When More is Better:
Levels of Disaggregation in Program Review and Equity Planning

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Agenda

- Disaggregation on the Data Mart
- Program Review and Data Disaggregation
- Pass rates by ethnicity for each instructor
- Complex student identities (multivariate disaggregation)
- Further Resources on the PLN: The Data Disaggregation ASK
  - Upcoming Tools
    - Disaggregation of online vs. on-ground success rates
    - Approaches to multi-ethnicity
Disaggregation on the Data Mart
Management Information Systems Data Mart

Home | Students | Courses | Student Services | Outcomes | Faculty & Staff

Students/Headcounts
Reports showing student counts, with demographic breakouts if desired, by:
- Annual/Term Student Count
- Enrollment Status
- Day/Evening Status
- Full-time/Part-time Status
- Citizenship Status
- Education Status
- Full-time Equivalent Student (FTES) Counts
- Distance Education (DE) Full-time Equivalent Student (FTES) Counts

Student Services
Reports showing student counts, with demographic breakouts if desired, for students who are participants in programs and or services overseen by the Student Services Division of the Chancellor's Office:
- Student Assessment Summary by Instrument ID
- California Work Opportunity and Responsibility to Kids (CalWORKs)
- Disabled Student Program and Services (DSPS)
- Extended Opportunity Program and Services (EOPS)
- Financial Aid
- Matriculation
- Special Population/Group Student Count
- Student Success Services Student Count

Outcomes
Reports showing student outcomes in enrollments and programs, with demographic breakouts if desired, by:
- Basic Skills Cohort Progress Tracker
- Enrollment Retention and Success Rate
- Grade Distribution
- Program Awards
- Student Success Scorecard Metrics
- Student Success Scorecard Skills Builder Metric
- Transfer Velocity
- System Wage Tracker
- College Wage Tracker
- Transfer Volume

Courses/Calendar
Various reports showing course characteristics such as TOP code, credit status, SAM code, etc. as well as how the course was offered such as day / evening status and accounting method. The reports include:
- Counts of sections offered, students enrolled, and FTES by credit course characteristics
- Counts of sections offered, students enrolled, and FTES by noncredit course characteristics
- Counts of sections offered, students enrolled, and FTES by basic skills course characteristics
- List of courses offered during a term with section counts and characteristics
- Academic Calendar Summary for all colleges for a fiscal year
- Academic Calendar for a district for a fiscal year

Faculty & Staff
Reports showing faculty and staff:
- Annual Statewide Staffing Reports
- Faculty & Staff Demographics
Current Option: Trial and Error

Credit Course Retention/Success Rate Summary Report - Data & Format Area

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Enrollment Count</th>
<th>Retention Count</th>
<th>Success Count</th>
<th>Retention Rate</th>
<th>Success Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grand Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Report Format Selection Area - Check field to include in the report

Demographic Options  | TOP Options       | Course Status    |
----------------------|-------------------|------------------|
- District Name       | Program Type - Two Digits TOP | Basic Skills     |
- College Name        | Program Type - Four Digits TOP | Degree Applicable|
- Gender              | Program Type - Six Digits TOP | Transfer         |
- Age Group           |                   | Vocational       |
- Ethnicity           |                   |                  |

Update Report
Current Option: Trial and Error
Data Mart Meta Query Tool

• Which of these queries can give me data that’s disaggregated by...?
  • Veteran status
  • Race/ethnicity
  • Gender
  • Etc.
## Data Disaggregation on the DataMart

### Outcomes Area
- Basic Skills Cohort Progress Tracker
- Retention/Success Rate
- Transfer Velocity
- Transfer Volume
- Grade Distribution
- Program Awards
- System Wide Tracker
- College Success Scorecard Metrics

### Students Area
- Annual/Term Student Count
- Enrollment Status
- Day/Evening Status
- Part Time/Full Time (Unit Load)
- Citizenship Status
- Education Status
- FTES (Full Time Equivalent Students)
- Distance Education FTES Summary

### Courses Area
- Credit Courses/Sections
- Non-Credit Courses/Sections
- Basic Skills Credit Courses/Sections
- Course Details
- Academic Calendar Summary
- District Academic Calendar Summary

