An Equity-Minded Review of Program Enrollments and Completions in the Washington CTC System

Maggie Fay, Yuxin Lin, and John Fink
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Earned WA CTC degree values are **NOT equitable** by race, socioeconomic status, or prior education. (Prince, 2015)

**Significant research** reveals how *race, gender, and socioeconomic status* contribute to inequities in *program choice* and subsequent *labor market prospects* for students enrolled in *four-year colleges*. (Anderson & Kim, 2006; Carnevale, Fasules, Porter, Landis-Santos, 2016; Castex & Decher, 2014)

**Limited research** exists regarding *student program choice in community colleges* and inequities that arise as a part of this process.
Purpose of the research

• Present a more detailed picture of student entry into, progress through and completions of community college programs.

• Share data disaggregation and analyses by race, gender, age, and socioeconomic status designed to better understand how demographic characteristics contribute to program selection, persistence, and completion.

• Encourage colleges to consider similar analytic framework to monitor whether underrepresented students of color and lower income students are entering and completing higher remuneration pathways at rates comparable to white and higher income students.
Guided Pathways Equity Questions

**CONNECTION**
From interest and application to first enrollment

- Is the college engaging underrepresented students in high schools, adult education, and non-credit programs to explore the college’s pathways and pursue a program of study?

**ENTRY**
From entry to program choice and entry

- Are underrepresented students entering programs leading to higher remuneration degrees/fields?

**PROGRESS / COMPLETION**
From program entry to completion of program requirements

- Do patterns of student program switching result in more or less equitable representation in programs leading to high-remuneration degrees and careers?
- Are high- and low-remuneration CC awards being conferred equitably?

**ADVANCEMENT**
From completion of credential to career advancement and further education

- Are post-graduation employment outcomes equitable?
- Are transfer and bachelor’s completion outcomes equitable?
Categorizing programs and degrees

- **Workforce programs** leading to high-, medium-, and low-remuneration careers (based on SBCTC analysis of graduate UI wage records)

- **Transfer**: Unstructured and Structured Programs
  e.g., General DTA vs. DTA for Business / MRPs

- **Unknown or Undeclared**: e.g., “null” program titles

- **Uncategorized programs/degrees**: Not enough information to confidently categorize these as programs are nuanced at the college level
Program Enrollments by Term among FTEIC degree-seeking SBCTC Entrants, 2009-2011

Term 1: 16% STEM, 43% Computer & Information Sciences, 10% Industrial & Applied Technologies, 12% Health, 10% Business, 5% Other CTE, 4% Social & Behavioral Sciences, 7% Education & Child Care, 5% Human Services & Public Safety, 7% Business, 2% Other CTE, 6% Social & Behavioral Sciences, 4% Education & Child Care, 1% Other CTE.

Term 2: 12% STEM, 32% Computer & Information Sciences, 5% Industrial & Applied Technologies, 28% Health, 10% Business, 39% Other CTE, 4% Social & Behavioral Sciences, 7% Education & Child Care, 5% Human Services & Public Safety, 7% Business, 2% Other CTE, 6% Social & Behavioral Sciences, 4% Education & Child Care, 1% Other CTE.

Term 3: 10% STEM, 27% Computer & Information Sciences, 4% Industrial & Applied Technologies, 39% Health, 14% Business, 61% Other CTE, 3% Social & Behavioral Sciences, 2% Education & Child Care, 2% Human Services & Public Safety, 2% Business, 2% Other CTE, 2% Social & Behavioral Sciences, 2% Education & Child Care, 2% Other CTE.

Term 4: 7% STEM, 14% Computer & Information Sciences, 2% Industrial & Applied Technologies, 22% Health, 20% Business, 51% Other CTE, 2% Social & Behavioral Sciences, 18% Education & Child Care, 2% Human Services & Public Safety, 2% Business, 2% Other CTE, 2% Social & Behavioral Sciences, 2% Education & Child Care, 2% Other CTE.

