research and evaluation alliances with an impressive group of leading scholars in their fields across a wide variety of disciplines. Dr. Schiro-Geist will serve as Director of DRI and Drs. Gallagher, Berkowitz, Heineman, and Kovar will serve as the executive committee, interacting with SSA and the Advisory Board on a regular

basis to ensure effective and timely coordination..

The DRI will serve as SSA's disability research partner, especially with regard to SSA information that has been collected on the 8+million SSI and SSDI applicants and recipients. DRI will prepare and make data available in appropriate formats to academics, policy makers, the general public, and persons with disabilities who are beneficiaries of these important programs. The DRI will address all of the priority research areas listed in the RFA within the budgeted five year period. Researchers addressing these priority areas include Drs. Thomason, Kruse and Butler of Rutgers U.; Dr.Yelin of the U. of California at San Francisco; Drs. Schur and Kruse of Rutgers U.; Dr. So of UIUC; Dr. Menz of U. of Wisconsin Stout; Drs. Burton and Berkowitz of Rutgers U.; Dr. Heinemann of Northwestern U. and Dr. Kovar of U. of Chicago; and, Dr. Mechanic of Rutgers U. Additional collaborators include individuals within UIUC, the University of Wisconsin at Stout, Northwestern University's Institute of Health Services Research and Policy Studies, the University of Illinois at Chicago, and Southern University.

DRI, in partnership with SSA, will act as a clearinghouse for researchers who want to access the facilitated database. Data handling, preparation, and analysis, and training, education and dissemination will be enhanced by UIUC's College of Applied Life Studies, Institute of Labor and Industrial Relations, Office of Continuing Education, the Graduate School of Library and Information Sciences, and the Institute of Government and Public Affairs. Researchers doing data analysis will have the opportunity to consult with the staff of the UIUC-based National Center for Supercomputing Applications (NCSA). By working with NCSA, the DRI will have access to scientists from a variety of disciplines who have developed new methods for analyzing large, complex data sets and for visualizing or "mining" knowledge from these data.

Education and training programs will be supported by the UIUC Office of Continuing

TITLE: "The Disability Research Institute: Partnership in a New Paradigm"
In response to SSA-ORES-00-1

CO-PRINCIPAL INVESTIGATORS:

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Chrisann Schiro-Geist, PhD.
The University of Illinois at Urbana-Champaign

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Education. This office has considerable experience in delivering information in a variety of educational formats nationally and internationally. The office utilizes the latest technology and has pledged staff and financial support for UIUC DRI activities. The Office of the Vice President of UIUC system has also pledged financial support for the expansion of DRI based on-line coursework. Due to the geographic location of the UIUC DRI, dissemination activities, whenever possible, will be coordinated with Social Security's Region V office in Chicago. Through disseminating information to the disability policy and research communities at-large and by providing some financial support, researchers will be invited to work with DRI as Visiting Scholars, and doctoral and post-doctoral students will be included in graduate training efforts.

Traditional, face- to-face dissemination meetings are planned in the 2nd and 4th years in the Baltimore and Chicago areas. DRI will present three additional technology-facilitated meetings in Years 1, 3 and 5, with training activities utilizing interactive, internet-based on-line and interactive video sessions. In these ways, DRI results will be presented to the relevant stakeholders on an annual basis and information will also be made available to Social Security's own education and training meetings such as the Annual Forum and Mini Forum of the Office of Disability. Research results will be published in scholarly, governmental and popular media, and a web-site will be established and maintained for public access to all research, training and dissemination products.

The UIUC and its Affiliates are well prepared to meet the challenges posed in the Program Announcement (#SSA-ORES-00-1). through forging a partnership with SSA for the future.

OMB Approval No. 0348-0043

APPLICATION FOR FEDERAL ASSISTANCE

2. DATE SUBMITTED	Applicant Identifier
3. DATE RECEIVED BY STATE	State Application Identifier
4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier

1. TYPE OF SUBMISSION:
Application ☐ Construction ☒ Non-Construction
Preapplication ☐ Construction ☐ Non-Construction

5. APPLICANT INFORMATION

Legal Name: The Board of Trustees of the University of Illinois

Organizational Unit: Applied Life Studies

Address *(give city, county, state, and zip code)*:
Grants & Contracts Office
801 South Wright Street
109 Coble Hall - Champaign County
Champaign, IL 61820

Name and telephone number of the person to be contacted on matters involving this application *(give area code)*
J. J. Kamerer
(217) 333-2187

6. EMPLOYER IDENTIFICATION NUMBER (EIN):
37-6000.511

7. TYPE OF APPLICANT: *(enter appropriate letter in box)* I
A. State H. Independent School Dist.
B. County I. State Controlled Institution of Higher Learning
C. Municipal J. Private University
D. Township K. Indian Tribe
E. Interstate L. Individual
F. Intermunicipal M. Profit Organization
G. Special District N. Other (Specify): _____

8. TYPE OF APPLICATION:
☒ New ☐ Continuation ☐ Revision
If Revision, enter appropriate letter(s) in box(es): ☐ ☐
A. Increase Award B. Decrease Award C. Increase Duration
D. Decrease Duration Other *(specify)*:

9. NAME OF FEDERAL AGENCY:
Social Security Administration

10. CATALOG OF FEDERAL DOMESTIC ASSISTANT NUMBER: 96-007
TITLE: Social Security--Research and Demonstration

11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:
In response to SSA-ORES-00-1:
The Disability Research Institute:
Partnership in a New Paradigm

12. AREAS AFFECTED BY PROJECT *(cities, counties, states, etc.)*:
National

13. PROPOSED PROJECT:

Start Date	Ending Date
April 11, 2000	April 10, 2005

14. CONGRESSIONAL DISTRICTS OF:

a. Applicant	b. Project
15th	15th

15. ESTIMATED FUNDING:

a. Federal	$ 1,250,000 .00
b. Applicant	$ 226,642 .00
c. State	$ .00
d. Local	$ .00
e. Other	$ .00
f. Program Income	$ .00
g. TOTAL	$ 1,476,642 .00

16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?
a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON:
DATE _____
b. NO. ☒ PROGRAM IS NOT COVERED BY E.O. 12372
☐ OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW

17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?
☐ Yes If "Yes," attach an explanation. ☒ No

18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT. THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED

a. Typed Name of Authorized Representative	b. Title	c. Telephone number
Tony G. Waldrop	Chair, Research Board	217-333-2187
d. Signature of Authorized Representative		e. Date Signed

PART II — BUDGET INFORMATION

(Round to nearest dollar)

SECTION A — BUDGET SUMMARY

Grant Program, Function or Activity (a)	Federal Catalog No. (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. SSA	96.007	$	$	$1,250,000	$ 226,642	$1,476,642
2.						
3.						
4.						
5. TOTALS		$	$	$1,250,000	$ 226,642	$1,476,642

SECTION B — BUDGET CATEGORIES

6. Object Class Categories	Grant Program, Function or Activity				
	(1) Year	(2) Year	(3) Year	(4) Year	(5) Year
a. Personnel	$ 220,226	$ 229,035	$ 238,196	$ 247,724	$ 257,633
b. Fringe Benefits	43,153	44,879	46,674	48,541	50,482
c. Travel	26,400	26,400	24,400	18,400	14,400
d. Equipment	61,928	-0-	-0-	-0-	-0-
e. Supplies	59,949	19,862	19,261	15,996	18,259
f. Contractual	400,000	330,000	330,000	330,000	330,000
g. Construction	-0-	-0-	-0-	-0-	-0-
h. Other	142,293	94,790	86,556	84,553	74,581
i. Total Direct Costs	953,949	744,966	745,088	745,214	745,345
j. Indirect Costs	296,051	255,034	254,912	254,786	254,645
k. TOTALS	$1,250,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
7. Program Income	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-

FORM **SSA-96-BK** (4-94)
Destroy Prior Editions

Part II (continued)

SECTION C — NON-FEDERAL RESOURCES

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS
8. SSA	$ 226,642	$	$	$ 226,642
9.				
10.				
11.	$	$	$	$
12. TOTALS (sum of lines 8 - 11)	226,642			226,642

SECTION D — FORECASTED CASH NEEDS

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	$ 1,250,000	$ 312,500	$ 312,500	$ 312,500	$ 312,500
14. Non-Federal	226,642	56,660	56,661	56,660	56,661
15. TOTAL (sum of lines 13 and 14)	$ 1,476,642	$ 369,160	$ 369,161	$ 369,160	$ 369,161

SECTION E — BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) Grant Program	FUTURE FUNDING PERIODS (Years)			
	(b) Second	(c) Third	(d) Fourth	(e) Fifth
16. SSA	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000
17.				
18.				
19.				
20. TOTALS (sum of lines 16-19)	$	$	$	$

SECTION F — OTHER BUDGET INFORMATION

(Attach additional Sheets if Necessary)

21. Direct Charges:	22. Indirect Charges: 53% MTDC (See Budget Justification)

23. Remarks:

Detailed Budget Narrative provided

SECTION G — PERSONNEL

Name and Position Title	Annual Salary Rate	No. Mos. Budg.	% Time	Total Amount Required
	(1)	(2)	(3)	(4)
1. Schiro-Geist, Institute Director	$74,135	9/12	40	$29,654
1. Schiro-Geist, Institute Director	74,135	3/12	100	24,712
2. Broadbent, Project Coordinator	48,000	12/12	25	12,000
3. Feuille, Project Consultant	146,350	1/12	100	13,305
4. Hendricks, Project Consultant	100,000	1/12	100	11,111
5. So, Project Consultant	45,000	1/12	100	5,000
6. Secretary	24,000	12/12	100	24,000
7. Oracle Database Administrator	70,000	12/12	50	35,000
8 2 - Network/webserver administrator(CCSO Unix)	30,000	12/12	20	6,000
9. Data Modeler/Data Architect	70,000	12/12	50	35,000
10. 2 - Graduate Assistant (.50FTE)	12,222	11/12	100	24,444

Fringe Benefits Rate:

Retirement	9.63% of 1-9
Health, Life, Dental Ins.	9.66% of 1-9
Termination Benefits	1.29% of 1-9
Medicare	1.45% of 1-9
Workers' Compensation	.01% of ALL

Total Salaries and Wages	220,226
Total Fringe Benefits	43,153
Fringe Benefits (Rate 22.04%)	
TOTAL	$263,378

SSA Final Year One

Personnel	Tenure Service code	Notes	Annual Salary Rate	No. Mos. Budg.	% Time	SSA	UIUC	Total Amount Required
1) Schiro-Geist, Institute Director	AA		$ 74,135	9	40%	$ 29,654		$ 29,654
1) Schiro-Geist, Institute Director	AA	3 summer months	$ 74,135	3	100%	$ 24,712		$ 24,712
2) Broadbent, Project Coordinator	NY		$ 48,000	12	25%	$ 12,000		$ 12,000
3) Feuille, Project Consultant	NY	1 summer month	$ 146,350	1	100%	$ 13,305		$ 13,305
4) Hendricks, Project Consultant	AA	1 summer month	$ 100,000	1	100%	$ 11,111		$ 11,111
5) So, Project Consultant	AA	1 summer month	$ 45,000	1	100%	$ 5,000		$ 5,000
6) Secretary	NY		$ 24,000	12	100%	$ 24,000		$ 24,000
7) 50% Oracle database administrator	NY		$ 70,000	12	50%	$ 35,000		$ 35,000
8) 2-10% network/webserver administrator (CCSO unix services)	NY		$ 30,000	12	20%	$ 6,000		$ 6,000
9) 50% data modeler/data architect	NY		$ 70,000	12	50%	$ 35,000		$ 35,000
10) 2-50% Graduate Assistant	NY	9 + 2 summer months	$ 24,444	11	100%	$ 24,444		$ 24,444
Sub Total						$ 220,226	$ -	$ 220,226
11) Other Faculty & Staff In-Kind								
Burnam	NY		$ 116,619	12	10%		$ 11,662	$ 11,662
Chambers	AA		$ 53,778	9	5%		$ 2,689	$ 2,689
Collins	AA		$ 45,000	9	5%		$ 2,250	$ 2,250
Crandall	AA		$ 88,554	9	5%		$ 4,428	$ 4,428
Fahey	NY		$ 54,500	12	10%		$ 5,450	$ 5,450
Feuille	AY		$ 146,350	12	5%		$ 7,318	$ 7,318
Gallagher	NY		$ 167,250	12	10%		$ 16,725	$ 16,725
Hendricks	AA		$ 100,000	9	5%		$ 5,000	$ 5,000
Kohlmann	NY		$ 29,406	12	5%		$ 1,470	$ 1,470
Kuehn	AA		$ 77,050	9	5%		$ 3,853	$ 3,853
Lesht	NY		$ 55,000	12	5%		$ 2,750	$ 2,750
Loots	NY		$ 117,055	12	5%		$ 5,853	$ 5,853
Macomber	NB	10 month contract	$ 42,032	10	5%		$ 2,102	$ 2,102
Oakley	AY		$ 150,920	12	3%		$ 4,528	$ 4,528
Olney	AA		$ 45,298	9	5%		$ 2,265	$ 2,265
Proctor	AA		$ 68,347	9	5%		$ 3,417	$ 3,417
Schiro-Geist	AA		$ 74,135	9	10%		$ 7,414	$ 7,414
So	AA		$ 45,000	9	5%		$ 2,250	$ 2,250
Watkin	AA		$ 94,050	9	3%		$ 2,822	$ 2,822
Wolverton	NY		$ 51,095	12	5%		$ 2,555	$ 2,555
Sub Total In-Kind						$ -	$ 96,798	$ 96,798
Fringe Benefits								
Retirement	9.63% of 1- 9 and 11					$ 18,854	$ 9,322	$ 28,175
Health, Life, Dental Ins.	9.66% of 1-9 and 11					$ 18,912	9,350.66	$ 28,263
Termination benefits	1.29% of 1-9 and 11					$ 2,526	1,248.69	$ 3,774
Medicare	1.45% of 1-9 and 11					$ 2,839	$ 1,404	$ 4,242
Workers' Compensation	.01% of ALL					$ 22	$ 10	$ 32
Sub Total Fringe Benefits	22.04%					$ 43,153	$ 21,334	$ 64,487
Total Salaries and Benefits						**$ 263,378**	**$ 118,132**	**$ 381,510**
MATERIALS AND SUPPLIES		**Detail**						
Office Supplies	$ 250	per month				$ 3,000		$ 3,000
Data Process Supplies	$ 180	per month				$ 2,160		$ 2,160
Educ/Instruction Supplies	$ 320	per month				$ 3,840		$ 3,840
Lab/Sci Supplies	$ 160	per month				$ 1,920		$ 1,920
Other Supplies	$ 100	per month				$ 1,200		$ 1,200
Printing						$ 18,519		$ 18,519
Software								
900-Oracle 8i Standard Power Unit Risc 4 Year license						$ 13,500		$ 13,500
NetWorker Module for Oracle, unix client						$ 5,800		$ 5,800
NetWorker Autochanger Module 1-8 slots						$ 1,450		$ 1,450
NetWorker Edition for Unix						$ 5,425		$ 5,425
3-DLT Cleaning Tapes @ $45 ea.						$ 135		$ 135
25-DLT-7000 tapes @ $80 ea.						$ 2,000		$ 2,000
Documentation (vendor and third party)						$ 1,000		$ 1,000
Sub Total Materials and Supplies						$ 59,949	$ -	$ 59,949
TRAVEL								$ -
Advisory Board (6 people)	$1000ea	2 Trips				$ 12,000		$ 12,000
Staff In State	$300ea	4 per year				$ 2,400		$ 2,400
Staff Out of State	$1000ea	6 per year				$ 12,000		$ 12,000
Sub Total Travel						$ 26,400	$ -	$ 26,400

SSA Final Year One

SERVICES					
Conference/Regist Fees	$ 300	per registration	$ 4,800		$ 4,800
Luncheons	$ 25	per person	$ 1,000		$ 1,000
Receptions	$ 15	four for 50 people	$ 3,000		$ 3,000
Postage			$ 6,000		$ 6,000
Mailing Center			$ 2,000		$ 2,000
Freight			$ 500		$ 500
Copying/Duplicating	$ 1,000	per month	$ 12,000		$ 12,000
Photo/Micro Film	$ 200	per month	$ 2,400		$ 2,400
Tolls	$ 700	per month	$ 8,400		$ 8,400
Tele-Conferences	$110/hour	66 hours per year	$ 7,260		$ 7,260
Video-Conferences	$80/hour	12 yr + annual conference	$ 3,200		$ 3,200
Professional/Artistic Serv.	$ 100	per month	$ 1,200		$ 1,200
Web Site Development (per price quote)			$ 26,000		$ 26,000
Meeting Maker	$ 50	18 People	$ 900		$ 900
Equipment repair and maintenance			$ 2,500		$ 2,500
Ehanced hardware/warranty support-hour response time 7x24 parts and labor onsite service for 3 years for both services			$ 1,800		$ 1,800
Server and NOS installation for 2 servers (ServerStart) @ 2,250 ea.			$ 4,500		$ 4,500
On Line Course Preparation (2)				$ 30,000	$ 30,000
Sub Total Services			$ 87,460	$ 30,000	$ 117,460
CONSULTANTS					
Non-affiliate project participants	$5000 ea.	4/year	$ 20,000		$ 20,000
Visiting Scholar Stipends	$800 ea.	8/year	$ 6,400		$ 6,400
Doctoral Stipends	$1000 ea.	20 / year	$ 20,000		$ 20,000
Sub Total Consultants			$ 46,400	$ -	$ 46,400
OTHER DIRECT COSTS					
Tuition Remission			$ 8,433		$ 8,433
SUBAWARDS (Scope of Work)					
Rutgers University			$ 210,000		$ 210,000
Northwestern University			$ 140,000		$ 140,000
University of Chicago			$ 50,000		$ 50,000
Sub Total Subawards			$ 400,000	$ -	$ 400,000
EQUIPMENT					
220R Sun Enterpise Server, one power supply, CD-ROM, Slaris Server License, 10/100 Ethernet			$ 2,852		$ 2,852
2-450 MHz processor modeles with 4 MB cache @ $5,200 ea.			$ 10,400		$ 10,400
2-256 MB RAM (2-128 MB Dimms) @ $1,080 ea.			$ 2,160		$ 2,160
2-Internal 9.1 GB drives, 10,000 RPM UltraSCSI (2drives, to be mirrored) @ $880 ea.			$ 1,760		$ 1,760
2-Dual-channel differential UltraSCSI PCI host adapter @ $864 ea.			$ 1,728		$ 1,728
StorEdge A1000 enterprise expansion rack			$ 13,836		$ 13,836
146 GB disk space (4 internal 36.4 10,000 RPM UltraSCSI disk drives) @ $2,120 ea.			$ 8,480		$ 8,480
72-inch StorEdge expansion rack with 2 power sequencers and cables			$ 4,500		$ 4,500
DLT-7000-based 280GB autoloader plus rackmount kit			$ 8,960		$ 8,960
Redundant power supply			$ 556		$ 556
Ultra 10 Sun Enterprise Server, One 440 MHz UltraSPARC Iii processor with 2-MB cache, 100Mbit ethernet, 256 MB memory, 9.1 internal IDE disk drive, full Solaris 2.7 server license			$ 4,436		$ 4,436
Additional 9 GB 7200 RPM Ultra 10 enhanced ide drive			$ 360		$ 360
2-APC Smart-UPS 2200 V 8-outlet uninterruptible power supply for each server @ $950 ea.			$ 1,900		$ 1,900
Sub Total Equipment			$ 61,928	$ -	$ 61,928
TOTAL DIRECT COSTS			**$ 953,949**	**$ 148,132**	**$ 1,102,081**
INDIRECT COSTS					
53.0% of MTDC *	$ 558,587		$ 296,051	$ 78,510	$ 374,561
TOTAL INDIRECT COSTS			**$ 296,051**	**$ 78,510**	**$ 374,561**
TOTAL BUDGET			**$ 1,250,000**	**$ 226,642**	**$ 1,476,642**

jdb 1/11/00

UIUC as Percent of SSA Total Budgets 15.35%

Disability Research Institute Technology Budget Year 1

	Software (Year 1 expenditures, but upgrades will be required)	Quantity	Each	Total	
	Database Software				
A1	Oracle 8i Standard Power Unit Risc 4 Year license	900	15.00	13,500.00	
	Webserver software				
A2	Apache Webserver version 1.3	n/c		0.00	
	Backup software				
A3	Legato NetWorker Module for Oracle, unix client	1	5,800.00	5,800.00	
A4	Legato NetWorker Autochanger Module 1-8 slots	1	1,450.00	1,450.00	
A5	Legato NetWorker Network Edition for Unix	1	5,425.00	5,425.00	
	Total Software				26,175.00
	Supplies (Years 1-5)				
A6	DLT Cleaning Tapes (Years 1-5)	3	45.00	135.00	
A7	DLT-7000 tapes (Years 1-5)	25	80.00	2,000.00	
A8	Documentation (vendor and third party) (Year 1)	1	1,000.00	1,000.00	
	Total Supplies				3,135.00
	Hardware (Year 1; will need to be replaced or upgraded)				
	Database Server				
A9	220R Sun Enterprise Server, one power supply, CD-ROM, Solaris server license, 10/100 Ethernet	1	2,852.00	2,852.00	
A10	450 MHz processor modules with 4 MB cache	2	5,200.00	10,400.00	
A11	256 MB RAM (2-128 MB Dimms)	2	1,080.00	2,160.00	
A12	Internal 9.1 GB drives, 10,000 RPM UltraSCSI (2 drives, to be mirrored)	2	880.00	1,760.00	
A13	Dual-channel differential UltraSCSI PCI host adapter	2	864.00	1,728.00	
A14	StorEdge A1000 enterprise expansion rack	1	13,836.00	13,836.00	
A15	128 MB disk space (4 internal 36.4 10,000 RPM UltraSCSI disk drives)	4	2,120.00	8,480.00	
A16	72-inch StorEdge expansion rack with 2 power sequencers and cables	1	4,500.00	4,500.00	
A17	DLT-7000-based 280GB autoloader plus rackmount kit	1	8,960.00	8,960.00	
A18	Redundant power supply	1	556.00	556.00	
	Web Server			0.00	

A19	Ultra 10 Sun Enterprise Server, One 440 MHz UltraSPARC IIi processor with 2-MB cache, 100Mbit ethernet, 256 MB memory, 9.1 internal IDE disk drive, full Solaris 2.7 server license	1	4,436.00	4,436.00	
A20	Additional 9 GB 7200 RPM Ultra 10 enhanced ide drive	1	360.00	360.00	
	Other				
A21	APC Smart-UPS 2200 V 8-outlet uninterruptible power supply for each server	2	950.00	1,900.00	
	Total Hardware				61,928.00
	Services				
A23	Enhanced hardware/warranty support - 4-hour response time 7x24 parts and labor onsite service for 3 years for both services (Years 1-3)	1	1,800.00	1,800.00	
A24	Server and NOS installation for 2 servers (ServerStart) (Year 1 only)	2	2,250.00	4,500.00	
	Total Services				6,300.00
	Personnel (Years 1-5; include wage percentage increases)				
A25	50% time Oracle database administrator	0.5	70,000.00	35,000.00	
A26	10% time network/webserver administrator (CCSO unix services)	2	3,000.00	6,000.00	
A27	50% time data modeler/data architect	0.5	70,000.00	35,000.00	
	Total Personnel				76,000.00
	TOTAL IT BUDGET FOR GRANT (YEAR 1)			**173,538.00**	

Rutgers University Disability Research Institute

First Year Core Budget

Initial Year Start-Up Costs for Research Projects			
Ticket to Work (Project #1)	$ 4,275 [1]		
Project #2	10,000		
Project #3	10,000		
Project #4	10,000		
	$ 34,275		**34,275**
Office Expenses			**3,613**
Wages & Salaries			
Monroe Berkowitz, 376 hours @ $62.50	$ 23,500		
Fringe @ 9%	2,115		
John Burton, 10% time at $160,689 p.a.	16,068		
Fringe @ 24%	3,856		
Heather Cammisa, 20% time at $49,405	9,881		
Fringe @ 24%	2,371		
Office Assistant, 100% time at $31,400	31,400		
Fringe @ 24%	7,536		
	$ 96,727		**96,727**
Sub - total			**$ 134,615**
Overhead			
Base for Rutgers University Overhead Calculation		$ 134,615	
Rutgers University Overhead, Base @ 56%			**75,385**
Grand Total			**$ 210,000**

[1] Remainder of 10,000 start-up costs donated by Monroe Berkowitz and John Burton.

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Disability Research Institute
Mary Grace Kovar
Year 1

Period of Performance: January 2000 - December 2000

DIRECT LABOR

STAFF LABOR: 7/10/99	Rate	Hours	Amount
Mary Grace Kovar, Senior/Technical Director	$62.50	194	$12,125
TOTAL STAFF LABOR		**194**	**$12,125**
TOTAL DIRECT LABOR:		**194**	**$12,125**
TOTAL DIRECT LABOR including applicable COLA			$12,610

OTHER DIRECT EXPENSES:

Other Direct Costs			$12,465
TOTAL OTHER DIRECT EXPENSES:			**$12,465**
TOTAL OTHER DIRECT EXPENSES including applicable COLA			**$12,839**
* No COLA is applied to these expenses			
TOTAL OTHER DIRECT EXPENSES ELIGIBLE FOR OVERHEAD			$12,465
^ No overhead is applied to these expenses			
TOTAL DIRECT COSTS:			**$24,590**
TOTAL DIRECT COSTS including applicable COLA			**$25,449**

INDIRECT COSTS:

Staff Fringe	45.00%	$5,675
Network	7.00%	$883
Overhead	46.00%	$14,723
TOTAL INDIRECT COSTS:		**$21,280**

SUMMARY OF ESTIMATED COSTS:

Direct Labor including applicable COLA		$12,610
Other Direct Costs including applicable COLA		$12,839
Indirect Costs		$21,280
TOTAL ESTIMATED COSTS WITHOUT FIXED FEE		**$46,729**
FIXED FEE at:	**7%**	**$3,271**
TOTAL ESTIMATED COSTS WITH FIXED FEE		**$50,000**

BUDGET DETAILS

Mary Grace Kovar, Senior/Technical Director	Hours
Project Oversight	194
Total Estimated hours for Mary Grace Kovar, Senior/Technical Director	**194**

Network Charges	Cost
Network Charges: 7% of Staff and Telephone Interviewer Labor, plus applicable COLA	$883
Total Estimated cost for Network Charges	**$883**

Other Direct Costs	Cost
Usage of NORC facilities for consultation, data processing and meetings	$12,465
Total Estimated cost for Other Direct Costs	**$12,465**

Cost of Living Allowance	Cost
Cost of Living Allowance - Staff Labor at 4.0%	$485
Cost of Living Allowance - Other Direct Expenses at 3.0%	$374
Total Estimated cost for Cost of Living Allowance	**$859**

PART II - BUDGET INFORMATION

(Round to nearest dollar) Allen Heinemann, Northwestern University

SECTION A - BUDGET SUMMARY

Grant Program, Function or Activity (a)	Federal Catalog No. (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. SSA	96.007	$	$	$140,000	$11,398	$151,398
2.						
3.						
4.						
5. TOTALS		$	$	$	$	$

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	Grant Program, Function or Activity (1)	(2)	(3)	(4)	Total (5)
a. Personnel	$ 24,957	$	$	$	$
b. Fringe Benefits	4,991				
c. Travel	2,000				
d. Equipment	1,500				
e. Supplies	1,000				
f. Contractual	70,525				
g. Construction	-0-				
h. Other	3,172				
i. Total Direct Costs	108,145				
j. Indirect Costs	31,855				
k. TOTALS	$140,000	$	$	$	$
7. Program Income	$ -0-	$	$	$	$

FORM SSA-96-BK (10-99)
Destroy Prior Editions

Budget Justification

Personnel:

a. Schiro-Geist Institute Director 40% time academic year, 100% time summer
b. Broadbent Project Coordinator 25% time
c. Three faculty project consultants, one month each
d. Secretary full time 12 months for research related activities specific to DRI that are not part of the administrative support provided by the institution.
e. 50% time data base administrator (for research related activities)
f. Two 10% network administrators
g. 50% Data Architect
h. Two- 50% graduate assistants

Comments:

Direct costs for the Institute Director, Staff and selected researchers are charged to SSA for the administration and research activities of the DRI. As well as, the administration of the facilitation and development of data usage activities. Graduate assistants will be assigned to research and administrative activities as needed.

Faculty and Staff in-kind contributed effort

Faculty and staff of UIUC will contribute between 3 and 10% as an in-kind effort toward the success of the DRI. These activities will include administration, coordination of the facilitation of data usage, training and education activities, and research.

Fringe Benefits

Fringe Benefits will be computed at the University negotiated rate of 22.04%.of 1-9 on personnel and .01% Worker'sComp on 1 through 10

Materials and Supplies

Budget justification for the technology/facilitation of data usage budget is attached. Other materials and supplies include those necessary to maintain the administrative and research functions of the DRI. Printing costs will include the dissemination and training materials

Travel

Travel has been budgeted for DRI administration training and research activities, both in-state and out-of-state, and for the advisory board activities designated by SSA and other external advisors.

Services

Services include the registration fees for DRI staff to attend forum and Mini Forum of Office of Disability, to maintain operation of the DRI offices, provide for receptions connected to training and dissemination activities, to host luncheons for visiting scholars, to maintain regular administrative activities such as mailing, copying, duplicating, phone charges, to provide for teleconferences for executive committee on a regular basis and videoconferences for executive committee with SSA on a regular basis, and the annual Virtual Dissemination Conference in years 1, 3 and 5, as well as upkeep for facilitation of data usage hardware,and website development.

Contributed Costs from the UIUC

Include development of online coursework and services donated by the national Center for Supercomputer Applications. In years 2 and 4, costs for biennial face-to-face conferences will also be taken from this category.

Consultants

Budgeting , stipends for doctoral students and visiting scholars and consultant fees for non-affiliate research project researchers.

Other Direct Costs

Tuition remission is for the two half time graduate assistants.

Sub awards

Three sub awards have been made to Rutgers University, Northwestern University and the University of Chicago. These are all research affiliates of the DRI and have provided detailed budgets for their research activities. Part of the University of Chicago/NORC award will go to maintain office space and activities in Washington for the DRI at the Washington based offices of NORC.

Equipment

Equipment will involve the purchase of two servers, one of which will be a dual processor. Justification for the servers is included as part of the budget Justification for Disability Research Institute technology budget, year 1 which is attached.

The equipment has been recommended to set up the facilitation of data usage activities and will be a one time only expense for the 5 years of the project. Costs are based on fair market value. Costs for the A1000 expansion rack is justified as a one time only purchase which will allow expansion of this space over the 5 years of the DRI.

Total Direct Costs

$ 953,949 from SSA
$ 148,132 from UIUC

$1,102,081 Total Costs

Indirect Costs: At the negotiated rate of 53% of Modified Total Direct Costs

Total Budget

$1,250,000 from SSA
$ 226,642 from UIUC (15.35% contributed/in-kind)

$1,476,642 Total Budget

Comments

The Co-PI's are aware that budgets years 2 through 5 will decrease to $1,000,000 level, and have adjusted subsequent budgets accordingly. Co-PI's are also aware that additional funds may be made available for project activities that is endorses and will, in partnership with SSA, redevelop budgets in all five years. Years 2 and 4 will include redistribution of training and dissemination costs due to the biennial face-to-face conference.

Budget Justification for Disability Research Institute Technology Budget – Year 1

A1: Oracle8i is an industry leading database and is designed for Internet computing. Oracle will provide us the foundation for compatibility with our partners at NCSA as well as a flexible platform to provide advanced security, data availability and information retrieval capabilities. Pricing is for a 4-year license for unlimited users including web access.

A2: Apache web server will tightly integrate with the Solaris operating system to provide security and flexibility as we make data available.

A3-5: Legato Systems' NetWorker backup solution will provide data backup and fault tolerance for both the web server and database server. Pricing includes autoloader and Oracle database modules.

A6-7: Tape system cleaning and backup tapes for data backup; expendable supplies.

A8: Vendor and third-party documentation for developers and technical personnel.

A9-A20: Sun Solaris database server and web server with operating system licenses included. Both systems have industry-standard fault tolerance features, with mirrored system disks on both systems and redundant power supply on the database server.

A21: Uninterruptible power supply units for surge protection and to allow for system shutdown in case of power outage/abnormal cycling.

A23: 4-hour response time 24x7 on-site hardware support contract on a per-year basis; extends warranty on equipment to three years.

A24: Initial server setup and network operating system installation provided by Sun Microsystems, Inc. for web server and database server.

A25: The database administrator will create the physical database structures and be responsible for day-to-day operational support of the database, ensuring data integrity, database availability and performance. Database administrator will provide minimal web server support.

A26: Unix administration services will be contracted annually on an as-needed basis from the Computing Communications Services Office Unix Support Services unit at the Urbana University of Illinois campus. The Unix administrator will provide day-to-day administration of the Solaris operating system and provide web server support.

A27: The database modeler/data architect will be responsible for performing detailed data analysis and developing the dimensional data model, and developing an overall data architecture strategy.

SECTIION III-a - BACKGROUND ANALYSIS

Introduction

This is a Partnership in a New Paradigm. SSA has not totally succeeded in developing a focused research agenda in the past and the Academy has not succeeded in thoroughly researching the issues of disability as defined by SSA. Only through a partnership such as the one proposed in this cooperative agreement can the needs of both communities be met, and the DRI stands ready to be that link. The DRI will be a real Institute where scholars can visit and learn and give and take. The DRI, using the "Boulder" or "scientist-practitioner" model, will partner with SSA. The DRI will provide the science and scholarship, while SSA will provide years of successful practice and experience in adjudicating to disability. As practice informs science, new scientific/research models will inform practice, so the partnership can build new models/paradigms.

The DRI will provide quality research with University of Illinois at Urbana-Champaign as its base and host institution. It will have a solid foundation built on years of rigorous scientific experience. The cornerstone of this partnership will be new paradigms for the facilitation of data usage. A new model of access to secured data will be developed by partnering with the National Center for Supercomputing Applications. These data will be made available to researchers, graduate students and the public, most paraticularly persons with disabilities. Because of the incredible capacity of our NCSA partner, new variables can be created from existing data and existing databases can be facilitated in their articulation with SSA and the vast storehouse of information about persons with disabilities.

UIUC as host also has a wealth of experience in the dissemination, training and educational tasks assigned to the DRI and will partner with our Graduate School of Library

Sciences and Office of Continuing Education in these endeavors. The Institute Director has been in collaborating partnerships with SSA in a variety of roles since 1983 and will lead the Institute by breaking old paradigms about methods and models for research and training. She will partner with her co-principal investigator and the three Associate Directors for Policy, Research and Government Liaison to meet the needs and demands of SSA's newly focused research agenda.

Affiliated partners (Rutgers, the State University of New Jersey; Northwestern University and its Rehabilitation Institute; and University of Chicago's National Opinion Research Council) will join with UIUC researchers to meet the priority needs as defined by SSA. Other collaborating partners will be invited to join the research team to develop new paradigms in answering the important questions which SSA wants answered. Because of the capacity of these institutions and their combined expertise, the new paradigm building will begin with the birth of the DRI. Researchers, trainers, and disseminators stand poised to begin the activities of the DRI as soon as SSA wants the partnership to begin and invites the new focus to evolve.

I. Overview

A. History of Social Security Administration

Coming out of the economic depression of the 1930's, Congress and President Roosevelt enacted the Social Security Act of 1935 providing benefits for needy elderly and individuals who were blind. In 1956, Social Security Disability Insurance (SSDI), Title II, was created through an amendment to the original Act to broaden the benefits available for individuals with disabilities. Supplemental Security Income (SSI), Title XVI, was created in 1974 to provide income assistance for persons with disabilities, who are blind, and aged persons who have limited income and resources regardless of prior participation in the labor force. Jointly, SSDI and SSI are considered "Social Security Disability," the two largest federal programs providing cash

benefits and medical assistance to persons with disabilities. Social Security is considered the most successful domestic program in the history of United States and possibly the most effective antipoverty program ever instituted (Rupp & Stapleton, 1998). Although an extremely successful program in providing for the adults and those with disabilities, the program is extraordinarily expensive, as it has grown to respond to the needs of a changing society with complex issues related to disability.

Disability is a far-reaching issue that has social, economic, political, and medical implications (Ludwig, 1981). Truly, disability is a multifactorial function resulting from the interaction of social and economic aspects of a person's life (Carey, et al 1986). SSA defines disability in a strict sense, within the context of ability to work. Disability has been defined as "an inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or (is) expected to last for a continuous period of not less than 12 months" (Social Security Act, Section 223. [42 U.S.C. 423] (d)(1)). Individuals are considered disabled if they cannot do the work they were able to do prior to their medical condition(s), and SSA decides that they cannot perform other work because of those conditions. The disability must last or be expected to extend beyond a year or result in death (Social Security Act, Section 223. [42 U.S.C. 423] (d)(1)).

Despite the broad definition of disability, its interpretation changes with the social climate. Currently there is a lack of parity for those with mental health issues within the payment system. Public Law 104-121 eliminated Social Security Disability benefits, SSI payments and Medicare and Medicaid eligibility, effective January 1, 1997 for persons for whom drug addiction or alcoholism was a contributing, material factor to their disability. There were

209,374 beneficiaries who were subject to the new legislation in 1997 (Disability Notes, No. 18, Fall, 1997, www.ssa.gov). This legislative action reflects how changes in the definition of disability can have far reaching effects.

B. Application and Adjudication Process

Originally, the process of applying for Social Security Disability benefits involved a five-step sequential process: (1) filing an initial claim, (2) reconsideration, (3) hearing by an administrative law judge, (4) review by the Appeals Council, and (5) federal court review. The application process begins with the initial claim, which examines five aspects of the claimant's functioning: current employment, severity of condition, presence of the applicant's condition in the list of disabling impairments, ability to engage in previous occupational activities, and ability to engage in any other form of work. Given the recent shift in conceptualizing disability based on diseases and impairments to a focus on the functional limitations caused by these factors, the Social Security Administration (SSA) plans to consider functional and vocational criteria in the disability determination process (Social Security Administration, 1996, Research Plan).