### Student Services Area
- Assessment Summary by Instrument ID
- Disabled Student Programs & Services DSSP
- Extended Opportunity Programs & Services EOPS
- California Work Opportunity (CalWorks)
- Financial Aid
- Matriculation
- Special Population/Group Count
- Student Success

### Characteristics
- Accounting Method
- Age Group
- ASEM (Achievement in Science, Engineering, Math)*
- Awards with matched wage records at <=2 yr
- Awards with matched wage records at >2yr
- Awards with matched wage records at >=5yr
- Award Type
- Basic Skills
- Basic Skills Status
- Board of Governors Enrollment Fee Waiver
- CAA (Career Advancement Academy)*
- CalWORKS Status*
Program Review and Disaggregation to Advance Student Equity and Close Gaps
Colleges use program review. Colleges use student equity plans.

Opportunity!

Program Review + Student Equity Plan = integrated analysis, planning, and resource allocation that can close achievement gaps
Success Indicators Common to both SEPs & PRs

Course completion • Program completion
• Access/Enrollment • Transfer Rates • Job Placement Rates *

Examine success for “program” students; What to do when they identify DI?

Examine for ALL students at the college; how do they know where to focus efforts?

*and others specifically selected by local community colleges
Step 1: Indicator Alignment

• Identify success indicators from SEP
  • Course success, transfer rates, etc.

• Compare to college program review template
  • Are program faculty/staff prompted to review the data for each success indicator?
Step 2: Data Dissaggregation and Distribution

• For success indicators, disaggregate college-level success data to program level

• Key: Identify any disproportionate impact/gaps before distributing to program faculty
  • Allows faculty to focus on addressing gaps
Step 3: Support Program Practitioners throughout the Review Process

• What’s a “significant gap”?
  • > three percentage points?
  • 80% rule?

• Other considerations – how many students (n)?
Step 3: Support Program Practitioners

- Be ready to help develop activities/plans, identify resources

Students

Faculty/College

Student Success
Step 3: Support Program Practitioners

- Be ready to help develop activities/plans, identify resources via local allocation process
- Connect to student equity committee
  - Information/professional development re: what works?
Step 3: Support Program Practitioners with Additional (Multivariate) Disaggregation

- Interventions targeting students may benefit from disaggregation by things like...
  - Special populations
  - Major declared or not
  - And many, many more! (DataMart?)

- Interventions aimed at classroom practice and/or institution-level policies may benefit from disaggregation by things like ...
  - Instructor
  - Enrollment priorities, allowing late adds
  - Online/hybrid/face to face instruction
  - Service learning component to class
  - And many many more! (DataMart?)
Activity: Pair-Share

• What types of disaggregated data are provided as part of your college’s program review (PR)?

• Are you calling out disproportionate impact in your PR?
  – Where are you finding disproportionate impact at the program level? How does it compare to the overall institutional level DI analysis?

• What activities have demonstrated efficacy in closing achievement gaps?
  – Would you like to have a deeper toolkit of equity gap closing strategies?
Examining Success Rates at the Instructor Level
Student Success: Role of Classroom Practices

• “Most of the students in my ________ course failed”
• The common refrain is that students are unprepared. While true in some cases, is there more to the story?
• College policies & procedures and common classroom practices share some of the blame for low student success rates.
• Two case studies:
  • In addition to relying on broader data, they also disaggregate at instructor level
Case Study 1: Butte College

• Butte College
  – Served over 16,000 students in 15-16 academic year
  – Over 60% were 24 years or younger
  – Ethnic group breakdown:
    • 60% White/Caucasian
    • 22% Hispanic
    • 6% Asian
    • 3% Black/African American
Case Study 1: Butte College

• FAIR Classrooms
  – Faculty Alliance for Inquiry and Research (FAIR)

• FAIR Classrooms
  – Builds equity-mindedness through data disaggregated at instructor level
  – Practitioner inquiry as powerful method for organizational change
  – Designed to help faculty become experts in student equity and share such knowledge with other faculty
Case Study 1: Butte College

• FAIR Classrooms
  – Founded on premise that faculty need time, support, compensation, and community
  – Allows for data and inquiry to be turned into meaningful action
  – Designed to help faculty become experts in student equity and share such knowledge with other faculty
Case Study 1: Butte College

Leadership
*Leading from the Middle*

What is F.A.I.R. Classrooms?

