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LEGISLATIVE COUNCIL  
OF THE  
COLORADO GENERAL ASSEMBLY

AN ANALYSIS OF  
1974 BALLOT PROPOSALS

Research Publication No. 206  
1974

## Prohibit Transportation of Students for Racial Balance

5. The proposal should be rejected because it will have serious negative effects on the education of minority children in the core city school system. In the Denver desegregation controversy, the federal district court found that Denver's segregated schools offered minority students unequal educational opportunities. This finding was based on evidence of lower standards of expectations, higher teacher turnover rates, lower levels of teacher experience, lower student achievement, higher dropout rates, and other disadvantageous factors in the minority schools.

6. The busing of school children is not a real issue in the overall Denver desegregation controversy. The Denver school system was busing more than 11,000 students before the original suit was initiated in the controversy in 1969. Since that time, the system has had five years of limited experience with busing for integration. Increased transportation expenses are a small price to pay for the elimination of racial discrimination in the Denver schools and for the enhancement of educational opportunities for a large number of the district's pupils.

### AMENDMENT NO. 9 -- INITIATED PROPOSAL

Ballot Title:	An act to amend Article V of the Constitution of the State of Colorado concerning the reapportioning of legislative districts by a body to be known as the Colorado Reapportionment Commission, which shall consist of eleven electors, four of whom shall be appointed by the legislative department, three by the executive department, and four by the judicial department of the state, and adding new requirements to be considered in the creation of legislative districts.
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### Provisions of the Proposed Constitutional Amendment

The proposed constitutional amendment would:

1. Remove from the General Assembly the power to reapportion itself or to revise legislative district boundaries. After each federal census (presently conducted every ten years), an eleven-member commission would assume responsibility for establishing district boundaries for the General Assembly. The commission would consist of: (a) the Speaker and Minority Leader of the state House of Representatives and the Majority and Minority Leaders of the state Senate (or the designees of these legislative leaders); (b) three appointees of the Governor; and (c) four appointees of the Chief Justice of the Colorado Supreme Court.

2. Allow no more than a five percent deviation between the

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most populous and least populous districts in each house of the General Assembly.

3. Require that "...the aggregate linear distance of all district boundaries shall be as short as possible".

4. Encourage the preservation of communities of interest (including ethnic, cultural, economic, trade area, geographic, and demographic factors) within a single district whenever possible, and discourage the splitting of cities and towns between districts.

5. Require publication of a preliminary reapportionment plan and public hearings on this plan in several areas of the state.

6. Provide for automatic review and ultimate approval of the reapportionment plan by the Colorado Supreme Court.

### Comments

Present Reapportionment Requirements. The Colorado General Assembly is required by the constitution to reapportion districts upon the availability of information from each federal census. The reapportionment must be conducted in accordance with the following criteria: (1) the state must be divided into single-member districts; (2) legislative districts in each house must have populations as nearly equal as may be required by the Constitution of the United States; (3) each district must be as compact in area as possible; and (4) districts must contain whole counties except when it is necessary to split counties to meet population requirements.

If the General Assembly fails to reapportion within 45 days of the convening of a regular session following the availability of census data, no legislator may succeed himself in office or receive any compensation or expenses until a reapportionment plan has been adopted.

Members of the Proposed Commission. The proposal would establish a reapportionment commission outside of the legislative branch of state government. No more than six of the eleven members of the commission could be affiliated with the same political party. The membership of the commission would be determined at least partially by geographic factors (each Congressional district of the state must be represented on the commission, and at least one member of the commission must reside west of the continental divide).

Appointments to the commission would be made in three phases; acceptance of service by legislative leaders or designation of alternates for these leaders would occur prior to gubernatorial appointments, and the appointments of the Governor would occur prior to those of the Chief Justice. Thus, the appointment process would be sufficiently flexible to ensure that the proposal's restrictions on party affiliation and requirements for geographic representation on the commission would be met.

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Compactness of Districts. The proposal is intended to clarify the present constitutional requirement for compact districts by providing that the "...aggregate linear distance of all district boundaries shall be as short as possible". The intent of the sponsors is to avoid irregularities in district boundary lines which may be placed in a reapportionment plan for reasons not related to natural boundaries, population requirements, and census and local government boundaries.

