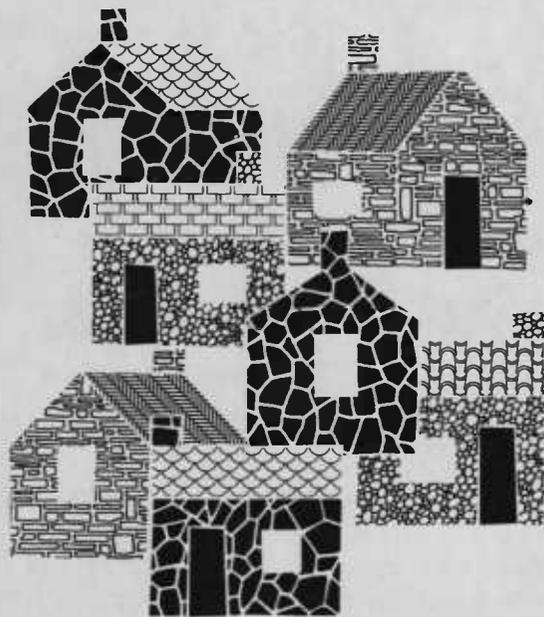


Reducing Public Costs of Residential Developments

Alternatives for Oregon Communities

Rapid residential growth in rural areas or on the fringes of urban areas often creates problems for local governments. The additional revenues this development brings may not cover the additional costs that governments incur to provide services to the new residents.

The fact that a residential development often does not pay its own way has led more than one community to ask whether any growth is desirable. Most communities, however, do not have the ability or desire to stop residential development. Instead they ask the question, "How can we reduce our costs of new residential developments?" Local governments can work toward lower public costs of residential development, but must consider the possible effects of these local government policies on the community.



Financing Local Government Services

In Oregon, local governments provide a wide variety of services and they finance these services from a number of sources. As communities grow, the demands for these services increase, as does the need for additional revenues. Communities can minimize public costs of residential growth either by reducing public outlays or by increasing the revenues associated with this growth. The options open to local governments are affected by the ways these governments currently finance their services and by the services they are called upon to provide.

Local government revenues and expenditures in Oregon

As seen in Figure 1, Oregon *counties* obtained more than half (54 percent) of their revenues in 1976 from higher levels of government: 22.9 percent from the federal government and 31.1 percent from the state. Property taxes provided another 23.3 percent of total county revenues. Major expenditures of county government were for general government (55.5 percent), roads (23.1 percent), health (11.1 percent), and law enforcement (8.0 percent).

Oregon *cities* are less dependent on intergovernmental revenues. Figure 2 shows that only 26.4 percent of their revenues are from the federal and state governments. Approximately two-thirds of this is Federal money. Cities rely heavily on the property tax and on service charges and utility revenues to pay for services they provide.

Major city expenditures are for general government (41.3 percent); water, sewer, and solid waste services (28.4 percent); police and fire (19.3 percent); and highways (7.9 percent).

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OREGON STATE UNIVERSITY
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SERVICE**