- Inquiry
  - *Action Research*
- Equity-Mindedness
  - *USC CUE*
Case Study 1: Butte College

• Faculty are empowered to engage in reflection and growth throughout career
• Faculty considered researchers best equipped to interpret classroom data
• Take responsibility for student success
• Faculty receive individualized reports of student success data in their classes over their entire teaching careers
## Disaggregated Data Example

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Success Rate</th>
<th>Success Rate (Overall)</th>
<th>Percentage Point Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaskan Native</td>
<td>66.7%</td>
<td>71.1%</td>
<td>-4.5</td>
</tr>
<tr>
<td>Female</td>
<td>71.4%</td>
<td>71.1%</td>
<td>0.3</td>
</tr>
<tr>
<td>Male</td>
<td>60.0%</td>
<td>71.1%</td>
<td>-11.1</td>
</tr>
<tr>
<td>Asian</td>
<td>81.0%</td>
<td>71.1%</td>
<td>9.9</td>
</tr>
<tr>
<td>Female</td>
<td>91.2%</td>
<td>71.1%</td>
<td>20.0</td>
</tr>
<tr>
<td>Male</td>
<td>72.7%</td>
<td>71.1%</td>
<td>1.6</td>
</tr>
<tr>
<td>Black or African American</td>
<td>50.0%</td>
<td>71.1%</td>
<td>-21.1</td>
</tr>
<tr>
<td>Female</td>
<td>45.0%</td>
<td>71.1%</td>
<td>-26.1</td>
</tr>
<tr>
<td>Male</td>
<td>60.0%</td>
<td>71.1%</td>
<td>-11.1</td>
</tr>
</tbody>
</table>
Butte College: Closing the Loop

• Faculty inquire into their instructional practices to identify discipline-specific interventions

• Focus is on empowering faculty to be change agents in their classrooms and in their disciplines
Case Study 2: College of Aurora

• Aurora College
  – Serves over 10,000 annually
  – 79% are part-time students
  – Ethnic group breakdown:
    • 38% White/Caucasian
    • 24% Hispanic
    • 22% Black/African-American
    • 8% Asian/Pacific Islander
Case Study 2: College of Aurora

• Leadership Academy
  – Variety of disciplines
  – Based on the idea that faculty should take a lead role in analyzing/interpreting data in collaborative environment
  – Also based on idea of challenging long-held beliefs about student success
  • Goal is to translate this into careful reflection of classroom practices
Case Study 2: College of Aurora

- The focus on training faculty to approach the study of student success in the classroom as an anthropologist
- Deconstructing phase – proceeds as any researcher would in garnering access to evidence and interpreting its meaning
- Example: Syllabus review protocol
Case Study 2: College of Aurora

- Faculty develop “experiments” to test effectiveness of various strategies
- Feedback is exclusively from other faculty colleagues
- Work has led to implementation of classroom strategies and even hiring practices
Disaggregated Data for Course “X” for Instructor A

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Success Rate</th>
<th>Success Rate (Overall)</th>
<th>Percentage Point Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>75.9%</td>
<td>67.1%</td>
<td>9.8</td>
</tr>
<tr>
<td>Black Non-Hispanic</td>
<td>55.3%</td>
<td>67.1%</td>
<td>-11.8</td>
</tr>
<tr>
<td>Hispanic</td>
<td>62.5%</td>
<td>67.1%</td>
<td>-4.6</td>
</tr>
<tr>
<td>White Non-Hispanic</td>
<td>70.6%</td>
<td>67.1%</td>
<td>3.5</td>
</tr>
<tr>
<td>Overall</td>
<td>67.1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Disaggregated Data for Course “X” for Instructor B

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Success Rate</th>
<th>Success Rate (Overall)</th>
<th>Percentage Point Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>88.3%</td>
<td>76.9%</td>
<td>11.4</td>
</tr>
<tr>
<td>Black Non-Hispanic</td>
<td>69.8%</td>
<td>76.9%</td>
<td>-7.1</td>
</tr>
<tr>
<td>Hispanic</td>
<td>90.5%</td>
<td>76.9%</td>
<td>13.6</td>
</tr>
<tr>
<td>White Non-Hispanic</td>
<td>73.5%</td>
<td>76.9%</td>
<td>-3.4</td>
</tr>
<tr>
<td>Overall</td>
<td>76.9%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
College of Aurora: Closing the Loop

