

# Community Informed AI-Based Vehicle Technology Simulator with Behavioral Strategies to Advance Neurodiverse Independence and Employment

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## Project Challenge

Address the transportation and employment challenges autistic adults face in the US using a cost-effective AI-based virtual driving instruction platform and a novel driving curriculum.

## Intellectual Merit

**Technical Advancements:** The project pioneers the optimization of AI algorithms within the simulator, pushing the boundaries of tailored driving instruction. This innovation holds promise for broader applications in technology-driven education and skill development.

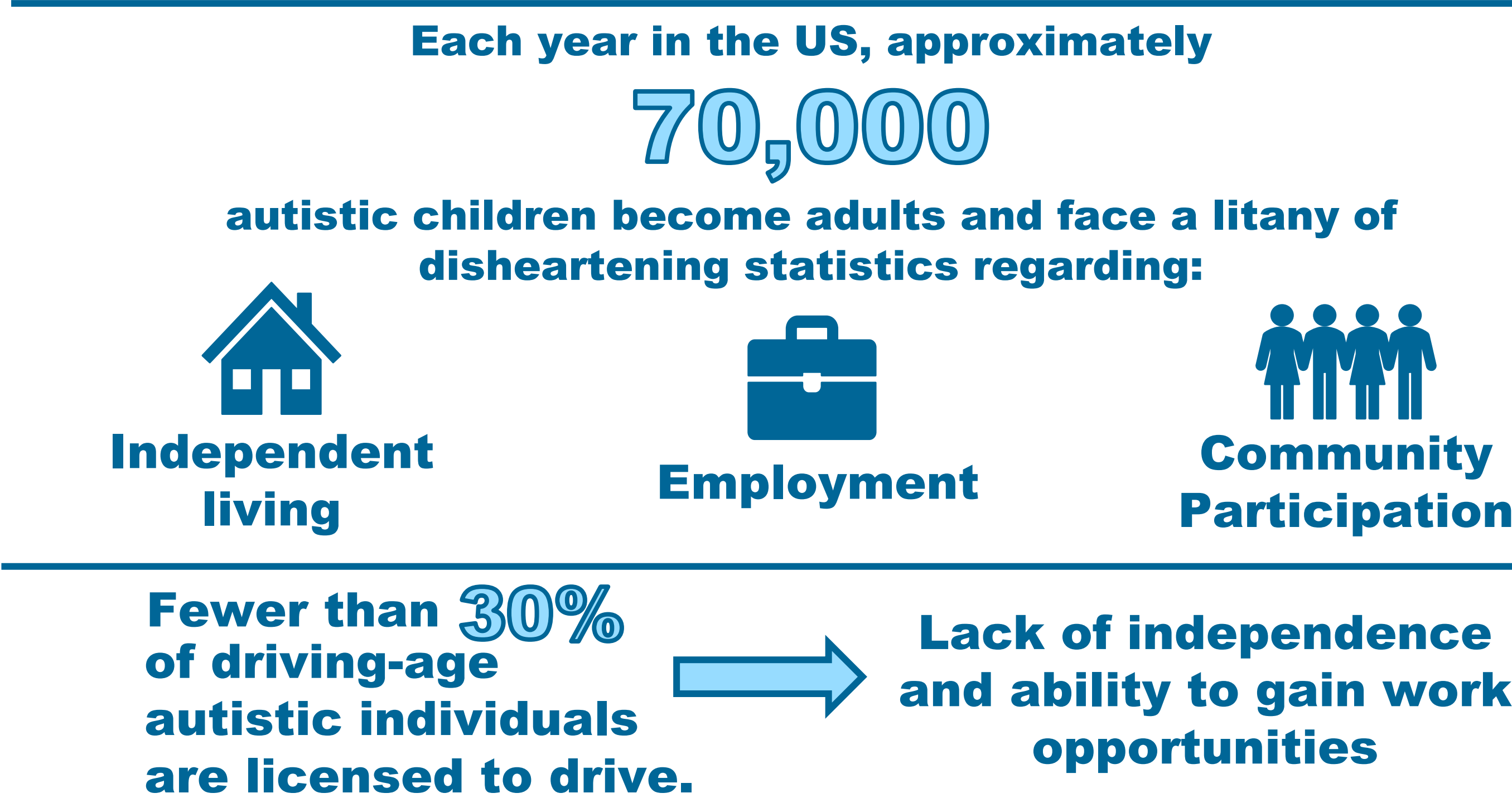
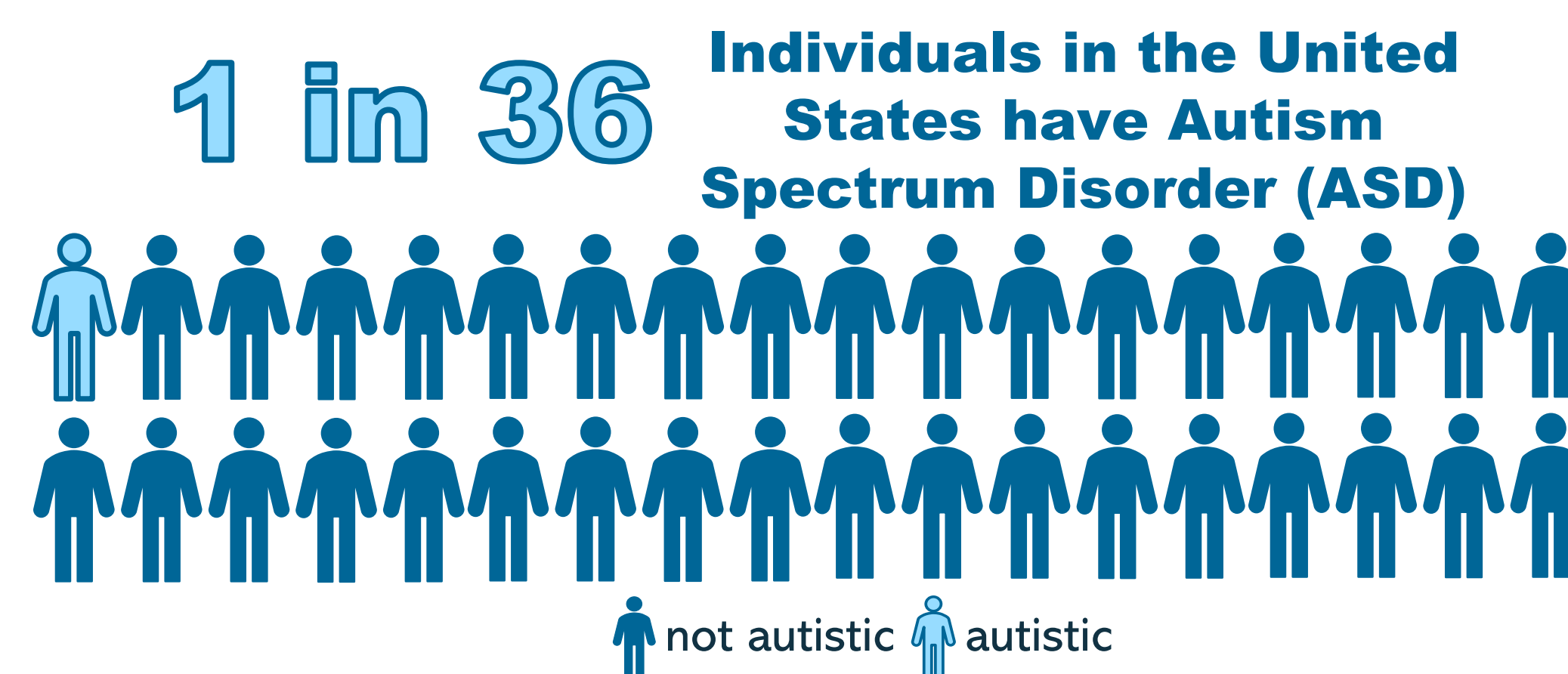
**Social Advancements:** By empowering autistic individuals for independent mobility and employment, our project contributes to a **more inclusive community**. Beyond transportation, the outcomes extend to influencing community planning, health, and overall well-being, fostering a society that values and accommodates neurodiversity.



