IBM P-TECH
Logic Model

IBM Mission for P-TECH: To provide equitable access to education and career opportunities for inclusive economic growth.

P-TECH is a public education reform model focused on college attainment and career readiness. P-TECH schools span grades 9-14 and enable students to earn both a high school diploma and a no-cost, two-year postsecondary degree in a STEM field.

IBM's P-TECH mission is to provide equitable access to education and career opportunities for inclusive economic growth. IBM has a deep commitment to social justice and wants to play a role in providing opportunities for low-income and students of color to succeed in STEM education and careers.

This logic model maps out the inputs to ultimate impacts on IBM's approach to the P-TECH initiative from schools, higher education partners, government, and the online platform IBM SkillsBuild for Students.

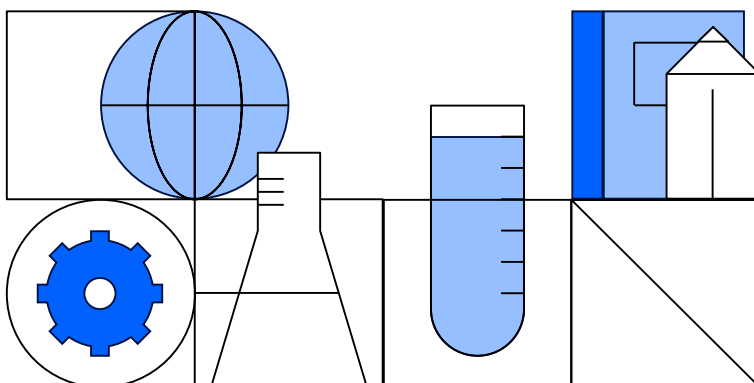| Resources	Activities	Outputs	Outcomes	Impact
Partnerships, funding, and personnel	Components of the program and strategy meetings	Numeric benchmarks as a result of the activities	Measurable metrics met based on meeting outputs	The reaching goals and purpose of the program

Resources

Activities

School Model

Staff and personnel

— IBM P-TECH Staff (Executive Team, Program Managers, Corporate Social Responsibility Managers)
— Education leadership

Institutions and Systems

— Higher education institutions (community colleges)
— Local school districts
— Industry partners

Other Materials

— Career Technical Education curriculum
— State Funding
— Third-party evaluators
— IBM Corporate Social Responsibility education and career programming

School and Industry Partners

— STEM college course taking (free to students)
— Mentorships
— Paid internships
— Job shadowing
— Worksite visits
— Project days
— Competitions

Personnel Engagement

— Industry Program Managers and school staff meetings
— Steering committee meetings with leadership from community colleges, school staff and industry

Government

Personnel and Institutions

— Local government leadership personnel
— State/Regional departments of education
— Local/State government
— Federal government

Institutions & Systems

— Government entities and IBM meetings
— Funding negotiation conversations for the program

IBM SkillsBuild for Students

Tool

— IBM SkillsBuild for Students Platform
— Virtual mentoring through Chronus

Supplemental Education

— Adding courses to queue
— Taking courses and earning badges
— Participating in an IBM SkillsBuild for Students discussion group/forum through Tribe

2

Outputs

School Model

Student Background and Academics

— # students earn AAS within 4, 5, or 6 years
— #/% students from underserved backgrounds
— #/% students from low-income families/neighborhoods
— # students graduate HS within 4, 5, or 6 years
— # students meet college readiness benchmarks (entrance exam
    requirements, ACT/SAT, etc.)
— % students reaching academic performance benchmarks based
    on country's grading system

Career Readiness

— # of students acquisition of professional skills
— # of students acquisition of technical skills
— #/% students experience summer internships

Industry Engagement

— # of mentors and volunteers
— % of mentor retention and reengagement
— # hours of mentor volunteer engagement
— # mentor NPS (IBM Volunteer feedback)
— # of internships offered
— % received guaranteed job interviews from industry partner
— # of career related events
— # of students hired into IBM full-time or apprenticeship
— % attending steering committee meetings (at least twice a year)

Government

State Engagement

— Increase dollar amount for program funding
— # of states adding school model to their state
— # of states replicating school model with their state
— An RFP or other mechanism to identify school partnership

IBM SkillsBuild for Students

Network Engagement

— % P-TECH schools on platform
— % P-TECH students engaged
— # badges earned
— # hours, days, weeks engaged in coursework
— # topics explored
— # of interactions with mentors
— % of students who progressed to SkillsBuild
— % of students who met criteria for a "career experience"

Outcomes

School Model

Higher Education

— Increased # of students from low-income backgrounds and students of
  color graduating high school with college credits and/or an AAS degree
— Increased # of students are better prepared to continue their higher education
— Reducing or erasing the the cost of higher education for low-income and
  students of color
— Increased # of first-generation college going students
— Increased alignment between college curriculum and STEM workforce skills

Career Development

— Change in students' perspective on future career and education
— More independent real-world professional and life experiences compared
  to traditional high school peers
— More students with employability skills and social-emotional competencies
— More students hired into competitive positions

Industry Policies and Practices

— More inclusive and equitable hiring practices for STEM positions
— Increased pbrand value and recognition
— Continued impact on communities and local economies
— Increased in industry employee recruitment, engagement and retention
— Better diversity, equity, and inclusion disclosure metrics
— Increased stakeholder engagement through public-private partnership

Government

Ideology

— Change in ideology in state secondary school funding practices
— Legislation enables P-TECH funding

**IBM
SkillsBuild
for Students**

Ideology

— Open to exploring other technologies and STEM methodologies
— Wanting to continue their own professional development by moving to
  Skills Build
— Wanting to push their own knowledge of a career field/professional skill by
  opting in to a "career experience"

Impact

School Model

Overall

— More qualified candidates to fill entry-level STEM positions
— Reshaping secondary education culture to include more realworld learning
  in the curriculum
— Closing the gaps of siloed institution connections between local school
  districts, state government and industry
— Establishing a culture that normalizes the pathway of high school to career
— More diverse talent in STEM industry including race and gender
— Companies become more aware of inequities in the industry and actively
  work to eradicate them with increased equitable hiring practices

Government

Overall

— Sustained funding for existing schools and ongoing replication

IBM SkillsBuild for Students

Overall

— Shifting attitudes about technology
— Having more learners who view STEM as a possible career field for them
— Having more learners who choose to pursue a technical certification and/
  or decide to major in a STEM field at a 4-year school

Additional Information

There are some assumptions that are made for the P-TECH model to work. Some including, but not limited to, are the following:

Assumptions

— Complete buy-in and follow-through on agreed upon responsibilities from all institutions
— School curriculum aligns with supporting the expected program outcomes
— Schools are equipped to provide professional development for teachers for the differentiated instruction needed for the unique group of students in this program
— The program's curriculum aligns with labor market data evidence of jobs and hiring needs
— The program's curriculum addresses the hiring needs for the selected local community or region
— There are available and committed industry partners in the region of the program that have the resources to support
— Industry participation and quality of engagement is equal across the network
— Industry partners are equipped to provide paid internships to eligible students
— The methodology of the program culturally fits the needs and expectations of the population it serves.

Here are some external factors that can affect the implementation and outcomes of P-TECH

External Factors

— Changing priorities with state, local and federal governments/leadership
— Changing policies on the federal government and local level for funding
— Changes to the economy (e.g. economic recession)