



## What Makes a Difference? Predictors of Student Academic Experiences and Employment Outcomes

Clare Papay and Meg Grigal  
 Institute for Community Inclusion  
 UMass Boston



1

## Think College National Coordinating Center

Federally funded since 2010 to provide coordination, training & technical assistance to any college or university who wants to establish or improve postsecondary education opportunities for students with intellectual disability on their campus

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2



3



4

## Advantage of TPSID data



Largest and most comprehensive dataset on higher education for students with intellectual disability



Provides opportunity to see what's working



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5

## Recent Studies by National Coordinating Center

### Study 1: Experiences that Predict Employment for Students with Intellectual and Developmental Disabilities

- Grigal, Papay, Smith, Hart, and Verbeck (2019) – in *CDTEI*  
TPSID Cohort 1 2010-2015, students' whole experience

### Study 2: Predictors of Inclusive Course Enrollments in Higher Education

- Papay, Grigal, Hart, Kwan, and Smith (2018) – in *IDD*
- TPSID Cohort 2 2015-16 and 2016-17, students' first year



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6

## Study 1: Experiences that Predict Employment



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7

## Research questions



1. What postsecondary education experiences predict obtaining a paid job while in a federally funded higher education program after controlling for student characteristics?
2. What postsecondary education experiences predict having a paid job at or within 90 days of exit from a federally funded higher education program after controlling for student characteristics?



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8

## Method

- Secondary data analysis of TPSID Cohort 1 2010-2015 data
- Sample of students who had:
  - Completed a TPSID program
  - Enrolled in at least one inclusive college course
- N = 686 students who attended a total of 43 programs
- Predictor variables: student characteristics and student experiences
- Criterion variables:
  - Obtaining a paid job while in the program,
  - Having a paid job at or within 90 days of exit
- Analysis: multiple logistic regression
- FIRST STUDY to combine data across all years of a student's program