Conflict with Amendment No. 6. This proposal would amend two sections of the constitution which are also subject to amendment by Amendment No. 6, which was submitted to the voters by the General Assembly. The sections of the constitution which would be amended in conflicting manners by the two proposals are Sections 46 and 48 of Article V.

In its amendment to Section 46 of Article V, this proposal sets a maximum population deviation of five percent between the most populous and the least populous legislative districts. Amendment No. 6 sets a maximum deviation of five percent from the mean legislative district population, or an actual maximum deviation of 10 percent between the most populous and the least populous districts.

Section 48 of Article V vests power in the Colorado General Assembly to revise and alter legislative district boundaries following each federal census. This proposal would reenact this section, vesting reapportionment powers with the Colorado Reapportionment Commission. Amendment No. 6, on the other hand, would amend Section 48 with the addition of certain technical language concerning federal census information needed for reapportionment. (Amendment No. 6 deals primarily with gubernatorial succession and is not an alternate reapportionment plan.)

According to present Colorado law, if both amendments are approved by the voters, the amendment which receives the greatest number of affirmative votes will be adopted for those sections of the constitution in which these conflicts occur (Sections 46 and 48 of Article V). Thus, the proposal for the creation of a Colorado Reapportionment Commission could be jeopardized if Amendment No. 6 receives a greater number of affirmative votes than this proposal. This matter, however, might eventually be brought to court, and a judicial determination might effectively merge the two proposals, since it may be determined that the content of this proposal is more substantive in certain respects than the technical reapportionment amendments contained in Amendment No. 6.

In the preparation of the proposal, the sponsors made every effort to ensure that the language of the amendment was technically correct and consistent with existing provisions of the constitution. The proposal was submitted to the legislative service agencies of the General Assembly for this purpose. An accurately drafted proposal was then filed with the Secretary of State and provided to the printer. Unfortunately, the subsequently printed copies which were

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actually circulated and signed contained three typographical errors. The most important error involved the deletion of a period in section 47 (2) of the proposal, which tends to cloud the meaning of the section.

### Popular Arguments For

1. Colorado is experiencing one of the highest population growth rates in the nation. Most of the growth is occurring in urban centers, while populations in many other areas are stable or declining. With regard to reapportionment, this means that entitlement to legislative seats will increase for some communities, while seats in other areas must be combined. The combination of seats, of course, often results in two or more incumbent legislators being placed in the same legislative district. Thus, there is considerable personal involvement of legislators in the reapportionment process. Establishment of a reapportionment commission would free the General Assembly from the task of reapportioning itself and would reduce the role that personal decisions play in the reapportionment process.

2. The maximum population deviation of five percent between districts is a reasonable standard which will allow greater flexibility in the location of small cities and towns within single legislative districts and which will make it easier to avoid splitting counties between legislative districts. The use of a five percent deviation would also permit more consideration of the ethnic, cultural, economic, and other aspects of reapportionment called for in the proposal. (The standard of a one percent deviation was employed by the General Assembly in 1972 because no court had, at that time, clearly defined the allowable deviation between legislative district populations. It should be noted that the one percent deviation is not likely to be used by the General Assembly in the future, since less stringent deviations have been declared acceptable in court since 1972.)

3. Adoption of the proposal would mean that reapportionment of legislative districts would occur only once every 10 years (unless the federal census is taken more often than every 10 years). Present constitutional provisions do not place such a limit on the General Assembly. This limitation is necessary to prevent major redistricting efforts during the period between censuses (efforts which are likely to occur with changes in party balance), since such efforts divert legislators' attention from other critical matters.

4. The proposal would reduce the impact that partisan politics can have on the drawing of legislative district boundaries, through the placement of the commission outside the legislative branch and through the requirements for appointment of commission members by all three branches of state government. The proposal's more stringent requirements for consideration of communities of interest, for compact districts, and for minimization of the split-

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ting of cities and towns, and the public visibility of the activities of the reapportionment commission would tend to reduce the gerrymandering of legislative districts.

5. The present reapportionment process contributes to endless battles over redistricting and to enmity among state lawmakers. This enmity carries over into other legislative business and is damaging to the effectiveness of the General Assembly in its role of enacting laws in the best interests of Colorado citizens.

