Mott Community College

Achieving the Dream Data Team
Preliminary Findings Report

March 24, 2011
Table of Contents

Table of Figures .............................................................................................................................................4

I. Executive Summary ..........................................................................................................................6

II. Introduction ......................................................................................................................................8
  A. Report objectives ............................................................................................................................. 8
  B. ATD goals statement ........................................................................................................................ 8
  C. ATD Data Team .....................................................................................................................................9
    1. Team objectives...........................................................................................................................9
    2. Membership ................................................................................................................................ 9
    3. Meetings/materials covered ....................................................................................................10
    4. ATD data set ............................................................................................................................. 11
    5. Development process ............................................................................................................12
    6. Cohort definition .......................................................................................................................12
    7. Analysis method .......................................................................................................................12

III. Findings .........................................................................................................................................14
  A. Demographic profile .......................................................................................................................14
    1. ATD Cohort ...............................................................................................................................14
    2. Cohort gender .......................................................................................................................... 14
    3. Cohort age ................................................................................................................................ 15
    4. Cohort race ............................................................................................................................... 15
    5. Cohort race/gender .................................................................................................................. 16
    6. Section summary ......................................................................................................................17
  B. Financial aid profile ........................................................................................................................17
    1. FAFSA Cohort trends .............................................................................................................17
    2. Received Pell (any amount) .....................................................................................................18
    3. Received max Pell ....................................................................................................................18
    4. Received no Pell .......................................................................................................................19
    5. Pell gender trends ................................................................................................................... 20
    6. Pell race trends .......................................................................................................................20
    7. Pell race/gender trends ..........................................................................................................22
Table of Figures

Figure 1 - ATD Data Team Members .......................................................................................................... 10
Figure 2 - ATD Data Team Meetings ...................................................................................................... 11
Figure 3 - ATD Cohort Naming Convention ............................................................................................. 12
Figure 4 - ATD Cohort Counts .................................................................................................................. 14
Figure 5 – Cohorts by Gender .................................................................................................................... 14
Figure 6 - Cohorts by Age Group ............................................................................................................... 15
Figure 7 - Cohorts by Race ........................................................................................................................ 15
Figure 8 – Cohorts by Race and Gender ..................................................................................................... 16
Figure 9 - Cohort Financial Aid Records .................................................................................................. 17
Figure 10 – Pell Recipients (Any Amount) ................................................................................................. 18
Figure 11 - Pell Recipients (Maximum Amount) ....................................................................................... 18
Figure 12 - Pell Not Received (Applied or Not) .......................................................................................... 19
Figure 13 - Pell Recipient Gender Trends .................................................................................................. 20
Figure 14 - Pell Recipient Race Trends ....................................................................................................... 20
Figure 15 - Maximum Pell Recipients Race Trends ...................................................................................... 21
Figure 16 - Pell Recipient Race and Gender Trends .................................................................................... 22
Figure 17 - Developmental Recommendation Grouping Trends ............................................................... 23
Figure 18 - Developmental Recommendation Groupings by Gender (Females) ........................................... 24
Figure 19 - Developmental Recommendation Groupings by Gender (Males) ..................................................... 24
Figure 20 - Developmental Recommendations by Major Race Groupings ...................................................... 25
Figure 21 - Developmental Recommendation Grouping Trends (Black/African American) ...................... 26
Figure 22 - Developmental Recommendation Grouping Trends (Hispanic/Latino) ..................................... 26
Figure 23 - Developmental Recommendation Grouping Trends (Unknown Category) ............................. 26
Figure 24 - Developmental Recommendation Grouping Trends (White) .................................................... 27
Figure 25 - Developmental Discipline Recommendation Trends ............................................................... 27
Figure 26 - Developmental Discipline Recommendation Trends by Gender (Female) .................................... 28
Figure 27 - Developmental Discipline Recommendation Trends by Gender (Male) ...................................... 28
Figure 28 - Developmental Discipline Recommendation Trends by Race (Black/African American) .......... 29
Figure 29 - Developmental Discipline Recommendation Trends by Race (White) .......................................... 29
Figure 30 - Developmental Discipline Recommendation Trends by Race and Gender .................................. 30
Figure 31 - Developmental Course Placement Combinations by Student Count ......................................... 31
Figure 32 – Top Three Developmental Course Placement Combinations by Age Group ......................... 32
Figure 33 – Top Three Developmental Course Placement Combinations Seat Counts ............................... 33
Figure 34 - Developmental Recommendation Groupings by Pell Status .................................................... 34
Figure 35 - Developmental Recommendation Groupings by Race and Gender (Max Pell Recipients) ....... 35
Figure 36 - Developmental Success Funnel Concept .................................................................................. 37
I. Executive Summary

Mott Community College (MCC) entered Achieving the Dream (ATD) as part of the 2010 cohort of colleges participating in the initiative. The first step in participation with ATD is the collection, submission, and analysis of student performance data for the previous three year period. This report represents the preliminary findings of MCC’s ATD Data Team which was charged with the analysis and presentation of these measures.

Top level and detailed analysis of information generated from Achieving the Dream data has revealed trends in the Mott Community College enrollment data over the three years, as discovered in our first year of participation in the ATD initiative (2007-2009). The information revealed provides clear paths to action.

Our incoming students are more likely to have comprehensive developmental education needs as evidenced by the developmental assessment recommendations and course taking patterns in the data. Student persistence, as measured by total credit attainment over time, shows that our students are lagging in acceptable progress measures, and this is also evident in the data related to the overall college outcome of degree/certificate attainment. These weak indicators provide impetus for the college’s examination of and planning for improved programs, systems, and services designed to enable our students to reach their educational goals.

We are in an environment where we are experiencing an ongoing cycle of more students who need supportive education in Reading, Writing and Math. Structural inconsistencies in the design of curriculum, assessment, organization of developmental disciplines across campus and evident needs for means of strengthened monitoring and support of student success outcomes all present challenges that can be addressed with the ATD and Academic Quality Improvement Program (AQIP) strategies.

Significant findings have been observed over the course of the Data Team’s analysis of the ATD dataset. The ATD cohort data reflect a significant increase in the number of highly underprepared students entering Mott Community College as first time students. These students are presenting with greater needs in at least two developmental subjects, with the greatest growth found among students requiring three developmental subjects. The growth in underprepared students is present among the most populated racial groups at MCC (Black/African American, Unknown, and White), although Black/African American students of both genders consistently receive a higher percentage of developmental recommendations than their other racial counterparts.

The majority of student placement recommendations are observed to occur in one of the three combinations (ordered greatest to least): Math/Writing/Reading; Math/Reading; and Reading. Reading consistently presents as the primary developmental subject to which students are referred. These developmental placement combinations are most often recommended for students within the 18-19 year and 20-29 year age groupings, although growth in the level of 30-49 year olds requiring developmental coursework is observed.
Data related to student persistence and degree completion provide encouragement that MCC students from the 2007 Cohort who follow their recommended placement have somewhat higher degree completion, more stable Fall-to-Fall retention, and higher credit attainment rates over a 3 year span. The higher credit attainment rates among students who follow their placement recommendations span race and gender groups, although individual rate differences do exist between the major racial groups. Students who follow their Developmental Math recommendation appear to have similar course-taking success in MATH-110 as compared to their counterparts who were deemed to be college-ready at the time of placement testing. Additional investigation is required, however, to better understand the relatively small population of students who achieved success in MATH-110 after bypassing their Developmental Math recommendation.

The number and percentage of students receiving partial or maximum Pell funding awards are increasing, particularly among students presenting with three developmental placement recommendations. While an expectation may exist that students with greater financial need have lower persistence, the 2007 Cohort data suggest that students who receive the maximum Pell award actually have the highest levels of persistence and credit attainment over a 3-year span. This finding was true for students in the major racial groups and genders.

Finally, in studying existing CCSSE and CCFSSE artifacts, the Data Team discovered potential disconnects between students’ perceptions of the value of certain student services (peer tutoring, financial advising, academic advising, and child care) in contrast to the stated utilization of these services. Repeatedly, students state the value for these services but give the appearance that they do not utilize them as much as we would expect. These findings, in conjunction with the discoveries within the ATD dataset, provide a basis for further conversation and exploration in the development of student success intervention strategies.