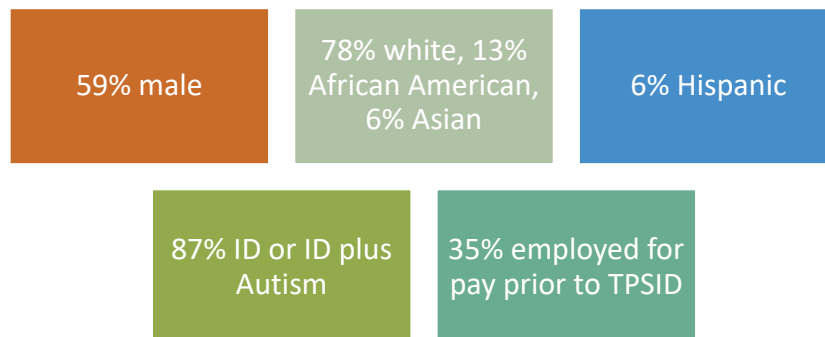


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9

## Sample

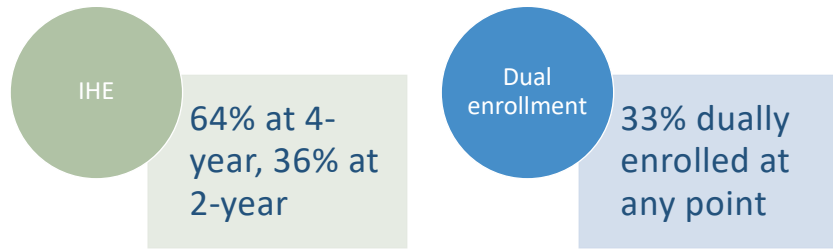


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10

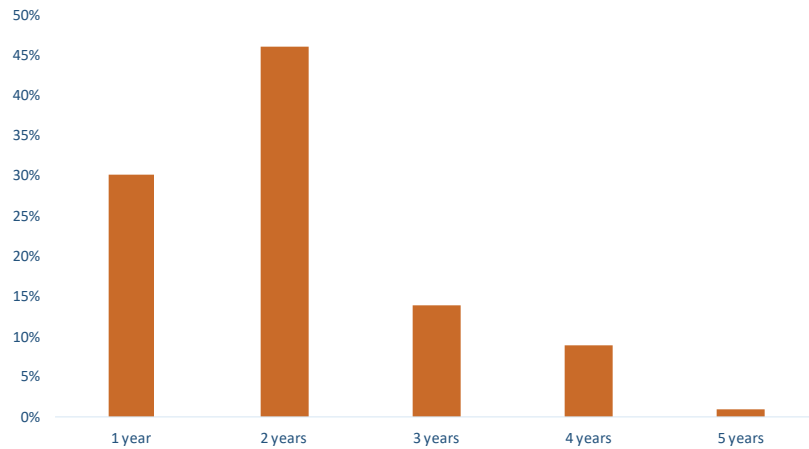
## Student experience: Type of IHE and enrollment



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11

## Student experience: Number of years attended



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12

## Why inclusive courses matter

- Inclusive = existing college courses
- Specialized = designed and offered only to students with ID
- Why inclusive courses?
  - Greater array of course content
  - Greater exposure to college peers without or with other disabilities
  - Potential to earn college credits



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14

## Median number of course enrollments



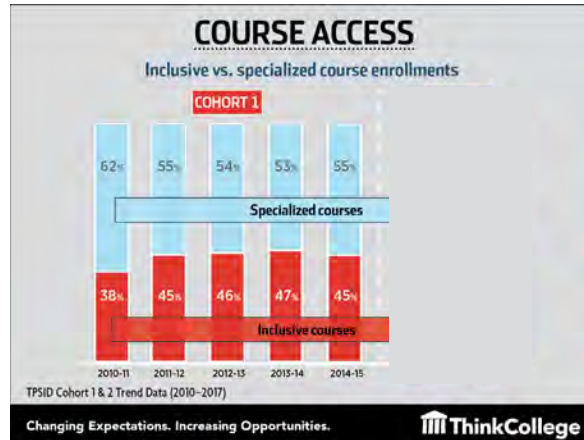
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15

## Specialized courses

- 64% of students enrolled in at least one specialized course
- Examples:
  - Career preparation skills
  - Life skills
  - Social skills
  - Introduction to being a college student