The application procedures have not been revised since the development of the SSDI program in 1956, despite tremendous growth in the number of beneficiaries and expenditures (Disability Evaluation Study Design, 1997). The current disability decision process has been criticized for being lengthy, complicated, and resulting in inconsistent decisions that are seemingly subjective in nature (GAO, 1994; 1995, 1996).

In August 1999, SSA issued the Hearings Process Improvement Initiative, a prototype designed to make the hearings process more efficient and customer focused. This initiative introduced a new, more streamlined application process. SSA proposed to eliminate the reconsideration step and to enhance resources available to the claimant at the time of initial

application. Specifically, this prototype will provide opportunities for claimants to interact with the disability decision-maker earlier in the process, particularly when evidence for their initial claim is insufficient for a favorable determination of disability. In the event that an application is denied, the attainment of comprehensive information from claimants through these interactions will ensure that the claim is adequately prepared for a timely review by an administrative law judge. The role of State agency medical and psychological consultants will also be enhanced to improve the decision-making process. Implementation of this prototype is planned for January 2000 in 10 states, which process 20% of the nation's disability applications.

II. Utilization Patterns

A. Historical Trends

The number of working age beneficiaries and total expenditures in benefits has increased dramatically for the SSDI and SSI programs in recent years (Rupp & Scott, 1996; Social Security Administration, 1996, Executive Summary, Report to Congress). The research by Stapleton and associates (1998) shows that the number of applicants for disability benefits, particularly SSDI benefits, ebbs and flows with the overall demand for labor. Between 1989 and 1995, the number of SSDI beneficiaries increased 45% from approximately 2.9 million to nearly 4.2 million people. Similarly, the number of SSI disability beneficiaries grew from 2.1 to 3.4 million, an increase of 62%. The number of SSI recipients has doubled since its inception in 1974 (6.6 million beneficiaries in 1998) and payments in 1997 were five times higher than in 1974 ($26.6 billion in 1997). This expansion resulted from an increase in the number of people entering the program and a decrease in the number leaving the program. The number of applications increased nearly 47% between 1988 and 1992, and, accordingly, the number of awards has steadily increased, peaking in 1991-1992 (Social Security Administration, 1996, Report to

Congress). In addition, termination rates have steadily declined from 12% during 1986-1988 to 9.5% in 1994 (Social Security Administration, 1996, Report to Congress).

Many factors contributing to the growth of the number of beneficiaries have been identified. Changes in the size, composition, and characteristics of the working-age population have played a role (Wunderlich & Kalsbeek, 1997). The increase in benefit recipients is due, in part, to an increase in younger beneficiaries, many of who have chronic mental impairments (Wunderlich & Kalsbeek , 1997). This decrease in the average age of persons with disabilities has resulted in an increase in duration of benefits. Improved chronic disease screening and changes in the types of disabling impairments that are recognized and diagnosed have also led to an increase in recipients (Wunderlich & Kalsbeek, 1997; Pope & Tarlov, 1991). Medical advances in preventing death from life-threatening illnesses and injuries have led to increased numbers of persons with functional impairments (Pope & Alvin, 1991). For example, more than half of the four-year increase in life expectancy between 1970 and 1987 involved time spent with activity limitations (Pope & Alvin, 1991). Increased opportunities for disability compensation have also been cited as a contributing factor (Pope & Alvin, 1991). Structural shifts in the labor market, economic changes in the United States, and cost shifting by states through cuts in locally funded programs have been important factors in increasing the utilization of SSDI and SSI programs. Despite these increases, Wunderlich (1999) examined employment patterns among persons with disabilities over the last few decades and concluded that a substantial number of persons will enter the labor market and maintain employment, given an appropriate economic climate.

B. Current Recipients

As of September 1999, 5.7 million beneficiaries were receiving social security payments on the basis of disability, reflecting 12.9% of total social security beneficiaries (www.ssa.gov). Those receiving payments on the basis of disability included disabled workers (84.1%), disabled adult children (12.5%), and disabled widows and widowers (0.3%). Nearly 9% of beneficiaries were 62 to 64 years of age. Average monthly benefits for disabled workers in September 1999 were $735 per beneficiary. The specific patterns of conditions that lead to disability are complex and difficult to summarize (Pope & Alvin, 1991). In general, young adults most commonly have mobility limitations and middle-aged to older adults experience impairments predominantly due to chronic diseases. Persons with conditions involving the nervous system and sense organs, congenital anomalies, mental retardation, and schizophrenia tend to be beneficiaries for ten years or longer, in comparison to persons with other conditions (Kochhar & Scott, 1998). More than half of the 4-year increase in life expectancy between 1970 and 1987 is accounted for by the increased prevalence rate of those with activity limitations that remain on the disability rolls. (Pope & Alvin, 1991).

C. Projected Use

Given the aforementioned factors contributing to the significant increase in social security beneficiaries and expenditures, it is likely that this trend will continue. The cost of Social Security has risen dramatically over the years. While most of the literature discusses solvency of the retirement benefits of the system, the trends in disability payments suggest that a similar crisis is inevitable for the SSDI and SSI programs, especially as Social Security funds are drawn from the same trust. Interestingly, Snook and Webster (1986) noted that when expressed as a percentage of taxable payroll, the retirement and survivors' costs of the system in 1980 were

almost exactly the same as originally estimated in 1935. The increased costs in SSA are largely due to the SSDI and Medicare benefits added to the program in later years (Myers, 1982; Yelowitz, 1998). Recent legislative changes, such as the Ticket to Work and Work Incentives Act, may help to offset these increasing costs by increasing the number of persons with disabilities in the workforce.

III. Employment and Disability

Although the goal of SSDI and SSI is to replace lost income that results from a physical or mental disability, several studies of these programs have found that the payment may negatively reinforce additional withdrawal from the work force beyond the effects of the disability alone (Rosenheck, Frisman, & Sindelar, 1995). Vocational rehabilitation (VR) has emerged as a key treatment for those with severe psychiatric impairments (Roseheck, Frisman, & Sindelar, 1995) as well as for people with other types of disabilities (Ahlgren & Hammarstrom, 1999). In fact, the Americans with Disabilities Act of 1990 have facilitated return to work and community reintegration in general for those with disabilities as it requires employers to make reasonable accommodations. However, motivation to return to work often wanes with disability payments (Rosenheck, Frisman, & Sindelar, 1995). Other experts believe that this motivational theory is a stereotype and that people are indeed motivated to return to work and benefit from VR (Stolov & Clowers, 1981, Dykacz, 1998). In fact, in one study, individuals with musculoskeletal disorders were more likely to return to work during periods of intensive vocational rehabilitation (Ahlgren & Hammarstrom, 1999). For many, work represents the unifying theme that provides meaning for other areas of life (Ludwig, 1981). Despite this incentive, there is an inherent disincentive within the current payment system: returning to work jeopardizes disability payments and Medicare benefits. While it is intuitive that return to work

and income should obviate the need for disability income, individuals' ability to secure employment with sufficient salary and benefits and readiness to maintain that job is a careful balancing act that many fear (Hennessey, 1997). These incentives perpetuate beneficiaries' dependency on disability payments. In fact, many analysts purport to show that social service payments in general and disability benefits in particular create a disincentive for work by replacing a relatively high proportion of earnings with disability compensation (Parsons, 1980, Chirickos & Nestel, 1984, Anderson & Burkhauser, 1985).

Several initiatives to decrease dependency on disability payments have been taken by the Administration. Through the Ticket to Work and Work Incentives Improvement Act of 1999, Congress demonstrated its commitment to VR and employment services for persons with disabilities, and acknowledges their self-sufficiency in selecting vendors. Innovations in disability determination have been embraced by the Administration by using the Department of Labor's (DOL) listing of occupational titles, the *Dictionary of Occupational Titles* (DOT). The DOT is being translated into a database system of job characteristics and worker attributes. The database is called O*Net and is expected to replace the DOT to become the nation's primary source of occupational information. Although, it will have far reaching applicability for SSA, the O*Net is still in prototype phases and it not used by disability adjudicators for disability decisions (Disability Notes, No.22, Summer 1999, www.ssa.gov).

IV. Summary and Primary Research Themes for Proposed Institute

SSA's Office of Research, Evaluation and Statistics (ORES) and two new offices [Retirement (ORP) and Disability and Income Assistance Policy (ODIAP)], provides an opportunity for greater policy leadership and understanding of SSDI and SSI policies. In addition, four major research projects of the Social Security Administration:

(1) **The Disability Evaluation Study (DES)** also known as the "National Study of Health and Activity (NSHA). The NHSA is a national survey of working age adults age 18-69 years old. Its goal is to better understand the relationship between disability and other parts of every day life such as work, family, community and access to health care. This 45-month project was awarded to Westat, a research firm in Rockville, Maryland, in December 1998. The pilot study and data collection begins early in 2000. The proposed Disability Research Institute could use this data for secondary data analysis to further the investigation disability and work-related issues.

(2) **Return-to-Work Demonstrations** are pieces of legislation requiring SSA to design and implement demonstrations to improve the work incentives in the SSDI program. The Senate bill (S.331) was signed into law on Friday, December 17, 1999. This law has provisions for individuals to retain Medicare after securing a higher paying job and for a buy-in program for Medicare (Washington Post, December 18, 1999, www.washingtonpost.com). Another goal of return-to-work legislation is to support earlier vocational rehabilitation services through programs like the Ticket to Work and Work Incentives Improvement Act.

(3) **Disability Research Institute (DRI)** is the focus of the current proposal. This program is designed to examine key policy areas in disability, particularly by disseminating important findings of research conducted using SSA data, training scholars in disability research and cooperating in finding avenues to disseminate SSA administrative data with interested researchers.

(4) **Work Incapacity and Reintegration Study (WIR)** is a large multi-national study of work incapacity and reintegration that is being conducted through the International Social Security Association. It involves the United States and five other countries (Germany, Denmark,

Sweden, Israel and the Netherlands). The goal of this study is to examine the ways in which different interventions by social security and health care systems affect work resumption patterns, and if so, which of the interventions are the most successful (Current Research Projects, www.ssa.gov, updated 12/13/99).

Summary

In summary, the Social Security Administration's disability programs serve a vital role in society. Our nation is at a crossroad: It is essential that we invest in research designed to examine the disability programs and ensure that these programs are designed effectively to improve the lives of Americans with disabilities. The proposed Disability Research Institute (DRI) will conduct research, help integrate and synthesize information from a number of recent initiatives, and disseminate research results to a variety of audiences. The work proposed as part of this DRI by the University of Illinois and its collaborators is designed to address the pressing need for knowledge about disability, labor policy, and the changing nature of work. This Institute will help fill the need for more extensive research in disability for policymakers around the country.

SECTION III-b - RESEARCH

What follows will be the Research Plan for the Institute. Included in Appendix F is the Overall Time Plan for the DRI which includes the timeline for the Research Plan. The projects have been chosen because they focus on the three priorities set forth by SSA. While each priority is addressed in some fashion, the focus of the eight projects featured for year one, if SSA agrees with the DRI to feature these research projects, is one of Partnership in a New Paradigm.

New trends in the nature of disability and understanding emerging disability groups employment outcomes in a mature economic environment and new work arrangements are featured as responses to priority one, as well as how disability benefits effect labor supply

decisions in a healthy economy. Towards a new paradigm, vocational rehabilitation services and their effect on workforce participation are measured in priority two. The ultimate in new paradigm building will be the first attempt to scientifically study the newest piece of federal disability legislation – "Making the Ticket Proposal Work."

Partnership will be emphasized in the development of the third priority by reviewing the factors which hold weight in disability determination decisions and is a focus on one of the most difficult issues for our SSA partner, barriers to employment for persons with mental impairments. Of the remaining six studies proposed for future funding, the partnership focus will include a focus on the needs of youth and the poor or near poor.

Introduction to the Research Plan

The research projects of this DRI are designed to fulfill our goals to be an Institute that (1) helps fill the need for more extensive research in the disability area for policymakers around the country, (2) informs the public and policymakers about disability policy alternatives and their consequences, (3) strengthens the Administration's research capacity, and (4) serves as a national resource fostering high quality research, communication, and education. The proposed projects demonstrate our capacity to plan, initiate, and maintain a research program of higher caliber.

The research projects, numbered according to the priorities published in the RFA are included in Table 1.

R1a. Trends in the Nature of Disability and the Composition of the Population of those with Disabilities, conducted by Drs. Thomason, Butler and Kruse from Rutgers University, will examine trends in the nature of disability, the composition of the disabled population, and the incidence of SSDI and SSI beneficiaries. This project will provide more accurate information to

Table 1

Priority Research Area	PI, Project Title Affiliation
1. The Interrelationship Between and Potential Impacts on: (1) Advancements in Technology and Medicine, (2) the Requirements of Work, (3) the SSDI and SSI Programs; and Persons with Disabilities	
• Trends in the nature of disability and the composition of the disabled population (e.g., types of impairments, the extended reliance of disabled adolescents and adults on disability income security programs and increases in the volume of disability benefit awards to younger persons)	R1a: Thomason, Butler, Kruse: ***Trends in the Nature of Disability and the Composition of the Population of People with Disabilities*** Rutgers University R1b: Hallock, Hendricks: *The Effect of SSDI on Labor Market Outcomes* U Illinois Urbana
• Changes in technology, the labor market and the nature of work; and the potential effects of these changes on work disability in the future	R1c: Yelin: *Employment Outcomes for Persons with Disabilities in a Mature Economic Environment* U California San Francisco R1d: Schur, Kruse: ***New Work Arrangements and Disability Income*** Rutgers University
• Types of assistance from public programs that could be made available to persons with disabilities to help them sustain a maximum level of independence	R1e: So: ***Disability Benefits as Household Income and Labor Supply Decisions of Household Members*** U Illinois Urbana
2. The Effects of Rehabilitation and Other Support Services on: The Proportion of Persons With Disabilities Who Continue Working or Reenter the Workforce, and the Effects on the SSDI and SSI Programs	
• Relationship of treatment (e.g., improving functioning via social, vocational, medical treatment; compliance with prescribed treatment; identifying person who might benefit from appropriate treatment, etc.) to return-to-work of persons with disabilities	R2a: Menz: ***Comparative Impact of Community-Based Vocational Rehabilitation Services on Workforce Participation and Social Security Participation*** U Wisconsin Stout
• Employment strategies (e.g., methods of early intervention for persons with disabilities, providing short-term or interim disability payments, job accommodations, case management,	R2b: Burton, Berkowitz, Thomason: *Graduated Return-to-Work Benefits* Rutgers University

• etc.) that may influence the work patterns of persons with disabilities	R2c: Berkowitz, Burton: ***Making the Ticket Proposal Work*** **Rutgers University** R2d: Olson, Feuille: *The Impact of SSI Eligibility Changes on Labor Supply of Workers with Disabilities* U Illinois Urbana
• The interaction of rehabilitation and other support services (including Vocational Rehabilitation and Unemployment Insurance Benefits), the effects of individual motivation, and the availability of work on the decisions of persons with disabilities to maintain employment or to apply for SSDI and SSI benefits	R2e: Martocchio: *Predicting Lost Work Time Among Back Pain Sufferers According to Demographic and Work History Factors* U Illinois Urbana R2f: Johnson: *The Impact of Disability Insurance Receipt on Family Outcomes*
• Effectiveness of Vocational Rehabilitation (VR) services (e.g., the best point in time during the course of disability to provide VR, usefulness and shortcomings of VR in assisting persons with disabilities to maintain their current job or be retrained for new work, awareness and utilization of VR services by persons with disabilities, success of VR relative to disability diagnosis, etc.)	R2g: Kundu: *Predicting Effectiveness of Vocational Rehabilitation Services Provided to Social Security Recipients* Southern University
3. The Interaction Between and Impact on: Medical, Functional and Occupational Factors; and Disability Determinations for Purposes of Entitlement to SSDI and SSI Benefits	
• Current and future methods of measuring function and comparisons between and future functional requirements of work	R3a: Heinemann, Kovar: ***Medical, Functional and Occupational Factors in Disability Determination*** Northwestern University U Chicago/NORC
• Occupational demand constructs to replace the Department of Labor's Dictionary of Occupational Titles, which is currently used to measure occupational demands in SSA's disability decision process	
• Characteristics of individuals with borderline and severe mental and physical impairments who work	
• Barriers to employment for persons with mental impairments	R3b: Mechanic: ***Research Program on Barriers to Employment among Persons With Mental Impairments*** Rutgers University

forecast program costs, and provide information that may used in the evaluation of public policy, particularly with respect to the coordination of benefits for persons with disabilities.

R1b. The Effect of SSDI on Labor Market Outcomes, conducted by Drs. Hallock and Hendricks at the University of Illinois, will evaluate the effect of SSDI on labor market outcomes for a wide variety of individuals and draw comparisons between those who are granted benefits and those who are not. Using new sources of merged SSA data with large publicly available data sources in the U.S., they will explore the effects of SSDI on women and non-white persons.

R1c. Employment Outcomes for Persons with Disabilities in a Mature Economic Environment, conducted by Drs. Yelin and Trupin at the University of California at San Francisco, will assess the impact of medical and demographic characteristics of persons with and without disabilities, the nature of their work, and the state of the economy on employment outcomes. They will assess the factors affecting labor force participation and transitions into and out of employment among persons with and without disabilities, and describe the risk factors among the employed for poor labor market outcomes.

R1d. New Work Arrangements and Disability Income, conducted by Drs. Schur and Kruse at Rutgers University, will investigate the participation of people with disabilities in contingent and flexible work arrangements, the reasons for such work, the individual and job characteristics of those involved in such work, and the relationship to SSI, SSDI, and other sources of income. They will also review the outcomes and issues raised in ADA and Rehabilitation Act lawsuits brought by contingent workers with disabilities.

R1e. Disability Benefits as Household Income and Labor Supply Decisions of Household Members, conducted by Dr. So at the University of Illinois, will investigate the incentive effects of disability benefits on the joint decisions of persons with disabilities and their household

members to enter, exit or change the level of effort supplied to the labor force. The proposed empirical work will consider the effects of SSDI receipt on household labor supply decisions across households with different disability risk profiles.

R2a. Comparative Impact of Community-Based Vocational Rehabilitation Services on Workforce Participation and Social Security Participation, conducted by Dr. Menz at the University of Wisconsin, will estimate changes in labor force participation and Social Security participation subsequent to rehabilitation services, determine the utility of SSA administrative data and field collected data for evaluating these services, and estimate the validity of self-report labor force participation and Social Security participation measures that are used in research.

R2b. Graduated Return-to-Work Benefits, conducted by Drs. Burton, Berkowitz and Thomason of Rutgers University, will evaluate the Graduated Return-to-Work Disability Benefits that are authorized by the Ticket to Work and Work Incentives Improvement Act. They will analyze benefits in other disability programs that are similar to the new benefits in order to assist SSA specify variants of graduated benefits that will be used in the demonstration projects and to design the data system used to monitor and evaluate those projects.

R2c. Making the Ticket Proposal Work, conducted by Drs. Berkowitz and Burton of Rutgers University will examine several aspects of the ticket proposal that is designed to facilitate the return to work of SSDI and SSI beneficiaries. They will identify optimal methods of payment to providers, review the adequacy and efficacy of providers of rehabilitation services, and identify ways to making the dispute resolution process work efficiently, effectively, and equitably.

R2d. The Impact of SSI Eligibility Changes on Labor Supply of Disabled Workers, conducted by Drs. Olson and Feuille of the University of Illinois, will examine the impact of the

changes that eliminated SSI coverage persons for whom drug addition and/or alcoholism was a contributing factor. Since the elimination of benefits for these SSI recipients was the result of a change in the definition of disability, this provides an ideal natural experiment for estimating how changes in disability programs affect the labor supply decisions of disabled workers.

R2e. Predicting Lost Work Time Among Back Pain Sufferers According to Demographic and Work History Factors, conducted by Dr. Martocchio of the University of Illinois, will identify the characteristics of individuals with disabilities due to back pain and compare them with individuals whose claims for disability benefits were rejected, including demographic factors and work history factors, and examine the relationship between these factors and work time lost.

R2f. The Impact of Disability Insurance Receipt on Family Outcomes, conducted by Dr. Johnson at the University of Illinois, will examine the impact of receipt of SSDI on the families of individuals with disabilities including factors such as divorce and separations, and child outcomes such as school performance and behavioral difficulties. He will identify the characteristics of families that have the most economic and familial stability, the features of the benefit system that are effective in helping families, and relationships in benefit receipt across generations.

R2g. Predicting Effectiveness of Vocational Rehabilitation Services Provided to Social Security Recipients, conducted by Dr. Kundu of Southern University, will evaluate the relationship between demographic characteristics and work history, replicated in each of the 10 SSA Regions. This project will identify factors that determine the effect of rehabilitation services on consumers and enhance the proportion of persons with disabilities who continue working or re-enter the workforce.

R3a. Medical, Functional and Occupational Factors in Disability Determination, conducted by Drs. Heinemann and Kovar at Northwestern University and the National Opinion Research Center, will evaluate the medical, functional and occupational factors that affect disability determinations by the Social Security Administration. The investigators will sample disability applications from three recent years, evaluate the extent to which ratings of medical and functional severity cohere to define reliable measures, and analyze claimant data so as to answer specific research questions, such as: What is the nature and quality of information available to make disability determinations? When does this information become available?

R3b. Research Program on Barriers to Employment among Persons With Mental Impairments, conducted by Dr. Mechanic at Rutgers University, will examine barriers to employment among persons with mental impairments. Objectives are to examine barriers to employment, examine how mental illness complicates physical illness to increase risk of unemployment, and describe factors that ameliorate risk for unemployment.

In summary, these projects will fulfill the purposes and goals of the RFA, and enable a more complex understanding of how disability, health policy, economic issues and vocational rehabilitation relate in affecting employment and benefits decisions.

Human Subject Protection: The Institutional Review Boards of the sponsoring organizations will review and approve all projects before work commences. No risk to human subjects is anticipated given that only archival data will be used. Identifiers will be stripped from records after files are merged. Only staff that are authorized to participate in the studies will have access to project data. Paper copies of data will be kept in locked cabinets; computer records will be password protected to assure data security.

The Projects

R1a: Trends in the Nature of Disability and the Composition of the Population of People With Disabilities

The purpose of this project is to examine trends in the nature of disability, the composition of the disabled population, and the incidence of Social Security Disability Insurance (SSDI) and Social Security Income (SSI) beneficiaries. Our emphasis will be on the interaction of other social insurance programs – and, in particular, workers' compensation – with the SSDI and SSI programs. This project will provide the SSA with more accurate information to forecast program costs. We also seek to provide information that may be used in the evaluation of public policy, particularly with respect to the coordination of benefits for disabled persons.

Principal Investigators: Terry Thomason, PhD, Richard J. Butler, Ph.D. and Douglas Kruse, Ph.D.

Background and Significance: The number of applications and awards for Social Security disability benefits have fluctuated dramatically over the past 30 years. SSDI and SSI awards more than doubled between 1982 and 1995, although they have declined somewhat in both programs since then.

SSDI and SSI applications are affected by the availability and generosity of other sources of income or medical benefits for disabled persons. These include both public and private programs that pay income replacement benefits to persons with a temporary disability; public and private health insurance programs that provide medical benefits; private insurance programs that pay long-term disability benefits; and general assistance programs, such as Temporary Assistance to Needy Families (TANF), that pay means-tested income benefits to persons with limited income.

Workers' compensation, as the second largest source of benefits for people with disabilities, and SSDI serve overlapping, although not identical populations. There is evidence indicating that workers' compensation claimants have persistent health problems that may eventually result in SSDI benefits (Baldwin and Johnson 1998; Butler, Johnson, and Baldwin 1995). The payment of SSDI and workers' compensation benefits has been coordinated since 1965. Specifically, combined income replacement benefits are limited to 80 percent of the claimant's pre-injury wage. Initially, states could offset workers' compensation benefits with SSDI payments (called a "reverse offset"). However, in 1981 Congress eliminated this option for all but about a dozen states that had passed reverse offset legislation by that time, requiring that SSDI benefits be reduced (or offset) by workers' compensation payments in the remaining states.

Since either type of offset reduces the added value of an SSDI application to a worker receiving workers' compensation benefits, disabled workers' incentives are diminished. However, the worker should be indifferent as to whether workers' compensation payments reduce SSDI benefits or whether a "reverse offset" applies.

Employers' incentives will be affected by the nature of the offset. Both SSDI and workers' compensation are funded by a payroll tax, although the nature of the tax differs between the two programs. While the SSDI tax is the same fixed rate for all employers, workers' compensation assessments are linked to benefits paid to the firm's employees, so that as benefit payments increase, so do employer costs. This institutional feature provides employers in "reverse offset" states with an incentive to encourage SSDI applications by their work-disabled employees. Employees in other states have no such incentive. Consequently, to the extent that employers can provide information to disabled employees or to otherwise facilitate the application process, the SSDI application rate

should be greater in "reverse offset" states than in states where workers' compensation benefits offset SSDI.

Other institutional features of workers' compensation are also likely to affect SSDI applications and awards. Many states limit the duration of workers' compensation benefits for permanent partial or permanent total disability. Due to offset provisions, these limitations will affect the attractiveness of an SSDI application. SSDI applications may also be affected by potential workers' compensation disability pay, which varies greatly by state.

Finally, permanent disability workers' compensation claims are often resolved with compromise and release (C&R) agreements, whereby claimants accept a lump sum settlement and, in exchange, release the employer for further liability for the claim (Thomason, Hyatt, and Roberts 1998; Thomason 1991; Thomason and Burton 1993). While the offset provisions also apply to lump sums, SSA rules allow the parties some discretion in fixing the pro-rated periodic amount that is applied to the 80 percent cap. Increasingly, the parties to the workers' compensation dispute have manipulated this pro-rated periodic payment so that there is little or no reduction in the SSDI benefit. As a result, in 1997 the SSA proposed a revision in their rules respecting the pro-ration of lump sum settlements. We can expect to find that workers' compensation claimants will be differentially affected by these rules, since some states either limit or prohibit lump sum settlement of workers' compensation claims.

Central Issues and Their Relationship to SSA Priorities: This project addresses Priority Research Area 1. Specifically, this study is designed to examine trends in the nature of disability and the composition of the disabled population.

Summary of Preliminary Studies: Two of the investigators (Butler and Thomason) have extensively studied the incentive effects of workers' compensation benefits on program

utilization, including the effect of benefit levels on workers' compensation claim rates (Butler 1983; Butler and Worrall 1983; Butler and Worrall 1991; Thomason and Pozzebon 1995; Durbin and Butler 1998), claim duration (Butler and Worrall 1985; Johnson, Baldwin, and Butler 1995), and the probability of permanent disability (Thomason 1993a; Thomason 1993b; Worrall, Durbin, Appel, and Butler 1993). Butler and Thomason have also investigated the effect of experience-rated workers' compensation premiums on employer behavior (Butler and Worrall 1988 and 1991; Durbin and Butler 1998; Thomason 1993; Thomason and Pozzebon 1999; and Hyatt and Thomason 1999). Thomason has examined aspects of permanent disability compensation by workers' compensation programs relevant to this proposal, including lump sum settlements (Thomason 1991, 1993a, and 1993b). Butler has studied cost-shifting by health maintenance organizations to workers' compensations (Butler, Hartwig, and Gardner 1997).

Kruse has compared the incomes, labor market experience, and health care use of disabled and non-disabled persons using data from the Survey of Income and Program Participation (Kruse 1997 and 1998) and examined the impact of new information technologies on the employment and earnings of people with disabilities (Krueger and Kruse 1995). Butler has examined workers' compensation claim trends as a function of demographic characteristics, labor market conditions, and compensation benefits (Butler 1994) using state-level data. Thomason has conducted a similar investigation using province-level Canadian data (Thomason and Hyatt 1997).

Objectives: This purpose of this project is to: (1) compile basic information from existing data sources on the extent and nature of the disabled population in the United States and the changes that have occurred in this population over the last several decades; (2) explain the changes that have occurred in SSDI and SSI participation by disabled persons in the 1980s and 1990s, and (3)

examine how changes in SSDI and SSI participation have affected the growth in disability benefits.

With respect to the second objective, a major focus of this project will be to examine the effect of other income maintenance and medical benefit programs on the incidence of SSDI and SSI applications and awards. We are particularly interested in determining the extent to which employers and insurers shift costs from the workers' compensation program or employer-sponsored disability and health-care insurance to the federal SSDI program.

Methods: A three-part research strategy is proposed:

First, existing data sets – including the National Health Insurance Survey (NHIS), the Survey of Income and Program Participation (SIPP), and the Current Population Survey (CPS) will be used to estimate trends in the extent and composition of the disabled population for the period 1970 to 1998 to provide baseline information about trends in the size and characteristics of the pool of disabled persons.

The second part of the project involves the development of econometric models predicting (1) the incidence of applications and awards, and (2) the transition into the SSDI or SSI disability benefit programs. Both models will focus on interactions between SSDI and SSI and income maintenance and medical benefit programs. The SSDI/SSI applications and awards model will be developed using state-level tabulations from two data sources: (1) initial determinations and allowances made by state Disability Determination Services taken from SSA administrative records and (2) applications and awards from the SSA's Disability Research File.

To this end, the state-level SSDI and SSI applications and awards data will be supplemented with measures of benefit generosity and institutional features of other income maintenance and medical benefit programs, as well as other relevant variables, such as the occupational injury rate

and employment composition by industrial sector. Workers' compensation program variables will include benefit levels for permanent disability as well as statutory information on workers' compensation eligibility rules, duration limits on permanent total and permanent partial disability benefits, and limits on the ability to terminate future liability with a lump sum settlement. An attempt will be made to develop state level measures of expected benefit levels (and other pertinent institutional information, such as eligibility criteria) for other income maintenance and medical benefit programs, as well.

Econometric models estimating transitions into SSDI or SSI would be developed using the SIPP and March supplement to the CPS. Use of these data sets will allow us to include individual-level variables – including demographic characteristics, prior labor market experience, and information concerning health and disability insurance coverage – in our models.

The third part will combine information on the extent of disability and the composition of the disabled population with the results of the econometric models to forecast SSDI benefit costs under alternative public policy assumptions.

Work Plan/Timetable: 1. Collect survey and administrative record data (*months 1-2;* Obtain baseline estimates of the extent of disability *(months 3-4);* 3. Develop econometric models and analyze data *(months 5-8);* 4. Develop forecasts *(months 9-10;* 5. Prepare report *(months 11-12).*

Future Research and Policy Implications: The results of our research should provide assistance to the SSA in projecting costs of SSDI and SSI benefits over the near term, under a variety of scenarios with respect to economic conditions and public policy options. We will specifically provide the SSI with information on the interaction of other benefit programs for persons with disabilities and changes or growth in SSA beneficiary rolls.

R1b: The Effect of SSDI on Labor Market Outcomes

The purpose of this research program is to evaluate the effect of SSDI on labor market outcomes for a wide variety of individuals. We will document characteristics of individuals who are applying for disability benefits, and will draw comparisons between those who are granted benefits and those who are not. Using new sources of merged SSA data with large publicly available data sources in the U.S., we will be able to estimate the effects of disability benefits on the labor supply of men. Given the expanded data sources, we will also be able to explore the effects of SSDI on two populations that have received little attention: women and non-whites. Also, these data along with newer statistical techniques will allow us to explore whether the effects of disability benefits vary by recipients' position in the income distribution. We expect that by using these new merged data, that we will have a clearer view of the effects of SSDI on workers' outcomes and these findings will provide important insight into the growth of the program given anticipated changes in the U.S. population.

Investigators/Personnel: Kevin Hallock, Ph.D. (Co-PI) and Wallace Hendricks, Ph.D. (Co-PI).

Work Plan/Timetable: We expect that the project will take three years: 1. Formally set schedule and define specific data sources for data collection (months 1 -6); 2.Collect and merge data (months 7-24);3.Analyze Data (months 25-36);4. Begin writing papers (months 30 – 36); 6. Disseminate Results at Conferences etc. (months 33 – 36 and beyond).

Future Research and Policy Implications: Future research could include the effects of changes in the workforce (in terms of demographics and how jobs will change to better fit workers needs) will influence SSDI and other programs. Several of our objectives outlined in this proposal including more carefully understanding the differences between those granted and denied benefits and the labor market effects of SSDI will be crucial to this future work.

R1c: Employment Outcomes for Persons with Disabilities in a Mature Economic Environment

The proposed project addresses Priority Research Area 1, the inter-relationship between and potential impacts on 1) advancements in technology and medicine; 2) the requirements of work; and 3) the SSDI and SSI Programs and persons with disabilities. The principal aim of the project is to assess the impact of medical and demographic characteristics of persons with and without disabilities, the nature of their work (including employer accommodations), and the state of the economy on employment outcomes. Specifically, the project will: 1) assess the factors affecting labor force participation and transitions into and out of employment among persons with and without disabilities and, 2), describe the risk factors among the employed for poor labor market outcomes, including involuntary part-time employment, episodic employment, and employment that leaves individuals and their households with a poverty-level income.

The rationale for the project is that relatively few persons with disabilities re-enter employment after enrollment in Social Security Disability Insurance. Therefore, helping such individuals maintain employment must be an important public policy focus for the SSA, even as we seek to increase the proportion of beneficiaries who do leave the rolls for work.

The proposed project makes use of an existing database, The California Work and Health Survey (CWHS). The CWHS is a panel study of working age Californians residing in the community and sampled through random digit-dialing, augmented by oversamples of African-Americans, Asian-Americans, and persons with disabilities. After the first year of the proposed project, we will consider increasing the number of CWHS respondents with disabilities to improve the reliability of estimates about such persons with disabilities associated with the most common chronic conditions.

The analyses for the proposed project are designed to show the extent to which persons with discrete disabilities are able to secure and maintain employment, and to describe the combination of occupations, industries, and working conditions that maximize their labor market success.

Principal Investigators: Edward Yelin, Ph.D. (PI) and Laura Trupin, MPH (Co-PI)

Background and Significance:

Central Issues and Their Relationship to SSA Priorities: The proposed project addresses Priority Research Area 1, the inter-relationship between and potential impacts on 1) advancements in technology and medicine; 2) the requirements of work; and 3) the SSDI and SSI Programs and persons with disabilities. The fundamental problem with which it is concerned is low labor force participation rates among persons with disabilities (Yelin and Katz, 1994; Trupin, et al, 1997b;Yelin and Trupin, 2000a). As this proposal is written, President Clinton has just signed into law The Work Incentives Improvement Act of 1999 (WIIA) (Gearan, 1999). The WIIA seeks to redress low rates of return to work among SSDI and SSI beneficiaries (Rupp and Scott, 1998) by allowing them to procure rehabilitation services of their choosing and retain health coverage. Many analysts argue that the disability programs also create an incentive for those who are employed to stop doing so because the benefits replace a high proportion of earnings (Parsons, 1980; Anderson and Burkhauser, 1985; Chirikos and Nestel, 1984); other analysts find only small work disincentive effects (Haveman and Wolfe 1984a,b; Yelin, 1986; Bound, 1989).

However, factors beyond the impact of disability compensation programs also play a role in determining whether persons with disabilities work. Our understanding of these factors has evolved over time (Brandt and Pope, 1997). Initially, most analysts adhered to a medical model:

individuals developed medical conditions or impairments of a certain severity and the cessation of employment necessarily ensued (AMA, 1958; Berkowitz, 1987). However, later research indicated that demographic factors were far more influential in determining whether an individual with a medical condition or impairment stopped working (Berkowitz, et al., 1976; Levitan and Taggart, 1977). Subsequently, it was shown both that the nature of working conditions (Haber, 1971; Nagi, 1976; Yelin, et al., 1980; Murphy, 1991) and, on the macroeconomic level, the evolution of the industrial mix (Yelin, 1992) affect the probability that persons with disabilities will be able to secure and maintain employment. In recent years, an increasing share of persons with disabilities have cognitive and/or mental health conditions (Chirikos, 1986; Chirikos, 1993). Such persons may have difficulty doing many of the jobs that are available because the fit between their impairments and the requirements for communication and coordination with colleagues is poor. Discrimination against persons with disabilities remains another strong factor in their employment (Johnson and Lambrinos, 1985).

Labor market analysis indicates that individuals with characteristics that jeopardize their employment – members of racial minorities, women, older persons – are prone to a last hired, first-fired phenomenon (Reskin and Roos, 1990). In two cross-sectional (Yelin, 1992; Trupin, et al. 1997b) and one longitudinal study using the CWHS (Yelin and Trupin,1999) the investigators have shown that this dynamic affects persons with disabilities as well. The results are consistent with the study by Stapleton, et al. (1998) showing that the application rate for SSDI benefits ebbs and flows with the demand for labor.

Although the results of these studies would appear to show that the labor market success of persons with disabilities is tied to the overall demand for labor, several important issues remain to be explored. First, how do persons with disabilities associated with specific chronic

conditions and impairments fare in rapidly expanding and contracting industries? For example are persons with mental health conditions obtaining jobs in high tech industries and losing them from manufacturing ones? Are persons with disabilities disproportionately relegated to jobs in rapidly expanding sectors that offer poor working conditions, including low pay? Within specific expanding industries (for example, internet-related companies), are persons with disabilities obtaining a disproportionate share of poorly remunerated jobs? What is the work history of such persons once employed and how does their history compare with that of persons without disabilities hired at the same time and with similar background and training? The CWHS is uniquely suited to address these issues because of the longitudinal nature of the data, oversample of persons with disabilities, and thorough coverage of the work history, current employment, and health status of the respondents.

Summary of Preliminary Studies:

Disability Policy Studies: The principal investigator for the proposed project has been researching issues related to the employment of persons with disabilities for two decades. In his initial work in this area, he developed models of the role of the micro-environment of the workplace on the probability that persons with discrete chronic conditions would stop working (Yelin, et al., 1980; Yelin, et al., 1987; Yelin, 1992). Subsequently, he demonstrated that the employment prospects of persons with disabilities were tied to the changing demand for labor across sectors of the economy (Yelin, 1992).