The analysis presented in this report will allow the college to proceed with data-informed actions that will lead to a greater degree of student success, and additional years of data analysis will help us monitor improvement trends and modify strategies in a highly effective manner.
II. Introduction

A. Report objectives

This report provides a summary of information reviewed and discussed by the ATD data team between October, 2010 and March, 2011. The information presented is the result of analysis performed on the historical baseline data submitted to ATD in September of 2010 and serves as a preliminary examination of Mott Community College student persistence and achievement within the prescribed cohorts.

The information reported serves to inform both the ATD Core Team and the AQIP Action Project Teams as they strive to develop strategies and interventions to improve student success outcomes.

B. ATD goals statement

The goals of ATD, as expressed on their website (www.achievingthedream.org) are as follows:

Achieving the Dream aims to bring about change within community colleges and in state and federal policy. The initiative also seeks to augment knowledge about strategies that increase student success and to expand public support for raising postsecondary attainment levels.

At its core, the initiative seeks to help more students reach their individual goals, which may include earning a community college certificate or degree, attaining a bachelor’s degree, and/or obtaining a better job. Achieving the Dream colleges will maintain a high degree of access for historically underrepresented groups while working to increase the percentage of students who accomplish the following:

- successfully complete the courses they take;
- advance from remedial to credit-bearing courses;
- enroll in and successfully complete gatekeeper courses;
- enroll from one semester to the next;
- earn degrees and/or certificates.

After four to eight years, a substantially higher percentage of students at Achieving the Dream colleges—especially low-income students and students of color—will experience success, as measured by the list above, with no reduction in enrollment for these populations. Longer term, Achieving the Dream aims to influence national policy and practice in order to increase student success at colleges that do not have the opportunity to participate directly in the initiative.
In support of its ultimate goal, increased student success, the initiative is working to achieve certain outcomes in four areas: institutional change, policy change, public engagement, and knowledge development.

C. ATD Data Team

1. Team objectives

The primary objective of the Data Team has been to mine, review, and communicate information contained within the ATD data in support of intervention strategy development by the ATD Core Team and AQIP Action Project Teams. As part of the ongoing Academic Quality Improvement Project (AQIP) effort at MCC, two AQIP Action Project teams will be important users of this report. The efforts of these teams will be aligned with the ATD Core Team; both AQIP teams are poised to make significant improvement recommendations based on the findings of the ATD data analysis.

The goal of the Developmental Education/Placement action project team is to recommend policies and processes that address the academic needs of under-prepared students and increase success, retention and graduation/completion rates. This project will study the curricular and skill-based aspects of student academic preparedness and developmental education from the college-wide perspective of Academic Affairs and Student Services. This team will make specific recommendations on two aspects of developmental education at MCC: (1) the creation of a comprehensive, coordinated, and cross-disciplinary developmental education program, and (2) mandatory placement into developmental courses based upon the academic preparedness of incoming students.

The goal of the Campus Cultural/Behavioral Readiness action project team is to recommend policies and processes that address the behavioral, cultural, and socialization needs of under-prepared students in ways that go beyond academic skill level. This project will study the behavior, cultural expectations, and personal management skills required of students in an academic setting. The project will study ways to improve students’ ability to meet college expectations and basic life skills such as how to respectfully deal with peers, faculty, and staff. Specifically, this team will make a recommendation on ways to integrate and/or expand our efforts to support non-academic college readiness for MCC students.

2. Membership

The ATD Data Team is a cross-functional team comprised of the following individuals:
3. Meetings/materials covered

At the time of writing, the ATD Data Team has met 9 times, with additional information exchanges performed via email and SharePoint. Materials covered in team meetings have progressed in parallel with analysis of the data set, starting with a review of existing survey instrument results (i.e. CCSSE/CCFSSE) and then progressing to increasingly more complex slices of the persistence and achievement data.
4. ATD data set

MCC is required to annually submit two file sets for upload to the ATD data warehouse: the General Record and the Term Record.

The General Record, commonly referred to as the General file, contains all credential-seeking students entering MCC for the first time during the fall term of the prescribed cohort years. It is submitted once for each student and contains data that is unique to each student record, such as demographic information.

The Term Record, commonly referred to as the Term file, is a series of term-specific data files that correspond to each General file student record. The files are submitted annually and capture data specific to students’ activities for the reporting terms, such as GPA, credits attempted, and credits earned.
5. Development process

A team of individuals from MCC Institutional Research and ITS held a series of meetings to review the prescribed data requirements as defined in the ATD Instructions for Data Submissions document. The team developed the required logic to map and/or transform existing data within the MCC data warehouse to a corresponding ATD data field.

Sophisticated Cognos queries were developed by ITS to generate the General and Term files from the MCC data warehouse. This approach will enable an efficient and reliable method to generate future General and Term files for the next ATD data submission.

6. Cohort definition

The historical baseline data submission of the General and Term files was September 15, 2010. This submission included student records related to the prescribed ATD cohort years 2007, 2008, and 2009, which corresponded to the following MCC coding:

<table>
<thead>
<tr>
<th>ATD Cohort</th>
<th>Semester Code</th>
<th>Semester Name</th>
<th>Fiscal Year</th>
<th>Academic Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>2009/2</td>
<td>Fall 2008</td>
<td>2009</td>
<td>2008-2009</td>
</tr>
<tr>
<td>2009</td>
<td>2010/2</td>
<td>Fall 2009</td>
<td>2010</td>
<td>2009-2010</td>
</tr>
</tbody>
</table>

Figure 3 - ATD Cohort Naming Convention

7. Analysis method

To avoid delay in having information available to share with the ATD Data Team, on the recommendation of our ATD Data Coach our General and Term files were incorporated into an Access database for development of the preliminary findings. A longer term data strategy was concurrently developed with MCC ITS to design and implement an analysis package in the MCC data warehouse.

The Data Team reviewed data at a various levels of granularity to observe any difference in student success measures. The major slices of data that the team focused on were:

- **Total ATD Cohort**

  The Total Cohort slice represents all students in each ATD cohort year and enables an overall view of the historical baseline data.

- **Developmental Analysis Sub-cohort**
The Developmental Analysis Sub-cohort represents that portion of students who took the Accuplacer exam and excludes those who did not. This slice enabled the analysis of developmental education outcomes within the data set.

- Pell Sub-cohort

The Pell Sub-cohort represents aggregate data from students according to their Pell status. This slice enabled analysis of student records according to financial need.
III. Findings

A. Demographic profile

1. ATD Cohort

![ATD Cohort Counts](image)

**Explanation:** Figure 4 represents the number of “degree seeking” FT and PT credit students in the Fall semester of each cohort year.

**Key Observations:** From 2007-2009 there is an overall 17% increase in the number of students in these cohorts.

**Issues & Considerations:** Our definition of “degree seeking” is predicated on the fact that any non-developmental credit at MCC can be used towards degree completion.

2. Cohort gender

<table>
<thead>
<tr>
<th></th>
<th>Count</th>
<th>2007</th>
<th>%</th>
<th>2008</th>
<th>%</th>
<th>2009</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>1793</td>
<td>55.82%</td>
<td></td>
<td>1775</td>
<td>55.36%</td>
<td>2078</td>
<td>55.44%</td>
</tr>
<tr>
<td>Male</td>
<td>1419</td>
<td>44.18%</td>
<td></td>
<td>1431</td>
<td>44.64%</td>
<td>1670</td>
<td>44.56%</td>
</tr>
<tr>
<td>Total</td>
<td>3212</td>
<td>100.00%</td>
<td></td>
<td>3206</td>
<td>100.00%</td>
<td>3748</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

![Cohorts by Gender](image)

**Explanation:** Figure 5 represents the distribution of males and females in the cohorts.

**Key Observations:** The majority of students within each cohort year are female, and there is a consistent pattern over all three years of the cohort data.
**Issues & Considerations:** The male population is slightly higher in the ATD cohorts than in the college data as a whole.