### Popular Arguments Against

1. In November of 1966, Colorado voters approved a constitutional amendment to take Colorado judges out of politics. The effect of the proposal is to put the Colorado Supreme Court back into politics. The Chief Justice would be required to appoint the final four members of the reapportionment commission. Appointments of the Chief Justice would determine the final geographic and political balance of the commission. Such a duty could place the Chief Justice in an untenable position with regard to the court's review of any plan promulgated by the proposed reapportionment commission. If the Chief Justice disqualifies himself from consideration of any plan, the remaining six justices of the Colorado Supreme Court may be deadlocked in a three-three tie vote on a decision.

2. One of the stated objectives of the sponsors of the proposal is to develop a General Assembly in which members "represent the state as a whole as well as their own districts". However, the requirement of the proposal for the preservation of communities of interest in the drawing of legislative district boundaries may magnify parochialism within the General Assembly rather than encourage responsiveness to overall state needs.

Furthermore, the proposal does not establish clear priorities among the various criteria to be used in the creation of legislative districts. Should the requirement for compact districts take precedence over the requirement for minimizing the splitting of cities and towns? Should cultural and ethnic factors take precedence over economic and trade area factors in the preservation of communities of interest?

3. The sponsors of the proposal are concerned that legislators devote too much time to reapportionment. However, according to the time schedule set forth in the proposal, legislative leaders on the commission could be involved in reapportionment at least from July of the first year until March of the second year following the federal census. Furthermore, the redrawing of United States Congressional districts will continue to be required of the state General Assembly, which will have to devote time and effort to this type of redistricting. Detailed census information and research staff man-hours would thus be needed by both the commission and the General Assembly, adding to the expense of reapportionment.

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4. Reapportionment commission plans in other states provide mechanisms for reappointment or court action when the members of a commission are unable to reach agreement on a plan. Although this proposal provides an odd number of commission members and a deadline to be met for the reapportionment plan, the proposal is silent as to the course of action to be taken when the commission is unable to develop a reapportionment plan within required time limits. On the other hand, existing constitutional provisions penalize Colorado legislators until they adopt a reapportionment plan.

5. There is no provision in the proposal restricting non-legislative members of the reapportionment commission from running for election to the General Assembly following implementation of the redistricting plan. Michigan included such a condition in its reapportionment commission law in order to discourage commission members from being influenced by their own political ambitions.

6. The language and conditions set forth in the proposal depart from the established body of Colorado reapportionment case law. If the proposal is adopted, the Colorado Supreme Court is likely to be called upon to establish new guidelines as to its intent and meaning. The possibility of such litigation of the reapportionment process would complicate the 1980 reapportionment.

## AMENDMENT NO. 10 -- INITIATED PROPOSAL

<p>Ballot Title: An act to amend the Constitution of the State of Colorado to establish procedural steps to be complied with prior to the detonation of nuclear explosive devices, requiring prior approval of the detonation by the voters through the enactment of an initiated or referred measure.</p>
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### Provisions of the Proposed Constitutional Amendment

The proposed amendment to the State Constitution would:

1. Prohibit, in Colorado, the detonation (or the placement in the ground for purposes of detonation) of any nuclear device, except when approved by the voters at a general election.
2. Require the Governor to designate a state agency or official to certify that sufficient and secure financial resources exist to compensate for damages to persons or property occurring as a result of any nuclear detonation.

### Comments

Chemical explosives have been used for many years in mining, excavation, and conventional oil and gas well stimulation. The "Plowshare" program of the United States Atomic Energy Commission involves the use, when conventional techniques are not adequate, of nuclear explosives for similar purposes (including natural gas stimulation, "in situ" retorting of oil shale, "in situ" leaching of copper, and hazardous waste disposal). Nuclear devices release much more energy per unit of volume than traditional chemical explosives, allowing ease of transportation and placement for detonation.

Projects in Colorado to Date. Two joint projects involving the Atomic Energy Commission and private industry have taken place in Colorado under the Plowshare program. Both projects were experimental and designed to provide information on the commercial feasibility of using nuclear explosives to release natural gas trapped in geological formations of very low permeability (tight formations). In such projects, nuclear devices are lowered into deep wells, and the explosions shatter the gas-bearing formations. A completely contained underground explosion results in a "chimney" with a large volume of fractured rock. Additional fracturing also occurs beyond the chimney. The fracturing increases the permeability of the formations, allowing economical extraction of the natural gas.