More recently, the principal and co-principal investigators have been testing some of the precepts of dual labor market theory by evaluating the impact singly and in combination of characteristics thought to place individuals at risk for poor employment outcomes, including gender, race, age, and disability status (Trupin, et al., 1997b; Yelin and Trupin, 2000b).

In addition to conducting numerous studies related to the employment of persons with disabilities, the principal investigator has served on two Institute of Medicine committees involved in various aspects of disability policy and has been a consultant to numerous governmental and advocacy organizations in this area. In recognition of his research on employment among persons with chronic disease and disability, he was recently elected to the National Academy of Social Insurance.

Survey Design, Data Management, and Data Analysis: Because of his interest in the impact of chronic disease and disability on employment and his expertise in running panel studies (Yelin, et al., 1985; Yelin, et al., 1996), Dr. Yelin was asked by The California Wellness Foundation to launch the CWHS, the data source for the proposed project. The Co-Principal Investigator, Ms. Trupin, has joint training in epidemiology and biostatistics. She is an expert in the analysis of large survey databases, expertise which is used in the design, implementation, and analysis of the CWHS.

Study Objectives: The proposed project addresses Priority Area 1. The principal aim is to assess the impact of medical and demographic characteristics of person with and without disabilities, the nature of their work (including employer accommodations), and the state of the economy on employment outcomes. Specifically, the project will: 1) assess the factors affecting labor force participation and transitions into and out of employment among persons with and without disabilities and, 2), describe the risk factors among the employed for poor labor market outcomes, including involuntary part-time employment, episodic employment, and employment that leaves individuals and their households with a poverty-level income. The project will have a special focus on the impact of the special features of the California economy on persons with disabilities, encapsulated on the micro level by the emergence of just-in-time employment

arrangements and on the macro-level by the fast growth of high tech industry – computer and internet-related industry and biotechnology.

Methods: In the proposed project, we will utilize the results of the CWHS to analyze the interaction among characteristics of the persons with disabilities, including demographic and medical characteristics (such as the specific impairments they may have), the medical and vocational rehabilitation services they have used, and the nature of their work, including the specific working conditions and the accommodations received on employment outcomes. The principal outcomes to be analyzed include whether individuals are in the labor force and, if employed, their hours of work per week, weeks of work per year, and hours of work per year, whether they work part-time involuntarily, work episodically or continuously, and do not earn enough to lift their households above a poverty-level income. When the outcomes are dichotomous, for example, whether or not they are in the labor force, logistic regression will be utilized; when the outcomes are continuous, for example, the hours of work per year, ordinary least squares regression will be employed.

Overall Design of The CWHS: The California Work and Health Survey (CWHS) is a telephone-based, longitudinal survey of California adults, designed by the principal and co-principal investigators, with input from researchers and practitioners in the fields of health and economics around the nation (Yelin and Trupin, 1999).The survey is unique in its extensive coverage of current and former employment, and of physical and mental health status. In the CWHS, respondents are interviewed annually. This longitudinal design allows for analyses both of the impact of poor health or disability on employment and, conversely, for analyses of the impact of unemployment, job loss, or poor working conditions on subsequent health status.

The initial round of interviews, conducted in June 1998, includes responses from 1,771 California residents over age 18. Most of the respondents (85 percent) were selected through random digit dialing. The remaining respondents were selected through oversampling procedures to augment the sample size of three subgroups of the population: African Americans, Asian Americans, and persons with disabilities.

The 1999 CWHS, administered between May 1 and July 9, 1999, included interviews with 2,040 California adults, of whom 909 were a part of the 1998 CWHS and another 1,131 were new respondents. The sample of new respondents in 1999 was composed of 700 adults from a random-digit dial sampling of the state's adult public, while the remainder was over-samplings of African-Americans, Asian/Pacific-Islanders, persons with disabilities, and persons age 45-70.

Content of Data: The CWHS is designed to provide information for the public and policymakers regarding the health and employment status of Californians. In addition, it is designed to be a state-of-the-art research tool for analysts interested in the relationship between work and health. To fulfill the latter mission, the survey includes much more information on employment status than surveys traditionally focused on health issues, such as the National Health Interview Survey administered by the National Center for Health Statistics, and it includes much more health and disability information than surveys traditionally focused on employment issues, such as the Current Population Survey (CPS) administered by the Census Bureau for the Bureau of Labor Statistics. With respect to the employment information, for example, the CWHS includes questionnaire items from all of the principal periodic supplements to the CPS. This allows a more complete picture of employment status than even the CPS since one can learn the conjoint frequency of job displacement, alternative work arrangements, and

contingent employment, the components of the emerging just-in-time employment contract. The latter advance is particularly relevant to the proposed project since there is good evidence that persons with disabilities are disproportionately likely to experience adverse working conditions. Space limitations preclude a complete listing of the major batteries in the CWHS instrument; Yelin and Trupin (1998) includes a copy of the survey as well as the public use documentation.

Employment Information in the CWHS: The CWHS has three principal employment sections: the first establishes the current employment status of the respondent (including labor force participation, hours of work per week, weeks of work per year, and number of jobs), the second provides a thorough description of the nature of the principal job if the respondent is working (including occupation, industry, working conditions and benefits), and the third establishes the employment history of the individual (including the nature of the job held the longest).

Health Information in the CWHS: The CWHS collects information on current health and disability status (using measures from the National Health Interview Survey), psychological status (Sheikh and Yesavage, 1986; Cohen, et al., 1983), specific chronic conditions present, health behaviors (including smoking status, consumption of alcohol, and exercise), the presence of health insurance by source and kind, and access to and actual use of health care services.

Other Information in the CWHS: The CWHS includes a complete array of items about the background of the respondents, including age, gender, race/ethnicity, nativity, languages spoken at home and at work, household composition, marital status, educational attainment of the individual and his or her spouse, county of residence, economic status, receipt of public benefits, and access to pension coverage. In addition to these standard items, CWHS

respondents report on the extent and kind of their social networks, the nature of their residential environment, the extent of their family care-giving duties.

Contents of Projected Disability Supplement: The CWHS is currently funded to conduct a twenty-five minute interview each year. In addition, an older worker supplement of five minutes duration was administered to all persons 45 and over in 1999. If the CWHS is funded beyond the current three years, in 2001 we plan to administer a supplement modeled on the older worker battery to all persons with disabilities. The disability supplement will focus on the pattern of adjustment in employment to the onset of the disability. Questionnaire items will be adapted from the Health and Retirement Survey (HRS) (Burkhauser and Gertler, 1995), a longitudinal study of employment among persons 51 to 61 in which a retrospective record of changes in work among persons with health problems is obtained. In addition, we will obtain a record of the kinds of accommodations provided by employers, family, and the person with the disability him or herself as well as the disability-related medical, social, and vocational services that have been used, and then track the impact of such accommodations and services on current and future employment. The questionnaire items about such accommodations and services used will be adapted from the HRS and the UCSF Rheumatoid Arthritis Panel Study (Yelin, et al., 1987). A final set of items, derived from the HRS, will be designed to track the impact of disability on the employment and caregiving responsibilities of other members of the households of persons with disabilities.

Analyses: Planned analyses follow the two aims of the proposed project: 1) to assess the factors affecting labor force participation and transitions into and out of employment among persons with and without disabilities and, 2) among those who are employed, to describe the risk factors for poor labor market outcomes (involuntary part-time employment, episodic

employment, and employment that leaves workers and their households with a poverty-level income). The analyses for the proposed project draw upon previous analyses completed by the investigators, but are designed to take advantage of the unique features of the CWHS, including the longitudinal design, combination of medical and labor market variables, the relatively large sample size of persons with disabilities, the enumeration of specific services and accommodations used by such persons, and the setting for the CWHS – the mature Californian economy.

For the analysis of factors affecting labor force participation, we will use the pooled cross-section of the CWHS for the years 2000 and 2001 which will include approximately 2,000 persons without disabilities as well as least 650 persons with disabilities. We will use logistic regression to estimate the impact of disability status, medical and demographic characteristics of the individual, and measures of work history on labor force participation.

To estimate the factors affecting the transition out of employment, we will again use the pooled cross-sectional data, this time treating the pooled observations as the baseline sample for longitudinal analysis. We will then be estimating models of the factors affecting the transition out of the labor force for the ensuing year -- i.e. the year 2001 for those enrolled in the year 2000 and the year 2002 for those enrolled in the year 2001. Assuming attrition rates observed in the CWHS between the 1998 and 1999 continue, we estimate that we will have approximately 1,550 observations available for this analysis. We will again use logistic regression to estimate the impact of baseline disability status, baseline medical and demographic characteristics and change in these characteristics between the baseline and follow-up year, measures of the working conditions of the baseline job -- including whether accommodations were provided by the employer, and whether specific disability-related services have been used-- on whether the

individual makes the transition out of employment. In this analysis, we will also be testing the impact of interactions between disability status and demographic and working conditions to see, for example, whether low levels of education and inflexible working conditions matter more for the employment of persons with disabilities than for those without. In a similar vein, we will use the pooled baseline sample to estimate the impact of disability status, medical and demographic characteristics, and work history on the probability that someone not working in the baseline year was able to enter employment as of the first follow-up year.

In the second set of analyses, we will be using the pooled cross-sectional sample of persons who are employed, to estimate models of the risk factors for poor employment outcomes, including involuntary part-time employment, episodic employment, and employment that leaves workers and their households with a poverty-level income. The methods for this analysis follow those developed by the investigators in their analyses of employment using the CWHS and its older worker supplement (Yelin and Trupin, 2000b). First, we will use ordinary least squares regression to estimate the impact of disability status, medical and demographic characteristics of the individual, and measures of their working conditions on hours of work per week, weeks of work per year, and hours of work per year. Secondly, we will use logistic regression to estimate the impact of these independent variables on the following employment outcomes: involuntary part-time employment; full-year employment (a measure of episodic employment), full-year, full-time employment; contingent employment; and employment with earnings insufficient to bring household income to at least 125 percent of the Federal poverty level. In these latter analyses, we again will be testing the effect of interactions between disability status and working conditions to ascertain whether the impact of working conditions

and demographic characteristics is greater for persons with disabilities. We will also determine if the relationships differ by kind of impairment.

Statistical Power: The previous waves of the CWHS provide a useful source of information for estimations of statistical power. The calculations that follow focus on the subset of respondents in either the 1998-1999 or 1999-2000 longitudinal datasets, from which we can calculate the one-year incidence of job loss for persons with and without disabilities. Relying on the existing longitudinal sample as a guide, we estimate that this analysis would be limited to approximately 1,350 respondents with a recent work history, 210 of whom would have disabilities. With such a sample, we could detect (with 80% power and 95% confidence) a relative risk for job loss of 2.0 or greater for persons with disabilities relative to those without.

Work Plan: Year One: Initiate cross-sectional analyses of the impact of medical, demographic, and work characteristics on labor force participation and, among the employed, working conditions. Create public use versions of data – an activity that continues in all years. Year Two: Continue cross-sectional analyses and initiate longitudinal analyses. Develop disability supplement to be administered as part of the CWHS (with funding from another source) and develop plan to augment the sample size of persons with disabilities. Develop research monograph summarizing cross-sectional analyses. Year Three: Initiate analyses of transitions into and out of employment (which requires the pooled sample from years one and two), focusing on impact of accommodations on employment. Develop research monograph for longitudinal analyses. Develop and implement plan for policy briefings on research on employment outcomes (other than employment transitions) for SSA. Year Four: Using enriched sample from years one through three, complete analyses of employment transitions by focusing on persons with discrete impairments. Develop and implement plan for policy briefings for SSA

on employment transitions. Year Five: Develop and implement analysis plan that uses CWHS analyses to guide initial analyses of the Disability Examination Survey (DES). Prepare policy reports and publications for professional journals based on first four years of project.

Future Research and Policy Implications: The proposed project is designed to describe the employment prospects of persons with combinations of discrete impairments associated with disability and working conditions. The research should help in the design of programs to train and place persons in jobs with the highest probability for the maintenance of employment. It will also provide an evaluation of the impact of specific kinds of accommodations on employment in the context of the mature California economy.

R1d: New Work Arrangements and Disability Income

One of the most striking and important developments in the U.S. labor market in the 1990's has been the growth of the contingent workforce and flexible work arrangements (Autor, 1999). Little is known about the participation of people with disabilities in these new, non-traditional work arrangements and their relation to disability income. Contingent and flexible work can offer advantages to many people with disabilities by accommodating health or transportation problems, but people with disabilities may also be steered into such work arrangements by disincentives in disability income programs or employer reluctance to hire people with disabilities in regular full-time jobs. This project will use Current Population Survey (CPS) data supplements on contingent work, work schedules, and home-based work collected in 1991, 1995, and 1997, plus CPS and Survey of Income and Program Participation (SIPP) data across the 1990's on temporary help agency employment. It will investigate the participation of people with disabilities in contingent and flexible work arrangements, the reasons for such work, the individual and job characteristics of those involved in such work, and the relationship to SSI,

SSDI, and other sources of individual and household income. It will also review the outcomes and issues raised in ADA and Rehabilitation Act lawsuits brought by contingent workers with disabilities.

Prinicipal Investigators: Lisa Schur, Ph.D. (PI) and Douglas Kruse, Ph.D. (PI)

Background and Significance:

Central Issues and Their Relationship to SSA Priorities: This project addresses Priority 1: "The interrelationship between and potential impacts on (1) advancements in technology and medicine; 2) the requirements of work, and 3) the SSDI and SSI programs, and persons with disabilities."

Contingent and flexible work arrangements have grown in the 1990's and become a source of substantial media and scholarly attention (e.g., Barker and Christensen, 1998; Blank, 1998). Based on preliminary research (described below), employed people with disabilities appear more likely than employed people without disabilities to be in contingent work relationships with little or no job security, and in other flexible work arrangements. While there is no standard definition, contingent workers are generally defined to include temporary help service employees, independent contractors, on-call laborers, part-time employees, and other employees in jobs that are not expected to last long. Flexible work arrangements include work in which employees can set their own hours and schedules—often job-sharing with other employees—and work that can be done at home. Contingent and flexible work arrangements can offer several advantages for people with disabilities. In particular, they generally give workers some discretion in whether and when to work. People with disabilities may be more likely to experience problems with health or fatigue, making it difficult for them to commit to a full 40 hour per week schedule. They may have transportation problems, making home-based work or flexible schedules more attractive. People

with disabilities may also choose to engage in temporary work relationships as a way of easing their transition into work, or testing their abilities and interests in alternative work environments.

Apart from these advantages from the individual's perspective, several constraints on individual choices may lead individuals with disabilities toward contingent and flexible work arrangements. The well-known work disincentives from SSI and SSDI (which have hopefully been greatly lessened by the recent Ticket to Work and the Work Incentives Improvement Ac, P>L. 106-170t) may have steered many people with disabilities toward flexible work arrangements, allowing them to limit their work hours and monthly earnings and avoid risking the loss of disability income and health benefits. From the labor demand side, if employers discriminate against people with disabilities by refusing to hire them into permanent full-time jobs, people with disabilities who want to work may be constrained to work in contingent jobs. In addition, employers often choose to hire workers on a temporary basis in order to assess worker skills and potential for permanent employment. This may be more common for workers with disabilities, given that employers may have great uncertainty concerning the limiting effects of many disabilities and the productive potential of job applicants with disabilities.

Therefore contingent work raises a host of issues involving work opportunities for people with disabilities, including the role of disability income, the limitations associated with different types of disabilities, the importance of flexible arrangements, and the transition from nonemployment to employment.

Summary of Preliminary Studies: Past research has found that close to 10%, or 12.5 million, of American workers work as temporary employees or independent contractors with little job security, while the Bureau of Labor Statistics classifies 2.4 to 5.6 million Americans as contingent workers (Cohany, 1998; Hipple, 1998). While contingent work is attractive to some

people, contingent workers have lower average pay and benefit levels, and a majority would prefer more permanent employment (Hipple & Stewart, 1996; Blank, 1998). Concerning flexible work arrangements, the percentage of wage and salary workers who have some discretion over their work schedules increased from 15.1% to 27.6% from 1991 to 1997 (BLS, 1998: 103). There has been no work on how many people with disabilities are in contingent or flexible work arrangements.

In preparation for this study, to test its feasibility, we have assembled a dataset on contingent workers with and without disabilities based on Current Population Survey (CPS) supplements from February and March of 1997. The February supplement asked a variety of questions about work schedules and arrangements, allowing researchers to construct and explore various measures of contingent work. The March supplement asked the standard work disability question, concerning whether the individual has a health condition limiting the kind or amount of work s/he can do. Three-fourths of the households were in both surveys, allowing a match to relate the disability question to the contingent work data. A total of 33,301 workers were matched, of whom 1047 reported having a work disability.

Preliminary results indicate that workers with disabilities are more likely to be in contingent work relationships. One-fifth (21.7%) are temporary help agency workers, independent contractors, or on-call laborers, or say that their job will only last a limited time, compared to one-eighth (12.7%) of workers without disabilities. In addition, workers with disabilities are also twice as likely to be part-time employees (30.9% compared to 15.8%). The dataset allows an analysis of the individual and job characteristics of contingent workers, their pay levels, and the major reasons they give for engaging in contingent work.

The Survey of Income and Program Participation (SIPP), unlike the CPS, has data on the functional and activity limitations of persons with disabilities. While it does not have the detail on contingent work provided by the CPS, it does record whether an individual reports working in the temporary help services industry. Preliminary analysis shows that the 138 people with disabilities working in this industry at the time of the 1990-94 surveys were significantly more likely than other workers with disabilities to have difficulty getting around outside the home (8.0% compared to 3.7%) and to be limited by some sort of mental or emotional condition (23.2% compared to 15.6%). Temporary agency workers with disabilities were also more likely than other workers with disabilities to receive SSI payments in the month they worked (7.2% compared to 2.8%). This dataset also has rich longitudinal month-by-month data that allows an exploration of movements in and out of temporary agency work, SSI, and SSDI.

Regarding other flexible work arrangements, a match of CPS March and May data for 1997 shows that 15.1% of workers with disabilities do at least some of their paid work at home, significantly greater than the 9.8% figure for workers without disabilities. These data can also be used to look at work schedules and job-sharing.

These preliminary findings indicate that: a) the data can be assembled to address important questions on contingent and flexible work for people with disabilities, and b) there are intriguing differences by disability status in contingent and flexible work that deserve further exploration.

Objectives: The objectives of this project are to: 1. Analyze the types and prevalence of contingent and flexible work arrangements, and the reasons given for contingent and flexible work, among workers with disabilities relative to workers without disabilities; 2. Examine the individual and household characteristics of workers with disabilities in contingent and flexible

work arrangements, including the receipt of SSI and SSDI, relative to other workers with and without disabilities; 3. Examine the job characteristics of workers with disabilities in contingent and flexible work arrangements—including pay, hours, occupation, and industry—relative to other workers with and without disabilities; 4. Assess overall trends in contingent and flexible work arrangements, and the movement in and out of contingent work arrangements, among people with disabilities, relating them to the business cycle and receipt of SSI and SSDI; 5. Review the experience and outcomes for contingent workers with disabilities who have filed lawsuits based on the ADA or the Rehabilitation Act, identifying issues shared with other disability lawsuits and issues that are particular to contingent work.

Methods:

Data Collection Protocol: As noted above, this project will employ CPS and SIPP data collected by the federal government. A total of 33,301 workers, including 1047 workers with work disabilities, are available from matching the February 1997 CPS contingent work supplement to the March 1997 dataset. A match will also be made using the February-March 1995 CPS supplements, which should produce a similar sample size. The March data includes information on the previous year's employment activities and income sources. A total of 27,069 workers, including 757 with work disabilities, are available from matching the May 1997 CPS work schedules supplement to the March 1997 dataset. The CPS March data for 1990-99 will be used to look at trends in temporary help agency employment by disability status. Data from the 1990-94 waves of SIPP include 12,389 workers with disabilities and 80,402 workers without disabilities, with monthly data over a 24-36 month period for each respondent that can be used to look at movements in and out of temporary help agency employment, SSI, and SSDI. The 1997 SIPP data should become available in early 2000, and will be purchased and added to the other

SIPP data for analysis. These datasets will therefore have substantial sample sizes, and each has strengths that complement the others. Legal data are gathered using Lexis/Nexis.

Data Analysis: Relative to the first objective of examining the types and prevalence of contingent work, the analysis will use CPS and SIPP data to produce:

1a. Estimates of the number and percent of workers with and without disabilities in different types of contingent and flexible work arrangements; 1b. A comparison of major reasons given for contingent and flexible work—grouped into job-market-related and personal reasons—between workers with and without disabilities. Relative to the second objective of examining individual and household characteristics, the analysis will use CPS and SIPP data to produce: 2a. Breakdowns of demographic characteristics for contingent and flexible workers by disability status, including gender, age, race, education, ethnicity, and marital status. 2b. Estimates of individual and household receipt of SSI, SSDI, and other types of income, by contingent and flexible work and disability status. 2c. Breakdowns of functional and activity limitations, and need for assistance in activities of daily living, between temporary agency workers with disabilities and other workers with disabilities. Relative to the third objective of examining job characteristics, the analysis will use CPS and SIPP data to produce: 3a. Breakdowns of occupation and industry by contingent and flexible work and disability status. 3b. Comparisons of average hours worked per week, and average hourly, weekly, and monthly pay, by contingent and flexible work and disability status, both before and after controlling for standard determinants of earnings. Relative to the fourth objective of analyzing overall trends of contingent and flexible work, and movements in and out of contingent work and disability income, the analysis will use CPS and SIPP to produce: 4a. Estimates of overall trends by disability status in: flexible hours and home-based work arrangements over 1991-97; temporary

help agency employment over 1990-99; and other forms of contingent work over 1995-97; 4b. Analysis using monthly SIPP data of the movement of workers on SSI and SSDI into contingent and non-contingent work arrangements, the duration of such work, and its relation to the overall unemployment rate and business cycle. Relative to the fifth objective, the analysis will include: 5a. Review of judicial decisions on ADA and Rehabilitation Act lawsuits brought by contingent workers with disabilities, including a comparison of outcomes with other disability lawsuits and identification of major issues faced by contingent workers with disabilities.

All of the statistical comparisons will employ standard tests of statistical significance to assess the potential role of sampling error in accounting for any differences.

Work Plan/Timetable: Months 1-4: Assemble CPS and SIPP datasets; complete matches to disability data; generate prevalence estimates for contingent and flexible work; assemble law cases; Months 5-8: Complete breakdowns of disability and demographic characteristics by type of work; analyze predictors of contingent and flexible work by disability status; complete legal analysis;Months 9-12: Analyze overall trends in contingent and flexible work; examine relationship to SSI and SSDI receipt; prepare report.

Future Research and Policy Implications: Based on the results, future research directions and data needs will be identified. The analysis will attempt to shed light on the advantages and disadvantages of contingent and flexible work arrangements for people with disabilities, to provide guidance to policy-makers, program administrators, career counselors, businesspeople, and people with disabilities regarding whether such arrangements should be encouraged, and if so, under what conditions.

R1e: **Disability Benefits as Household Income and Labor Supply Decisions of Household Members**

The purpose of this project is to investigate the incentive effects of disability benefits on the joint decisions of persons with disabilities and their household members to enter, exit or change the level of effort supplied to the labor force. The notion that periods of unemployment for one member of the family may raise the labor supply of another member's has been well articulated as the "Added Worker Effect" (AWE) in the established literature. Recently, Gruber and Cullen (1996) examined how the presence of unemployment insurance (UI) affects such spousal labor supply decisions. Little work has been done that focuses exclusively on unemployment spells caused by disability, however. The relatively small group of studies which actually do address disability and work incentives all look at the individual disabled worker as the unit of interest rather than the family unit. Targeted as such, these studies may miss the wider policy implications from changes in disability benefits. The empirical work I propose will integrate Gruber and Cullen's approach to consider the effects on household labor supply decisions from SSDI across households with different disability risk profiles.

Principal Investigators: Stephanie So, Ph.D.

Background and Significance:

Central Issues and Their Relationship to SSA Priorities: This project primarily addresses Priority 2 of the SSA, the relationship between "The proportion of persons with disabilities who continue working or reenter the workforce and the effects on the SSDI and SSI programs." In the first stage, the study will modify Gruber and Cullen's basic model to look specifically at disability benefits and unemployment spells due to disability. The objective will be to document how the level of SSDI benefits affects household income and labor supply

responses, by disability type, and to study the risk-of-unemployment profiles attached to populations with different disabilities.

In the project's second stage, the study will examine hypotheses for various household configurations, such as: 1) do households including persons with permanent (cognitive disabilities, for example) or more severe disabilities systematically respond differently in the labor market to SSDI than households including persons with temporary or more treatable disabilities; and 2) do households in which a disabled spouse is eligible for SSDI respond differently than households in which the eligible member is a child. That is, the focus will be on comparing the behaviors of the different arrangements that distinguish disabilities (whether of the tangible properties of the disability itself or of its dominant caretaking arrangements). To the extent that these results are able to characterize the household composition and behavior of various individual disabilities, this project will also contribute to the SSA's Priority 1, to identify "trends in the ... composition of the disabled population".

This study is designed to take advantage of the employment, earnings, and disability benefits data that will become available in the new SSA database. It should be possible, pending approval, to merge the new SSA database and SSDI disability information with existing data sources, such as the Surveys on Income and Program Participation (SIPP), which contain information on the configurations and caretaking activities for households of persons with disabilities.

Summary of Preliminary Studies: Many persons with disabilities live with family members and are dependent on them for care and income. In the 1992 and 1993 Surveys on Income and Program Participation, approximately 2.7 million persons with disabilities lived with spousal caregivers (Kennedy and Walls, 1999). The population Kennedy and Walls estimated

from this sample alone would account for over 56% of the 4.8 million disabled workers who currently receive SSDI benefits (Social Security Administration, September 1999). Clearly, an investigation of how benefits affect household income and joint labor supply decisions makes sense in the context of disability. I propose to extend the literature's approach to female spousal labor supply responses in the face of their husband's unemployment spells to all non-single households including a person with a disability. The empirical techniques used in testing for the AWE and the life cycle model of family income, while somewhat complex, are well understood and treated competently in Gruber and Cullen's unemployment insurance study.

This extension, while conceptually easy to grasp, permits the coherent examination of several previously understudied areas. First, a policy issue of continued importance is the extent to which SSDI, in any of its incarnations, generates work disincentives (see Hoynes and Moffitt, 1997). Without a model, it is difficult to identify the baseline from which one should measure the work response. Thinking about a life cycle model for a specific disability risk profile should alleviate that problem. This study asks for the first time what is the total (household) response to disability, and what is the role of SSDI in that response. Second, the role of unemployment risk is highlighted in this model. For example, if benefits are increased, then the model predicts Couple A with a higher probability of collecting benefits will experience a larger income effect and thereby decrease labor effort throughout the life cycle compared to Couple B. This provides a framework to compare the differential responses of disability groups. Finally, overlooked populations such as families with disabled adult and/or minor children are easily incorporated in this model. One might ask, for example, if disability benefits have a stronger income effect on the labor supply of single parent households compared to dual parent households, such that more children with disabilities are identified living with single parents than otherwise.

Objectives: The purpose of this project is to investigate the incentive effects of disability benefits for different disability groups, using actual SSDI data. The study has the following objectives: *1.* Model and identify the AWE for households faced with unemployment due to disability; *2.* Characterize the risks for different disabilities (for example, the income risk depends on the probability, duration and severity of the disabled period, the timing of disability in the life cycle, and the identity of the person who has the disability); and *3*. Examine the interaction between household configuration, disability, and disability benefits.

This study seeks to apply established methods in labor economics to previously understudied populations: households of persons with disabilities.

Methods:

Data Collection Protocol: The initial estimations will take place on data sets obtained from merging SSA/SSDI data with existing SIPP samples. Because I am interested in subset populations with specific disabilities, samples of SSDI recipients characterized by a certain disability should be as large as possible but may be restricted by age, certain facets of the employment history, and geographic considerations. Also, this study would not include any SSDI recipient who either lives alone or in an institutional setting. I do not expect to collect any new data for this project.

Work Plan/Timetable: The proposed research project will take three years. At the end of three years, I anticipate further research that uses this model for other disability groups and policy variables to be productive, in which case I will reapply to the DRI for additional funding; 1.Formally modify model to include disability risks and benefits parameters (*months 1-3*); 2. Merge data and identify populations by disability, household configuration, benefits and employment of household members (*months 4-10)*; 3. Study risks of unemployment profiles for

selected disabilities; prepare preliminary descriptive report of data (*months 11-15*); 4. Statistical analysis of AWE (*months 16-18*); 5. Prepare first stage paper(s) and select hypotheses for second stage analysis, as described in Central Issues section (*months 19-24*); 6.Analyze data for second stage analysis (*months 25-30*); 7. Prepare second stage paper(s) (*months 31-36*); 7. Disseminate results at conferences (*months 24-36*).

Future Research and Policy Implications: It is expected that different disabilities will be associated with responses of varying magnitudes. Such results would indicate that it is more costly to offer the same increment in disability benefits to some populations with certain risk characteristics. For example, one implication of Gruber and Cullen's life cycle model is that if households are unable to borrow (such as low income families), then households with lower risk for unemployment will demonstrate a greater reduction of work effort during unemployment spells in the presence of UI. This discussion would add substantially to ongoing policy discussions regarding the appropriateness of SSDI payments versus other policy instruments (such as vocational rehabilitation) for certain disability groups.

R2a: **Comparative Impact Of Community-Based Vocational Rehabilitation Services on Workforce Participation and Social Security Participation**

Community rehabilitation programs (CRPs) are primary providers of rehabilitation and training services with public funds to affect the employment and inclusion of persons with disabilities. Effects of services on their labor force participation (LFP) and Social Security participation (SSP) are unknown. The proposed project will (a) estimate changes in LFP and SSP due to CRP services, (b) estimate validity of self-report LFP and SSP measures used in follow-up research, and (c) determine utility of SSA administrative data and field-collected data for evaluating CRP programs. Repeated measures analyses with quarterly SSA pre- and post-service

data will be conducted with RTC samples to estimate comparative and longitudinal effects as a function of traditional services (Sample A), services driven by funding (Sample B), models designed to optimize employment outcomes (Sample C), and differentiated population-service combinations (Sample D) in comparison to subsets of untreated Ss drawn from SSA records (Sample E). Correlational analyses with field-based and SSA LFP and SSP measures will provide estimates of validity for specific instruments and self-report. Feasibility for evaluating alternate programs will be based upon proportions of participants in Samples A-D included as replicate in quarterly data cells and problems encountered in integration of SSA-field data and in creating appropriate comparison groups from SSA records.

Principal Investigators: Fredrick Menz, Ph.D. (PI) and William Niederloh, M.S. (Co-Investigator)

Background and Significance:

Central Issues in Relationship to SSA Priorities: Approximately 7,000 CRPs, nationally, are primary providers of services to working age adults that face barriers to re-employment or initial employment. CRPs are identified in Social Security reform legislation as "alternate providers" to improve return-to-work rates and reduce the proportion of persons who require SSI/SSDI coverage (Menz, 1999). Evidence of the effects of CRP services on LFP (including rates of employment, changes in social-economic status, long-term earnings) or on SSP (including participation in either SSI or SSDI) is limited. There are increased needs to create efficient measures to evaluate competing initiatives, to obtain baseline and change estimates of CRP services on LFP and SSP, and produce findings that guide policy that balances government's needs to contain costs and beneficiary needs for access to appropriate resources.

Priorities Addressed. Project will address priority 3 and subpriorities 2a, 2b, and 2d.

Summary of Preliminary Studies: This project expands research conducted at the UW-Stout Research and Training Center (RTC), under NIDRR and RSA funding, to determine outcomes and benefits from CRP services and demonstrate effective alternatives that increase employment and economic benefits. Prior RTC research shows that CRPs serve 3.96 million people annually; over 50 percent of their revenues derive from public sources (e.g., 35% of VR case service dollars; Menz, 1998); approximately 70% of their clients with severe disabilities are SSI recipients and about 20% are SSDI recipients (Botterbusch & Miller, 1999; Menz & Leahy, 2000); and CRPs are increasingly providing vocational training related services to states' workforce development and welfare reform efforts (Coker, Flynn, Menz, & McAlees, 1999). Current research is focused on identifying CRP performance systems (Niederloh & House, 1999; Menz & Maves, 1999); validating the Employment Outcomes Instrument (Thomas & Menz, 1999a, 1999b); and implementing original instrumentation at CRPs with which to define services; measure direct benefits (e.g., satisfaction, choice, attainment of goals); estimate costs; and measure sustained outcomes, including LFP and SSP (Botterbusch & Coker, 1999).

Objectives: This project would combine SSA and RTC data to improve capability to assess changes/benefits from services and understand CRP capability to affect LFP and SSP of persons with disabilities. Objectives are to (a) estimate changes in LFP and SSP due to CRP services, (b) estimate validity of self-report LFP and SSP measures used in follow-up research, and (c) determine utility of SSA administrative and field-collected data for evaluating CRP programs.

Methods: Data Collection Protocol. Five samples of CRP clients will be examined, four from ongoing RTC research and a fifth derived from the SSA database. RTC samples include SSI and SSDI recipients and non-recipients of working age with moderate to severe disabilities

(cognitive, mental, physical) with significant barriers to employment entry/re-entry. Sample A (Year 1, n=13,000, 58 programs, 4 services) would come from NRC data for individuals who completed employment development, job placement, occupational skills training, and supported employment. Emphasis with this sample will be on determining validity of self-reported outcomes and estimating changes in LFP and SSP as a function of traditionally defined services.

Sample B (Years 2-3, n=1800, 90 sites, 4 funding sources) will come from CRPs providing services under funding from vocational rehabilitation (primary treatment), and mental health, developmental disabilities, and/or state workforce development efforts (alternate, comparison treatments). Emphasis will be on estimating benefits attained by funding streams, detecting service models that optimize employment outcomes, determining LFP and SSP changes due to funding or to empirically defined services, and estimating validity of LFP and SSP self-report.

Sample C (Years 3-4, n=600, 4 models, 10 sites) will examine effects of models designed to maximize outcomes in a replication study. Emphasis will be on determining changes in LFP and SSP as a function of innovative, empirically defined CRP practices that focus on employment outcomes and return-to-work. Sample D (Years 3-5, n=2000, 5 combinations) will include clients from Samples B and C who attain different outcomes, are members of target populations, and participated in a known intervention(s). In addition to quarterly LFP and SSP measures, periodic interviews (at 12-18 month intervals) would be conducted to obtain quality of life measures with RTC instrumentation and alternate funding. Emphasis would be on establishing a longitudinal study (perhaps 10-15 years) to evaluate comparative changes in LFP, SSP, and quality of life for persons with disabilities who return to work.

Sample E would be comprised of subsets of SSA participants comparable to Ss in the RTC samples based upon age, calendar year of SSI/SSDI determination, geography, and primary disability. LFP and SSP quarterly data would be sought from SSA to form meaningful comparison groups to determine effects different from non-treated beneficiaries. Subset sizes would be proportionate to numbers of clients in the four RTC samples.

SSA Data. Specific data will be requested to develop baseline (pre-treatment) and longitudinal measures (post-treatment) of LFP and SSP. Baseline measures would include data on SSI/SSDI determination (age, disability, calendar year), pre-determination of LFP (12 months pre-determination), and quarterly measures of LFP and SSP, pre- (4-8 quarters) and post-services (8-12 quarters). LFP measures would include employment status, employment and labor market participation (months/weeks), gross earnings (months/weeks, amount), FICA paid (months/weeks, amount), federal income taxes paid (months/weeks, amount), and number of dependents. SSP measures sought would include SSI and SSDI participation (months, total amount), disability status, and reviews and disallowance. For Samples A and B, LFP-SSP data would be sought corresponding to when exit and follow-up interviews were conducted to estimate validity of self-report. Individual locator information would also be annually requested to maximize client follow-up: last known address, city, state, and telephone number.

RTC Instrumentation. Data for Sample A would include NRC performance, barriers, and efficiency measures obtained by CRPs through follow-up. Data for Samples B, C, and D would be obtained on program and consumers with RTC validated instruments under NIDRR funding.

Needed Cooperation. NRC-RTC institutional agreements are established for RTC to evaluate efficacy of the NRC system. Clearance from CRPs in Sample A can be obtained through NRC if anonymity for CRPs and consumers is assured. Consumer follow-up is built into

agreements with CRPs and informed consent releases are obtained with samples B and C. DRI has also indicated it has capability to obtain necessary releases from individuals.

Data Analysis: The basic analysis plan is a repeated measures design with multiple treatments (alternate services/models, non-treated comparison sample) on pre- and post-service measures of LFP and SSP. Initial multivariate analyses would be applied to detect longitudinal changes attributable to treatments. Post hoc analyses would isolate services, models, and competing factors that explain changes in LFP and SSP. Objective 1, repeated measures analyses conducted with quarterly pre- and post-service SSA data and RTC identified samples to estimate comparative and longitudinal effects on LFP and SSP as a function of traditional services (Sample A), services driven by funding (Sample B), service models designed to optimize employment outcomes (Sample C), and differentiated population-service combinations (Sample D), with subsets of untreated Ss drawn from SSA records (Sample E). Analyses will focus on individual and aggregate changes in LFP and SSP among SSA data, supplemented with field-data from RTC on LFP, SSP, service processes, organization resources, costs, choice, and satisfaction under NIDRR funds. Objective 2, correlation analyses conducted with field-based and SSA measures of LFP and SSP will yield validity estimates for specific instruments (NRC in year 1, RTC in 2-4) and self-reports of employment, earnings, and benefits. Objective 3, feasibility of the SSA and/or field instrumentation for evaluation of alternate programs will be estimated from proportions of eligible Ss from Samples A-D included in the studies across replicate quarters and/or the extent to technical problems in retrieval, interpolation, integration of SSA-field data, in creating comparison subsets from SSA records, and cost to acquire data.