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FY 1975-76
FINANCING LOCAL GOVERNMENT SERVICES IN OREGON

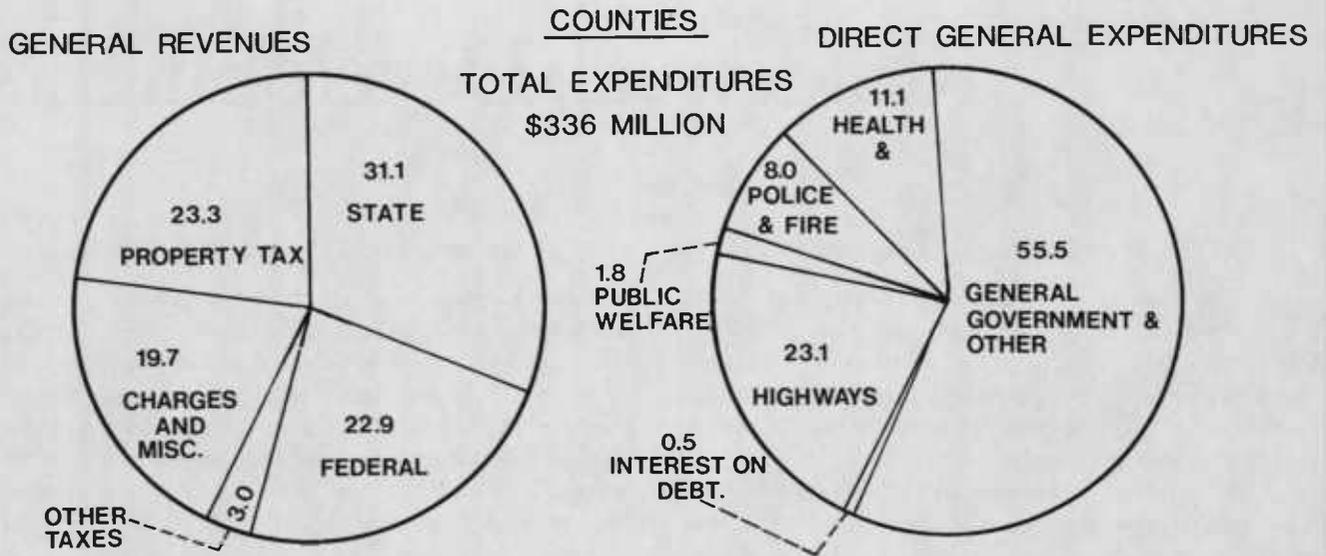


Figure 1

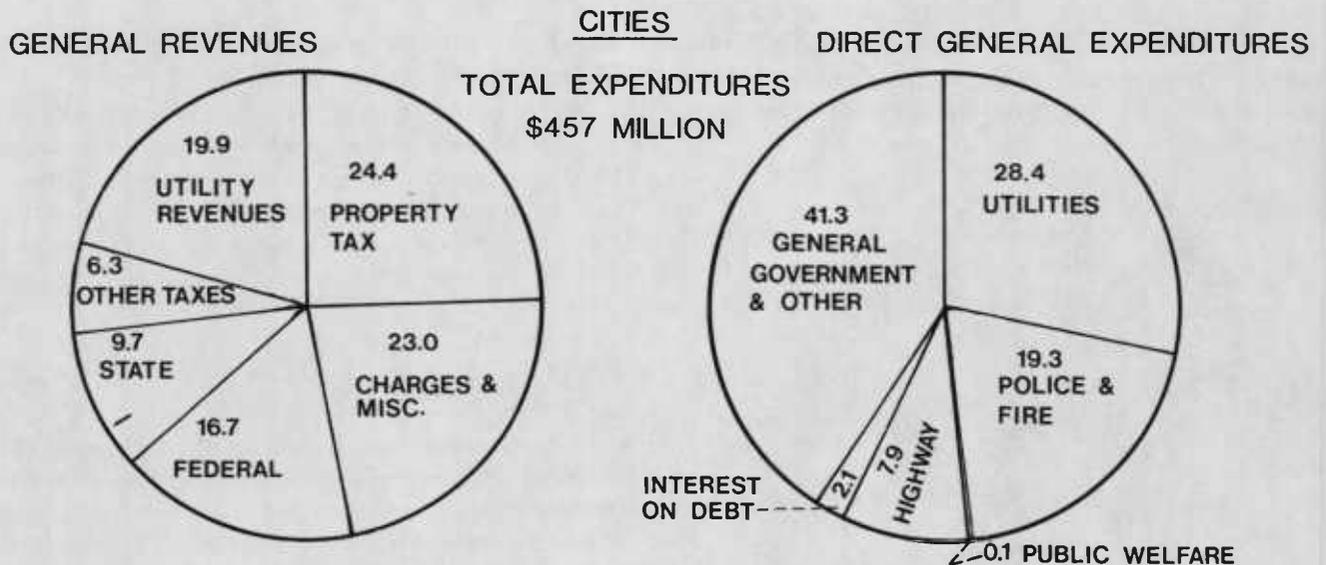


Figure 2

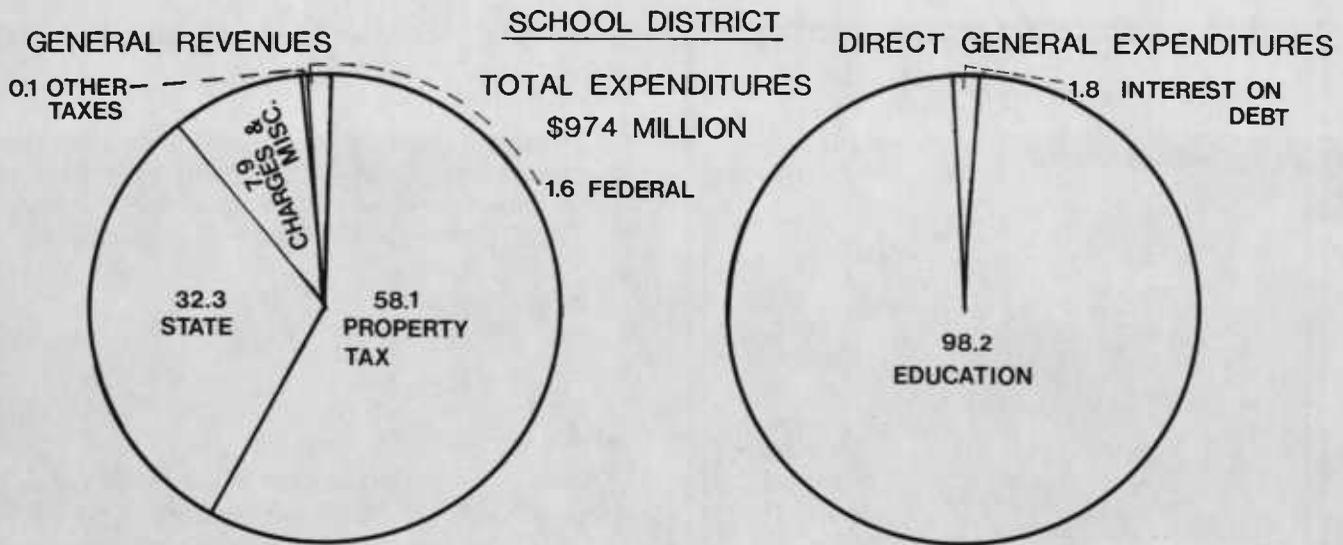
The operation of public schools (Figure 3) is financed principally by the property tax (58.1 percent) and by state aids (32.3 percent).

Growth impact on local government costs and revenues

What effect does population growth have on the revenues and the costs of local governments in Oregon? The state apportions revenues from liquor sales and cigarette and gasoline taxes to cities and counties. The apportionment is based on popula-

tion estimates and motor vehicle registrations. When population and vehicle increases are recorded, such apportionments to cities and counties increase. State aid to school districts is based largely on the number of students in the district. This source of revenue increases with population growth. Revenues from user fees and hookup charges for water and sewer service also increase with new residential development.

Property taxes do not automatically increase with new residential development. New residen-



SOURCE: SEE TABLE I

Figure 3

tial development, because it generates new taxable assessed valuation, gives cities, counties, and school districts the potential to increase property tax revenues without increasing tax rates. However, Oregon's 6 percent limitation on property tax increases usually prevents a government from increasing its tax levy by more than that amount annually without a vote of the people. (Extension Circular 906 "Oregon's 6 Percent Limitation," explains this restriction more fully. It is available free from County Extension Offices or the Bulletin Room at Oregon State University.)

Local government costs also increase with population. *Cities* need to provide more water and sewer service, street maintenance, and police and fire protection. *Counties* may need to increase their law enforcement and health services as population grows. Increases in the number of students may require *school districts* to hire more teachers and build new classrooms.

Whether the additional expenditures for these services will exceed the costs depends on a number of factors. Local governments can control some of these, thereby reducing the public costs of residential development.

What Affects the Public Costs?

Seven factors determine whether new homes and subdivisions generate more revenues than expenditures. Local governments can substantially influence four of these to reduce the public costs of residential growth.