3. **Cohort age**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>2007 Count</th>
<th>2007 %</th>
<th>2008 Count</th>
<th>2008 %</th>
<th>2009 Count</th>
<th>2009 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 18</td>
<td>436</td>
<td>13.57%</td>
<td>437</td>
<td>13.63%</td>
<td>427</td>
<td>11.39%</td>
</tr>
<tr>
<td>18-19</td>
<td>1519</td>
<td>47.29%</td>
<td>1489</td>
<td>46.44%</td>
<td>1560</td>
<td>41.62%</td>
</tr>
<tr>
<td>20-29</td>
<td>747</td>
<td>23.26%</td>
<td>765</td>
<td>23.86%</td>
<td>945</td>
<td>25.21%</td>
</tr>
<tr>
<td>30-39</td>
<td>255</td>
<td>7.94%</td>
<td>260</td>
<td>8.11%</td>
<td>426</td>
<td>11.37%</td>
</tr>
<tr>
<td>40-49</td>
<td>149</td>
<td>4.64%</td>
<td>175</td>
<td>5.46%</td>
<td>261</td>
<td>6.96%</td>
</tr>
<tr>
<td>50-59</td>
<td>63</td>
<td>1.96%</td>
<td>59</td>
<td>1.84%</td>
<td>105</td>
<td>2.80%</td>
</tr>
<tr>
<td>60-69</td>
<td>37</td>
<td>1.15%</td>
<td>15</td>
<td>0.47%</td>
<td>20</td>
<td>0.53%</td>
</tr>
<tr>
<td>Over 69</td>
<td>4</td>
<td>0.12%</td>
<td>4</td>
<td>0.12%</td>
<td>3</td>
<td>0.08%</td>
</tr>
<tr>
<td>Unknown</td>
<td>2</td>
<td>0.06%</td>
<td>2</td>
<td>0.06%</td>
<td>1</td>
<td>0.03%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3212</strong></td>
<td><strong>100.00%</strong></td>
<td><strong>3206</strong></td>
<td><strong>100.00%</strong></td>
<td><strong>3748</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

**Figure 6 - Cohorts by Age Group**

**Explanation:** Figure 6 represents the age distribution of the three cohort groups using the same age categories as other MCC college studies.

**Key Observations:** The majority of students in each cohort year are under the age of 30; in the 2009 cohort year, there is an increase in the number of students in the 30-49 age groups.

**Issues & Considerations:** The 2009 upward trend among the 30-49 age groups may not be sustained over time depending on the state of the economy and changes in workforce development.

4. **Cohort race**

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>2007 Count</th>
<th>2007 %</th>
<th>2008 Count</th>
<th>2008 %</th>
<th>2009 Count</th>
<th>2009 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian/Alaskan Native</td>
<td>26</td>
<td>0.81%</td>
<td>27</td>
<td>0.84%</td>
<td>32</td>
<td>0.85%</td>
</tr>
<tr>
<td>Asian</td>
<td>22</td>
<td>0.68%</td>
<td>13</td>
<td>0.41%</td>
<td>30</td>
<td>0.80%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>555</td>
<td>17.28%</td>
<td>625</td>
<td>19.49%</td>
<td>729</td>
<td>19.45%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>82</td>
<td>2.55%</td>
<td>76</td>
<td>2.37%</td>
<td>103</td>
<td>2.75%</td>
</tr>
<tr>
<td>More Than One</td>
<td>1</td>
<td>0.03%</td>
<td>1</td>
<td>0.03%</td>
<td>24</td>
<td>0.64%</td>
</tr>
<tr>
<td>Pacific Islander/Native Hawaiian</td>
<td>1</td>
<td>0.03%</td>
<td>1</td>
<td>0.03%</td>
<td>24</td>
<td>0.64%</td>
</tr>
<tr>
<td>Unknown</td>
<td>723</td>
<td>22.51%</td>
<td>635</td>
<td>19.81%</td>
<td>847</td>
<td>22.60%</td>
</tr>
<tr>
<td>White</td>
<td>1804</td>
<td>56.16%</td>
<td>1829</td>
<td>57.05%</td>
<td>1982</td>
<td>52.88%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3212</strong></td>
<td><strong>100.00%</strong></td>
<td><strong>3206</strong></td>
<td><strong>100.00%</strong></td>
<td><strong>3748</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

**Figure 7 - Cohorts by Race**

**Explanation:** Figure 7 represents the race/ethnicity distribution of the three cohort years. For analysis purposes, the Hispanic Ethnic group, as defined by Federal IPEDS reporting, was converted to a race category.
**Key Observations:** The four largest racial/ethnic groups in the ATD cohort are White, Black/African American, Unknown, and Hispanic; as a percentage of the whole, there is an increase in the Black/African American population with an associated decrease in the White population.

**Issues & Considerations:** The Unknown racial group represents those students who did not self identify a race/ethnicity upon admission; this group represents an unusually large percentage of the cohort population. Due to the size of this group, the ATD data team has elected to examine this population as a separate race/ethnicity group for the purpose of analysis. Behaviorally, it can be noted that the Unknown racial group exhibited success characteristics similar to the White racial group.

5. **Cohort race/gender**

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>American Indian/Alaskan Native</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>9</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Male</td>
<td>17</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td><strong>Asian</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>14</td>
<td>7</td>
<td>20</td>
</tr>
<tr>
<td>Male</td>
<td>8</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td><strong>Black/African American</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>344</td>
<td>364</td>
<td>429</td>
</tr>
<tr>
<td>Male</td>
<td>211</td>
<td>261</td>
<td>300</td>
</tr>
<tr>
<td><strong>Hispanic</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>42</td>
<td>61</td>
</tr>
<tr>
<td>Male</td>
<td>32</td>
<td>34</td>
<td>42</td>
</tr>
<tr>
<td><strong>More Than One</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Male</td>
<td>1</td>
<td>100.00%</td>
<td>10</td>
</tr>
<tr>
<td><strong>Pacific Islander/Native Hawaiian</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>376</td>
<td>351</td>
<td>459</td>
</tr>
<tr>
<td>Male</td>
<td>347</td>
<td>284</td>
<td>388</td>
</tr>
<tr>
<td><strong>Unknown</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1000</td>
<td>997</td>
<td>1077</td>
</tr>
<tr>
<td>Male</td>
<td>804</td>
<td>832</td>
<td>905</td>
</tr>
<tr>
<td><strong>White</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1793</td>
<td>1775</td>
<td>2078</td>
</tr>
<tr>
<td>Male</td>
<td>1419</td>
<td>1431</td>
<td>1670</td>
</tr>
</tbody>
</table>

**Explanation:** Figure 8 represents a breakdown of the race/ethnicity groups by gender.

**Key Observations:** Females represent the highest proportion of students by gender across the four major racial/ethnic groups (White, Black/African American, Unknown, and White). However, the rate of enrollment of Black/African American, Unknown, and White male students has increased slightly from 2007 to 2009.

The distribution of cohort students by gender appears to be relatively consistent at approximately a 55% Female/45% Male split, as compared to a trend of the overall college population at a 60% Female/40% Male split. These trends in the cohort and the college as a whole show no variation in the data over time and we have no strong expectation that these data will change in the foreseeable future.

**Issues & Considerations:** None.
6. Section summary

Using basic demographic data in the cohort files, it appears that we have consistency in the makeup of the population of new students at Mott Community College. This will inform and support the design of interventions with some certainty in the size and profile of the groups of students who will be targeted.

B. Financial aid profile

1. FAFSA Cohort trends

<table>
<thead>
<tr>
<th>Cohort</th>
<th>07-08 AY</th>
<th>08-09 AY</th>
<th>09-10 AY</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007 Cohort</td>
<td>47.1%</td>
<td>44.3%</td>
<td>50.4%</td>
</tr>
<tr>
<td>2008 Cohort</td>
<td></td>
<td>50.5%</td>
<td>53.5%</td>
</tr>
<tr>
<td>2009 Cohort</td>
<td></td>
<td></td>
<td>61.9%</td>
</tr>
</tbody>
</table>

Figure 9 - Cohort Financial Aid Records

Explanation: Figure 9 represents the percentage of students in each cohort year which had a financial aid application (FAFSA) on record.

Key Observations: The percentage of students with a FAFSA record has increased consistently across the 3 Cohort years and their associated Academic Years.

Issues & Considerations: Due to the organizational changes at the time of the data flow into the Cognos Data Warehouse (in the 2008-2009 Academic Year), many student financial aid records were not finalized, resulting in a delay in the data showing up in student records. This resulted in a one-time decline in the number of FAFSA records identified in the ATD Term file.
2. Received Pell (any amount)

![Figure 10 – Pell Recipients (Any Amount)](image)

**Explanation:** Figure 10 represents the percentage of students in each cohort who received any amount of Pell grant funding across Academic Years.