*We learned from the community that this project addresses a problem of real significance, and that this problem will benefit from the inclusion of research to leap beyond the ways the community has worked to address this problem previously.*

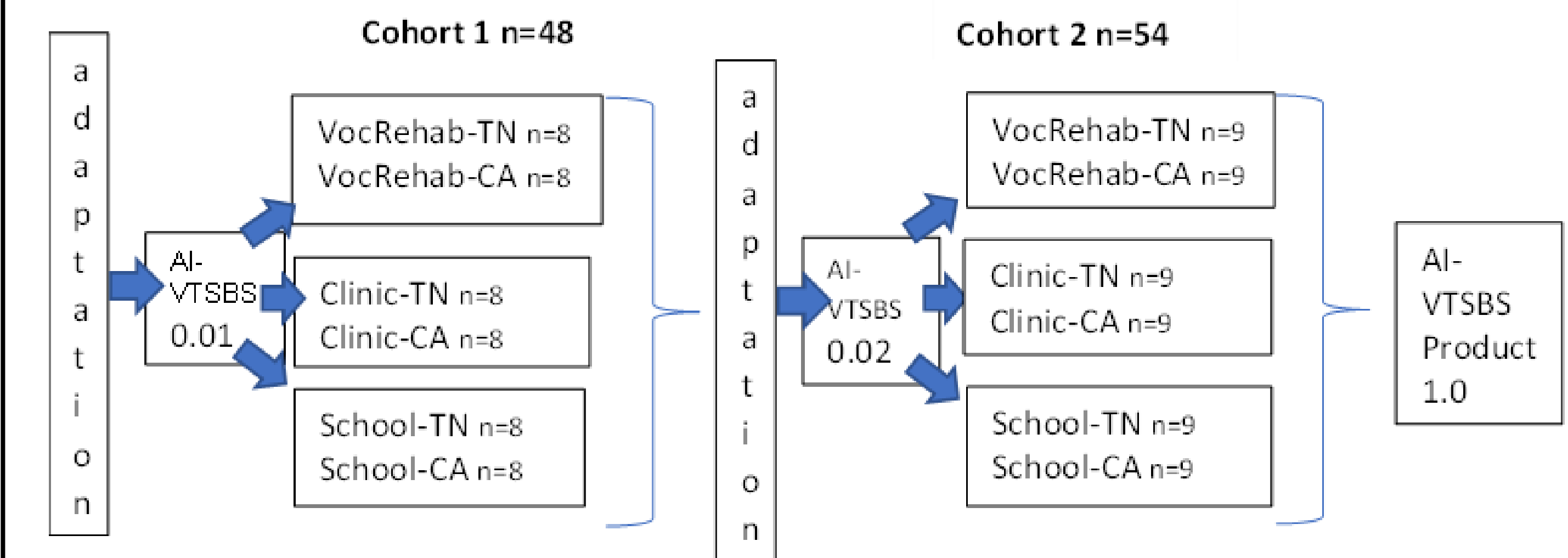


Our project immediately benefits autistic individuals, providing increased independence and employment opportunities.



Long-term impacts extend to promoting societal inclusivity, challenging stereotypes, and boosting the economy through a skilled and diverse workforce.

