Comments

Eric A. Hanushek: Much of education is driven by fads. Most frequently, these fads involve issues of curricula or programs. Some, however, involve the organization and management of schools, such as the degree to which decisions are made by central authorities as opposed to local school personnel. A common thread among all of these fads is that they are seldom systematically evaluated in terms of their impacts on student performance. That characteristic solidifies their position as a fad, because, lacking information about success or failure, they are subject to being replaced by the next fad. In this light, Galiani and Schargrodsky's analysis of decentralization is refreshing. They address the impact of educational decentralization in Argentina in a serious and thoughtful way, and they provide some preliminary support for policies that would move more decisionmaking out to the local provinces and schools.

Decentralization has been advocated by a variety of people and organizations, including the World Bank. The strength of support for this idea has not, however, been accompanied by any substantial evidence about the success of such policies. As Galiani and Schargrodsky point out, even though there is clear support for such policies on the grounds of information about local conditions and needs, there are other arguments about factors that could mitigate, if not reverse, the advantages of decentralization. They identify issues of local political economy and local bargaining, of spillovers and externalities, and of decisionmaking capacity. This list could easily be expanded. Thus they quite correctly point out that the advantages and disadvantages of decentralization are empirical questions.

Their work capitalizes on a policy change in Argentina during the 1990s that called for the decentralization of federal secondary schools to the provincial level. Because different provinces had historically different levels of federal school provision and because the decentralization occurred at different times across the provinces, there is variation in the decentralization process that can be exploited to try to identify its impacts.

Identifying the causal impact of decentralization is nonetheless difficult. Many factors that affect achievement are likely to be correlated with the amount of decentralization—either casually or simply by association. It is clearly very difficult to identify and measure all of these other things, making the problem of omitted variables bias very real.

Galiani and Schargrodsky pursue a clever idea: many of the factors that might differ by province could be accounted for by considering the difference in performance between public and private schools. Factors such as economic conditions, parental education, language differences, or general governmental programs outside of schools might reasonably be thought of as affecting both public and private school students. By defining their performance measure as the difference between public and private school achievement, they can thus eliminate any common elements.

What this approach does not deal with is any factor that has a differential effect on the two sectors. For example, private school attendance is not randomly determined, and the factors involved in this might naturally intrude on their identification strategy. If the public schools in a province are more attractive than private schools and thus are able to bid away both teachers and students from the private sector, then there are obvious selectivity differences that do not fall out with their strategy of contrasting public and private performance. More seriously, if decentralization in fact made public schools more attractive over time to teachers and parents, the change in selectivity could be directly related to the amount of decentralization. Similarly, if private schools tended to be more urban than public schools, a variety of factors including economic conditions could operate differentially on the two sectors. The authors provide a useful discussion of potential advantages and disadvantages of their strategy, but there is a limit to how far they can go without undertaking more detailed analyses of the differences between the sectors.

On net, their strategy is undoubtedly useful. Nonetheless, some concerns necessarily remain because it relies on strong assumptions about the operation of the two sectors. I therefore interpret their results as suggestive, but surely not definitive.

With regard to the details of the analysis, one real concern involves the measurement of the key variable, centralization. Provinces differ in the amount of decentralization that occurs and the timing of this occurrence. The authors combine these two factors into a single measure (CEN) of the average proportion of years that students spent in federal schools.

Combining the two involves strong assumptions about the form of any relationship. Assume, for example, that a province requires some time to adjust to running formerly federal schools, that is, some learning is required before the provincial administration can provide good decision-making. In such a case, one would want to know something about the distribution of students in provincial schools by the length of time that each school had been a provincial school. It is difficult to know how these measurement issues affect the estimation, but they raise some concerns.

Similarly the authors attempt to measure decisionmaking capacity through information about the size of general governmental deficits in the provinces. While I do not completely understand the institutional structure, I am left unsure about the appropriateness of this measurement. Moreover, while they do not have a lot of choice, they impose another strong assumption about the underlying model when they simply interact deficits with the amount of centralization.