- *Controllable factors*—
Types and levels of public services

- Location, density, and design of residential developments
- Subdivider-installed improvements
- Connection and systems development charges
- *Less Controllable factors*—
Number of children in new homes
Assessed value of new homes
Excess capacity in public facilities

Controllable factors

Local governments provide varying *types and levels of services* which affect the magnitude of public costs. With growth there is often pressure to increase the types and levels of service. For example, residents may request more police patrol or longer hours of service at the public library. One way governments can reduce average costs in the face of residential growth is simply by making existing services stretch to serve the new residents, without adding new services.

Local governments can maintain the same types and average levels of service and yet reduce the costs by keeping three other controllable factors in mind in developing their policies related to growth: *Location, density, and design of residential developments; subdivision improvements installed by the developer; and payments to local governments by the developer.*

- *Location, Density, and Design*—The *location* of a subdivision has a direct effect on the cost of installing facilities and providing services. A subdivision that leapfrogs over a large undeveloped area may have to be connected to the city at great expense. Proposed Subdivision A would require a considerable length of sewer and water

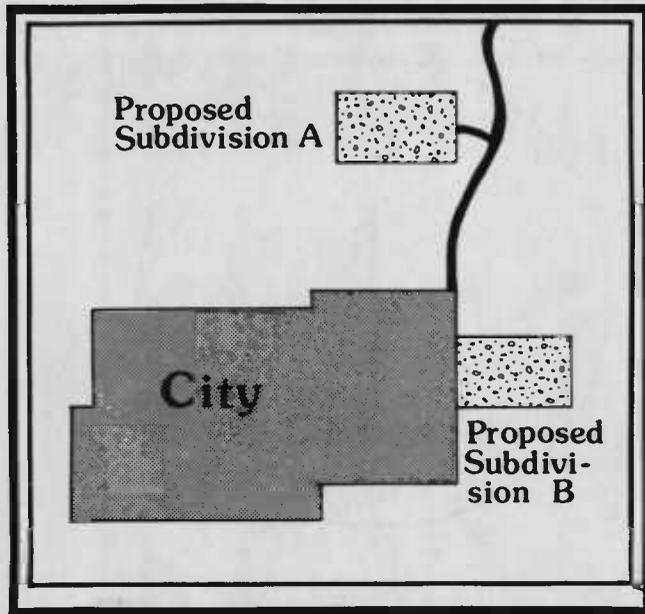


Figure 4

pipe across vacant land, so consequently would result in higher capital and operating costs than Subdivision B.

Density (the number of dwelling units per acre) and site *design* (the layout of a housing development) will affect the number of miles of road and pipe required to serve a development, and hence development costs and subsequent operating costs.

The subdivision at the bottom with a higher *density* contains more homes than the subdivision at the top, but has the same amount of street and service mains.

Similarly, the subdivision at the bottom with a different *design* has the same number of houses as the subdivision at the top, but has less street and service mains.

Most studies conclude that sprawl (non-contiguous, low-density development) results in higher *public* costs than compact development contiguous to developed areas. Whether this is true in any particular instance depends in part on