Work Plan/Timetable for Year 1: 1. Review project with SSA DRI for adaptation of design (*months 1-2);*2.Obtain client releases (*months 1-4 for Sample A, ongoing for other samples*); 3.

Identify SSA data elements, procedures, safeguards, and comparison samples (*months 2-5);* *4.*Test SSA-RTC (NRC) linking of data (*months 6-7)*; 5. Estimate efficacy and potential to realize objectives with Sample A (*months 8-10);*6. Prepare intermediate products for policy, program, and publication (*months 11-12);* 7. Update research plans for year 2 and outlying years (*month 11-12).*

Future Research and Policy Implications

Year 1 activities will yield estimates of changes in LFP and SSP for Sample A and of validity of NRC's self-report follow-up. Year 2 will provide more substantial estimates of LFP and SSP changes as a function of documented CRP processes, validity of self-report measures, and feasibility of the combined data for evaluation. Beginning in year 3, evidence of LFP and SSP effects should be sufficient to prepare products to increase constituent awareness, guide discussions of service quality, and contribute to public policy for SSA, CRPs, and persons with disabilities.

R2b: Graduated Return-to-Work Disability Benefits

The purpose of this project is to evaluate the Graduated Return-to-Work Disability Benefits (GRTWD Benefits) that are authorized by the Ticket to Work and Work Incentives Improvement Act of 1999 (P.L.106-70). The first year will analyze benefits in other disability programs that are similar to the GRTWD Benefits. This analysis will assist SSA to specify variants of GRTWD Benefits that will be used in the demonstration projects and to design the data system used to monitor and evaluate those projects.

Principal Investigators: John Burton, Ph.D. (PI), Monroe Berkowitz, Ph.D. (Co-PI), and Terry Thomason, PhD. (Co-PI).

Central Issues and Their Relationship to SSA Priorities: This project addresses the second entry under Priority Research Area 2 : "Employment strategies (e.g. . . . providing short-term or interim disability payments) that may influence the work patterns of persons with disabilities."

Work Plan/Timetable: 1. Jurisdictions currently relying of the wage-loss approach will be identified by reviewing statutes and other sources of information (*months 1-3*); 2. Studies concerning the wage-loss approach will be collected and analyzed (*months 2-5);* 3. Administrators, researchers, and others familiar with the operation of the wage-loss approach will be interviewed (*months 4-8*); 4. Any data available from workers' compensation programs relying on the wage-loss approach will be collected and analyzed (***months 4-10***); 5. Information on the approaches used to compensate permanent disability by social insurance programs in other countries will be collected and analyzed (*months 4-10*); 6. A report will be prepared for the SSA providing the analysis of the two objectives of the study (*months 9-12*).

Future Research and Policy Implications: The GRTWD Benefits represent an initial effort by the DI program to provide benefits to partially disabled workers; this type of benefits had previously been the exclusive domain of state workers' compensation programs. Future research will consider whether the DI program should be expanded to even more partially disabled workers and, if so, whether the wage-loss approach represented by the GRTWD benefits is the best platform for such an expansion.

R2c: Making the Ticket Proposal Work

We will examine several aspects of the ticket proposal, which is designed to facilitate the return to work of Social Security Disability Insurance (DI) and Supplemental Security Income (SSI) beneficiaries. Our emphasis in the first phase is on identifying providers who might

participate in the program and in analyzing different methods of dispute settlement. We seek to provide tools and methods to aid the SSA in the administration of this novel endeavor.

Principal Investigators: Monroe Berkowitz, Ph.D. (PI) and John Burton, Ph.D. (PI)

Background and Significance: The Ticket Proposal is incorporated in *The Ticket to Work and Work Incentives Improvement Act of 1999*, P.L. 106-170. The impetus for the ticket was a recommendation of the Disability Policy Panel of the National Academy of Social Insurance (NASI Panel). In its final report (1996), the NASI Panel strongly recommended that each beneficiary of the DI or SSI programs receive a ticket that could be deposited with a service provider, who would then help the beneficiary return to work.

The heart of the original proposal was its method of compensating providers, who were paid only if the beneficiaries returned to work long enough to exit the benefit rolls. Providers were then paid, not according to expenses they had incurred, but, instead, a percentage of the benefits that would have been paid to the beneficiaries if they had remained on the rolls. As a result, there was no need to monitor providers' expenditures.

The process was to be completely voluntary. Beneficiaries were to negotiate with providers, but no beneficiary had to use the ticket and no provider had to accept a ticket.

The NASI Panel proposal is now the law, albeit with several mutations. Three changes are relevant for this research project.

1. Providers are given a choice of how they will be paid. They may be paid according to milestones and outcomes as well as simply by employment outcomes.
2. Tickets will be issued by "network providers," who will exercise some authority over the types and nature of the providers.
3. Several committees and organizations will monitor the process.

We propose to analyze the provider market and to evaluate the proposed schemes for the settlement of disputes in the first phase of the research project.

Relationship to SSA Priorities: This proposal fits into the third specific topic under research priority 2: The interaction of rehabilitation and other support services, the effects of individual motivation, and the availability of work on the decisions of persons with disability to maintain employment or to apply for benefits. It is also relevant to other specific topics, such as employment strategies and the effectiveness of rehabilitation services.

Summary of Preliminary Studies: Since the start of the predecessor to the current DI program, namely the "disability freeze," there have been unresolved controversies about the appropriate relationship between the federal-state rehabilitation program and the DI program (E. Berkowitz, 1987). Various methods have been used to compensate the VR agencies for their work with DI and SSI beneficiaries, but none has satisfied all concerned parties (Rubin and LaPorte, 1982). Increasing doubts about the efficacy of the rehabilitation services (Berkowitz and Dean, 1998) has aggravated the problem of the relationship between the VR and the disability programs.

Objectives: The reality is that very few beneficiaries leave the DI and SSI programs because of return to work; possibly less than one-half of one percent of the persons on the rolls. The purpose of the ticket proposal and the proposed research project is to make a modest improvement in that percentage (Growick, 1997). The study has the following objectives: 1. To identify optimal methods of payment to providers, known as "employment networks" in the new legislation. Such providers may be paid under either an outcome payment system or an outcome-milestone payment system, according to their choice.

The milestones are not specifically defined. These are points along the way toward permanent employment. Under the legislation, the total amount of payments under the outcome-milestone method of payment must be less than the total amount of payments if the employment network is paid under the outcome payment system.

There is an apparent contradiction here. If the beneficiary does not return to work for a sufficient period of time, the employment network would not be entitled to receive any payment whatsoever under the outcomes system, while a network with an equal lack of success would have already received some payment under the outcome-milestones option. One method of dealing with this problem would be to seek refunds from employment networks that have been paid under the milestone method in cases where the beneficiary does not return to work. The political feasibility of this is questionable.

2. To review the adequacy and efficacy of providers of rehabilitation services in the employment networks. As part of this objective, the Disability Research Institute will collect data from a sample of employment networks. These data will be reviewed, not only from a prudent financial viewpoint, but also from the rehabilitation perspective. We will inquire if there are a sufficient number of diverse providers in various areas in the country. We will examine their characteristics. Our primary interest is in the role of the employment networks in achieving the return-to-work objective of the legislation. The lead person on this part of the project will be Bruce Growick, Professor of Rehabilitation at Ohio State University, former Director of Rehabilitation for the Ohio Bureau of Workers' Compensation and past President of NARPPS.

3. To identify ways to making the dispute resolution process work efficiently, effectively, and equitably. If this new method of returning beneficiaries to work is to succeed, there has to be some way to resolve disputes. The legislation provides for a process to resolve

disputes between beneficiaries and employment networks, between program managers and employment networks, and between program managers and providers of services.

We will provide SSA a menu of possible models for dispute resolution, with estimates of costs together with the advantages and disadvantages of each model. Examples will be drawn from commercial and labor arbitration, as well as other fields.

Methods:

Information from Employment Networks

We have the advantage in this project of having some time before the networks begin operation since the legislation contemplates a gradual introduction of this new scheme. We propose first to use a two-stage sample of public and private organizations that might possibly become employment networks. We will begin with a list compiled by the NASI Panel, which will be supplemented with records from the National Association of Rehabilitation Providers in the Private Sector, State agencies, and insurance carriers and other organizations that provide rehabilitation services. We also will access the information compiled by the Gallup organization in their survey of potential network providers.

Since we do not have a single and comprehensive sampling frame to choose from, we will have persons knowledgeable in the field of private rehabilitation, the insurance industry, and the public sector check its representativeness (Forgiel and Growick, 1997). If necessary, we will add or subtract organizations. Our objective is to assure that we have the ability to query a wide variety of organizations and that we have not omitted any entity that might be designated as an employment network. We contemplate having one hundred possible employment networks in this first stage.

We will then devise an interview schedule designed to elicit reactions to the possibility of the units becoming an employment network. We will devise models with different financial arrangements, levels of compensation, reporting requirements, and the like, and ask the respondents about their reactions to the various models. We will then relate their answers to the characteristics of the organizations. Our objective will be to provide SSA, in real time, useful information about the range of providers that they have to choose from. Our experience with the NASI Panel is that such information is sparse.

From this sample of 100 potential providers, we will select not more than 50 for further interview. We will glean their ideas of possible return to work scenarios and their possible costs for these scenarios. We will propose alternative reimbursement schemes and elicit their reactions. We will propose several different business plans and evaluate their feasibility in light of the capital sources and staffing requirements of the providers.

Periodic reports will be provided to Social Security as they develop the applicable rules and regulations. A major purpose of the interviews with this group of providers will be to develop, in the first year of the project, methods to audit expenditures of the agencies and to monitor success in achieving the primary objective of returning beneficiaries to work.

Methods of Dispute Resolution

We will identify feasible methods or models of dispute settlement that might reasonably be used by SSA. An ideal system will be quick, responsive to the needs of all parties, sensitive to the concerns of disabled person, economical to administer, and result in due process for all. In looking for possible models, we will draw on the experiences in the public and private sectors in the US, as well as experience from abroad.

We will discuss the advantages and disadvantages of each of the feasible models. During the first year, we will design an experimental demonstration that SSA could use. Under such a demonstration, different regions would utilize different dispute resolution models. Each of the models would be evaluated in subsequent years of the project on the basis of the measures of effectiveness, equity, and efficiency.

Work Plan/Timetable: We see this as truly a cooperative project with SSA, and have only sketched out the first year of the project when SSA presumably has not yet selected program managers and network providers. Activities will continue through subsequent years when concentration will be on evaluation of the objective of the project: 1. Compilation of lists of possible employment networks (Months 1-3); 2. Construction and testing of interview schedule for selection of first group (Months 3 to 6); 3. Interviews with possible employment networks (Months 6 to 15); 4. Selection of second group of employment networks (Month 16); 5. Interviews with second group (Month 16 to 21); 6. Compilation and analysis of results (Months 21 to 24); 7. Selection of models of dispute resolution (Months 1-3); 8.Analysis of advantages and disadvantages of possible models (Months 3-6); 9.Constructing a proposal for an experimental demonstration (Months 6-9); 10. Analysis of the demonstration results (Months 9-22); 11. Recommendations for a system of dispute resolution (Months 23-24).

Future Research and Policy Implications: Future research will be dictated by the reactions and the needs of the employment strategy personnel at SSA charged with the administration of the ticket program. There are obvious paths to follow.We need to know much more than we do about what influences a person to deposit a ticket with a network provider. We need to know more about how a person chooses a provider and whether the beneficiary feels his or her expectations have been met. Most important, we must contact persons who leave the rolls and document their

experiences. A major part of such a project would be to follow their careers. Too often comparisons are made between levels of benefit payments and starting salaries. The obviously correct comparison is the amount received in lifetime benefits and earnings throughout the former beneficiaries working lives.

Settlement of disputes is crucial to an effective working of the ticket plan and continuing attention will be needed to determine how any dispute settlement scheme is actually working. Particular attention in future projects should be directed to who bears the costs of such schemes.

R2d: The Impact of SSI Eligibility Changes on the Labor Supply of Workers with Disabilities (As the scope of this project is smaller than others, please see the appendix for the complete text of the project.)

An important issue in the design of both the DI and SSI programs for individuals with disabilities is the effect of these programs on labor supply and work effort. Understanding how program parameters affect labor supply is a challenging research question that can be addressed by examining how individuals with disabilities respond to exogenous changes in benefit levels where the exogenous changes in benefits reflect the result of a "natural experiment" (Angrist & Krueger, 1999) imposed on a subgroup of these individuals. This proposed research will examine the impact of SSI on the labor supply of workers by investigating the impact of the changes made by Congress in 1996 that eliminated from SSI coverage persons for whom drug addition and/or alcoholism was a contributing factor (Public Law 104-121, Section 105). In 1996 there was a substantial increase in SSI case closures because the recipient was no longer disabled. Using 1995 as a comparison year, data in Kochhar & Scott (1998) show the number of individuals removed from SSI because they were no longer disabled increased by about 100,000 workers. They attribute this increase to the change in the law. Since the elimination of benefits

for these SSI recipients was the result of a change in the definition of what constitutes a disability under the law and not because of a real change in the underlying health of the program participants, this provides a near ideal "natural experiment" for estimating how changes in government disability programs affect the labor supply decisions of disabled workers.

Principal Investigators: Craig Olsen, Ph.D. (Co-PI) and Peter Feuille, Ph.D. (Co-PI)

Central Issues, Their Relationship to SSA Priorities & Previous Research: This project addresses one of the priority research areas of SSA: "the effects of individual motivation and the availability of work on the decisions of persons with disabilities to maintain employment or to apply for SSDI and SSI benefits." Congressional interest in the work incentive effects of these programs is also reflected in the recent passage of the "Work Incentive Improvement Act of 1999." This topic is also the topic of debate among scholars partially because it has important implications for the design of public policy and partially because it is very difficult to estimate the impact of these programs on labor supply. See, for example, Bound (1989) and the exchange between Bound (1991) and Parsons (1991). This exchange illustrates how difficult it is to estimate the impact of SSDI and SSI on labor supply because it is hard to find settings where one can observe the labor supply response of disabled workers to an exogenous change in benefit levels. Bound (1989) attempts to address this problem by examining the labor supply behavior of rejected applicants to the programs and argues that these rejected applicants represent an appropriate control group for evaluating the effect of the DI programs on actual recipients.

By examining the labor supply response of individuals who are dropped from the SSI because of the change in the 1996 law in the years following 1996, we hope to obtain an estimate

of the impact of a change in benefit levels on labor supply where the changes in benefits levels are exogenous to the individuals enrolled in the program.

Timetable: We expect that the project will take 18-24 months, depending on the time it will take to draw the samples and match the administrative records to social security earnings histories.

R2e: Predicting Lost Work Time Among Back Pain Sufferers According to Demographic and Work History Factors

According to Pope, Frymoyer, and Andersson (1984), lower back pain is "the nemesis of medicine and the albatross of industry" (p. xi). The prevalence of lower back pain and its links to absence are substantial. In 1997, there were 1.8 million instances of nonfatal occupational injuries and illnesses within U.S. private industry that led to absences typically spanning five work days (Bureau of Labor Statistics, 1999). More than 40 percent of these injuries and illnesses resulting in time away from work were sprains or strains, most often involving the back. The median number of lost work days for back-related injuries and illnesses was six, totaling to more than 4.7 million lost work days in 1997 alone, with nearly 20 percent of back pain sufferers missing more than 30 work days per year.

It goes without saying that the costs of lost work due to back pain is exorbitant to the public, private employers, and insurance companies, and, similarly, it is in the best interest of all concerned to minimize lost work time due to back pain. Although there are many factors that contribute to lost work days due to back pain, some people are clearly more predisposed to health-related risk than others, and their health states are influenced by a confluence of psychological, social, physical, and biological factors (Engel, 1977).

Principal Investigators: Joseph J. Martocchio, Ph.D. (PI)

Central Issues and Their Relationship to SSA Priorities: This project addresses two of the priorities of the SSA. The first is the first item under #1 on the "Priority Research Area" sheet: "Trends in the nature of disability and the composition of the disabled population". The second area is the third point under #2 on the "Priority Research Area" sheet: "The interaction of rehabilitation and other support services, the effects of individual motivation and the availability of work on the decisions of persons with disabilities to maintain employment or to apply for SSDI and SSI benefits." It fits into the first area primarily by the more descriptive part of the project where I will document the demographic and work history characteristics of individuals who apply and are granted benefits versus those who are not. The proposed research fits with the second priority because the results will suggest differences in motivation of individuals with disabilities to maintain employment or to apply for SSDI and SSI benefits based on demographic and work history variables.

Work Plan/Timetable: I expect that the project will take approximately 2.5 years. The majority of time will be allocated to merging data sets: 1.Define schedule for the completion of the project based on determining the requirements of merging data sets (months 1 -4);2.Collect and merge data (months 5-15); 3. Analyze data (months 16-22); 4.Write papers and disseminate results (months 23 – 30).

Future Research and Policy Implications: The results should help educate employers about which employees are more likely to be prone to back pain, and the costs of lost work time associated with strains to the back because of the nature of the work. Thus, future research would focus on the development of guidelines to assist employers minimize the incidence of back injuries in the work place. Also, future research would focus on the development of

vocational and counseling programs to possibly reorient the disabled toward seeking alternative gainful employment for which they are qualified.

R2f: The Impact of Disability Insurance Receipt on Family Outcomes

The purpose of this project is to look at the impact of receipt of disability insurance on the families of individuals with disabilities, including factors such as divorce and separations, and child outcomes such as school performance, behavioral difficulties, and injuries. Little research has focused on the impact of disability benefits on the family members of individuals with disabilities. Specifically, what are the characteristics of families that have the most economic and familial stability in the face of a disability? What features of the DI benefit system have been most and least effective in helping families? Does increased DI benefits improve the recipient's children's educational performance, or reduce the probability that the family will dissolve? Can DI benefits hinder children's progress by creating disincentives for parents to work? Finally, is there evidence that the DI receipt is highly correlated across generations?

Principal Investigator: John Johnson, Ph.D (PI)

Central Issues and Their Relationship to SSA Priorities: This project addresses priority 2 on the research matrix: the effects on the SSDI and SSI Programs. This study is designed to focus on the actual impact of the SSDI program on families with disabled individuals. No systematic study has been able to link detailed information on families with disability records, therefore, little quantitative evidence exists to determine if DI in fact has additional benefits to families of disabled workers.

Work Plan/Timetable: Given the nature of this project, all four objectives will be met simultaneously by the following process: 1. Obtain data set and facilitate the matching process with the Census Bureau, including permissions to get SSN match for data (months 1-12); 2.

Begin process of analyzing data, compiling in appropriate formats, and cleaning the data (months 13-14); 3. Complete preliminary analysis of data with standard statistical packages, including writing of programs and producing preliminary results (months 15-17); 4. Compile results and begin process of writing final research paper (months 18-19); 5. Complete project and begin presentation process (months 21-23); 6. Make final revisions based off feedback from presentation of paper (months 21-24).

Future Research and Policy Implications: The ability to understand the workings of the DI benefit schedule and how families respond to these incentives will provide vital policy guidance for future revisions of the DI program. As we learn more about how DI uniquely affects families, we can better study the types of programs that might be more effective in meeting the broadly stated purpose of the social safety net in the United States.

R2g: Predicting Effectiveness Of Vocational Rehabilitation Services Provided to Social Security Recipients

The goal of this study is to identify the factors that determine the effect of rehabilitation services on SSA-VR consumers and to enhance the proportion of persons with disabilities who continue working or re-enter the workforce. It is designed to ascertain the predictive relationship of client demographic characteristics and work history variables to the rehabilitation outcome domain.

Principal Investigator: Madan M. Kindu, Ph.D. (PI)

Central Issues and Their Relationship to SSA Priorities: This project addresses priority 2 on the research matrix: the effectiveness of vocational rehabilitation.

Work Plan/Timetable: Establish and maintain collaborative relationships with SSA and RSA (On-going). Data collection, analysis, model development, and report writing in: Regions V and

VI (1-12 months), Regions I, III, and VII (13-24 months), Regions II, IV, and VIII (25-36 months), and Regions IX and X (37-40 months). Development of disability specific and generalized models (40-44 months). Development of the software (44-46 months). Train SSA service providers in each region (44-46 months). Report writing and preparing monograph/articles for publication (46-48 months).

Future Research and Policy Implications: There are several approaches which future studies might take to enhance the quality rehabilitation of SSA-VR consumers: a. A longitudinal study may be conducted over a period of 5 years by utilizing the cases of current SSA-VR recipients to determine the impact of the following on their employment/SGA outcome: (i). number and types of VR services received and amount of money spent; (ii). the newly developed model; and (iii). improved quality of service delivery; b. Pyschometric measure such as locus of control, work motivation, and personality tests may be utilized to develop a holistic prediction and service delivery model; c. The outcome of SSA-VR consumers is complexly determined by the resultant vectors of main and interaction effects of a number factors in the following domains: client, counselor, SSA-VR process, and labor market. A study may be designed to address all the above variables to develop a disability-specific prediction model.

R3a: Medical, Functional and Occupational Factors in Disability Determination

The purpose of this research project is to evaluate the medical, functional and occupational factors that affect disability determinations by the SSA. The project objectives include (1) sampling disability applications from three recent years, stratified by impairment, region, age, disability program (SSDI, SSI), and decision (benefits awarded initially, after request for hearing, or after Appeals Council remand; or denial), (2) creating a coding scheme to characterize relevant aspects of medical, functional, and occupational factors from existing

claimant files, (3) evaluating the extent to which ratings of medical and functional severity cohere to define reliable measures, (4) analyzing claimant data so as to answer specific research questions, and (5) making the archived data available to SSA and qualified researchers. A five-year work plan is proposed to accomplish project goals. Priority will be given to mental impairments and pain, given the urgent research needs posed by claimants alleging these conditions.

Principal Investigators: Allen Heinemann, Ph.D. (PI), Mary Grace Kovar, Ph.D. (Co-PI), Rita Bode, Ph.D. (Investigator), Patricia Taylor, DrPH (Investigator) and Lynne Wagner-Raphael, Ph.D. (Investigator).

Background and Significance:

Central Issues and Their Relationship to SSA Priorities: This project addresses Priority Research Area 3, The Interaction Between and Impact on: Medical, Functional and Occupational Factors; and Disability Determinations for Purposes of Entitlement to SSDI and SSI Benefits, specifically the first bulleted point (current and future methods of measuring function and comparisons between and future functional requirements of work) and the third bulleted point (characteristics of individuals with borderline and severe mental and physical impairments who work). The SSDI and SSI programs compose the two largest federal programs providing benefits to persons with disabilities. The SSDI program's purpose is to protect workers against severe financial hardship if their ability to earn a living is impaired by a disabling illness or injury (USDHHS, 1996a). The SSI program provides individuals who are elderly or who have a severe work disability with a basic minimum income (USDHHS, 1996a).

The current disability determination process has been criticized for being lengthy and complicated, and often results in inconsistent and subjective decisions. Bound (1989) examined a

sample of SSDI applicants who were denied benefits and found that 36% of these applicants were incapable of any work and 12% were only capable of work within their homes or a sheltered environment. In 1994, the SSA announced plans to improve the disability claim process (USDHHS, 1994). The Hearings Process Improvement Initiative was issued in August 1999, and implementation of this plan is scheduled for January 2000.

Eligibility for SSDI is based on medical evidence of a determinable physical or mental long-term impairment; age, education, and work experience are also considered in the determination process (USDHHS, 1997b). SSI eligibility is based on citizenship, income, financial resources, age, and disability. Disability evaluation requires federal and state cooperation, as each state's Disability Determination Services develops the medical evidence and makes the initial disability determination. Lahiri, Vaughan, and Wixon (1995) modeled the disability determination process based on Survey of Income and Program Participation (SIPP) data. Their findings demonstrated that medical status and activity limitations had a strong impact on the disability determination early on the decision process and work history, age, and education played a role in later stages of the decision process. Levy (1980) found that mobility restrictions, older age at onset of disability, and residence in States with temporary disability programs were associated with a higher probability of receiving an award for benefits.

The SSDI and SSI programs have recently experienced dramatic growth in terms of the number of beneficiaries and total expenditures (USDHHS,1996a; USDHHS, 1996b). This growth has also been documented among State programs designed to supplement SSI payments, leading to various efforts to control costs among many States (Ponce, 1996).

The number of applications increased nearly 47% between 1988 and 1992 and, accordingly, the number of awards has steadily increased, peaking in 1991-1992. Termination

rates have steadily declined from 12% during 1986-1988 to 9.5% in 1994 (USDHHS, 1996b). Two main reasons account for the decrease in termination rates: the younger average age of beneficiaries has resulted in a lower rate of conversion to retirement benefits and the decrease in the number of continuing disability reviews (CDRs; Quadagno, 1997; USDHHS, 1996b). Rupp and Scott (1996) reported an increase in SSDI duration of 1.5 years and SSI duration of 5 years between 1975 and 1993 due to the shift toward younger awardees. Legislation enacted in 1994 and 1996 mandated a minimum number of CDRs. Consequently, the number of recipients deemed no longer eligible rose to 16% in 1996 from 1% in 1988 (Kochhar & Scott, 1998). The ineligibility of individuals with impairments primarily due to substance use, per legislation enacted in January 1997, has also led to a recent increase in termination of benefits (Kochhar & Scott, 1998).

The recent expansion of the SSDI and SSI programs has been partly attributed to disincentives to work based on the program structure (Rosenheck, Frisman, & Sindelar, 1995). However, focus group discussions with SSDI and SSI beneficiaries revealed that recipients were hesitant to terminate their previous employment despite health problems; SSDI and SSI programs were utilized as a last resort (USDHHS, 1996a).

An increase disability determination appeals has also been cited as a reason for the growth of the SSDI and SSI programs (USDHHS, 1996b). According to SSA, 75% of applicants who were denied benefits after reconsideration appealed the decision. Approximately 80% of SSDI decisions from administrative law judges and appeals hearings are allowances (USDHHS, 1996b).

Improvements to the disability determination process are clearly needed. Several measures to improve the objectivity and scientific validity of this decision process have been proposed.

Researchers have developed standardized assessment tools for the evaluation of applicants with burn-related injuries (Cromes, Helm, & Salisbury, 1989), back-related injuries (Clark, Haldeman, Johnson, Morris, Schulenberger, Trauner, & White, 1988), chronic pain (Rucker & Metzler, 1995; Turk, Rudy, & Stieg, 1988), and spinal impairments (Nordby, 1987).

Given the increased prevalence of mental impairments among persons with physical disabilities and program applicants, the manner with which claims involving psychiatric impairments are addressed requires attention. The prevalence of mental disorders among SSDI and SSI applicants is approximately 56% (Leeper, Badger, & Milo, 1985). The number of awards on the basis of mental impairments has increased from 19% in 1988 to 24% in 1992 (USDHHS, 1996b). Several studies have identified problems with the disability determination process for persons with mental impairments. Okpaku (1985) reviewed the psychiatric evaluations of 248 applicants and found the criteria and guidelines for program eligibility to be too stringent. Okpaku, Sibulkin, and Schenzler (1994) obtained independent judgments of applicants' cases and found that of the cases approved by the independent rating team, 89% were actually allowed by the Disability Determination Service. However, the rating team was unable to reach a definitive decision for nearly half of applicants, resulting in a total agreement with the Disability Determination Service on only 40% of cases. In contrast, Massel and associates (1990) found a significant relationship between disability status, as determined by SSA, and work capacity, with nondisabled individuals demonstrated higher functional abilities. These authors recommended the inclusion of a functional assessment of work capacity to improve the disability determination process for particular applicants.

In summary, this study is designed to improve the decision making process for claimants filing disability claims. In so doing, resources will be conserved and the esteem with which

Congress, claimants and the general public regards SSA's disability determination process will be enhanced.

Summary of Preliminary Studies: A major focus of Dr. Heinemann's research has been on improving methods of measuring disability and rehabilitation outcomes. A problem that has bedeviled rehabilitation professionals is that of measurement: How can one consistently, accurately, and validly assess the extent of disability and benefits of rehabilitation? The existing proxy measures related to burden of care are useful but imprecise indices of disability.

Earlier work demonstrated that equal-interval measures can be derived from functional status instruments, that it is important to distinguish gains in motor and cognitive functions, that functional gains for specific impairment groups vary widely, and that patients with more severe disabilities usually require more rehabilitation services and make smaller functional gains (Linacre, Heinemann, Wright, Granger, Hamilton, 1993; Heinemann, Linacre, Wright, Hamilton, Granger, 1993). As the first effort in medical rehabilitation, we applied rating scale analysis to evaluate the difficulty of Functional Independence Measure (FIM) items, to examine the extent to which items relate to a single construct of disability, and to determine the similarity of scaled measures across impairment groups. The results showed that the FIM contains two fundamental subsets of items: one measures motor disability (feeding, grooming, bathing, dressing, toileting, transfers, locomotion, bladder and bowel management, stair climbing) and the second measures cognitive function (comprehension, expression, social interaction, problem solving, memory). The validity of FIM was supported by the similar patterns of item difficulties across 13 impairment groups. The frequency of misfit between patients and the performance scales (statistical validity) varied across impairment groups, but was acceptable. These results enable clinicians and researchers to plan cost-effective treatment studies by providing valid measures of

disability. No longer must summed scales with unknown measurement error and validity limit research.

Next, we evaluated the motor and cognitive function gains from admission to discharge attained by more than 29,000 patients whose records were drawn from a national repository of inpatient rehabilitation data maintained by the Uniform Data System for Medical Rehabilitation at SUNY Buffalo. Rating scale analysis-transformed motor and cognitive measures derived from the FIM were used. Not only were patients in various impairment groups admitted with differing levels of function, but also the gains they made were not equivalent. For both motor and cognitive functions patients with traumatic brain injury (TBI) made relatively large gains, even though they had the lowest admission level of cognition and mid-range scores in motor function. These results have important implications for reimbursement of medical rehabilitation services as payers and providers attempt to reduce their costs.

Another aspect of this work examined the extent to which rehabilitation outcomes and resource utilization could be predicted by a functional status measure (Heinemann, Linacre, Wright, Hamilton, & Granger, 1994). Linear measures of motor and cognitive function derived from the FIM were used with the same sample of patients undergoing initial rehabilitation. Admission functional status was consistently related to discharge function and length of stay, though the strength of these associations varied with impairment. Motor function was a stronger predictor of length of stay than was cognitive function for all impairments. However, the unique contribution of cognitive function was apparent for specific impairment groups. These results support the use of functional status measures in the development of rehabilitation resource utilization models.

Dr. Kovar has a different background in disability research. Her work has focused on measurement of disability in surveys, and on disability among older people (Fitti & Kovar, 1987; Kovar, Fitti & Chyba, 1992; Kovar, Forbes & Weeks, 1995).

Objectives: The goals of this project are to (1) improve the quality of information available to SSA to make disability determinations, and (2) evaluate how claimant characteristics (age, impairment, insured status, and medical functional limitations) affect disability determination outcome. The study has the following objectives: 1. Sampling disability applications from three recent years, stratified by impairment, region, age, program (SSDI, SSI), and decision (benefits awarded initially or after request for reconsideration, after a hearing by an Administrative Law Judge, or after Appeals Council remand; or denial); 2. Creating a coding scheme to characterize relevant aspects of medical, functional, and occupational factors from existing claimant files; 3. Evaluating the extent to which ratings of medical and functional severity cohere to define reliable measures; 4.Analyzing claimant data so as to answer specific research questions (e.g., What is the nature and quality of information available to make disability determinations, and when does it become available?); and 5. Making the archived data available to SSA and qualified researchers.

Methods:

Data Collection Protocol:

The population of interest is claimants between the ages of 18 and 65 who filed initial claims for disability under Title II (SSDI) and Title XVI (SSI) between 1995 and 1997. Cases will be sampled across impairments (2 – mental, pain), Federal regions (10), age (younger than *vs.* greater than 35 years), disability program (SSDI, SSI) and decision (benefits awarded initially or after request for reconsideration, request for hearing, or Appeals Council remand; or denial at

any stage – other than denial after initial application without appeal). This sampling strategy creates 320 "cells;" a minimum of 25 cases per cell (across three years for the period 1995-1997) is required (8,000) to attain sufficient power to address the research questions. For the first research question, a sample of 150 cases would be sufficient to produce stable item calibrations within one-half of the unit of measurement at a 99% confidence level. With the planned sample size, it would therefore be possible to calibrate data separately for at least 50 subgroups, if that were desirable. For the second and third research questions, sample requirements would depend on the number of variables included in the models. If five variables were included in the model, a sample of 125 cases would be sufficient (power = 0.82) for detecting a 10% increase in the variance explained in the predicted decision. Claimant records will be excluded only if a decision was not reached after three years, hence our decision to examine files no more recently than three years before the start of this project. We will seek the cooperation of regional SSA offices to obtain a complete list of all initial claims during this time period. DRI staff will randomly select eligible cases across districts comprising each region, and SSA regional staff will retrieve and photocopy relevant records.

Data sources include:

(1) Form SSA-831-U3, Disability Determination and Transmittal (coding filing date, personal identifiers, primary diagnosis, listings met, decision, representation),

(2) Form SSA-3367-F4, Disability Report – Field Office (coding onset date, prior filing information, alleged impairment, observations, and development information),

(3) Form SSA-3368-BK, Disability Report – Adult (coding claimant's report of impairments, employment information, medical record sources, medications, education and training, vocational rehabilitation),

(4) Form SSA-2506-BK, Psychiatric Review Technique (coding A and B criteria for mental listings), and

(5) Form SSA-4734-F4-SUP, Mental Residual Functional Capacity Assessment (coding nonexertional limitations).

Information will be abstracted and coded to capture text, date, check box, and rating scale information. Abstraction, coding and entry of each record is expected to require two hours of NORC staff time (5 FTEs for 2 years); data verification is expected to require 30 minutes per record (1 FTE for 2 years). RIRC staff will construct a database in Microsoft Access for data entry and verification.

Data Analysis: The power analysis information is described in the Data Collection Protocol section.

Question 1 will be evaluated using Rating Scale Analysis (RSA). RSA is an analytic technique used to apply the Rasch model to observations recorded on an ordinal scale in order to construct linear measures. A good introduction to Rasch's model and its use in the rehabilitation field is provided in Wright and Linacre (1989). Merbitz, Morris and Grip (1989) brought to our attention the perils of treating ordinal data as if they are linear and since then, several applications of the Rasch model have been made in rehabilitation. Recent examples include an evaluation of patients with pain (McArthur, Cohen, & Schandler, 1991), severity of activity limitations and relationships with impairment (Heinemann & Kan, 1996; Heinemann, Linacre, Wright, Hamilton, & Granger, 1993), physical functional status (Haley, McHorney, & Ware, 1994), and societal participation (Whiteneck, Charlifue, Gerhart, Overholser, & Richardson, 1992). RSA can be used to examine the quality of new or existing instruments; it can also provide insight into the behaviors being observed that is not possible with traditional

psychometric analyses. Since RSA, and the Rasch model on which it is based, is less often used in disability determination than it is in other fields, a brief summary is provided in the Appendix.

Question 2 will be evaluated using logistic regression. Decision (favorable *vs.* unfavorable) will be predicted using continuously measured variables (e.g., estimates of disability severity derived from the rating scale analysis) and categorical variables (e.g., presence *vs.* absence of specific evaluations; demographic, employment, and impairment characteristics). Logistic regression is a robust procedure that evaluates the relative importance of predictors of an outcome.

Question 3 will also be evaluated using logistic regression, thus time substituting impairment type (mental impairments, pain), disability program (SSDI, SSI), regions of the nation, and claimant age as predictor variables of decision outcome.

Work Plan/Timetable: Project start-up: Staff will be hired, subcontract with the University of Chicago/NORC established, and initial discussions will begin with SSA staff about claimant data acquisition (months 1-4); Establishing a project advisory group: We will poll SSA staff and experts in the field to identify persons who can serve to review work progress and critique work plans. Consumer representation will be solicited from Congressional and consumer organizations (e.g., NAMI, NOD; months 1-6); Sampling disability applications from three recent years: We will request a list of disability claimants, propose a sampling scheme, identify claimants, and request copies of claimant files from each region (months 7-17). NORC staff will be primarily responsible for sampling strategy and case identification; Creating a data coding scheme: We will verify that we have current versions of all SSA Disability Determination forms as used in all states and territories, identify common and unique elements across states and territories, and construct a draft data base with input from the Advisory Group (months 7-17);Code claimant

data: NORC staff will code claimant data, as advised by consultant experts in physical medicine and rehabilitation, mental health (including substance abuse), pain management, developmental disabilities and Disability Determination (months 18-35); Conducting rating scale analysis of medical and functional information: We will evaluate the extent to which items comprising the various exertional and nonexertional instruments cohere to define measures with acceptable measurement properties (months 36-48); Analyzing claimant data: The measures developed from medical and functional information will be concatenated with the claimant database. We will use descriptive and inferential statistics to evaluate the research questions (months 49-60); Archiving data for SSA and qualified researchers: We will investigate FTP and CD-ROM technology to share properly masked claimant data with SSA research staff and qualified researchers. In addition to the extensive computing resources available through NORC, we will consult with UIUC Supercomputer Center staff on cost-effective strategies for data archives (months 49-60).

Future Research and Policy Implications: Development of high quality measures of medical and functional characteristics of claimants and clearer information about how disability determination decisions are made will benefit claimants, the SSA, Congress, the nation and researchers. Claimants will be assured that decisions are fair and equitable, and that there is a valid, empirical basis for denial of claims to persons who do not met, equal or functionally equal impairment criteria. SSA will benefit from reduced administrative costs associated with lengthy and multiple appeals; the Office of Hearings and Appeal will be guided by better information to make fair determinations. Congress will be served by a better understanding of future program costs and the changing nature of disability. The nation will benefit by directing resources to persons with greatest need. Finally, researchers will benefit from a data set that allows secondary analysis of disability determination claims data and outcome.