**Key Observations:** The percentage of students receiving Pell (at any level) has increased consistently across the 3 Cohort years and their associated Academic Years.

**Issues & Considerations:** None.

3. Received max Pell

![Figure 11 - Pell Recipients (Maximum Amount)](image)

**Figure 10 – Pell Recipients (Any Amount)**

**Figure 11 - Pell Recipients (Maximum Amount)**
Explanations: Figure 11 represents the percentage of students in each cohort who received the maximum amount of Pell grant funding.

Key Observations: From the 2008-2009 AY to the 2009-2010 AY, there has been a significant increase in the number of students who receive maximum Pell grant funding. The decrease in 2008-2009 AY reflects a one-time issue in institutional practice in the area of Financial Aid.

Issues & Considerations: For any analysis over time, the 2007 cohort is being used to provide a three-year data set. Max Pell is defined as receiving the maximum annual amount available under the Federal Pell grant.

4. Received no Pell

![Figure 12 - Pell Not Received (Applied or Not)](image)

**Explanation:** Figure 12 represents percentage of students in each cohort who received no Pell grant funding.

**Key Observations:** As compared to Figures 10 and 11, this figure demonstrates a decreasing trend in students receiving no Pell funds.

**Issues & Considerations:** As observed in Figure 9, the increase in 2008-2009 AY reflects a one-time issue in institutional practice in the area of Financial Aid.
5. Pell gender trends

**Figure 13 - Pell Recipient Gender Trends**

**Explanation:** Figure 13 represents the gender distribution across the group of students receiving any Pell and the group receiving the maximum Pell grant.

**Key Observations:** Females receive a higher percentage of Pell funds (at any level) than their male counterparts, although the rates of males receiving Pell funds have increased more rapidly across the 3 year span of Cohorts.

**Issues & Considerations:** None

6. Pell race trends

**Figure 14 - Pell Recipient Race Trends**
Explanation: Figure 14 represents the percent of cohort student who received any Pell funds distributed across the four largest racial/ethnic groups.

Key Observations: The increase in Pell funds received cuts across the four major racial/ethnic groups studied. The gap between African American Pell recipient counts and White recipient counts is roughly 32-41% across the 3 Cohort years. Additionally, the gap between African American maximum Pell recipient counts and White recipient counts is roughly 11 – 15%, although the gap appears to be narrowing as the number of White students receiving the maximum Pell increases.

Issues & Considerations: As noted above, the Unknown racial group represents those students who did not self identify a race/ethnicity upon admission; this group represents an unusually large percentage of the cohort population. Due to the size of this group, the ATD data team has elected to examine this population as a separate race/ethnicity group for the purpose of analysis.

![Figure 15 - Maximum Pell Recipients Race Trends](image)

Explanation: Figure 15 represents the percent of cohort student who received the maximum amount of Pell funds distributed across the four largest racial/ethnic groups.

Key Observations: Consistently across the three years, the Black/African American group demonstrates a higher percentage receiving maximum Pell funding than the other racial/ethnic groups. Additionally, there is a slight increase in maximum Pell funding for the White students in the cohort years.

Issues & Considerations: None
7. Pell race/gender trends

**Figure 16 - Pell Recipient Race and Gender Trends**

**Explanation:** Figure 16 shows the Pell award trends associated with the four major racial/ethnic groups broken down by gender.

**Key Observations:** As a percentage of their race/gender cohort, African American females receive Pell funds at a rate higher than the Hispanic, Unknown, and White racial groups. It should be noted that males across all racial groups, as well as white females, have experienced an overall increase in being a recipient of Pell funds across the Cohort years.

**Issues & Considerations:** None

8. Section summary

Using the financial aid status of cohort students, the data indicate that our students are overall experiencing a greater state of financial need. This describes a student body which has a significant need for stability in aspects of their lives beyond their college experience; they have work, family and
other life issues that create additional challenges to their ability to participate fully and successfully in the educational experiences available at the college.

C. Developmental placement profile

1. Development classification scheme

The Data Team determined a grouping scheme to identify the number of developmental recommendations in a student’s record. The groupings entitled “zeros”, “singles”, “doubles”, and “triples” correspond directly to the number of such recommendations.

2. ATD Cohort placement testing

![Developmental Course Recommendations (% of Developmental Analysis Cohort)](image)

**Terminology:**
- **Developmental Analysis Cohort** - Students who took the Accuplacer exam
- **Zero** - No developmental recommendation in student record
- **Single** - One developmental recommendation in student record
- **Double** - Two developmental recommendations in student record
- **Triple** - Three developmental recommendations in student record

**Figure 17 - Developmental Recommendation Grouping Trends**

**Explanation:** Figure 17 represents the percent of students by developmental recommendation grouping by cohort year.

**Key Observations:** 84% of total ATD cohort took the Accuplacer exam. Of those, 81% of tested students received at least one developmental recommendation. In terms of overall college readiness, the
percentage of students being recommended for three developmental courses ("Triples") has increased each cohort year.

**Issues & Considerations:** Approximately 16% of the ATD Cohort records each year did not have Accuplacer test data available.

### 3. ATD Cohort placement testing/gender

![Developmental Course Recommendations - Females](image1)

![Developmental Course Recommendations - Males](image2)
Explanation: Figures 18 and 19 illustrate the percent of developmental recommendations by cohort year by gender.

Key Observations: Females in the Cohort appear to have more developmental recommendations than males in each year. For both genders, the number of Triples has increased from 2007 to 2009.

Issues & Considerations: None.

4. ATD Cohort placement testing/race

![Developmental Course Recommendations - Race (% of Developmental Analysis Cohort)](image)

**Figure 20 - Developmental Recommendations by Major Race Groupings**

Explanation: Figure 20 illustrates the percent of students being recommended for at least one developmental discipline by cohort year and major race/ethnicity groupings. In greater detail, Figures 21 through 24 illustrate the trend in developmental recommendation levels for each of the largest racial/ethnic groups by cohort year.

Key Observations: The percentage of Black/African American students being recommended for at least one developmental course is 18-21% higher than the other major racial groups (2009 Cohort Hispanic/Latino, Unknown, and White students). The requirement for 3 developmental courses has consistently increased across Cohort years for the Black/African American, Unknown, and White racial groups.

Issues & Considerations: None.
Figure 21 - Developmental Recommendation Grouping Trends (Black/African American)

Figure 22 - Developmental Recommendation Grouping Trends (Hispanic/Latino)

Figure 23 - Developmental Recommendation Grouping Trends (Unknown Category)
5. ATD Cohort placement testing by developmental program

Figure 25 - Developmental Discipline Recommendation Trends

Explanation: Figure 25 illustrates the percent of students recommended for each developmental program by cohort year.
Key Observations: Approximately 80% of students tested below college level in Reading; 58% of students tested below college level in Math; 34% of students tested below college level in Writing. Reading levels appear to be relatively stable from 2007-2009; however, the percentage of students testing below college level in Math and Writing appears to be increasing.

Issues & Considerations: A. Our analysis of the ATD data set is limited to demonstrating students testing at one level below college ready only due to the non-sequential nature of developmental courses. B. Raw Accuplacer scores drive the course recommendations but are not presently available in our data warehouse package. C. Conversations among Data Team members identified that the college-ready grade levels for gateway courses are inconsistent across disciplines.

6. ATD Cohort placement testing by developmental program/gender

![Female Placement Details](image-url)

![Male Placement Details](image-url)

Figure 26 - Developmental Discipline Recommendation Trends by Gender (Female)

Figure 27 - Developmental Discipline Recommendation Trends by Gender (Male)
**Explanation:** By gender, figures 26 and 27 illustrate the percent of students testing at or below college level for each developmental discipline by cohort year.

**Key Observations:** Females test below males in Math and Reading, but they test slightly above males in Writing. Males and females testing at college level in Reading are consistently the lowest among the developmental disciplines.

**Issues & Considerations:** Conversations among Data Team members identified that the college-ready grade levels for gateway courses is inconsistent across disciplines.

