STEM Preparation Theory of Action

Context

- WA state is a netimporter of STEM BA and MA new hires
- 45,000 unfilled STEM jobs in WA state 2018
- STEM needs more women & minorities
- Rural students connect to STEM through agriculture
- Rural districts need more rigorous classes

Theory of Change: WHEN students.....

Inputs

- Expose students to STEM grades 6-12
- Promote STEM for college and careers
- Train teachers to teach STEM
- STEM projects captured via digital badges + online portfolios
- Summer STEM prepare students for freshman year
- Students connect with STEM professionals & ojects

Outputs

- Students understand STEM options & more pursue STEM choices
- More students complete more dual credit STEM courses
- Students complete STEM projects they use for college applications
- There are more STEM qualified teachers
- More students have more digital badges demonstrated their STEM experience
- More students are accepted to STEM PSE

Measurement

- # of students engaged in STEM activities and clubs
- # of STEM dual credit courses completed
- # of STEM badges awarded
- # and % of PSE plans that include STEM
- # and % of students enrolled in PSE in STEM fields
- # of students who persist to complete degrees in STEM



- 2. are academically ready
- 3. understand STEM options
- 4. engage in STEM projects
- 5. can showcase their STEM projects

THEN more students will enroll and complete STEM PSE in Washington State



- Revise theory of action
- Identify PD needs
- Add/remove activities

Revision



Use of Evaluation Results



- Analysis
- Reporting
- Dissemination

Application