Term 5: 6% STEM, 18% Computer & Information Sciences, 2% Industrial & Applied Technologies, 20% Health, 18% Business, 54% Other CTE, 2% Social & Behavioral Sciences, 9% Education & Child Care, 1% Human Services & Public Safety, 2% Business, 2% Other CTE, 2% Social & Behavioral Sciences, 2% Education & Child Care, 1% Other CTE.

Term 6: 4% STEM, 9% Computer & Information Sciences, 1% Industrial & Applied Technologies, 18% Health, 10% Business, 64% Other CTE, 2% Social & Behavioral Sciences, 1% Education & Child Care, 1% Human Services & Public Safety, 2% Business, 2% Other CTE, 2% Social & Behavioral Sciences, 2% Education & Child Care, 1% Other CTE.
Enrolled Students Only: Program Enrollments by Term among FTEIC degree-seeking SBCTC Entrants, 2009-2011

Term 1
- STEM: 4%
- Computer & Information Sciences: 3%
- Industrial & Applied Technologies: 5%
- Health: 16%
- Business: 9%
- Education & Child Care: 43%
- Human Services & Public Safety: 10%
- Other CTE: 0%
- Social & Behavioral Sciences: 0%
- Arts, Humanities, Communication, & Design: 0%
- Uncategorized: 0%
- Undeclared: 0%
- Unknown program: 0%

Term 2
- STEM: 4%
- Computer & Information Sciences: 3%
- Industrial & Applied Technologies: 5%
- Health: 17%
- Business: 9%
- Education & Child Care: 45%
- Human Services & Public Safety: 8%
- Other CTE: 0%
- Social & Behavioral Sciences: 0%
- Arts, Humanities, Communication, & Design: 0%
- Uncategorized: 0%
- Undeclared: 0%
- Unknown program: 0%

Term 3
- STEM: 5%
- Computer & Information Sciences: 3%
- Industrial & Applied Technologies: 5%
- Health: 17%
- Business: 9%
- Education & Child Care: 46%
- Human Services & Public Safety: 7%
- Other CTE: 0%
- Social & Behavioral Sciences: 0%
- Arts, Humanities, Communication, & Design: 0%
- Uncategorized: 0%
- Undeclared: 0%
- Unknown program: 0%

Term 4
- STEM: 6%
- Computer & Information Sciences: 4%
- Industrial & Applied Technologies: 6%
- Health: 21%
- Business: 10%
- Education & Child Care: 39%
- Human Services & Public Safety: 5%
- Other CTE: 0%
- Social & Behavioral Sciences: 0%
- Arts, Humanities, Communication, & Design: 0%
- Uncategorized: 0%
- Undeclared: 0%
- Unknown program: 0%

Term 5
- STEM: 5%
- Computer & Information Sciences: 3%
- Industrial & Applied Technologies: 5%
- Health: 17%
- Business: 9%
- Education & Child Care: 47%
- Human Services & Public Safety: 6%
- Other CTE: 0%
- Social & Behavioral Sciences: 0%
- Arts, Humanities, Communication, & Design: 0%
- Uncategorized: 0%
- Undeclared: 0%
- Unknown program: 0%

Term 6
- STEM: 6%
- Computer & Information Sciences: 4%
- Industrial & Applied Technologies: 8%
- Health: 16%
- Business: 8%
- Education & Child Care: 48%
- Human Services & Public Safety: 5%
- Other CTE: 0%
- Social & Behavioral Sciences: 0%
- Arts, Humanities, Communication, & Design: 0%
- Uncategorized: 0%
- Undeclared: 0%
- Unknown program: 0%

Term 7
- STEM: 5%
- Computer & Information Sciences: 3%
- Industrial & Applied Technologies: 5%
- Health: 16%
- Business: 8%
- Education & Child Care: 49%
- Human Services & Public Safety: 5%
- Other CTE: 0%
- Social & Behavioral Sciences: 0%
- Arts, Humanities, Communication, & Design: 0%
- Uncategorized: 0%
- Undeclared: 0%
- Unknown program: 0%