• Faculty innovating widely with support from administration
  – Host of experiments have been developed

• Success rates for Latino students have climbed from 66% (2014) to 77% (2015)
Conclusions

• All levels of analysis are still critical (institutional, program, course)
  – There appears to be additional insight and utility from extending disaggregation to instructor level

• Must be faculty-led initiative
  – Successful implementation requires faculty intent on an open and collegial process
  – Knowledge of data disaggregation and disproportionate impact methods
  – Embracing of both strengths and weaknesses
  – Reevaluation of our beliefs concerning student success
Discussion

• Could you see such an approach being adopted at your college?
• What might be the benefits of adopting a similar program?
• What are the potential obstacles to this approach?
UNDERSTANDING COMPLEX STUDENT IDENTITIES – MULTIVARIATE DISAGGREGATION
Disaggregated Data (Bivariate)

Mean Success Rates by Foster Youth Status at College of Marin (FA 12 and FA 13)

Foster Youth Status

Mean Success Rate (%)

Yes

No
Disaggregated Data (Bivariate)

Mean Success Rates by Gender at College of Marin (FA 12 and FA 13)

Gender

Mean Success Rate (%)
Mean Success Rates by Foster Youth Status and Gender at College of Marin (FA 12 and FA 13)

Foster Youth Status by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>42.3</td>
<td>68.1</td>
</tr>
<tr>
<td>Females</td>
<td>62.7</td>
<td>75.5</td>
</tr>
</tbody>
</table>

Disaggregated Data (Multivariate) – Interaction Present
Disaggregated Data (Multivariate)
Hypothetical Data Illustrating **No Interaction**

Hypothetical Data: Mean Success Rates by Foster Youth Status and Gender

Foster Youth Status by Gender

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>42.3</td>
<td>62.7</td>
</tr>
<tr>
<td>No</td>
<td>55.1</td>
<td>75.5</td>
</tr>
</tbody>
</table>
Overview of Multivariate Disaggregation

- Multivariate disaggregation can show interactions between demographic characteristics
  - Example: Does the impact that foster youth status have on success rates depend upon students’ gender?
- Better approximation of real-world student
  - Students simultaneously belong to multiple demographic groups
Where there are two demographic variables, there are two possible individual effects (or main effects) and there is one possible interaction.

**Addresses three questions:**
1. Does disproportionate impact (DI) exist with respect to first demographic characteristic (e.g., foster youth status)?
2. Does disproportionate impact (DI) exist with respect to second demographic characteristic (e.g., gender)?
3. Does disproportionate impact (DI) exist with respect to the joint influence of both demographic characteristic (e.g., foster youth status and gender)?

**Better approximation of real-world student lives and experiences**
## Multivariate Disaggregation – Tabular Format

Mean Success Rates by Foster Youth Status and Gender Along with Corresponding DI Index Information

<table>
<thead>
<tr>
<th>Foster Youth Status</th>
<th>Male</th>
<th>Female</th>
<th>Difference</th>
<th>80% Index</th>
<th>Point Gap Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>42.26%</td>
<td>62.75%</td>
<td>20.49%</td>
<td>36.55%</td>
<td>12.79</td>
</tr>
<tr>
<td>No</td>
<td>68.01%</td>
<td>75.50%</td>
<td>7.49%</td>
<td>100%</td>
<td>0.21</td>
</tr>
<tr>
<td>Overall</td>
<td>67.54%</td>
<td>75.24%</td>
<td>7.70%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: College of Marin’s Student Equity Plan (2014-2015)
Irvine Valley College Case Study

Multivariate Disaggregation of SLOs
Disaggregating SLOs by path into College English

SLO Mastery by Mode of Entry for College English

Six Components of Essay Rubric

<table>
<thead>
<tr>
<th>SLO</th>
<th>Traditional</th>
<th>Accelerated</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>82%</td>
<td>83%</td>
</tr>
<tr>
<td>II</td>
<td>77%</td>
<td>78%</td>
</tr>
<tr>
<td>III</td>
<td>82%</td>
<td>81%</td>
</tr>
<tr>
<td>IV</td>
<td>77%</td>
<td>76%</td>
</tr>
<tr>
<td>V</td>
<td>77%</td>
<td>73%</td>
</tr>
<tr>
<td>VI</td>
<td>85%</td>
<td>85%</td>
</tr>
</tbody>
</table>
Disaggregating SLO assessment results