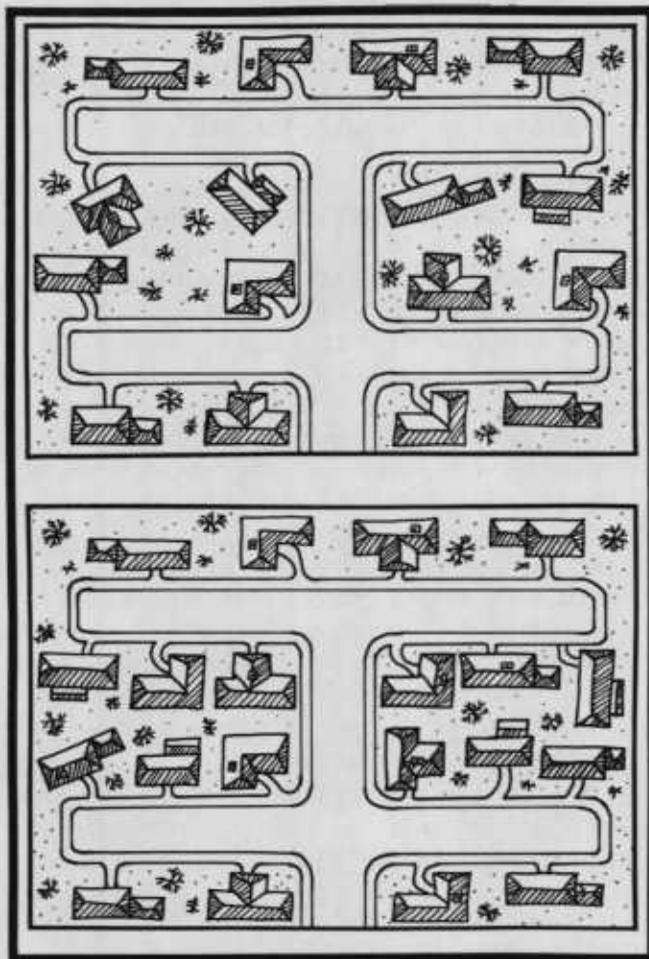


Figure 5

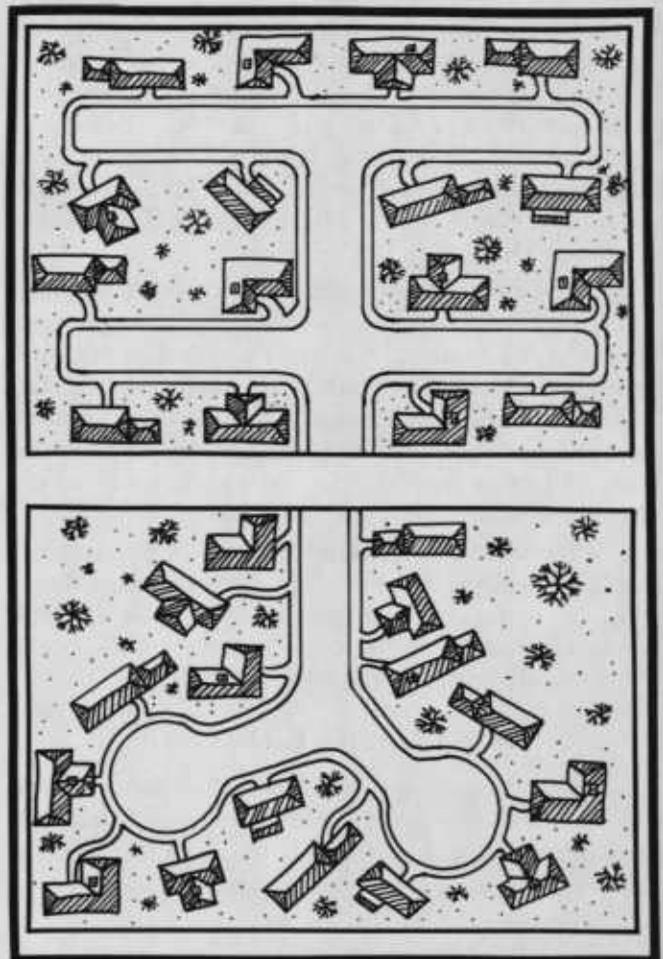


Figure 6

the topography and soil characteristics of alternative sites, and on the existing pattern of development relative to the existing public service network. For example, it would depend on whether new development at a particular location could utilize existing excess capacity in streets and sewers or whether old streets and sewers would have to be rebuilt to accommodate new development.

Whether sprawl results in higher *public* costs also depends on subdivision improvements made by the developer and payments to the government by the developer.

- *Subdivider-Installed Improvements*—The extent to which a subdivider or developer installs improvements for streets, sewers, water, curbs, etc., affects the public costs of development. If the subdivider makes these improvements and passes the costs on to new-home buyers, the costs of installing these urban improvements is borne by the property owner and not the remaining residents in the jurisdiction.

- *Development-Related Payments*—The level of payments made by developers and new homeowners to offset development-related public costs also directly affects public costs. The higher the payments, the lower the public costs.