R3b: Research Program on Barriers to Employment among Persons with Mental Impairments

The purpose of this project is to examine barriers to employment among those with mental impairments. Through a comprehensive literature review and analyses of data from large representative surveys, we plan to build a model useful to the SSA, Congress, and policy makers on issues of employment among persons with mental illness. The funding requested covers the first year of our research agenda.

Principal Investigators: David Mechanic, Ph. D. (PI), Donna McAlpine, Ph.D. (Investigator), Stephen Crystal, Ph.D. (Investigator), Jamie Walkup, Ph.D. (Investigator), and Lynn Warner, Ph.D. (Investigator).

Background and Significance: This project is designed to examine barriers to employment among persons with mental illness and addresses Priority 3 of the SSA: The interaction between and impact on: Medical, Functional and Occupational Factors; and Disability Determinants for Purposes of entitlement to SSDI and SSI Benefits.

In the past decade there has been significant growth in the numbers of persons with mental illness among those on the DI rolls. There are many factors contributing to such growth including the continuing deinstitutionalization of the mentally ill and increased recognition and acceptance of mental impairments in the larger society (Mashaw & Reno 1996a). Community mental health programs view gaining DI for their clients as a major responsibility.

Persons with psychiatric illness in the DI program includes those who qualify because of psychiatric impairments, and those with psychiatric comorbidities that complicate physical disabilities. Persons with primary psychiatric impairments in the DI program are a relatively young group, enter the program at young ages, and have long tenure in the program (Mashaw &

Reno 1996b) making them an important target for rehabilitative efforts focused on entry or return to work. Individuals with physical illness are also at increased risk for psychiatric comorbidities, especially depression (Frank et al., 1988; Carney et al., 1987; Lustman et al., 1986), which compounds existing disabilities and increases the risk of withdrawal from the paid labor market. Many recent studies indicate that when depression co-exists with serious chronic illness, the disability impact is often additive. For example, the social disability caused by depression and heart disease is twice that of heart disease alone (Wells, et al., 1989).

In the supplement to the 1989 National Health Interview Survey, only 29 percent of persons with serious mental illness described themselves unable to work at all (Barker et al., 1992). In a 1990-91 NAMI survey of persons with serious mental illness, more than three-fifths of clients reported a need for help in getting or keeping a job, but only 29 percent reported receiving such assistance; 19 percent reported they wanted more help (Uttaro & Mechanic 1994). Most studies find that persons with mental illness indicate that they want to work if barriers to their employment can be removed.

Data on several aspects of psychiatric impairments and the employment market are needed to develop a comprehensive model of barriers to employment. These include (1) characteristics of the clients that influence participation in the labor force (education, work history, race and ethnicity, general health status, age, gender, motivation to work); (2) characteristics of the impairments themselves and how they interact with varying types of work demands; (3) extent of comorbidities and abuse of alcohol and drugs; (4) access to appropriate treatment (including health insurance coverage; access to mental health specialty care; coinsurance, deductibles and out-of-pocket costs as a percent of income; access to atypical antipsychotics and SSRIs); (5) service utilization; (6) characteristics of changing work in the

economy, the demands made, and new opportunities (including growth of service sector jobs, decline of manufacturing jobs, demand for computer skills); (7) the macro economic picture (including demand for workers, changing wage levels); and (8) employer accommodations (work schedule flexibility; part-time work; job coaches; workplace accommodations).

Summary of Preliminary Studies: The Center's researchers have contributed to almost every aspect of this complex constellation of variables relevant to understanding employment among persons with mental impairments such as diagnostic assessment, measurement of function, health insurance coverage, services, comorbidity, and use of psychoactive medications and have done so within a policy perspective. The focus on employment barriers builds on this prior research. (Further details about the Center are provided elsewhere).

Objectives: The broad objectives are threefold: 1) to examine the barriers to employment among persons with a primary mental illness; 2) to examine how mental illness may complicate physical illness and disabilities to increase risk of unemployment; and 3) to describe the factors that may ameliorate risk for unemployment among those with mental illness.

The research questions to be addressed include (but are not limited to) the following questions: 1) What mental health specialty services ameliorate the risk of unemployment? 2) How do characteristics that shape opportunity (e.g., age, education, and race) interact with psychiatric impairment to make employment more or less difficult? 3) How do comorbid psychiatric conditions influence employment for those with physical disabilities; 4) What are the perceived barriers to work among those with psychiatric conditions? 5) How do employers view accommodations for workers with psychiatric impairments?

Methods: Our research agenda will follow three pathways: 1) Review of the literature; 2) Analyses of existing data; and 3) Pilot studies to address gaps in existing literature and data.

Literature Review: We will complete a comprehensive review of the literature on employment barriers that are relevant to disability policy and can contribute to policy and administration of the DI program. This review will also guide the analyses of data.

Analyses of Secondary Data: No one data set includes all variables necessary to understand the important issues, but each contributes to the overall picture. To the extent that similar findings are found across data sets with similar measures they serve to validate one another. To the extent that we can use data collected during different time periods, we can examine trends. The major data sets to be used in the 1st year are described below, with data to be used in later years described more briefly. Center investigators have experience working with most of these surveys.

Healthcare for Communities (HCC): The HCC is a nationally representative study, focused on tracking changes in the alcohol, drug and mental health care services systems (McAlpine & Mechanic, 2000; Sturm et al., 1999a, 1999b). The sample of adults ranging in age from 18 to 97 (N=9585) were interviewed in 1997/1998. The HCC includes respondents who were originally interviewed approximately 15 months earlier as part of the Community Tracking Study (CTS) (Kemper et al. 1996), a study to track changes in health systems in 60 communities across the US. The HCC over-sampled respondents from the CTS who reported high psychological distress, used mental health services or reported low-incomes.

Measures of mental illness are based on the Composite Diagnostic Interview and include the presence of depression, dysthymia, anxiety, panic disorder, bipolar disorder, evidence of psychoses, and alcohol or drug abuse. Work status, and details of all sources of income (including disability insurance) are also included. Independent variables that may shape employment status, or moderate the effects of mental illness include demographics, general

health status, chronic conditions, functioning, access to care (insurance coverage and prescription drug coverage), mental health specialty care utilization (outpatient, inpatient and emergency room), and prescription drug use (including psychotropic). HCC data will also be linked to community-level data derived from Area Resource Files (ARF), including unemployment rates, labor force composition, and availability of mental health resources. A second wave of the HCC will be fielded in 2000, allowing examination of changes in employment status.

National Health Interview Survey – 1994-1995 Disability Supplement (NHIS-D): The NHIS-D, conducted by the National Center for Health Statistics (NCHS) in 1994-1995, collected information on the prevalence of disability in the civilian, noninstitutionalized population of the United States. Phase one of the Disability Supplement includes all households interviewed as part of the NHIS in 1994 and 1995. Individuals were eligible for Phase II of the survey, the Disability Follow-up Survey (DFS), if they experienced limitations in activities or received disability benefits. The DFS, which was fielded between 1995 and 1997, included detailed questions about a variety of issues relevant to disability including housing and employment problems, health insurance, and services utilization.

Our analyses will focus on adults 18-64 years of age who completed the NHIS-D and the adult questionnaire of the DFS. The NHIS-D asked about the occurrence of symptoms such as confusion, depression or anxiety and asks whether any household member had a number of specific mental or emotional disorders in a 12-month period such as depression, manic episode, schizophrenia, or drug and alcohol abuse.

These data contain the richest information on work history, need for special work arrangements (e.g. reduced hours or special equipment), and perceived barriers among those not working (e.g. fear of losing SSI, inadequate training). It also contains extensive information

about activities of daily living, instrumental activities and functional limitations, including limitations that may be particularly important among those with mental illness such as difficulty getting along with people, or coping with stressors. The NHIS-D also includes questions about the use of health services (including specialty mental health care), and insurance status. The advantage of the NHIS-D and DFS for these analyses is that it they contain detailed information about work, use of vocational services, reasons for not working and perceived barriers to employment. Using the NHIS-D and DFS we can also examine whether mental health problems increase risk of unemployment, or difficulties in employment, among those with other disabilities. Moreover, we can examine the characteristics of work that ameliorate this risk. The major drawback of the NHIS-D and DFS, for our purposes, is that the measures of mental impairments are based on self-reports of conditions, and not on a diagnostic interview.

National Health Interview Survey – 1989 Mental Health Supplement: In 1989 the NHIS, conducted by NCHS, included a mental health supplement, which provides detailed information about the prevalence of various mental illness conditions (based on a check-list of severe disorders) for approximately 117,000 respondents in 50,000 households (Walkup and Gallagher 1999). For each disorder, information was collected on date of diagnoses, and the use of mental health specialty care, limitations in activities and function, if disorder limited work, and use of disability programs, and use of prescription medication. The NHIS-Mental Health Supplement includes many of the same measures as the NHIS-D, and to the extent these data can be compared we will examine changes over the six-year period between surveys.

Additional Data: In the second and third years of the research program we will analyze other existing national data sources including: The Survey of Income and Program Participation; The

National Comorbidity Study; The Medicare Current Beneficiary Survey (MCBS) and the Medical Expenditure Panel Survey (MEPS).

Survey of Income and Program Participation (SIPP): The SIPP, collected by the U.S. Bureau of the Census, consists of a series of panel surveys, begun in 1983. Each household in the panel is interviewed every four months for 2.5 to 4 years, and each interview includes a different topical module in addition to core questions about sources of income and employment. The 1993 panel includes 9 waves of data collection, with the second wave asking detailed questions about work and disability, and the third wave including information about functional limitations. The advantage of the SIPP is that it allows tracking of changes in employment and income over years among the same individuals. It does not, however, include detailed questions about mental health conditions. Individuals with psychiatric conditions can, however, be indirectly identified by examining five sources of information in the SIPP: 1) the types of conditions that limit paid or unpaid work; 2) health condition that qualified individual for SSI; 3) the types of conditions that cause limitations in functioning and 4) whether the individual had ever been hospitalized for a psychiatric condition; and 5) responses to the question of whether the individual has any other mental/emotional condition. This information is not collected at each of the nine waves, so care will be taken in specifying paths between mental health problems and employment interruptions.

National Comorbidity Study (NCS): The NCS is a national survey conducted in 1990-1992 of the non-institutional civilian population aged 15 to 54 years and was designed to collect information about the prevalence and correlates of psychiatric illness in the United States. The NCS is the most recent national survey that includes a standardized diagnostic interview measuring many different mental disorders. It also has the advantage of including information

about date of onset of illness. The NCS contains questions about work status, however, it has limited questions on reasons for not working or perceived barriers to employment.

Medicare Current Beneficiary Survey (MCBS): The MCBS, conducted by the Health Care Financing Administration (HCFA), is a continuous survey of Medicare beneficiaries, begun in 1991. The survey is designed to collect information about cost, payer source, and utilization of health services for a nationally representative of aged, disabled and institutionalized beneficiaries of Medicare. Respondents are interviewed every four months, and currently each panel is followed for about four years. Our analyses will focus on beneficiaries between the ages of 18 and 64. Beneficiaries with psychiatric impairments can be identified through claim records for psychiatric services. There is limited information about work history, but the data can be used to describe the population of disabled adults with mental illness, and changes in population characteristics over time.

Medical Expenditure Panel Survey (MEPS): MEPS, conducted by the Agency for Health Care Policy and Research, consists of overlapping panels of households drawn from the NHIS and provides nationally representative estimates of health care services utilization, expenditures and sources of payment. The 1997 Household Component (HC) consists of households participating in the first two panels of the survey begun in 1996 (N=9,500) and 1997 (N=5,800). Households are interviewed about every 4 months for approximately 2 years. The MEPS also consists of a medical provider component (MPC) which surveys health care providers identified by household respondents, and an insurance component (IC) collects information about insurance plans; data from both of these surveys can be linked to the household data. Our analyses will focus on persons aged 18 to 64 years of age.

MEPS collects detailed information about employment status, work schedules, and reasons for unemployment, and the longitudinal design makes it possible to explore movement in and out of the labor market. The survey also asks extensively about medical conditions, and mental illnesses can be identified from both respondents' reports of mental health conditions, and medical encounters associated with mental illnesses may also be identified with the provider survey.

Pilot Studies: If any gaps exist in data collection during the first year of the project, pilot studies will be conducted during the second and third year of the project. These studies will likely include surveys of members of the National Alliance for the Mentally Ill, employers, and employment counselors.

Data Analysis: Analyses of data based on complex sampling designs will use Sudaan software to adjust variances accordingly. Estimates will be weighted to be nationally representative. Space constraints prohibit a full discussion of the strategy to be used to analyze each of the data sets; however, the investigators have extensive experience working with large, complex data sets including most of those included in this proposal (e.g. Mechanic & McAlpine, 2000; McAlpine & Mechanic, 2000; Walkup & Gallagher, 1999; Crystal & Shea, 1990; Crystal et al., 2000; Crystal et al., 1992; Warner et al., 1995).

Descriptive analyses will focus on differences in rates of employment among persons with and without mental illness among persons aged 18 to 64. The impact of comorbidity (physical and substance use) on employment will also be examined in these analyses. Much of the multivariate analyses will focus on employment status as the dependent variable. Hierarchical logistic regressions will be computed with independent variables sequentially introduced to determine the extent these variables directly influence the probability of employment or may mediate the

impact of other factors. These analyses will allow us to examine whether services utilization moderates the impact of mental illness on employment

Similar analyses will examine the impact of other barriers to employment such as difficulties in functioning (e.g. cognitive disorganization, difficulty in social functioning), comorbid conditions including substance use or physical health problems, problems in access to services (e.g. lack of insurance, co-payments; prescription drug coverage) status and so on. For analyses examining changes in employment status over time, initial employment status will be included in the equation. For analyses using the HCC that involves links with community characteristics, multi-level modeling will be done using MLn software. Multi-level modeling will allow us to estimate the impact of community characteristics (e.g. unemployment rate), and individual characteristics (e.g. presence of a mental illness) on the employment status of individuals, as well as interactions among community and individual-level characteristics.

Work Plan/Timetable: 1. Review of literature and preparation of summary report {months 1-3}; 2. Analyses of first wave of HCC {months 2-5}; 3. Preparation of research report based on HCC {months 5-7}; 4. Analyses of NHIS-D, DFS, and 1989 NHIS-Mental Health Supplement {months 7-11}; 5.Preparation of research paper based on NHIS-D, DFS, and 1989 Mental Health Supplement Data, including comparisons to HCC {months 11-13;6. Analyses of NCS data and preparation of research paper {months 13-16}; 7.Analyses of SIPP and MCBS data {months 16-21};8.Preparation of research paper based on SIPP and MCBS {22-23; 9. Analyses of MEPS data (months 22-26); Step 10. Preparation of research reports {months 25-28}; 10. Implementation of Pilot Studies: {months 28 and beyond; implementation/length of pilot studies will depend upon design}

VIII. Future Research and Policy Implications: The proposed research will substantially contribute to our understanding of the facilitating and impeding factors for employment among those with mental impairments. It will identify persons most likely to succeed in disability-to-work programs, and the program characteristics most likely to facilitate success.

SECTION III-c - DISSEMINATION PROSPECTUS

Scope of Work

The Graduate School of Library and Information Science (GSLIS) of the UIUC will assist the DRI in disseminating the results of its research program and for publicizing its educational program. The Institute will perform the following specific tasks as well as others that may be needed or desirable:

List of Stakeholders: The DRI will conduct research to prepare a list of stakeholder agencies/organizations to receive print or electronic communications from the Institute, in consultation with other Institute members and the Social Security Administration Office of Research, Evaluation, and Statistics (ORES). Stakeholders will include government agencies, universities and research centers, organizations representing policy makers and government officials, organizations representing the disabled community, organizations for those serving the disabled community such as social workers, and other organizations considered appropriate, such as those representing government 'watchdog' groups. Major newspapers, magazines and journals published by or read by these stakeholder groups will be included. An effort will also be made to identify the Listservs serving these groups.

Print Newsletter: The DRI will prepare, print and mail a twice-yearly Institute newsletter of approximately four pages, in consultation with other Institute members and the ORES. The newsletter will include information about research projects, summaries of research results,

descriptions and calendar of training, seminar and conference activities, and other information relevant to the ORES and its stakeholders. In order to meet the interests of the various stakeholder groups, the Newsletter could include sections designed in content and style of presentation to appeal to each group. Alternately, each Newsletter issue could include two or more individual, shorter editions to be mailed separately to the stakeholder groups.

Listserv(s) or Bulletin Board(s): The DRI will set up and maintain a Listserv to distribute the content of the printed Newsletter and the printed Press Releases to stakeholders in electronic format. One or more additional Listservs can also be established for other purposes as needed, such as a Listserv for Institute and ORES staff use. One or more Bulletin Boards can also be established as they seem appropriate. These electronic dissemination formats will be designed in consultation with other Institute member and the ORES.

Other Publishing: The DRI will assist all affiliates and collaborators as needed in making contact with appropriate publishers for books and journal articles and the proceedings of biennial conferences will be made into a monograph. The University of Illinois Press will be consulted as a potential publisher.

Press Releases: The DRI will prepare and mail in print or electronic format, press releases to publicize Institute activities, in consultation with other Institute members and the ORES. The List of Stakeholders will be used as the basis for mailings.

Web Site: The DRI will design and maintain a Web Site for the Institute in consultation with other Institute members and the ORES. The Web Site will be maintained locally on the GSLIS Community Networking Initiative/Prairienet network. The Web Site will include this informational content: (a) descriptions of the research staff and projects; (b) text of press releases and descriptions of Institute news and recent events; (c) descriptions and summaries of Institute

publications with the complete text provided as appropriate; (d) schedules and descriptions of education and training offerings; (e) links to other Internet sites about disability issues; and (f) access to the Institute Listserv(s) and Bulletin Board(s).

Other features, such as a "chat" room, a question-and-answer service, or downloadable/searchable subsets of research data may be offered on the Web Site if they are desirable; however, we anticipate that additional funds above those listed in the proposed Budget will be required.

Sensitivity to the needs and interests of the various stakeholder groups will be sought in the design and content of the Web Site. In general, the non-academic audiences will prefer a more easy-to-read style, less coverage of research methods, and more focus on the applicability of the research than the academic audience. These preferences can be addressed by offering information about the research results in a summarized or 'quick facts' format, and perhaps separate pages or sections for the various groups. We have made a brief study of web sites used by other organizations that are responsible for disseminating research data and results in order to find models for the Institute Web Site. The examples reviewed below include options for accommodating the various stakeholder groups.

Schedule of Work

During the first year, while other Institute members are beginning their research projects, GSLIS will focus its work on establishing the dissemination 'infrastructure' needed by the Institute, including: (1) revising the dissemination plan in consultation with other Institute members and the ORES; (2) preparing the List of Stakeholders; (3) preparing and mailing the first Press Releases and Newsletter issues to announce the Institute's research program its initial

training activities; and (4) designing the Web Site and setting up Listserv(s) and Bulletin Board(s).

In subsequent years, as the researchers complete their projects and prepare their results, GSLIS will focus on describing, summarizing, and otherwise promoting the content of the research program using the already established infrastructure.

Internet Dissemination Models

Many institutes and government agencies responsible for disseminating data and research findings in the social sciences maintain web sites for this purpose. GSLIS staff reviewed the web site of the Retirement Research Consortium to show the possible features that could be incorporated into an Internet-based dissemination plan for the Disability Research Institute.

That Consortium includes two centers, the University of Michigan Retirement Research Center and the Boston College Center for Retirement Research. Each center maintains its own web site for dissemination, including: (1) descriptions of the centers and research projects; (2) profiles of the staff and researchers; (3) press releases and descriptions of news/recent events; (4) descriptions of center publications such as research/policy briefs, books, working paper series, conference papers (complete text is provided for the shorter publications); (5) schedule and descriptions of education/training events and courses; and (6) links to other Internet sites about retirement issues.

The DRI Web Site will offer the same informational content as the Retirement Research Consortium, plus these additional features: (1) information prepared and presented with the needs of non-academics in mind; (2) information presented in summarized or 'quick facts' form; (3) e-mail dissemination of news; (4) interactive communication options such as bulletin boards,

listservs, chat, question-answer service, and an internal Intranet; (5) searchable databases; and (6) downloadable data sets.

An annual dissemination conference will be held to share the results of research activities with the academy, Social Security's own workforce and the public at large, especially persons with disabilities. Even though the RFA for this proposal requires only two biennial face-to-face conferences (years two and four) to be provided, the DRI will support and provide virtual technology dissemination conferences in years one, three and five. These activities will dovetail with training and education and will be more thoroughly discussed in the training and education prospectus.

Scientific Dissemination: An additional venue for dissemination of research conducted by the DRI will be through preparation of reports for SSA. Research findings will be widely disseminated via scientific publications and presentations in leading discipline-specific and interdisciplinary sources (i.e., American Economic Association, American Psychological Association, Industrial and Labor Relations Research Association). Special attention will be given to the dissemination of findings within public policy forums, to maximize the impact of the DRI'S research on policymakers and disability advocates (i.e., legislative hearings, preparation of policy briefs). Results will also be released to the public through major print and broadcast media, community and university newsletters, and the maintenance of a website. All efforts to disseminate DRI research findings will be focused on the goal of serving as a national resource and ultimately benefiting the public.

Dissemination Coordination

Lynn M. Hanson will coordinate the previously described dissemination activities, except for the annual conferences. She will act as liaison between the Graduate School of Library and

Information Science (GSLIS) and the DRI. Her biographical information appears in both the staffing proposal and in the vitae sections of appendices.

Summary:

A variety of dissemination activities will emanate from the DRI. Instead of only two annual conferences, the DRI will enhance the biennial face-to-face meetings with annual virtual dissemination meetings. These will be more thoroughly discussed in conjunction with the training and education prospectus.

SECTION III-d - TRAINING AND EDUCATION PROSPECTUS

The education and training components of the Disability Research Institute (DRI) are of paramount importance. The Office of Continuing Education (OCE) at the UIUC will play a major role in facilitating training and educational activities. The OCE is well versed in providing education and training opportunities to scholars and practitioners alike across an array of fields using a variety of instructional formats (e.g., conferences, institutes, credit and noncredit courses, workshops) and instructional delivery methods (face-to-face, interactive video, satellite, audio-conferencing and Internet). A professional staff member will be available throughout the duration of the Institute in order to be both proactive and responsive to the educational/training needs of the Institute and those it serves. Dr. Faye Lesht of OCE will facilitate these activities. The DRI anticipates a continuous flow of relevant findings and implications to the research and practitioner communities throughout duration of this project. This will occur using a variety of delivery methods throughout the DRI's tenure including face-to-face conferences, workshops and seminars as well as those mediated by distance education technologies.

In order to provide a comprehensive education/training model for the DRI, which will allow scholars/researchers and practitioners to incorporate the DRI research findings into their knowledge base and thereby affect policy, the DRI will offer an assortment of opportunities in addition to the two biennial conferences one of which will be held either in the Baltimore/ Washington, D.C. area or at the host site. In this way training, education and dissemination activities will focus on the DRI partners. Members of the professional community in need of this disability research information will be able to choose appropriate programs of study to suit their needs.

Currently Available Internet Courses

The Academic Rehabilitation Program at UIUC has developed an 18-hour graduate level sequence of courses including: Social and Cultural Contexts of Disability, Job Placement Techniques, Vocational Evaluation, and Rehabilitation Administration and Counseling Techniques. The option to enroll in this 18-hour graduate-level Professional Development Sequence related to rehabilitation will be available via the Internet. All internet courses will be BOBBIE approved. Seminars will be provided to SAA's own workforce partnering with SSA in use of the IVT system to provide periodic updates on research findings and discuss their implications as well as conferences for in-depth exploration and dissemination of research findings. In addition to the already existing 18-hour Internet-based graduate coursework which will be available throughout the project a variety of educational and training activities will occur.

Workshops and Conferences

Each year DRI will offer a series of bi-monthly workshops on understanding and interpreting research findings to Social Security's own workforce. This will allow those with limited knowledge of research basics, or those who need a refresher course, to obtain it. The

workshop series will be led by Dr. Emer Broadbent, a staff member of the DRI. The format and delivery method will be finalized by mutual consent between the Institute, the instructor, and SSA.

The second and fourth years of the project the DRI will host the biennial conference on research findings. These will be two-day conferences, held in partnership with SSA and will allow for full participation of SSA staff as well as the scholarly community. There will be at least 9 contact hours of training including repeated sessions to accommodate those staff members who work a flexible shift schedule. The choice of times and locations for the face-to-face conferences will be done in partnership with SSA.

During the first, third and fifth years of the DRI, a virtual conference using the SSA's IVT infrastructure will be held for 2-3 hours per day over a two-day period. The emphasis of the off years will also be on disseminating research findings and training on related implications. In addition to the major annual meeting each year, there will be periodic updates, seminars and workshops as the rich data unfold in order to keep the professional community apprised of the findings.

The virtual conferences will ideally be accomplished using the highly developed U of I interactive video network in conjunction with and cooperation with SSA's own interactive video technology (IVT) network. Using and partnering with SSA in the training activities will provide a broader base to SSA's own workforce and training activities will always be coordinated with the Office of Disability and the Office of Training, within SSA, so as not to overlap or provide redundancy to the training activities. The DRI, because of its research priority will provide a new dimension to SSA's training activities.

New Paradigm for Graduate Training

The DRI will take its training mission very seriously while maintaining a balance of focus on research and timely research-based training and education activities. The Institute director has been committed to disability and rehabilitation training activities for her entire 25-year academic career and will coordinate training activities with the cooperation of the OCE and its Academic Outreach activities. A training agenda will be developed, which, in partnership with SSA, will meet the training and education needs of Social Security's own work force and will promulgate the training and information on the results of the DRI to constituents of all types throughout the country.

The Institute will fulfill part of its mission by the provision of support through graduate training through the facilitation and development of new on-line Internet-based course work. A special focus will be training for Master's and Doctoral level students, in particular, those who are working with the Institute and its Affiliate partners and Collaborating partners. DRI will also educate others who demonstrate legitimate need for access to the wealth of knowledge which will be produced.

On-Line Coursework

The Internet course work will be facilitated by extensive consultation with Associate Vice-President Burks Oakley, the coordinator of the University of Illinois' extensive on-line course network. The plan behind the on-line course work is to provide graduate level training using the latest information technology to scholars and training within the Institute and across the nation. The development in the first year of at least two on-line courses will be the responsibility of the Institute's staff and affiliates in conjunction with Professor Oakley's staff at University of Illinois on-line.

There will be at least three new courses created, one of which will train graduate-level students to access SSA's data base in conjunction with the development and facilitation of data

usage activities of the Institute. The first course will focus on how to use and access the SSA data made available through DRI facilitation and data mining activities. The second course will be developed to present research results and support thoughtful exploration of those results by graduate students who can be participants with the Institute in the development of new academic and disability policy questions to present to SSA for the further development of the Institute and SSA's research agenda.

The third on-line course to be developed will use the same methods but on a not-for-credit basis. The course will be presented in conjunction with the Rehabilitation Regional Continuing Education Program (RRCEP), of which the University of Illinois is an affiliate in conjunction with the University of Wisconsin-Stout. This course will be made available to lay practitioners focussed on access to the Institute's research findings and will be presented in terms that rehabilitation practitioners and people with disabilities themselves can readily understand.

The course work will be rigorous, but not-for-credit, and will be made available at a reading level which consumers and non-graduate level participants can easily understand. Similar courses have been created as part of the regular activities of the University of Illinois affiliation with the Regional Rehabilitation Continuing Education Program and the University of Illinois' academic rehabilitation program.

The University of Illinois will provide the financing for the development of the course work as an "in kind" donation and Professor Oakley will donate contributed effort towards consultation and the development of these courses. The new paradigm for graduate training is to offer Internet-based course work available, especially to affiliates and collaborators, but also to anyone else who wants to access the results of this Institute's research. Stipend monies will be made available for persons who have no other financial resources to help access these courses through the Institute. The development of these on-line courses also promotes the "Boulder model" or "scientist-practitioner" model of interaction by making DRI training accessible to

graduate student scholars in the field of disability and rehabilitation and by allowing the input of practitioners and consumers to the researchers. DRI will be better informed by their responses to the courses presented and chat rooms and discussion sections of the field. The "scientist-practitioner" model discussed in the introduction is where practice informs the research and the research results are developed in such a way that better practice is promoted. This will be the model for training activities of the DRI.

Visiting Scholars

In addition to the development of on-line course work, doctoral and post-doctoral students will be invited to work with the Institute and its affiliates and collaborators as Visiting Scholars. Travel and per diem will be provided within the travel budget for Visiting Scholars to come to the Institute to work with the researchers on the development of creative research agendas which will ultimately move the cause of people with disabilities to a higher level. The Visiting Scholars will have access to the Internet-based courses and will help create the next generation of courses to be developed through U of I On-line as they interact with the Institute and affiliate-based scholars in partnership with SSA and create new research agendas.

Other scholars, such as young faculty new to the Academy will be drawn to the DRI because of its new paradigm. These scholars will be encouraged and supported by limited stipend/travel money, if needed, to work with the DRI researchers and staff to develop their own disability related lines of research. The collective expertise of DRI research staff will be spread among these Visiting Scholars and the new and exciting ideas and concepts of the Visiting Scholars will enliven the DRI and its research endeavors.

Graduate Training

M.S. and Ph.D level students will be encouraged, welcomed and financially supported, if they meet the research standards of the department of choice in the DRI. Through the Visiting

Scholars program, cross-training in disability science will be encouraged within the collaborating and affiliated partners. The pardigm of already existing Internet courses and those yet to be developed into an Internet based professional graduate level degree in Disability Science will be explored by the DRI.

DATS

The Institute Director is familiar with the national standards for training developed by the Social Security Administration's Office of Disability in 1998 which related to the Disability Adjudication Training Systems (DATS) (see Appendix F). The Institute stands ready to develop training materials and academic course work based on these standards, especially those focused on research and evaluation. The training and education of Social Security's own work force will focus on this dissemination of training results but will attend to the standards identified by DATS for training and cross training at all levels of adjudication. Training activities will be provided by the Institute in a variety of formats in partnership with SSA including face-to-face training, the use of interactive video and corroborated broadcasts, and in conjunction with Social Security's own IVT, when available.

Summary

In summary, then, traditional face-to-face training and dissemination meetings will be held in the second and fourth years of the grant at a mutually agreed-upon site in partnership with SSA. The DRI will present three additional technology facilitated meetings in years one, three, and five by virtual delivery with training activities presented by the use of interactive models, including Internet-based on-line dissemination training sessions and interactive videos.

Rather than wait for the annual either face-to-face or virtual training activities, the Institute's staff at SSA's invitation will be available to present on the DRI activities, education

training facilitation, and research activities to all relevant stake-holders at Social Security=s own training and education meetings, such as the Office of Disabilities Annual Mini Forum and Forum training events. The inclusion of graduate level research assistants will be encouraged as part of the budgeting process for all Institute Affiliates Partners and collaborating Partners, thereby increasing the number of doctoral level students working on disability, policy, and research activities. Post-doctoral and other scholarly affiliations will also be available through the Institute and its affiliates for Visiting Scholars involved in work specific to the DRI's mission as part of the individual funded projects and post-doctoral applications will be encouraged as part of the Visiting Scholars program.

Training will also be provided through on-line courses, both already existing and yet-to-be-developed. Training will incorporate and be guided, whenever relevant, by the already established 1998 standards for the Disability Adjudication Training System.

SECTION III-e - FACILITATION OF DATA USAGE

The DRI technology architecture will serve as a framework for cleansing, modeling, extracting and transferring data under appropriate security protocols and guidelines. Authorized users will be able to query, report, analyze and mine data. The hardware itself will be positioned in a secure location to both take advantage of UIUC's high-speed connectivity to the Internet and provide protection from unauthorized access, use, and incidental damage (additional detail on Hardware/Software are included in III.h. – Budget Narrative).

Information Technology in Support of Disability Research

In 1985, NSF established the National Center for Supercomputing Applications (NCSA) at the University of Illinois, as one of the five original centers in the NSF Supercomputer Centers Program. In 1997, NSF funded one of two Partnerships for Advanced Computational Infrastructure (PACI) at the University of Illinois. NCSA is the leading-edge site for that

partnership of over 40 institutions, called the National Computational Science Alliance (the Alliance). As the leader of the Alliance, NCSA's mission is to help our nation maintain its preeminence in science and technology by developing a prototype of the next century's computational and information infrastructure.

Through its location at the University of Illinois, the DRI will be well positioned to take advantage of the resources of NCSA and the Alliance. Participating faculty will be able to access NCSA's high-end parallel computing systems for data analysis and modeling. NCSA provides training and consulting in high performance computing and communications. Staff members will be available to participate in the advisory structure of the Institute. They may also contribute to curriculum development that incorporates the use of computing and information technology in disability research.

Providing Access and Analysis Environments for Data

Access to key data is essential to disability researchers and policy developers. By working with staff at the National Center for Supercomputing Applications, the DRI will leverage NSF-funded information technology infrastructure development in the creation of a data repository and analysis environment. NCSA will partner with DRI researchers in taking advantage of the emerging national Grid to create and provide access to necessary repository and analysis environments.

As the Institute is developed, it can take advantage of the expertise developed by scientists in a variety of disciplines at NCSA. These scientists have developed methods for the analysis of large complex data sets and for visualizing or mining knowledge from these data. In order to provide access to software and datasets at the Institute, we can adapt methods for the development of workbench environments or "gateways" to serve the needs of the disability research community, and utilize these environments to deploy and test new methods of data analysis.

Automated Learning for Data Analysis

An enormous proliferation of databases in almost every area of human endeavor has created a great demand for new powerful tools for turning data into useful, task-orientated knowledge. In efforts to satisfy this need, the National Center for Supercomputing Application's Automated Learning Group have been exploring methods developed in the statistics, machine learning, pattern recognition, neural networks, and visualization. The efforts have lead to the emergence or a new application domain frequently called data mining or knowledge discovery.

The Automated Learning Group's approach to knowledge discovery uses data mining methods to process proprietary data and external demographic data in order to identify valuable knowledge about individual behavior, transaction deviation, causal relationships, or emerging issues. Machine learning and statistical based techniques (decision trees, neural networks, and bayesian methods) are used to build models that reflect the likelihood of an event, behavior, or its prevalence. These techniques efficiently process large volume data (terabytes) as well as data from various types of data sources. In addition, we have developed a scalable/portable data-mining infrastructure, D2K, to support rapid marketing model execution/integration.

The Social Security datasets create a unique challenge in data management. These datasets contain a large number of records, with a number of fields of detailed data. Older computer models could not build models complex enough to draw information from the hundreds of fields, so that only a small number of them have been used. Even if all the fields could be used, it would still not have been possible to process millions of records quickly enough.

This unused information is often what is necessary to effectively decide what patterns are predictive and which ones are idiosyncrasies of the data used for analysis. Non-classical approaches to data analysis provide an opportunity to make a quantum leap forward. Recovering and integrating strong

patterns can produce extremely important results for social security administrators and for state and federal policy makers. For this reason, this research effort will leverage the Automated Learning Group's experience in complex model building techniques to develop a demonstration of an interactive system for analyzing SS databases. NCSA has successfully applied these techniques to proprietary industrial and demographic data in order to identify valuable knowledge about individual behavior, transaction deviation, causal relationships, and emerging issues.

The D2K Environment

The overall goal of NCSA/DRI partnership will be to design and implement a practical, general purpose, and highly efficacious, scalable environment for access to social security datasets and research using them. The DRI will seek to develop an environment and techniques that will solve research and policy questions in the area of disability and rehabilitation. To make this environment useful to the widest possible audience it will adapt the National Center for Supercomputing Application's (NCSA's) D2K (Data to knowledge) rapid applications development environment to research techniques for social security data. Tools developed for social security data management will be captured in an advanced, platform-independent rapid applications development (RAD) environment, and used to solve previously intractable research problems.

An important part of this project is the communication and dissemination of these results to students, researchers, and practitioners. Three guiding principles in the communications and dissemination efforts are breadth of coverage, ease of use, and ease of transfer. The immediate audience for these methods includes researchers and practitioners in many fields. The selection of a wide range of important archetype problems will help reach across disciplines, and efforts will be made to reach the future users of these methods.

Communicate and Disseminate Technology to Student, Researchers, and Practitioners

The partnership will communicate its progress using a combination of web-based and traditional media. An extensive web site will be developed for the project to (1) link project researchers at remote institutions and (2) disseminate computer code, applications schemas, and a variety of instructional materials to students, researchers, and practitioners. Traditional in-person seminars and short-courses will be given. Traditional technical reports and source code will be made available on the web or through the mail for those without web access.

Training, collaboration between team members, and the dissemination of information to interested students, researchers, and practitioners and persons with disabilities are critical. This effort plans to support these needs by taking full advantage of Access Grid Node Technology. The NCSA's Automated Learning Group's Access Grid node (see discussion of Access Grid elsewhere in document) was designed to support large-scale distributed meetings, collaborative teamwork sessions, seminars, lectures, tutorials and training, enabling both formal and informal group interactions. Entry points may be desktops or large-format multimedia displays integrated with intelligent or active meeting rooms. Access Grid Nodes are designed spaces that explicitly support the high-end audio and visual technology needed to provide a high-quality compelling and productive user experience. Within these Nodes we will combine presentations and the interaction with D2K services.

Future Opportunities

NCSA envisions the development of an integrated Policy Workbench that would be applicable to the needs of the disability research community and the Social Security Administration.
This Workbench would constitute a unique resource, representing a changing view of the relationship between policy and research, and between policy-makers and researchers. It is consistent with NCSA's

goals in the area of "Digital Government," using new technologies to change the ways in which policy makers, researchers, concerned educators, and citizens can access shared tools and resources to better inform and guide educational decision making, evaluation, and performance.