Proportion meeting the standard for Unity/Focus disaggregated by ethnicity and mode of entry into Transfer-level English (WR 1A)

- White
- Asian
- Latino
- Multiethnicity
- Black

Styles of entry:
- Direct placement
- 1 level below
- 2 levels below
- Accelerated
Veterans Data
Disaggregation:
Age- And Gender-Adjusted Access to Community College

Jared Lessard
Research & Planning Analyst, SEP
Irvine Valley College
RP Group Consultant, Data Disaggregation ASK
• Virtually every CC in California found that veterans were not as likely to attend CC.
  – Across 50 Student Equity Plans, PI ranged from .05 to .64
  – IVC: 1.6% Veterans vs Service Area: 5.5% Veterans (PI = .28)

• Determining Veterans access to CC is not straightforward.

• How to include gender and age (and other demographic characteristics) in access analyses for veterans.
Overview of the Problem

- Most colleges that examined veterans access to community college found substantial disproportionate impacts in terms of access
  - Across 50 SEPs, PI ranged from .05 to .64
  - IVC: 1.6% Veterans vs Service Area: 5.5% Veterans (PI = .28)

- Why?
Overview of the Problem

• As noted in several SEPs, there is a large discrepancy between the age and gender of the typical veteran and the typical college student.
  – Veterans:
  – 92.5% are male and 89.8% are over the age of 34
  – CCC students:
  – 45.5% are male and 20.7% are over the age of 34
• How should these potentially confounding characteristics be taken into account?
Examples of Good Practice

• Norco College Student Equity Plan
  – Found an **overall PI for veterans’ access of .35.**
  – Also examined the disproportionate impact of veterans status broken out by gender.
    • Male : PI = .32
    • Female: PI = 1.35
Examples of Good Practice

• The College of San Mateo SEP
  – found an overall PI for veterans’ access of $0.40$, similar to others.
  – Also examined the disproportionate impact of veterans status by age group.
    • 18-34: PI = 1.56
    • 35-54: PI = 1.12
    • 55-64: PI = 0.46
    • 65-74: PI = 0.37
    • 75+ : PI= 0.18
Irvine Valley College SEP

– **found an overall PI for veterans’ access of .28.**
  - IVC’s Service Area is 5.5% Veterans
  - However, only 1% of 18-34 Year Olds are Veterans
  - 23% of those 75+ are Veterans
    - 51% (!) of males 75+

– Adjusted for age: **PI = .61**
  - “If the age structure of the veteran population looked like that of our students, what would the PI be?”

![Proportionality Index](chart.png)

- Bivariate ("raw")
  - 0.28
- Age-adjusted
  - 0.61
Age- and gender-adjusted PI analyses

• These approaches provide examples of how the overall PI for veterans access (or other outcomes) may be deceptive.
• Multivariate disaggregation allows for better targeting of services to those subgroups (such as older veterans or male veterans) where disproportionate impacts may be focused.

• So, we looked at age. We looked at gender. Why might it be necessary to look at age & gender together?
Age- and gender-adjusted PI analyses

• Why might it be necessary to look at Age & Gender together?
  – At IVC:
    • 52% Female
    • **81% of IVC students 55+ are female (vs 54% in service area)**
    • Veterans under 55:
      – 4% of males
      – 0.5% of females
    • Veterans over 55:
      – 26% of males
      – 1.0% of females
        » 350k served in WW2, vs 300k in Iraq & Afghanistan 2001-present
        » <2% in WW2 vs **15%** in Iraq & Afghanistan
Procedure

• Get veterans status for service area
  – broken down by age and gender

• Get veterans status for College
  – broken down by age and gender

• **Calculate “expected” number of veterans in each age and gender grouping** (e.g., Male veterans age 18-34, Female veterans age 18-34, etc.) **group if veterans enrolled at College at same rate as non-veterans.**

• Conduct separate disproportionate impact analyses for each age and gender grouping Calculate age- and gender-adjusted PI.
American Factfinder

- [https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml](https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml)
Age- and gender-adjusted PI analyses

• There were 5,354 male students at IVC between 18-34, including **120 veterans**.

