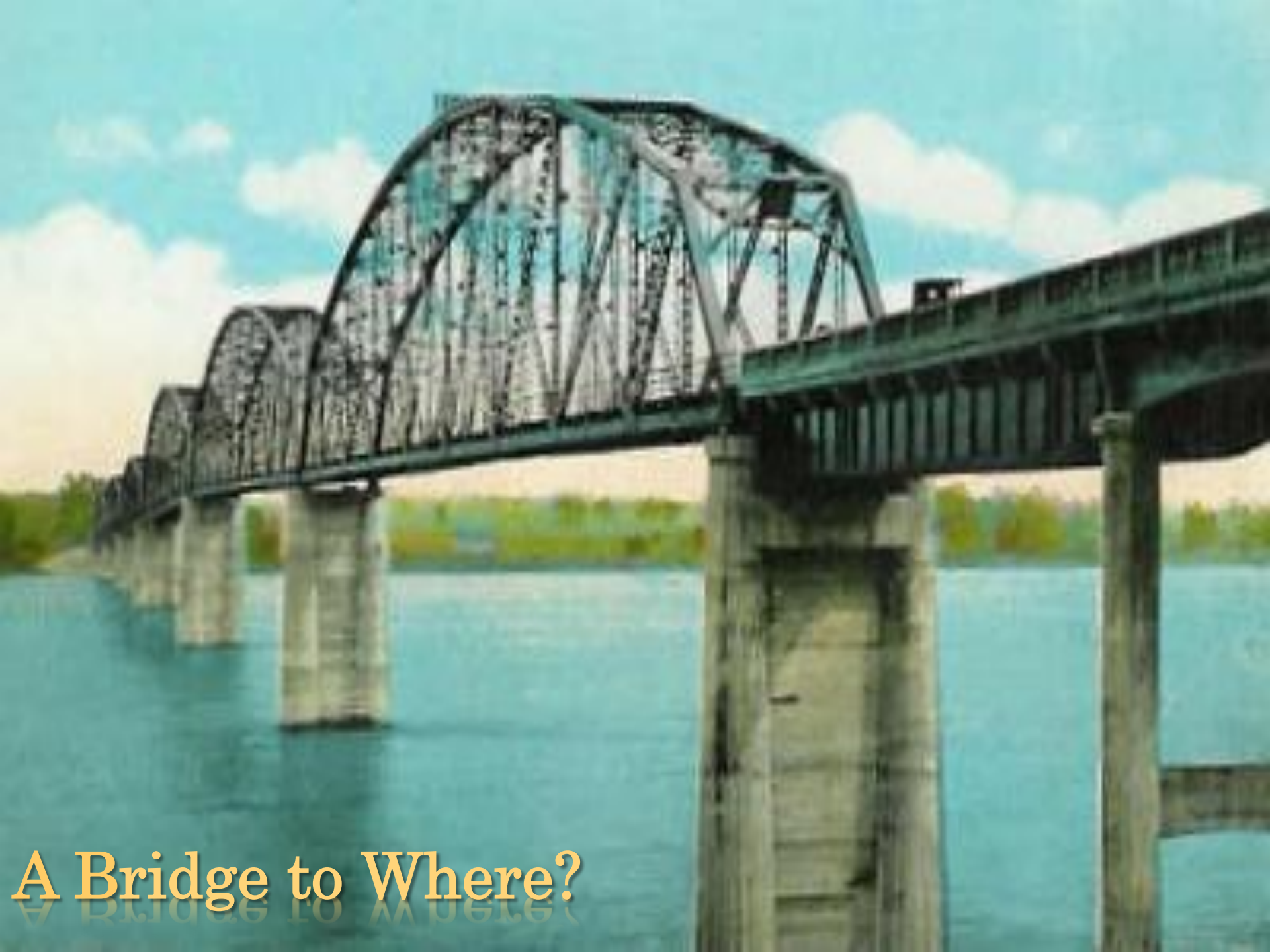




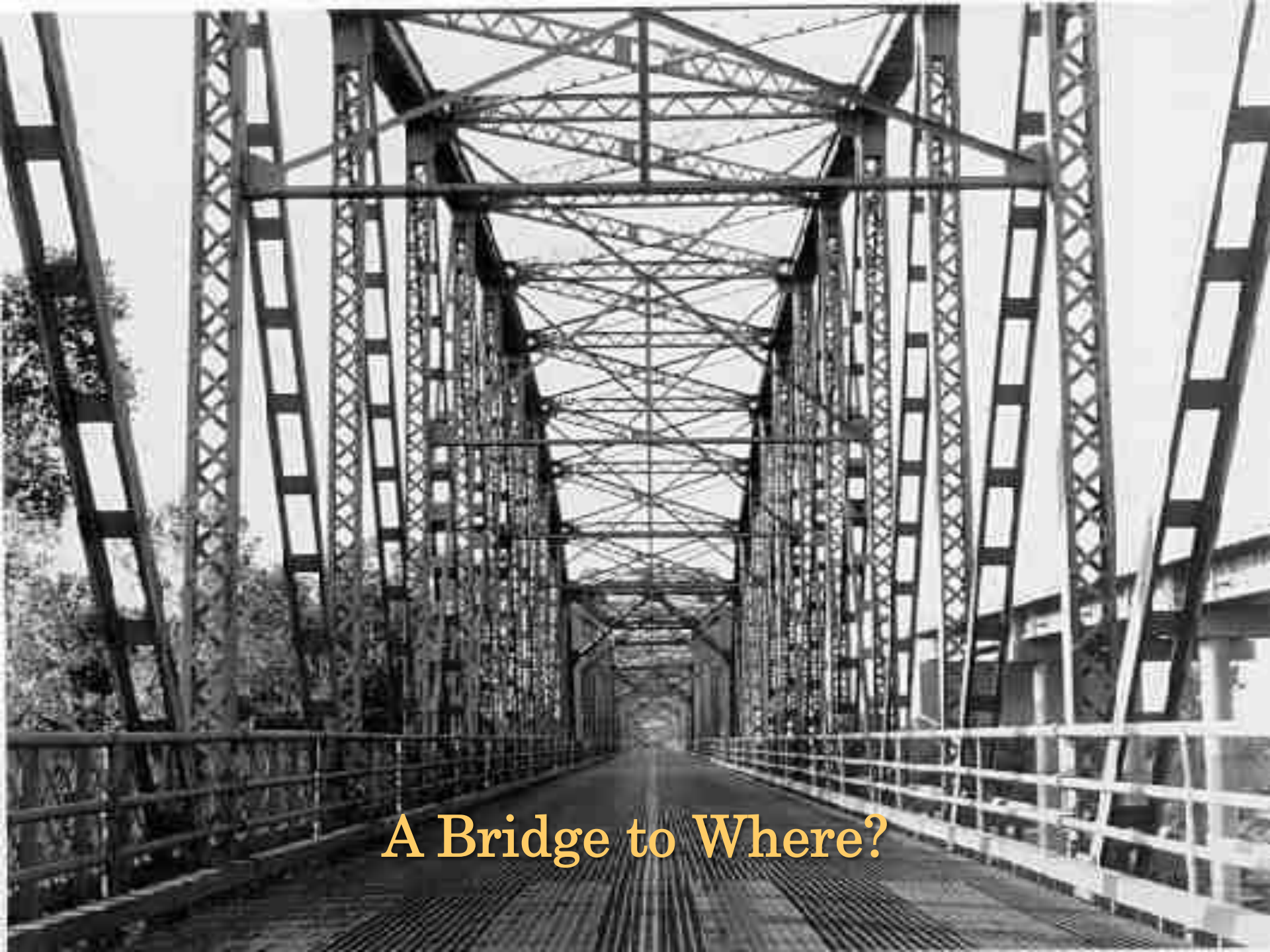
THE UNIVERSITY OF
KANSAS

Promoting Positive Employment Outcomes through Self- Determination

Michael L. Wehmeyer, Ph.D.
Ross and Mariana Beach Professor of Special Education
Director and Senior Scientist, Beach Center on Disability
Co-Director, Kansas University Center on Developmental Disabilities
University of Kansas



A Bridge to Where?



A Bridge to Where?

Ruth Sienkiewicz-Mercer



“I had never had a place of my own. As a result, I had never worried about buying groceries and planning meals, paying the rent and the phone bill, balancing a checkbook, making appointments, figuring out how to keep the appointments I made – all the things adults just do. But starting out in society at the age of 28, I found these everyday tasks confusing, wonderful, and frightening.” (p. 202)



A Bridge to a bright
future...

...OR A BRIDGE TO NOWHERE?



When I grow up, I want...



...to file all day.



...to be replaced on a whim.

