## Attachment A

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# 2011-12 National Postsecondary Student Aid Study (NPSAS:12) Technical Review Panel Meeting

July 13-14, 2010

### Omni Shoreham Hotel

2500 Calvert Street NW at Connecticut Ave • Washington, DC 20008 • Phone: (202) 234-0700 Metro Station: Woodley Park-Zoo/Adams Morgan (RED line) – 1 block

	Day 1 - Tuesday, July 13, 2010			
Time	Topic	Presenter		
8:30 AM – 9:00 AM	Arrive / Continental breakfast			
9:00 AM – 9:30 AM	Welcome and Introduction Introduction of Panelists and Staff NCES goals for NPSAS and BPS Changes in how data collections are developed Goals for this meeting Logistical and administrative announcements	Riccobono Weko		
9:30 AM – 9:50 AM	Overview of NPSAS Design and its Relationship to BPS	Riccobono		
9:50 AM – 10:10 AM	NPSAS:12 Data Elements and Overview of Proposed Changes in Collection	Hunt-White		
10:10 AM – 10:20 AM	Break			
10:20 AM – 11:05 AM	Strategies for a Redesigned NPSAS and BPS: A Conceptual Framework Informed by Human Capital Theory Presentation Discussion	Long		
11:05 AM – 11:45 AM	Overview of Process To Date: Moving from the Framework to Instrumentation Presentation Discussion	Soldner Wine		
11:45 AM – 1:15 PM	Lunch			
1:15 PM – 1:45 PM	Measurement Issue: Expected Future Wages Presentation Discussion	Decker		
1:45 PM – 2:15 PM	Measurement Issue: Stress and Non-wage Benefits of Work Presentation Discussion	Sykes		
2:15 PM – 2:45 PM	Measurement Issue: Academic and Social Systems Presentation Discussion Page 3 of 154	Soldner		

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Day 1 - Continued		
Time	Topic	Presenter
2:45 PM – 3:00 PM	Break	
3:00 PM – 3:30 PM	Measurement Issue: Willingness to Borrow and Financial Constraints and Persistence Presentation Discussion	Socha
3:30 PM – 4:00 PM	Measurement Issue: Reasons for Transfer and Drop-Out Presentation Discussion	Radford
4:00 PM – 4:30 PM	Wrap Up and Adjournment	Weko Riccobono

# 2011-12 National Postsecondary Student Aid Study (NPSAS:12) Technical Review Panel Meeting

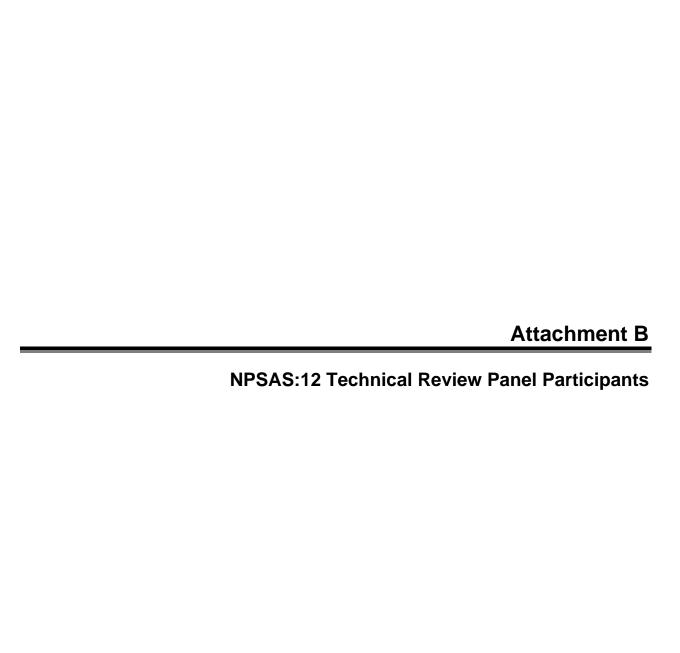
July 13-14, 2010

### Omni Shoreham Hotel

2500 Calvert Street NW at Connecticut Ave • Washington, DC 20008 • Phone: (202) 234-0700 Metro Station: Woodley Park-Zoo/Adams Morgan (RED line) – 1 block

Day 2 – Wednesday, July 14, 2010		
Time	Topic	Presenter
8:30 AM – 9:00 AM	Arrive – Continental Breakfast	
9:00 AM - 9:30 AM	Review of Day One and Clarifications	Weko Riccobono
9:30 AM – 10:00 AM	Measurement Issue: Uncertainty around Events Presentation Discussion	Soldner
10:00 AM – 10:30 AM	Measurement Issue: Discount Rate	Decker
10:30 AM – 11:00 AM	Focus Groups: What We've Learned and Next Steps Presentation Discussion	Wine
11:00 AM - 11:15 AM	Break	
11:15 AM – 12:15 PM	NPSAS:12 Sample Design Full Scale and Field Test Changes to institutional strata First-Time Beginners identification and false positives	Siegel Berkner
12:15 PM – 1:30 PM	Lunch	
1:30 PM – 2:00 PM	NPSAS:12 A Cross-Sectional Study of Financial Aid Changes (e.g., ACG and SMART gone, emerging issues)	Wei
2:00 PM – 2:45 PM	Field Test Plans  New contacting methods (Lego, Facebook, SMS)  CADE Redesign  Response propensity experiment	Cominole Franklin
2:45 PM – 3:00 PM	Summary and Next Steps	Riccobono Wine

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# 2012 National Postsecondary Student Aid Study (NPSAS:12) Technical Review Panelists

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## Attachment C

**Handouts** 

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### 2011-12 National Postsecondary Student Aid Study

## NPSAS:12 Technical Review Panel Meeting



July 13-14, 2010 Omni Shoreham Hotel Washington, DC

BRITI

## **Welcome and Introductory Comments**

John Riccobono Tom Weko

Project Director Associate Commissioner NPSAS:12 Postsecondary, Adult, and

Career Education Division

RTI NCES

ORTI

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## **Questions**

- What choices have you made since (or before) entering PSE that led you to this meeting today?
- Was this the result of rational decision making?
- What might have influenced you to choose otherwise... and with what effect or outcome?

These are, in part, the issues underlying our discussion over the next 2 days.

But, first...

CRTI

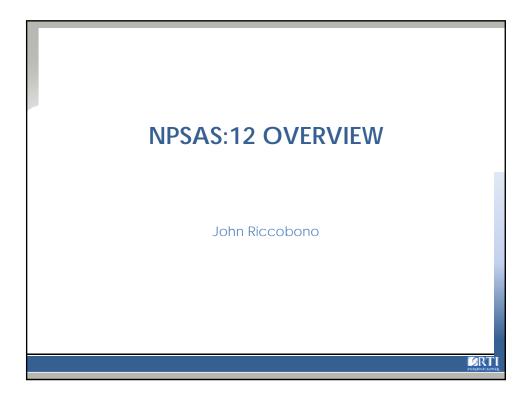
"The Team"

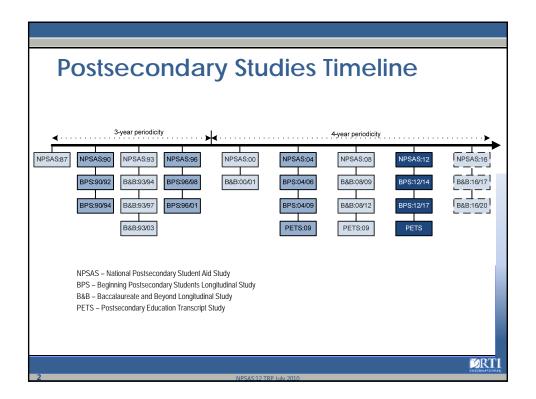
NCES

Expert RTI TRP

KGS RSS MPR BAI MS2K+

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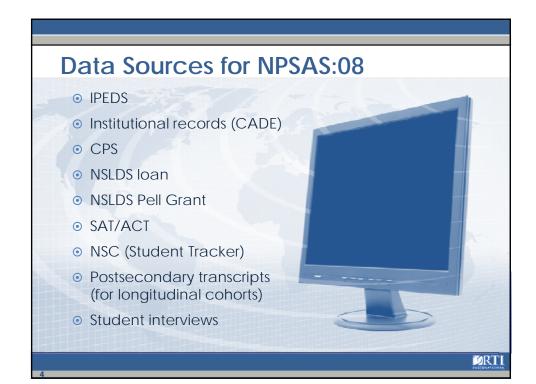




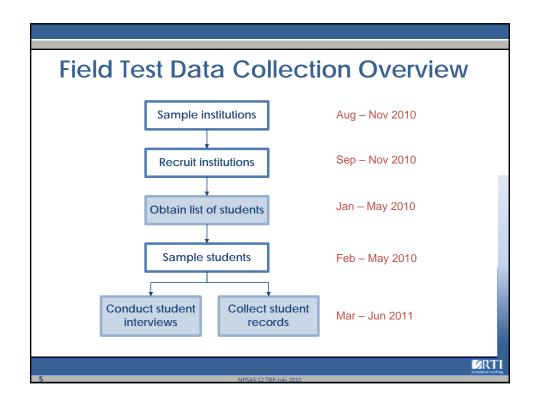
# What is NPSAS?

- Cross-sectional survey of students enrolled in postsecondary education, at all levels, for a specific financial aid year (July 1 to June 30)
- Provides data on
  - Current costs of postsecondary education
  - Resources used by students to meet those costs, including financial aid received, employment, and family support
  - Enrollment status
  - Student characteristics
- Authorized by the Higher Education Opportunity Act of 2008, 20 U.S.C. § 1015(d) which charges NCES with collecting information from aid recipients in the United States

**ORT** 



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## Student Record Data - Content

- Contact information
- Tuition
- Need analysis
- Enrollment
- Institutional Student Information Record (ISIR)
- Undergraduate admissions
- Demographics
- Aid awarded



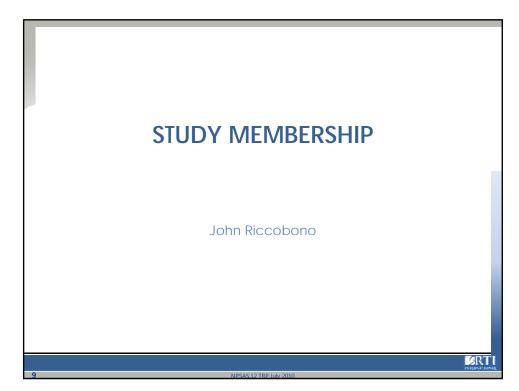


## **Student Interview**



- Background/Demographics
- Education Goals/Experiences
- Current Employment
- Expectations
- Decisionmaking
- Enrollment
- Financial Aid
- Locating

ORT



# **Definition of a Study Member**

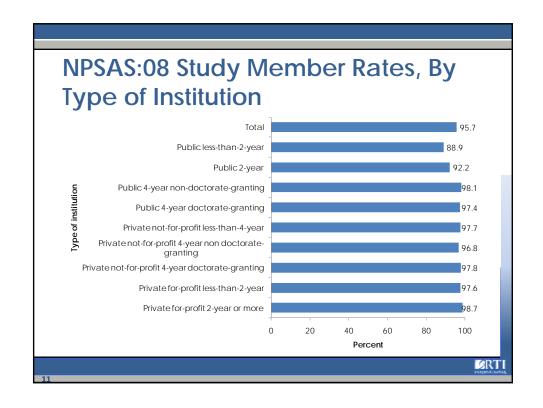
Any sample member who is determined to be eligible for the NPSAS study and meets the following minimum data requirements:

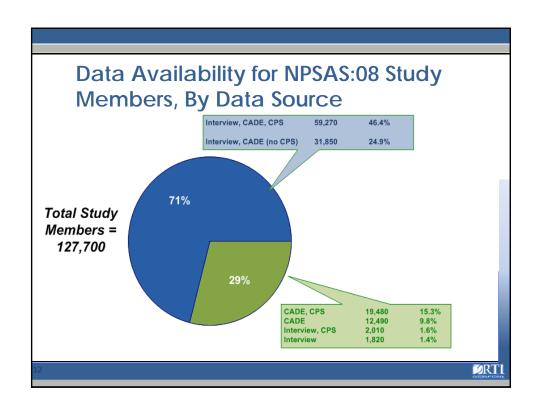
- Student type (undergraduate or graduate/first professional);
- ⊙ Date of birth or age;
- ⊙ Gender; and
- $\odot$  At least 8 of the following 15 variables
  - dependency status
  - marital status
  - any dependents
  - income
  - expected family contribution (EFC)
  - degree program
  - class level
  - FTB status (completed or expected)
- months enrolled
- tuition
- received federal aid
- received non-federal aid
- student budget
- race
- parent education



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# NPSAS:12 Data Elements & Overview of Proposed Changes in Collection

Tracy Hunt-White Statistician & Project Officer, NPSAS:12

Prepared for the NPSAS:12 Technical Review Panel July 13-14, 2010

NATIONAL CENTER FOR EDUCATION STATISTICS

#### U.S. DEPARTMENT OF EDUCATION

### NPSAS:12 Data Elements(1 of 2)

- ❖ NPSAS does double duty, gathering key cross-sectional information and spinning off a cohort of students for longitudinal follow-up.
- ❖ As a result, it must capture a wide range of data elements in the most efficient and effective manner.
- ❖ In NPSAS:12, we generally anticipate
  - \* STABILITY in the NPSAS-related data elements, and
  - \* RETOOLING of some of the BPS-related data elements.