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16

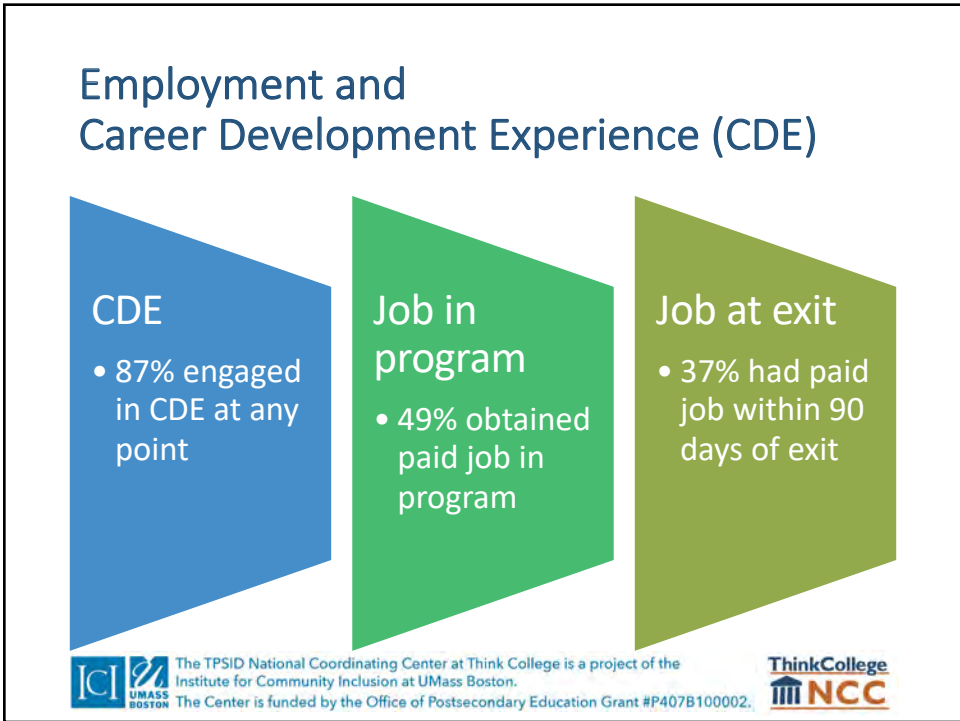
## Housing

36% lived in campus housing at any point

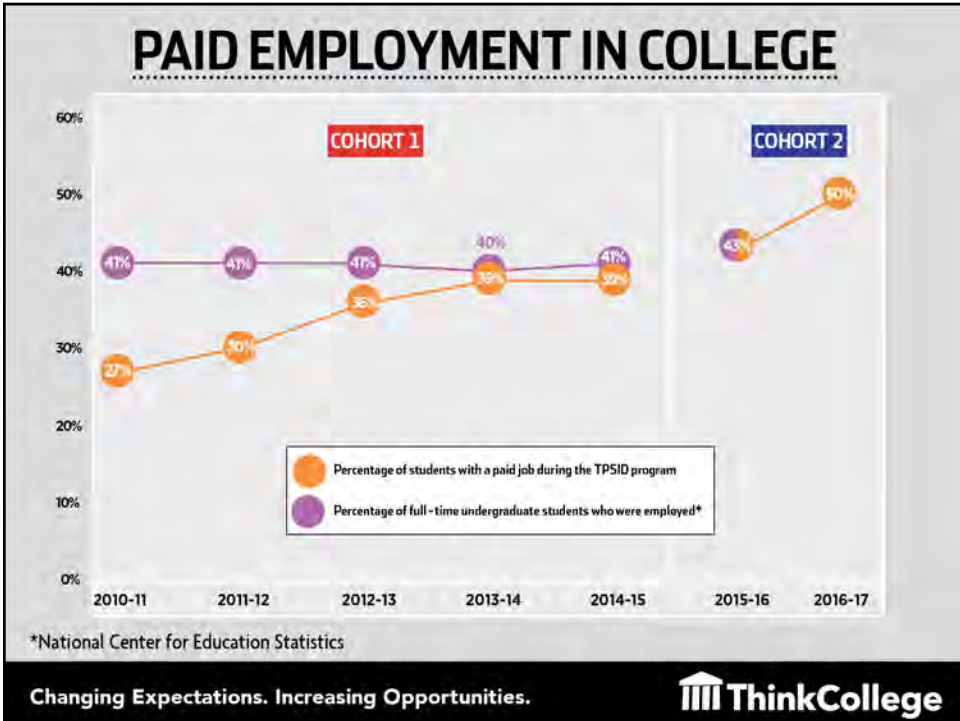


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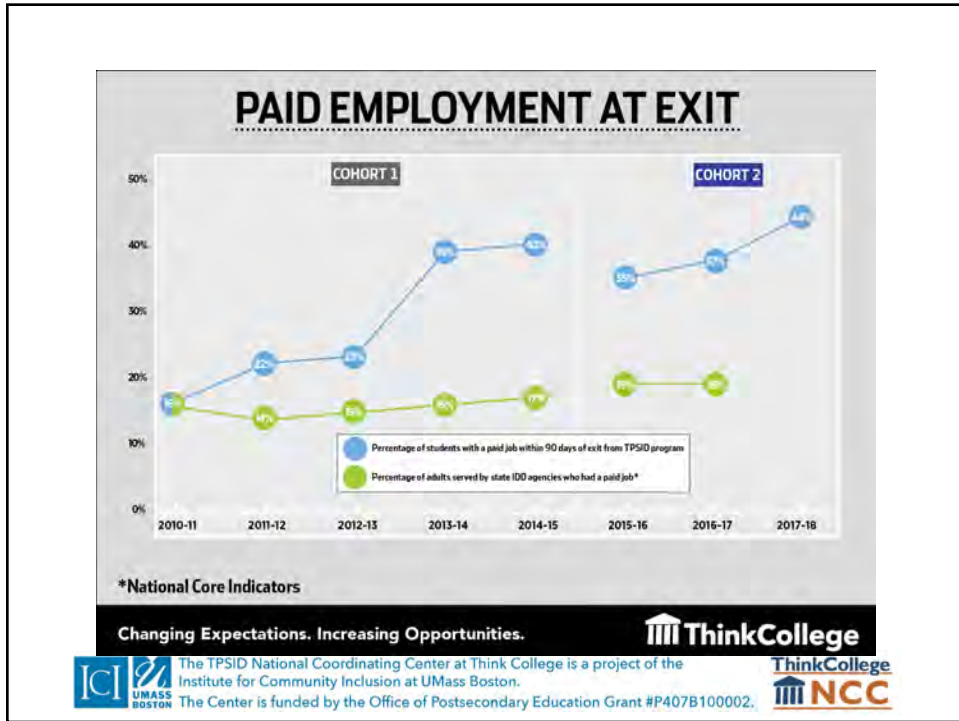




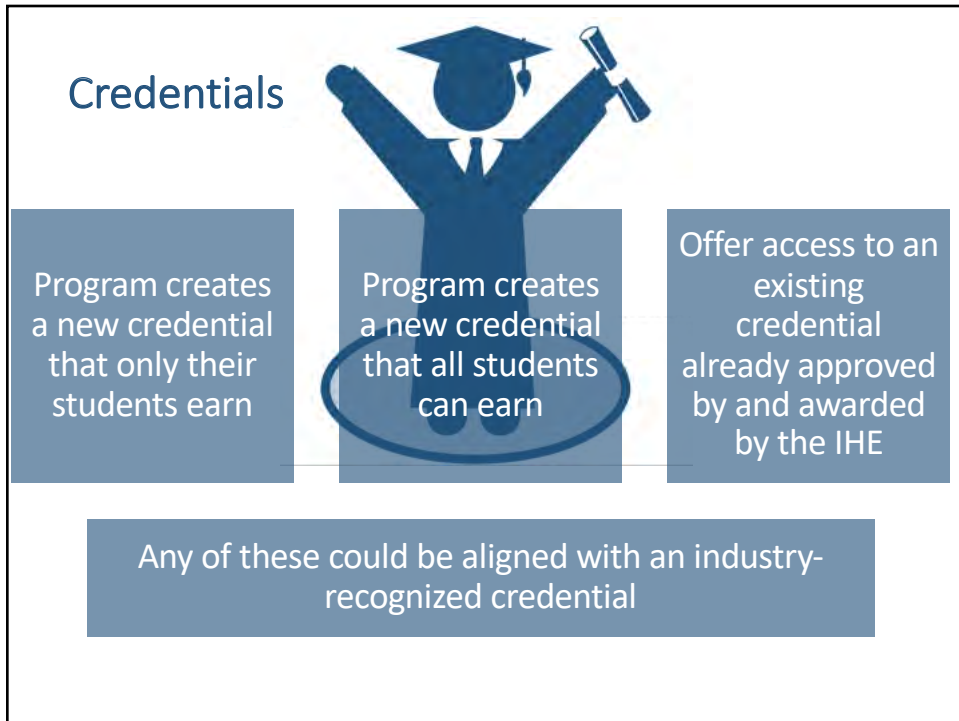
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19



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21





22



23

### Predictors of Employment in Program

- Positive predictor**
  - Number of years attended
- Negative Predictor**
  - Number of specialized courses



24

### What DIDN'T predict paid employment?

Unpaid career development experiences were not found to be a significant predictor of students obtaining paid employment during the program.