Project Rulison, the first of these projects, was conducted on September 10, 1969. A 40-kiloton device was detonated at a depth of 8,425 feet southwest of Rifle, Colorado. In Project Rio Blanco, the second project, three 30-kiloton nuclear explosives were placed vertically in a single well bore to fracture gas-bearing sands. The



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detonation phase of Project Rio Blanco occurred on May 17, 1973, in the Piceance Basin of Rio Blanco County, about 50 miles north of Grand Junction. The nuclear devices in the project were placed at depths of 5,840, 6,230, and 6,690 feet.

Factors Involved in Commercial Application. Further experiments are needed before the techniques of nuclear detonation will be ready for industrial application. Resolution of the following technical and non-technical factors would have to occur prior to this application.

1. Nuclear gas stimulation and other Plowshare projects must be technically feasible and economically competitive to ensure a return on capital investment.
2. If a nuclear device is used to develop another energy source such as natural gas, there should be a substantial net gain in useable energy over that which could be obtained if the fissionable materials were used for other purposes such as power reactors.
3. Protection and adequate indemnification of the public, its property, and the environment against possible damage from seismic waves and accidental release of radioactive materials must be assured.
4. Technology should be sufficiently developed not only for Plowshare projects, but also for other non-nuclear alternatives, in order that the benefits, risks, and social costs of nuclear and non-nuclear energy development alternatives may be directly compared.
5. The relative responsibilities and authorities of federal and state government in relation to nuclear detonation programs should be clarified and fully established.

Present State Role. Congress has authorized the Atomic Energy Commission to enter into agreements with states concerning the regulation and control of certain aspects of atomic energy. Specifically, it is the intent of Congress to provide states with some authority to regulate certain radioactive materials to ensure public health and safety. Colorado is one of the states involved in such an agreement.

In the course of Project Rio Blanco, the industrial sponsor of the project applied for and received permits for the detonation of nuclear devices from the Colorado Oil and Gas Conservation Commission and the Colorado Water Pollution Control Commission. Thereafter, suit was brought in state district court alleging that the permits had been improperly issued on various grounds, an allegation which the court found without merit.

One purpose of the suit was to test the state power to regulate Plowshare activities. The private industry contractor sponsoring Project Rio Blanco argued that the state did not have jurisdiction to regulate Plowshare activities because of the doctrine of federal supremacy and preemption. On May 10, 1973, the court ruled

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that the state did have such power, exercised through the state Water Pollution Control Commission, pursuant both to the Atomic Energy Commission's 1968 agreement with the State of Colorado and to the contract between the private industry contractor and the Atomic Energy Commission.

Some unresolved questions remain, however, particularly as to the legal effect the proposed constitutional amendment would have on Plowshare projects. The agreement provisions authorized by Congress and the provisions of the actual agreement between the State of Colorado and the Atomic Energy Commission are limited in application, while the proposal would vest blanket authority in Colorado voters to determine whether any Plowshare projects could be conducted in the state.

Ultimate enforcement of the proposal would probably be conditioned upon court determination as to whether this degree of state regulation of Plowshare projects would be valid under the doctrine of federal supremacy and preemption.

### Popular Arguments For

1. The people of Colorado have the right to make the ultimate decision in a matter as important and controversial as a nuclear detonation within the state. Potentially, thousands of commercial detonations are to take place in Colorado in the next few decades. Although programs such as the Plowshare project detonations are extremely technical, Colorado voters do not have to understand nuclear fusion or fission or other engineering processes in order to make a reasonable and informed decision about a nuclear detonation. The public simply needs to know the relative advantages and disadvantages of a program such as nuclear gas stimulation, including comparisons of: (a) alternative methods of extracting the resource; (b) the need for the resource; (c) the availability of substitute materials; (d) environmental risks involved; and (e) assurances that adequate compensation will be made for damages caused by the detonation.

2. There are ample precedents for the State of Colorado to take an active role with respect to the industrial use of nuclear detonations. Adoption of the proposal will force the legislative and executive branches of state government to more clearly delineate procedures which must be followed and conditions which must be met before a nuclear device may be exploded in Colorado. Similarly, approval of the proposal will provide a clear expression to Congress and the Atomic Energy Commission of the concern of Coloradans that further implementation of the Plowshare program in this state be carried out with extreme caution and be based upon vital national interests.