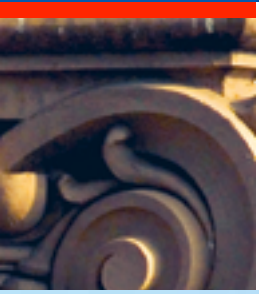


...to be underappreciated.



...to paid less for doing the same job.

A Bridge to Where?

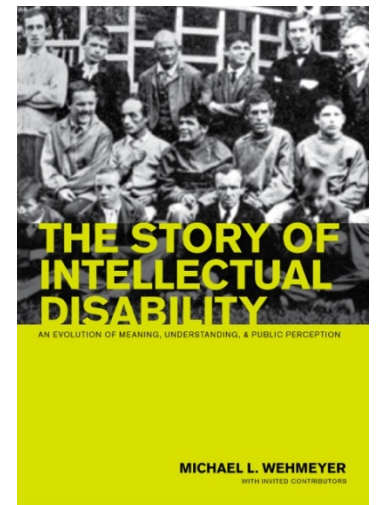
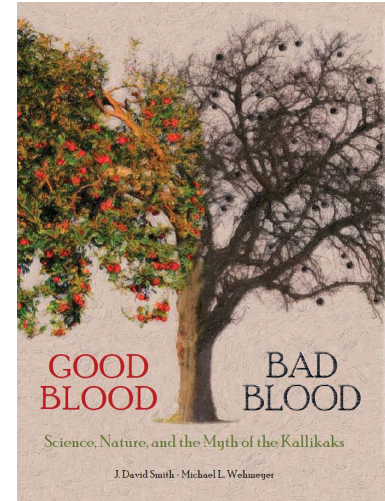




**Building the Bridge: Changing How We
Think About Disability**

Historic Understandings of Disability

- Historically, disability was understood within a model that was an extension of the medical model, which conceived health as an *interiorized state* and health problems as an *individual pathology*; a problem within the person.
- Within such a context, disability was understood as a characteristic of the person; as residing with the person.
 - The person was seen as broken, diseased, pathological, atypical, or aberrant; as outside the norm.
 - Perhaps unavoidably, people with disabilities were, consequently, associated with numerous negative stereotypes.
 - Particularly with introduction of Mental Age estimates, led to “infantilization” of people with disabilities.





Changing Understandings

- In the context of health care, it became apparent by the late 1970s that individual pathology models offered a far too narrow perspective for effectively describing, understanding, and addressing the problems of people experiencing *chronic* or *pervasive health issues*, including disability.
- In 1980, the World Health Organization introduced the International Classification of Impairments, Disabilities, and Handicaps (ICIDH).
 - The ICIDH perspective for describing the impact of a health condition or pathology on human functioning were: (a) the *exteriorization of a pathology* in body anatomy and functions; (b) *objectified pathology* as expressed in the person's activities (e.g. adaptive behavior skills), and (c) the *social consequences of pathology* (e.g. participation in social life domains).
- Later, (ICF, 2001) it was recognized that besides the impact of health condition factors (pathology), contextual and environmental factors are of pivotal importance for understanding human functioning.
 - Human functioning is best understood in the context of a person-environment fit or interaction model.