25

## Employment at Exit



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26

## Predictors of paid employment at exit



Paid work prior to enrolling in the TPSID program



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27

## Paid work predicts paid work!!!



Students who obtained a paid job while enrolled were almost 15 times more likely to have a paid job at exit than those who did not.



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28



Earning a credential that was awarded by the IHE almost doubled the odds of having a paid job at exit



29

## Recommendations for practice: Employment



Limit enrollment in specialized courses



Focus on early paid work rather than unpaid career development



30

## Recommendations for future research: Employment



Capture long-term outcomes (beyond 90 days)

Does attending a higher education program create a sustained employment pathway?  
What program experiences predict long term employment? (e.g., living on campus)



Look at predictors of other outcomes



Design targeted studies to determine if segregated instruction and unpaid career development are necessary or should be discontinued



Identify program models and establish which are more effective for obtaining employment



31

## Study 2: Predictors of Inclusive Course Enrollments



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32

## Research questions



1. To what degree are students in their first year of a TPSID program enrolled in inclusive courses and how do these differ in terms of type of enrollment, pre-requisites, grades, and reasons for enrollment?
2. Do program, student, and experiential factors predict the number of inclusive courses that students enroll in during their first year at TPSID programs?



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33



Method

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Secondary data analysis of TPSID Cohort 2 2015-17 data

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Sample of students who were in their first year in either 2015-16 or 2016-17

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N = 672 students attending 46 programs

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Predictor variables: student factors, program factors, and student experiential factors

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Criterion variables: total number of inclusive courses taken by a student in their first year

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Analysis: multilevel linear regression

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34

Sample

61% male	61% white, 26% African American, 1% Asian
13% Hispanic	94% ID or ID plus Autism

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35

## Inclusive Courses

- Advertising
- Agricultural and Resource Economics
- Business Writing and Communication
- Computer Fundamentals for Business
- Engineering Graphics
- Foundations of Inclusive Teaching
- Introduction to Culinary Arts
- Introduction to Social Work
- Music Basics for Audio Professionals
- Office Systems and Procedures
- OSHA 10 Certification
- Photojournalism II
- Principles in Conservation Planning and Management
- Website Management



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36

## Inclusive course enrollments

- 672 first-year students enrolled in 3,233 inclusive courses
- Mean = 3.43, Median = 3 inclusive courses in first year
- 9% courses had pre-requisites
- 41% non-credit or auditing
- 33% for credit
- 38% students received a grade
- 81% courses taken for either personal interest or career goals



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37

## Predictors of Inclusive Courses



### Positive predictors

- Access to regular advising
- Access to official transcript
- Paid job

### Negative predictor

- Specialized Courses



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38

## Other positive outcomes of inclusion.....

**Ability to Earn Credits:** students in inclusive courses were enrolled for standard IHE credit (54%).

- In most specialized courses (98%), students earned credit that could only be used towards TPSID credential.

39



Other positive outcomes of inclusion.....

**Legitimacy of Credentials:**  
 Students who primarily enrolled in inclusive courses in their final year were **MORE LIKELY** to earn a certificate available to all students at the IHE than students who primarily enrolled in specialized courses.

40

### Recommendations for practice: Inclusive courses

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**Use existing college systems:**

  - Ensure students are officially enrolled through the Registrar
  - Ensure access to regular advising
- 

**Consider credit before audit**
- 

**Limit or discontinue use of specialized classes**


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41

## Recommendations for research: Inclusive courses



Explore how decisions about inclusive vs. specialized courses relate to credentials students earn



Explore how decisions about courses taken for credit vs. audit relate to the options students have for earning a credential



Look at how career development experiences relate to students' coursework



Identify other factors that predict inclusive course enrollments



Identify longer term impact of enrolling in specialized courses in first year



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42

## Limitations

- TPSID data are from federally funded programs that may not represent all programs
- Data are self-reported by program staff
- There may be underlying models within these programs
- Unexplained variance in all models: other factors beyond what was measured impact the dependent variables
- Course enrollments in first year may not represent later years in a student's program



43



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44