These details should motivate future work. They should not distract readers from the quality of the study. Galiani and Schargrodsky ask important questions, and they provide credible initial results.

Mariano Tommasi: Decentralization is a very important policy and institutional-reform issue in Latin America. Unfortunately, the enthusiasm of the policy communities has run ahead of clearheaded thinking in this area.[1] We need more focused theoretical analysis, a better understanding of the institutional and political circumstances of actual experiences, and better econometric evaluation of the experiences so far. This paper constitutes a valuable addition to that effort. It presents a carefully thought out and well-executed econometric exercise to evaluate the impact of the decentralization of some educational functions in Argentina.

Given the nature and purposes of this journal, I take the paper to be a useful building block in a broader effort of evaluation and policy discussion. I therefore focus my comments on fitting this contribution within the broader questions of the decentralization debate. I also suggest complementary efforts that might help extract a fuller lesson from the experiment under consideration.

1. As Oates (1998) puts it, "the case has generally been made in a very broad and uncritical way with little in the way of systematic empirical support."

The "D word" has come to mean so many different things that it is becoming more an obstacle to than a vehicle for intelligent communication. The term decentralization is used to refer to a variety of different experiments, including deconcentration (the dispersion of responsibilities within a central government to local branch offices), delegation (in which local governments act as agents for the central government, executing certain functions on its behalf), devolution (the stricter definition of decentralization, in which not only implementation but also the authority to decide what is done is in the hands of local governments), and even privatization. Devolution, in turn, often refers to several distinct experiments, although in some specific instances those experiments come bundled together. It includes political decentralization (the constitutional recognition of local governments, the institution of popular elections of local government officials, and the like), as well as the decentralization of rights and responsibility over a particular area of policymaking to already "independent" political authorities. This last case can refer to taxes, regulatory powers, expenditure responsibilities, and so forth. In the example of the paper—namely, education—decentralization can encompass regional or provincial governments, local or municipal governments, the community, the school, and even principals, teachers, and parents. Needless to say, each policy area is in itself a bundle of different responsibilities that in most countries in the world are shared somehow across different tiers of government; the case of education in Argentina, both before and after decentralization, is no exception. All this creates different degrees of division of labor across multiple layers, as well as the need for coordination among those layers. Given the variety of possible experiments, one wonders whether it is even possible to evaluate decentralization, as the original title of the paper suggested. The authors have, rightly, narrowed their pursuit to a more humble one, that is, to provide one step in the evaluation of one particular experiment, the decentralization of education in Argentina.

To put the contribution of the paper in perspective, I start by reviewing some of the theoretical channels that have been suggested for inducing the so-called magic of decentralization to "bring government closer to the people," and I assess the extent to which those channels might be at work in the case under consideration. Although the paper does not go all the way in identifying those channels, doing so could prove important for drawing more general, portable lessons from this case.

The most standard result behind the intuition about the advantages of local governments is Oates' decentralization theorem, which states that decentralized governments are more responsive to local demands. In its most basic formulation, it can be interpreted as arguing that local governments have informational advantages over the central government. That reasoning does not pass the local-office test, however. Why would a bureaucrat, born and raised in a particular locality, have more or less information about local needs and preferences depending on whether the bureaucrat's paycheck comes from the local government or the capital city? This forces us to focus on the political economy arguments of control and accountability.[2] Changing the political allocation is supposed to bring about different incentives to elicit and use such information. Hence the need to understand the mechanism by which this improved citizen control takes place. Several possible mechanisms have been suggested. I briefly review each of them here to assess the extent to which it might be operational in the case of educational decentralization in Argentina.