Changing Expectations: Changing Understanding

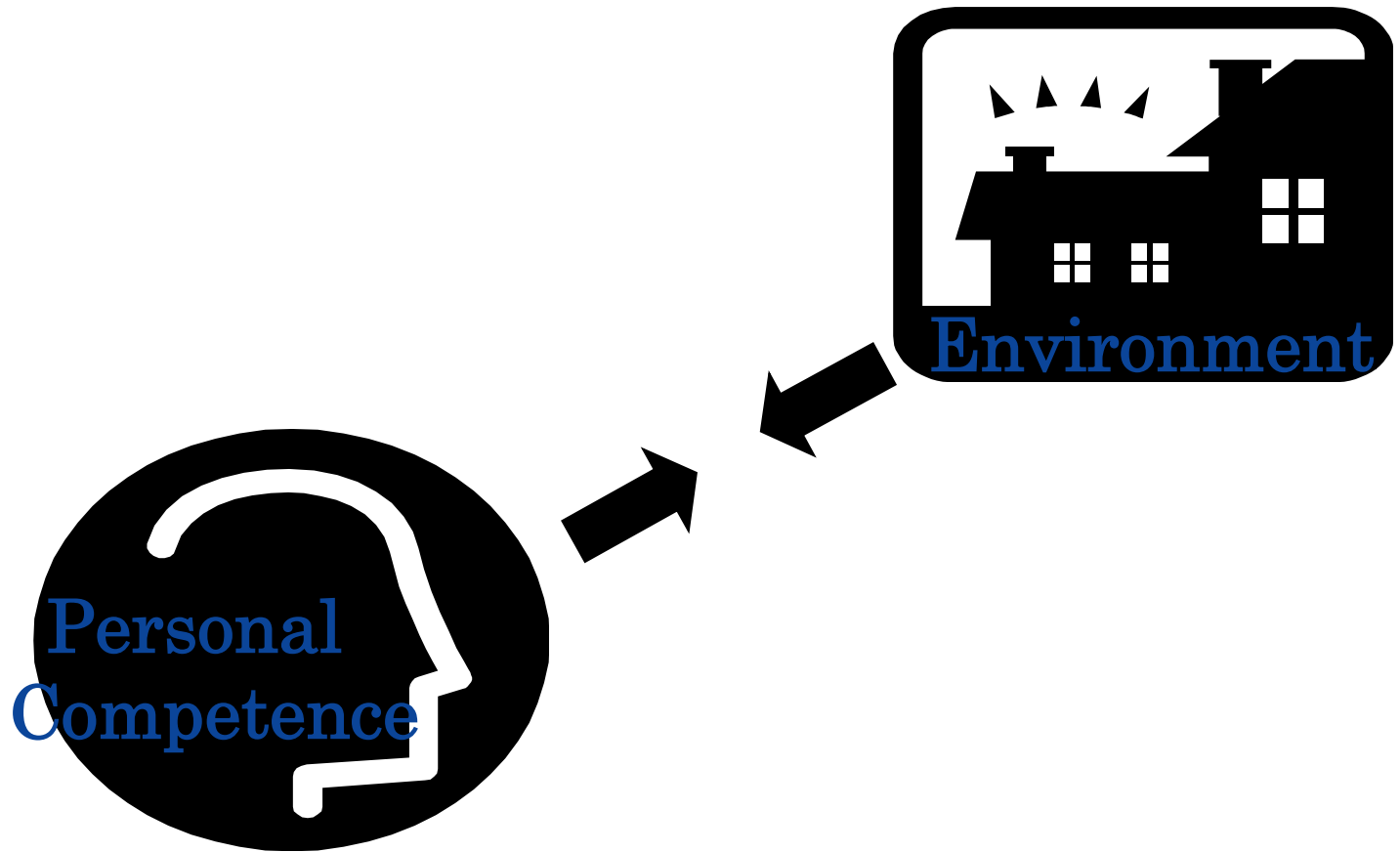
Disability



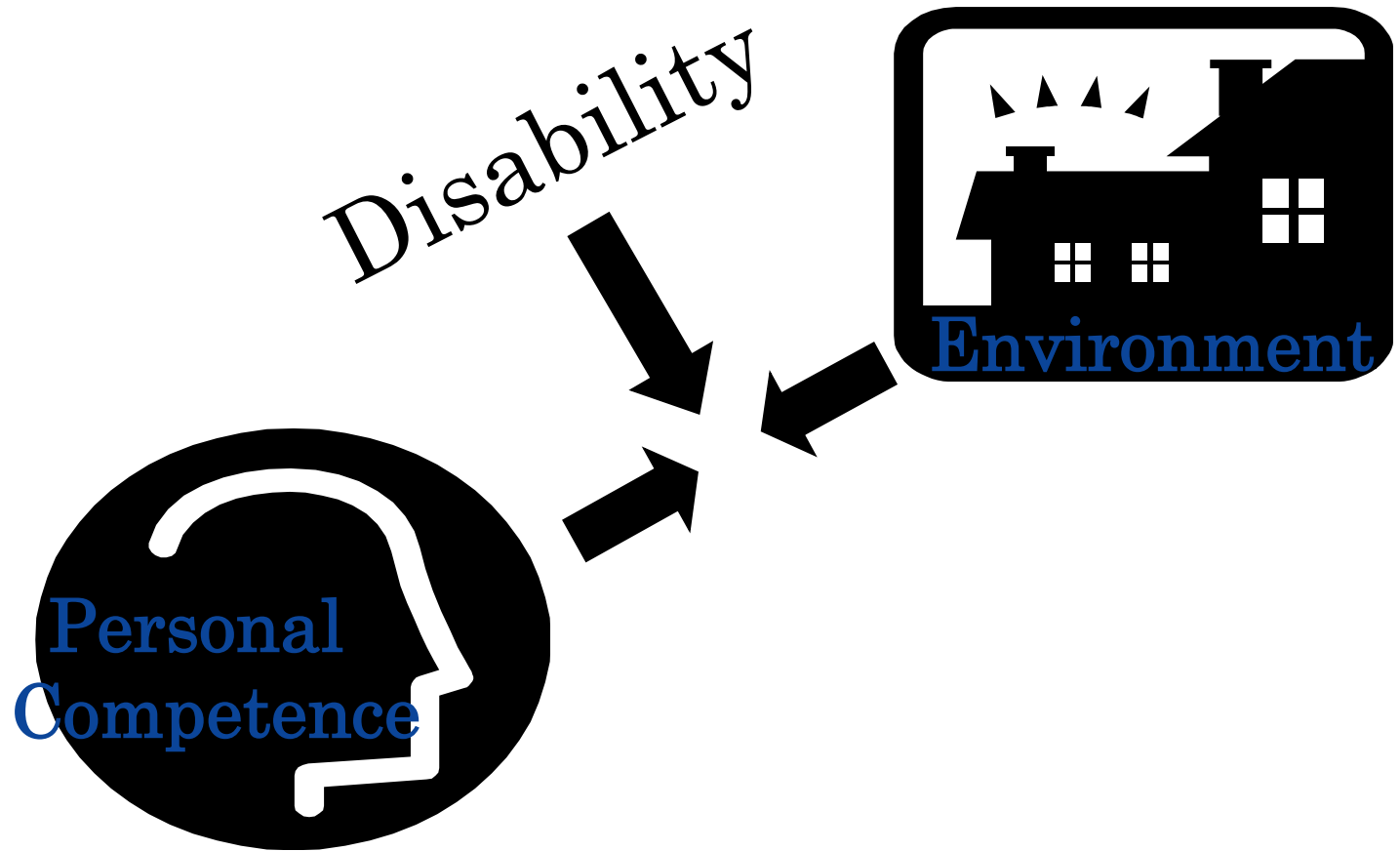
Personal
Incompetence



Changing Expectations: Changing Understanding



Changing Expectations: Changing Understanding





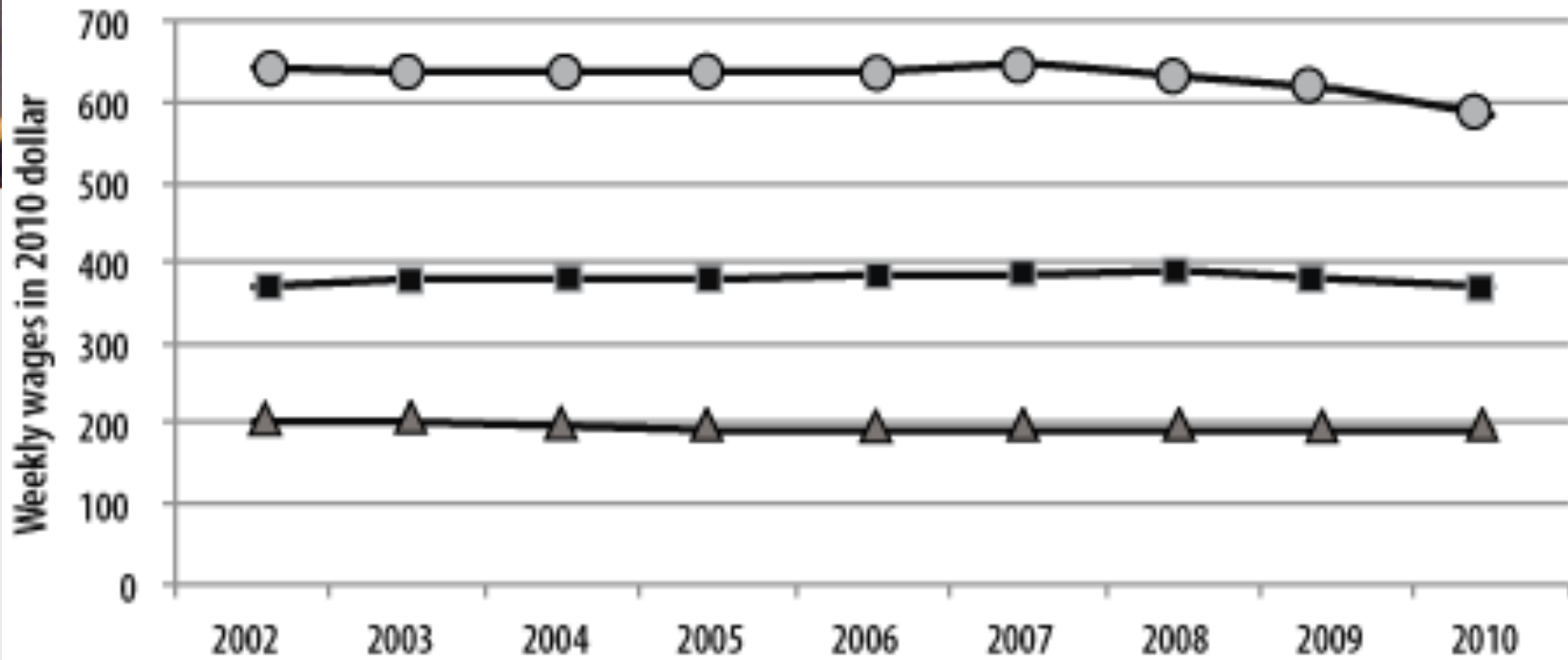
Implications of Changing Understandings of Disability

- Strengths-based
- Focus on environment/context, not fixing individual;
- Emphasizes supports, not programs

Supported Employment



This Matters



Butterworth, J., Smith, F. A., Hall, A.C., Migliore, A., Winsor, J., Domin, D., Timmons, J.C. (2012). StateData: The national report on employment services and outcomes. Boston, MA: University of Massachusetts Boston, Institute for Community Inclusion.

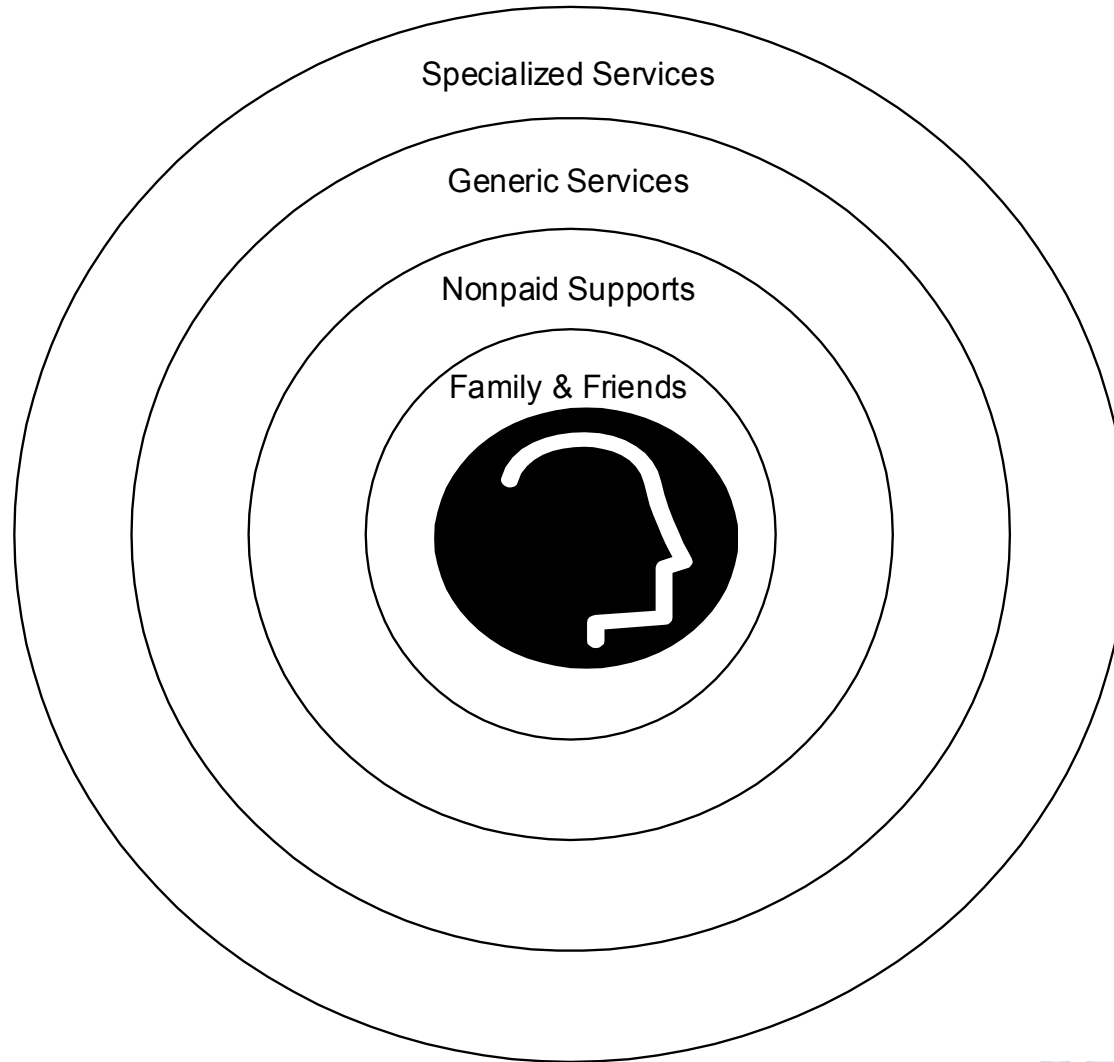
- General population
- Other disabilities
- ▲ Intellectual disability