Less controllable factors

Other factors affecting the local government expenditure/revenue balance are less controllable by local governments. The *number of children* in the new housing units and the *assessed value of the new homes* are particularly important for school districts. Because of the way school districts are financed in Oregon, only very expensive houses, or dwelling units that will not add children to the schools can “pay their own way” in school district costs. Since school districts account for more than half of local government costs, these two factors are important. In a study of five residential developments in several small Willamette Valley cities¹, the only development that “paid its own way” in local government costs was a 16-unit apartment complex with no children.

A third factor influencing the expenditure/revenue balance, is the *capacity of existing facilities*. If existing schools, for example, are crowded, an influx of population may require new classrooms. If there is unused classroom space, population increases might not require these investments.

¹ Pattie, Preston S., *Impacts of Urban Growth on Local Government Costs and Revenues*, Special Report 423, Oregon State University Extension Service, November 1974.

While in the long run local governments can have some effect on these things, in the short run they cannot. The policies examined in the next section relate to the factors over which local governments have more control in the short run.

How Can Communities Reduce the Public Costs?

Through municipal and county ordinances and planning, local governments can reduce the public costs of residential development.

Policies affecting location, density, and design

The location and density of residential development in a community is influenced by local governments in several important ways, including comprehensive planning, zoning, capital improvement programming, and urban growth boundaries.

- A *comprehensive plan*, in Oregon, identifies long-range community goals and establishes policies for achieving these goals. Usually the document consists of a map and accompanying text, and indicates the general types of uses considered appropriate for each area. It is the controlling land-use-planning instrument for a community.

In Oregon, cities and counties are required to adopt a comprehensive plan. The plan must meet the statewide goals adopted by the Land Conservation and Development Commission.

- *Zoning* is the most common implementation technique for the comprehensive plan. Local governments designate zones on a map and indicate the specific uses and standards to be allowed in each zone. The accompanying text indicates restrictions on development within each zone. In cases where the plan and zoning ordinance are in conflict, the zoning ordinance must be changed to conform to the plan.

- *Capital improvement programs*, or plans, are another technique local governments can use to influence the location of development. They affect the placement of public facilities such as roads, sewer and water mains, and schools. In a capital improvement program, a community usually projects its capital needs for 3 to 5 years, and estimates the costs and proposed financing of the improvements. The program may also identify the proposed location of facilities. The impact of a capital improvement program on residential location is indirect; primarily through its effect on the costs of developing a parcel of land. Other things being equal, land adjacent to a road and water and sewer main is less costly to develop than similar land located far away from such facilities. Lowering the costs may increase the probability of development of parcels adjacent to facilities.

- *School siting*—School districts can influence development patterns through the siting of new schools. The placement of schools may make adjacent land more desirable for residential development and can affect the location of future development.

- *Urban service boundaries* have been established by some local governments, recognizing the importance of public facilities in determining the location of development at the urban-rural fringe. These boundaries define areas where urban services such as domestic water, sanitary sewer, and city streets are either presently available or planned for the immediate future.

- *Urban growth boundaries* are another technique for influencing the location of urban development. The boundary may identify land regarded as “urbanizable” within a 15- to 20-year time horizon. Urban growth boundaries are to include land *able to be served* by urban services, *suitable* for urban development, and *needed* for urban growth. In Oregon, cities and counties are required to adopt urban growth boundaries as part of the planning process in order to comply with the statewide *Urbanization Goal*, adopted by Oregon’s Land Conservation and Development Commission.

- *Site design review standards*—While it is not common practice, some communities have established site design review standards which are concerned with the spatial arrangement of buildings, open space, and other site characteristics. Other communities have built incentives into their ordinances encouraging site designs that more closely conform to community goals.

Subdivision improvement requirements

Many local governments require a developer to put in paved streets and curbs that meet city or county standards. Some go farther and require the subdivider to install water lines and sanitary and storm sewers. If the facilities must be oversized to accommodate future growth, developers often are required to pay the share of these improvements needed by the subdivision. In these situations, the costs of these improvements generally are passed on directly to the homebuyer. If the subdivider does not put in improvements, a local government may have to do so at a later date, and these costs may be imposed on all taxpayers rather than on the users. Once public improvements are turned over to a local government, maintenance is provided by the government and not directly by the homeowner.