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### NPSAS:12 Data Elements(2 of 2)

- ❖ A quick reminder before we review existing data elements ... possible sources of data fall in to two categories:
  - ❖ Records: institutional, departmental (e.g., NSLDS, CPS), or external (e.g., ACT, SAT, NSC)
  - ❖ *Interview:* either via the Web, the phone, or in person.



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#### U.S. DEPARTMENT OF EDUCATION

## Core NPSAS Data Elements (1 of 3)

Element	Key Data Source	Proposed Change
Institutional characteristics (e.g., sector, calendar system, Carnegie class)	IPEDS	_
NPSAS study eligibility	Records	_
Class level and GPA	Records	_
Field of study (i.e., major)	Interview	_
Enrollment history	Records	_
Financial aid application	Records	_
Federal aid amounts	Records	_
State aid amounts	Records	_



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## Core NPSAS Data Elements (2 of 3)

Element	Key Data Source	Proposed Change
Institutional aid amounts	Records	_
Graduate student assistantships/fellowships	Interview	_
Other aid amounts	Interview	_
Cumulative student borrowing	Records	_
Tuition and student budgets	Records	_
Federal need analysis (EFC)	Records	_
Student employment and earnings	Interview	Expansion
Student demographic characteristics	Interview	_



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#### U.S. DEPARTMENT OF EDUCATION

## Core NPSAS Data Elements (3 of 3)

Element	Key Data Source	Proposed Change
Parents and family characteristics	Interview	Reduction
Credit cards	Interview	Reduction
Reasons for (e.g., transfer, dropout, delay)	Interview	Refine
Civic participation (e.g., voting and volunteerism)	Interview	Remove
Limiting conditions (e.g., sensory, mobility)	Interview	_



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#### Additional Core Data Elements for BPS Respondents (1 of 2) Element Proposed Key Data Change BPS Study Eligibility Interview High School (e.g., course-taking, type, date graduated, institution) Interview Expansion Pre-College Ability (e.g., SAT, ACT, placement test scores) Records Expansion Educational goals Interview Revision Student finances Interview Expansion Remedial course-taking Interview Revision Distance education Interview Educational experiences Interview Expansion S NATIONAL CENTER FOR EDUCATION STATISTICS 7

	U.S. DEPARTMENT O	F EDUCATION
Additional Core Data Elements for BPS Respondents (2 of 2)		
Element	Key Data Source	Proposed Change
State aid amounts	Records	Increased frequency
nstitutional aid amounts	Records	Increased frequency
·ioc		

# What Does this Mean for Our Work Today and Tomorrow?

❖ Because the NPSAS component is largely static for 2012, we will be spending the bulk of our time at this TRP on a few tricky spots in the student interview, which in total is the source of only about half of our data elements.



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# Strategies for a Redesigned NPSAS and BPS

A Conceptual Framework Informed by Human Capital Theory

# **Prof. Bridget Terry Long, Ph.D.**Harvard Graduate School of Education & NBER

National Postsecondary Student Aid Study (NPSAS:12) Technical Review Panel Meeting July 13-14, 2010

# Higher Education: *A Dynamic Enterprise*

- Increasingly Diverse Students
  - Demographic Trends
  - Aspirations and goals
  - "Non-traditional"
- Increasingly Diverse Pathways
  - Stopping out and returning
  - Multiple institutions
- Increasingly Diverse Institutions & Options
  - For-profit
  - Distance Education

# The Study of College Access and Choice

- Process of preparing, applying, and choosing to attend college is influenced by a complex array of interrelated factors: Background; Expectations; Academic Preparation; Costs; and Benefits
- These factors have been measured with varying degrees of success → It may be possible to refine measures and/or consider better ways to define
- Other factors that have received **little attention** seem increasingly relevant
- Simplifying assumptions and measures that have been used no longer closely approximate contemporary decision-making → Time to reconsider

## Puzzles in the Study of College Access, Choice, and Persistence

- Student Churn
- Student Drop-out Behavior
- Formation and Role of Expectations and Perceptions
- Roles of Pre-College Preparation
- Postsecondary Remediation
- Student Engagement
- Role of Institutional Supports

## **Approach**

Consider potential tools and frameworks that could provide helpful insight in the examination of contemporary college decision-making

- Consider the ideal, then prioritize what is most practical (and hopefully, feasible)
- Target access and choice (the mandate) although the suggestions may have implications for study of success
- Importance of signals to the research community (we study what we measure)

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## **The Human Capital Model**

- Captures many of the factors multiple disciplines find compelling (benefits, costs, budget constraint)
- Permits a lot of flexibility for different types of students (e.g., different weights)
- Basic assumptions (e.g., perfect info) clearly not met, but still helpful (i.e., based on bad information, it may *seem* rational not to attend)

## Basic Human Capital Model Cost-Benefit Analysis

Go to College/Persist if:



### Possible Benefits

- Expected Future Wages
- Expected Other Benefits
- Time Horizon
- Discount Rate (perception of future values)

### Possible Costs

- Tuition and Fees
- Financial Aid
- Background (relates to budget constraint and access to capital)
- Academic Preparation (affects ease of learning and time to degree)

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## Beyond the Simple Human Capital Model Contributions from other disciplines, fields, and models



### Additional Factors to Consider and Incorporate

- Information and expectations about costs/aid
- Expectations about performance, likelihood of success, and graduation
- Importance of peers, parents, neighborhoods, and schools
- Family commitments, responsibilities, and beliefs
- Proximity and distance
- Campus environment: sense of belonging, social norms
- Cost of complexity and the "Default" option

## **College Decisions**

*Conceptual Framework:* Higher Education choices involve comparing to 2 sets of benefit/cost streams.

Attendance Decision: Go to college if:

Net Benefits: College Net Benefits: High School

Benefits (college) Senefits (HS)

Costs (college)Costs (HS)

Four-year versus Two-year decision:

Benefits (4yr) vs. Benefits (2yr)

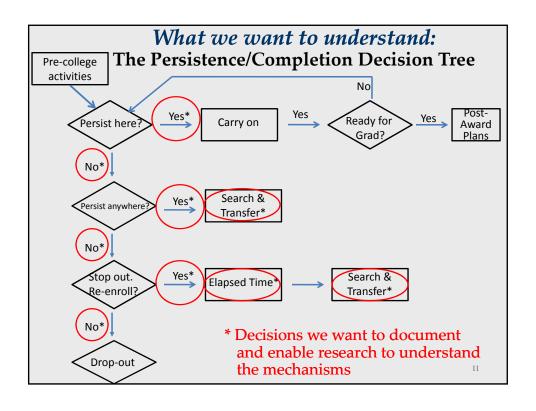
Costs (4yr)Costs (2yr)

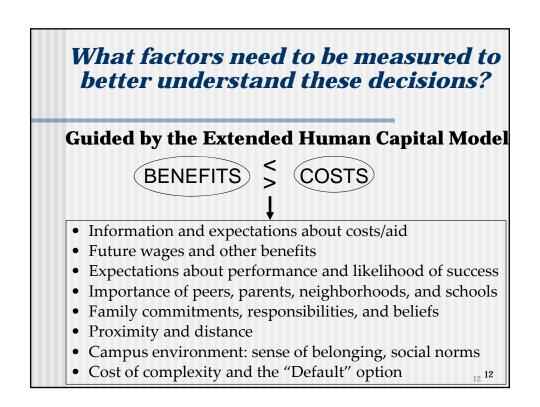
### Other Decisions (see the decision trees):

- Persist at Same Institution or Change institutions
- Persist or Stop/Drop Out
- Persist in Major or Change Major

## The Extended Human Capital Model

- Captures factors multiple disciplines find compelling
- Permits a lot of flexibility for different types of students
- Helpful model even with basic assumptions
- Problem: Researchers often simplify due to lack of good measures → The data available are no longer sufficient to understand current students and trends





## Reconceptualizing Student Costs Examples

- Net price
  - Potential aid awards for alternatives not chosen?
  - All aid is not the same How do students perceive loans? (major issue given policy trends)
  - Access to other forms of debt (home equity loans, credit cards, etc.)?
- Distance (both pre and post decision)
- Accurately measuring the family's budget constraint (the role of the student's income?) and need for resources

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## Reconceptualizing Student Benefits Examples

- Graduation probability Varies by school and background
- Increasing variation in returns (Hoxby and Long, 1999)
- Different discount rates for different groups key concern is how students weight consumption now versus in the future

### Reconceptualizing Student Access and Choice

### The Role of Information, Perceptions, and Expectations

- Core underlying assumption, but *what* do students really know?
- *When* do they know it?
- Is it *accurate* information? (Quality)
- How does information affect expectations?
- How does information affect academic preparation?

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### **Behavioral Economics**

Individuals often do not act in ways that are completely rational

- **Bounded Rationality**: problem solving can be constrained by human's limited cognitive abilities
- **Bounded Willpower**: individuals sometimes make choices that are not in their long-term interest
- Bounded Self-interest: individuals are sometimes willing to sacrifice their own interests to help others

HC Model (rationally weighing options) is not enough to explain decisions of some groups

### Lessons from Behavioral Economics *Examples*

### Importance of the Default

- Madrian and Shea (2001): A change in the default of a 401(k) plan substantially changed savings behavior
- Beshears, Laibson, Choi, and Madrian (2006): Instance when non-experts are especially daunted by a decision, individuals will procrastinate → Simplify the options

### **Making Suboptimal Investments**

■ Choi, Laibson, and Madrian (2005): individuals have strong incentives to invest but violate the no-arbitrage condition even in the face of information (they forego the "free lunch" available to them)

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### Lessons from Behavioral Economics Implications for Education

- What are the default conditions a student faces? → Taking a College Prep curriculum; the SAT/ACT
- Procrastination and difficult decisions How could we simplify the important decisions? → Financial Aid application
- Failure of monetary incentives alone to cause an individual to make a certain investment

### **Implications for Data Collections**

### **Key Constructs and Themes**

- "Choice" Points
- Expectations
- Information and Perceptions
- Academic Preparation and Remediation
- Non-traditional students
- Student Life and Campus Experiences
- Classroom Experiences

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### **Historical BPS**

### **CORE SECTIONS:**

Background
Enrollment History
Enrollment Characteristics
Employment

ELECTIVE QUESTIONS ON OTHER THEMES

### **Proposed Changes to BPS**

Shorten Streamline Automate

### CORE SECTIONS

Background **Enrollment History Enrollment Characteristics Employment** 

Prioritize Reevaluate

### **ELECTIVE QUESTIONS**

Selected Themes Asked of all Students

**Thematic** Module 1

Motivated by the Conceptual Framework

**Thematic** Module 2

*Motivated by the* Conceptual Framework | Student Sub-Sample

Thematic Module 3

Other Theme or

### **Elective Questions**

- Questions Above and Beyond the Required Purposes of BPS (i.e., the "Core")
- Other important, high-priority themes, but there are limited questions per theme
- Sample = All Students

### Sample Themes appropriate for the **Elective Questions Section**

- Perceived and Actual Costs and Benefits related to Persistence, Transfer, and Major Choice (i.e., student information and expectations)
- Students' Academic Experiences
- Other Experiences on Campus

### **Future Possibility: Thematic Module**

- Entire Sample is not Questioned
- In-depth questioning on specific theme that:
  - Would benefit from in-depth questioning but survey time limitations and other survey requirements make asking all students the questions infeasible
  - Topics in which we are likely to get statistically important information even on a smaller sample
  - Are specific to a particular subpopulation within the sample (i.e., students with a specific background/ experience)
- Examples of Thematic Modules
  - In-depth questioning on Information and Perceptions
  - Expectations about likelihood of success and benefits to major
  - Academic Preparation and Remediation
  - Student Campus Experiences
  - Student Experiences inside the Classroom
  - Experiences of Nontraditional Students

### Conclusion: Strategies to Redesign NPSAS/BPS

### **PUZZLES**

- Student Churn
- Student Drop-out
- Formation and Role of Expectations and Perceptions
- Roles of Pre-College Preparation
- Remediation
- Student Engagement
- Role of Institutional Supports

### **KEY CONSTRUCTS**

- "Choice" Points
- Expectations
- Information and Perceptions
- Academic Preparation and Remediation
- Non-traditional students
- Student Life and Campus Experiences
- Classroom Experiences

### Redesigning the Beginning Postsecondary Students Longitudinal Study

Matthew Soldner
Associate Research Scientist &
Project Officer, BPS:12/14/17

Jennifer Wine Project Director, BPS:12/14/17

**NCES** 

RTI

July 13, 2010



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### Beginning With the End in Mind (1 of 3)

### Question:

➤ What is the thing that, if BPS does not accomplish, we would consider the study a failure?