Supports

- Resources and strategies that:
 - promote the interests and causes of individuals with or without disabilities;
 - enable them to access opportunities, information, and relationships inherent within integrated work and living environments;
 - result in enhanced interdependence, productivity, community inclusion, life satisfaction, and human functioning.
- Personalized array of supports

An Array of Supports





**Building the Bridge:
Transition in the 21st Century**



Transition Principles for Empowerment

- Transition interventions should be designed to be maximally under the control of the individual, rather than others;
- Transition interventions should be designed to facilitate individual independence and autonomy;
- The least restrictive means that are still effective should be used; and
- The most natural interventions for the particular work environment should be used.



Determining an Evidence Base

- U.S. Department of Education, Office of Special Education Programs Evidence-based Practice Initiative
- National Secondary Transition Technical Assistance Center EBP summary
- What Works in Transition Research Synthesis Project



Determining an Evidence Base

- Follows Taxonomy for Transition Programming* framework introduced by Paula Kohler (Western Michigan University)
- Five Transition Domains
 - **Student Development:** Includes strategies in life skills instruction, career and vocational curricula, structured work experience, and assessment.
 - **Student-Focused Planning:** Includes practices in the areas of IEP development, student participation in planning, and planning strategies.
 - **Interagency Collaboration:** Includes practices in the areas of collaborative frameworks and collaborative service delivery.
 - **Family Involvement:** Includes practices in family training, family involvement, and family empowerment.
 - **Program Structure:** Includes practices in program philosophy, policy and evaluation, strategic planning, resource allocation, and human resource development.

*Kohler, P.D. (1996). *Taxonomy for Transition Programming*. Champaign: University of Illinois



Levels of Evidence

■ Strong

- Multiple quality group experimental design studies and/or single subject design studies and sufficient effect sizes from meta-analytic studies.

■ Moderate

- A few quality group experimental design studies and/or single subject design studies, multiple correlational studies, some systematic synthesis of findings

■ Potential

- One acceptable quality group experimental design or 1 to 2 high quality single subject designs or 1 to 2 correlational studies.

■ Low

- Descriptive studies, case studies, program evaluation studies only.



Evidence Base: Student Development

- **Strong Evidence for Practices:**

- Teaching Functional Life Skills
- Teaching Purchasing Skills
- *Teaching Self-Advocacy Skills*
- *Teaching Self-Determination Skills*

- **Moderate Evidence for Practices**

- Teaching Functional Reading/Math Skills
- Teaching Independent Living (banking, cooking, food preparation, grocery shopping, recreation, etc.) skills.
- Teaching life skills via community-based instruction
- Teaching job-related social/communication skills
- Teaching job specific employment skills.
- Teaching job application skills
- *Teaching self-management for employment skills*



Evidence Base: Student-Focused Planning

- **Strong Evidence for Practices:**
 - *Teaching self-advocacy skills*
 - *Teaching self-determination skills*
- **Moderate Evidence for Practices**
 - *Involving students in transition planning meetings*

NSTTAC Evidence-based Practices in Secondary Transition

Table 1.1 Evidence-based practices in secondary transition

<i>Kohler's taxonomy category</i>	<i>Evidence-based practices</i>
Student-focused planning	<ul style="list-style-type: none">• Involving students in the IEP process• Using the Self-Advocacy Strategy• Using the Self-Directed IEP
Student development	<ul style="list-style-type: none">• Teaching: functional life skills • banking skills • restaurant purchasing skills • employment skills using CAI • grocery shopping skills • home maintenance • leisure skills • personal health skills • job-specific employment skills • purchasing using the "one more than" strategy• life skills using CAI • life skills using CBI • self-care skills • safety skills• self-determination skills • self-management for life skills • self-management for employment • self-advocacy skills • purchasing skills• functional reading skills • functional math skills • social skills• purchasing skills • completing a job application skills • job-related social communication skills • cooking and food preparation skills• employment skills using CBI
Family involvement	<ul style="list-style-type: none">• Training parents about transition services
Program structure	<ul style="list-style-type: none">• Providing community-based instruction• Extending services beyond secondary school• Using Check and Connect
Interagency coordination	<ul style="list-style-type: none">• none

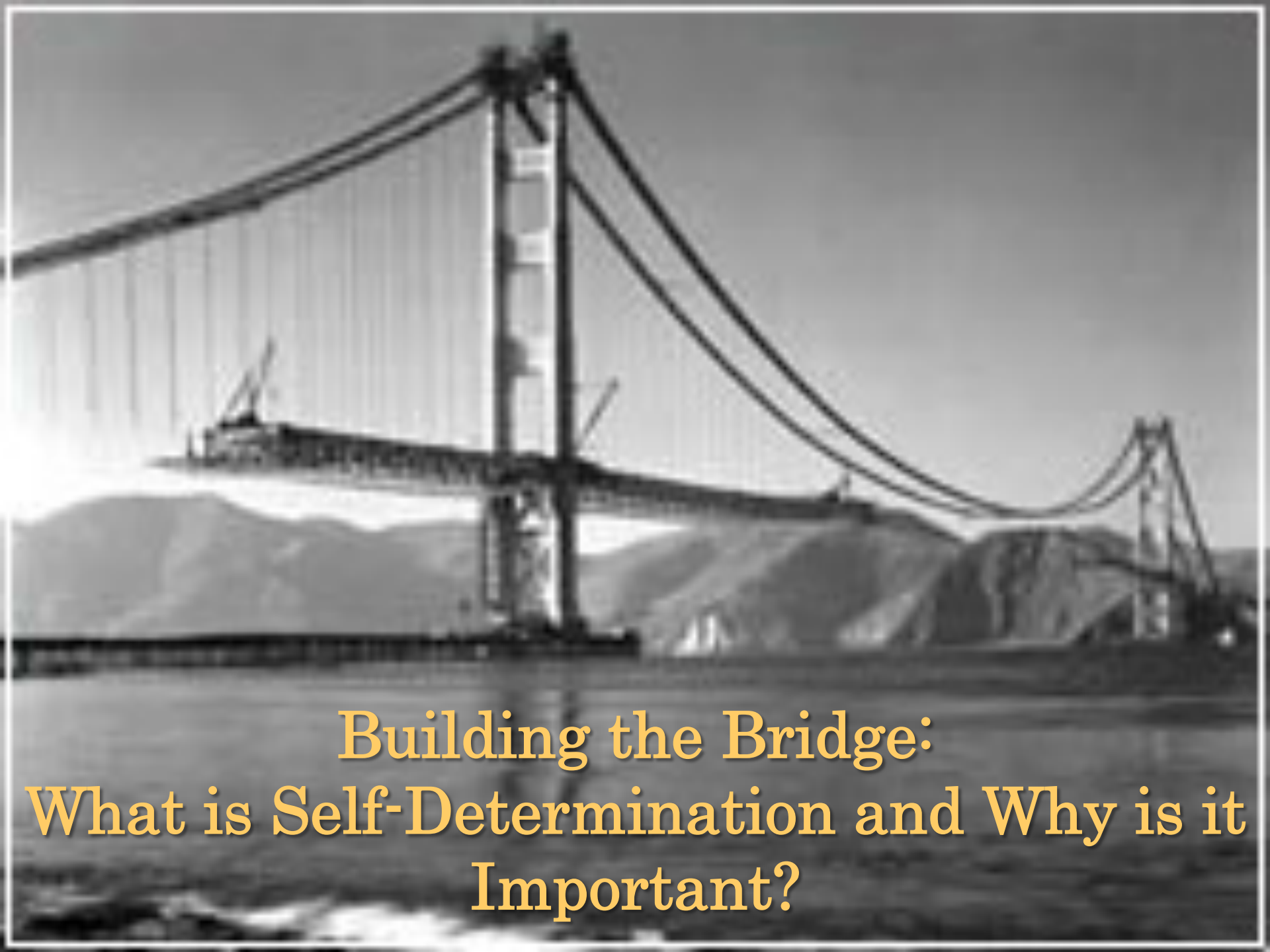
Source: Used by permission (public domain), National Secondary Transition Technical Assistance Center (2010).

