Record Linkages in Project Talent

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June 5, 2017

Agenda

- Project Talent History and Objectives

- Enhancing PT with Administrative Data Linkages

- New Research in PT

What Is Project Talent?

- Nationally representative sample of U.S. High School students in 1960
- 400-item survey on demographics, self-reported health, personality, activities, interests, future plans, and more
- Cognitive and Achievement Assessments

  - Memory
  - Language
  - Math

  - Reasoning
  - Creative
  - Clerical and Perceptual Ability

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Project Talent: Original Objectives

- Create a national inventory of resources
- Explore how individuals choose and develop their careers
- Examine relationship between educational and life experiences and occupational outcomes
- Measure predictive nature of aptitudes and abilities on occupational outcomes across career types

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Project Talent:
Brief History of Follow-Ups

- 1-, 5-, and 11-Year Follow-Up Studies
  - Educational attainment
  - Employment and career
  - Military service
  - Family formation
  - SSN

- Recent follow-up studies have been launched to locate PT members, engage participation, and assess relationships between early life factors and later life outcomes

Using Record Linkages To Enhance Project Talent (or any longitudinal survey)

- Administrative data can provide additional substantive data
  - Cause of death
  - Length of hospital visits
  - Benefits received
  - Test scores
- Administrative data can supplement survey data
  - Historical data from period prior to survey start
  - Data from periods between data collections
  - Data from periods or events following completion of survey or if participant has left or been lost
- Alternative to asking questions directly to participant in survey

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Project Talent Record Linkages

Social Security Administration

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SSA Feasibility Study: Objectives

- Assess alternate methods of obtaining informed consent to link participant administrative data

- Major considerations include:
  - Effectiveness
  - Costs
  - Selection bias

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SSA Feasibility Study: Design

- Incentive
- Return envelope
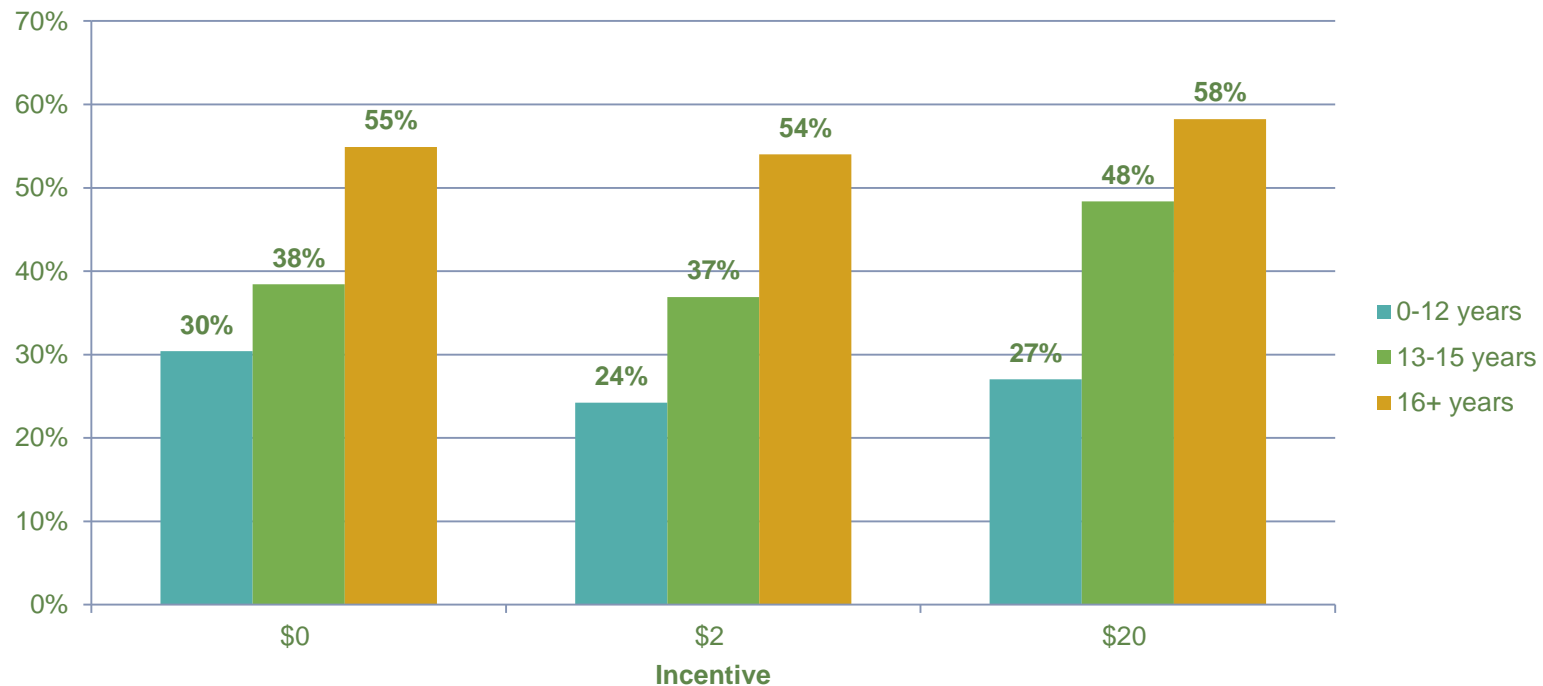- 50% nonrespondents assigned to intensive NRFU