### Answer:

➤ The generation of graduation rates, particularly at the 150% of notional time to degree.



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### Beginning With the End in Mind (2 of 3)

### Guess what:

You do not even need a student interview to accomplish that goal.

### This, then, begs a new question:

➤ If we have 30ish minutes with first-time, beginning students, what should we be doing with it?



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### Beginning With the End in Mind (3 of 3)

### Top-level answer:

Generating data that can help us understand how graduation rates come to be.

### And, by the way:

- Doing so in a theoretically coherent manner
- While paying attention to important populations
- ➤ And leveraging the study's longitudinal nature.



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### Crafting a Process (1 of 6)

You've already heard from Bridget and others that, to ground ourselves, NCES, RTI, and MPR staff held a "Mini-Meeting" to kick off the redesign. October

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### Crafting a Process (2 of 6) Tabula Rasa? Shoe-horning? Ties NATIONAL CENTER FOR EDUCATION STATISTICS Institute of Education Sciences

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### Crafting a Process (3 of 6)

Team A Team B
Focus on: Theory to Instrument Focus on: Refine Existing Instrument







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### Crafting a Process (4 of 6)

Team A Team B
Focus on: Theory to Instrument Focus on: Refine Existing Instrument

NCES staff

NCES staff

RTI consultants

RTI staff

Outside experts

MPR staff



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### Crafting a Process (5 of 6)

### Team A

### Focus on: Theory to Instrument

- Identify key data elements informed by the human capital framework
- Review prior education and economics literature, with an eye to methodology
- Identify where we could capitalize on existing NPSAS base-year instrumentation

### Team B

### Focus on: Refine Existing Instrument

- Identify items in NPSAS base-year instrument that appeared to be "off target"
- Look for base-year items that were no longer relevant given evolving ED policy
- Consider existing items that had been problematic to respondents and/or analysts and how they ought to be rendered more helpful



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### Crafting a Process (6 of 6)

Meanwhile ... in Research Triangle Park ...

### Question:

➤ How do we know students are interpreting existing (and potential) base-year constructs the way we think they are?

### Answer:

➤ We don't. Let's do something about that.



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### **Focus Groups**

RTI, with assistance from Branch
Associates, began conducting focus group discussions with postsecondary students around key issues.

**Tuesday** 

### February

1



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### **Purposes of the Focus Groups**

- Evaluate students' understanding of interview terminology
- Determine potential item response sets
- Assess the level of difficulty of interview questions and response requirements





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### **Participants**





- 50 first-time college students were selected from postsecondary institutions in the greater Philadelphia area, including the New Jersey suburbs
- 6 groups were formed, based on institution and student characteristics:
  - 1. Attending 2-year public institutions
  - 2. Attending 4-year public and private, not-for-profit institutions
  - 3. Attending less-than-2-year institutions
  - 4. Attending 2- and 4-year for-profit institutions
  - 5. Non-traditional students
  - 6. Students who have taken remedial courses in the first year

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### Methodology

- Students were recruited through on-campus posters, newspaper ads, and word-of-mouth
- · Interested students were screened for eligibility
- Up to 9 students participated in each of the 6 groups
- Sessions were conducted by staff from Branch Associates, and held in an easily-accessible facility in Philadelphia
- Students received \$50 as compensation for about 2 hours' participation, including transportation
- Sessions were audio-recorded, and the recordings professionally transcribed



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### **Participant Demographics**

### Degrees sought

- 22% bachelor's degree
- 46% associate's degree
- 20% certificate

38% were required to take remedial courses

16% live on campus

### Schedule:

- 52% attend daytime classes
- 6% attend only online classes

### **Employment**

- 60% not working
- 14% working  $\geq$  30 hrs/week

34% support dependents

### Parents' education

- 20% both parents completed college
- 54% neither parent completed college



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### **Topics Covered**

- Postsecondary education and postsecondary institution
- High school completion
- Enrolling versus attending an institution
- Choice of institution
- Persons involved in decisionmaking about choice of institution and other education decisions

- Likelihood of persisting
- Intent to transfer
- Cost of attendance
- Major/field of study
- Future wages
- Remedial education
- Institutions support services
- Financial aid federal and private loans



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A Civil Union: Joining Teams A and B (1 of 3)

After seven months of working on parallel paths, Teams A and B met in a "Mini-meeting" to accomplish a series of tasks.

Wednesday

May

10



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### A Civil Union: Joining Teams A and B (2 of 3) **Key Mini-Meeting Activities**

- For Team A
  - · To present the key data elements and strategies for their measurement
  - To lay bare the ambiguities and the trouble-spots
  - To comment on Team B's work, in the light of the HC Framework
- For Team B
  - · To advocate for their suggested modifications to instrumentation, as needed
  - To troubleshoot elements and strategies presented by Team A and offer feedback on how problems might be resolved



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### A Civil Union: Joining Teams A and B (3 of 3) Moving to a Single BPS Redesign Working Group

- After the mini-meeting, the scope of work was clarified.
- Moving forward, weekly calls with all the principals:
  - From NCES: Tom Weko, Tracy Hunt-White, Matt Soldner, Ted Socha, Laura LoGerfo
  - From RTI: Jennifer Wine, Natasha Janson
  - From MPR: Alexandria Radford
  - · Consultants to RTI: Cindy Decker, Andrea Sykes
  - · Consultants to NCES: Bridget Terry Long, Eric Bettinger



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### RTI's Technical Review Panel (1 of 5) And, finally, we have arrived at today. Separtment of Education Tuesday July July 13

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### RTI's Technical Review Panel (2 of 5)

- This is not a debut.
  - You are now all an extension of the BPS Redesign Working Group, and this meeting is an extension of the Mini-meetings that have been held to date.
  - We know more than we did on October 20<sup>th</sup>, but not all that we need to know to move to Field Test.
  - To get there, we need you to be involved both today and, if you can, beyond today.



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### RTI's Technical Review Panel (3 of 5)

- So far today, we have:
  - Received our "charge" from RTI and NCES,
  - Learned about the theory that will guide the study,
  - Gained insight in to the process to date.



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### RTI's Technical Review Panel (4 of 5)

- Today and tomorrow, we will:
  - Hear from project staff about the significant challenges that remain
  - Within the context of study goals and the human capital framework:
    - · Seek your insight on how current challenges might be resolved
    - Pick your brains about "blind spots" in our thinking to this point
  - Learn about RTI's plans for cognitive interviews in September.



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### RTI's Technical Review Panel (5 of 5)

- At the end of the day tomorrow, we will:
  - Take stock of major unresolved issues and brainstorm ways that interested panelists can remain directly involved in the redesign efforts
  - Develop strategies to solicit everyone's ongoing feedback as the base-year instrumentation becomes finalized through the Fall



### Cognitive Interviewing (1 of 3)

After this TRP, the next milestone is the start of cognitive interviewing.

Wednesday

Sept.

1



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### Purposes of Cognitive Testing (2 of 3)

- Examine the thought processes affecting the quality of answers provided to survey questions
- Understand the extent to which terms in questions are comprehended
- Evaluate the ability of respondents to make calculations and judgments, and the memory demands of the questions
- Determine appropriate presentations of response categories
- Assess the time it takes to complete the interview and the navigational problems users face
- Identify sources of burden and respondent stress





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### Cognitive Testing Design (3 of 3)



- ~48 volunteers recruited from <2-, 2-, and 4year postsecondary institutions in the Research Triangle Park, NC area
- Sessions will be held in RTI's cognitive testing laboratory on the RTP campus
- Approximately half of the participants will be administered a web interview, with the other half receiving an interview administered by one of the testers
- Sessions will be recorded with audio and "live screen" inputs
- Results will inform final interview design



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Questions before we move to lunch?

### THANKS!



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# **Expected Future Wage and Uncertainty**

Importance, Measurement Concepts, and Considerations

Cindy Gustafson Decker, Ph.D. Laurium Evaluation Group www.lauriumevaluation.com Prepared for the NPSAS:12 Technical Review Panel July 13, 2010



### LAURIUM EVALUATION GROUP

# Expected future wage and uncertainty: Overview

- Within the conceptual framework, the larger a student's expected future wage from completing their postsecondary program, the more likely they are to continue attending school •
- Relatedly, the larger the uncertainty regarding their future wage, the less likely they are to continue attending school
- If these two concepts were elicited from the survey, regressors could include: •
- Expected future wage expectation or the student's estimated return to school (a function of expected future wages and estimated wages if dropped out of program)
- Uncertainty surrounding estimated future wages
- For this discussion, the focus is the wage earned after completing postsecondary program •
- We are not discussing total compensation, which includes job benefits such as health insurance

## Expected future wage: Instrumentation (1 of 2)

 Survey question should specify a point in time in the future to anchor all students in the same manner. What should time be?

	Concepts	Possibilities	Considerations
Page 58 of 154		Specific # of years after completion of program	•How many years would we choose? 5 years? 10 years? •Does it matter that <u>time from today</u> would vary so much across students given different program lengths?
	Point in time	Specific age	<ul> <li>What should this age be? 40 years of age? 30 years of age?</li> <li>Does it matter that <u>time in career</u> at this age would vary so much across students given different program lengths and different ages?</li> <li>Similarly, does it matter that <u>time from today</u> would vary?</li> <li>How should older students who have already reached this chosen age when completing their program be handled?</li> </ul>
		Specific # of years from today	•How many years would we choose? 10 years? 15 years? •Does it matter that <u>time in career</u> would vary across students given different program lengths?

# Expected future wage: Instrumentation (2 of 2)

Other important concepts to consider are shown in the table below:

Concepts	Possibilities	Considerations
Programs	All planned postsecondary programs	•Does it matter that this brings in further schooling decisions?
Completed	Only this postsecondary program	•For students planning on further programs, can they even estimate this?
Year of dollar		•Will some students estimate future wages based on today's dollars and others account for inflation over time?
Uncertainty		<ul> <li>What can be done to decrease uncertainty or improve accuracy?</li> <li>What if some students report having no idea about future wages?</li> </ul>

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## Uncertainty of future wage: Instrumentation

A number of concepts need to be considered in eliciting uncertainty, as shown below:

	Concepts	Possibilities	Examples and Considerations
Page 60 of 154	What to elicit?	Dollar points in distribution	<ul> <li>Ask the student's minimum or maximum estimates on future wages?</li> <li>Ask the estimated dollar amount for specific percentiles in the distribution?</li> </ul>
		Likelihoods of certain points in distribution	<ul> <li>Ask how likely it is that student will make a certain percentage more or less than their estimate?</li> </ul>
	What Distribution		•Will some report the uncertainty surrounding their own future wage distribution and others surrounding the wage distribution of their planned occupation?
	Uncertainty		<ul><li>What can be done to decrease uncertainty or improve accuracy?</li></ul>

### Non-Monetary Benefits of Future and the Cost of Stress Occupation

Andrea Sykes Laurium Evaluation Group <u>www.lauriumevaluation.com</u> Prepared for the NPSAS:12 Technical Review Panel

July 13, 2010



### LAURIUN

## Non-monetary benefits of expected future occupation: Overview

- decisions on whether to persist based on benefits of Within the conceptual framework, students make future occupations that cannot be monetized
- Students persist in college to obtain a job that they expect will provide certain non-monetary benefits
- college if they believe a job earned with a degree has more autonomy and they highly value autonomy For example, a student would be more likely to persist in
- What are the key non-monetary benefits and what is best way to measure them?