Other NCSA Efforts Relevant to this Proposal

Integration of models

As part of our effort to develop scientific portals for various disciplines, and a common portal architecture to enable customized portals, alliance staff are developing methodology for the integration of models and application codes into web based environments that simplify both their operation and the analysis of results. Staff in the Alliance Environmental Hydrology Team is experienced in the linkage of models with geographic information. Geographic information is a key component for the analysis of data on disabled populations.

NCSA HDF

The HDF project involves the development and support of software and file formats for scientific data management. The HDF software includes I/O libraries and tools for analyzing, visualizing, and converting scientific data. At its lowest level, HDF is a physical file format for storing scientific data. At its highest level, HDF is a collection of utilities and applications for manipulating, viewing, and analyzing data in HDF files. Between these levels, HDF is a software library that provides high-level APIs and a low-level data interface. The newest version of HDF, HDF5, has been designed to facilitate data flow across time and space scales. We plan to work with the HDF team to explore the use of HDF in disability research.

Metadata Efforts

In order to share data efficiently, there must be incentives for the use of common standards for metadata, and a common understanding of what information about the data that the metadata will

provide. NCSA's Emerge effort will work with this project to define standards for metadata. The Alliance Metadata Standards Working Group is an NCSA effort to develop metadata interoperability standards for use with scientific data collections on the Grid. Its work is tightly integrated with the Grid Forum's Grid Information Service Working Group.

Emerge is an NCSA effort to develop middleware components of a new distributed search infrastructure which addresses the scale and heterogeneity of scientific data. Our components enable search services to inter-operate across scientific domains by providing user-configurable tools for mapping between metadata schemas, performing search queries against multiple data sources, and Performing query pre- and post-processing. Access to our search services is through platform-neutral standard and emerging-standard tools such as Z39.50, XML and Java.

Collaborative Technology Available Through NCSA the Access Grid

Institute faculty will also have the opportunity to use the newest collaborative technologies, which allow researchers spread out across the country to work together as a virtual team. NCSA has more than a decade of experience developing cutting-edge collaborative software, from Collage, a collaborative data analysis tool, to Habanero, a framework that allows virtual teams to exchange data, compare notes, and jointly perform complex simulations. A new collaborative technology, the Access Grid, links people in virtual spaces--such as teamwork sessions, remote training, and distance education classes--a reality. Entry points to this collaborative workspace—the nodes on the Access Grid--could be as simple as a desktop computer or as sophisticated as a large format multimedia display system used in an interactive meeting room.

A key technology of the Access Grid is the Access Grid Toolkit. The toolkit makes it easy for sites--such as research labs, universities, or elementary schools--to connect to the Access Grid. It

includes the high-end audio and visual technologies needed to make using the Access Grid a high-quality, compelling, and productive experience. An Alliance team, led by Rick Stevens at Argonne National Laboratory is developing the Access Grid Toolkit.

The ACCESS Center

A key Access Grid site is located in the Washington, D. C. metropolitan area. The Alliance Center for Collaboration, Education, Science and Software (ACCESS) brings the technological advances of the National Computational Science Alliance to all sectors of society. It enables government, business and educational institutions to understand the value of the Grid, and fosters early adoption of 21st century technological and scientific tools.

ACCESS supports teamwork that meets the emerging information technology needs of researchers, scientists and engineers in academia, government and industry. It supports collaboration across technology platforms, distance and time, allowing researchers to solve increasingly complex large-scale problems. ACCESS is equipped with the latest workstation, display and conferencing technologies, which are powered by cutting-edge software for interacting with distributed data and collaborating with virtual team members. The center connects via high-speed networks to the most powerful high-performance computing resources available. It is supported by teams of experts, both on-site and distributed across the Alliance.

Alliance partners and visitors to ACCESS work in a 21st century information and communications environment. They can work alone or in teams, together at the center, or spread out across the country. Equipment at ACCESS allows for collaborative immersive virtual reality and collaborative video conferencing. The center also includes a distributed distance learning facility, a visitor' center with offices and workstations, and a collaborative multimedia conference center. We envision using the Access Center, as well as other Access Grid nodes to support users of our Institute

and its data resources, as well as for outreach and training events involving the larger disability research and policy development community.

Automated Learning

NCSA's automated learning group has extensive expertise in the development of expert systems and automated learning tools to gain knowledge from data. The DRI will work with them to develop tools for the analysis of complex data sets. The DRI also plan to adapt their D2K environment, which permits definition of analysis modules and their incorporation into custom analysis environments "on the fly" in order to rapidly prototype different analysis methods for our data.

NCSA As a Model

The DRI will take advantage of NCSA's reservoir of expertise in maintaining a secure environment for both its industrial partners and the national academic research community, with respect to integrity of networks and data. The security pages are located at: www.ncsa.uiuc.edu/People/ncsairst/index.html

NCSA's computing and intellectual environment includes academic, government, and industrial researchers. The sensitivity of information and the openness of exchange are different in each of these environments. However, the history of NCSA shows the value of facilitating intellectual exchange and collaboration within and between these communities. At the same time, open exchange of ideas does not translate to open access to ideas, data, or other information except in those cases where there is a conscious decision to share information. NCSA's security policies and technical security architectures are designed to provide mechanisms whereby researchers can select the level of security appropriate for their work.

Access To Data

The DRI is very fortunate to have the consultation and advice of NCSA in the task of data facilitation and making data available to the scholarly community. NCSA has had considerable experience with other government agencies such as Nuclear Regulatory Commission, HUD, the CIA, NIMA, NIH, the National Security Agency, the US Census and others in the development of secure data sets and will aid the DRI in setting up security precautions.

Value

Researchers, who have used only old paradigms in their work, may begin to understand the incredible resource available because of this partnership with NCSA. In a seminal article in the journal *Science*, Smith and Torrey (2/2/90) note that the infrastructure for the behavioral and social sciences is not keeping up with the public issues involving understanding of human behavior. The article, "The Future of the Behavioral and Social Sciences," challenges researchers who have made enough progress to know that the topic of this research is more complex that the tools available to them. One of the solutions offered is to "experiment with new methodologies to study nonlinear, dynamic systems."

The partnership described above with NCSA will allow DRI and other researchers access to new methodologies, to the entire 8+ million data sets, to the creation of new variables through data mining, and to the creation of new paradigms. This gift from the host institution will produce incredible options for both current and future researcher endeavors. It will also allow for the merger of SSA data with other large government and non-government databases.

Access to data which SSA chooses not to release for use by the public-at-large, but which may be seen as appropriate for sophisticated or specialized research, will also be facilitated by

the DRI. The Executive Committee (described in more detail in Part IIIf) will play the role of "Institutional Review Board" or gatekeeper. It will screen applicant research proposals and make recommendations to SSA about access to non-public use data.

Work done in conjunction with NCSA will be approved and overseen by the SSA Advisory Board. Therefore, no timelines is offered for this section, but the DRI stands ready to begin these activities as soon as they are approved.

Summary

The DRI is ideally situated because of its host institution to facilitate usage of SSA's huge database. With the consultation of NCSA (an in-kind and unusual contribution) and such new methodologies as grid technology, information visualization, and other data mining techniques, new horizons in data management will be available to DRI researchers and others. Manipulation of large data sets and interfacing with large, already existing data sets can be managed through the DRI. The DRI will make approved data easily available to the research and public community. Public use data will be made secured with NCSA support and guidance. The DRI Executive Committee will partner with SSA to make recommendations on access to non-public data.

SECTION III-f - STAFFING PROPOSAL FOR DRI

Institute Director

The Staffing Plan for the DRI will accomplish the four tasks required of the institute: research, dissemination, education and training and facilitation of data usage. The Director of the Institute will meet regularly and work in conjunction with her executive committee, which will consist of the Co-Principal Investigator and the Associate directors for Policy, Research, and Government Relations. She will also coordinate the staff, which will provide clerical and

administrative support, data management, training, education and dissemination activities. She will interact on a regular basis in partnership with the Social Security Administration and coordinate activities of the Institute Researchers with the Associate Director for Policy and the Associate Director for Research.

The Institutional management Plan (found in Appendix F) shows how the host institution (UIUC) will interact on a regular basis in partnership with SSA, Advisors and advisory board as appointed by SSA, Affiliate partners (those awarded formal subcontracts and who are playing a major role in research and/or government liaison), and its collaborating partners (those providing additional research and/or consulting). This section will focus on the persons involved in the regular activities of the institute while a more detailed organizational environment will follow in Section g.

Chrisann Schiro-Geist

The Director of the Disability Research Institute and co-principal investigator of the cooperative agreement will be Dr. Chrisann Schiro-Geist. After receiving her Ph.D. in Counseling Psychology in 1974 from Northwestern University, she joined the faculty of the Illinois Institute of Technology (IIT) in 1975 as part of the MS Rehabilitation Counseling program. She was a faculty member there for twelve years, achieving tenure and promotion to Associate Professor in 1981. She was appointed Program Director that year and during the next six years, the Ph.D. in Rehabilitation Psychology and the BS in Rehabilitation Services were added under her direction.

In 1987, she joined the faculty of the Division of Rehabilitation Education Services at UIUC as Director of Academic Programs and guided the establishment of the Council on Rehabilitation Education (CORE) accredited program in Rehabilitation Counseling as well as the

Master's degrees in Rehabilitation Administration and Supported Employment. In 1990, she was selected as one of four UIUC Academic Leadership Fellows of the Committee on Institutional Cooperation (CIC) in the Big Ten. She spent the year in training for future leadership positions in the academy with seminars and apprenticeship experiences.

In addition to being Director of Rehabilitation programs in two of the top 20 (US News and World Reports, February 1998) programs in the country for a total of 14 years, as early as 1981 she was a National Academy of Sciences Fellow studying the establishment of Rehabilitation Education programs in Poland. She was the President of the Council on Rehabilitation Education from 1982 until 1985, a Fellow of the Pritzker Institute of Biomedical Research. In 1986, she became the founding editor of the National Council on Rehabilitation Education's (NCRE) journal *Rehabilitation Education.* In 1987, she was chosen as Rehabilitation Educator of the year by NCRE. In 1989-1990, she was chosen as a Mary E. Switzer Fellow of the National Institute of Disability and Rehabilitation Research (NIDRR), to study Vocational Evaluation techniques used to serve mentally handicapped and severely disabled children. In 1993, she was chosen as a Fellow of the World Rehabilitation Fund to study distance education technologies in Australia.

Dr. Schiro-Geist has established an extensive record of peer-reviewed publications and two well-received text books; *A Placement Handbook for Counseling Persons With Disabilities* (1981), and *Vocational Counseling for Special Populations* (1992). She accumulated over 3.5 million dollars in externally funded grants from agencies such as RSA, NIDRR, and other resources. She has an outstanding record of service to the university and rehabilitation community in general, including state and regional presidencies of the National Rehabilitation Counseling Association (NRCA), the National Rehabilitation Association (NRA).

She has had experience in administration, research, and teaching which would allow her to successfully direct the Institute. She was the interim Associate Director of the Division of Rehabilitation Education Services in 1995. At that time, she supervised seven tenure track faculty, twenty academic professionals and fifteen graduate assistants. In her most recent administrative position in the Department of Community Health as Director of Development and External Relations, she supported and developed distance education programs in the Chicago area and Springfield, Illinois. She has also been a pioneer user of distance technology in Europe having just completed the first Trans-Atlantic distance program in conjunction with the Tipperary Rural Business and Development Institute in Ireland, and in on-line technology by obtaining a grant which put 18 hours of Master's and graduate coursework in a Professional Development Sequence. In 1992, she received the UIUC-wide Excellence in Extramural Teaching Award. Dr. Schiro-Geist has wide national and international experience in the rehabilitation counseling and disability studies and research arenas.

Dr. Schiro-Geist will be responsible for the organization and operation of the Institute and will chair the Institute's Executive Committee. She will communicate with the Social Security Administration on a regular basis as a partner regarding scientific and operational matters. Although the request for application (RSA) requires a minimum time commitment of 30% of the DRI Director, Dr. Schiro-Geist will commit 50% of her academic time to the DRI. UIUC, in releasing Dr. Schiro-Geist for more than the minimum time commitment, has demonstrated its commitment to the establishment of the DRI. A list of her previous grant activities is included in her vita in Appendix C. Also included in Appendix F s a list of administrators and contact information for previously externally funded grant activities. (See "Organizational Experience Summary" for additional comments).

Executive Committee

Tanya M. Gallagher

Co-Principal Investigator of this project is Tanya M. Gallagher, Dean of the College of Applied Life Studies and Professor in the Department of Speech and Hearing Science. Dr. Gallagher has had an extensive research career, including continuous research funding totaling over $3 million dollars. She has authored numerous research articles focusing on communication disorders in children and adults, functional outcomes of speech and language treatments, and the use of augmentative and alternative communication systems by individuals with severe physical disabilities. Recently she has served as Co-Principal Investigator on a multi-center NIH funded head and neck cancer treatment grant, and as Co-Project Officer for the first national speech-language pathology and audiology treatment outcomes project involving over 100 centers. Dr. Gallagher has served in many administrative roles including Director, Associate Dean, and Dean at major universities in North America. She has directed large scale, national data collection projects, and has served as Vice-President for Research and Technology of the American Speech-Language-Hearing Association. Dr. Gallagher has worked with federal and state agencies as a consultant and reviewer throughout her career.

Dr. Tanya Gallagher will serve as Co-Principal Investigator on the project providing overall administrative support to the Institute, budgetary over-sight, and program management expertise relative to large database, multi-center projects. Dr. Gallagher will also contribute to the data analysis and interpretation of Institute creative projects, and work with Institute doctoral students and visiting researchers.

Monroe Berkowitz

Monroe Berkowitz is Professor of Economics, Emeritus, Rutgers University; Director of Disability and Health Economics Research of the Bureau of Economic Research; and the Director of Research, Rehabilitation International. He received his MA. and Ph.D. from Columbia University. Professor Berkowitz has published extensively in the area of economics of disability, with particular emphasis on work-related disability. He has authored or co-authored numerous books and journal articles, including *Permanent Partial Disability and Workers' Compensation.*

He is the editor of the volume on *Measuring the Efficiency of Public Programs* and co-author of *The Economic Consequences of Traumatic Spinal Cord Injury* and *Spinal Cord Injury: An Analysis of Medical and Social Costs.* His current research interests include a study of the full costs of disability in a selected sample of firms, a study of mobility devices and studies of work injuries and rehabilitation here and abroad. He has served as a consultant to various workers' compensation agencies and such organizations as the U.S. Department of Health and Human Services, U.S. Department of Education, U.S. Department of Labor, Social Security Administration, the International Labor Organization and the World Health Organization. Professor Berkowitz is also a member of the National Academy of Arbitrators, having served as an arbitrator in management-labor disputes since 1946. He will serve the Institute as Associate Director for Policy.

Allen W. Heinemann

Dr. Allen Heinemann completed his doctoral degree in psychology at the University of Kansas in 1982 with a specialty in rehabilitation, and an internship in behavioral medicine at Baylor College of Medicine. He was an assistant professor in the Department of Psychology at

Illinois Institute of Technology from 1982 to 1985. Since 1985, he has worked at RIC where he directs the Rehabilitation Services Evaluation Unit, a rehabilitation-focused, health services research unit. He is associate director of Research at RIC and professor in the Department of Physical Medicine and Rehabilitation at Northwestern University Medical School. His research focuses on health services research, psychosocial aspects of rehabilitation, and measurement issues. He is the author of more than 70 articles in peer-reviewed publications and is the editor of *Substance Abuse and Physical Disability* (Haworth Press). He is the recipient of funding by NIDRR (Switzer Fellowship, Field Initiated Projects, Innovation Award, RRTC components), the Paralyzed Veterans of America, the National Institute on Alcohol Abuse and Alcoholism, the Centers for Disease Control, the J.M. Foundation, and the American Occupational Therapy Foundation. He participated in the Institute of Medicine's workshop on Social Security by presenting a paper on measurement issues on functional capacity that resulted in the 1999 publication *A Measuring Functional Capacity and Work Requirements* (National Academy Press, 1999). He will serve as Associate Director for Research.

Mary Grace Kovar

Mary Grace Kovar is Research Vice President for Epidemiology and Public Health at the National Opinion Research Center (NORC) at the University of Chicago. Before joining NORC, she was the special assistant for data policy and analysis at the National Center for Health Statistics, the statistical agency for the Department for Health and Human Services. She received her M.S. in genetics from the University of Pittsburgh and her Dr.P.H. in biostatistics from the University of North Carolina School of Public Health. She is the author of more than 100 papers in peer-reviewed journals and has served as a consultant to international and national agencies, and to several foundation- and university-based projects. She is a Fellow of the

American Statistical Association and of the American College of Epidemiology. She will serve as Associate Director and Government Liaison.

UIUC Project Staff

Brief biographical sketches of the following staff are included in Appendix F: Emer Broadbent, Jerry Burnam, Ron Chambers, Kimberly Collins, Lee Crandall, Amy Fahey, Peter Feuille, Lynn Hanson, Wallace Hendricks, Laura Kohlmann, David Kuehn, Faye Lesht, Melanie Loots, Janet Macomber, Burks Oakley, Adele Proctor, Stephanie So, Kenneth Watkin, and Joyce Wolverton.

Additional UIUC faculty who have agreed to facilitate the research and training activities of the Institute in the future include: Drs. Reginald Alston, Joan Good Erickson, Teresa Gallagher, Jae Kennedy and Adrienne Perlman.

Institute Consultants

Brief biographical sketches of the following consultants are included in Appendix F: Drs. Braddock, Bruce, Fujiura, Hedrick, Hunt, Kundu, Marme, Menz and Yelin.

Highlighted Researchers

The research staff of the DRI is multi-talented and multidisciplinary. Several of the researchers are among the most noted in their fields. The Institute is especially proud to be associated with Monroe Berkowitz, one of the most notable disability economists of the century. Dr. Berkowitz has been the philosophical and driving force behind the Work Incentives Improvement Act, just recently (December 1999) signed by President Clinton as the last piece of legislation to be enacted in the 20th century. He will develop the topic "Making the Ticket Work." Other noted disability economists within the Institute are Richard Butler, John Burton, Douglas Kruse, and Terry Thomason. Lisa Schur will join the Institute with world-class skills in

Law and Political Science. One of the most renowned medical sociologists in the nation, David Mechanic, will focus on "Barriers to Employment among Persons with Mental Impairments," while one of the country's foremost experts in Health Policy, Edward Yelin, will deal with "Employment Outcomes for Persons with Disabilities in a Mature Economic Environment."

University of Chicago's National Opinion Research Center Researcher, Dean Gerstein, will lend his most credible expertise in Sociology to the projects assigned, while labor economists Wallace Hendricks and Peter Feuille will evaluate "The Impact of SSI Eligibility Changes on Labor Supply of Workers With Disabilities." Health economist Stephanie So, will deal with "Disability Benefits as Household Income" and will examine how these effect labor decisions of household members.

While the economics and labor research aspects of the Institute are important, one must not weaken or overlook the disability and vocational rehabilitation side of the research agenda. Health Psychologist, Allen Heinemann and Biostatistician, Mary Grace Kovar, will tackle projects such as "Medical, Functional and Occupational Factors in Disability Determination." To that effect, Madan Kundu will deal with "Predicting Effectiveness of the Vocational Rehabilitation Services Provided to Social Security Recipients," while Fredrick Menz will easily facilitate the development of priority research area 2 with his study, "Comparative Impact of Community Based Vocational Rehabilitation Services on Work force Participation and Social Security Participation."

Other renowned researchers such as David Braddock, in the area of disability policy and administration, Alan Hunt of the Upjohn Institute, and Wayne Roman of the Urban Institute, have made their potential talents available to the Institute. Other members of the research staff of the Institute are listed in Appendix B "List of Participants by Affiliation," while model

research projects have been made available to the reviewer in Part IIIb "Research and Evaluation Prospectus."

Summary

The staff of the DRI, which includes its research partners, is qualified to deliver a quality product to the SSA Partnership in the four balanced domains of Research, Dissemination, Training and Education, and Facilitation of Data Usage. The staff pattern is multidisciplinary and staff stands ready to respond to each and every priority area identified by SSA.

The staff is diverse in race and gender, and includes persons with disabilities. The staff members have been chosen because of their special expertise in matters that have been described by SSA as important to the function and objectives of the DRI. Institute staff will work closely in partnership with SSA staff to implement those objectives to move forward the agenda of SSA-related disability research in a concise and focused manner. Staff will be responsive to SSA, the research and scientific communities, persons with disabilities and the public-at-large.

In summary, the DRI has chosen faculty and staff with backgrounds in administration, research training, dissemination and data usage. Consistent with the four tasks required of the institute. Full vitae for the executive committee are included in Appendix C, as well as brief vitae for selected staff and major collaborators. NIH formatted bio-sketches are provided in Appendix D for research participants. The research staff will provide a multidisciplinary approach to research with appropriate links to other organizations and scholars engaged in research and government policy making. The staffing proposal (See Appendix F) is well thought out and will allow the Institute to function in an integral fashion. Financial arrangements for research assistants and Visiting Scholars have been provided, and were previously discussed in Part IIId. Although four major research universities are involved in the

Research Institute, the University of Illinois as host bears the burden of dissemination, training, facilitation of data usage and administration, as well as a share of the research activities.

SECTION III-g - ORGANIZATIONAL EXPERIENCE SUMMARY

The Host and Affiliates

Institutional Environment

This DRI will provide a balance across the four objectives as defined in the RFA. Not only will it promote an agenda of quality research, but also emphasize dissemination, training and education. The DRI and SSA will each select three nationally recognized scholars and/or practitioners who are unaffiliated with DRI to provide assistance in formulating the Institute's agenda and advice on implementation. This committee of six scholars will assure a range of perspectives and a variety of substantive viewpoints on the research necessary to carry forward the partnership. The SSA project officer or an SSA representative will participate in all meetings of the committee of scholars, which will meet once or twice per year rotating between the Baltimore/Washington area and the Institute location.

The combination of resources provided by the four affiliated institutions – UIUC, Rutgers, Northwestern/RIC and University of Chicago/NORC provide a rich, supportive environment for the DRI. The collaborating partners, faculty from the University of Illinois-Chicago, Southern University and UW-Stout serve to enhance and reinforce the affiliates' strength and suitability as a home for the DRI.

University of Illinois at Urbana-Champaign – The Host Institution

The University of Illinois at Urbana-Champaign has a reputation of international stature. Its distinguished faculty, outstanding resources, breadth of academic programs and research disciplines, and large, diverse student body constitute an educational community ideally suited

for scholarship and research. A leader in supercomputing applications, the University is home of the National Center for Supercomputing Applications (NCSA) where Mosaic web browsing software was first developed. NCSA staff will be important consultants to the DRI.

Research

Students and scholars find the University an ideal place to conduct cross-disciplinary research. The most visible example of the University's commitment to such study is the Beckman Institute for Advanced Science and Technology, where research groups from nearly two dozen disciplines work within and across research themes. The UIUC was ranked 20th in the nation in spending on research and development in science and engineering in 1995 ($246.2 million), with more than 80 centers, laboratories, and institutes performing research for government agencies, industry, and campus units. UIUC is ranked as an R1 research institution. The 1996 Fiske Guide to Colleges calls Illinois, "a giant among academic institutions, ranking among the world's great universities" and awards it a five-star ranking in academics.

University Library and Resources

Academic resources on the campus are among the world's finest. The University Library is the third largest academic collection in the nation, housing more than 15.9 million items in the main library and in the more than 40 departmental libraries and units. Only Harvard and Yale have larger collections

College of Applied Life Studies

The College of Applied Life Studies is uniquely positioned to meet the challenges of the future to maximize opportunities for persons with disabilities. The mission of the college – addressing quality of life issues for the 21st Century – is the common thread that connects all of its units: the Departments of Community Health, Kinesiology, Leisure Studies, and speech and

Hearing Science, and the Division of Rehabilitation Education Services. Its research, teaching, and service programs are designed to promote health and wellness, stress reduction, disease prevention, and the empowerment of individuals with disabilities. These programs incorporate the concept of disability throughout a continuum of care that includes both habilitation and rehabilitation and spans across the entire aging process. As such, the College is well positioned to address two of the major challenges facing society now and in the foreseeable future: the prevention of disease and maintenance of health and the optimization of the quality of life for the general public and for those living with chronic health conditions.

A strong resource for the DRI exists in the College of Applied Life Studies through the Mary Jane Neer Research Program in disability Science. As a result of generous contributions from alumni and friends, the program currently consists of an endowment of approximately $3.14 million with available income in excess of $1 million. Plans for the income utilization include the implementation of a series of professorships in the Division of Rehabilitation Education Services through which a group of distinguished faculty members will work together to conduct research dedicated to understanding disability.

Department of Community Health

The Department of Community Health is the home of the UIUC's graduate training program in Rehabilitation Counseling as well as a developing undergraduate concentration in disability studies. The Master's Degree program in Rehabilitation was recently (February 1998) ranked by US News and World Reports as one of the "top 20" programs in the country. The Department is the home of the Region V RRCEP affiliate that focuses on the training of direct service personnel in Community Based Rehabilitation programs. The Department also features the Rehabilitation Research and Evaluation Center as part of its educational offerings, a

laboratory used by students to hone their testing and vocational review questions pertinent to SSA, perform the appropriate statistical analyses, and participate in a partnership with SSA in interpretation and dissemination of the results of such analyses.

Office of Continuing Education

The University's Office of Continuing Education, with its successful background in producing meetings, conferences, and even an international Master's degree program in Rehabilitation, has agreed to consult with the DRI. Integral to the university's mission is a commitment to public service. Through the office of Continuing Education (OCE), 272,000 persons per year participate in conferences, institutes, credit and noncredit courses and workshops presented on campus and statewide.

Graduate School of Library and Information Science

The Graduate School of Library and Information Science (GSLIS) is recognized as a premier institution, frequently ranked number one and consistently among the top three U.S. LIS schools. As one of the oldest LIS schools in the country, Illinois helped establish and develop the methods used in the field of library and information science today. The field is necessarily interdisciplinary, and the School recruits faculty with strong theoretical and methodological foundations who understand libraries and the broader context of information systems and services.

The GSLIS Publications Office produces a variety of scholarly and practical publications for LIS professionals around the globe. The Office draws on more than 50 years experience as non-profit publishing specialists to provide subject-specific publications, books, and conference proceedings.

Computer professionals at GSLIS have designed custom web-based search interfaces for publicly available databases. GSLIS is an active partner in the development of the information dissemination and educational plan of the DRI.

Institute of Government and Public Affairs

The Institute of Government and Public Affairs (IGPA) conducts research to help improve public policy and the performance of government in Illinois, the Midwest, and the nation. IGPA fosters collaboration between researchers and government officials in responding to challenges at a time of worldwide technology change and promotes public dialogue about critical issues and contributes perspectives, ideas and information to enrich that dialogue.

Institute of Labor and Industrial Relations

The Institute of Labor and Industrial Relations (ILIR) is one of the leading human resource management and industrial relations programs in the world. It offers two degree programs: the master of human resources and industrial relations (M.H.R.I.R.) and the doctor of philosophy (Ph.D.) in human resources and industrial relations.

UIUC Disability Environment

UIUC has been a success-oriented environment for services to students with disabilities, as well as the academic study of disability through its Division of Rehabilitation Education Service. In 1948, the UIUC was the first institution of postsecondary education to actively welcome students with disabilities with the establishment of support services and living accommodations for potential students with disabilities. It was at UIUC that the ANSI architectural standards, later integrated into federal legislation, were established. More recently,

UIUC was the host institution for research which demonstrated the economic equalization effect of a college degree on the incomes of graduates with disabilities (Broadbent, 1996).

Educational Access

For many persons with disabilities, quality education is the determining factor in their ability to achieve personal satisfaction and independence. However, equal access to education is often a significant and formidable barrier. At the University of Illinois in Urbana-Champaign, the nation's foremost program in post-secondary disability support services continues to set the stage for programmatic and architectural accessibility in excess of legal mandates. The Division of Rehabilitation-Education Services (DRES) currently serves more than 400 students each year and offers a number of academic and non-academic services, such as adaptive testing procedures, note taker services, text conversion, assistive communication and technology services, and a variety of athletic and recreation programs. Through this program, students with disabilities are afforded the confidence to live with independence and dignity, the skills to become contributing member of their chosen profession, and the determination to live life to the fullest.

In a recently published study, a University of Illinois education has been shown to afford graduates lifetime earnings more than 25 percent greater than the national college norm and 50 percent greater than that of their peers who do not attend college. Similarly, research conducted on alumni enrolled from the years 1952 to 1992 demonstrated that a University of Illinois education has a comparable effect on the annual income of graduates with disabilities. It has been estimated that a differential of 15 percent or greater in annual income exists between full-time employees with and those without disabilities. However, in the latter study, the salary gap between University of Illinois graduates with disabilities and their able-bodied cohorts, when

matched for age, gender, and college major and when health status effects were controlled, was statistically insignificant. This finding empirically validates the University of Illinois's legacy of leadership in post-secondary education for persons with disabilities, which has been accomplished through the DRES.

Affiliate Partners

Rutgers

Rutgers University is ideally situated to study the issues of disabilities through its 40-year-old Disability and Health Economics Research (DHER) Section of the Bureau of Economic Research. This entity has conducted sponsored research almost exclusively in the economic aspects of disability. It is one of the few research centers in the country where attention is paid to the economic aspects of disability issues. DHER was the first research unit in the country to persuade the Social Security Administration to release a public use tape for its 1960 Survey of Disability. Since then, release of such data files has become routine. DHER also played a prominent role in producing the background papers for the Comprehensive Needs Study for the Rehabilitation Services Administration and for the White House Conference on Disability.

DHER faculty and staff have examined the effects of disability on labor supply, the disincentive effects of benefit programs, the effectiveness of rehabilitation programs, and the economic consequences of disability. DHER has more recently turned its attention to the economic costs and consequences of disability in general, as well as specific types of chronic and disabling medical conditions. DHER research findings regarding the economic consequences of traumatic spinal cord injury have received national attention as have studies of the economic consequences of multiple sclerosis among veterans. In 1998, DHER produced a report on the Employment of Disabled persons in the Atlantic City Gaming Industry. This study was done for

the State of New Jersey Casino Control Commission and the survey instrument used was developed, tested and implemented by DHER. This study has received national and international attention.

The Bureau of Economic Research is an academic unit of Rutgers and administers research projects within the Department of Economics. The department with its 55 members, is a major unit of the Faculty of Arts and Sciences and services all five colleges in the New Brunswick area.

Northwestern/RIC

Northwestern University's Institute for Health Services Research and Policy Studies aspires to nationally recognized excellence in health care research and analysis. Its dynamic, multidisciplinary research enterprise integrates the social and clinical sciences, enabling us to meet a threefold challenge: to improve health in the United States through cutting-edge research and policy analysis driven by national priorities; to facilitate multidisciplinary health services research at Northwestern and its collaborating institutions; to foster the professional development of faculty, graduate students, and other scholars in health services research and policy studies

The Institute is a University-wide research center with offices on Northwestern's Chicago and Evanston campuses. Through strong leadership, faculty expertise, and the specialized skills of project managers, the Institute spearheads a broad and innovative research enterprise that focuses on health care delivery systems, outcomes analysis, and economic and policy analysis, particularly in the clinical areas of cancer, children's health, disability, chronic illness, and mental health and substance abuse.

Rehabilitation Institute of Chicago

For more than 40 years Northwestern's Rehabilitation Institute of Chicago has ranked as one of the world's leading institutions in serving people with physical disabilities. Named by *U.S. News & World Report* for nine consecutive years as the top rehabilitation hospital in the country, RIC was the first to bring together in one facility a comprehensive program for patient care, research into the mechanisms and management of disabling conditions, and training of professionals and the public about disability and approaches to its management. Unique liaisons within the university structure, the community, with local and state agencies, as well as in national organizations, have provided mutual opportunities to fulfill RIC's mission and responsibility. Since its inception, RIC has concentrated not only on strong clinical programs, but it operates one of the largest rehabilitation continuing education centers in the world as well as a strong research program.

University of Chicago – National Opinion Research Center (NORC)

NORC has pioneered studies in health, education, labor, mental health, housing, alcohol and drug abuse, and other areas of public policy interest. These studies have included program evaluation, social experiments, needs assessments, and epidemiological case control designs. NORC has monitored the attitudes and behavior of the U.S. population in social indicator studies, most notably through the General Social Survey, which has been fielded 22 times since 1972. Social scientists and statisticians at NORC have also been in the forefront of the study of survey research methodology.

Established in 1941 to conduct social research in the public interest, the National Opinion Research Center (NORC) is a not-for-profit corporation affiliated with the University of Chicago. NORC is located on the University of Chicago campus and maintains offices in New

York and Washington, D.C., as well as a national field staff located throughout the country. NORC currently employs more than 400 staff and 1,200 experienced interviewers in an extensive national field network.

Survey Research Group

Because survey work constitutes the core of NORC's business, the Survey Research Group carries out NORC's strategic planning and marketing efforts and also oversees our matrix Sampling.

Sampling: NORC maintains a national area probability sample that represents the household population of the United States. The NORC sample consists of a computerized database containing the addresses of more than 60,000 dwellings, which are distributed across 100 metropolitan areas and nonmetropolitan counties, called Primary Sampling Units, throughout the United States. Sampling staff members also use census tapes and special source materials such as directories and lists to select many types of samples. In addition to national population samples, NORC sampling statisticians have designed numerous special-purpose samples aimed at specific localities, population subgroups, or populations of institutions, such as businesses or schools. In designing samples, NORC strives to minimize total error and to meet the statistical requirements of the individual study.

Data Preparation: The data preparation group is responsible for processing survey data and data from other sources. Specific operations performed by this group include receipt of hard copy questionnaires (including faxes), data entry, coding (e.g., industry and occupation, FICE, open-ended, ICD-9-CM), editing, and preparation of computer data files eventually delivered to clients. The data preparation group has 45 stations for clerks and 6 for supervisors, with separate areas for the various tasks.

The University of Illinois at Chicago

The University of Illinois-Chicago hosts the Department of Disability and Human Development (DHD) which provides a comprehensive program of graduate education, research, and service. Faculty of the Department of Disability and Human Development carry out research and public service activities through the Department's Institute on Disability and Human Development. Currently, DHD has more than 40 ongoing research projects involving more than 134 faculty, staff and students.

Of particular interest to the DRI and its SSA-related research activities are the UIC institution and faculty's effort in support of the Center on Emergent Disability. The "Emergent Disability" project is a broadly conceived research effort involving multiple collaborators across many different disciplines. Recent changes in the demography of disability in America suggest that alterations in the causes and distributions of disability are underway and are based in large part on changing social and cultural conditions. To the extent that transformations are occurring and are linked to disability then significant alterations in the "universe of disability" are underway.

Southern University

The Southern University system is one of the largest of about 117 Historically Black Colleges and Universities (HBCU) in the country. The total enrollment in the system is about 15,000 including 10,000 on the main campus in Baton Rouge, LA. The Rehabilitation Counseling Program (RCP) in Baton Rouge, is in the process of administering three training grants funded by the Rehabilitation Services Administration and two research projects awarded by the National Institute on Disability and Rehabilitation Research – one of which is focused on predicting the outcomes of vocational rehabilitation, the other is a capacity building grant in

which the project director and associates instruct personnel at other traditionally black universities teach the grant writing process and serve as mentors for faculty and staff at other traditionally black universities as they learn to make use of their and write grants to support institutional growth. During the last five years, the program has received federal funding amounting to about $4 million. Since 1995, project staff has conducted nationally significant research activities jointly with the Independent Living Resource Utilization (ILRU) and Howard University Research and Training Center.

University of Wisconsin-Stout

The Stout Vocational Rehabilitation Institute (SVRI) is the nation's largest campus-based rehabilitation research, service, and training entity. Vocational rehabilitation is a priority of the UW-Stout, in teaching, clinical services, and research and development. Nearly half of the College's faculty, staff, program concentrations, and state funding is in the Department of Rehabilitation and Counseling. The Center has administered grants and contracts from the U.S. Department of Education 25 years and is currently administering three separately funded major research projects.

UIUC'S Commitment to DRI

The University of Illinois has shown a strong commitment to the DRI by dedicating space in the Division of Rehabilitation Education Services to house the DRI. The sufficient space will be made available for the Director's office, offices for support and technical staff and database administrator, network web-server administrator and the graduate students assigned to the office and/or research activities of the Institute. The Division of Rehabilitation Services is located at 1207 South Oak, Champaign, Illinois, on the main campus of UIUC. Approximately 1200 square feet of office space will be devoted to the Institute and, in addition, space for conference

activities and UIUC-based research activities will be allocated on an as-needed basis. When it is more convenient for Illinois-based Institute staff and and/or affiliates to meet in the Chicago area, the UIUC offices of the Illini Center at 200 South Wacker will be used. These offices are also equipped with interactive video capability and may be helpful in minimizing travel between Urbana and the Chicago area for Visiting Scholars and other collaborators. In addition, when scholars are visiting the UIUC campus, the video contact between the Office of Continuing Education and the Illini Center will be used to facilitate group discussion and supervision between Affiliates in the Chicago area and/or other video conference sites.

In-Kind Support

Another aspect of the UIUC commitment to the DRI is the overwhelming contributed effort and in-kind support being provided. While the request for application (RFA) requires a 5% match, this host applicant will be providing an in-kind match of federal dollars at the level of 15.35%, over three times what was required by the RFA. In-kind contributions include faculty involved in the administration of the DRI, the data operations of the DRI, many of the research activities of the DRI and those available as consultants, educators and trainers for the DRI. Two major in-kind contributions will come from NCSA which will commit 5% contributed efforts of one of its senior administrators and an estimated $30,000 in consultative services toward the establishment of data facilitation and data usage activities of this proposal.

Multi-Disciplinary

The Institute will be integrative and multidisciplinary in nature. Appendix B will include a list of participants by affiliation across the four affiliated university partners and the three collaborating university partners. Incredible ranges of disciplines are represented with a balance

between those involved disability policy and economics and those involved in disability studies and vocational rehabilitation.