Group	Incentive	Envelope Type
A	$0	Single White
B	$0	White + Blue
C	$2 bill	Single White
D	$2 bill	White + Blue
E	$20 check	Single White
F	$20 check	White + Blue

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Project Talent SSA Feasibility Study: Incentive and Selection Bias Results

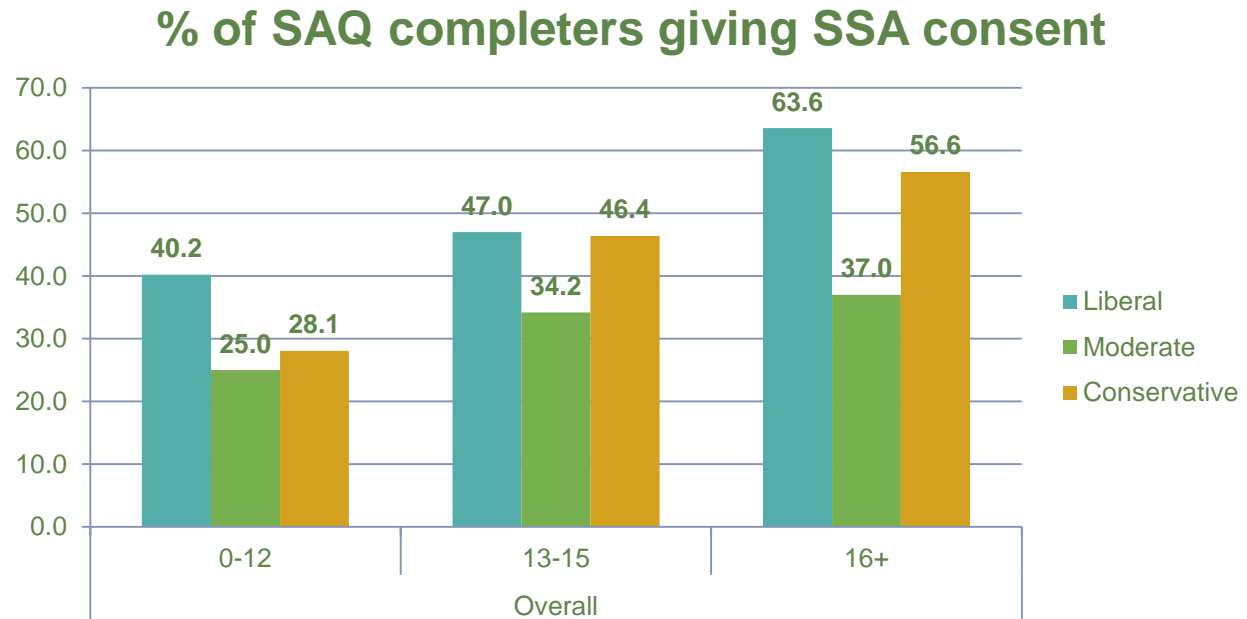**% of survey completers providing SSA linkage consent**

Project Talent SSA Feasibility Study: Non Response Follow Up Results

SSA consent by phase and NRFU method

Chart legend:
- SSA Completed during Phase 1
- SSA Completed after Phase 1 - no NRFU
- With NRFU

	$0	$2	$20
With NRFU	6.7	8.4	6.8
SSA Completed after Phase 1 - no NRFU	4.6	3.5	3.2
SSA Completed during Phase 1	14.7	14.7	21.7

Project Talent SSA Feasibility Study: Selection Bias Results

SSA consent by Years of Education and Political Affiliation

% of SAQ completers giving SSA consent

Chart data:

Overall	Liberal	Moderate	Conservative
0-12	40.2	25.0	28.1
13-15	47.0	34.2	46.4
16+	63.6	37.0	56.6

Project Talent Record Linkages

Centers for Medicare and Medicaid Services

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CMS Study: Objectives

- Explore the relationship between early-life characteristics, including health, economic status and demographic variables, on later life health outcomes and health care utilization and expenditures
    - Do certain early-life characteristics predict differences in later-life health care spending and utilization?

