

## Detroit Regional Goals Methodology and Sources

The primary goal of Detroit Drives Degrees (D3) is to increase the postsecondary attainment rate of the region to 60% by 2030. Currently, 50.8% of adults in the Detroit Metropolitan Statistical Area (MSA) have a college degree or high-quality certificate, compared to 48.7% of adults in the entire state of Michigan (Table 1). With no changes in credential production trends or migration patterns, this figure is projected to be 55.3% for Detroit by 2030, and 52.9% for Michigan as a whole. In order to meet the 60% goal of the D3 initiative, the Detroit region will need 106,467 additional credential holders by 2030, which equals 2,957 additional credentials annually (compounded, beginning in 2023). The state of Michigan will need an additional 358,139 credential holders to meet the statewide goal of 60%, or 9,948 additional credentials annually.

**Table 1. Current and projected educational attainment and additional credentials needed.**

Region	Current % of Adults with College Degrees and High Quality Certificates, 2023	Average Annual % Change from 2007 to 2021	Predicted % of Adults with College Degrees and High Quality Certificates, 2030	Projected Population in 2030	Additional Degrees and Certificates Needed to Meet Goal of 60% = (Goal-Column D) *Column E (2)	Additional Degrees and Certificates Needed Annually
Michigan	48.7	0.60	52.9	5,052,027	358,139	9,948
Detroit MSA	50.8	0.63	55.3	2,248,843	106,467	2,957
Rest of State	47.0	0.57	51.0	2,803,183	252,061	7,002

Given the variation across institutions in current levels of productivity (as measured by credentials per 100 FTE), it is unreasonable to suggest that each institution should improve its productivity at the same rate. Institutions with lower levels of credential productivity should be able to make larger improvements in their productivity, relative to more highly productive institutions, in order to meet the state and regional goals.

Changes in population is another important consideration. Due to declining birth rates, the number of high school graduates in Michigan is projected to steadily decrease, with a drop of 10% (over 11,000 graduates) by 2030, which will have a significant impact on the future enrollment of institutions that primarily serve students directly out of high school. Institutions will need to increase their enrollment of older students, and the growth in this population varies across the state. Given these realities, both current credential productivity levels and changes in population are considered when estimating the additional college graduates each institution should produce in order to meet the state and regional goal.

The following calculations are made to determine the goals for each institution associated with closing Michigan's gap of 358,139 credential holders and Detroit's gap of 106,467 by 2030. The calculations are based on each institution's current share of credential production and adjusted for different credential productivity levels and population growth estimates. Several assumptions underlie these calculations:



- The mix of students and graduates based on age or race / ethnicity across institutions will not change.
- The mix of undergraduate credentials awarded (undergraduate certificates, associate degrees, and bachelor's degrees) at each institution is assumed to be constant.
- Counties of origin of direct-from-high-school students will remain constant in relative terms for each institution. For all enrolled adults, the county of origin is assumed to be the county in which the institution is located.

Two sets of institutional goals are identified. The first aims to identify institutional goals for credential production sufficient to meet the statewide goal and includes the institutions of interest identified by the Detroit Chamber of Commerce and all other Title IV eligible institutions within the state. The second set of goals is specifically focused on meeting the D3 regional goal and includes the institutions of interest and those that are in the top 25 of institutions attended by high school graduates from the Detroit region (MI School Data, 2022-23 high school graduates). Calculations to estimate the goals for Central Michigan University's (CMU) contribution to the statewide goal will be used for illustrative purposes.

1. CMU currently produces 2.9% of the state's credentials and an estimated 2.2% of the credentials are awarded to students from the Detroit metropolitan area. The estimates of credentials awarded to students from the Detroit region are calculated by combining the percentage of awards given to different age groups with the percentage of direct from high school and adult enrollees from the Detroit region. CMU awards 75.8% of its credentials to students 24 years old or younger, and 32.7% of its direct from high school enrollment comes from the Detroit region. Adult enrollment from the Detroit region is assumed to be 0% for those institutions such as CMU not physically located within the Detroit region, and 100% for those that are. Given that CMU awarded 2,606 undergraduate students credentials in 2022-23, this results in an estimated 645 credentials granted to undergraduate students from the Detroit metropolitan area ( $2,606 * 75.8% * 32.7% + 2,606 * 24.2% * 0% = 645$  (NCES, IPEDS Completions Survey 2022-23, Enrollment Survey Fall 2022; MI School Data 2022-23 high school graduates).
2. Prior to any adjustment, if CMU maintains its current proportion of the state's credential production, it will need to produce 10,409 additional credentials (between 2023 and 2030) over and above its current production by 2030 ( $2.9% * 358,139$ ).
3. Two index scores are created for each institution to adjust their contribution to the state goal, given their credential productivity level and projected population change:
  - a. Credential Productivity Adjustment Index: Credentials awarded for every 100 FTE for all 2- or 4-year institutions within the state, divided by the

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same calculation for the institution. Institutions that are currently performing better than the total for their sector will have index scores less than 1.0. CMU is currently producing more credentials per 100 FTE than other Michigan 4-year institutions (Michigan 4-year institutions 25.9 / CMU 26.6 = 0.97). (NCES, IPEDS Completions Survey & 12 Month Enrollment Survey, 2022-23)

- b. Population Change Adjustment Index: Enrollment growth of the younger population (age <=19) associated with each institution is determined using county of origin data for 2022-23 high school graduates who enroll in college within 12 months. For the statewide analysis, the current service base (2023) and projected service base (2030) are calculated according to the proportion of first-time undergraduates directly from high school drawn from each of the six Detroit MSA counties and "rest of state" applied to the current and projected 15-19 population group within each of those regions. For the Detroit MSA analysis, the current service base (2018) and projected service base (2030) are calculated according to the proportion of first-time undergraduates directly from high school drawn from each of the six Detroit MSA counties applied to the current and projected 15-19 population group within each of those county regions. All Title IV degree-granting institutions were included in the state and Detroit MSA analysis per the county of origin data provided (see source list to follow).