Term 8
- STEM: 6%
- Computer & Information Sciences: 4%
- Industrial & Applied Technologies: 6%
- Health: 20%
- Business: 9%
- Education & Child Care: 43%
- Human Services & Public Safety: 4%
- Other CTE: 0%
- Social & Behavioral Sciences: 0%
- Arts, Humanities, Communication, & Design: 0%
- Uncategorized: 0%
- Undeclared: 0%
- Unknown program: 0%
Term 1: Program Enrollments by Race among FTEIC degree-seeking SBCTC Entrants, 2009-2011
Term 5 (1-year follow-up, enrolled students only): Program Enrollments by Race among SBCTC 2009-11 entrants

- **Term 5**: 47% of entrants: Not enrolled, no completion
<table>
<thead>
<tr>
<th>Race</th>
<th>Dropout</th>
<th>Completed</th>
<th>Transferred</th>
<th>Still enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>46%</td>
<td>3%</td>
<td>6%</td>
<td>45%</td>
</tr>
<tr>
<td>African American</td>
<td>57%</td>
<td>5%</td>
<td>4%</td>
<td>34%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>48%</td>
<td>4%</td>
<td>2%</td>
<td>45%</td>
</tr>
<tr>
<td>Native</td>
<td>57%</td>
<td>4%</td>
<td>3%</td>
<td>36%</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>56%</td>
<td>5%</td>
<td>3%</td>
<td>36%</td>
</tr>
<tr>
<td>Asian</td>
<td>39%</td>
<td>3%</td>
<td>4%</td>
<td>54%</td>
</tr>
<tr>
<td>Multi-racial</td>
<td>49%</td>
<td>3%</td>
<td>5%</td>
<td>43%</td>
</tr>
</tbody>
</table>
Tracking Equity in Pathway Access and Outcomes: Key Questions
Subgroups for equity analysis: Student race/ethnicity, gender, SES, & age

**CONNECTION**
From interest and application to first enrollment

- Is the college reaching out to help underrepresented students in high schools, adult education, and non-credit programs explore the college’s pathways and pursue a program of study?

**ENTRY**
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- Are entering underrepresented students entering programs leading to higher remuneration degrees/fields?

**PROGRESS / COMPLETION**
From program entry to completion of program requirements

- Do patterns of student program switching result in more or less equitable representation in programs leading to high-remuneration degrees and careers?
- Are high- and low-remuneration CC awards being conferred equitably?

**ADVANCEMENT**
From completion of credential to career advancement and further education

- Are post-graduation employment outcomes equitable?
- Are transfer and bachelor’s completion outcomes equitable?
In which programs do students first enroll?

Initial Program Enrollments in Year 1 among SBCTC FTIC Degree-seeking Entrants, 2009-2011 AYs

- Workforce: Low: 17%
- Workforce: Medium: 17%
- Workforce: High: 6%
- Transfer: Structured: 7%
- Transfer: Unstructured: 20%
- Unknown or Undeclared: 14%
- Uncategorized: 18%
In which programs do students first enroll?

Initial Program Enrollments in Year 1 among SBCTC FTIC Degree-seeking Entrants, 2009-2011 AYs (w/ labels)
In which programs do students first enroll?

Initial Program Enrollments in Year 1 among SBCTC FTIC Degree-seeking Entrants, 2009-2011 AYs

- Workforce: Low
- Workforce: Medium
- Workforce: High
- Transfer: Structured
- Transfer: Unstructured
- Unknown or Undeclared
- Uncategorized

High SES  Middle SES  Low SES
In which programs do students first enroll?

Initial Program Enrollments in Year 1 among SBCTC FTIC Degree-seeking Entrants, 2009-2011 AYs

- Workforce: Low
- Workforce: Medium
- Workforce: High
- Transfer: Structured
- Transfer: Unstructured
- Unknown or Undeclared
- Uncategorized

Age 18-19
Age 20-24
Age 25+
In which programs do students first enroll?

Initial Program Enrollments in Year 1 among SBCTC FTIC Degree-seeking Entrants, 2014-2016 AYs

- Workforce: Low
- Workforce: Medium
- Workforce: High
- Transfer: Structured
- Transfer: Unstructured
- Unknown or Undeclared
- Uncategorized

Male and Female percentages are displayed for each category.
Tracking Equity in Pathway Access and Outcomes: Key Questions
Subgroups for equity analysis: Student race/ethnicity, gender, SES, & age

**CONNECTION**
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**ADVANCEMENT**
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- Are post-graduation employment outcomes equitable?
- Are transfer and bachelor’s completion outcomes equitable?
How many students switch programs?