## Non-monetary benefits of future occupation: Instrumentation

Examples and Considerations		<ul><li>Are there other non-monetary benefits of</li></ul>	future work that should be measured? •Should we measure importance of	benefit?		<ul> <li>Relatively easy to measure</li> <li>If this is the same as that of an occupation if dropped out, then does not impact persistence</li> </ul>	•More difficult to measure, but more fits the on conceptual model	
Concept Possibilities	Level of autonomy at work	Helping others	Benefits to Status or recognition as an expert	Ability to balance work and family	Job stability	What level of non-monetary benefits do you expect to receive from your future occupation? (large, medium, small)	Difference in benefit resulting from future occupation versus occupation if dropped out (more, same, less)	
			Page	e 63 of 1	54			



### Stress: Overview

- Within the conceptual framework, stress resulting from going to school is considered a cost •
- For example, students are more likely to persist in college if they have less stress resulting from going to school
- Students, depending on circumstances, face a number of stressors that affect whether they persist in degree: •
- General stress in meeting requirements of program or degree
  - Balancing demands of family and work
- Financial stress in paying for school
- Students who experience stress continually weigh the benefits of persisting with the psychological or physiological costs •
- For example, students who work or care for dependents/other family members weigh the benefits of earning a degree with the costs to their relationships, i.e. lost time with kids/family members or struggling to balance it all.



## Stress: Instrumentation

Concept	Possibilities	Considerations
	Emotional	•What stressors are missing?
What to	Financial	•How much time would it take for
measure?	Balancing Work & Family	•How accurate would their measurements be?
	Quantitative	<ul> <li>Collect data on amount of time spent caring for other family members.</li> </ul>
How to Measure?	Qualitative	<ul> <li>Impact of pursuing degree/program on:</li> <li>family relationships and quality of relationships.</li> <li>ability to fulfill the responsibilities of job.</li> <li>overall well-being (affects all students).</li> </ul>



### Academic and Social Systems Within the Context of a Redesigned BPS

Matthew Soldner Associate Research Scientist & Project Officer, BPS:12/14/17

Prepared for the NPSAS:12 Technical Review Panel July 13-14, 2010

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### Academic and Social Systems

- ❖ What do I mean?
  - Moving through and beyond Tinto, taking with us the academic and social dimensions of a student experience.
  - Acknowledging systems that exist outside the campus "walls," a la Weidman and Tierney.
  - Thinking creatively about the "verb" that describes how students experience these systems, a la Rendon, Hurtado & Carter, and others, as well as the resulting implications.



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### Locating These Systems within Human Capital

- ❖ How can we reconcile this literature with the HC framework?
  - The HC framework can subsume social-psychological models, but the converse is not true.
  - If we are "set" upon a construct, then we need only demonstrate its reasonable (empirical) connection to student persistence and cast it appropriately. Within the HC framework, most could be thought to serve as:
    - ❖ Sources of new or corrective information (e.g., faculty interaction)
    - Buffers against the psychic cost of study (e.g., sense of belonging)
    - Consumption goods (e.g., positive peer interactions)
    - Costs (e.g., lack of parental/spousal support)



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### Key Academic Systems: Overview

- There is surprising ambiguity in the literature as to what Tinto means (or should have meant) about academic integration.
- A number of concepts have emerged, and include:
  - Structural integration: meeting academic standards (e.g., grades)
  - ❖ Normative integration: finding congruence between one's abilities and needs and the institution's academic norms (e.g., a student who is "vocationally-oriented" being a poor fit with an institution that is "cognitively-oriented")
  - Intellectual isolation: not finding an academic niche (e.g., inability to find a major, lack of academic challenge)
  - Academic involvement: student-initiated behaviors that are academically-oriented (e.g., participation in academic 'activities' or faculty interaction)



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### U.S. DEPARTMENT OF EDUCATION Key Academic Systems: Instrumentation Concept Considerations for panelists ✓ Simple: just measure GPA. Structural integration Normative integration ✓ How might we detect and quantify "fit?" • "enjoyment of overall academic experience" • "compared to others, ability to do well academically here" Intellectual isolation ✓ How might we detect and quantify "connection?" • "enjoyment of ideas introduced in coursework" • "enjoyment of course assignments or projects" Academic involvement $\checkmark$ How might we measure "involvement" in "activities" in a way that works across institutional types and delivery methods? ✓ Faculty interaction: Is it quality or frequency? How dimensional is it (e.g., course-related vs. non-course-related?)

### U.S. DEPARTMENT OF EDUCATION

### **Key Social Systems**

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of Education Sciences

- This dimension is comparatively clear-cut, because it generally involves something to do with peer interaction.
- \* Relevant concepts include:
  - ❖ Formal social integration: "structured" engagement with campus social systems (e.g., peer interactions through a student organization)
  - Informal social integration: "unstructured" social interactions with peers



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Concept	tems: Instrumentation  Considerations for panelists
Formal social integration	<ul> <li>✓ How might we move away from the "count of activities" (or equivalent) approach, so that we're getting to the core of the question, while paying attention to institution type/delivery mode?</li> <li>• If not frequency, is it quality? "important/meaningful relationships with fellow students?"</li> <li>✓ Is there a meaningful distinction between the source of the interaction (i.e., "my courses allow me" vs. "school activities, clubs, or organizations allow me"</li> </ul>
Informal social integration	<ul> <li>✓ Again, is it a frequency issue, a quality issue, or both?</li> <li>✓ Is it multi-dimensional?</li> <li>• Academic-vocational?</li> <li>• Socio-cultural?</li> <li>• Personal?</li> </ul>

### **Key Campus Metasystems**

- I refer to these as "metasystems" because their source (i.e., academic or social) is not clear cut.
- $\begin{tabular}{ll} \bullet & Potentially useful constructs include: \\ \end{tabular}$ 
  - ❖ Sense of belonging: a largely affective judgment that the student "is a part of" or "belongs to" the campus community
  - Institutional satisfaction, at varying levels of dimensionality



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Concept	Considerations for panelists
Sense of belonging	<ul> <li>✓ Typically measured via one or more items like:</li> <li>• Agreement with "I feel a part of the [NPSAS] community" and "feel like I belong at [NPSAS]."</li> <li>✓ Is it relevant for all modes?</li> </ul>
Institutional satisfaction	<ul> <li>✓ Not difficult to ask, but the dimensionality is almost infinite.</li> <li>"with [NPSAS]"</li> <li>"with my academic experience at [NPSAS]"</li> <li>"with my relationships with my peers at [NPSAS]"</li> <li>"with the services provided by [NPSAS]"</li> <li> and so forth.</li> </ul>

### **Key Off-Campus Systems**

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- $\diamond$  While ignorance the role of off-campus systems on student persistence has always been short-sighted, it seems increasingly so in the  $21^{st}$  century.
- A number of concepts have emerged in the literature or might reasonably be inferred, and include:
  - ❖ Support of parents and guardians
  - ❖ Support of peers, both on- or off-campus
  - Support of spouse/partner



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Concept Support, writ large	Considerations for panelists  Much like satisfaction, asking the question is not the challenge here
	<ul> <li>(e.g., "how much do you agree with the following: my supports my enrollment"). Instead, it is the dimensionality of: <ul> <li>the potential supporters (e.g., parents/spouse, peers at home, peers at school), and</li> <li>the target of their support (e.g., "postsecondary education" or "NPSAS")</li> </ul> </li> </ul>

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### Measuring Willingness to Borrow and Financial Constraints and Persistence Within the Context of a Redesigned BPS

Ted Socha Statistician & Project Officer, B&B:08/09/12

Prepared for the NPSAS:12 Technical Review Panel July 13-14, 2010

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### Willingness to Borrow

- ❖ What do we mean?
  - The maximum amount of loans a student is willing to take out to complete a given degree program.
- Why is it important?
  - It has been argued that some populations may be less willing to take on debt than others, even if the costs associated with that debt are might be outweighed by the potential for greater lifetime earnings.
- Measurement is straightforward: simply ask students the maximum amount that they would borrow.



2

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### Financial Constraints and Persistence (1 of 2)

Where are we headed with this question?

- Directly observing "I dropped out for financial reasons."
- ❖ Seeking feedback on three ways of asking question:
  - ❖ Give student a hypothesized tuition increase amount
    - ❖ % of Net Price
    - ❖ Static dollar amount for all respondents
  - Elicit specific tuition increase dollar amount from student where they would choose to not persist
  - Leaning toward: General question as to student's likelihood of persisting if tuition increased
    - ❖ Pro: Simple, easy to answer
    - ❖ Con: Really only gets at those students who are at the margin



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### Financial Constraints and Persistence (2 of 2)

We would stop eliciting specific "cost centers" (e.g., rent)

- ❖ Are there any known users of this data who would be affected by this change?
  - ❖ If so, are they using it descriptively or as a correlate to persistence?
- ❖ Is there a subset of costs (e.g., childcare) that still have salience?
  - If so, are they meaningful if other costs are unknown?
  - \* For example, credit card debt
    - Identifying who is using them to pay for school because they have no other choice, i.e. casual vs. necessary credit card use
    - ❖ Future earning lost to interest
    - \* If so, NPSAS inventory or BPS persistence related
  - ❖ Mortgage vs. Rent



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### Reasons for Transfer and Drop-Out Measurement Issue:

Alexandria Walton Radford MPR Associates, Inc.

### What Do Survey Methodologists Say About Reasons/Why Questions?

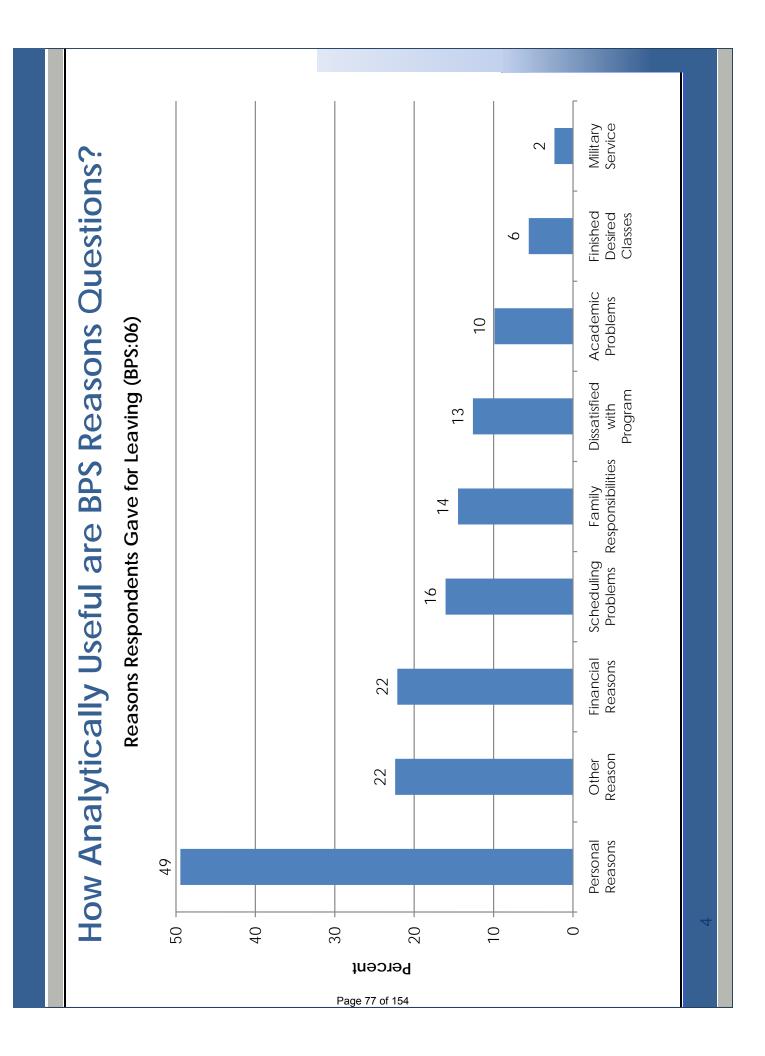
They consider these types of questions problematic.