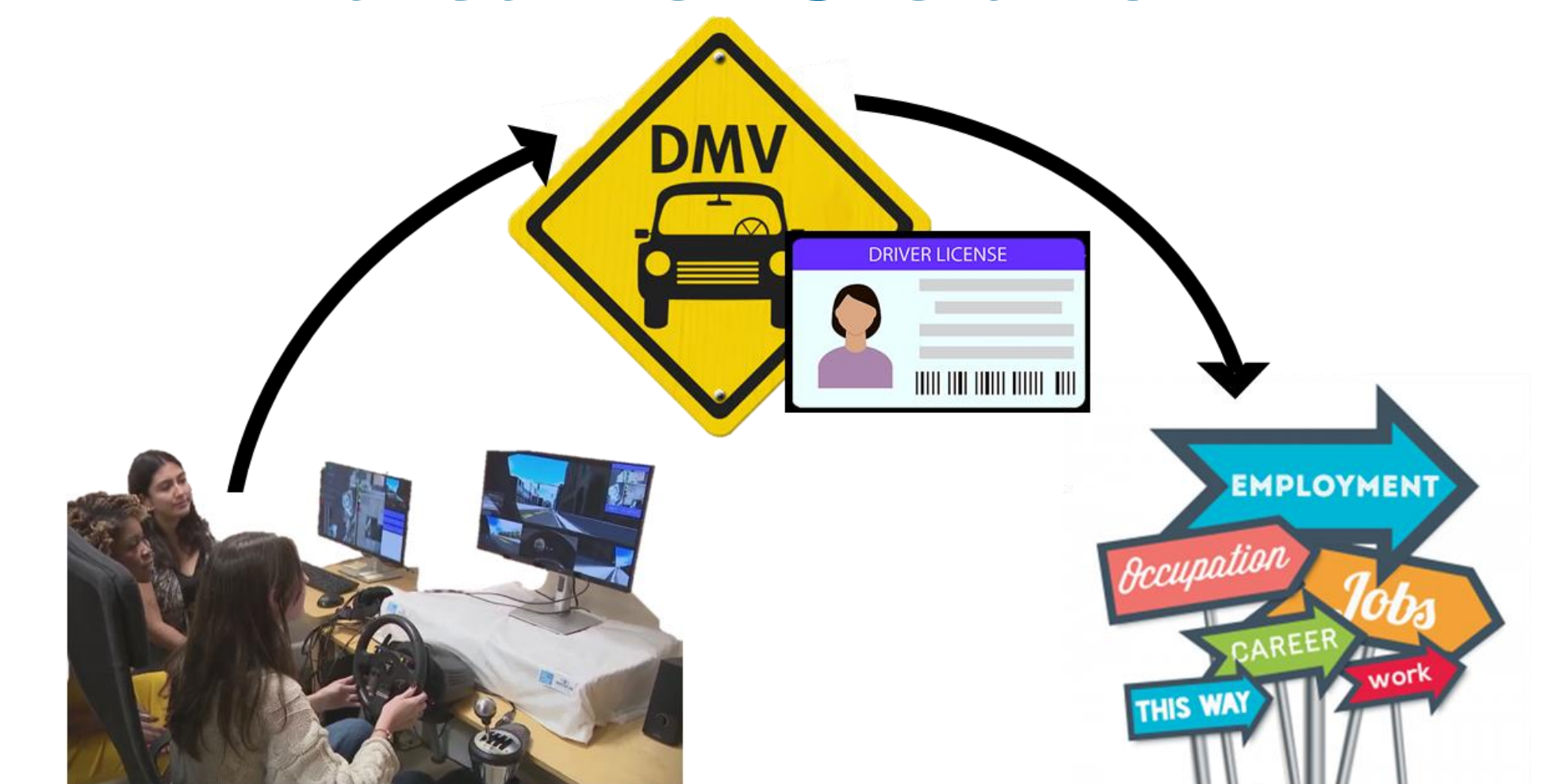
## Major Outcomes/Progress



**Driving Simulator:** Data collection including eye gaze, pedal information, and physiology has been developed and tested. Additionally, a detailed user manual for the community partners has been written to prepare for deployment. Technology has been shipped to Cohort 1 sites for assembly.

**Driving Curriculum:** The curriculum has been completed. Manuals are printed and compiled. Training has begun with the community partners that are part of Cohort 1.

## Future Goals



Key objectives include the deployment of the AI-based Vehicle Technology Simulator with Behavioral Strategies (AI-VTSBS) system, conducting six comprehensive programs in diverse settings, and obtaining valuable feedback for refinement.