7. **ATD Cohort placement testing by developmental program/race**

![Blacks/African American Placement Details](image1)

**Figure 28 - Developmental Discipline Recommendation Trends by Race (Black/African American)**

![Whites Placement Details](image2)

**Figure 29 - Developmental Discipline Recommendation Trends by Race (White)**

**Explanation:** By race, figures 28 and 29 illustrate the percent of students in the two largest racial/ethnic groups testing at or below college level for each developmental discipline by cohort year.
**Key Observations:** Black/African American students test below other racial groups in Math, Writing, and Reading. There is an approximate 20% gap in placement reading levels between Black/African American and White students. There is an approximate 30% gap in placement math levels between Black/African American and White students.

**Issues & Considerations:** None.

8. ATD Cohort placement testing by developmental program/race/gender

![Graphs showing placement details by race and gender for Math, Writing, and Reading]
Explanation: By race and gender, figure 30 illustrates the percent of students testing at or below college level for each developmental discipline by cohort year.

Key Observations: Black/African American females test below the other racial groups in Math and Reading. Black/African American males test below other racial groups in Writing.

Issues & Considerations: None.

9. ATD Cohort developmental placement combinations

<table>
<thead>
<tr>
<th></th>
<th>2007 Cohort</th>
<th>2008 Cohort</th>
<th>2009 Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Triples</td>
<td>Math/Reading/Writing</td>
<td>554</td>
</tr>
<tr>
<td>2</td>
<td>Doubles</td>
<td>Math/Reading</td>
<td>691</td>
</tr>
<tr>
<td>3</td>
<td>Singles</td>
<td>Reading</td>
<td>586</td>
</tr>
<tr>
<td>4</td>
<td>Singles</td>
<td>Math</td>
<td>194</td>
</tr>
<tr>
<td>5</td>
<td>Doubles</td>
<td>Writing/Reading</td>
<td>150</td>
</tr>
<tr>
<td>6</td>
<td>Doubles</td>
<td>Math/Writing</td>
<td>13</td>
</tr>
<tr>
<td>7</td>
<td>Singles</td>
<td>Writing</td>
<td>15</td>
</tr>
</tbody>
</table>

| Students Placed | 2203 | 2142 | 2535 |

Figure 31 - Developmental Course Placement Combinations by Student Count

Explanation: Students referred to developmental courses at MCC can be referred in combinations of classes, ranging from single course recommendations to various combinations of double course recommendations to triple course recommendations. Figure 31 summarizes the combinations of developmental course recommendations according to the number of students placed.

Key Observations: The top three placement combinations at MCC, across all three cohort years, are triples in Math/Writing/Reading, doubles in Math/Reading, and singles in Reading. In 2009, these top three placement recommendations represented 82% of the total placement recommendations made.

Issues & Considerations: None.
10. ATD Cohort developmental placement combinations by age group

Explanation: The left side of Figure 32 illustrates the percent of students by age group who were placed in the top three placement recommendation combinations across the three cohort years. The right side of Figure 32 quantifies the number of students in the top two age groups being placed in the top three developmental placement combinations.
Key Observations: The 18-19 and 20-29 year old age groups represent the highest percentage of students consistently placed in the top three placement combinations. Overall, 46.8% of 18-29 year olds who took the Accuplacer in the 2009 Cohort were placed in one of the top three developmental placement combinations.

In quantifying the scale of students within the 18-29 year age groups, 1,474 students in the 2009 Cohort fell into one of the top three developmental placement combinations. For illustration purposes, these 1,474 students could potentially translate into the following developmental placement seat counts (Figure 33).

<table>
<thead>
<tr>
<th>Potential Developmental Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Group</td>
</tr>
<tr>
<td>18-19 Years</td>
</tr>
<tr>
<td>20-29 Years</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Figure 33 – Top Three Developmental Course Placement Combinations Seat Counts

Issues & Considerations: Developmental section capacity represents a significant issue that requires additional discussion and investigation to determine an appropriate level of placement intervention balanced against institutional resources and capability.
11. ATD Cohort developmental placement by Pell status

**Explanation:** Figure 34 illustrates the percent of Pell students (Any Pell and Max Amount) within each developmental grouping by cohort year.

**Key Observations:** Students in the Pell Sub-cohort (Any Pell or Max Amount) exhibited an increase in triple developmental recommendations across the 3 Cohort years, which is consistent with the overall ATD Cohort.

**Issues & Considerations:** None.
Figure 35 - Developmental Recommendation Groupings by Race and Gender (Max Pell Recipients)

Explanation: Figure 35 illustrates the percent of Max Amount Pell students within each developmental grouping by cohort year, disaggregated by race and gender in the top two racial categories of each.
**Key Observations:** Among maximum Pell recipients, Black/African American females exhibit the highest need for double or triple developmental course work.

**Issues & Considerations:** None.

12. Section summary

Placement data reveal that the 81% of Accuplacer-test students at MCC, across all races and both genders, require some degree of developmental education. Among those students, the number of students with triple developmental discipline recommendations has increased from 20% to 27% over the span of the 2007-2009 ATD Cohort.

Across all racial groups, Reading is the most recommended developmental discipline with over 75% of students in each cohort year having a placement recommendation.

Black/African American students exhibit the highest percentage of developmental placement needs in contrast to the other racial groups, with 54% of students in 2009 receiving triple developmental recommendations. Black/African American females exhibit the highest percentage of placement need in the Math and Reading disciplines, whereas Black/African American males exhibit the highest percentage of need in the Writing discipline.

The top three combinations of developmental placement are consistently Math/Writing/Reading (first), Math/Reading (second), and Reading (third). The age groups which represent the majority of students within these developmental placement combinations are 18-19 and 20-29 year olds. Under a mandatory placement scenario, this particular intersection of students represents 1,474 students requiring seats within the developmental disciplines. Extrapolating the number of students in this subset to the number of seats required across the three developmental disciplines reveals a potential need for approximately 3,120 seats.

Pell awards (at any level) have increased among students in the triple developmental grouping.

The percent of student records without Accuplacer data indicates an area for further data investigation to determine what factors were present that excluded them from placement testing (e.g. acceptable ACT scores). ACT and other assessment score data can be associated with student Datatel records in the future to make this area of analysis more robust and reveal nuances in the data that may further inform action plans. Enhancements to the data validity, reliability and availability are planned for the upcoming data years.
D. Developmental course funnels

1. Description of funnel concept

The Data Team studied developmental program success outcomes through the use of funnel analysis. Conceptual funnels, as illustrated in Figure 36, were developed that measured the student success outcomes at each stage of the Developmental-Gateway course sequence.
2. Developmental Math – gateway success funnel

Developmental Success Funnel – 2007 ATD Cohort - 3 Year Performance
Developmental Math

Explanation: Figure 37 represents the student success outcome for Developmental Math and illustrates the course taking behavior of students within the Developmental Analysis Cohort (those students who took Accuplacer).
**Key Observations:** Students recommended for Developmental Math who took and passed the developmental course had comparable success in gateway Math to those students who tested as college-ready in Math.

**Issues & Considerations:** For consistency, the only gateway Math course analyzed for success outcome was MATH-110 (formerly MATH-101). Students who took a course higher than MATH-101/110 as their first non-developmental class are not included in the count of “Pass Gateway Course”. In addition, there may be other additional assessments of learning and the effectiveness of developmental courses.
3. Developmental Writing – gateway success funnel

**Developmental Success Funnel – 2007 ATD Cohort - 3 Year Performance**

**Developmental Writing**

<table>
<thead>
<tr>
<th>2007 Cohort</th>
<th>1,212 (100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>722 (22%)</td>
</tr>
<tr>
<td>Yes</td>
<td>2,490 (78%)</td>
</tr>
</tbody>
</table>

**Explanation:** Figure 38 represents the student success outcome for Developmental Writing and illustrates the course taking behavior of students within the Developmental Analysis Cohort (those students who took Accuplacer).
Key Observations: Due to the off-line grade data maintained by the Writing faculty, questions have arisen regarding the S/U grades in Developmental Writing classes. This will require further analysis for full understanding. Additionally, “college-ready” was determined if the student received an S grade in any of the Writing classes due to the fact that these classes are not necessarily designed to be taken in sequence.