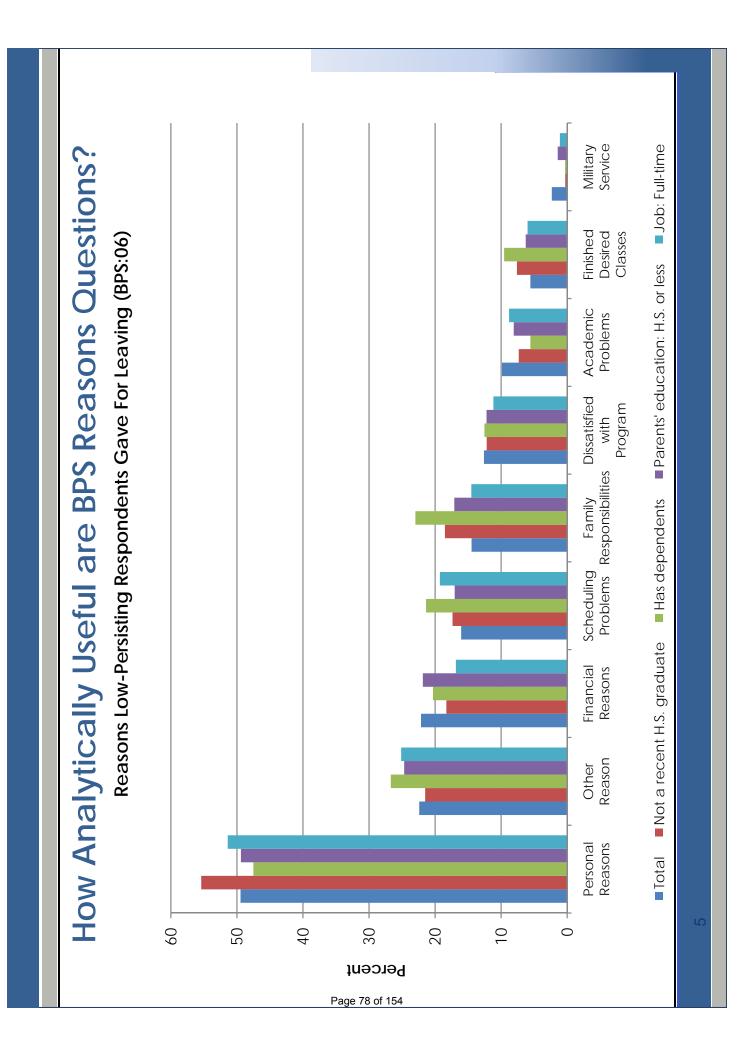
- 1) Schwartz and Sudman (1996): Respondents do not always accurately know why they do things. They tend to report reasons that are:
- a) plausible
- b) easy to verbalize
- c) accessible in memory
- d) socially desirable
- 2) Fowler (1995): Respondents perceive causality in different ways (barriers/motivation)
- which reasons they list (cons of one course of action/pros 3) Fowler (1988): Respondents' frame of reference affects of another course of action)



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	BPS: 04	BPS: 04	BPS: 06	BPS: 09
	For those who <u>planned</u> to transfer/transferred out of NPSAS.	For those no longer enrolled at [NPSAS] without transferring or transfer plans.	For those enrolled between 04 and 06 but not currently enrolled anywhere and with no plans to enroll.	For those with no BA prior to 06 and were enrolled at school since 06 but not currently and with no plans to enroll.
(Rough) Response Categories	What were your reasons for deciding to leave? (Please check all that apply.)	Why did you decide to leave [NPSAS]? (Please check all that apply.)	Why did you decide to leave [school]? (Please check all that apply.)	What was your main reason for leaving [school n] for your [degree]?
Academic problems	×	X	X	×
Scheduling	×	X	X	×
Dissatisfaction with program	×	X	X	X
Financial reasons	×	X	X	×
Family responsibilities	×	X	X	×
Personal reasons	×	X	X	×
Finished taking desired classes	×	X	X	×
Other reasons	×	X	X	×
Pursue BA at 4-year college	×			
Military service			×	×
Involuntary withdrawal suspension				×
# of DAS Analyses/6 Months	9	9	5	Not applicable





# How Analytically Useful are BPS Reasons Questions?

Reasons given by lower- and higher-persisting students at statistically significant different rates (BPS:06)

					Family	Dissatisfied		Finished	
	Personal	Other	Financial	Scheduling	Responsi-	With	Academic	Desired	Military
	Reasons	Reason	Reasons	Problems	bilities	Program	Problems	Classes	Service
Recent High School	×		×		×			×	×
Graduate (Y/N)	(N)		(Y)		(N)			(N)	(N)
Dependents 2003/04 (Y/N)				X	X		×	×	×
				(λ)	Έ)		(N)	(3	2
Parents' Highest Level of					×				
Education, 2003/2004					(H.S. or Less)				
(H.S. or Less/Some									
Postsecondary or More)									
Worked full-time, 2003/04			×						
(A/N)			(N)						

X= statistically significant difference; Parentheses indicates which group was significantly more likely to choose this item.



# Other Ways to Identify Reasons Students Do Not Persist

Current	Possible Alternative	
Response Categories	Data Source	Possible Alternative Variables
Academic problems/	Transcripts	GPA/ number of late drops/
Involuntary withdrawal		remedial coursework/
or suspension		withdrawal and suspension reporting
Pursue BA at a 4-year college	CADE/CATI/Transcripts	Enrollment in BA program
		the following term
Military service	CATI/FAFSA	Military status variable:
		Active Duty/Reserves
Finished taking desired classes	CATI	Degree program variable:
		Not working on a degree
Financial reasons	CATI	Disposable income calculations/
		Salary information
Scheduling not convenient	(Modified) CATI	(Parents') and employees' time
		commitments
Dissatisfaction with program	Modified CATI	Institutional satisfaction item
Family responsibilities	Modified CATI	Family stress items
Personal/Other reasons	٠.	٥.

ASSOCIATES, INC.

### ASSOCIATES, INC.

### Discussion

Given what we've learned in this presentation, do we need to ask students their reasons for:

a) transferring institutions

O

b) leaving postsecondary education altogether?

U.S. DEPARTMENT OF EDUCATION

### Measuring the Probability of an Event Within the Context of a Redesigned BPS

Matthew Soldner Associate Research Scientist & Project Officer, BPS:12/14/17

Prepared for the NPSAS:12 Technical Review Panel

July 13-14, 2010

NATIONAL CENTER FOR EDUCATION STATISTICS

U.S. DEPARTMENT OF EDUCATION

### Overview (1 of 2)

of Education Sciences

- ❖ What do I mean?
  - ❖ One critique of the status quo is our failure to explicitly acknowledge that, for some students, the prospect of persistence and/or attainment is not simply a 0 or a 1.
  - Knowing something about students' initial (and revised) assessment of the likelihood of a given event would seem to be a critical component of any predictive or explanatory model of persistence.



2

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### Overview (2 of 2)

- ❖ Any event is potentially "on the table" for this form of measurement, but obvious choices would seem to include:
  - ❖ Likelihood that a student will <u>complete their degree</u>.
    - Do we care to make a further distinction about completing at NPSAS versus completing somewhere else?
  - ❖ Likelihood that a student will <u>be enrolled next term</u>, if applicable.
- Given the interest by some in major choice (something we view as related but tangential to persistence writ large)
  - ❖ Likelihood that a student will <u>complete their major</u>.



3

### U.S. DEPARTMENT OF EDUCATION

### Measurement Strategies (1 of 2)

Objective probability ... think: "Weather forecast."

At several points in this survey, we would like to ask your opinion about how likely you think various events might be. To answer this question and others like it, use a number from 0 to 100, where 0 means that you think there is absolutely no chance and 100 means you think the event is absolutely sure to happen.

For example, no one can ever be sure about tomorrow's weather, but if you think that rain is very unlikely tomorrow, you might say that there is a 10 percent chance of rain. If you think there is a very good chance that it will rain tomorrow, you might say that there is an 80 percent chance of rain.

$$0 ---- 10 ---- 20 ---- 30 ---- 40 ---- 50 ---- 60 ---- 70 ---- 80 ---- 90 ---- 100 \\ \textit{(Absolutely no chance)} \qquad \qquad \textit{(Absolutely certain)}$$

You just told us you [N12DBLMAJ = Declared] are majoring in [ELSE] intend to major in [N12MJ1SPE]. How likely is it that you will finish a [DEGREE] in that field?



4

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### Measurement Strategies (1 of 2)

❖ Natural frequency... think: "Race track."

At several points in this survey, we would like to ask your opinion about how likely you think various events might be. To answer this question, think about the number of chances in 10 that an event is likely to happen, where 0 chances in 10 means you think there is absolutely no chance and 10 chances in 10 means you think the event is absolutely sure to happen.

For example, no one can ever be sure about tomorrow's weather, but if you think there is only a very slight possibility that it will rain tomorrow, you might say that there is a 1 chance in 10 that it will rain. However, if you think that rain is very probable, you might say there are 8 chances in 10 that it will rain.

You just told us you [N12DBLMAJ = Declared] are majoring in [ELSE] intend to major in [N12MJ1SPE]. How likely is it that you will finish a [DEGREE] in that field?



5

### U.S. DEPARTMENT OF EDUCATION

### **Preliminary Impressions**

- **\*** Data from focus groups.
  - Knowing that we would probably find ourselves asking a question like this, we used time in our focus groups to ask people to engage in "likelihood tasks" like these.
- Discussion from panelists.
  - First, talk with us about your impression of the measurement strategies.
  - Second, talk with us about the *concepts* that we would elicit probabilistically.



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### **Discount Rate**

Importance, Measurement Concepts, and Considerations

Cindy Gustafson Decker, Ph.D. Laurium Evaluation Group www.lauriumevaluation.com Prepared for the NPSAS:12 Technical Review Panel July 14, 2010





## Discount Rate: Overview

- The benefits and costs outlined in the conceptual framework do not all occur in the same time period
- A certain amount of money received in the future is not as valued as that same amount of money received today. •
- Financial rationale: money received today could be invested to then be worth more in the future
- Behavioral rationale: the desire for instant gratification
- In the real life example of individuals comparing a lower-wage stream beginning after stream beginning after degree completion, risk is involved; how individuals value risk and the perceived level of risk also impacts preferences
- are discourned to provein verse compared to the sum of all present-value benefits are compared to the sum of all The underlying theory is that all future benefits and costs are discounted to present value and then the sum of all oresent-value costs •



## Discount Rate: Overview

- Future values are discounted using the discount rate to obtain the present value
- For a student whose 4-year discount rate is 25%, \$1,250 received in four years is equivalent to receiving \$1,000 today (=1,250/(1+.25))
- The larger a student's discount rate, the smaller his present value of future benefits
- Holding all else equal, students with larger discount rates are less likely to persist
- discount rate could be used as a regressor or used to If this concept was elicited from the survey, the discount future values •



## Discount rate: Instrumentation (1 of 2)

- To elicit a discount rate, students must make preferences over a certain amount of money today and a certain amount of money in the future. •
- Possibility: The respondent could answer questions on whether s/he prefers (A) \$1,000 now or (B) another value in X years, as shown in the table below. •
- All should answer Question 1 as A but Questions 2 11 could be answered as A or B
  - The question that the respondent moves from A to B is his estimated discount rate

Question	Option A (received today)	Option B (received in X years)	Choose Preferred Option	Implied X-Year Discount Rate
<b>—</b>	\$1,000	\$1,000		%0
2	\$1,000	\$1,200		20%
3	\$1,000	\$1,400		40%
4	\$1,000	\$1,600		%09
2	\$1,000	\$1,800		%08
9	\$1,000	\$2,000		100%



EVALUATION GROUP

## Discount rate: Instrumentation (2 of 2)

- Considerations
- Is this question feasible? Would it make sense and lead to reasonable answers?
- What should X the number of years in the future be?
- Given that an individual's discount rate may not be constant (exponential) across time, do we need another set of questions for another X?
- Should the questions mirror wages after program completion compared to wages if dropped out?
- For example, perhaps the comparison should be between a series of future annual payments beginning in X years and a series of smaller annual páyments běginning today?
- Perhaps the questions should involve risk?
- Are there other possibilities for measuring a discount rate?