While the investigators themselves represent social sciences, psychology, economics, business, law, medicine, education, and related disciplines, the Institute will clearly not be limited by issues of geographic distance. Distance issues will be accommodated by the use of interactive video technology and Internet communication. Consultants from other non-academic entities, two of which are already identified in the RFA (the Upjohn Institute and the National Academy of Social Insurance), and researchers outside of the Institute but identified by the Executive Committee as important to particular research assigned and/or requested by SSA will be sought out. The goal of this DRI will be to produce the "best of the best." Therefore, if a particular researcher outside of the family of researchers currently partnering with SSA is the best scientist for the question at hand, consultancy from that researcher will be sought and budgeted funds will have been provided for such activities. The DRI has demonstrated capacity for providing quality policy research evaluation training and the ability to work government policy makers.

Organizational Plan

Organizational Experience of Director

The Director of the Institute, Dr. Chrisann Schiro-Geist, has been an academic since 1975 as previously discussed under Staffing Proposal. However, Dr. Schiro-Geist, has also been a consultant to the Social Security Administration since 1983 in a variety of capacities including that of a vocational expert, a DDS consultant psychologist, a member of the Region V Medical Consultant Staff, and most recently, beginning with her 1995-96 sabbatical leave as a consultant to the Research Team of the Office of Disability, and continuing through 1998, as a consultant to

Central Office in Baltimore for the development of the Disability Adjudication Training System which sought to encompass pre employment continuing education and in-service visions for the future training and education of Social Security's own adjudicative work force. Dr. Schiro-Geist, as previously mentioned, has obtained over $3.5 million in disability-related external funding, and has had extensive university-based administrative experiences. Because of her extensive history of consultation with the Social Security Administration's adjudicative entities, she is positioned in a unique role as someone who has had extensive experience with the system, and who is capable of bringing an "insider" knowledge to meld with the needs of the DRI research team.

The Director of the Institute and will oversee the day-to-day responsibilities and activities across its four programs (Research and Evaluation, Dissemination, Training and Education, and Facilitation of Data Usage). An Executive Committee consisting of Dr. Tanya Gallagher, Dean of the College of Applied Life Studies and Co-Principal Investigator of the proposed cooperative agreement will aid her in those activities. Dr. Tanya Gallagher will provide overall administrative support to the Institute, budgetary over-sight, and program management expertise relative to large database, multi-center projects. Dr. Gallagher will also contribute to the data analysis and interpretation of Institute creative projects, and work with Institute doctoral students and visiting researchers. In addition, three Associate Directors will coordinate the activities of the Institute. Dr. Monroe Berkowitz of Rutgers University will serve as Associate Director for Policy. Dr. Allen Heinemann of Northwestern University will serve as Associate Director for Research. Dr. Mary Grace Kovar will serve as Associate Director/Government Liaison.

The contractual arrangements include the use of the Washington-based offices of NORC as a site and home for the DRI when immediate articulation with the Social Security

Administration's Central Office is necessary. If space is not available at Central Office for DRI/SSA interaction, DRI staff will be based at the NORC Washington offices. In addition, as is mentioned in the subcontract to NORC, Associate Director for Government Liaison will be available on an as-needed basis for a ready response to the needs of the SSA/DRI partnership. In addition to this, the Institute Director will be available for any urgent and necessary trips on short notice and appropriate travel monies have been allotted for this activity.

The Executive Committee will meet on a regular basis using audio and video conferencing. The group is practiced at this type of conferencing and decision making as those technologies and methodologies have been used regularly in the development of this proposal.

Advisory Board

The Institute will develop an External Advisory Board in partnership with SSA which will likely involve the six scholars previously identified, SSA staff, DRI staff, and representatives of the community of persons with disabilities. The DRI and SSA will respond to requests from this External Advisory Board and will give serious consideration to its comments.

The DRI will be a real institute rather than a way of dispatching research projects to a number of collaborators. It will have a real presence at the Urbana campus. It will have outpost offices in the Chicago and Washington area as previously mentioned, and it will function as a balanced institute across its research, dissemination, training and facilitation of data usage responsibilities. Affiliates and collaborators will either work at a distance or participate at the host site in collaborative activities and will participate in the three virtual and two face-to-face annual training and dissemination meetings over the five years of this cooperative agreement. Other scholars will be drawn to the Institute as visitors as will graduate students who will be encouraged to participate in disability research related activity. Through the facilitation of data

usage design, scholars screened through the clearing house activity of DRI will be encouraged to share their research results through the normal dissemination in training protocols of the DRI. Persons with disabilities and the public at large will be able to access the research in a usable form.

Regional Office

Because of the geographical location of the Illini Center in the Chicago area and the presence of Northwestern-based affiliates and some of the University of Chicago collaborators, strong relationships will be developed with the SSA Region V office. A variety of positive, collaborative activities have been described in conjunction with the Program Director at SSA Region V. These would involve: coordinating of training activities when they require either use of the IVT System and/or interactive video teleconferencing, the facilitation of video teleconferencing activities for affiliates in the Chicago area, training activities using video teleconferencing as a base, regular meetings with Central Office, and facilitating sampling of already existing databases. In addition, Medical Consultant Staff and Policy Analysts from the Region V office will be made available for "brainstorming" and focus group activities when called for as part of research protocols. The Region V office could be used as am additional conferencing site. Its Program Director and Commissioner are experienced in communicating to the public, in general, about activities among which will be included the research, training, dissemination, and facilitation of data usage activities of the DRI. Using the Region V office this way, as well as SSA's own facilities, expand the options for training and dissemination and interface of databases while minimizing the new dollar cost to SSA.

An organizational management plan for the DRI will be included in Appendix F as will a chart of the organizational, affiliate, and collaborative relationships.

Organizational Experience of DRI

The DRI has secured, as part of its research team, a variety of researchers from many discipline, who focus on disability related research. The researchers who are included by Institutional Affiliation in Appendix B have accumulated years of experience and many millions of dollars in external funding in previous relationships with government entities including the Social Security Administration., the Rehabilitation Services Administration and the National Institute on Disability and Rehabilitation Research. Scholars such as Monroe Berkowitz, Edward Yelin, Douglas Kruse, David Mechanic, and Dean Gerstein, David Braddock, Mary Grace Kovar, Allen Heinemann, Frederick Menz and Madan Kundu have spent the better part of their academic careers engaged in research related to the priority research areas previously identified. Other well-known researchers are also collaborating with the Institute in its research endeavors.

Summary

The DRI will be comfortably housed and enthusiastically received by the host institution, UIUC. An institutional management plan is included in Appendix F, which shows the relationship between the host institution and its affiliate and collaborating partners as well as its most important partner, SSA. The relationship of external scholars/advisory board has an important feedback and evaluation mechanism to the DRI is also demonstrated. Also included in the Appendix is an "Experience Summary" of past work of the DRI partners relating directly to the Research Priorities of the RFA.

The DRI is committed to research on issues involving disability policy and the balance between disability economics and employment strategies necessary to improve the quality of life of disability benefit recipients. The application lists in the Appendix f DRI related recent and

current research projects and highlights the quality of all the academic partners in the DRI: PARTNERSHIP IN A NEW PARADIGM.

SECTION III-h – BUDGET NARRATIVE

Personnel: Direct costs are budgeted for 40% of the time of the Institute Director for the academic year, and 100% for 3 months of her time during the summer. Because of the serious commitment of the host institution to the DRI, an additional 10% of the Director's time will be contributed as "in-kind," bringing the Institute Director's time commitment to 50% annual time. A project coordinator has been assigned to facilitate all non-research activities and a highly-skilled institute secretary will also be assigned to provide support for research related activities that are in addition to the administrative secretarial support provided by UIUC . Four part-time consultant staff will be shared with other entities across the host institution to facilitate data usage. These individuals will include: 50% data base administrator, two 10% network administrators and a 50% data architect. Further comments regarding these personnel will be included under data facilitation. Research activities designated to the host institution,(see part IIIB) will be coordinated by the director of ILIR and facilitated by two tenure track faculty. Each of these personnel will received one month summer compensation. In addition, four 50% time graduate assistants will be assigned to UIUC research activities. Fringe benefits have been added at the usual and customary rate of 22.04% of 1- 9 on Personnel and .01% Workers' Compensation 1 – 10.

In-Kind: A significant contribution, 15.35% (Year 1) to 17.45% (Year 5) of total costs, is being contributed by the host institution. In-kind contributions from the UIUC personnel will be distributed over the administrative, research, training, dissemination and data facilitation activities, and are detailed along with biographical information on the faculty/staff member in

Part IIIf. Some highlighted features of these contributions include: 10% in-kind donation of Co-PI Tanya Gallagher (Dean of ALS), who will provide administrative support to the Institute, budgetary over-sight, and program management expertise relative to large database, multi-center projects.

Melanie Loots of NCSA, who contributes 5% of her time, will act as primary liaison to NCSA and its staff for this project, identifying NCSA staff with expertise appropriate to particular needs, and facilitating their interaction with Institute staff. She will also assist the Institute in connecting with NCSA's partners and the national high performance information technology community. This consultation has been explained in Part IIIe, Facilitation of Data Usage. Faye Lesht, of the Office of Continuing Education, will assist with the planning, coordination, implementation and evaluation of the training and educational elements of the project contributes 5% of her time, as does Burks Oakley, Associate Vice President of the University, who will coordinate and advise the development of on-line courses. These are further described in part IIIf. Not only will Vice President Oakley contribute time, but also actual resources ($30,000) to this important training activity.

Additional contributions will be included from ALS to cover administration of fiscal and technical aspects of the Institute (Burnam [10%], Fahey [10%], Kohlmann [5%], Watkin [3%], Wolverton [5%]), and contributors to training and dissemination activities will include Collins (5%), Macomber (5%), and Olney (2.5%). Additional contributed time to host research activities will be furnished by: Chambers (5%), Crandall (5%), Feuille (5%), Hendricks (5%), Kuehn (5%), Olney (2.5%), Proctor (5%), and So (5%). Hendricks, Feuille, and So will also receive summer support should their research projects be endorsed by SSA. Contributors to the dissemination and training activities who are not employees of the host institution, but who will

donate their time and effort include: Braddock, Bruce, Hanson, Hedrick, Kundu, Marme, and Menz. Additional faculty from the host Institution who may contribute to future research endeavors are included in Appendix F.

Materials and Supplies: A sufficient budget has been requested to cover institute supplies, including Office supplies, data processing needs, educational and instructional supplies, laboratory supplies and others, including a budget for the printing of the biennial monographs.

Services: A variety of service related expenses have been included to cover the training dissemination and Facilitation of Data Usage activities, as well as to support host research activities. Services include , conference and reception costs, postage/mailing, copying and duplicating, which includes training materials and non-web based dissemination, and web-site development/. Microfilm storage of all research and dissemination products toward future use, telephone teleconference and videoconference costs, design consultation for publication activities, equipment repair and maintenance which has been detailed in Budget Justification.

Consultants and Tuition Remission: Consultants monies will be used for the following: Support the research contributions of non-affiliate researchers when needed; stipends for Visiting Scholar activities. Other direct costs are for scholarships and tuition remission which is calculated at the rate of 34.5% of graduate research assistant salaries..

Sub-Awards: Subcontract research activities have been negotiated with the three affiliate institutions: Rutgers, Northwestern/RIC, and University of Chicago/NORC. The subcontracts have been negotiated to cover each institution's research project costs for the first year and in anticipation of subsequent years, subject to negotiations with SSA. Research activities of the host and Affiliate institutions are offered with the understanding that SSA, in partnership with the DRI, reserves the right to fund or reject specific proposed projects. Further detail on the five

year research plan is included in Appendix F. A portion of the subcontract to UC/NORC will cover the use of the Washington based offices of NORC for project activities, meetings, and research-related development activities.

Equipment: The equipment described in Budget and Budget justification, Parts II and III, are all designated to support the data usage facilitation activity of the Institute, including data mining and visualization activities, communication between data and web site access, articulation of data bases. No additional equipment costs will be budgeted to SSA.

Travel: Travel will include the costs of the SSA/DRI advisory board activities. In-state and out-of-state travel for host administrator staff and researchers as it pertains to the research, training and dissemination activities of the project, and travel for researchers and consultants not budgeted for by sub-contractors in their sub awards.

Indirect Costs: Indirect costs, 53.0% of Modified Total Direct Costs, less tuition remission, equipment, and sub awards in excess of $25,000, as negotiated by the host institution with the Office of Naval Research on June 27,1999(See negotiated rate agreement attached to Budget Justification)

Cost Estimates for the currently anticipated first year research project activities

Cost estimates for the currently anticipated first year research projects will **TOTAL $421,000** (approximately 1/3 of the first year budget), if SSA accepts the currently proposed first year plan. Included in Appendix F will be the five year plan offering cost estimates for individual research priorities, and projects proposed in the Research Prospectus.

Priority 1: Interrelationships of Medicine, Technology, Work and SSA programs with persons with disabilities, **TOTAL: $214,000.**

R1a (Rutgers)	Tends in the nature of Disability and the Composition of the Population of Persons with Disabilities
R1c (NW/UCSF)	Employment Outcomes for Persons with Disabilities in a Mature Economic Environment
R1d (Rutgers)	New Work Arrangements and Disability Income
R1e (Illinois)	Disability Benefits as Household Income and Labor Decisions of Household Members

Priority 2: The effects of rehabilitation and other support services, **TOTAL: $72,500.**

R2a (Illinois/Stout)	Comparative Impact of Community Based Vocational Rehabilitation Services on Workforce participation and Social Security Participation
R2d (Rutgers)	Making the Ticket Proposal work.

Priority 3: The interaction between medical, functional and occupational factors as disability determinants, **TOTAL: $132,500.**

R3a (NWU/NORC)	Medical, functional and occupational factors in disability determination.
R3b (Rutgers)	Research Program on barriers to employment among persons with mental impairment

Dissemination: Dissemination activities include website development, and the content development of the annual training and dissemination conference. Development of the website and continuous monitoring of it the first year will cost approximately $26,000. The virtual

conferences to be held in years 1, 3, and 5 will be imbedded in the host institution infrastructure budget at a cost of $2,240. The face-to-face biennial conferences in years 2 and 4, including production of the monographs, will cost approximately $64,000 each year . TOTAL COST: $92,240.

Training and Education: All regular training costs will be absorbed within the UIUC infrastructure, including training activities in conjunction with virtual or face-to-face conferences. This will include the development of the on-line coursework, training of SSA's own workforce, and Institute staff development of training packages. TOTAL COST: $47.000

Facilitation of Data Usage: The Disability Research Institute technology architecture will serve as a framework for cleansing, modeling, extracting and transferring data and will provide for its availability and use under appropriate security protocols and guidelines. Authorized users will be able to query, report, analyze and mine data. Every data warehouse or datastore requires a hardware platform to drive processing, consisting of server hardware and operating systems with appropriate network connections. In our environment, two servers will provide this structure; a database server functioning as the primary datastore and processing engine will be front-ended by a Web server. The Web server will funnel HTTP requests to the database server, while the database server will perform back-end processing and deliver dynamic content back to the Web server and its clients. The hardware itself will be positioned in a secure location to both take advantage of UIUC's high-speed connectivity to the Internet and provide protection from unauthorized access, use, and incidental damage.

Hardware:

In our computer environment, Sun servers will provide a growth path with their scalable architecture; the Solaris operating environment provides for reliability and allows for the

development of complex database applications and high-end queries and analysis. For the web server hardware, we will purchase a Sun Ultra 10 Enterprise Server with a 440 MHz UltraSPARC III processor.

Software:

In the first year, we intend to purchase a 4-year unlimited access Oracle 8i Standard Power Unit license that will allow unlimited access to researchers and authorized users. The Oracle 8 software package is an industry-leading database and is designed for Internet computing. This software will provide us the foundation for compatibility with our partners at NCSA and our affiliated academic partners, as well as a flexible platform to provide advanced security, data availability, and information retrieval capabilities.

Supplies and Services:

A yearly expendable supply of backup tapes and tape drive cleaning supplies will be needed. Initial server setup and network operating system installation will be provided by Sun Microsystems, Inc. for both servers.

Personnel:

The database architect will define the overall vision and strategy for the architecture, infrastructure and data modeling of the Disability Research Institute datastore, and will set the direction in which it should be achieved. The database architect will monitor the implementation of the technical infrastructure for the data stores, and directly lead the development of the web-based user interface for the datastore, including personally designing data analysis and mining applications in partnership with researchers and personnel from NCSA. Together with the project leads, this individual will draft plans for testing of data availability structures and closely

monitor test results. Together with NCSA personnel and researchers, the database architect will participate in drafting appropriate protocols to ensure data security.

The database administrator will create the physical database structures based on user requirements. The database administrator will be responsible for day-to-day operational support of the database, ensuring data integrity, database availability and performance. Database administrator will provide services to support web-based end user application development as required. A Unix administrator will provide for administration and maintenance of the Solaris operating system and provide web server support. Additional information on these systems is found in the Budget Justification.

The total cost for facilitation of data usage will be as follows: Hardware: $61,928; Software: $29,310; Technical Support: $76,000; Total Amount: $167,238.

Summary

The budget will assure efficient and effective allocation of funds to achieve the objectives of the DRI, and a significant in-kind contribution is being contributed by UIUC, the host institution. This in-kind amount is over three times the amount required by SSA. The Institute will seek additional support from other federal, non-federal and foundation sources, but funds pertaining to this RFA will not directly duplicate those received from other sources. All currently donated funding is from the host institution. The budget narrative has linked the research, training, dissemination and data facilitation program to the Institute's overall funding level. Included in Appendix F, will be the five year plan, offering estimates for individual research priorities and projects proposed in the Research Prospectus, as well as Dissemination, Training and Education and Facilitation of Data Usage. The plan is offered with the

understanding that SSA, in partnership with the DRI, reserves the right to fund or reject specific proposed projects.

The budget narrative includes and refers to appropriate levels and distribution of funds toward successful completion of the research, training, dissemination plans and demonstrates the extraordinary capacity of the host institution, and especially the generous contribution from NCSA , Academic Outreach, and UI On-Line. Funding for occasional requested SSA activities (Part II, S B1) has been included in the consultant section. The distribution of funds from host and SSA is clarified in Budget Justification (Part II-III).

ATTACHMENT A: PAST PROJECTS AND REFERENCES

Attachment A: Past Projects and References

Below, we list a sample of recent projects that demonstrate the past experience of the Cornell Institute leadership staff in conducting disability-related research, data facilitation, training, and dissemination activities. For each project listed, contact information for reference purposes is indicated.

A. J. Abowd and CISER Staff

Dynamic Employer-Household Data and the Social Data Infrastructure

Contact: Mary E. Deily
National Science Foundation
Arlington, VA
(703) 306-1753

Key Staff: John Abowd, Julia Lane, and John Haltiwanger

Cornell University, through CISER, is the lead institution in a five year NSF Social Data Infrastructure project to create linked, longitudinal employer-household data. The lead organization in this effort is the United States Bureau of the Census, which has undertaken a pilot project called the Longitudinal Employer-Household Dynamics Project. This project would link household and individual data from the Current Population Survey, Survey of Income and Program Participation, and the American Community Survey with administrative data from the Social Security Administration, and other agencies, and with economic data from the Standard Statistical Establishment List, the quinquennial economic censuses and annual economic surveys. The resulting database would be the most comprehensive collection of information on employment histories, individual and household characteristics, and business outcomes. Cornell University is the location of the external support site for this project. The support site is a set of web-based access tools that will permit researchers to learn about the data and develop working analysis prototypes without actually accessing the confidential data. The confidential data themselves are maintained in a firewall-within a firewall at the Census Bureau on a dedicated computer that can only be accessed from limited locations within the Bureau's Suitland, MD headquarters and related facilities. Cornell University, through CISER, also maintains a restricted-access data center where researchers may use other confidential data under a variety of access and use control protocols. International linked employer-employee data are housed in this restricted-access data center.

B. S. Bruyère and Cornell ILR Staff

National Training Center on SSA Disability Programs and Work Incentive Provisions

Contacts:

Sandy Hancock
Social Security Admin
Office of Employment Support Programs
6401 Security Blvd
Baltimore, MD 21235

Beverly Brightly
Rehabilitation Services Admin
330 C Street, SW
Switzer Building
Washington DC 20202

(410) 965-7925
sandy.hancock@ssa.gov

(202) 205-8926
beverly_brightly@ed.gov

Key Staff: Thomas P. Golden, Susanne M. Bruyère, and Connie Ferrell

Cornell's Program on Employment and Disability began a National Training and Information Dissemination Center on SSA's disability and return to work programs and work incentive provisions in 1995 under the collaborative sponsorship of both the SSA and RSA. Cornell continues development, dissemination and training of related information and products first established under this joint RSA/SSA venture having trained over 7,500 rehabilitation practitioners, special educators, beneficiaries and recipients and their support networks on SSA/disability related issues. Cornell continues the dissemination of the National Disability Programs and Work Incentive Provisions Curriculum first funded under this initiative. Materials have been turned into distance learning programs as well as integrated into both traditional undergraduate and graduate education programs with colleges and universities across the United States.

Vocational Rehabilitation Training for SSA Employment Support Representatives And PASS Specialists

Contact: Martin Mettee
Social Security Administration
Office of Employment Support Programs
6401 Security Blvd
Baltimore, MD 21235
(410) 965-7925
martin.mettee@ssa.gov

Key Staff: Thomas P. Golden

Cornell's Program on Employment and Disability provides technical support and continues to assist the Central SSA Office in enhancing their Plan for Achieving Self-Support (PASS) work incentive. At SSA's request in April of 1996, Cornell's PED began services as a continuing education resource to PASS specialists across the country offering training and technical assistance to expand human resources available within SSA as well as expertise to expand the program. To date, Cornell has developed an introductory certificate program on vocational rehabilitation policy and practice for PASS Specialists. Cornell will also be developing a new human resources development program for Employment Support Representatives within SSA across the U.S. The Employment Support Representative position, a new SSA personnel classification/model being tested, is part of the Office of Employment Support Programs new return to work reform efforts and is expected for national roll-out in the spring of 2000.

Rehabilitation Research and Training Center for Economic Research on Employment Policy for People with Disabilities

Contact: Ruth Brannon, Project Officer
National Institute on Disability and Rehabilitation Research
U.S. Department of Education
330 C St., SW., Room 3413
Washington, DC 20202
202-358-2971
ruth_brannon@ed.gov

Key Staff: Susanne Bruyère, Richard Burkhauser, and David Stapleton

This five-year project takes an economic approach to policy research, focusing on how environmental factors influence the work outcomes of people with disabilities. The research projects focus on a comprehensive analysis of the current status of people with disabilities using existing longitudinal data, and using longitudinal data to analyze the effects of labor market change on the employment and earnings of people with disabilities, return-to-work after the onset of a disability, the impact of civil rights protections on the employment and earnings of people with disabilities, and policies that foster or impede the participation of transitioning students in rehabilitation or employment service programs. The Center provides a coordinated research, training, and dissemination effort that focuses on improving the understanding of policy makers and other stakeholders about the role of the economy, public policies, and other environmental factors in the employment and economic self-sufficiency of persons with disabilities.

Improving Employment Practices Covered by Title I of the ADA

Contact: Joseph DePhillips, Project Officer
National Institute on Disability and Rehabilitation Research
U.S. Department of Education
330 C St., SW.
Washington, DC 20202
202-205-8187
joseph_dephillips@ed.gov

Key Staff: Susanne Bruyère

This is a four-year Research and Demonstration Project to address ways to improve the employment practices covered by Title I of the ADA. The study is conducted in collaboration with the Washington Business Group on Health, the Society for Human Resource Management, and The Lewin Group. The purpose of this effort is to investigate the impact of the ADA on the employment practices of private sector small, medium, and large businesses. The intended outcome of the research is to assist in the identification of employment practices which have been the most challenging in implementing the ADA, and to identify those interventions which can be used by private sector employers and persons with disabilities to address these

challenging employment practices. Employment policy and practices that enhance both the hiring and retention of workers with disabilities are being examined.

Disability Employment Policies and Practices in U.S. Government Agencies

Contact: Richard Horne, Senior Policy Advisor
Presidential Task Force on Employment of Adults with Disabilities
Department of Labor
200 Constitution Ave., N.W., Room S2220D
Washington, D C 20210
202-693-4939
horne-richard@dol.gov

Key Staff: Susanne Bruyère

This research is part of the efforts of the Presidential Task Force on Employment of Adults with Disabilities to meet the mandate of the Executive Order which states that all federal agencies shall review their programs and policies to ensure that they are being conducted and delivered in a manner that facilities and promotes the employment of adults with disabilities. A survey of U.S. Federal agencies was conducted by Cornell University to capture information on the human resources and equal employment opportunity polices and practices of U.S. Federal agencies in response to employment disability nondiscrimination requirements Federal Civil Rights Laws. The resulting report identifies significant areas which warrant further investigation and follow-up to in order to increase opportunities and eliminate barriers to the employment, retention, and career advancement of people with disabilities in the Federal workforce.

C. R. Burkhauser

The Well-Being of the Elderly in a Comparative Context (1991 – 2000)

Contact: Richard Suzman, Program Officer
Behavioral & Social Research
National Institute on Aging
Gateway Bldg. 533
7201 Wisconsin Ave., MSC 9205
Bethesda, MD 20892-9205
301-496-3138
suzmanr@gw.nia.nih.gov

Key Staff: Richard Burkhauser, Timothy Smeeding, and Douglas Wolf

This program project is a coordinated series of multi-disciplinary research projects on the health, economics well-being, and behavior of older people from a cross-national perspective. It recognizes the economic diversity of the older population and investigates various components of it. The overarching methodology is one that recognizes the dynamic components of health, economic well-being, and behavior and proposes to both develop an exciting new longitudinal

datafile – the Panel Study of Income Dynamics-German Socio-Economic Panel-British Household Panel Study Equivalent Data File (PSID-GSOEP-BHPS) – and to analyze these data and other new data in order to provide a cross-national, dynamic evaluation of public policies related to older persons. The program project will be managed by an Administrative Core that will oversee the Data Core functions of data development and of dissemination of these data to the projects, and to the research community, as well as to oversee the five projects: (1) A Dynamic Analysis of Economic Well-Being at older ages; (2) Changing Income Security Systems for the Aged in the United States, Europe, Russian, and Asia; (3) Living and Care Arrangements of United States and German Elderly; (4) The Economic Well-Being and Work Behavior of People with Disabilities; and (5) Causes and Consequences of Self- Employment at Older Ages.

Geriatric Academic Leadership Award (1992 – 1995)

Contact: Richard Suzman, Program Officer
Behavioral & Social Research
National Institute on Aging
Gateway Bldg. 533
7201 Wisconsin Ave., MSC 9205
Bethesda, MD 20892-9205
301-496-3138
suzmanr@gw.nia.nih.gov

Key Staff: Richard Burkhauser

This leadership award was provided to Burkhauser to establish a core of multi-disciplinary researchers at Syracuse University committed to social science studies of aging. It included the development of a weekly workshop that brought distinguished researchers to Syracuse University as well as provided a forum for Syracuse faculty and graduate student research presentations.

Economics and Demography of Aging Post-Doctoral Program (1993 – 1998)

Contact: Richard Suzman, Program Officer
Behavioral & Social Research
National Institute on Aging
Gateway Bldg. 533
7201 Wisconsin Ave., MSC 9205
Bethesda, MD 20892-9205
301-496-3138
suzmanr@gw.nia.nih.gov

Key Staff: Richard Burkhauser and Douglas Wolf

This grant established two post-doctoral fellowships a year for 5 years at Syracuse University. The fellowships were supervised by Burkhauser and Doug Wolf. They worked on NIA projects as well as their own research.

Cross-National Conference on Health and Retirement Data (1997 – 1998)

Contact: Richard Suzman, Program Officer
Behavioral & Social Research
National Institute on Aging
Gateway Bldg. 533
7201 Wisconsin Ave., MSC 9205
Bethesda, MD 20892-9205
301-496-3138
suzmanr@gw.nia.nih.gov

Key Staff: Richard Burkhauser, F. Thomas Juster, and Jules Theeuwes

This conference grant provided funds for an international conference on *The Health, Wealth and Work of Older People*. The conference was held in Amsterdam, The Netherlands in August 1997. A conference volume co-edited by Burkhauser was published in *Labour Economics* in June 1999.It contains several papers looking at the importance of health on labor force transitions.

D. J. Himmelstein and UMass Staff

CommonHealth Caseload Project

Contact: Charles Cook, Director of CommonHealth
Massachusetts Division of Medical Assistance
600 Washington Street
Boston, MA 02111
(617) 210-5450

Key Staff: Jay Himmelstein and Margot Moomaw

The purpose of this project was to analyze the caseload of the Massachusetts CommonHealth Program in terms of enrollment dynamics, member costs and medical utilization as of March 1997. The methods employed included quantitative analysis of Medicaid administrative data matched with SSA disabling diagnoses. Findings included: of the 3500 current enrollees, 50 percent were children and 50 percent were adults. Approximately 40 percent also had some form of commercial health insurance, and 29 percent had Medicare parts A and B: only 31 percent relied on CommonHealth as the only source of Medical Insurance. Analysis of the caseload dynamics demonstrated that the apparent rapid increase in enrollment was the result of a large number of re-enrollments of members who had been dropped for failure to pay the income-related premium. The most common disabling condition for adults was "Mental Health"; for children "neurological". Cost analysis showed significant variation in types of services and

medical utilization within and between disability categories and between those with and without other forms of health insurance.

Brain Injury Project

Contact: Ellie Shea-Delaney, Delivery Systems Administration
Massachusetts Division of Medical Assistance
600 Washington Street
Boston, MA 02111
(617) 210-5604

Key Staff: Jay Himmelstein, Margot Moomaw, and Susan Murray

The purpose of this project was to identify the population among MassHealth (Medicaid) members with a primary disabling diagnosis of Traumatic or Acquired Brain Injury and develop recommendations for addressing service delivery gaps. Medicaid claims and eligibility records were matched with SSI data to identify a complete sample meeting federal disability criteria. 1670 individuals between the ages of 15 -54 were identified for the 3 year study period (1995-1997). Major findings include that 2/3 of the sample were between the ages of 25-44, 60 percent male, TBI was more prevalent among males, and ABI more prevalent among females; less than 15 percent had TPL or Medicare. Approximately 17 percent were institutionalized and cost distribution followed the 80/20 rule with 20 percent of the population utilizing 80 percent of the resources. Personal Care Attendant and Home Health services were the most commonly used community-based long term care services. Medical record reviews suggested that up to 20 percent of the institutionalized population could be more appropriately served in community-based placement if these alternatives were available.

Autistic Spectrum Disorders (ASD)

Contact: Kate Willrich
Massachusetts Division of Medical Assistance
600 Washington Street
Boston, MA 02111
(617) 210-5466

Key Staff: Jay Himmelstein and Anne Kane

The purpose of this project is to provide technical assistance to the Division of Medical Assistance (DMA) to identify the MassHealth population with Autistic Spectrum Disorders (ASD), examine related services, and determine gaps in service delivery and coordination. A further goal is to test the project methodology for determining service needs and developing integrative solutions for discrete populations served by DMA. Multiple methods are being employed to capture a sample from DMA's administrative data, to identify gaps in intrastate agency service coordination and delivery, and to examine service delivery systems in other states serving this population. Statistical analyses now in progress suggest a sample size of over 600 children under the age of 22 who have Infantile Autism, and more than 500 children with milder

and rarer forms of autism. Results are expected to support the development of budget neutral recommendations for effective coordination and of delivery services to children with ASD who are served by DMA, and to further refine this multiple-methods approach to investigating service delivery to special populations.

Robert Wood Johnson Workers' Compensation Health Initiative

Contact: Michael Rothman, Senior Program Officer
The Robert Wood Johnson Foundation
Route 1 and College Road East
P.O. Box 2316
Princeton, NJ 08543
(609) 951-5775

Key Staff: Jay Himmelstein and Allard Dembe

Since 1995, a Robert Wood Johnson Foundation six-year grant to provide overall direction for the Foundation's $6 million national grantmaking program--the Workers' Compensation Health Initiative--aimed at testing new models for containing costs and improving the quality of care provided under workers' compensation insurance. Since its inception, the program has funded 21 demonstration and evaluation projects, many of which focus on clinical and worksite-based disability management techniques and new strategies for shortening the duration of disability caused by work-related injuries and illnesses. These projects have resulted in a substantial body of research literature providing new information on the determinants of workplace disability, the interplay of workers' compensation and other insurance programs, enhanced communications and case management to minimize work absence, and the impact of practice guidelines on facilitating successful return to work.

Contract Provisions to Ensure Quality in Workers Compensation Managed Care

Contact: Gregory Krohm
National Association of Insurance Commissioners/JIR
5018 Flad Avenue
Madison, WI 53711
(608) 277-1479
Gkrohm@facstaff.wisc.edu

Key Staff: Allard Dembe and Jay Himmelstein

A research award from the National Association of Insurance Commissioners' Journal of Insurance Regulation to examine quality-of-care provisions in contracts between employers and managed care organizations providing workers' compensation medical services. In this study, they analyzed thirty-one existing contracts from twelve states to determine the extent to which quality-of-care is currently being addressed. Based on this review, model contract language was proposed that can be used by state regulators and purchasers to strengthen the accountability of managed care organizations to deliver high-quality care to injured workers.

State of Washington Joint Legislative Audit and Review Committee: Performance Audit of the Washington State Workers' Compensation System

Contact: Ed Welch, Director
Workers' Compensation Center
School of Labor & Industrial Relations, Michigan State University
422 South Kedzie Hall
East Lansing, MI 48824
(517) 432-7727
welche@pilot.msu.edu

Key Staff: Allard Dembe

A research award from the National Association of Insurance Commissioners' Journal of Insurance Regulation to examine quality-of-care provisions in contracts between employers and managed care organizations providing workers' compensation medical services. In this study, they analyzed thirty-one existing contracts from twelve states to determine the extent to which quality-of-care is currently being addressed. Based on this review, model contract language was proposed that can be used by state regulators and purchasers to strengthen the accountability of managed care organizations to deliver high-quality care to injured workers.

Long-Stay State Hospital Patient Study

Contact: Paul J. Barreira, M.D.
Deputy Commissioner for Clinical and Professional Services
Massachusetts Department of Mental Health
25 Staniford Street
Boston MA 02114
(617) 626-8106

Key Staff: William H. Fisher and Andrew White

This project was a point in time study of individuals who had been hospitalized three years or more in inpatient facilities maintained by the Massachusetts Department of Mental Health as of April 1, 1999. The project entailed assessment by hospital treatment teams using a protocol developed jointly by staff from DMH and The Center for Mental Health Services at Umass. Approximately 300 patients were included in the study. The study identified characteristics of patients in the following domains: demographic, primary and secondary psychiatric diagnosis, medical diagnoses and problems, nursing care and supervision needs, problematic/dangerous behaviors, and possible alternative settings. The goal of the study was to determine the needs of this hospital population and identify factors that present barriers to discharge.

Patient Specific Project

Contact: Noel Mazade, Ph.D.,Director

National Assoc of State Mental Health Program Directors Research Institute
66 Canal Center Plaza
Suite 302
Alexandria VA 22314
(703)739-9333

Key Staff: William Fisher, Steven Banks, and Lorna Simon

The purpose of the project was to continue development of a patient level longitudinal data set of state hospital admissions and discharges and patient characteristics that could be used to examine trends in the use of public mental hospitals. Data were provided by the mental health agencies of 11 states on all episodes of state hospital admission, linkable at the patient level through the use of a unique identifier. A five year period was covered. The primary tasks in this effort included working with states to ensure data were obtained according to a common protocol, cleaning and applying logical "traps" to detect inconsistencies within records, providing data in response to requests from the Research Institute, and conducting preliminary analyses.

Relationship Between Mental Illness and Criminal Justice

Contact: James Stone MSW, Commissioner
NYS Office of Mental Health
44 Holland Ave
Albany, NY 12229
(518) 486-4203

Key Staff: Steven Banks

The purpose of this project was to analyze the relationship between recipients of mental health services in New York State and the criminal justice system. Data from Medicaid, general hospitals, and state psychiatric hospitals identified mental health service recipients. Data from county jails and the State Department of Corrections yielded information regarding involvement with the criminal justice systems. All data source had no common identifiers, so data were analyzed using Probabilistic Population Estimation. Findings indicated that the over 100,000 individuals who received a mental health service were more than 3 times likely to have criminal justice involvement then an age and gender matched general population.

Performance Indicators in a Public Mental Health System

Contact: John Pandiani, PhD
Director of Research
Vermont Department of Mental Health
Waterbury, VT 12229
(802) 241-2638

Key Staff: Steven Banks

The purpose of this project was to compute measures of program performance using only existing administrative data systems. These data systems include: Medicaid, general hospitals discharges, state psychiatric hospital discharges, community behavior health services, corrections, welfare, vital records, and education. All data source had no common identifiers, so data were analyzed using Probabilistic Population Estimation. Findings indicated that system performance varied across the State of Vermont after risk adjusting for age and gender differences. These findings have been disseminated throughout the State, as well as in more than 10 peer reviewed journal articles.

Consumer and Provider Perspective on Employment: A Focus Group Study

Contact: Paul Barreira, MD
Deputy Commissioner for Clinical and Professional Services
Massachusetts Department of Mental Health
25 Staniford Street
Boston, MA 02114
(617) 626-8113

Key Staff: Alexis Henry and Anna Lucca

This project examined mental health consumers' and service providers' perspectives on the most significant employment barriers and facilitators for persons with serious mental illness. In 12 focus groups across the state, consumers and providers identified both person level and societal level barriers and facilitators. Among the societal level barriers most consistently identified by both consumers and providers is the complexity, misinformation and actual work disincentives associated with the social security system. The pervasive stigma against persons with mental illness was a second significant societal level barrier. In collaboration with a consumer/provider "best practice" organization in Massachusetts, we are preparing a document that will highlight the important barriers/facilitators identified during this study and will propose several action recommendation to address the issues raised. This document will be disseminated to policy makers at the Department of Mental Health, the Massachusetts Rehabilitation Commission, the Social Security Administration and others.