NSTTAC Evidence-based Predictors of Success

Table 1.2 Evidence-based predictors of post-School Employment, Education and Independent Living Success

<i>Predictors/outcomes</i>	<i>Education</i>	<i>Employment</i>	<i>Independent living</i>
Career awareness	X	X	
Community experiences		X	
Exit exam requirements/ High school diploma status		X	
Inclusion in general education	X	X	X
Interagency collaboration	X	X	
Occupational courses	X	X	
Paid employment/ work experience	X	X	X
Parental involvement		X	
Program of study		X	
Self-advocacy/self-determination	X	X	
Self-care/independent living	X	X	X
Social skills	X	X	
Student support	X	X	X
Transition program	X	X	
Vocational education	X	X	
Work study		X	

Source: Used by permission (public domain), National Secondary Transition Technical Assistance Center (2010).



**Building the Bridge:
What is Self-Determination and Why is it
Important?**

What is Self-Determination?



Self-Determination is a dispositional characteristic manifested as acting as the *causal agent* in one's life. Self-determined people (i.e., causal agents) act in service to freely chosen goals. Self-determined actions function to enable a person to be the causal agent in his or her life.

Causal agency: To make or cause something to happen in one's life.

Volitional action: Making a conscious choice or decision with deliberate intention.



Self-Determination and Determinism

- The philosophical doctrine of determinism posits that actions are *caused* by events or natural laws that precede or are antecedent to the occurrence of the action. Behavior, then, is governed by these other events or natural laws.



Self-Determination and Determinism

- Self-determinism, or self-determination, implies that individuals *cause* themselves to act in certain ways, as opposed to someone or something else ‘causing’ us to act in certain ways
- People who are self-determined embody the characteristic or quality of ‘self-determination,’ a noun referring to the degree to which that person acts or behaves in ways that are self- (instead of other-) caused.



Self-Determination and Disability

- Within the context of the disability rights and advocacy movement, the construct as a personal characteristic has been imbued with the empowerment and “rights” orientation typically associated with the sense of the term as a national or political construct. Empowerment is a term usually associated with social movements, and typically is used, as Rappaport (1981) stated, in reference to actions that “enhance the possibilities for people to control their lives” (p. 15).

Self-Determination and Disability

"People with autism should be treated with the same dignity, respect, and equality as people without autism." Jean-Paul Bovee



"We don't have to be told what self-determination means. We know it is just another word for a life filled with rising expectations, dignity, respect and opportunities."
Robert Williams



What Does the Research Tell Us? Self-Determination Status

- Research shows that youth/young adults with autism and/or intellectual disability are less self-determined than their non-disabled peers.
 - It is important, however, not to assume that this in any way reflects the capacity of people with disabilities to become self-determined. The research clearly shows that people with disabilities have many fewer opportunities to make choices and express preferences across their daily lives.



What Does the Research Tell Us?

Factors Predicting Self-Determination

- Social abilities and adaptive behavior skills are related to more positive self-determination.
- Choice-making opportunity is a strong predictor of self-determination. Research shows that the environments in which people with autism and/or intellectual disability live or work limit opportunities to make choices and restrict personal autonomy.
- Research consistently shows that while SD is positively correlated with IQ, that relationship is generally weak and IQ is not predictive of self-determination status.
 - IQ is predictive of where one lives/works, which in turn is predictive of self-determination status by virtue of the above-noted findings.



What Does the Research Tell Us? Self-Determination and Adult Outcomes

- Multiple research studies find that a person's self-determination status predicts higher quality of life.
- Self-determination status is positively correlated with more positive post-secondary outcomes, including employment, independent living, and community inclusion for youth with disabilities.
- Young adults who are more engaged in personally-valued recreation activities are more self-determined, suggesting a reciprocal relationship between recreation activities and self-determination.



What Does the Research Tell Us? Self-Determination and Adult Outcomes (cont.)

- Students with cognitive disabilities who leave school as self-determined young people:
 - Are more independent one year after graduation.
 - Are more likely to live somewhere other than where they lived in high school one year after graduation.
 - Are significantly more likely to be employed for pay at higher wages one year after graduation.
 - Are significantly more likely to be employed in a position that provides health care, sick leave, and vacation benefits three years after graduation.
 - Are significantly more likely to live independently three years after graduation.



What Does the Research Tell Us? Efficacy of Interventions to Promote Self-Determination

- Data exists to support the efficacy of several self-determination-focused intervention models/programs, including:
 - Steps to Self-Determination (Hoffman & Field, 1995)
 - TAKE CHARGE for the Future (Powers et al., 2001)
 - Self-Determined Learning Model of Instruction (Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000)
- Meta-analytic (group and single-subject design studies) of existing research show that that students with disabilities can acquire component elements of self-determined behavior (e.g., choice making, decision making, problem solving, goal setting and attainment, self-advocacy, self-regulation, perceptions of efficacy, self-awareness, self-knowledge) if taught.
 - Student-directed learning strategies particularly powerful.



What Does the Research Tell Us? Self-Determination and Student Involvement

- Research has shown that students with disabilities are not major players in their IEP/transition planning meetings.
- Research has also shown that students with disabilities can learn the skills to be active participants in their IEP/transition planning meetings.
- Research suggests that student involvement has a reciprocal effect with self-determination. That is, students who are more self-determined are more likely to be involved in their educational planning, but getting students involved in their planning— independent of their level of self-determination— enhances self-determination.



What Does the Research Tell Us? Self-Determination and Student Involvement (cont.)

- Data exists to support the efficacy of the following student—involvement related interventions/programs:
 - Next S.T.E.P. (Halpern, et al., 1997)
 - Self-Directed IEP (Martin, Huber Marshall, Maxon, & Jerman, 1997)
 - Self-Advocacy Strategy (VanReusen et al., 2002).
 - Whose Future is it Anyway? (Wehmeyer et al., 2005).



Comparisons of Self-Determination among Students with Autism, Intellectual Disability, and Learning Disabilities: A Multivariate Analysis*

- Validated The Arc's Self-Determination Scale with youth with autism spectrum disorders**
- Examined differences in self-determination among middle and high school students with autism spectrum disorders ($n = 70$), intellectual disability ($n = 72$), and learning disabilities ($n = 74$).

*Chou, Y., Wehmeyer, M. L., Palmer, S.B., & Lee, J.H. (in press). Comparisons of self-determination among students with autism, intellectual disability, and learning disabilities: A multivariate analysis. *Focus on Autism and Other Developmental Disabilities*.

**Chou, Y., Wehmeyer, M.L., Shogren, K.A., Palmer, S.B., & Lee, J.H. (in press). Autism and self-determination: Factor analysis of two measures of self-determination. *Focus on Autism and Other Developmental Disabilities*

Comparisons of Self-Determination among Students with Autism, Intellectual Disability, and Learning Disabilities: A Multivariate Analysis

Dependent variable	ASD	ID	LD	p ¹	p ²	p ³
The Arc's Self-Determination Scale						
Autonomy	53.52 (4.04)	60.25 (3.81)	62.24 (3.94)	.05	.01	ns
Self-Regulation	10.48 (1.18)	9.16 (1.11)	11.19 (1.15)	ns	ns	.04
Psychological Empowerment	11.87 (.65)	11.82 (.61)	13.01 (.63)	ns	.04	.02
Self-Realization	10.53 (.68)	9.82 (.65)	11.07 (.67)	ns	ns	.02

Estimated Group Means and Results of Pairwise Comparisons

Note. M (SE). ASD = autism, ID = intellectual disability, LD = learning disabilities. p¹ = p value for comparing ASD vs. ID. p² = p value for comparing ASD vs. LD. p³ = p value for comparing ID vs. LD.