EVALUATION GROUP

## Discount rate: <u>Some</u> related papers

- Andersen, Harrison, Lau and Rutstrom, "Eliciting Risk and Time Preferences", Econometrica, May 2008 •
- Cameron and Gerdes, "Eliciting Individual-Specific Discount Rates", University of Oregon Economics Department working paper, 2003 •
- Coller, "Eliciting Individual Discount Rates", Experimental Economics, 1999 •
- Frederick, Loewenstein, and O'Donoghue, "Time Discounting and Time Preference: A Critical Review," Journal of Economic Literature, June 2002 •
- Gollier and Weitzman, "How Should the Distant Future be Discounted When Discount Rates are Uncertain?", working paper, 2009 •
- Oxoby and Morrison, "Loss Aversion and Intertemporal Choice: A Laboratory Investigation", working paper, 2010 •



### 2011-12 National Postsecondary Student Aid Study

### NPSAS:12 Technical Review Panel Meeting



July 2010

**GRT**I

### FOCUS GROUPS: WHAT WE'VE LEARNED AND NEXT STEPS

Jennifer Wine

**ORT**I

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NPSAS:12 TRP J

### Postsecondary Education and Postsecondary Institution



- "Postsecondary education" was not widely understood as education after high school
- While consensus was reached that postsecondary education includes 2- and 4-year colleges and universities, there was not agreement that vocational and trade schools should also be considered as such
- "Postsecondary institution" tended to be more problematic; focusing on the word, "institution," students reported the term has a negative connotation
- If either "postsecondary education" or "postsecondary institution" is used in the interview, a parenthetical will be included when the terms are introduced, or the terms will be replaced with simpler wording

ØRTI

NPSAS:12 TRP July 2010

### **High School Completion**

- Key to the identification of first time beginning students is that they first attended a postsecondary institution at some time between July 1, 2009 and June 30, 2010 (field test), after completing high school requirements
- Across groups, completing high school was generally understood to mean either earning a high school diploma or earning the General Education Diploma (GED)

**ORTI** 

NIDCAC-12 TDD July 2010

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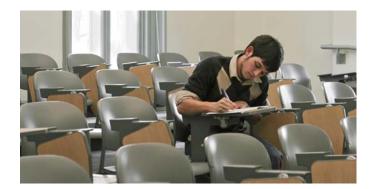
### **Enrollment versus Attendance**

- Is enrolling at a college the same activity as attending the college?
- Group members consistently differentiated enrollment and attendance:
  - Enrolling occurs when a student accepts an offer of admission, remits a deposit or tuition check, and/or registers for classes
  - Attending occurs when a student arrives on campus for classes
- Past NPSAS interviews have asked if students were enrolled at {College} at anytime between July 1 and June 30. NPSAS:12 will focus instead on attendance during that time frame

ØRT

NPSAS:12 TRP July 2010

### Decisionmakers



GRTI

NPSAS:12 TRP July 2010

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### Persistence and Transfer

- Likelihood of enrolling "next semester" problematic for continuous enrollment students and those enrolled in short-term programs
- Questions about transfer should specify a timeframe and clarify conditions of transfer – i.e., prior to or following completion of a program (as with 2-year to 4-year transition programs)



ØRTI

NPSAS:12 TRP July 2010

### **Cost of Attendance**

- Students listed a wide range of expenses, depending on the types of expenses mentioned first, and needed prompting to be inclusive
- Cost estimates varied widely
- If we were to continue to try to elicit this information, interview items should provide a finite list of key expenses of interest as a Yes/No set of options with a limited time frame (e.g., monthly)

ORT I

NPSAS:12 TRP July 2010

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### **Major and Field of Study**

- The terms were not used interchangeably by all students
- "Major" defined consistently across groups
- "Field of study" interpreted more broadly
- Will require qualification in the interview







### **Future Wages**

 Participants estimated future wages based on known earning potential and/or experiences of others

 Items should provide guidelines on what to include and whether or not to take into account inflation and changing value of the dollar in the estimates



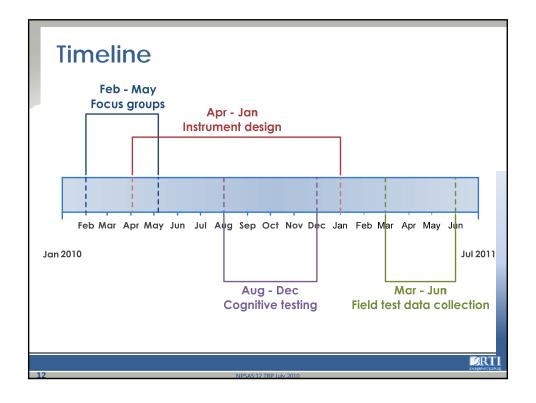
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### Response Formats Oualitative words – "very likely" Chances out of 10 – "8 out of 10 chances" Ratings – scale of 1 to 5 Likelihood – 75% chance of continuing to degree completion



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NPSAS:12 TRP July 2010

## **NPSAS:12 SAMPLE DESIGN**

Peter Siegel

### 9 KTTI INTERNATIONAL

### Overview

- Field test and full-scale designs
- Statistical sample
- Changes to institutional strata
- Institution sampling and sample sizes
- New enrollment list items
- Student strata
- Identification of FTBs
- Student sample sizes

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### OKI I

## General Design Specifications

- Full-scale Study
- 1,671 institutions
- 117,300 students
- 50 states, District of Columbia, and Puerto Rico
- no state representative samples
- Field Test Study
- 300 institutions
- 4,500 students

### SKIII INTERNATIONAL

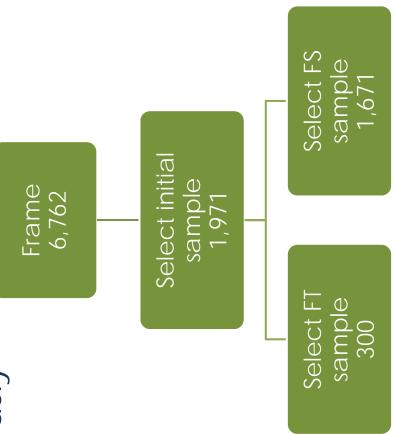
## Statistical Field Test Sample

- Statistical sample of FT institutions and students
- Supports the analytic needs of the experiments
- Lower FT institution response rate
- Minimize bias with weights

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# Statistical Field Test Sample (cont.)

 FT and FS institutions will be selected simultaneously



OKIII NTERNATIONAL

NPSAS:12 TRP July 2010

### SKIII International

## Institutional Sampling Strata

- Ten institutional strata
- Nine sectors traditionally used for NPSAS analyses
- Private for-profit 2-year or more sector split into two strata: 2-year and 4-year
- strata, but these strata have been collapsed NPSAS:04 and NPSAS:08 had more than 10 for NPSAS:12

### STATE INTERNATIONAL

# Institutional Sampling Strata (cont.)

### 10 institutional strata

- Public less-than-2-year
- Public 2-year
- Public 4-year non-doctorate-granting
- Public 4-year doctorate-granting
- 5. Private not-for-profit less-than-4-year
- Private not-for-profit 4-year non-doctorate-granting
- Private not-for-profit 4-year doctorate-granting
- 8. Private for-profit less-than-2-year
- Private for-profit 2-year
- 10. Private for-profit 4-year

### SKIII INTERNATIONAL

## Sampling Methodology

- Institutions will be selected with probability proportional to a measure of size (pps)
- Some institutions will be selected with certainty, i.e., probability of 1
- implicit strata and ensures representation by Sorting within strata with pps sampling forms
- HBCU and HSI
- Carnegie
- Region
- Large state systems

### 9 KIII

## Sample Freshening

- frame, e.g., new institutions, will be identified Eligible institutions not initially on sampling closer to the start of full-scale data collection
- Select sample of these institutions

### ORTIONAL INTERNATIONAL

# Preliminary Full-Scale Institution Frame and Sample

	Frame	Sample
NPSAS stratum	count	count
Total	6,762	1,671
Public		
Less-than 2-year	234	30
2-year	1,136	381
4-year non-doctorate-granting	357	166
4-year doctorate-granting	306	250
Private		
Not-for-profit less-than-4-year	275	30
Not-for-profit 4-year non-doctorate-granting	1,018	281
Not-for-profit 4-year doctorate-granting	280	250
For-profit less-than-2-year	1,425	06
For-profit 2-year	895	06
For-profit 4-year	536	103

NPSAS:12 TRP July 2010

### ORTIONAL INTERNATIONAL

# Preliminary Field Test Institution Sample

	Sample
NPSAS Stratum	count
Total	300
Public	
Less-than 2-year	16
2-year	99
4-year non-doctorate-granting	24
4-year doctorate-granting	42
Private	
Not-for-profit less-than-4-year	13
Not-for-profit 4-year non-doctorate-granting	50
Not-for-profit 4-year doctorate-granting	40
For-profit less-than-2-year	30
For-profit 2-year	10
For-profit 4-year	10

NPSAS:12 TRP July 2010

### SKT INTERNATIONAL

### Student Lists

- Student lists will include items we've asked for before
- Name
- Social Security number (SSN)
- Student ID number
- Student level
- FTB indicator

- Class level of undergraduates
- Date of birth (DOB)
- CIP code or major
- Contact information

### 9 KTTI INTERNATIONAL

### Student Lists (cont.)

- Student lists will also include items we haven't asked for before:
- High school graduation date (month and year)
- Veteran status
- ISIR (electronic record summarizing the result of Indicator of whether the institution received an the student's FAFSA processing) from CPS

### ORTH INTERNATIONAL

### Student Oversampling

- Oversample FTBs
- Possibly oversample
- Veterans
- STEM majors
- Will update strata as necessary

### OKI I

## Student Sampling Strata

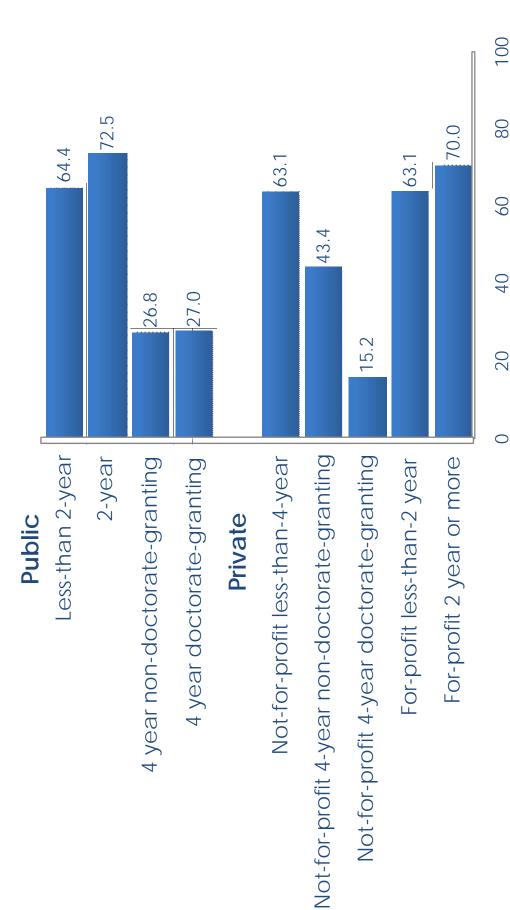
- First-time beginner
- Other undergraduate (undersampled)
- Masters
- Doctoral-research/scholarship/other
- Doctoral-professional practice
- Other graduate (undersampled)

### S K I I

## FTB Identification Challenge

- Accurately qualifying sample members as FTBs is a challenge
- Institutions have difficulty identifying FTBs on enrollment lists
- Historically high false positive rates in the sample based on the lists

# FTB False Positive Rates by Sector (NPSAS:04)



STERNATIONAL

Weighted percent

### SKI I

### Possible Improvements for FTB Identification

- Use list information
- Used previously
- FTB indicator
- Student level
- Not used previously
- Class level
- Date of birth
- High school graduation date