- Identify determinants of
    - late-life overall health status and specific health conditions
    - differences in Medicare enrollment
    - geographic variation in health spending and utilization at Hospital Referral Region (HRR) level

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Project Talent Summary Data (1960-1974)	Medicare Claims and Enrollment Data (2012-2013)
Base Year Survey (1960) • Aptitude, ability, and achievement • School characteristics • Dispositional traits • Occupational and activity interest • Parent's background • Personal	RIF Medicare claims for: • Inpatient/Outpatient Hospital • Home Health Agency (HHA) • Skilled Nursing Facility (SNF) • Hospice • Durable Medical Equipment (DME) • Carrier
1-, 5-, and 11-Year Follow-Ups (CYs 1961-64; 1965-68; 1971-74) • Educational experience • Career • Personal	Master Beneficiary Summary File (MBSF): • Medicare enrollment (A/B/D) • Chronic conditions • Cost and utilization
	Assessment Data • HHA OASIS • IRF-PAI • SNF MDS 3.0
	Vitality Status File

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CMS Study: Matched Results

Count of Project Talent participants matched to Medicare records, 2012-2013

Year	Medicare Coverage ("Ever" Covered in Each Year)					Total records in the A/B/C file**
	A	B	C	D	Dual*	
2012	133,773	121,753	36,825	76,457	5,958	134,105
	99.8%	90.8%	27.5%	57.0%	4.4%	100.0%
2013	131,760	122,005	39,066	74,940	5,891	132,083
	99.8%	92.4%	29.6%	56.7%	4.5%	100.0%

"Ever" = number of months being covered by a certain plan is greater than 0

*Based on state buy-in indicator; this variable generates a lower-bound estimate of dual-eligible percentage

** Cases dropped if (1) age <60 or >74, or (2) state-code >53 (i.e., in a foreign country)

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CMS Study: Demographics

Comparison of Demographics Between Medicare FFS and PT Populations, 2012-2013

Demo Characteristics	2012			2013		
	MFFS*	MA**	Talent	MFFS*	MA***	Talent
Average age	71	N/A	69	71	N/A	70
% of male	44.9%	44.8%	49.6%	45.1%	41.4%	49.4%
% of non-Hispanic white	80.2%	70.2%	88.6%	79.9%	71.4%	88.7%
% of dual	21.7%	26%	5.1%	21.3%	N/A	4.8%

*Calculated from CMS Medicare Beneficiary Characteristics
**From AHIP Demographics Report
***From CMS Medicare Enrollment Section

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CMS Study: Chronic Conditions

Count of beneficiaries who ever had a chronic condition, 2012-2013

	2012 N=132,272	2013 N=130,693
Conditions with highest counts		
Hyperlipidemia	62,574	66,289
Hypertension	61,581	64,981
Cataract	39,211	44,477
Conditions with lowest counts		
Autism Spectrum Disorders	9	10
Other Developmental Delays	10	11
Learning Disabilities	28	42

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CMS Study: Age-Related Disorder