Issues & Considerations: Pass/Fail rates have been calculated using the existing S/U grading scale for purposes of the ATD analysis.
4. Developmental Reading – gateway success funnel

Developmental Success Funnel – 2007 ATD Cohort - 3 Year Performance
Developmental Reading

Explanation: Figure 39 represents the student success outcome for Developmental Reading and illustrates the course taking behavior of students within the Developmental Analysis Cohort (those students who took Accuplacer).
**Key Observations:** Due to the fact that no gateway course has been identified for the Reading sequence yet, the success outcome funnel cannot be completed at this time for Developmental Reading. Additionally, further investigation has revealed that the more appropriate way to indicate “college ready” is to identify an S in ENGL-030; future ATD data submissions may be modified for this reason.

**Issues & Considerations:** None.

5. Section summary

Preliminary findings suggest that developmental Math course-taking behavior among students recommended for the developmental discipline is predictive of success in the identified gateway Math course. Similar findings in the Writing and Reading disciplines are not possible with the current data set and associated departmental processes, some of which include:

- Out of system data capture
- Alignment of ready/not-ready for gateway courses
- Lack of gateway reading course designation
- Non-sequential nature of developmental course-taking
- Reading section level registration changes

E. Success outcomes by Cohort

1. Fall-to-Fall retention

![Figure 40 - Fall-to-Fall Retention Rates (Developmental Education Impact)](image-url)
Explaination: Figure 40 compares the Fall-to-Fall retention rates of 2007 Cohort students who attempted to follow their developmental program recommendations against those who did not attempt to follow their developmental program recommendations.

Key Observations: Students in the 2007 Cohort who attempted their developmental recommendations had more consistent Fall-to-Fall retention rates in the 35% - 39% range. Students who did not follow their developmental recommendations had significantly lower Fall-to-Fall retention rates.

Issues & Considerations: None

2. Degree attainment

<table>
<thead>
<tr>
<th></th>
<th>Attempted at least one developmental course</th>
<th>Attempted no developmental courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental Recommendations</td>
<td>% Degree Attainment</td>
<td>% Degree Attainment</td>
</tr>
<tr>
<td>Zero</td>
<td>-</td>
<td>Zero</td>
</tr>
<tr>
<td>Single</td>
<td>1.90%</td>
<td>Single</td>
</tr>
<tr>
<td>Double</td>
<td>5.50%</td>
<td>Double</td>
</tr>
<tr>
<td>Triple</td>
<td>2.00%</td>
<td>Triple</td>
</tr>
</tbody>
</table>

Figure 41 - Degree Attainment (Developmental Education Impact)

Explaination: Figure 41 compares the degree attainment rates of 2007 Cohort students who attempted at least one developmental course recommendation against those who attempted no developmental course recommendations.

Key Observations: In the double and triple developmental course recommendation categories, students who attempted at least one developmental course had an overall higher degree attainment rate over students who did not attempt developmental courses.

Issues & Considerations: None.

3. Credit attainment

<table>
<thead>
<tr>
<th></th>
<th>Attempted at least one developmental course</th>
<th>Attempted no developmental courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental Recommendations</td>
<td>% 35 or More Credits</td>
<td>% 35 or More Credits</td>
</tr>
<tr>
<td>Single</td>
<td>51.40%</td>
<td>34.70%</td>
</tr>
<tr>
<td>Double</td>
<td>40.60%</td>
<td>20.20%</td>
</tr>
<tr>
<td>Triple</td>
<td>26.80%</td>
<td>14.60%</td>
</tr>
</tbody>
</table>

Figure 42 - Credit Attainment (Developmental Education Impact)
**Explanation:** Figure 42 compares the credit completion rates of 2007 Cohort students who attempted at least one developmental course recommendation against those who attempted no developmental course recommendations. For analysis purposes, the % of students achieving 35 credits or higher in the 3 year Cohort span was used as an indicator of significant academic progress.

**Key Observations:** Of students who were referred for one or more developmental courses, those who took and passed at least one had a higher credit attainment rate.

**Issues & Considerations:** None.

<table>
<thead>
<tr>
<th>% Students with &gt;= 35 Credit Hours Attained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males &amp; Females</td>
</tr>
<tr>
<td>All Racial Groups</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>Black</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
</tr>
<tr>
<td>Unknown</td>
</tr>
<tr>
<td>White</td>
</tr>
</tbody>
</table>

**Figure 43 - Developmental Placement Impact on Significant 3-Year Credit Attainment**

**Explanation:** Figure 43 illustrates the credit attainment rates of 2007 Cohort students by developmental grouping and by race and gender. For analysis purposes, the % of students achieving 35 credits or higher in the 3 year Cohort span was used as an indicator of significant academic progress.

**Key Observations:** Black/African American females and males in the 2007 Cohort exhibited similar overall 3-year credit attainment rates, although Black females achieved higher credit attainment rates in the triple developmental recommendation category. Black/African American males exhibited a 5% lower credit attainment level than their White male counterparts. Black/African American females exhibited a more pronounced 15% lower credit achievement gap in comparison to their White female counterparts.

There is a 10% overall gap in significant credit attainment levels between White males and females, with females having the consistently higher attainment rates across all developmental groupings. There is a similar overall gap between Hispanic/Latino males and females, with the notable exception of female triples (of which there were none).

**Issues & Considerations:** None.
4. Pell sub-cohort credit attainment

**Explanation:** Figure 44 illustrates the credit attainment rates of 2007 Cohort students according to their Pell award status and developmental grouping. For analysis purposes, the % of students achieving 35 credits or higher in the 3 year Cohort span was used as an indicator of significant academic progress.

**Key Observations:** Students in the 2007 Cohort who received the maximum Pell award had a significantly higher 3 year credit attainment rate than students receiving partial amounts or none at all. Students receiving partial Pell had the lowest credit attainment rates across all developmental groupings.

**Issues & Considerations:** None.
**Explanation:** Figure 45 illustrates the overall credit attainment rates of 2007 Cohort students according to their Pell award status, developmental grouping, and race. Figures 46 and 47 provide expanded detail related to credit attainment counts and rates for students in the double and triple developmental categories. For analysis purposes, the % of students achieving 35 credits or higher in the 3 year Cohort span was used as an indicator of significant academic progress.

**Key Observations:** The higher credit attainment rates for students who received the maximum Pell award consistently cut across racial and gender groups.

Among Black/African American and White students of both genders in the Triple developmental grouping, those who received less than the maximum amount of Pell had the lowest 3-year credit attainment rates, closely followed by students who received no Pell funds.

Credit attainment rates by race and lesser Pell status become less clear as differences emerge between the races. Among doubles, Black/African American students who received no Pell achieved the lowest

---

### Table: Credit Attainment Rates by Pell Status and Developmental Grouping

<table>
<thead>
<tr>
<th>Pell Status</th>
<th>Overall</th>
<th>Zeros</th>
<th>Singles</th>
<th>Doubles</th>
<th>Triples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received Less Than Max</td>
<td>23%</td>
<td>28%</td>
<td>33%</td>
<td>22%</td>
<td>13%</td>
</tr>
<tr>
<td>Received Max</td>
<td>61%</td>
<td>81%</td>
<td>64%</td>
<td>55%</td>
<td>55%</td>
</tr>
<tr>
<td>No Pell Received</td>
<td>31%</td>
<td>33%</td>
<td>35%</td>
<td>31%</td>
<td>21%</td>
</tr>
</tbody>
</table>

### Table: Credit Attainment Rates by Pell Status and Developmental Grouping

<table>
<thead>
<tr>
<th>Pell Status</th>
<th>Overall</th>
<th>Zeros</th>
<th>Singles</th>
<th>Doubles</th>
<th>Triples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received Less Than Max</td>
<td>15%</td>
<td>15%</td>
<td>26%</td>
<td>18%</td>
<td>10%</td>
</tr>
<tr>
<td>Received Max</td>
<td>49%</td>
<td>67%</td>
<td>61%</td>
<td>44%</td>
<td>50%</td>
</tr>
<tr>
<td>No Pell Received</td>
<td>15%</td>
<td>6%</td>
<td>33%</td>
<td>10%</td>
<td>15%</td>
</tr>
</tbody>
</table>

### Table: Credit Attainment Rates by Pell Status and Developmental Grouping

<table>
<thead>
<tr>
<th>Pell Status</th>
<th>Overall</th>
<th>Zeros</th>
<th>Singles</th>
<th>Doubles</th>
<th>Triples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received Less Than Max</td>
<td>23%</td>
<td>28%</td>
<td>33%</td>
<td>22%</td>
<td>13%</td>
</tr>
<tr>
<td>Received Max</td>
<td>61%</td>
<td>81%</td>
<td>64%</td>
<td>55%</td>
<td>55%</td>
</tr>
<tr>
<td>No Pell Received</td>
<td>31%</td>
<td>33%</td>
<td>35%</td>
<td>31%</td>
<td>21%</td>
</tr>
</tbody>
</table>

### Table: Credit Attainment Rates by Pell Status and Developmental Grouping

<table>
<thead>
<tr>
<th>Pell Status</th>
<th>Overall</th>
<th>Zeros</th>
<th>Singles</th>
<th>Doubles</th>
<th>Triples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received Less Than Max</td>
<td>15%</td>
<td>15%</td>
<td>26%</td>
<td>18%</td>
<td>10%</td>
</tr>
<tr>
<td>Received Max</td>
<td>49%</td>
<td>67%</td>
<td>61%</td>
<td>44%</td>
<td>50%</td>
</tr>
<tr>
<td>No Pell Received</td>
<td>15%</td>
<td>6%</td>
<td>33%</td>
<td>10%</td>
<td>15%</td>
</tr>
</tbody>
</table>
level of significant 3 year credit attainment. Among White doubles, students who received less than the maximum amount of Pell had the lowest 3-year credit attainment rates.