### OKT INTERNATIONAL

### Possible Improvements for FTB Identification (cont.)

- Match to NSLDS prior to sampling
- Determine if a federal financial aid history predating the NPSAS year exists
- Only for students over the age of 18
- Expect the false positive rate to be reduced by about 22 percent
- Could send only potential FTBs from certain sectors
- Talking with ED about feasibility

### OKI I

### Possible Improvements for FTB Identification (cont.)

- Match to NSC prior to sampling
- Determine if enrollment history pre-dating the NPSAS year exists
- Only for students over the age of 18
- Could send only a subsample or for certain sectors or institutions
- Determining costs, benefits, and feasibility

### 9 KIII

### Accounting for FTB False Positives in Sampling

- FTB selection rates will take into account the error rates observed in NPSAS:04 and BPS:04/06 within each sector
- Will also account for possible improvements in the error rates

# Preliminary Full-scale Student Sample

		S	Sample	
			Other Under-	
NPSAS stratum	Total	FTB	graduate	Graduate
Total	117,255	39,403	64,785	13,067
Public				
Less-than 2-year	4,454	2,309	2,145	0
2-year	41,571	13,350	28,221	0
4-year non-doctorate-granting	8,230	1,739	5,224	1,267
4-year doctorate-granting	18,337	3,178	10,882	4,277
Private				
Not-for-profit less-than-4-year	4,349	2,294	2,055	0
Not-for-profit 4-year non-doctorate- granting	9,113	2,495	4,075	2,543
Not-for-profit 4-year doctorate-granting	8,184	1,611	1,719	4,854
For-profit less-than-2-year	8,012	4,350	3,663	0
For-profit 2-year	5,723	3,107	2,616	0
For-profit 4-year	9,283	4,971	4,186	126

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### SINTERNATIONAL

## Projected Full-Scale Student Yield

			Yield		
			Other under-		Average vield per
NPSAS Stratum	Total	FTB	graduate	Graduate	institution
Total	106,892	35,863	58,802	12,227	64
Public					
Less-than 2-year	3,311	1,745	1,566	0	110
2-year	36,640	12,002	24,638	0	96
4-year non-doctorate-granting	7,942	1,697	5,109	1,137	48
4-year doctorate-granting	17,648	3,092	10,529	4,027	71
Private					
Not-for-profit less-than-4-year	3,881	2,076	1,804	0	129
Not-for-profit 4-year non-					
doctorate-granting	8,711	2,410	3,957	2,344	31
Not-for-profit 4-year doctorate-					
granting	7,880	1,571	1,709	4,600	32
For-profit less-than-2-year	6,670	3,621	3,049	0	74
For-profit 2-year	5,431	2,949	2,483	0	09
For-profit 4-year	8,778	4,701	3,958	119	85

### ORTI INTERNATIONAL

## Preliminary Field Test Student Sample

			Sample	
			Other under-	
NPSAS stratum	Total	FTB	graduate	graduate Graduate
Total	4,530	2,529	1,801	200
Public				
Less-than 2-year	140	106	34	0
2-year	1,492	606	583	0
4-year non-doctorate-granting	381	181	182	18
4-year doctorate-granting	927	328	259	40
Private				
Not-for-profit less-than-4-year	128	63	35	0
Not-for-profit 4-year non-doctorate-granting	406	224	154	28
Not-for-profit 4-year doctorate-granting	416	165	149	102
For-profit less-than-2-year	383	320	63	0
For-profit 2-year	128	104	24	0
For-profit 4-year	129	66	18	12

### 9RTI INTERNATIONAL

# Projected Field Test Student Interviews

			Interviews	
			Other under-	
NPSAS stratum	Total	FTB	graduate	graduate Graduate
Total	3,000	1,627	1,239	134
Public				
Less-than 2-year	81	61	20	0
2-year	985	009	385	0
4-year non-doctorate-granting	275	131	132	12
4-year doctorate-granting	9/9	240	409	27
Private				
Not-for-profit less-than-4-year	91	99	25	0
Not-for-profit 4-year non-doctorate-granting	282	157	108	17
Not-for-profit 4-year doctorate-granting	303	122	110	71
For-profit less-than-2-year	153	128	25	0
For-profit 2-year	77	63	14	0
For-profit 4-year	77	29	11	7

### 2011-12 National Postsecondary Student Aid Study

### NPSAS:12 Technical Review Panel Meeting



BRITI

### NPSAS:12 Cross-Sectional Study of Financial Aid

Christina Chang-Wei



NPSAS:12 TRP July 2010

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1

### NPSAS:12 Cross-Sectional Study of Financial Aid

- Comprehensive, nationally representative student level data on financial aid
- Grants, loans, work-study, assistantships, employer aid, veterans' benefits, job training
- Sources include Federal, state, institutional, private
- Percentage of recipients, average amounts received, net prices, ratios (i.e., aid to price and grants to loans), maximum loans

**ORTI** 

### **NPSAS:12 Financial Aid Data Sources**

- Institutional records (aka "CADE")
- Student interview
- Data matches with:
  - Free Application for Federal Student Aid (FAFSA), stored at and provided by the Central Processing System (CPS)
  - National Student Loan Data System (NSLDS)
  - Veterans Administration (new for NPSAS:12)

ORTI

### **Previous Studies Using NPSAS Data**

- Pell Grant recipients and low-income students
- Students who work while enrolled
- First generation students
- Institutional and state merit aid recipients
- Stafford and private loan borrowing
- For-profit sector students
- Trends in financial aid and student demographics



### Potential Changes in NPSAS:12

- Collection of data on private loans
- ACG and SMART grant
- Direct loans (elimination of FFELP)
- Increases in Pell grant, Perkins loans
- Veterans benefits and data match with VA



3

### **Emerging Issues for NPSAS:12**

- Growth of for-profit sector
- Changes in private loan environment
- Economic factors affecting support for public institutions, student debt burden, employment upon graduation
- New GI Bill



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# INSTITUTIONAL CONTACTING AND RECRUITMENT

Jeff Franklin

### SKIII International

# Strategies to Apply on NPSAS 2012

- institutions to address any concerns/delays Early recruitment and contacting of
- Worked extensively with institutional systems to obtain data

### INTERNATIONAL

### Concerns Over Supplying Confidentia Data

- concerns over supplying confidential data like social Postsecondary institutions have heightened security numbers
- requests for identifying info often need to be cleared by IRB
- institutions are concerned with state and local privacy laws in addition to FERPA
- As in NPSAS 2004 and 2008, RTI will supply
- detailed and explicit assurances of FERPA compliance
- IRB approval packets when requested

### OKI I

### Collecting Data from Institutiona Systems

- Positives
- In 2008, data for over 200 institutions were provided at the system level
- received more complete and consistent data
- System contacts prompted and provided assistance
- Limitations
- potential for systematic omission of important fields
- possibility of system-wide refusals

# Institutional System Participation by Sector



Private, not-for-profit, less-than-2-yr

0.0%

Public, less-than-2-yr

0.0%

%6.06

83.3%

72.7%

85.7%

62.0%

Private, for profit, 2-yr

44.3%

Private, not-for-profit, 2-yr

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0.0%

Public, 2-yr

Private, for profit, 4-yr

Private, not-for-profit, 4-yr

0.3%

87.2%

63.9%

23.6%

19.1%

82.6%



20%

%

%09

80%

100%

Institutions Institutional Systems



### S K I

## Institutional Participation Rates

	Ur	Unweighted percent	nt
Institutional characteristics1	NPSAS:2008	NPSAS:2004	NPSAS:2000
All institutions	89.0	83.5	93.2
Type of institution			
Public less-than-2-year	6.06	76.6	87.5
Public 2-year	91.7	85.4	94.4
Public 4-year non-doctorate-granting	94.4	85.1	6.96
Public 4-year doctorate-granting	2.06	86.3	94.6
Private not-for-profit less-than-4-year	84.2	89.0	93.8
Private not-for-profit 4-year non-doctorate-granting	88.2	81.9	89.5
Private not-for-profit 4-year doctorate-granting	86.5	7.77	92.9
Private for-profit less-than-2-year	80.4	84.0	89.3
Private for-profit 2-year or more	84.8	84.4	0.96

<sup>&</sup>lt;sup>1</sup> Institutional characteristics are based on data from the NPSAS sampling frames. For NPSAS 2008, the frame was formed from the 2004–05 Integrated Postsecondary Education Data System (IPEDS) and freshened from the 2005-06 IPEDS.



## STUDENT RECORDS COLLECTION

### OKI I

# Strategies to Apply on NPSAS 2012

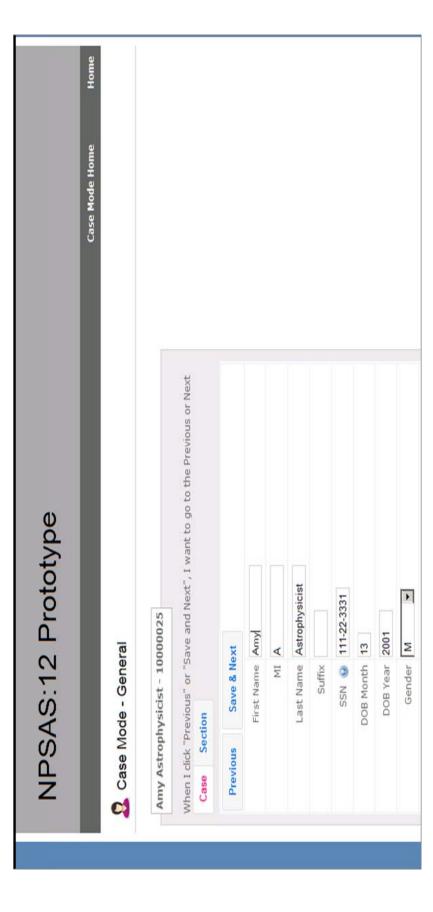
- Redesign of NPSAS:12 web interface for student records collection
- Work with institutional systems to obtain student records data
- Verification

### OKI I

# Student Records Collection Redesign

- Additional options for data entry
- Case mode: single student on screen, navigate topic by topic or student by student
- Grid mode: multiple students on screen in a grid format
- entered, and uploaded to web application Excel templates can be downloaded, data
- A user can both upload and key data

