The PGA ranking is likely a simple calculation based on the golfer's performance at certain tournaments (i.e. # of strokes or place in said tournament). It is probably more accurate because (a) the notion of "best" in golf is more rigorously and objectively defined than "best" colleges since games have strict win/lose outcomes and (b) it has less selection bias (colleges could be "good" but let in worse students lowering their ranking, if we define "good" to be pedagogical quality).

b) Letter grades in school are such a system, using tests as a yardstick for academic ability and effort. An advantage of testing is it allows consistent rankings and simplicity, a disadvantage is that it rewards those who can pass a test without deeper knowledge and punishes students with lower test-taking acumen. (Also year-to-year fluctuations.)

2) a) Computers are best suited at replacing lower-middle class labour of routine, information-based tasks (such as bookkeeping, drafting, etc.) and is currently ill-suited for low-wage jobs such as janitorial, agricultural or service work. Therefore I would expect computer replacement to be minimal for guest workers who predominately occupy such jobs.

b) A high earnings gap could shift demand to lower-skilled, lower-wage work, which could theoretically increase demand for guest workers as employees with high skills are unwilling to work these jobs.

3) a) Small classroom size had best performance gains in early education (START program) which suggests higher expenditure in reducing class size here would have a big impact. In addition, one study demonstrated predictive value of ability tests on future educational attainment became high after 5 years. This implies (but does not necessitate) that students may be most malleable to educational investment in early years, therefore (suggested) a higher ROI on such segments.

Also Perry preschool showed this intervention can work.
b) The effects of the STAR program have been contested by Flanacher. In addition, the predictive value of early years' aptitude on adult educational attainment could have other causal factors (smart parents, good families, high SES) and therefore actual ROI may be less.

Mike Anderson's research disputed Heckman's.

4) a) Not necessarily. If we knew how many computers were bought by whom. Then we could use a difference-in-difference approach to assess performance on those who got funds and misspent them, to those who got funds and bought computers. Other problems could include, if the legislation was introduced everywhere in an identical fashion (no control) or if rural performance was only known in aggregate (no labelled differentiation from schools with and without new computers).

b) I would want data on rural schools which received funding and those that did not and the relative performance of said schools over a 5-year post-intervention period.

5) a) First, the assumption is that workers and managers are honest about output. Second, that there isn't a Hawthorne effect whereby the presence of observing researchers has a causal effect on production. If these are not held, actual productivity may be lower than reported. Second, the assumption is that managers are maximizing profit (productivity) and therefore inputs are efficiently directed to outputs.

b) Principals and teachers may have incentives other than test maximization which distorts the input/output relationship.

c) Because schools are not always incentivized to maximize academic performance, models may yield distorted results, and experiments reach wrong conclusions. Teachers may want to maximize classroom ease or non-testable learning. Principal's may want political favor, etc.