**Issues & Considerations:** None.

### Table 1

<table>
<thead>
<tr>
<th>Developmental Grouping</th>
<th>Pell Level</th>
<th>2007 Students</th>
<th>2008 Students</th>
<th>2009 Students</th>
<th>3 Year Average Students</th>
<th>% 2007 Cohort &gt; 35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Black/African American Females</strong></td>
<td>Partial</td>
<td>60</td>
<td>71</td>
<td>67</td>
<td>66</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>48</td>
<td>24</td>
<td>40</td>
<td>37</td>
<td>48%</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>17</td>
<td>23</td>
<td>24</td>
<td>21</td>
<td>6%</td>
</tr>
<tr>
<td><strong>Black/African American Males</strong></td>
<td>Partial</td>
<td>36</td>
<td>28</td>
<td>33</td>
<td>32</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>16</td>
<td>15</td>
<td>17</td>
<td>16</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>14</td>
<td>17</td>
<td>10</td>
<td>14</td>
<td>14%</td>
</tr>
<tr>
<td><strong>White Females</strong></td>
<td>Partial</td>
<td>94</td>
<td>100</td>
<td>107</td>
<td>100</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>50</td>
<td>31</td>
<td>54</td>
<td>45</td>
<td>56%</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>151</td>
<td>156</td>
<td>104</td>
<td>137</td>
<td>36%</td>
</tr>
<tr>
<td><strong>White Males</strong></td>
<td>Partial</td>
<td>55</td>
<td>43</td>
<td>63</td>
<td>54</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>13</td>
<td>22</td>
<td>30</td>
<td>22</td>
<td>85%</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>99</td>
<td>120</td>
<td>96</td>
<td>105</td>
<td>29%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>653</td>
<td>650</td>
<td>645</td>
<td>649</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 46 - Three Year Significant Credit Attainment Rates (Doubles)**

<table>
<thead>
<tr>
<th>Developmental Grouping</th>
<th>Pell Level</th>
<th>2007 Students</th>
<th>2008 Students</th>
<th>2009 Students</th>
<th>3 Year Average Students</th>
<th>% 2007 Cohort &gt; 35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Black/African American Females</strong></td>
<td>Partial</td>
<td>99</td>
<td>79</td>
<td>130</td>
<td>103</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>36</td>
<td>45</td>
<td>56</td>
<td>46</td>
<td>56%</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>9</td>
<td>19</td>
<td>29</td>
<td>19</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Black/African American Males</strong></td>
<td>Partial</td>
<td>39</td>
<td>58</td>
<td>88</td>
<td>62</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>20</td>
<td>37</td>
<td>36</td>
<td>31</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>24</td>
<td>31</td>
<td>35</td>
<td>30</td>
<td>13%</td>
</tr>
<tr>
<td><strong>White Females</strong></td>
<td>Partial</td>
<td>48</td>
<td>49</td>
<td>68</td>
<td>55</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>15</td>
<td>13</td>
<td>25</td>
<td>18</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>49</td>
<td>41</td>
<td>58</td>
<td>49</td>
<td>31%</td>
</tr>
<tr>
<td><strong>White Males</strong></td>
<td>Partial</td>
<td>24</td>
<td>31</td>
<td>53</td>
<td>36</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>9</td>
<td>8</td>
<td>17</td>
<td>11</td>
<td>78%</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>62</td>
<td>66</td>
<td>61</td>
<td>63</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>434</td>
<td>477</td>
<td>656</td>
<td>523</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 47 - Three Year Significant Credit Attainment Rates (Triples)**
5. Section summary

The data indicate a pattern whereby students who receive the maximum Pell grant are more likely to persist at the college. Discussion and consideration of the learning support needs related to this group is crucial to further determine all of the other variables that influence a student's ability to remain at the college and demonstrate an effort to experience success.

Counts and associated retention rates by race, gender, and Pell status provide critical information that can be utilized to assess and scope potential intervention strategies.

F. 2009 CCSSE/CCFSSE survey summary

1. Review of selected CCSSE/CCFSSE questions

Key Observations: 37% of students rarely or never use academic advising or planning. Despite this, 70% of students reported that academic advising was very important to them (Figure 48).

---

**Figure 48 – CCSSE/CCFSSE Advising Questions**

---

**Figure 49 – CCSSE/CCFSSE Tutoring Questions**
Explanation: 17% of students reported that they used peer or other tutoring. Despite this, 65% of students reported that tutoring was somewhat to very important to them (Figure 49).

**Figure 50 – CCSSE/CCFSSE Child Care Questions**

Explanation: Only 3% of students reported themselves to have used (MCC?) childcare, but 45% say it is somewhat to very important to them (Figure 50).

**Figure 51 – CCSSE/CCFSSE Skills Lab Questions**

Explanation: Only 33% of student respondents say they use writing or other skill labs, although 71% report that using such labs is somewhat to very important (Figure 51).

**Figure 52 – CCSSE/CCFSSE Advising Questions**

Explanation: Only 56% of students use financial aid advising, although a Scott Jenkins report dated 1/5/2011 states that 80% of our students receive some level of financial aid (Figure 52).
Explanation: Although 57% of students reported that disabilities services were somewhat to very important to them, only 7% report their usage of the services. This comparison is possibly impacted by the phrasing of the importance question, whereby students are answering on behalf of population of students with disabilities.

2. Section summary

According to the 2009 CCSSE/CCFSSE results, students clearly view peer tutoring, financial advising, academic advising, childcare, and other student supportive services to be of value. On the other hand, when surveyed on the usage of these services, the reported use appears to be far less than the perceived need.

Some of the discrepancy in use versus need may be, in part, due to interpretation of the particular survey question. Assuming, however, that these responses are indicative of a potential imbalance between need and usage, the question of why services are not used more frequently arises. Questions for potential investigation through additional methods, such as focus groups, may shed light on some of the following questions:

- Do services have adequate capacity to meet the need?
- Are services available at times students can use them?
- Are services well advertised and are they welcoming to students who seek their help?
- Are the service providers sufficiently expert in their particular area to consistently provide high quality information and assistance to students that is focused on student success?
IV. Observations

Analysis of the 2007-2009 ATD Cohorts generated the following significant observations by the Data Team.

Demographic Observations

The 2007 to 2009 ATD Cohorts provide a reasonable analysis cohort that resembles the overall demographic makeup of new students at Mott community college. This similarity provides power to use the ATD data set in an ongoing fashion to assist in the development and implementation of student success strategies.

The 2009 Cohort is almost 17% larger than its 2007 counterpart. The majority of students in each cohort year are under the age of 29, although increases in the 30 to 49 year old demographic groups exhibit consistent increases.

Pell Status Observations

The percentage of students receiving Pell, either partial or maximum award amounts, increased from 2007 to 2009 across race and gender sub-groups with approximately 50% of students in the 2009 Cohort receiving some level of Pell funding. African American students present the highest need based on 77% of 2009 Cohort students receiving some level of Pell, in contrast to the 45% of White students in the same time period.