The first mechanism to consider is the size effect. The relationship between the citizens and their governments is essentially a common agency relationship, in which many principals (the citizens) try to control the behavior of their agents. Some results indicate that under some conditions, the smaller the number of principals, the better they can exercise control.[3] This is one of the reasons why small communities are said to exercise better control over their elected representatives than very large polities. This result seems logically applicable when comparing, say, a country of 35 million people to a town of 900 people. It does not seem very pertinent, however, when comparing a country of 35 million people to provinces that range from 13.5 million to 125,000 people. When the authors look at the interactions between decentralization and the size of the province, they find no effect, as one would expect from this logic. Both logic and the evidence thus suggest that the size of the community is not at work here. This analysis underscores the risks of uncritically applying the mantra reasoning of decentralization: the size effect might have bite when decentralizing toward very local levels, but not when decentralizing toward regional governments.[4]

2. Besley and Coate (2000).

3. For instance, Tommasi and Weinschelbaum (1999).

4. The instruments of small town control could also operate in the opposite direction: the local political elite may have an easier time enforcing the people's political obedience

Another plausible factor for explaining why decentralizing a particular public responsibility to subnational governments can improve welfare is what might be called a dimensionality effect in political control. While the vote is by no means the only instrument of popular control, it is clearly an important one. People vote for candidates or parties who, in turn, offer and sometimes deliver different bundles of different public services. Under certain circumstances, voting decisions tend to be dominated by a salient issue. Imagine that people are concerned with two main policy issues, the control of the macroeconomic situation and education, and that—as is often the case in Latin America—macroeconomic issues are more salient than education. If that is the case and if both issues pertain to the domain of the central government, it is possible that neither the voters nor the politicians will give education much consideration in their decisions. If, on the other hand, education was decentralized to the provincial level, then voters could control macroeconomic performance through their vote in national elections and educational policy through their vote in provincial elections, thereby improving the incentives for a better provision of the latter public service. Since this sounds like a plausible mechanism at work in the Argentine case, I develop more detailed considerations below, after quickly reviewing some other possible channels.

The third mechanism, interjurisdictional competition, operates through both the Tiebout mobility channel and yardstick (electoral) competition. The conditions necessary for the Tiebout mechanism to operate do not seem to be fulfilled in Argentina, where the federal fiscal system is such that there is very little correspondence between local taxation and local public service delivery.[5] Yardstick competition, in which voters take into account performance in other locations when evaluating the performance of their local government, might be at work, but it still requires something like the dimensionality effect as a prerequisite. If education is not salient in electoral competition, the ability to compare with other provinces will have little effect. Furthermore, the results of the test scores were not made publicly available throughout the period under consideration, a fact that casts doubt on the relevance of yardstick competition.

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than at the national level. If the size issue is operational, this consideration will be addressed in the very interesting section of Galiani and Schargrodsky's paper on the heterogeneous effects of decentralization, in which they interact decentralization with proxies for local political competition.

5. See Tommasi, Saiegh, and Sanguinetti (2001) for details.

Fourth, the idea of experimentation relates to a notion keen in the U.S. literature: using the individual states as policy laboratories. As I argue below, there is not much evidence of policy innovation in the Argentine case. Furthermore, the cases of policy innovation of which I am aware (and in which I happen to have been involved) were initiated after the period analyzed in this paper. This relates to a more general doubt: most of the mechanisms by which decentralization is supposed to work its magic take time to produce their full impact—probably more time than is covered in the paper's sample.

Finally, the notion of people's participation, of community involvement, is at the heart of the decentralization bandwagon. Yet such movements do not seem to have arisen in the case of decentralization of education in Argentina. Many observers consider that the provincial bureaucracies are more centralist and backward than the national government, to the extent that national bureaucrats in the Education Ministry occasionally attempted to leap-frog the provincial administrations, in order to push for more school autonomy and community participation. In practice, decentralization does not appear to have reached ground level: school principals, teachers, parents, and communities seem to participate as little as before.[6]

To summarize, none of the market-like or community-participation channels by which decentralization is supposed to bring about more responsive government seems to have been at work in this case. One qualified analyst of educational decentralization argues that "decentralization policies are most successfully implemented if there is a tradition of self-reliance by local communities; if local government or communities have their own sources of tax revenue or voluntary contributions; if the pressure for decentralization originates from the community rather than ministry planners; if all important affected political groups, especially teachers, are involved and informed about development of decentralization plans; and if administrative capacity at the local level either already exists or is trained."[7] None of the above conditions seems to have been satisfied in the decentralization of education in Argentina.