Evaluation of a Services for Education and Employment (SEE) Program

Contact: Jeff Handler, PhD, Director of Economic Development
South Middlesex Opportunity Council
300 Howard Street
Framingham, MA 01702
(508) 620-2302

Key Staff: Alexis Henry and Anna Lucca

The goal of this project is to conduct an outcome evaluation of a newly-developed, DMH-funded initiative to provide supported education and employment services for DMH clients with serious mental illness. The project, which is currently underway, accessing existing DMH and SMOC

databases to examine predictors of employment/educational outcomes, and to examine the relationship of employment/educational outcomes to clinical outcomes such as hospitalization. While this project evaluates one SEE program, we expect it to serve as a template for a future statewide evaluation of the SEE initiative. Final reports from this project will be provided to SMOC administrators and DMH policy and program planners.

E. D. Stapleton and Lewin Group Staff

SSA Demonstration to Provide Treatment to DI Beneficiaries with Affective Disorders

Contact: Leo McManus
Office of Disability
Social Security Administration
Altmeyer Building, 5th Floor
6401 Security Blvd.
Baltimore, MD 21235
410-965-0111
leo.mcmanus@ssa.gov

Key Staff: David Stapleton and Gina Livermore

The Lewin Group is assisting SSA in designing a demonstration that will test the effectiveness of modern treatments for affective disorders by offering to pay for the psychosocial and drug therapy required by a sample of volunteers among SSA's disability insurance (DI) beneficiaries. Persons with affective disorders represent one of the fastest growing cohorts on the disability rolls. The Lewin Group will develop the study protocol, which will include plans for: an oversight committee; soliciting study participants and defining the characteristics of beneficiaries that will be eligible to participate; establishing the acceptable treatment modalities and treating sources; payment mechanisms for treatment; and the measures of progress and success that will be evaluated under the demonstration. The demonstration is scheduled to begin around the end of fiscal year 2000 and will last for five years.

Policy Evaluation of the Overall Effects of Welfare Reform on SSA Programs

Contact: Howard Iams
Social Security Administration
500 E. Street, SW, 9th floor
Washington, D.C. 20254
(202) 358-6217
howard.m.iams@ssa.gov

Key Staff: David Stapleton, Mike Fishman, Gina Livermore and David Wittenburg

Lewin recently completed a project for the Social Security Administration (SSA) that gave us the opportunity to perform a pathbreaking study of transitions from state family welfare programs to SSA disability programs (Supplemental Security Income and Social Security Disability Insurance) using previously unavailable linked survey and administrative data. We found a

significant number of transitions between AFDC and SSI from 1990 to 1996. We found that 29 percent of young women (aged 18 to 40) and 37 percent of children (aged 0 to 17) who became SSI recipients from 1990 to 1996 were living in families who received Aid to Families with Dependent Children (AFDC) benefits in 1990. Not surprisingly, we also found a significant increase in the probability of SSI application over this period for young women who were mothers relative to other young women. The study also includes additional quantitative and qualitative analyses that were undertaken to better understand the potential effects of the recent welfare reform changes on SSA programs. While these options were developed specifically for SSA's purposes, they have implications for other welfare reform evaluations.

Research on Employment Supports for People with Disabilities

Contact: Floyd Brown
Office of Disability, Aging, and Long-Term Care Policy
Assistant Secretary for Planning and Evaluation – U.S. DHHS
Humphrey Building, Room 424-E
200 Independence Ave, SW
Washington, DC 20201
202-690-6443
fbrown@osaspe.dhhs.gov

Key Staff: David Stapleton and Gina Livermore

Lewin staff are currently conducting a project for ASPE to examine the employment supports utilized by successfully employed adults with disabilities. The project is a major part of DHHS's contribution to the President's Task Force on the Employment of People with Disabilities. This project involves: (1) an extensive review of the recent literature on issues related to the employment of people with disabilities, and a review of current federal, state, and local policies affecting employment; (2) development of an inventory of public and private programs at the national, state, and local level that support, promote, or otherwise affect the employment of people with disabilities, and the selection of a subset of programs in specific states for more intensive case study; and (3) the design and implementation of an extensive qualitative data collection (interviews and focus groups) and analysis effort intended to yield new and rich information on the employment experiences of people with disabilities in the U.S. and Canada.

Disability Process Redesign Prototype

Contact: Paul O'Leary
Office of Research, Evaluation, and Statistics
Social Security Administration
OP 9th Floor, ITC Bldg.
500 E Street, SW
Washington, DC 20254
202-358-6227
paul.oleary@ssa.gov

Key Staff: David Stapleton and Gina Livermore

Lewin staff are assessing the Social Security Administration's evaluation plan, data collection methodology and implementation plan of the Disability Process Redesign Prototype, a demonstration designed to improve the efficiency and accuracy of the disability determination process. Project tasks include advising SSA regarding the assignment of SSA offices to various evaluation tasks, reviewing and assessing the objectives of the evaluation plan, reviewing and assessing the methodology of the plan, providing technical support in the development of a management information collection and distribution plan, and providing technical support regarding data collection and statistical analyses of the results.

Disability Claims Manager Test (Phase I and II)

Contact: Richard Fussell
OSR Office of Systems, Operations 3-P-26
Social Security Administration
6401 Security Blvd.
Baltimore, MD 21235
410-965-9230
richard.fussell@ssa.gov

Key Staff: David Stapleton and Gina Livermore

Lewin staff provided an independent assessment of the proposed structure and operation of a pilot test of the Disability Claims Manager (DCM) model, a significant change to the organization and procedures for making initial disability determinations that is under consideration by SSA. Lewin advised SSA in the construction of a monitoring plan for the start-up and preparation phase of the pilot, including recommendations for necessary oversight, data collection and assessment mechanisms. Lewin also conducted an evaluation of the first phase of the pilot and recently completed an evaluation plan for Phase II of the pilot, which includes process, impact and cost analyses. Lewin staff will provide an independent assessment of the Phase II findings at the conclusion of the test.

Rehabilitation Research and Training Center (RRTC) for Economic Research on Employment Policy for Persons with Disabilities

Contact: Ruth Brannon
National Institute on Disability and Rehabilitation Research
US Department of Education
Mary E. Switzer Building, Room 3413
330 C Street, SW
Washington, DC 20202
202-358-2971
ruth_brannon@ed.gov

Key Staff: David Stapleton, Mike Fishman, Gina Livermore, and David Wittenburg

The Lewin Group is collaborating with Cornell University on this five-year RRTC. Our proposed research has two overarching themes. First, we will take an economic approach to policy research, focusing on how environmental factors influence the work outcomes of people with disabilities. Second, we will address important issues that receive insufficient attention in research on the employment of people with disabilities: the heterogeneity of people with disabilities; the critical dynamic aspects of their employment outcomes; and the importance of interactions among the multiplicity of programs that are intended to serve them in these outcomes. The six specific research areas are:

1. Comprehensive analysis of the current employment status of persons with disabilities using existing panel data;
2. Longitudinal analysis of the effects of labor market change on the employment and earnings of people with disabilities
3. Longitudinal analysis of return-to-work after the onset of a disability;
4. Longitudinal analysis of the impact of civil rights protections on the employment and earnings of people with disabilities;
5. Identification and analysis of policies that foster or impede the participation of transitioning students in rehabilitation or employment service programs; and
6. Analysis of emerging issues affecting the employment of people with disabilities.

Lewin staff will be principally involved in projects related to four research areas (1, 2, 5, and 6). The Lewin Group will provide technical support for the remaining research areas (3 and 4).

Exploratory Study of the Health Insurance and Employment of People with Disabilities

Contact: Marie Strahan
Office of Disability
Social Security Administration
Altmeyer Building, 5th Floor
6401 Security Blvd.
Baltimore, MD 21235
410-965-5774
marie.strahan@ssa.gov

Key Staff: David Stapleton and Gina Livermore

Lewin staff completed a project for SSA and ASPE that examined the relationship among health insurance, employment, and program participation of persons with disabilities. The project involved: (1) in-depth review of studies of the relationship between access to health insurance, employment, and program participation; (2) descriptive analysis of SIPP and NHIS-D data of the health insurance and employment status of people with disabilities; and (3) analyses of the effects of increases in Title XVI (SSI) 1619b (work incentive program) income limits on the employment and earnings of SSI recipients.

Evaluation of SSA's Disability Quality Assurance Processes

Contact: Thomas J. Fohl, Director
Division of Disability Hearings Quality
Social Security Administration
6314 SWT, Baltimore, MD
410-966-4509

Key Staff: Taylor Dennen, David Stapleton, and Gina Livermore

The Lewin Group was recently awarded a contract by the Social Security Administration to provide SSA with an independent analysis that will contribute to a redesigned quality assurance system that ensures adjudicative accuracy and consistency across all adjudicative levels of the disability determination process. This work entails assessment of how the current disability determination process meets the intent of the law, analysis of data to assure uniformity in decision-making across the country, interviewing SSA officials and site visits to regional SSA offices to assess how the current procedures are being implemented and their effectiveness in meeting SSA quality assurance objectives.

The Impact of Increases in the Social Security Retirement Age and the Medicare Eligibility Age on the Social Security Disability Insurance Program

Contact: Laurel Beedon
American Association of Retired Persons
601 E Street, NW
Washington, D.C. 20049
(202) 434-3873
lbeedon@aarp.org

Key Staff: David Stapleton and David Wittenburg

Lewin staff recently completed a series of projects for the American Association of Retired Persons (AARP) to project the potential impacts of raising the Social Security Normal Age of Retirement (NAR) and Medicare Eligibility Age (MEA) on Social Security Disability Insurance (DI) and Medicare participation. These increases would reduce the number of people who receive Social Security benefits and who are covered by Medicare. Some beneficiaries, however, will retain both their Social Security benefits and Medicare eligibility by meeting the qualifications for Social Security Disability Insurance (DI). To project the potential impacts of these increases, we developed a microsimulation model using descriptive and econometric estimates from the *Survey of Income and Program Participation* (SIPP) and *Medicare Current Beneficiary Survey*. We simulated a variety of potential policy scenarios to be consistent with current law and new proposals to raise the NAR to age 67 and 70 in future years. For example, under one policy scenario in which we assumed that the NAR and MEA would gradually increased to age 70 by 2040, we projected that Medicare enrollment would fall by 16.8 percent (14.48 million people) and Medicare expenditures would fall by 8.0 percent (67.3 billion dollars) in 2040. Our projections provide policy makers with the estimates of the potential effects of changing the NAR and MEA.

Evaluation of the Effect of Legislation Prohibiting Disability Benefits to Drug Addicts and Alcoholics

Contact: Kalman Rupp
Social Security Administration
Office of Research, Evaluation, and Statistics
500 E. Street, SW, 9th Floor
Washington, D.C. 20254
kalman.rupp@ssa.gov
(202) 358-6216

Key Staff: David Stapleton, David Wittenburg and Gina Livermore

Lewin conducted a project for the Social Security Administration to evaluate the impact of the 1996 welfare reform legislation prohibiting DI and SSI benefits to individuals whose disability was based on drug addiction or alcoholism. The project had four components: 1) descriptive analysis of the March 1996 cohort of affected beneficiaries using SSA administrative data; 2) case studies of the impact of the legislation on state and local welfare systems in four states; 3) analysis of two non-SSA data sources on persons disabled by drug addiction and alcoholism to determine the impact of the legislation on the lives and well-being of the persons affected; and 4) the development of an econometric model to estimate the cost and caseload impacts of the legislation using SSA administrative data. We found that approximately 34 percent of these beneficiaries had retained or re-established eligibility as of December 1997- approximately half as many as had been anticipated by SSA at the time the legislation was passed.

Dr. Lex Frieden
3634 North Braeswood
Houston TX 77025

Dear Lex,

Enclosed are the applications from Cornell University and the University of Illinois as well as the Panel summaries of each.

I will E:Mail travel information as soon as I can get everything together. You will need the proper bureaucratic travel number before you can call American Express for airline reservations. I'll also get the hotel phone numbers to you. We have almost completed negotiations in finding reasonably affordable and convenient lodging at each location. Hope to get everything to you very soon. My phone number is 410-965-2396.

Thanks for your help and patience.

Nels Rambath

SUMMARY OF TEP REVIEW AND RECOMMENDATION

Applicant: The University of Illinois at Urbana-Champaign

Total numerical rating (on scale from 0 – 100): 80.3

Recommendation: Approve

Major Strengths and Weakness by Evaluation Criterion:

A. Quality of the Background Analysis (Total points = 10; TEP score = 7.7)

Strengths: Very good understanding of the past and present policy concerns of SSA's disability programs; delineates critical points and trends in history of disability programs; and clear explanation of how proposed projects related to major policy themes.

Weaknesses: Does not address impact of political issues on policy; does not explain the relationship between past policy trends and proposed research; future trends are not discussed.

B. Quality of the Research and Evaluation Prospectus (Total points = 30; TEP score = 26)

Strengths: Presentation of research themes and links to SSA's priority areas for the DRI are well organized and illustrated; proposed projects are closely related to the priority research areas and are well-defined; near-term projects are well documented; proposed projects reflect the full, wide range of priority issues and current policy concerns; research products are likely to be conducted with professional sophistication and high policy significance; researchers have substantial experience and are building on prior research in disability and on the economics of disability.

Weaknesses: Less than complete discussion of how combined findings of this research plan would affect policy; lacks sufficient emphasis on medical/health outcomes and their interactions with technology (particularly assistive technology); in some of the longer-term projects, lacks sufficient detail for a full understanding of significance of the research products; more explanation of how proposed projects mesh with existing SSA research agenda.

C. Dissemination, Training and Education, and Facilitation of Data Usage (Total points = 20; TEP score = 15.5)

Strengths: Combines several methods to communicate research findings to all interested audiences, including posting on a website in "quick facts" summaries to reach the non-academic audience; their DRI would draw upon the University's library services to facilitate and coordinate dissemination of research results; data will be disseminated via searchable databases and downloadable data sets; applicant will use the National Science Foundation's National Center for Supercomputing Applications to provide efficient access to large data sets; proposes a Visiting Scholars program to stimulate and educate new scholars, as well as doctoral and post-doctoral students.

Weaknesses: No descriptions of staff and project management for data usage activities; no details on training of federal policy analysts; no mention of confidentiality requirements and usage restrictions associated with using SSA's administrative data files.

D. Quality of Staffing Proposal and Proposed Organizational Arrangements (Total points = 30; TEP score = 23.8)

Strengths: Proposed staff is multi-disciplined with extensive experience in high quality research; significant concentration in applied research; staff is well-balanced between social science and medical research backgrounds; proposed director has extensive experience in education, research, and administration related to social service programs; director will devote 40% of her time during the school year and 100% of her time during the summer to the DRI; the University is experienced in providing research products for government agencies.

Weaknesses: Proposed director is specialist in rehabilitation counseling and the education of counselors; no explicit indication of how applicant will facilitate communication between basic and applied research audiences; time commitments of subcontractors is not well documented.

E. Appropriations of the Budget to Carry Out the Planned Staffing and Project Activities (Total points = 10; TEP score = 7.3)

Strengths: First year budget is strong in all categories; good support from the University at 15% per year; salary structure seems within normal range for director and research staff/consultants.

Weaknesses: Lack of budget detail for years 2 – 5.

APPLICATION TO ESTABLISH A

DISABILITY RESEARCH INSTITUTE

Submitted to:

THE SOCIAL SECURITY ADMINISTRATION

IN RESPONSE TO SSA-ORES-00-1

Submitted by:

CORNELL UNIVERSITY

IN PARTNERSHIP WITH

THE UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL

AND THEIR CONSORTIUM INVESTIGATORS

JANUARY 12, 2000

PROJECT SUMMARY

Cornell University, in collaboration with the University of Massachusetts Medical School (UMass) has assembled a consortium of 80 professional researchers from a total of eleven major universities and eight research organizations for the purpose of establishing the Cornell Disability Research Institute. The collective training and research experience of these researchers covers a broad range of social and clinical science disciplines, and many have published extensively on topics related to SSA's disability programs and the employment and wellbeing of people with disabilities. The five researchers who are leading this effort are: Richard Burkhauser, John Abowd, and Susanne Bruyère of Cornell; Jay Himmelstein of UMass; and David Stapleton of The Lewin Group.

The primary location for the Institute will be at the new Cornell Center for Policy Research in the Washington, DC area. The Center's location, and the experience of the Center staff in using SSA administrative data for research, will facilitate the Institute's development and early access to the administrative data. Dr. Stapleton has agreed in principle to accept Cornell's offer to become the Center's Director, and we propose that he be the Director of the Institute.

Cornell's technical capabilities for archiving and analyzing highly confidential administrative data are an exceptional feature of the proposed Institute. Cornell has established a restricted-access data center under a National Science Foundation grant. Abowd is one of the grant's Principal Investigators, and his knowledge of confidentiality issues concerning SSA, IRS, and Census data will be instrumental in facilitating access to data. Many of our investigators have access to significant state agency or private databases. State data include Medicaid, vocational rehabilitation, workers compensation, and unemployment insurance data, and private data include data from leading workers compensation and private disability insurers. The owners

of these data have expressed a strong interest in supporting links to SSA data, and some will also provide financial support to specific projects.

The extensive capabilities of the UMass investigators in the area of occupational rehabilitation and medicine, including their expertise in the area of mental health, will be a major asset to the Institute. An especially interesting feature of their capabilities is the UMass Disability Evaluation Service. This Service conducts disability determinations for applicants to State programs, using SSA's medical criteria and associated regulations. We will have the opportunity to study these determinations in great detail, including determinations for many individuals who receive essentially contemporaneous determinations from the State's DDS.

Our research and evaluation prospectus addresses all three of the RFA's priorities within our three objectives: (1)improving our understanding of the work, program and policy environment for people with disabilities and its impacts on their earnings, independence and wellbeing; (2)improving our understanding of how the clinical conditions of people with disabilities and the medical care they receive allow them to actively participate in that environment; and (3)improving our understanding of how disability determinations can be designed to better support SSA's objectives.

The proposed projects take substantial advantage of SSA's administrative and related data (especially the Survey of Income and Program Participation and the Health and Retirement Survey, both linked to SSA administrative records), as well as other administrative data that might be linked to SSA's data. Most use the longitudinal nature of these data to study the dynamics of the behavior of their subjects, which we believe is key to performing high quality research in this area. Many also take advantage of the large sample sizes found in administrative data to study subgroups of individuals, in recognition of the extreme heterogeneity of people

with disabilities with respect to impairment as well as with respect to socioeconomic and demographic factors. Several of our studies recognize that labor market conditions and program support systematically vary by race and gender, and that this variation exists within the population with disabilities. Hence, when sample size permits, we will explore the degree that our results vary across race and gender categories. Some studies would focus on specific sub-populations. Much of the research focuses on individuals that are in the low-income population, particularly those served by SSI and Medicaid.

We have proposed 10 research projects for the first year, and have also offered six alternate proposals. While all 10 first-year projects are quite strong, SSA might prefer one or more of the alternates. If funding were available to cover any of the six alternate proposals without cutting back on other research, we would be pleased to conduct the additional work. We have also developed 35 additional abstracts for possible projects in later years. We propose to award funds for research in later years through a competitive grant process, in collaboration with SSA.

We propose to disseminate our research papers and policy briefs via the web, presentations at a variety of conferences, and publication in both academic and trade journals. We will conduct two two-day conferences in Washington, DC, following a model that we have previously used successfully for SSA. The Upjohn Institute Press has expressed a strong interest in publishing the conference proceedings, without cost to SSA. We have developed a menu of training activities for professional researchers, policymakers, providers, and organizations that represent persons with severe disabilities, including use of Cornell's state-of-the-art distance learning capabilities. We have also included substantial support for graduate and post-doctoral researchers.

TABLE OF CONTENTS

PART I: FACE SHEET

APPLICATION FOR FEDERAL ASSISTANCE

OMB Approval No. 0348-0043

2. DATE SUBMITTED	Applicant Identifier
1/11/00	
3. DATE RECEIVED BY STATE	State Application Identifier
4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier

1. TYPE OF SUBMISSION:

Application: ☐ Construction ☒ Non-Construction

Preapplication: ☐ Construction ☐ Non-Construction

5. APPLICANT INFORMATION

Legal Name: Cornell University

Organizational Unit: CISER

Address *(give city, county, State, and zip code)*:
Office of Sponsored Programs
120 Day Hall
Ithaca, NY 14853

Name and telephone number of person to be contacted on matters involving this application *(give area code)*
Danielle Mitrakul
607-255-5014

6. EMPLOYER IDENTIFICATION NUMBER *(EIN)*:
15 – 0532082

7. TYPE OF APPLICANT: *(enter appropriate letter in box)* J

A. State
B. County
C. Municipal
D. Township
E. Interstate
F. Intermunicipal
G. Special District
H. Independent School Dist.
I. State Controlled Institution of Higher Learning
J. Private University
K. Indian Tribe
L. Individual
M. Profit Organization
N. Other (Specify) _____

8. TYPE OF APPLICATION:

☒ New ☐ Continuation ☐ Revision

If Revision, enter appropriate letter(s) in box(es) ☐ ☐

A. Increase Award B. Decrease Award C. Increase Duration
D. Decrease Duration Other *(specify)*:

9. NAME OF FEDERAL AGENCY:
Social Security Administration

10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER:
96 – 007
TITLE: Social Security – Research & Demonstration

11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:
Disability Research Institute
SSA-ORES-00-1

12. AREAS AFFECTED BY PROJECT *(Cities, Counties, States, etc.)*:
All of United States

13. PROPOSED PROJECT		14. CONGRESSIONAL DISTRICTS OF:	
Start Date	Ending Date	a. Applicant	b. Project
04/11/00	04/10/05	26	Variety

15. ESTIMATED FUNDING:

a. Federal	$ 1,249,978.00
b. Applicant	$ 103,067.00
c. State	$ .00
d. Local	$ .00
e. Other	$ .00
f. Program Income	$ .00
g. TOTAL	$ 1,353,045.00

16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?

a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON:

DATE _____

b. No. ☒ PROGRAM IS NOT COVERED BY E. O. 12372
☐ OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW

17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?

☐ Yes If "Yes," attach an explanation. ☒ No

18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.

a. Type Name of Authorized Representative	b. Title	c. Telephone Number
Danielle Mitrakul	Grant & Contract Officer	607-255-5014
d. Signature of Authorized Representative		**e. Date Signed**
Danielle Mitrakul		1/11/00

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Standard Form 424 (Rev. 7-97)
Prescribed by OMB Circular A-102

PART II: BUDGET INFORMATION

Form SSA-96-BK

Budget Justification for Section B Budget Categories

Proof of Non-Profit Status and Institutional

PART II — BUDGET INFORMATION

(Round to nearest dollar)

SECTION A — BUDGET SUMMARY

Grant Program, Function or Activity (a)	Federal Catalog No. (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. SSA	96.007	$	$	$ 1,249,978	$ 103,067	$ 1,353,045
2.						
3.						
4.						
5. TOTALS		$	$	$	$	$

SECTION B — BUDGET CATEGORIES

6. Object Class Categories	Grant Program, Function or Activity				Total (5)
	(1)	(2)	(3)	(4)	
a. Personnel	$ 312,094	$	$	$	$
b. Fringe Benefits	74,866				
c. Travel	5,000				
d. Equipment	9,600				
e. Supplies	24,800				
f. Contractual	506,197				
g. Construction	0				
h. Other	94,000				
i. Total Direct Costs	1,026,557				
j. Indirect Costs	223,421				
k. TOTALS	$ 1,249,978	$	$	$	$
7. Program Income	$ -0-	$	$	$	$

Description	Endowed Year 1	Statutory Year 1	Cost Share Year 1	Total -SSA Year 1
Salaries				
PI - Burkhauser - 5% FTE	$0	$7,547	$7,547	$7,547
Co-PI- Abowd -5% FTE	$0	$7,950	$7,950	$7,950
Co-PI - Bruyère -5% FTE	$0	$4,102		$4,102
Director - D. Stapleton - 40%	$72,800			$72,800
Total Salaries	**$72,800**	**$19,599**	**$15,497**	**$92,399**
Fringe for endowed staff @ 33%	$24,024			$24,024
Fringe for Statutory staff @31.30%	$0	$6,134	$4,851	$6,134
Total Fringe	**$24,024**	**$6,134**	**$4,851**	**$30,158**
Total Salaries and Fringe	**$96,824**	**$25,733**	**$20,348**	**$122,557**
Equipment				
3 network PC's	$3,200	$6,400		$9,600
Total Captial Equipment	**$3,200**	**$6,400**		**$9,600**
Travel -				
1 trip each year for baltimore for 5personnel ($500 Airfare, Lodging $300,Meals $150, Ground Travel $50 for each trip = $1,000)	$2,000	$3,000		$5,000
Total Travel	**$2,000**	**$3,000**	**$0**	**$5,000**
Other Direct Cost				
Communications (ISDN Lines, long distance)	$6,000	$6,000		$12,000
Materials and Supplies (software, disks, phone, fed ex, etc)	$6,000			$6,000
Publications (duplicating, purchasing books for research)	$2,000			$2,000
advisory committee	$0	$6,000		$6,000
Total Other Direct cost	**$14,000**	**$12,000**	**$0**	**$26,000**
Subawards - UMASS	$357,197			$357,197
Subawards - Rand	$89,000			$89,000
Subawards - Boston University	$20,000			$20,000
Subawards - VCU	$40,000			$40,000
Subawards - center expenses	$86,000			$86,000
Asst. Director - G. Livermore @25%	$26,250			$26,250
D. Wittenburg - 50%	$40,000			$40,000
Postdoctoral (2) @100%	$0	$50,000		$50,000

2 @ Graduate Student (12,529 (T-cost share)+19,500 (S)) cal yr.		$39,000	$25,058	$39,000
2@ Graduate Student (22,828 (T-cost share)+19,500 (S)) cal yr	$39,000		$45,656	$39,000
workstudy students	$0	$2,458		$2,458
fringe rates	$21,863	$15,650	$0	$37,513
Total Institute subawards	$719,310	$107,108	$70,714	$826,418
Project Director - S. Bruyere - 5%		$4,102		$4,102
Coordinator of Field Training - T. Golden @ 10%		$5,560		$5,560
Admin Support - D. Fisher @ 8%		$2,325		$2,325
Web Assistant - for dissmenation project @ 50%		$11,000		$11,000
Fringe rate		$7,195		$7,195
Postage	$1,400	$1,400		$2,800
Printing - policy breifs		$2,000		$2,000
Consultant Service	$0	$2,000		$2,000
Total Dissemenation	$1,400	$35,582	$0	$36,982
Total Direct Cost	$836,734	$189,823	$91,062	$1,026,557
Indirect Cost @59% statutory - Less MTDC		$108,220	$12,005	$108,220
Indirect Cost @57% endowed - Less MTDC	$9,918		$0	$9,918
IDS @ 26% of campus rate for institutional projects	$105,283	$0		$105,283
Total Cost of Project	$951,935	$298,043	$103,067	$1,249,978
Detail	$836,734	$189,823	$91,062	$1,026,557
Less GRA (in the institutional projects)	$0	$0	$0	$0
Less Captial Equipment	($3,200)	($6,400)	$0	($9,600)
Less Subawards	($719,310)		$0	($719,310)
Less off campus total salaries and fringe	($96,824)			($96,824)
Modified Total	$17,400	$183,423	$91,062	$200,823
IDC @59% statutory		$108,220	$12,005	$108,220
IDC @57% endowed	$9,918		$0	$9,918
IDC @ 26% off campus rate center expenses	$80,583		$0	$80,583
IDC @ 26% for subawards	$24,700			$24,700

Attachment C: letters of support

Abt Associates Inc.

28 December 1999

Richard Burkhauser
Department of Policy Analysis and Management
Cornell University
N134 MVR Hall
Ithaca, NY 14853-4401

IN RE: Disability Research Institute RFA No. SSA-ORES-00-1

Dear Dr. Burkhauser:

Thank you for inviting the participation of Abt Associates' Dr. Raymond Glazier in the consortium that Cornell University is proposing in response to the above-cited RFA. We are pleased to assure his commitment to the Disability Research Institute activities discussed. Abt Associates Inc. would be pleased to lend its organizational skills, resources, expertise, and relevant experience to performance of the Year Two research project Dr. Glazier has suggested, as well as to any other Institute activity to which our contribution might be useful, upon negotiation of mutually acceptable terms.

The Cornell team for this Disability Research Institute is most impressive, including as it does the talents of many highly qualified individual researchers drawn from universities and other private organizations, like our own, which have considerable research experience related to SSA's disability programs and the problems they face in the 21st century. Abt Associates as an organization and Dr. Glazier as an Associate of the firm are proud to be in such company, and we eagerly anticipate submitting a more detailed Year Two research project proposal, including budget requirements, when invited to do so.

In addition to serving as investigator on the above-referenced research project, Dr. Glazier is also available on an hourly basis, as indicated in his completed Participation Questionnaire, as an academic consultant for the other Institute activities detailed, as an investigator in other ad hoc short turn-around evaluations and analyses SSA might require, as a referral source for doctoral candidates he advises, as a potential submitter of working papers, and as an active participant in Disability Research Institute conferences. Abt Associates as an organization offers to the Institute access to its substantial data base construction, manipulation, and data analytic capabilities, as well as program evaluation expertise.

Yours truly,

David Kidder, Ph.D.
Managing Vice President

R.E. Glazier

Raymond E. Glazier, Ph.D.
Associate, Manager
Abt Center for the Advancement of
Rehabilitation & Disability Services

ASSUMPTION COLLEGE
500 Salisbury Street, PO Box 15005, Worcester, MA 01615-0005 Tel:508/767-7000

INSTITUTE for SOCIAL
and
REHABILITATION SERVICES
Tel. (508) 767-7370
Fax. (508) 798-2872

January 5, 2000

Susanne M. Bruyere
Program on Employment & Disability
School of Industrial & Labor Relations
Cornell University
Ithaca, NY 14853-3901

Dear Susanne:

I was pleased to learn of the intent of Cornell University/ University of Massachusetts Medical Center to respond to the Social Security Administration's request for proposals to create a Disability Research Institute. I am similarly pleased to indicate my willingness to participate in this project by serving as a consultant on dissemination and training, and as a research associate.

I am enclosing a copy of a recent curriculum vita. Also enclosed is a brief biography and additional information regarding the Institute for Social and Rehabilitation Services (ISRS) which was published in an Assumption alumni magazine.

I look forward to discussing the details of this project in greater detail with you in the near future.

Sincerely,

William B. Talley, Rh.D.
Director

Boston University
School of
Public Health

Department of
Environmental Health
715 Albany Street
Boston, Massachusetts
02118-2526
Tel: 617 638-4620
Fax: 617 638-4857

December 22, 1999

Richard Burkhauser
Department of Policy Analysis and Management
Cornell University
N134 MVR Hall
Ithaca, NY 14853-4401

Dear Prof. Burkhauser:

Thank you for inviting me to participate in the consortium that Cornell University is proposing in response to SSA's Disability Research Institute RFA. I am pleased to participate. As you know, I have proposed a study to evaluate the impact of an employer subsidy to rehire disabled workers. I am also interested in participating in planning, reviews, and center conferences.

Sincerely yours,

Leslie I. Boden, Ph.D.
Professor of Public Health

IN DEO SPERAMUS

BROWN UNIVERSITY Providence, Rhode Island 02912

Moshe Buchinsky
Professor of Economics
Department of Economics, Box B
Phone: (401) 863-2951 FAX: (401) 863-1970
Email: Moshe_Buchinsky@brown.edu

December 1, 1999

Richard Burkhauser
Department of Policy Analysis and Management
Cornell University
N134 MVR Hall
Ithaca, NY 14853-4401

Dear Professor Burkhauser:

Thank you for inviting me to participate in the consortium that Cornell University is proposing in response to SSA's Disability Research Institute RFA. I am pleased to participate and play a role in all activities of the institute.

As my current research focuses on the Social Security Disability application and award process, I am very interested in participating in this consortium. My main interests are in accessing SSA's restricted data, performing research, supervising graduate students and participating in the Institute's conferences. In fact, as the participation questionnaire indicates, I am interested in all of the activities that the Institute proposes.

Sincerely,

Moshe Buchinsky
Professor of Economics

CORNELL
UNIVERSITY

School of Industrial and Labor Relations

Professor George Jakubson
Department of Labor Economics
254 Ives Hall
Ithaca, NY 14853-3901

Telephone: (607) 255-4546
Facsimile: (607) 255-4496
E-mail: gj10@cornell.edu

December 16, 1999

Richard Burkhauser
Department of Policy Analysis and Management
Cornell University
N134 MVR Hall
Ithaca, NY 14853-4401

Dear Professor Burkhauser:

Thank you for inviting me to participate in the consortium that Cornell University is proposing in response to SSA's Disability Research Institute RFA. I am pleased to participate.

I am interested in pursuing some research related to the mission of the institute (abstract under separate cover) as well as helping to supervise graduate students involved in relevant research and other activities to help with the Institute (participation questionaire under separate cover).

If I can be of further assistance just let me know. My coordinates appear above.

Sincerely,

George Jakubson

George Jakubson

Associate Professor

CORNELL
UNIVERSITY

School of Industrial and Labor Relations

Professor Robert M. Hutchens
Department of Labor Economics
259 Ives Hall
Ithaca, NY 14853-3901

Telephone: (607) 255-8024
Facsimile: (607) 255-4496
E-mail: rmh2@cornell.edu

December 16, 1999

Professor Richard Burkhauser
Department of Policy Analysis and Management
Cornell University
N134 MVR Hall
CAMPUS

Dear Rich:

Thank you for inviting me to participate in the consortium that Cornell University is proposing in response to SSA's Disability Research Institute RFA. I am pleased to participate.

My main interest would be in performing research that is funded by the Disability Research Institute. I would, however, also be interested in participating in conferences, serving as a consultant on projects, supervising graduate students and reviewing grant proposals. Let me know if additional information would be helpful.

Sincerely,

Robert M. Hutchens

RMH/dap

The LEWIN GROUP

The Lewin Group
3130 Fairview Park Drive
Suite 800
Falls Church, VA 22042
703.269.5500/Fax 703.269.5501

December 22, 1999

Richard Burkhauser
Department of Policy Analysis and Management
Cornell University
N134 MVR Hall
Ithaca, NY 14853-4401

Dear Rich:

Thank you for inviting The Lewin Group to participate in the consortium that Cornell University is proposing in response to SSA's Disability Research Institute (DRI) Request for Applications. I am pleased to accept your offer on behalf of my firm.

As you know, The Lewin Group has conducted numerous studies on disability program and policy issues for SSA and other federal clients. We welcome the opportunity to conduct additional research in this area through the DRI, and are excited about the possibility of greater access to SSA administrative data for policy research purposes.

We look forward to working with you in this important effort.

Sincerely,

Michael E. Fishman
Vice President

2450 Ontario Rd, N.W.
Washington, DC 20009

January 10, 2000

Richard V. Burkhauser, Ph.D.
Chair, Department of Policy Analysis & Management
Cornell University
N134 MVR Hall
Ithaca, New York 14853-4401

Dear Rich:

I am submitting this letter in enthusiastic support of Cornell's application to the Social Security Administration to establish a Disability Research Institute in response to RFA SSA-ORES-00-1. The Institute represents an exciting opportunity to collaborate with SSA and prominent disability researchers in studying important issues facing people with disabilities and the programs that serve them.

It is my understanding that Cornell intends to offer me a position at the Cornell Center for Policy Research in Washington, DC. I would be pleased to have such an opportunity, and look forward to receiving Cornell's formal offer.

Sincerely,

Gina A. Livermore, Ph.D.

January 11, 2000

Richard V. Burkhauser
Sarah Gibson Blanding Professor and Chair
Cornell University
Policy Analysis & Management
N134 MVR Hall
Ithaca, New York 14853-4401

Dear Rich:

I am pleased to submit this letter in support of Cornell's proposal to the Social Security Administration to establish a Disability Research Institute, in response to RFA SSA-ORES-00-1.

First, I want to confirm I have agreed in principle to take a position at Cornell as the Director of Cornell's Center for Policy Research here in the Washington, DC area. This is an exciting opportunity for me. I am confident that we will satisfactorily work out the details of my employment at Cornell very soon.

Second, I understand that Cornell has proposed to appoint me as the Director of SSA's Disability Research Institute should Cornell receive the award. I would be very pleased to accept this appointment. I am quite excited about the fact that SSA has decided to fund such an institute as a way to stimulate policy research that uses SSA's administrative data. Given my interest and experience in conducting such research, it would be a real pleasure to play a central role in that effort.

I have always enjoyed collaborating with you and Susanne, and separately with Jay, and will be delighted if we can build on our professional relationships as the leaders of SSA's Institute. I am also eager to work with John Abowd, for whom I have enormous respect. I think his capabilities with respect to handling highly confidential federal data, along with our own experience in conducting policy research on issues related to the employment, program participation and wellbeing of people with disabilities, will make this a very productive enterprise.

Sincerely yours,

Dave

David C. Stapleton, Ph.D.

3907 Skyview Lane, Fairfax, VA 22031, dstapleton@lewin.com, (703) 323-1735

DAVID WITTENBURG

January 7, 2000

Richard V. Burkhauser
Sarah Gibson Blanding Professor and Chair
Cornell University
Policy Analysis & Management
N134 MVR Hall
Ithaca, New York 14853-4401

Dear Rich:

I am submitting this letter in support of Cornell's proposal to the Social Security Administration to establish a Disability Research Institute, in response to RFA SSA-ORES-00-1.

I understand that Cornell intends to offer me a position at Cornell's Center for Policy Research here in Washington, DC. I am excited about this opportunity and look forward to receiving Cornell's formal written offer. I look forward to continuing our working relationship on this important research effort.

Sincerely,

David C. Wittenburg

David C. Wittenburg, Ph.D.

3149 STRATFORD COURT • FAIRFAX, VIRGINIA • 22124
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