• If the same percentage of male veterans enrolled at IVC as are found in the general population (1.97%), there would be **106 male veterans** at IVC aged 18-34; there are 14 more male veterans at IVC than would be expected.
  – $5354 \times 0.0197 = 106$.

• Running these calculations for each age group, there are 8 more male veterans between 35-54 at IVC, 6 fewer between 55-64, 15 fewer between 65-74, and 25 fewer over the age of 75.
Age- and gender-adjusted PI analyses

• There were 4,800 female students at IVC between 18-34, including 18 veterans.

• If the same percentage of female veterans enrolled at IVC as are found in the general population (0.42%), there would be 20 female veterans at IVC aged 18-34; there are 2 fewer female veterans at IVC than would be expected.

• Running these calculations for each age group, there are 3 fewer female veterans between 35-54 at IVC, 3 fewer between 55-64, 3 fewer between 65-74, and 5 fewer over the age of 75.
### Veterans in the General Population and at IVC, by age and gender

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Gen Pop</th>
<th>IVC</th>
<th>Expected Veterans at IVC</th>
<th>PI Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male 18+ Total:</td>
<td>188,008</td>
<td>6036</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vets</td>
<td>18,752</td>
<td>180</td>
<td>602.0</td>
<td>0.30</td>
</tr>
<tr>
<td>18-34</td>
<td>60,872</td>
<td>5354</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vets</td>
<td>1,201</td>
<td>120</td>
<td>105.6</td>
<td>1.14</td>
</tr>
<tr>
<td>35-54</td>
<td>76,380</td>
<td>448</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vets</td>
<td>4,400</td>
<td>34</td>
<td>25.8</td>
<td>1.32</td>
</tr>
<tr>
<td>55-64</td>
<td>26,421</td>
<td>80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vets</td>
<td>3,596</td>
<td>5</td>
<td>10.9</td>
<td>0.46</td>
</tr>
<tr>
<td>65-74</td>
<td>14,858</td>
<td>94</td>
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<td>Vets</td>
<td>4,678</td>
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<td>29.6</td>
<td>0.51</td>
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<tr>
<td>75+</td>
<td>9,477</td>
<td>60</td>
<td></td>
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</tr>
<tr>
<td>Vets</td>
<td>4,877</td>
<td>6</td>
<td>30.9</td>
<td>0.19</td>
</tr>
<tr>
<td>Female 18+ Total:</td>
<td>198,942</td>
<td>6827</td>
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<tr>
<td>Vets</td>
<td>1,361</td>
<td>22</td>
<td>46.7</td>
<td>0.47</td>
</tr>
<tr>
<td>18-34</td>
<td>59,005</td>
<td>4800</td>
<td></td>
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<tr>
<td>Vets</td>
<td>248</td>
<td>18</td>
<td>20.2</td>
<td>0.89</td>
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<tr>
<td>35-54</td>
<td>80,527</td>
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<tr>
<td>Vets</td>
<td>490</td>
<td>3</td>
<td>6.2</td>
<td>0.48</td>
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<tr>
<td>55-64</td>
<td>29,844</td>
<td>330</td>
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<tr>
<td>Vets</td>
<td>234</td>
<td>0</td>
<td>2.6</td>
<td>0.00</td>
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<tr>
<td>65-74</td>
<td>16,376</td>
<td>399</td>
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<tr>
<td>Vets</td>
<td>163</td>
<td>1</td>
<td>4.0</td>
<td>0.25</td>
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<tr>
<td>75+</td>
<td>13,190</td>
<td>281</td>
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<tr>
<td>Vets</td>
<td>226</td>
<td>0</td>
<td>4.8</td>
<td>0.00</td>
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<tr>
<td>Total Vets:</td>
<td>20113</td>
<td>202</td>
<td>240.5</td>
<td>0.84</td>
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<tr>
<td>Under 55</td>
<td></td>
<td>175</td>
<td>157.8</td>
<td>1.11</td>
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<tr>
<td>Over 55</td>
<td></td>
<td>27</td>
<td>82.7</td>
<td>0.33</td>
</tr>
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</table>
Age- and gender-adjusted PI analyses