6. See Repetto and others (2001). ECLAC (1998, table 18, p. 66) ranks Argentina's experience with the decentralization of education as having the lowest degree of community participation in a comparison with Bolivia, Brazil, Chile, Colombia, Mexico, and Nicaragua.

7. Winkler (1991, p. 1).

This takes me back to one mechanism I identified as possibly operational, namely, the dimensionality-saliency effect through which education might have become the focus of provincial electoral concerns. Suppose that provincial governments do, in fact, feel more pressure from their citizens to improve public education. What are the means by which they can achieve that? One is through better monitoring of previously shirking principals and teachers, in an effort to reduce waste. The other is, simply, by spending more money.[8] It would be quite interesting for the authors to examine fiscal and education spending data. It could be that what is at work here is not the magic of decentralization, but the magic of money. Still, if decentralization triggers a reallocation of spending, that is an important result in itself. If such reallocation were consistent with people's needs and wishes, this would be in line with Faguet's findings for Bolivia.[9]

In these comments I have suggested some steps for extending this work to derive broader, more portable lessons from the case under consideration. In particular, it would be valuable to specify the channels through which the impact of decentralization materializes.

To close the comments, I have a final query regarding the dependent variable. The authors use the difference-in-differences from public to private schools under the maintained assumption that decentralization does not have an effect on private schools. The fact is that decentralization could matter for private schools. Those schools were also transferred to the provinces, and the quantitatively important subsidies that many private schools receive became a provincial budget matter.[10] Furthermore, the authors note in passing that the impact of decentralization is insignificant when they look only at public schools (without differencing with private ones). If one takes that remark at face value, a cynical reading of the paper's results is that the effect of decentralization is to worsen the performance of private schools!

8. Although it is debated in the literature whether money matters in the education production function (Hanushek, 1997), there is no theorem proving that it does not. In particular, it seems to matter more in developing countries.

9. Faguet (2001) finds that the elasticity of (investment) spending to measures of needs increases with decentralization.

10. Private schools educate 25 percent of total students in Argentina. Of these schools, 25 percent receive no subsidy whatsoever, 45 percent receive a subsidy that covers 100 percent of their costs, and the remaining 30 percent receive partial subsidies.

References

Angrist, Joshua D. 1995. "Introduction to the JBES Symposium on Program and Policy Evaluation." *Journal of Business and Economic Statistics* 13(2): 249–88.

Angrist, Joshua D., and Victor Lavy. 2001. "Does Teacher Training Affect Pupil Learning? Evidence from Matched Comparisons in Jerusalem Public Schools." *Journal of Labor Economics* 19(2): 343–69.

Bardhan, Pranab, and Dilip Mookherjee. 1998. "Expenditure Decentralization and the Delivery of Public Services in Developing Countries." Working Paper C98/104. University of California at Berkeley, Center for International and Development Economics Research.

Becker, Gary S. 1964. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education.* Columbia University Press.

Besley, Timothy J., and Stephen Coate. 2000. "Centralized versus Decentralized Provision of Local Public Goods: A Political Economy Analysis." Working Paper 7084. Cambridge, Mass.: National Bureau of Economic Research.

Bird, Richard M., and Francois Vaillancourt, eds. 1998. *Fiscal Decentralization in Developing Countries.* Cambridge University Press.

Burki, Shahid J., Guillermo E. Perry, and William R. Dillinger. 1999. *Beyond the Center: Decentralizing the State.* Washington: World Bank.