Five Year Longitudinal Study (Wehmeyer, Palmer, Shogren, Williams-Diehm, & Soukup, 2013)

- Purpose: Examine the effects of interventions to promote self-determination
- Randomized trial, placebo control group design study
- 50 school districts in six states (Arkansas, Kansas, Missouri, Nebraska, Oklahoma, and Texas)
- Students with diverse disability labels and their teachers participated
- Student's school campuses were randomly assigned to a treatment or control group

Wehmeyer, M.L., Palmer, S., Shogren, K., Williams-Diehm, K., & Soukup, J. (2013). Establishing a causal relationship between interventions to promote self-determination and enhanced student self-determination. *Journal of Special Education*, 46(4), 195 – 210



Participants

- 493 middle and high school students
- Age
 - Range: 11-22 years
 - Mean: 16 years (SD 2.2)
- Disability
 - Learning Disability - 31%
 - Intellectual Disability - 27%
 - Other Health Impairment – 11%
 - Emotional /Behavioral Disorder – 9%
 - Autism – 5%
 - Other – 17%
- Gender
 - Female – 36%
 - Males - 64%
- Race / Ethnicity
 - Native American - 1%
 - Asian - 2%
 - African American - 19%
 - White - 60%
 - Hispanic – 18%
 - Other – 1%



Interventions

- The ChoiceMaker Curriculum (with The Self-Directed IEP materials)
 - Martin, Marshall, Maxson, & Jerman, 1993
- NEXT S.T.E.P. Curriculum
 - Halpern, Herr, Doren, & Wolf, 2000
- Self-Advocacy Strategy
 - Van Reusen, Bos, Schumaker, & Deshler, 2002
- Self-Determined Learning Model of Instruction
 - Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000
- Steps to Self-Determination (2nd Ed.)
 - Hoffman & Field, 2005
- Whose Future is it Anyway? (2nd Ed.)
 - Wehmeyer, Lawrence, Kelchner, Palmer, Garner, & Soukup, 2004



Self-Determination Intervention Efficacy Study

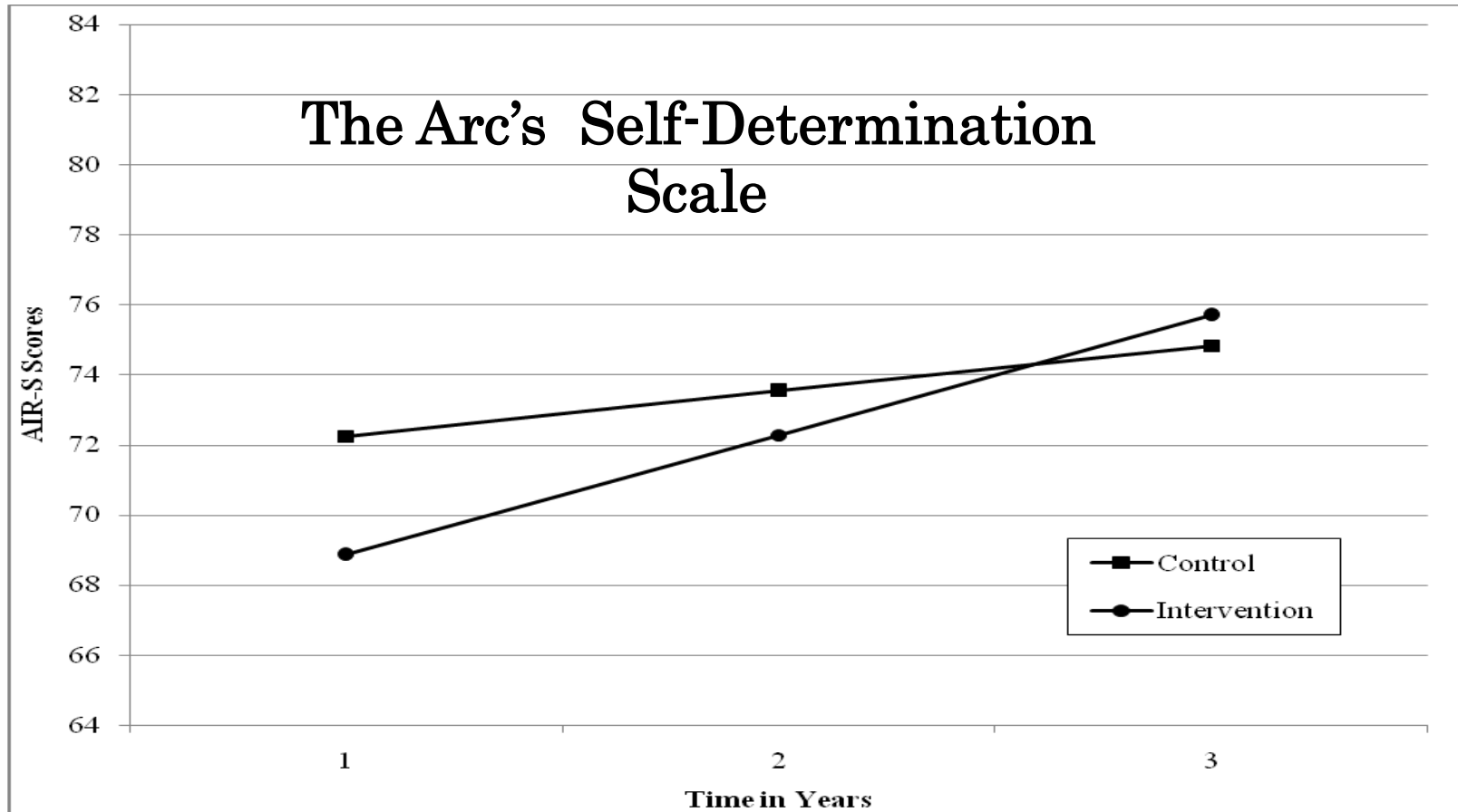
- Subset of the Sample from the overall NIDRR Study
 - High School Students
 - With Disability Labels of
 - Learning Disability
 - Intellectual Disability
 - Outcome Measures
 - The Arc's Self-Determination Scale (SDS; Wehmeyer & Kelchner, 1995)
 - The AIR Self-Determination Scale (AIR; Wolman et al., 1994)
 - Data collected over a three year period
 - Baseline, End of Year 2, End of Year 3



Research Question

- Do interventions designed to promote self-determination lead to improvement in the self-determination scores of students with disabilities?
 - Multi-level latent growth curve models (LGMs)
 - IV: Treatment Group, Disability, Gender
 - DV: The Arc's Self-Determination Scale, AIR Self-Determination Scale

Findings





Follow-Along Study: Self-Determination and Adult Outcomes

	Estimate	S.E	P-value
Community Access – 1 Year Post*	1.078	0.293	< .001
Community Access – 2 Years Post	0.948	0.363	< .001
Employment – 1 Year Post*	0.504	0.215	.01
Employment– 2 Years Post	0.238	0.208	.25
Financial Independence – 2 Years Post	-0.449	0.214	.04



Two Year Study of SDLMI

Two Year Longitudinal Study of the impact of the *Self-Determined Learning Model of Instruction*

- Randomized trial, modified placebo control group design study
- 20 school districts participated in three states (Kansas, Missouri, and Texas)
- Students with intellectual disability and learning disabilities and their teachers participated
- Student’s school campuses were randomly assigned to a treatment or control group



Intervention

- Self-Determined Learning Model of Instruction
 - Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000
- During Year 1 of the project, teachers at treatment campuses were trained in the SDLMI
 - Teachers at control campuses continued with typical instruction
 - Year 1 provided a pretest-posttest control group comparison study
- During Year 2, teachers on control campuses were trained in the SDLMI in the same fashion
 - Teachers at treatment campuses continued implementing the SDLMI with participating students
 - All students received intervention in Year 2.



Research Questions

- Are there differences in the latent self-determination means of students assigned to the control group and the treatment group over time as a function of exposure to the SDLMI?
- Do students with intellectual disability and learning disabilities who receive instruction using the SDLMI show greater attainment of academic and transition goals than students who do not receive instruction using the Self-Determined Learning Model of Instruction?
- Do students with intellectual disability and learning disabilities who receive instruction using the SDLMI show enhanced access to the general education curriculum compared to students who do not receive such instruction?

Key Findings: Impact on Self-Determination

	<u>Time 1</u>	<u>Time 2</u>	<u>Time 3</u>	Latent <i>d</i>
	<i>M</i> (95% C.I.)	<i>M</i> (95% C.I.)	<i>M</i> (95% C.I.)	
<u>AIR Self-Determination Scale</u>				
Intervention Group	.00 (.00 – .00)	.07 (-.17 – .31)	.30 (.08 – .52)*	.31
Control Group	.16 (-.10 – .42)	.11 (-.15 – .37)	.17 (-.10 – .44)	.01
Latent <i>d</i>	-.20	-.05	.14	
<u>The Arc's Self-Determination Scale</u>				
Intervention Group	.00 (.00 – .00)	-.06 (-.21 – .10)	.24 (.06 – .42)*	.24
Control Group	-.01 (-.27 – .25)	-.06 (-.32 – .21)	.03 (-.26 – .33)	.05
Latent <i>d</i>	.01	.00	.23	