Enrollment growth of the adult population (ages 20-24, 25-39) associated with each institution is determined by the county where the institution is located for both the state and Detroit MSA models. For the statewide model, the current service base (2023) and the projected service base (2030) for each institution is calculated according to the proportion of enrollments age 20-24 and 25-39 associated with each Title IV institution within the county applied to the current (2023) and projected (2030) county populations age 20-24 and 25-39. For the Detroit MSA model, the current service base (2023) and the projected service base (2030) for each institution is calculated according to the proportion of enrollments age 20-24 and 25-39 associated with each Title IV degree-granting institution within the county applied to the current (2023) and projected (2030) county populations age 20-24 and 25-39.

The projected enrollment change for each institution is based on the current and projected service base determined for each age group (15-19, 20-24, and 25-39) and is calculated as the projected service base as a percent of the current service base (growth coefficient). A growth coefficient less than 1.0 means the service base is declining and a growth coefficient greater than 1.0 means the service base is increasing. For the State model, the growth coefficients for institutions in the 4-year

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sector are indexed against the growth coefficient for all Title IV four-year institutions in the state, while for institutions within the 2-year sector, the growth coefficients are indexed against the growth coefficient for all Title IV degree-granting 2-year institutions within the state. For the Detroit MSA model, the institutions are similarly indexed against the growth coefficient for all Title IV four-year institutions within the Detroit MSA (and those heavily serving the region) and the growth coefficient for all Title IV degree-granting 2-year institutions within the Detroit MSA (and those heavily serving the region). Each institution receives three enrollment growth indices based on projected population growth for ages 15-19, 20-24, and 25-39. The three growth indices are weighted according to the percent enrollment of these age groups at each institution to generate a final enrollment growth index score.

**CMU Example:** Using the above methodology, CMU's current service base for the younger population age 19 and under (statewide model) is 19,767 and the projected service base in 2030 is 18,343. The growth coefficient is then  $18,343/19,767 \times 100 = 92.79$ . The growth coefficient for all Title IV four-year institutions in the state is also 92.82, so CMU receives a growth index score of  $92.79/92.82 = .9997$  for the younger service base. Similarly, CMU receives index scores of 1.0915 and 0.5476 for adult populations aged 20-24 and 25-39 respectively. Fall 2023 enrollment data show that 31.4% of undergraduates at CMU are age 19 and under, 54.9% are age 20-24, and 10.3% are age 25-39. Thus, the final enrollment growth index score for CMU in the statewide model is  $0.9997 \times .314 + 1.0915 \times .549 + 0.5476 \times .103 = 0.97$ .

**Sources:** MI School Data, 2022-23, Public High School Graduates from the 6-County Detroit MSA Region and initial college enrollment within 12 months of graduation; [mischooldata.org](https://mischooldata.org); Data extracted by NCHEMS. U.S. Census Bureau, Population Division; Annual County Estimates of the Resident Population for Selected Age Groups by Sex: April 1, 2010 to July 1, 2020; <https://www.census.gov/data/tables/time-series/demo/popest/2010s-counties-detail.html>. U.S. Census Bureau, Population Division; Annual County and Puerto Rico Municipio Resident Population Estimates by Selected Age Groups and Sex: April 1, 2020 to July 1, 2023; <https://www.census.gov/data/tables/time-series/demo/popest/2020s-counties-detail.html>. Michigan Bureau of Labor Market Information and Strategic Initiatives; Michigan county population projections 2020 through 2045 by age group; <https://milmi.org/DataSearch/POP PROJ>. NCES, IPEDS fall 2021, 2022, and 2023 enrollment files: ef2023b Provisional Release Data File, ef2021c and ef2022c Final Release Data Files, ef2023c Provisional Release Data File.

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4. The adjustments for the institution contribution to the state or regional goal are then applied to the baseline credential production estimate from step 2. CMU's proportion of the 358,139 gap is calculated as the baseline credential production (10,409) times the credential productivity growth index (0.97) times the population change index (0.97), resulting in 9,818 additional credentials needed by 2030. Accounting for model residual and other enrollments age 40+ (358,139 goal awards less 337,190 modeled awards = 20,949), CMU's final additional credential production goal by 2030 is 10,428 ( $9,818/337,190 \times 20,949 = 610$  and  $9,818 + 610 = 10,428$ ). To calculate the goals specifically for the Detroit region, the final institution goal for additional credential holders needed from Detroit students is then divided by the estimated percentage of students from Detroit to create an institution wide goal.
  5. CMU currently produces 2,606 undergraduate completers annually (NCES, IPEDS 2022-23 Completions Survey, c2023c provisional release data file). To make consistent progress towards the 60% goal using a compound interest approach and 8 modeled production years (2022-23 through 2029-30), total CMU completers need to increase by 8.3% annually.

Note that because Detroit currently has a higher percentage of individuals with a degree, certificate, or high-quality credential, the additional credentials needed to reach the Detroit goal is less than what's needed to reach the Michigan goal.

### **Disaggregated Goals**

Institutional goals have been disaggregated by race/ethnicity, age group, and gender. These goals are based on the distribution of completions to these sub-groups in the 2022-23 academic year, with the proportions applied to the total goals identified in the above steps.