Chamberlain, Gary. 1984. "Panel Data." In *Handbook of Econometrics*, edited by Zvi Griliches and Michael D. Intriligator. Amsterdam: North-Holland.

Duflo, Esther. 2001. "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment." *American Economic Review* 91(4): 795-–813.

Dussel, Inés. 1995. "La situación del sistema educativo argentino." Buenos Aires: FLACSO. Mimeographed.

ECLAC (Economic Commission for Latin America and the Caribbean). 1998. *La descentralización de la educación y la salud: un análisis comparado de la experiencia latinoamericana.* Santiago, Chile: United Nations.

Engle, Robert F., David F. Hendry, and Jean-François Richard. 1983. "Exogeneity." *Econometrica* 51(2): 277–304.

Eskeland, Gunnar S., and Deon Filmer. 2000. "Does Decentralization Improve Learning? Autonomy and Parental Participation in Argentine Schools." Washington: World Bank. Mimeographed.

Faguet, Jean Paul G. 2001. "Does Decentralization Increase Government Responsiveness to Local Needs? Evidence from Bolivia." Policy Research Working Paper 2516. Washington: World Bank.

Fukasaku, Kiichiro, and Ricardo Hausmann. 1998. *Democracia, descentralización y déficit presupuestarios en América Latina.* Washington: Inter-American Development Bank and Organization for Economic Cooperation and Development.

Grindle, Merilee. 2000. "Designing Reforms: Problems, Solutions, and Politics." Working Paper 01-020. Harvard University, Kennedy School of Government.

Habibi, Nadir, and others. 2001. "Decentralization in Argentina." Discussion Paper 825. Yale University, Economic Growth Center.

Hanushek, Eric. 1986. "The Economics of Schooling: Production and Efficiency in Public Schools." *Journal of Economic Literature* 24(3): 1141–77.

———. 1997. "Assessing the Effects of School Resources on Student Performance: An Update." *Educational Evaluation and Policy Analysis* 19(2): 141–64.

Heckman, James, and V. Joseph Hotz. 1989. "Choosing among Alternative Nonexperimental Methods for Estimating the Impact of Social Programs: The Case of Manpower Training." *Journal of the American Statistical Association* 84(408): 862–74.

Heckman, James, and Peter Klenow. 1997. *Human Capital Policy*. University of Chicago Press.

Heckman, James, and Richard Robb Jr. 1985. "Alternative Methods for Evaluating the Impact of Interventions: An Overview." *Journal of Econometrics* 30(1–2): 239–67.

Hoxby, Caroline M. 2000. "Does Competition among Public Schools Benefit Students and Taxpayers?" *American Economic Review* 90(5): 1209–38.

Jimenez, Emmanuel, and Yasuyuki Sawada. 1999. "Do Community-Managed Schools Work? An Evaluation of El Salvador's EDUCO Program." *World Bank Economic Review* 13(3): 415–41.

Jones, Mark P., Pablo Sanguinetti, and Mariano Tommasi. 2000. "Voters as Fiscal Liberals." Buenos Aires: Centro de Estudios para el Desarrollo Institucional. Mimeographed.

King, Elizabeth M., and Berk Ozler. 2000. "What's Decentralization Got to Do with Learning? Endogenous School Quality and Student Performance in Nicaragua." Washington: World Bank, Development Research Group.

Llach, Juan José, Silvia Montoya, and Flavia Roldán. 1999. *Educación para todos.* Córdoba: IERAL.

Lockwood, Ben. 1998. "Distributive Politics and the Cost of Decentralization." Working Paper 2046. London: Center for Economic and Policy Research.

Lopez Murphy, Ricardo, ed. 1995. *Fiscal Decentralization in Latin America.* Washington: Inter-American Development Bank.

Lucas, Robert E. 1988. "On the Mechanics of Economic Development." *Journal of Monetary Economics* 22(1): 3–42.

Meyer, Bruce D. 1995. "Natural and Quasi-Experiments in Economics." *Journal of Business and Economics Statistics* 13(2): 151–61.