Type of program switches in students’ first two years among SBCTC FTIC Degree-seeking Entrants, 2009-2011

- Any switch: 20%
- Transfer to Workforce: 2%
- Workforce to Transfer: 2%
- Within Workforce/Transfer: Switch Up: 2%
- Within Workforce/Transfer: Switch Down: 1%
- Declared Transfer: Structured: 1%
- Declared Transfer: Unstructured: 2%
- Declared Workforce: High: 0%
- Declared Workforce: Medium: 1%
- Declared Workforce: Low: 1%

Declared: Switching from Unknown, Undeclared, or Missing program to a valid program
What percent of students complete any award?

Rates of any community college credential completion within 3 years among 2009-2011 AY SBCTC FTIC Degree-seeking

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Students</td>
<td>26%</td>
</tr>
<tr>
<td>White</td>
<td>27%</td>
</tr>
<tr>
<td>African American</td>
<td>19%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>27%</td>
</tr>
<tr>
<td>Native</td>
<td>22%</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>23%</td>
</tr>
<tr>
<td>Asian</td>
<td>33%</td>
</tr>
<tr>
<td>Multiracial</td>
<td>22%</td>
</tr>
<tr>
<td>Female</td>
<td>28%</td>
</tr>
<tr>
<td>Male</td>
<td>24%</td>
</tr>
<tr>
<td>High SES</td>
<td>26%</td>
</tr>
<tr>
<td>Middle SES</td>
<td>26%</td>
</tr>
<tr>
<td>Low SES</td>
<td>25%</td>
</tr>
<tr>
<td>Age 18-19</td>
<td>26%</td>
</tr>
<tr>
<td>Age 20-24</td>
<td>26%</td>
</tr>
<tr>
<td>Age 25+</td>
<td>28%</td>
</tr>
</tbody>
</table>
What types of credentials are students completing?

Type of credential among 2009-2011 AY SBCTC FTIC Degree-seeking entrants who completed within three years

- Workforce: Low: 16%
- Workforce: Medium: 22%
- Workforce: High: 9%
- Transfer: Structured: 7%
- Transfer: Unstructured: 35%
- Uncategorized: 10%
What types of credentials are students completing?

Type of credential among 2009-2011 AY SBCTC FTIC Degree-seeking entrants who completed within three years (w/ labels)
What types of credentials are students completing?

Type of credential among 2009-2011 AY SBCTC FTIC Degree-seeking entrants who completed within three years

- Workforce: Low
  - High SES: 15%
  - Middle SES: 15%
  - Low SES: 20%
- Workforce: Medium
  - High SES: 20%
  - Middle SES: 25%
  - Low SES: 25%
- Workforce: High
  - High SES: 5%
  - Middle SES: 10%
  - Low SES: 15%
- Transfer: Structured
  - High SES: 5%
  - Middle SES: 15%
  - Low SES: 20%
- Transfer: Unstructured
  - High SES: 30%
  - Middle SES: 35%
  - Low SES: 35%
- Uncategorized
  - High SES: 7.5%
  - Middle SES: 10%
  - Low SES: 15%
What types of credentials are students completing?

Type of credential among 2009-2011 AY SBCTC FTIC Degree-seeking entrants who completed within three years

- Workforce: Low
- Workforce: Medium
- Workforce: High
- Transfer: Structured
- Transfer: Unstructured
- Uncategorized

Age 18-19  Age 20-24  Age 25+
What types of credentials are students completing?

Type of credential among 2009-2011 AY SBCTC FTIC Degree-seeking entrants who completed within three years

- Workforce: Low
- Workforce: Medium
- Workforce: High
- Transfer: Structured
- Transfer: Unstructured
- Uncategorized

Male
Female
Tracking Equity in Pathway Access and Outcomes: Key Questions

Subgroups for equity analysis: Student race/ethnicity, gender, SES, & age

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CONNECTION
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ENTRY
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PROGRESS / COMPLETION
From program entry to completion of program requirements

ADVANCEMENT
From completion of credential to career advancement and further education
How many students transfer and complete a bachelor’s?