## Sample Screen of Case Mode

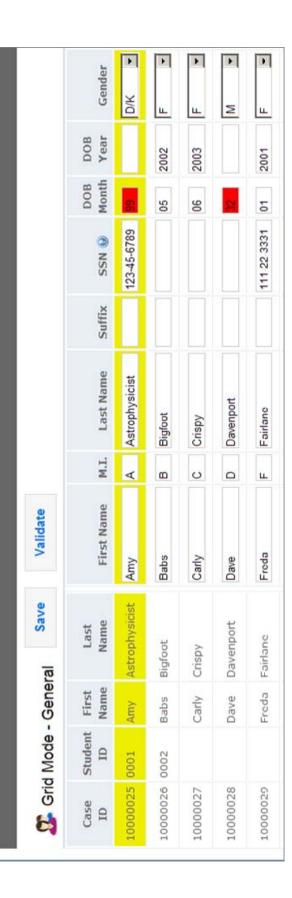




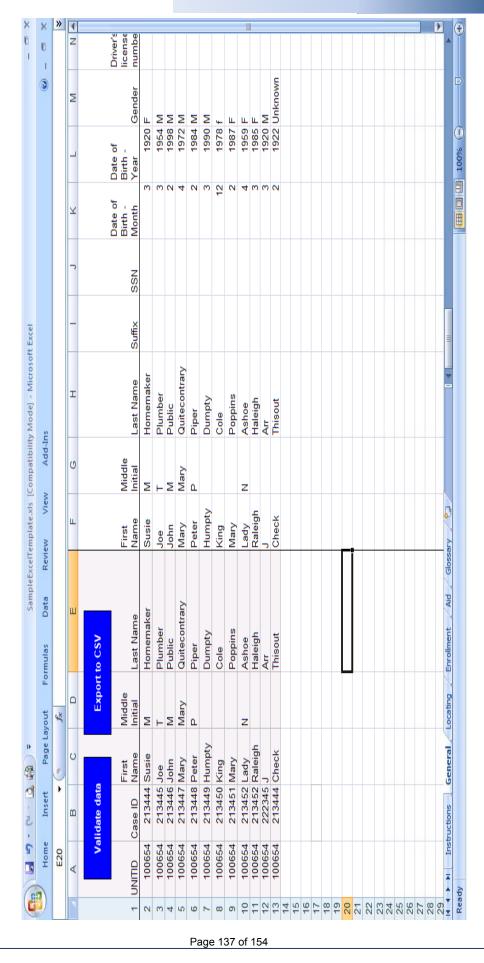
### STATE INTERNATIONAL

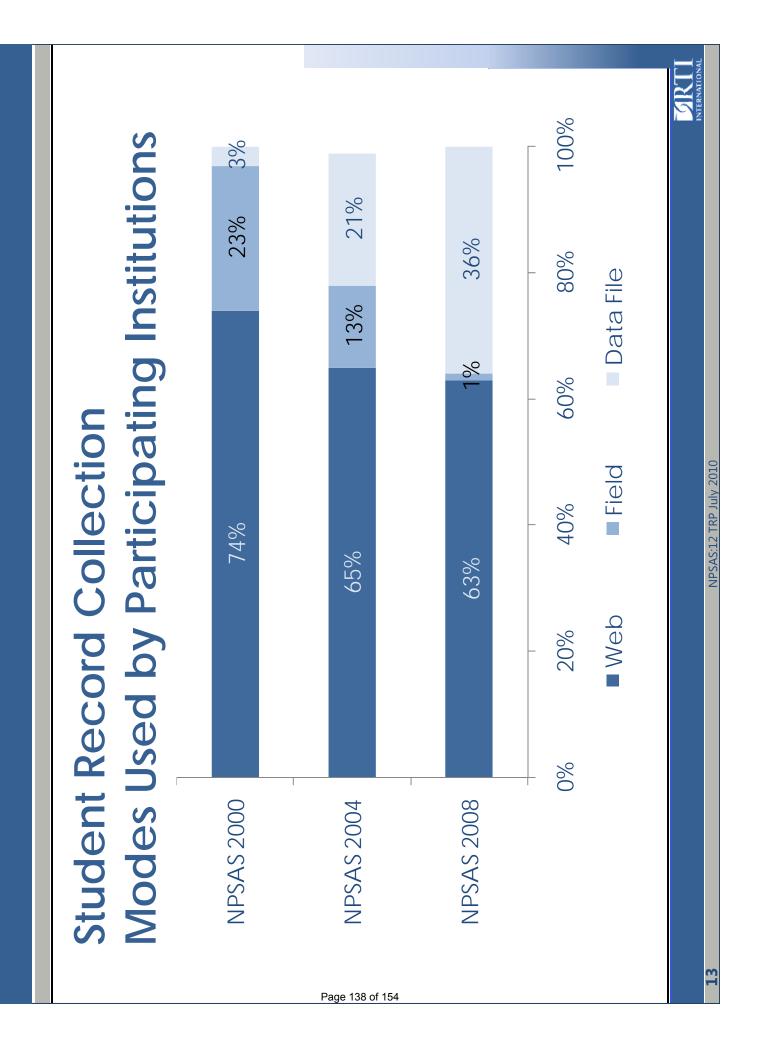
## Sample Screen of Grid Mode

NPSAS:12 Prototype



## Sample of Excel Template





### ORTIONAL INTERNATIONAL

### of Institutions with Sampled Lists Student Records Participation

	٦ ا	Unweighted percent	nt
Institutional characteristics1	NPSAS:2008	NPSAS:2008 NPSAS:2004	NPSAS:2000
All institutions	96.5	95.4	93.8
Type of institution			
Public less-than-2-year	95.0	100.0	89.3
Public 2-year	96.1	98.1	95.1
Public 4-year non-doctorate-granting	98.4	96.5	95.1
Public 4-year doctorate-granting	6.96	94.5	93.8
Private not-for-profit less-than-4-year	100.0	81.0	0.06
Private not-for-profit 4-year non-doctorate-granting	95.7	92.8	92.2
Private not-for-profit 4-year doctorate-granting	96.4	97.2	95.5
Private for-profit less-than-2-year	93.2	93.0	9.98
Private for-profit 2-year or more	97.2	93.0	100.0

<sup>&</sup>lt;sup>1</sup> Institutional characteristics are based on data from the NPSAS sampling frames. For NPSAS 2008, the frame was formed from the 2004-05 Integrated Postsecondary Education Data System (IPEDS) and freshened from the 2005-06 IPEDS.

### SKIII INTERNATIONAL

### Benefits of the Web Interface for Student Records Collection

- Reduced institutional burden
- Increased user flexibility (e.g., user can both key and upload)
- Does not require a programmer to produce a data file
- web application and as data is keyed into ranges, data types); as data is entered on Real time quality checks on data (e.g., Excel template.



## STUDENT DATA COLLECTION

Jeff Franklin

### 9KIII INTERNATIONAL

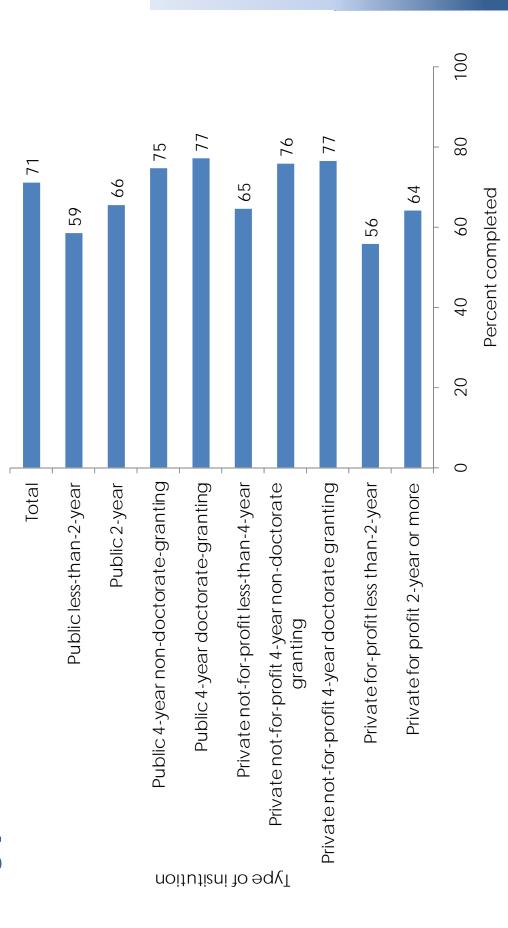
## Student Data Collection

- Summary of Presentation
- Major challenge is locating sampled students
- New approaches to contacting students
- Planned field test experiments (Melissa)

### Final unlocatable Cases to tracing operations Located? Not located Final nonrespondent **Jata Collection Design** self-administered -No→ CATI follow-up Load cases for Successful interview? interview Located ž Student Interviews Completed interview Successful self-Batch Tracing administered interview? Yes Page 143 of 154

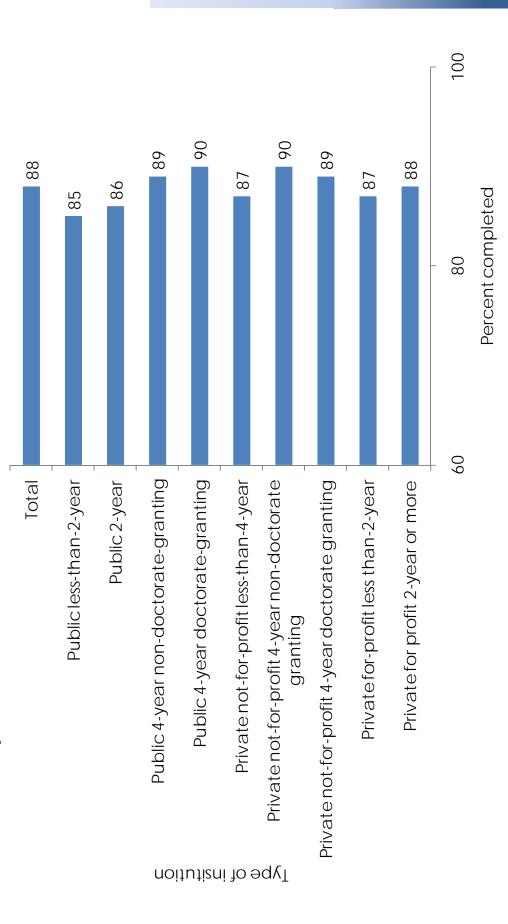


### Student Interview Completion Results, By Type of Institution, NPSAS:08





### **NPSAS:08 Student Interview Completion** Results, Given Locate





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## NPSAS:12 Contacting Plan

- Traditional contacting methods
- Mail, telephone and email
- Non-traditional contacting methods
- Social networking sites (Facebook, Myspace, etc.)
- SMS texting
- Real time chat with project staff
- YouTube video
- The B&B Video example



### The B&B "Ed Video"



### SKTT INTERNATIONAL

### Why "Ed" works

- The digital generation.
- LEGOS are fun and gender neutral.
- Visual representation of only a few main points.
- Video includes a character to identify with.
- It's entertaining!





## **NPSAS:12 EXPERIMENTS**

Melissa

### RESPONSE PROPENSITY APPROACH

Melissa Cominole

**GRT** 

INF3A3.12 TRF July 2010

### What is Response Propensity Approach?

### Approach intended to reduce nonresponse bias

- Estimate a sample member's response propensity prior to data collection.
- Target low propensity cases with special interventions to maximize the average response propensity.
  - higher incentive, prompting, specially trained interviewers, field interviewing, whatever may be appropriate for the sample

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### **Response Propensity Goal**

- Minimize bias by targeting the cases expected to have a low response propensity and a high likelihood of contributing to nonresponse bias.
- Determine which cases would potentially contribute most to minimization of bias in estimates, and ensure that these cases receive priority, via an effective treatment.

GRT

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### The Methodology

- 1. Identify variables which predict propensity to respond.
- 2. Estimate propensity of a given case to respond to an interview.
- 3. Target low propensity cases with special interventions to encourage participation, i.e. increase their response propensity.
- 4. Evaluate the predictive ability of the response propensity model and determine if bias is reduced in experimental cases.

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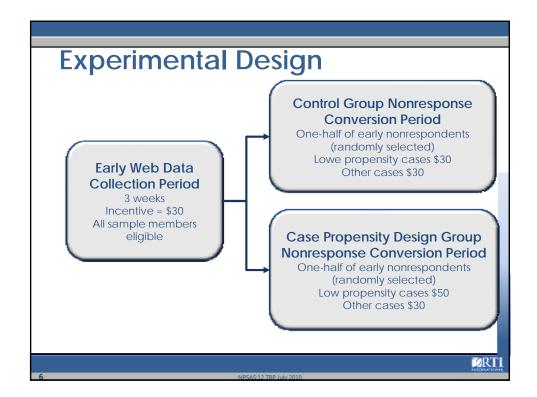
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### **Candidate Variables**

- Student enrollment lists
  - Date of birth
  - Type of institution
  - First time beginner (FTB) status
  - Educational level (undergraduate, graduate)
  - Undergraduate level (1st yr, 2nd yr, etc.)
  - Major field of study
  - HS graduation month/year

- External Sources\*
  - Student citizenship status
  - Enrollment status
  - Father's highest education level
  - Mother's highest education level
  - Free or reduced price lunch program
  - Active duty in armed forces
  - Veteran status
  - Institution control (public or private)
  - Degree of urbanization of institution
  - Total undergraduate enrollment
  - Institution size
  - Percent admitted total
  - Graduation rate, total cohort

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### **Evaluating the Results**

- Determine how well the model predicted response propensity (based on response to early response period)
- Ensure that the overall response rate for the experimental group is equal to or better than the control group response rate.

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### **Evaluating the Results (continued)**

- Was the variance of the response propensity lowered?
- Was the association between response propensity and selected survey variables reduced?
- Nonresponse bias analyses will be conducted to estimate the bias prior to any weight adjustments to compare the magnitude of bias between the treatment and control groups. This analysis will compare respondents and nonrespondents to the interview and will inform data collection procedures for the full-scale study.

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### Benefits of the Response Propensity Approach

- Response propensity approach also has benefits for imputation procedures.
- A cleaner donor pool:
  - more precise estimates for key survey items
  - less imputation required overall since there should be fewer nonrespondents.
- A small subset of items from the field test interview will be imputed to allow a comparison of the post-imputation distributions across the experimental and control groups.

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### **Summary**

- Goal
- Design
- Implementation
- Analysis
- Benefits

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