Table 1 provides a comparison of subdivision improvement requirements for two jurisdictions in the Portland, Oregon, Metropolitan area: the City of Tigard and unincorporated Washington County. Subdivision improvements include a number of capital investments such as paved streets, curbs, sidewalks, water and sewer service, drainage, underground utilities, street lights, and street signs. Monuments (markers indicating a boundary or reference point) are required by state statute. In some instances the installation of public improvements may be based on certain conditions. For example, in Tigard the developer is required to install sanitary sewers only when a subdivision is within 300 feet of an existing public sewer main. Washington County requirements state that sewer and water installation are dependent on a firm statement of service availability from the appropriate municipal system, sanitary district, or water district.

Subdivision improvement requirements usually are integrated into a jurisdiction’s subdivision regulations. As they represent policy, they are adopted through an ordinance process.

Table 1. Subdivision Improvement Requirements, Single-Family Residential, January 1, 1978.

Type of improvement	City of Tigard, Oregon	Unincorporated Washington County, Oregon (Urban intermediate land use)
Street grading/surfacing	Yes	Yes
Curbs	Yes	Yes
Sidewalks	Yes	Yes
Water mains	Yes ^a	Yes ^b
Sanitary sewer	Yes ^c	Yes ^b
Drainage	Yes	Yes ^d
Underground utilities	Yes	No
Street lights	Yes	No
Street signs	Yes	Yes
Monuments ^e	Yes	Yes

^a Provide adequate water supply.

^b If a subdivision is in an area where sewerage and water service are to be provided from a municipal system, sanitary district, or water district, a firm statement of service availability must be provided. Costs are to be borne by the subdivider.

^c When a subdivision is within 300 feet of an existing public sewer main; otherwise the planning commission will allow an approved alternate sewage disposal system to be used.

^d If any portion of land is subject to overflow, inundation, or flood hazard by storm waters, an adequate system of storm drains, levees, dikes, and detention systems shall be provided.

^e Chapter 92.060 of the Oregon Revised Statutes requires the placement of monuments on subdivided plats of land. Specifications are also provided.

Systems development and connection charges

The location, design, and density of a subdivision determine how many miles of sewer and water pipe are laid and serviced, and how many miles of road must be built and patrolled. The subdivision improvement requirements determine how much of this road and pipe must be put in by local government. How much of the cost of *public* investments is borne by the community at large depends on how much *new* residents must pay for hook-up to the system. Most municipalities require connection charges for sewer and water to cover the publicly provided capital outlay. When charges do not cover the cost of the public investment, the entire community shares the remaining costs.

For a number of years, Oregon cities have collected a one-time "connection charge" for hooking up new construction to the city water and sewer systems. This charge is usually set at a level that approximates the cost of inspecting and installing the connection, and is intended to offset these costs.

More recently, a number of cities have increased connection charges above levels necessary to pay city costs for inspection and installation of connections, and have instituted "systems development charges." These revenues are intended for general water, sewer, and other system development and expansion, rather than for facilities specifically serving the new construction. The revenues often are segregated in special funds, to be used only for such purposes.

Table 2 compares systems development and connection charges for unincorporated Washington County and the City of Tigard. These examples give an indication of charges that local governments in Oregon use to finance development-related costs; they may not be typical of Oregon local governments.

Water and sewer connection fees are assessed on new construction by both jurisdictions. Both also levy a systems development charge on new development. Its purpose is to finance the installation, construction, and extension of extra-capacity street facilities and traffic control devices generated by new development. Both ordinances provide for the creation of a dedicated fund to be used solely for the purposes outlined in the ordinances.