Six-year Transfer and Bachelor’s Completion Outcomes among 2009-2011 SBCTC FTIC Degree-seeking Entrants

- Rate of Transfer to Four-Year: 26%
- Bachelor's Completion Rate among Transfers: 44%
How many students transfer and complete a bachelor’s?

Six-year Transfer and Bachelor’s Completion Outcomes among 2009-2011 SBCTC FTIC Degree-seeking Entrants

<table>
<thead>
<tr>
<th>Population</th>
<th>Rate of Transfer to Four-Year</th>
<th>Bachelor's Completion Rate among Transfers</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>28%</td>
<td>45%</td>
</tr>
<tr>
<td>African American</td>
<td>21%</td>
<td>36%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>18%</td>
<td>28%</td>
</tr>
<tr>
<td>Native</td>
<td>18%</td>
<td>34%</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>20%</td>
<td>36%</td>
</tr>
<tr>
<td>Asian</td>
<td>25%</td>
<td>53%</td>
</tr>
<tr>
<td>Multiracial</td>
<td>27%</td>
<td>41%</td>
</tr>
</tbody>
</table>
How many students transfer and complete a bachelor’s?

Six-year Transfer and Bachelor’s Completion Outcomes among 2009-2011 SBCTC FTIC Degree-seeking Entrants

- Rate of Transfer to Four-Year:
  - High SES: 30%
  - Middle SES: 26%
  - Low SES: 23%

- Bachelor’s Completion Rate among Transfers:
  - High SES: 46%
  - Middle SES: 45%
  - Low SES: 40%
How many students transfer and complete a bachelor’s?

Six-year Transfer and Bachelor’s Completion Outcomes among 2009-2011 SBCTC FTIC Degree-seeking Entrants

- Rate of Transfer to Four-Year:
  - Age 18-19: 27%
  - Age 20-24: 32%
  - Age 25+: 17%

- Bachelor's Completion Rate among Transfers:
  - Age 18-19: 48%
  - Age 20-24: 46%
  - Age 25+: 35%
How many students transfer and complete a bachelor’s?

Six-year Transfer and Bachelor’s Completion Outcomes among 2009-2011 SBCTC FTIC Degree-seeking Entrants

- Rate of Transfer to Four-Year: 24% Male, 28% Female
- Bachelor’s Completion Rate among Transfers: 42% Male, 47% Female
Takeaways – Overall

47% of all enrolled students drop out after one year.

56-57% of African American, Native & Pacific Islander students drop out after one year.
Takeaways – Transfer Pathways

- Patterns of inequity exist by race, gender, age and SES regarding who transfers and who earns a Bachelors degree.
Takeaways – Transfer Pathways

• Native, Pacific Islander and African American students start transfer programs at a higher or comparable rate to white students, but are between 13-18% less likely to complete.

• More students are enrolled in unstructured transfer programs (e.g., general DTA vs. MRP) in spite of evidence that structured transfer pathways lead to better outcomes.

• 16% of students complete low-value workforce degrees, but 42% complete transfer degrees, which are effectively low value unless students transfer and earn a Bachelors.
Implications for guided pathways work:

• How similar or different are these patterns from those at our college?
• Do we know what programs our students are in? How fine grained is our program information, and how accurate?
• Think of onboarding as an opportunity to raise student ambitions, and broaden awareness of options and possible long-term implications of program choice.
Reflection Questions

• What can we do to address access and entry systemic barriers disproportionately affecting Hispanic/Latinx students identification with and entry into programs of study?

• What systemic barriers exist for African American, Native and Pacific Islander students in transfer programs, and how can we address those to close the equity gap affecting transfer degree completions?

• What systemic policies and practices are disproportionately affecting historically underrepresented and students of color enrollment and completion of structured transfer pathways?

• How can we structure our system so students who earn transfer awards actually transfer, and transfer major-ready?

• What are we willing to give up in order to change our system?
Thank you!