Meyer, Robert H. 1993. "Can Schools Be Held Accountable for Good Performance? A Critique of Common Educational Performance Indicators." In *Essays on the Economics of Education*, edited by Emily Hoffman. Kalamazoo, Mich.: W. E. Upjohn Institute for Employment Research.

Ministerio de Educación. 2001. "Estado de implementación de la ley federal de educación al año 2001." Buenos Aires.

Oates, Wallace. 1972. *Fiscal Federalism*. Harcourt Brace.

———. 1998. Comments on Anwar Shah, "Fostering Fiscally Responsive and Accountable Governance: Lessons from Decentralization." In *Evaluation and Development: The Institutional Dimension*, edited by Robert Picciotto and Eduardo Wiesner. New Brunswick: Transaction Publishers.

OECD (Organization for Economic Cooperation and Development). 1998. *Education at a Glance.* Paris.

Paes de Barros, Ricardo, and Rosane Mendonca. 1998. "The Impact of Three Institutional Innovations in Brazilian Education." In *Organization Matters: Agency Problems in Health and Education in Latin America*, edited by William Savedoff. Washington: Inter-American Development Bank.

Porto, Alberto, and Leonardo Gasparini. 1998. *Descentralización fiscal: el caso de las municipalidades de la provincia de Buenos Aires.* La Plata, Argentina: Universidad Nacional de La Plata.

PROGRESA (Programa de Educación, Salud y Alimentación). 1999. *Evaluación de resultados del Programa de Educación, Salud y Alimentación: primeros avances.* Mexico City: Secretaría de Desarrollo Social.

Repetto, Fabián, and others. 2001. "Transferencia educativa hacia las provincias en los años 90: un estudio comparado." Working Paper 57. Buenos Aires: Centro de Estudios para el Desarrollo Institucional (CEDI), Fundación Gobierno y Sociedad.

Rhoten, Diana R. 1999. "Global-Local Conditions of Possibility: The Case of Education Decentralization in Argentina." Ph.D. dissertation, Stanford University.

Rose-Ackerman, Susan. 1999. *Corruption and Government: Causes, Consequences, and Reform.* Cambridge University Press.

Rosenzweig, Mark R., and Kenneth I. Wolpin. 1986. "Evaluating the Effects of Optimally Distributed Programs: Child Health and Family Planning Interventions." *American Economic Review* 76(3): 470–82.

———. 2000. "Natural 'Natural Experiments' in Economics." *Journal of Economic Literature* 38(4): 827–74.

Savedoff, William, ed. 1998. *Organization Matters: Agency Problems in Health and Education in Latin America.* Washington: Inter-American Development Bank.

Senén González, Silvia N. de. 1997. "Ajuste y reforma educativa: dos lógicas en pugna." Paper presented at the III Congreso Latinoamericano de Administración de la Educación. Universidade Estadual de Campinas, Brazil, 21–25 July 1997.

Tendler, Judith. 1997. *Good Government in the Tropics.* Johns Hopkins University Press.

Tiebout, Charles. 1956. "A Pure Theory of Local Expenditures." *Journal of Political Economy* 64(5): 416–24.

Tommasi, Mariano, Sebastian Saiegh, and Pablo Sanguinetti. 2001. "Fiscal Federalism in Argentina: Policies, Politics, and Institutional Reform." *Economía* 1(2): 157–211.

Tommasi, Mariano, and Federico Weinschelbaum. 1999. "A Principal-Agent Building Block for the Study of Decentralization and Integration." Victoria, Argentina: Universidad de San Andrés. Mimeographed.

Willis, Elisa, Christopher Garman, and Stephan Haggard. 1999. "The Politics of Decentralization in Latin America." *Latin America Research Review* 34(1): 7–56.

Winkler, Donald. 1991. "Decentralization in Education: An Economic Perspective." Washington: World Bank. Mimeographed.