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Dilemmas in Promoting Growth in the Geoscience Discipline

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The American Geosciences Institute has actively monitored the geoscience workforce since 1955. Except for the start of the Minority Participation Program in 1972 to promote increased racial and ethnic diversity, the Workforce program strictly focused on reporting data about geoscience departments and conducting periodic comprehensive reports on the whole geoscience workforce. In the early 2000's, the Workforce program began a crucial evolution towards also supporting individuals in developing a career in the geosciences, including informing students about career options, advice and tools for the transition between student and professional, and working as a bridge between employers and educators about needs and issues throughout the human capacity pipeline. Transitioning to this proactive posture has not only posed interesting dilemmas for AGI's actions in influencing individuals career trajectories, but also exposed other critical, often structural human capacity dilemmas that represent critical challenges for the involved individuals, but have not been addressed systematically. These critical structural frameworks in the geoscience education/employment environment potentially impose potentially negative impacts on individuals' career prospects without their knowledge or even recognition of the impacts by any of the involved parties, while often crucial components to the positive career development for other individuals. Four frequently witnessed scenarios will be presented for consideration by the community of their impact and challenges: the need for graduate students to support faculty research in an environment where new doctorate recipients are facing difficult career prospects; the hiring of new graduates with serious technical deficiencies into limited entry-level jobs that their will risk their career as their salaries increase; the promoting of the vast opportunities in the geosciences, which is a simple message, but still inform prospective majors of the critical, and often challenging, educational requirements; the dynamics of boom-bust cycles in geoscience have created some warped employment trends in the latest cycle, including apparent job shedding to accommodate average salary reductions.

