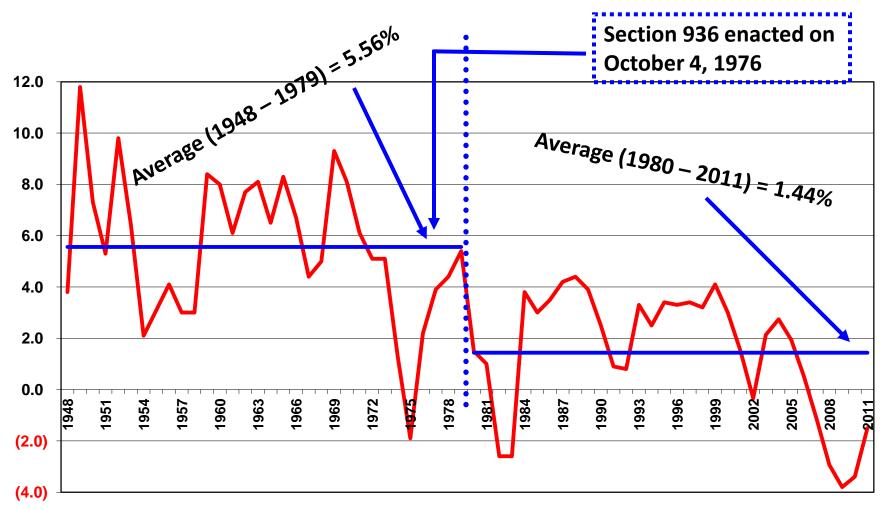
# Education and Economics

By Carlos A. Colón De Armas, Ph.D. September 20, 2012

## Puerto Rico: GNP Annual Growth (In real terms and in %.)



Source: Puerto Rico Planning Board and author's computations.

# Quality of Early Education and Future Quality of Life

- Higher quality of education in grades K-3:
  - Does not necessarily produce higher scores in future standardized tests.
  - But, improves the future quality of life of the students.
  - In particular, the higher the quality of an early education, the more likey that, upon reaching adulthood, the students will
    - have higher earnings,
    - attend college,
    - buy a house, and
    - save for retirement.
- Major implications:
  - Reducing class sizes, and assigning more experienced teachers, in grades K-3, will benefit greatly the adult life of the students and, as a result, will lead to a better society in the future.

Source: Chetty, Raj, John N. Friedman, Nathaniel Hilger, Emmanuel Saez, Diane Whitmore Schanzenbach, Danny Yagan, "How Does Your Kindergarten Classroom Affect Your Earnings? Evidence from Project Star," Vol. 126, No. 4, November 2011, pp. 1593-1660.

#### Quality of Education and Crime

- Students who attended the best middle and high schools were less likely to be involved in criminal activity. In particular, these students were:
  - arrested for fewer serious crimes, and
  - spent fewer days incarcerated.
- The results were stronger (50% less crimes committed) for students who, based on other factors, were considered "high risk youth".
- The effect lasts up to seven years after leaving school.
- Major implication:
  - Improving the quality of the schools is one of the most effective tools we have to reduce crime.

Source: Deming, David J., "Better Schools, Less Crime?," Vol. 126, No. 4, November 2011, pp. 2063-2115.

### Financial Incentives and Student Achievement

- Financial incentives (paying students for reading books, for their test scores, or for their grades) did not result in better student achievement (in reading comprehension or mathematics).
- The only exception might have been that paying students for reading books might have been beneficial for students whose native language is english. For students whose native language is not english, however, that incentive might have had a negative effect on achievement.
- Major implications:
  - To improve education, simplistic solutions are not bound to work.

Source: Fryer, Roland G., Jr., "Financial Incentives and Student Achievements: Evidence from Randomized Trials," Vol. 126, No. 4, November 2011, pp. 1755-1798.

## Minimum Admission Indexes UPR: Río Piedras (2012)

Environmental Design	(Maximum)	340
Natural Sciences – Biology		335
Social Sciences - Psychology		333
Natural Sciences – General		330
Natural Sciences – Chemistry		325
Social Sciences – Political Science		325
Public Communication – Journalism		323
Natural Sciences – Physics		321
•••		•••
Secondary Education – Mathematics, Physics		290
Business Administration (Most)		285
Elementary Education (All)		280
Elementary Education – Pre-School	(Minimum)	280

Source: <a href="http://estudiantes.upr.edu/admisiones/igs/imi2012.pdf#page=1">http://estudiantes.upr.edu/admisiones/igs/imi2012.pdf#page=1</a>