Key Findings: Goal Attainment

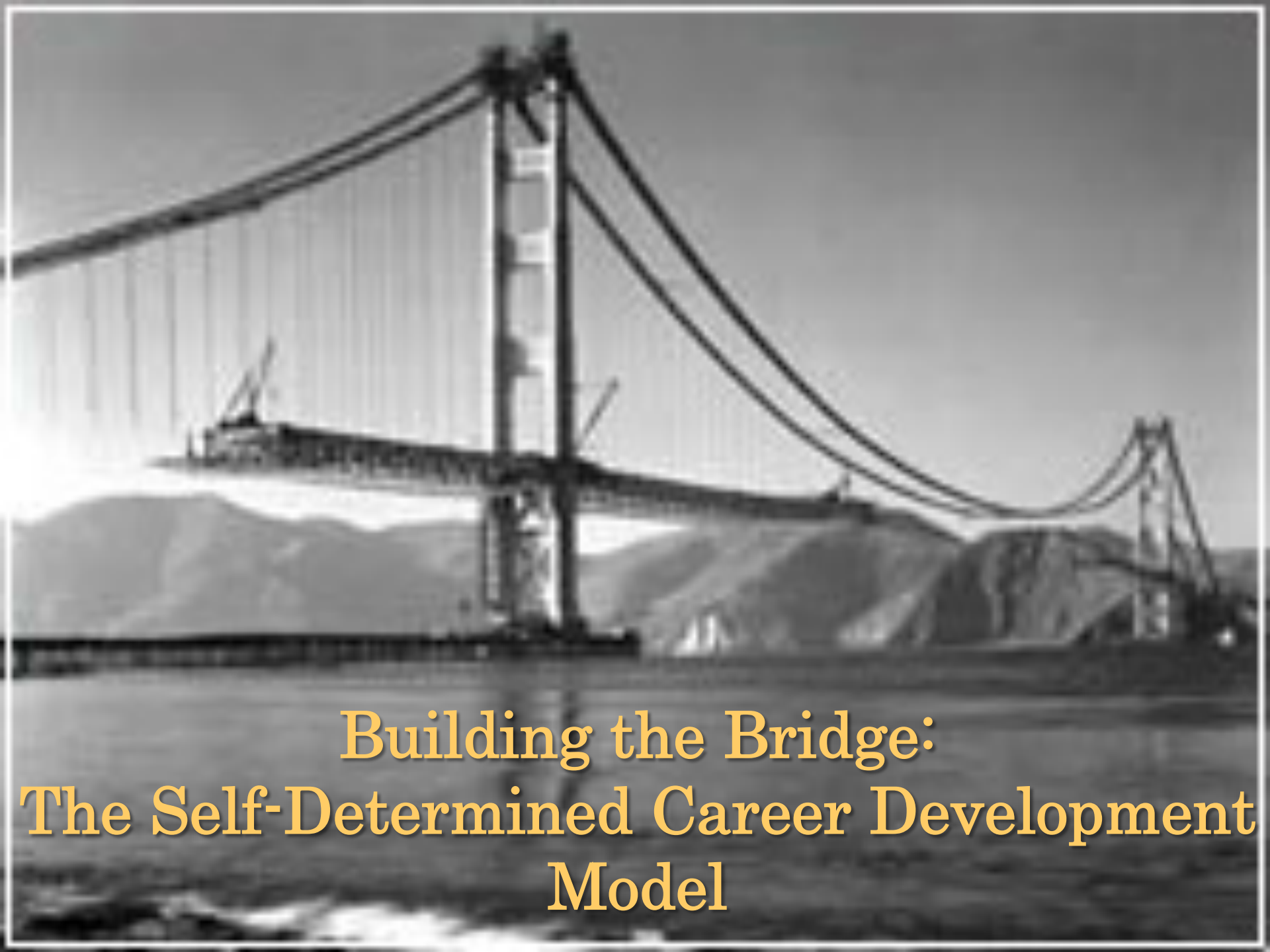
Least Square Means for Disability* Treatment Groups for Academic and Transition GAS Scores

	Academic GAS Scores		Transition GAS Scores	
	Mean	SE	Mean	SE
Learning Disability - Control	44.78	1.79	45.03	1.87
Learning Disability – Treatment	50.51*	1.63	46.15	1.65
Intellectual Disability - Control	48.07	0.98	40.98	1.12
Intellectual Disability – Treatment	48.30	1.15	50.44**	1.24

Key Findings: Impact on Access to the General Education Curriculum

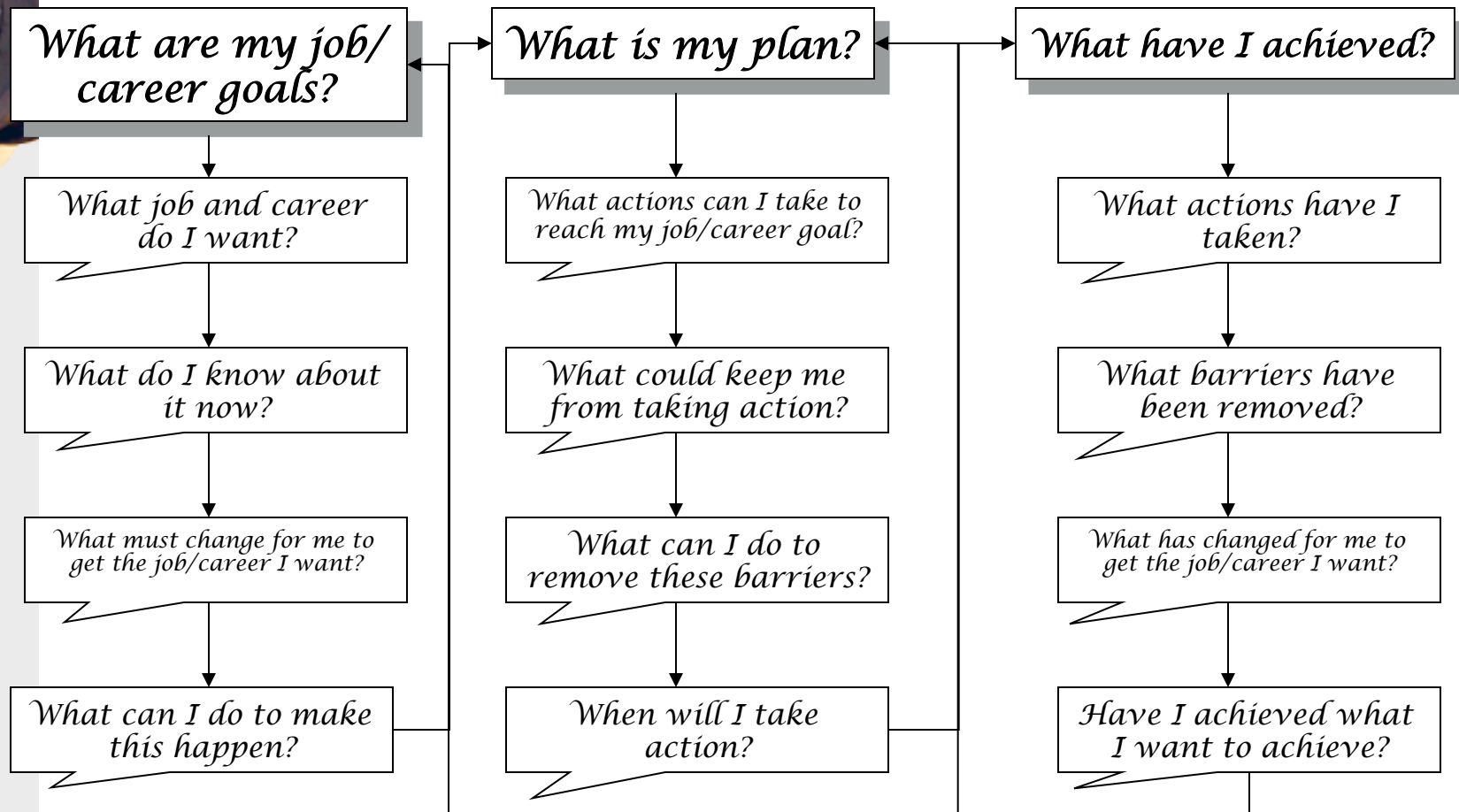
Estimates for Access Score Intercept and Slopes for the Disability and Treatment Groups

Group	Access Score at the Beginning of the Year (SE)	Access Score at the End of the Year (SE)
<u>Control</u>		
Intellectual Disability	2.2 (.44)	3.3 (.49)
Learning Disability	3.3 (.24)*	3.4 (.26)
<u>Treatment</u>		
Intellectual Disability	2.5 (.51)	4.6 (.52) †
Learning Disability	3.6 (.35)*	5.1 (.37)* †



**Building the Bridge:
The Self-Determined Career Development
Model**

Self-Determined Career Development Model



Data Supporting SDCEM Efficacy

- Forty-three people with disabilities receiving VR services from state VR system.
- Ages 18-61
- Modified interrupted time series with switching-replications design.