The City of Tigard also imposes a systems charge for parks and recreation facilities. Its purpose is to finance acquisition, development, and expansion of recreational spaces and facilities. The city sets the level of the charge by estimating the cost of providing parks for a new residential unit

and subtracting the share of this cost expected to be financed by the state and federal governments. The formula for estimating the cost of needed parks per housing unit is:

$$\text{Park "needs" standard (area per person)} \times (\text{Population/household}) \times (\text{Cost of land}) = (1 \text{ acre}/100 \text{ residents}) \times (3.28 \text{ residents/housing unit}) \times (\$9,500 \text{ per acre}) = \$311.60.$$

Since two-thirds of the cost of acquiring and improving new parks is expected to be financed by state and federal grants and/or special levies, the remaining one-third (rounded off to the nearest \$10) is the charge to be paid by the new home-

Table 2. Systems Development and Connection Charges, \$45,000—Single-Family Residence, January 1978.

Type of charge	City of Tigard, Oregon	Unincorporated, Washington County, Oregon
Sewer connection ^a	\$ 600	\$ 625 ^b
Water connection ^c	500 ^d	512 ^e
Systems development charge for parks	100
Systems development charge	300 ^f	250
Totals	\$1,500	\$1,387

^a Includes \$25.00 inspection fee.

^b Unified Sewerage Agency.

^c 3/4" meter.

^d Tigard Water District.

^e Average connection charge of Metzger, West Slope, and Wolf Creek water districts. Fees ranged from \$360 to \$650 for a single family residential unit.

^f The systems development charge is assessed against new homes valued at more than \$40,000. On August 29, 1978 Judge Hollie Pihl, Washington County Circuit Court, ruled in *Homebuilders and Dale Construction v. City of Tigard* that the city's systems development charge was unconstitutional, unlawful, and invalid. The basis for the Court's ruling was that the Ordinance provides for an arbitrary and unreasonable classification between a given purchase price of a single family home and the amount of the systems charge. The decision is currently under appeal.

owner. One-third of the \$311.60 figure derived from the formula (rounded off to the nearest \$10) is \$100.

In lieu of fees, developers may dedicate open space, provided this space can be used for recreational purposes consistent with the park and recreation elements of city comprehensive plans.

Combined connection and systems development charges for a single-family residential unit costing \$45,000 are \$1,387 in Washington County and \$1,500 in the City of Tigard. This is about 3 percent of the cost of the house. Generally speaking, these costs are paid by the developer and passed directly to the consumer as part of the home's purchase price.

Effects of Public-Cost-Minimizing Policies

The policy decisions of local government that reduce the *public* costs of residential development directly and indirectly increase the *private* costs of housing. Connection charges and subdivision improvement requirements directly increase the costs of new housing. Furthermore, increases in charges and the value of new required improvements may be capitalized into the value of existing homes, which has the effect of generally raising the cost of housing in a community. The effect may be to price some lower-income families out of the opportunity for home ownership.

A study by the Bureau of Governmental Research and Service at the University of Oregon, reported in 1976, examined the "Impact of Systems Charges" on housing costs. The average systems charge (systems development charge plus connection charge) for the ten Oregon cities examined was \$940. This charge would raise the cost of an average (\$39,500) house by 2.4 percent, assuming this charge is passed onto the homebuyer.

The imposition of urban service boundaries and other techniques for controlling sprawl may also restrict the supply of land, driving up the price of land and housing in the community.

Conclusions

Residential growth brings with it both costs and benefits. Local government efforts to reduce the public costs of residential growth have both positive and negative effects. In making choices about residential growth and local policies to influence growth, communities must balance costs and benefits.

Each community is unique, of course. The impacts of growth will differ. Accordingly, the policy alternatives described here may not be appropriate in any particular instance. By adopting policies that address the various factors identified in this circular, however, communities may be able to keep the public costs of residential growth at a minimum.

This circular was prepared by Bruce Weber, extension economist, and Richard Beck, extension community resource development agent, Oregon State University Extension Service. The authors gratefully acknowledge the review and comments of: Ron Canham, University of Arizona; Judith Cichowicz, executive department, State of Oregon; Robert Cone, Washington County planning department; Ronald Faas, Washington State University; Frederick Obermiller, James Pease, Oregon State University extension specialists; Neil Rimbey, University of Idaho; and Gregory Tillson, Oregon State University agent in community development.