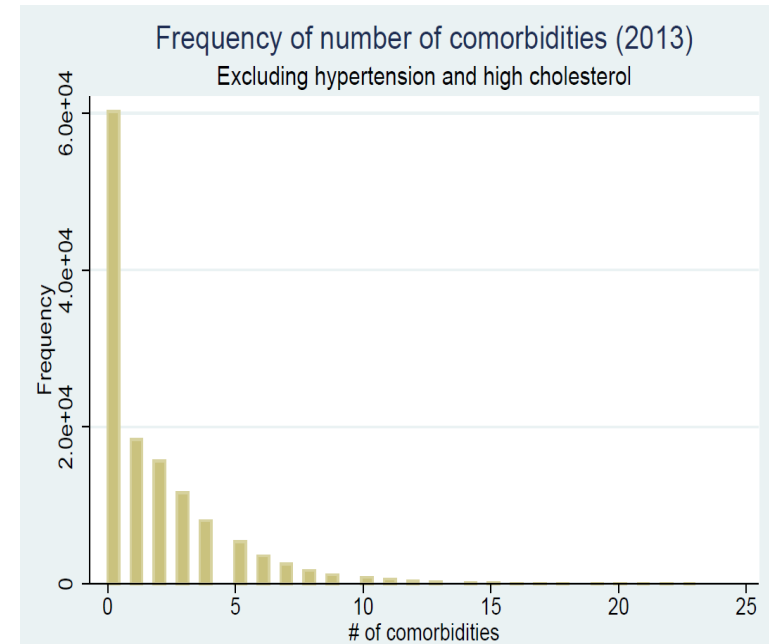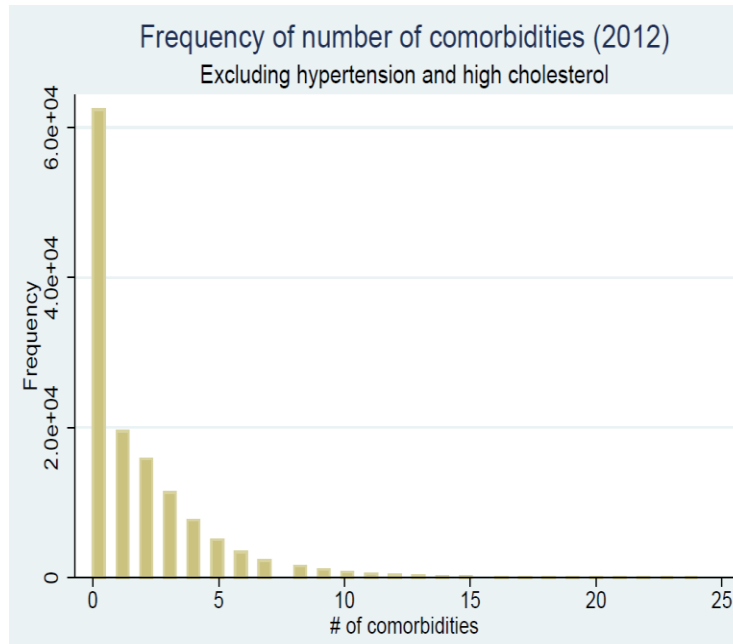*Count of beneficiaries who ever had an aging related disorder, 2012-2013*

	2012 N=132,272	2013 N=130,693
Alzheimer's Disease	955	1,139
Alzheimer's Disease and Related Disorders or Senile Dementia	2,840	3,361

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CMS Study: Comorbidities

Frequency of number of comorbidities, 2012-2013

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New Research Opportunities

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CMS Study: New Research

- Early Life Cognitive Reserve as a Predictor of Later Life Co-occurring Mental and Medical Conditions
  - Examine the relationship between adolescent CR and later life co-morbid physical and mental disease
  - Assess whether variations in this relationship occur across sex and race/ethnicity

Alison Huang and Kelly Peters

- Examine the Long-Term Health Consequences of Military Service during the Vietnam era using Draft Eligibility Status

Kiersten Strombotne and Elizabeth Mokyr Horner

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CMS Study: New Research

- Type II Diabetes and its Precursors across the Life Cycle
  - Explore the relationship between obesity and type II diabetes in later life and: (1) early life exposures, behaviors, and characteristics; (2) enduring personal characteristics; and (3) later life exposures to help shape the dialogue around potential interventions
  - Attempt to categorize individuals as being "well-managed" versus "uncontrolled" diabetes, and consider the role of personal and environmental factors in the quality of control
  - Explore whether the *eventual* development of dementia as a comorbidity to uncontrolled type 2 diabetics is associated with early life indicators

Jason Brinkley and Elizabeth Mokyr Horner

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CMS Study: New Research

- Explore Associations Between Geographic Movement and Health Care Spending and Utilization
  - Examine the impact of rural-urban migration on health care utilization and spending in a sample of non-immigrant U.S. residents
  - Compare impact of rural-urban migration versus regional growth

Jason Brinkley, Helen Connolly, Deanna Achorn, Alison Huang

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Conclusions

In sum…

- Longitudinal studies offer a robust resource of data
- Administrative data may be used to supplement and enhance survey data
- Project Talent Record Linkages have
  - Provided detailed information about participants across the life span
  - Expanded research initiatives in examining role of early-life characteristics on later-life outcomes
  - Reduced costs and participant burden

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References

America's Health Insurance Plans Medicare Advantage Demographics Report: https://ahip.org/wp-content/uploads/2015/02/MADemo_Report2015.pdf

Centers for Medicare and Medicaid Services – Medicare Beneficiary Characteristics: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/Medicare_Beneficiary_Characteristics.html

Centers for Medicare and Medicaid Services – Medicare Enrollment Section: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/CMSProgramStatistics/2013/Enrollment.html

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