- **Raw PI for veterans access = .28**
  - Adjusting for age and gender focuses our attention
- **55 and under**
  - Age- and gender-adjusted PI = **1.11**
    - 175 veterans at IVC, versus 158 that would be expected based on the percentage of veterans in the general population
- **55 and older:**
  - Age- and gender-adjusted PI = **.33**
    - 27 veterans at IVC, versus the 83 that would be expected based on the percentage of veterans in the general population
- **The right question:** Why are older veterans (both male and female) not enrolling at IVC at the same rate as other older adults?
Procedure

- Get veterans status for service area
  - disaggregated by age and gender
- Get veterans status for College
  - disaggregated by age and gender
- **Calculate “expected” number of veterans in each age and gender grouping** (e.g., Male veterans age 18-34, Female veterans age 18-34, etc.) **if veterans were enrolled at the college at the same rate as non-veterans**
- Conduct separate disproportionate impact analyses for each age and gender grouping
- Calculate age- and gender-adjusted PI
- Full procedure and write-up to be online soon
Age- and gender-adjusted PI analyses

• **55 and under:**
  – 175 veterans at IVC, versus 158 that would be expected based on the percentage of veterans in the general population
  – age- and gender-adjusted PI = **1.11**

• **55+:**
  – 27 veterans at IVC, versus the 83 that would be expected based on the percentage of veterans in the general population
  – age-and gender-adjusted PI = **.33**
  – Why are older veterans (both male and female) not enrolling at IVC at the same rate as other older adults?
Summary

- Multivariate disaggregation allows one to identify DI for each demographic characteristic AND to identify a possible interaction between two or more characteristics
  - Enhanced real-world validity
  - Better models students’ complex lives and identities
- May still employ various established DI methods to uncover potential achievement gaps (consider employing more than one DI method)
- Identification of achievement gaps does not end with data findings
- Broad-based institutional dialogue is critical
There’s More on the Professional Learning Network

A dynamic repository of effective practices, trainings and other resources (https://prolearningnetwork.cccco.edu/)

Your One-Stop Site to Effective Practices, Trainings and Other Resources

What Would You Like To Do Today?

- Resources: Learn About Effective Practices and More
- Learn: Access Video Trainings
- Connect: Connect with My Peers
- MyPD: Work on Professional Development Plan
- ASK: Applied Solution Kits
- Calendar: View a System-Wide Calendar of Events
Data Disaggregation

The Data Disaggregation Applied Solution Kit (ASK) provides a set of tools across a variety of topics, including student equity and support, institutional effectiveness, and student learning.

See the video

Read more...

Where Do You Want to Start?

Basic Skills
- Basic Skills Progress Tracker

Data Sources
- Data Sources for Researchers

Equity & Disproportionate Impact
- Basic Skills Progress Tracker
- Disproportionate Impact

Legend

Participate | Collaborate | Innovate
Thank you!

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Senior Research Analyst  
Chaffey College
Time to Degree

• New metric on the IEPI Indicators Portal
• Tool in the toolkit about disaggregation time to degree by program of study
• Time to Degree video
Data Storytelling & Change Leadership
Be a Change Leader

• Step 1: Create Urgency
• Step 2: Form a Powerful Coalition.
• Step 3: Create a Vision for Change.
• Step 4: Communicate the Vision.
• Step 5: Remove Obstacles.
• Step 6: Create Short-Term Wins.
• Step 7: Build on the Change.
• Step 8: Anchor the Changes in College Culture.
Creating urgency (key step!)

• Identify potential threats, and develop scenarios showing what could happen in the future.
• Use disaggregated data to examine opportunities.
• Find an anecdote that embodies your data (Data + Story = Action)
• Start honest discussions, and give dynamic and convincing reasons to get people talking and thinking.
• Request support from students and industry people to strengthen your argument.
• This is a critical step. Take time to develop buy-in.
Create Short-Term Wins

• Look for projects that you can implement without help from any strong critics of the change.
• You want to be able to justify any investment. Consider focusing on less expensive projects first.
• Thoroughly analyze the potential pros and cons of your early efforts. If you don't succeed with an early goal, it can hurt your entire change initiative.
• Reward the people who help you meet the targets.