<u>Group</u>	<u>Time</u>		
Group 1	O1	x O2	O3
Group 2	O1	O2	x O3

- Time 1 to Time 2, Group 1 Treatment, Group 2 Control
- Time 2 to Time 3, Group 1 & Group 2 Treatment

Data Supporting SDCDM Efficacy

Paired Samples T-test

	Time 1 – Time 2						Time 2 – Time 3					
	Group 1			Group 2			Group 1			Group 2		
	t	df	p	t	df	p	t	df	p	t	df	p
The Arc's Self-Determination Scale												
Autonomy Total	-2.533	24	.018	-.480	10	.642	-.536	24	.597	-.217	10	.833
Self-Regulation Total	-2.333	24	.028	1.198	10	.259	-.586	24	.563	.550	10	.595
Psych Empowerment Total	-1.718	24	.099	-.430	10	.676	.558	24	.582	.559	10	.588
Self-Realization Total	.060	24	.953	-.971	10	.355	-.696	24	.493	2.055	10	.067
Total Self-Determination	-2.896	24	.008	-.914	10	.382	-.573	24	.572	.341	10	.740

Data Supporting SDCDM Efficacy

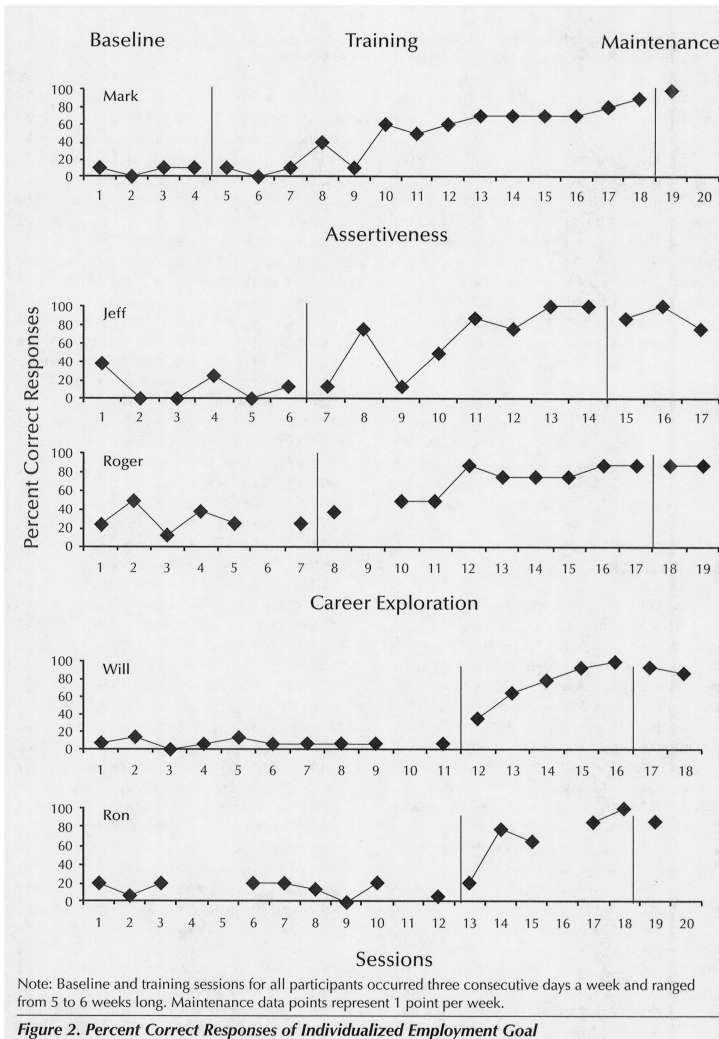
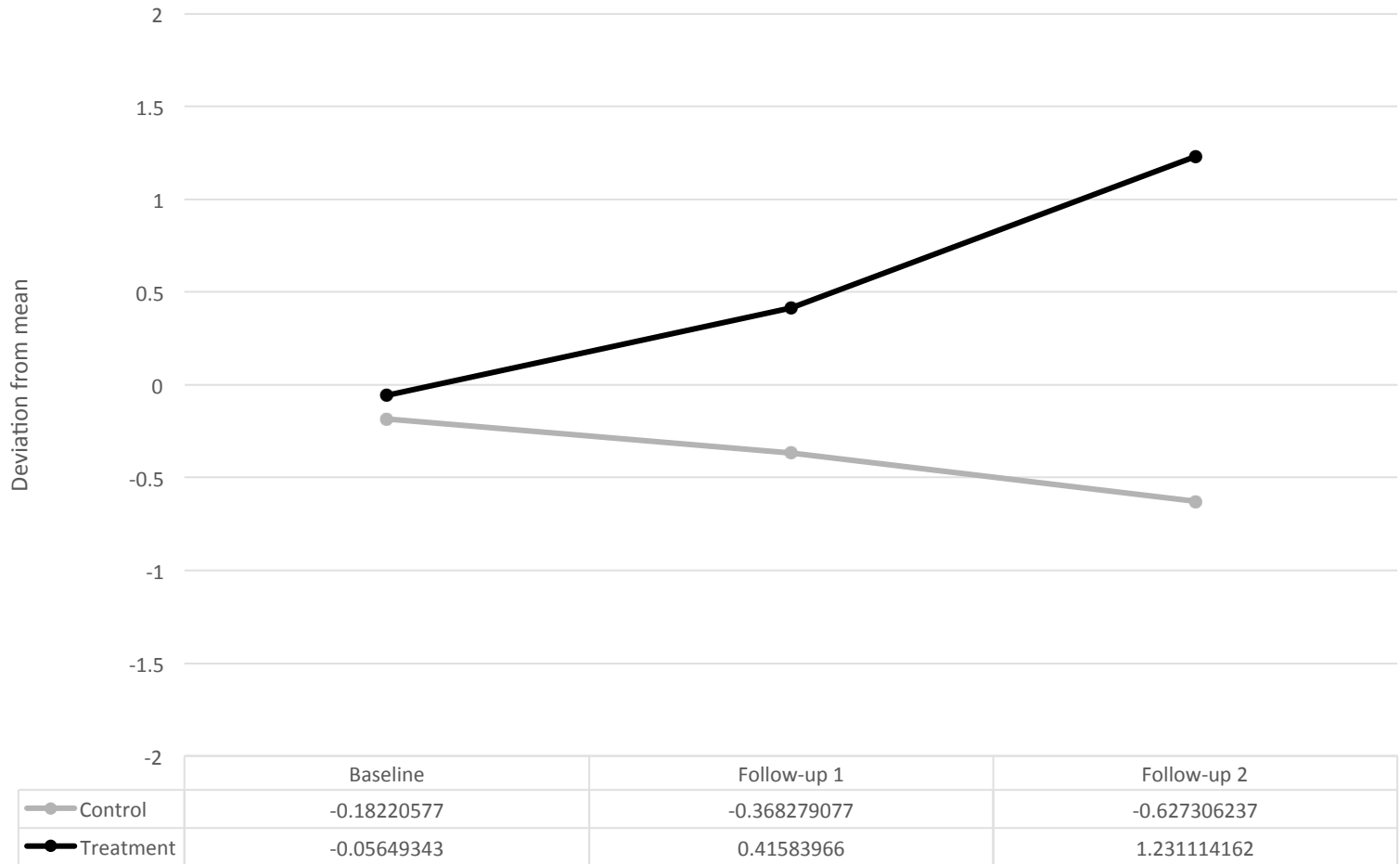


Figure 2. Percent Correct Responses of Individualized Employment Goal

Benitez, D., Lattimore, J., & Wehmeyer, M.L. (2005). Promoting the involvement of students with emotional and behavioral disorders in career and vocational planning and decision-making: The Self-Determined Career Development Model. *Behavioral Disorders, 30*, 431-447

NIDRR-funded RTC

SDS Autonomy





Griffin Hammis Kansas Partnership

- Combining SD/CDM and Customized Employment and Discovery Process
- Worked to combine personal supports and organizational and community change
 - Local Capacity Enhancement
 - Resource Amalgamation
 - Active Employer Council

National Gateway to Self-Determination

http://ngsd.org

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VIDEOS
SELF-DETERMINED CAREER DEVELOPMENT MODEL
AGING
COMMUNITY LIVING
EMPLOYMENT
FAMILY ROLES

Determining the Efficacy of the Self-Determined Career Development Model
A project funded by the National Institute on Disability and Rehabilitation Research (Project #H133G120071)

Module 1
Module 2
Supports
About

<http://ngsd.org>

A photograph of the Golden Gate Bridge in San Francisco, California. The bridge's iconic red-orange towers and suspension cables are the central focus. The bridge spans across a body of water, with a second tower visible in the distance. The scene is framed by lush green trees in the foreground. The sky is a clear, bright blue with a few wispy clouds. The text "Thank You!" is overlaid in the upper right quadrant in a yellow, serif font.

Thank You!