

TECM Model Architecture

Decision Outputs

Task-Exposure-Congestion-Marker Career Evolution Model

Enrollment
Strategy

Curriculum
Redesign

Supply-Demand
Projection

Environmental
Impact

Policy & Feedback

Module C
Cost Engine

Module D
VCB Congestion

Module E
Dynamics

Module F
Education

Dynamic Core Engine

$A(t)$
Adoption

$E(t)$
Employment

$V_s(t)$
Capability

$p(t)$
Congestion

Task Decomposition & Risk Assessment

Module A
Task Parser

Module B
Risk Index

Semantic
Annotation

Weight
Imputation

Data Sources

O*NET 30.1
(Task Statements)

BLS OEWS
(Employment)

IPEDS
(Graduates)

AI Exposure
(GPTs/AIOE)

Calibration Loop

Policy
Feedback