Developmental Placement Observations

84% of Accuplacer-tested students in the 2009 Cohort received some level of developmental placement in any combination of courses within the Developmental Math, Writing, and Reading disciplines. Black/African American students presented the highest percentage of developmental placement with 96% receiving recommendations in 2009, with White students presenting the lowest percentage with 75% receiving recommendations. Although the gap is the largest between the Black/African American and White racial groups, the placement rate in all groups is of concern within the context of academic readiness.

Of students receiving a placement recommendation, those receiving three recommendations (commonly referred to as “triples” by the Data Team) steadily increased from 20% in 2007 to 27% in 2009. This increase was accompanied by an associated decrease in the number of “single” and “double” placement recommendations and a relatively flat percentage of students receiving no developmental placement recommendation. The steady increase in triple developmental placement recommendations, in conjunction with an annually increasing new student population, is of tremendous concern in our efforts to foster student success outcomes.
Black/African American students present the highest level of triple developmental education with consistent increases from 42% to 54% of tested students from 2007 to 2009. White students present the lowest level of triple placement with increases from 13% to 17% of tested students from 2007 to 2009.

The discipline that presents the most developmental placements across the three cohort years, with approximately 80% of tested students receiving placement, is consistently Developmental Reading. This is closely followed by Developmental Math with approximately 58% of tested students and then Developmental Writing with approximately 34%. Females, in general, test below males in Reading and Math, while males test slightly below females in Writing.

Within racial groupings, Black/African American students tested below White students in all three developmental disciplines with an approximate 20% higher Reading placement rate and 30% higher Math placement rate. In Reading, approximately 91% of Black/African American students test below college level in Reading, in contrast to approximately 70% of White students. Expanding needs assessment to the level of race and gender, we find that Black/African American females test below all other race/gender groups in Math and Reading with approximately 90% and 94%, respectively, testing below college level in 2009. In Writing, Black/African American males test below all other race/gender groups with approximately 68% testing below college level. However, as stated above, while gaps exist between the racial groups there is ample concern that developmental needs are substantial across all race/gender groups.

Among students receiving Pell funding, placement rates (particularly in the triple recommendation category) tend to follow the larger cohort group trends, with the percentage of Pell recipients with triple recommendations experiencing a steady increase of 6% from 2007 to 2009. Among maximum Pell recipients, African American/Black males and females present the highest percentage of double and triple developmental recommendations with approximately 24% of females and approximately 19% of males, respectively.

The top three combinations of developmental placement are consistently Math/Writing/Reading (first), Math/Reading (second), and Reading (third). The age groups which represent the majority of students within these developmental placement combinations are 18-19 and 20-29 year olds. Under a mandatory placement scenario, this particular intersection of students represents 1,474 students requiring seats within the developmental disciplines. Extrapolating the number of students in this subset to the number of seats required across the three developmental disciplines reveals a potential need for approximately 3,120 seats.

**Success Outcome Observations**

**Funnels**

Conceptual funnels measure program success outcomes within the ATD data set and essentially track student outcomes at each stage of the Developmental-Gateway course sequence. The 2007 Cohort
provides a three year snapshot of course-taking behavior and has been extensively mined for the Math, Writing, and Reading disciplines.

The 2007 Cohort Developmental Math funnel provides encouraging information relating to success of students in Math 110, whereby Accuplacer-placed students who successfully complete developmental MATH-021 appear to have success in MATH-021 comparable to those students who placed out of Developmental Math.

Information from the Reading and Writing funnels are less clear primarily due to offline departmental processes and ambiguous S/U data, from the perspective of readiness for Gateway courses, within Datatel.

**Fall-to-Fall Retention**

Students in the 2007 Cohort who follow their developmental placement recommendations, and at least attempt their developmental courses, have relatively stable retention rates in the 35%-39% range. Students who do not follow their placement recommendations appear to have steadily diminishing retention rates in accordance with their developmental placement level.

**Degree Completion**

2007 Cohort data reflect higher degree completion rates among students with double or triple developmental placement recommendations who attempt at least one developmental course as compared to students with similar recommendations who make no developmental attempt. Students with a single developmental recommendation who attempt a developmental course do not appear to have a similar increase in retention rates.

Overall, 3 year degree completion rates are low, ranging from 1.3% for triple developmental recommendations with no attempt at a developmental course to 10.3% for students with no developmental recommendations following Accuplacer testing.

**Credit Attainment**

The degree completion rates for the 2007 Cohort are in range with MCC’s overall degree completion rates. However, because of the relatively low numbers of students and the various issues that impact degree completion at community colleges, the Data Team places additional focus on credit attainment as a means to provide information relevant to student success.

The Data Team utilizes a 35 credit attainment level as being a significant marker of student progress toward degree completion, and credit attainment levels for the 2007 Cohort present interesting findings. Overall, students across all levels of developmental placement recommendation (singles, doubles, and triples) who attempt a developmental course have significantly higher 3-year credit achievement rates than students who don’t.
Credit attainment rates among students in the 2007 Cohort appear to negatively correlate with increasing levels of developmental placement. For example, 32% of students within the 2007 Cohort who have a double placement recommendation achieve 35 credits within 3 years, whereas only 23% of students with a triple recommendation achieve this credit level.

The overall relationship between developmental placement level and significant credit attainment appears to be consistent across all racial and gender groups, although individual differences in credit attainment rates are present between racial groups. For example, 25% of Black/African American students in the cohort with double developmental recommendations achieve significant credit attainment within 3 years, whereas 34% of White students in the cohort achieve that status in the same timeframe.

The impact of Pell status and its impact on significant credit attainment provide interesting information relative to student course-taking behaviors. 2007 Cohort students who receive the maximum Pell award consistently have the highest significant credit attainment rates across all levels of developmental placement. Maximum Pell recipients with triple developmental recommendations have a 3-year significant credit attainment rate of 55%, which is in contrast to 13% of students who receive only partial Pell funding. Although individual differences exist at the developmental placement level, the impact of maximum Pell award on significant credit attainment spans racial groups, as well. For instance, among Black/African maximum Pell recipients with triple developmental recommendations, 50% achieve the significant credit attainment level in 3-years. This is in contrast to only 10% of the same developmental population who receive only partial Pell. The findings for White students are comparable, although White students in the double/triple developmental categories experience 17-18% higher overall credit attainment levels.

**Survey Artifacts**

Review of the 2009 CCSSE/CCFSSE reveals a potential disconnect between students’ views relative to the perceived value of certain student services (peer tutoring, financial advising, academic advising, and child care) in contrast to their stated utilization of the services. Students appear to view services as valuable, but they may or may not be taking adequate advantage of them. The potential implication of students not utilizing available services is potentially significant within the overall conversation relating to factors that enable student success.

### V. Issues

The following major issues were noted by the Data Team throughout the course of the analysis process:

- Changes in system/data capture can improve future analysis and enable continuous improvement. The ATD data set is a prescribed set of data, however necessary assumptions have been made and data transformations have taken place to enable generation of the initial data files. Through the process of analysis, additional insight into the state of data within Datatel has been gained that will
enable future improvements to data collection and storage. Specific example of system/data capture issues are the S/U assignment and tracking within the Writing and Reading disciplines.

- The Preliminary Findings report is somewhat limited to, especially as it pertains to longer term retention data, analysis of the 2007 Cohort. The 2007 Cohort provides a 3 year window through which we can view student success outcomes. As time progresses, we will have an adequate time frame in which to analyze the outcomes of the 2008 and 2009 Cohorts, essentially rounding out and providing a richer data set.
- The increasing rate of students requiring developmental education calls into question an evaluation of our resources and policies related to providing this basic education in conjunction with the development of external initiatives (e.g. high school interventions) to help stem the tide.
- The ATD data are fairly prescriptive and do not provide much latitude with respect to assessing why our students come to MCC. Low degree completion rates are reflective of this problem and are representative of student course-taking behavior and how students do not have a monolithic goal to obtain degrees and/or transfer. The statement of educational goals is an important factor in assessing student outcomes, and a more reliable means of tracking and measuring could provide greater context to the overall analysis.

**VI. Recommendations**

It is the primary recommendation of the Data Team that the ATD Core Team reviews the contents of this preliminary report and advise the Data Team on additional needs it may have in its development of intervention strategies.

The Data Team recognizes that as intervention strategies are discussed, implemented, measured, and refined, the form and function of the Data Team will likely evolve to meet the needs of the Core Team and college as a whole.