Portrait of 2045

_Michigan Tech: A global technological university that inspires students, advances knowledge, and innovates to create a sustainable, just, and prosperous world._

1. Internationally competitive faculty – 400 in tenured or tenure-track positions and 40% in endowed positions

2. Student body of 10000 - $500 million scholarship endowment
   a. 6500 Undergraduates
   b. 2400 Masters [2000 coursework/professional]
   c. 1100 PhD
   d. 40% female and a top 10 university in percent of engineering degrees granted to women

3. Globally literate graduates with strong communication skills

4. Residential-based undergraduate experience in a technologically rich learning environment

5. Internationally recognized for research, development and innovation

6. Sustainable financial model with decreasing reliance on state funding

7. Entrepreneurial, efficient, service-oriented and sustainable university culture

8. Year-round calendar

2006-2015 actual progress toward 2045 goals and projected 2018 goals
Notes on 2045 numeric goals:

Projection method: Numerical targets for Enrollment, Freshman ACT, and Graduating PhDs are projected linearly from the present to the 2045 goal; Financial metrics of Sponsored Awards and Endowment Value are projected using a constant compounded interest rate.

Enrollment: Goals are taken directly from the Portrait of 2045

Freshman ACT: Arbitrarily specified at 29.0

Endowment: From the Portrait of 2045, the 40% of 400 faculty positions being in endowed positions, at our current $1 million per professorship, implies $160 million endowment in today’s dollars. Coupled with the $500 million in endowed scholarships, gives $660 million in today’s dollars in 2045. Our current Michigan Tech Fund inflation assumption is 2.25% annually, resulting in a future 2045 value of $1,258 million. This further implies a 9.1% annual growth, which includes the growth of the current endowment plus new funds raised.

Graduating PhDs: Using the rule of thumb that at steady state about 1/8th of the enrolled PhDs graduate per year, the target of 1,100 implies about 140 graduates per year [actually 137.5]

Sponsored Awards: Currently, dividing our annual sponsored awards by PhD enrollment gives approximately $100,000 per enrolled PhD student. The Portrait of 2045 goal of 1,100 PhD students gives a Sponsored Awards total of $110 million in today’s terms, or about $210 million in 2045 using the same MTF 2.25% annual inflation factor. This further implies an increase of about 4.5% per year from the 2015 base.