3. Alternatives to nuclear detonations should be further developed. In particular, two non-nuclear methods of natural gas

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extraction should be given priority study to determine their relative effectiveness and environmental consequences. These are the use of chemical explosives and the use of "hydraulic fracturing". The latter involves the injection into the earth of liquids under high pressure. The Atomic Energy Commission and several major industrial concerns, including the industrial sponsor of Project Rio Blanco, have signed a contract to conduct a massive hydraulic fracturing test in the area of Project Rio Blanco to compare this method of natural gas extraction with nuclear stimulation. Non-nuclear recovery of natural gas, if feasible, has several advantages, including the avoidance of potential seismic and radiological hazards, and a more favorable net gain in useable energy.

4. The use of nuclear detonations raises concerns with regard to radiation contamination, possibilities of seismic effects even greater than those caused directly by a nuclear detonation, and problems of security arrangements for transportation of nuclear explosives, among others. The scientific community is far from agreement as to possible implications of nuclear detonation projects, and in view of past technical mistakes, nuclear detonations must be approached with extreme caution.

5. Only a small percentage of the nation's future energy will come from natural gas. Other energy sources which will have greater ultimate impacts on the total United States energy situation should be researched and developed now. The more glamorous Plowshare program is diverting essential economic and human resources from the research and development of these other energy sources.

6. Although the proposal is designed to halt nuclear blasts which would be dangerous to the health and safety of Coloradoans, it would still permit nuclear detonations to occur when the people believe that they are essential and safe.

### Popular Arguments Against

1. The ultimate effect of the proposal would be to place a moratorium on Plowshare projects in Colorado, under the guise of instituting an election procedure for nuclear detonations. The requirement for a vote on each nuclear application would severely hamper, and possibly eliminate, continued development of the technology. Proponents of a commercial program of nuclear detonation would, prior to conducting an actual detonation, have to obtain over 50,000 signatures authorizing a vote on the detonation, or they would have to have a bill passed through the Colorado General Assembly referring the measure to the people. The uncertainty and difficulty of either procedure would eliminate private investment required for any Plowshare project and prevent development of needed gas supplies by this extraction method, regardless of its safety or effectiveness.

2. The proposed voting procedure would in itself cause an unnecessary cost to the taxpayer. In addition, steps to obtain a

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favorable vote are costly, and the cost of such steps would eventually have to be absorbed by the consumer.

3. All resource development proposals, including the Plowshare projects, involve the careful consideration and screening of scientific data. Elected officials, both at the federal and state levels of government, and the regulatory agencies which they create (consisting of persons with a variety of highly technical skills), are in the best position to carefully evaluate technical information and to develop standards for nuclear detonations which will protect the public health and safety. Review of any commercial Plowshare program is required under the environmental impact statement process of the 1970 National Environmental Policy Act.

The Colorado Department of Health, the Colorado Oil and Gas Conservation Commission, the Atomic Energy Commission, the United States Bureau of Mines, the United States Geological Survey, and other governmental agencies already issue permits for or review nuclear detonations pursuant to specific standards or criteria.

4. Natural gas is the cleanest burning fossil fuel commonly used. The nation is critically short of this fuel, and Colorado is a net importer of natural gas. The reserves of natural gas available in the low permeability formations of the Green River and Piceance Basins cannot be recovered through conventional means. These reserves by any measure, are very large. At a time of growing energy shortages, and when the United States is attempting to achieve energy independence, it is critical for the nation to investigate and develop every available technology for the purpose of releasing gas from these reserves. The proposal, however, would actually preclude employment of nuclear gas stimulation.

5. Plowshare projects are still in the experimental stage. Additional testing is essential before there will be any reasonable assurance that nuclear gas stimulation of a given field will be economically competitive. Furthermore, additional information is necessary before conclusions may be made about other commercial activities under the Plowshare program. No curtailment of such programs should even be considered until all experimental projects have been completed and a careful analysis has been made of all relevant data.

6. The proposal subjects one resource recovery technique to a direct referendum of the voters, while leaving others to regulation by legislative or administrative bodies. The potential damage to the public interest from other energy resource development processes, such as strip mining, may be far greater than that which would occur under commercial Plowshare projects, as evidenced by Projects Rulison and Rio Blanco.

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