

**Going for the Gold versus Distributing the Green: Foreign Policy Substitutability and Complementarity in Status Enhancement Strategies<sup>1</sup>**

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Status and the relative ranking of states in international politics seem to be salient concerns for most foreign policy makers.<sup>2</sup> Yet, the literature on how status rankings are attributed to states remains as scarce as research on the strategies utilized by states to maintain or enhance the status they are attributed. While there is more research conducted on both status attribution and status competition regarding major powers and rising powers,<sup>3</sup> little systematic attention has focused on the larger population of states in international politics.<sup>4</sup>

One of the latest contributions to this literature is an analysis of successful competition in the summer Olympics as a state status seeking strategy (Rhamey and Early 2013). The authors find that winning Olympic medals and hosting the Olympics have significant impacts on states' status rankings. We do not question these results, and in fact applaud the effort to map out one strategy of status enhancement. However, we raise a cautionary note about the complex foreign policy choices faced by states as they may pursue additional status. Within the toolbox of policy makers there are a variety of policies with which to pursue the same objective in international politics, be it status enhancement or other goals. Typically, this interchangeability of strategies has been referred to in the literature as foreign policy substitutability (Most and Starr 1984, Morgan and Palmer 2000, Palmer and Bhandari 2000). If in fact there are numerous policy options available for seeking enhanced status, then these policies should be examined—and evaluated—using a comparative policy perspective in order to determine whether or not they are substitutable and possibly complementary policies.

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<sup>2</sup> Why such status considerations should matter to policy makers is beyond the scope of this effort, although the literature on status both inside and outside of international relations points to two broad streams of motivations: instrumental (e.g. soft power generation or the additional pursuit of domestic political support) versus ideational and emotional motivations on the part of policy makers. For a brief review of these approaches and the difficulty in analytically separating them, see Onea (2013).

<sup>3</sup> For examples, see Larson and Shevchenko (2003), Nayar and Paul (2003), Volgy et al. (2011), Wohlforth (2009).

<sup>4</sup> The limited number of studies systematically focusing on status rankings for all states includes East (1972), Galtung (1964), Kinne (2014), Maoz (2011), Renshon (2013), Volgy and Mayhall (1995), Volgy et al. (2013), and Wallace (1971, 1973).

The notions of substitutability and complementarity should be salient for both policy makers and researchers. For policy makers, substitutability provides flexibility in choosing policies that may have variable costs, effects, and consequences. Establishing complementarity across policies allows policy makers to gauge whether or not multiple policies aimed at the same phenomena have cumulative effects, which may be especially important for status enhancement, as changes to a state's status are difficult to increase over short periods of time. For researchers, seeking to account for the variety of conditions that may impact status attribution, both substitutability and complementarity are important qualifiers in assessing the range of policies and circumstances that may impact social comparisons made by state actors. Attention to substitutability considerations may especially allow researchers to avoid creating false alternatives when delineating causal processes associated with such social comparison.

We focus on the foreign policy of making aid commitments, a policy that has been widely accepted as a global norm of resource transference between states in international politics. While resource transference as a policy has a variety of functions, we seek to assess the extent to which it is a policy substitutable for and complementary to state investment in successful Olympic performance, a policy that *primarily* focuses on status and has been found to impact on status attribution. Clearly, these two types of policies are not mutually exclusive, and while they may carry with them significant trade-offs in terms of potential effects and costs in implementation, they may be both substitutable for each other and complementary to each other by generating additional status attribution from each policy. Below we suggest a framework for examining status seeking strategies, policy substitutability and policy complementarity, and test the relative effect of the policy of resource transfers through bilateral aid commitments—“distributing the green”—in addition to “going for the gold” in the Olympics. We conclude with

an assessment of the relative efficacy of each policy on status attribution and suggest an agenda for future research.

We wish to underscore two caveats at the outset. First, we note the placement of our work in the broader literature on both status attribution and status seeking. Excluding work on major powers, the extant published literature with respect to both status seeking and status attribution by the community of states in international politics is mostly limited to case studies and initial theoretical development; very little large-N, comparative empirical analysis exists of either status seeking or status attribution by states.<sup>5</sup> Thus, the analysis below is fundamentally an exploratory one, suggesting the application of a framework of status seeking borrowed from a focus on major powers, while the theoretical drivers behind status attribution still await further development. Yet, an exploratory analysis of this type should aid such future research efforts.

Second, we recognize that resource transference and “going for the gold” policies are only two of a large variety of foreign policy options potentially available to foreign policy makers. We do not enumerate all of those options; this effort is intended to lay out a framework and a set of results that could be expanded later to cover the full range of options that states may be able to use to generate additional status. However, we believe that ours is an important starting point, especially as we compare a policy option that is primarily geared toward status seeking (Olympic success) with one that is not typically associated with the same goal (resource transference). We return to this point at the conclusion of this work.

### **Status Seeking Strategies, Policy Substitutability, and Policy Complementarity**

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<sup>5</sup> See footnote 4 above.

Drawing on social identity theory (Tajfel and Turner 1986), Larson and Shevchenko (2010) suggest three broad foreign policy strategies that states can pursue for securing additional status from other states in international politics. These include social mobilization, social creativity, and social competition; presumably each strategy includes a portfolio of policies available for states as they seek to enhance their status. The strategy of *social mobility*, in the form of adopting globally accepted political and economic norms and especially those advocated by dominant powers (Larson and Shevchenko 2010:71), would be illustrated by policy decisions to reduce trade barriers and open a state's economy to exports and imports or, by creating domestic democratic practices. It is a strategy not without potentially substantial domestic costs, but nevertheless one that is available to many states.

So is the strategy of *social creativity*, in the form of seeking to turn positive a negative characteristic or finding a new dimension on which a state would receive higher status attribution (Larson and Shevchenko 2010:71-72). The emphasis of European states on multilateral instruments of foreign policy (perhaps born out of substantial interdependencies with the U.S. and increased integration within the region) is one illustration of such social creativity. Seeking enhanced status through successful Olympic competition would fit into this strategy as well.

Unlike the previous options, the strategy of *social competition* requires contestation (and substantial confrontation) with states that have attained high status ranking, either by challenging existing norms, competing for influence with high status states, or seeking equality on attributes (such as military capabilities) prized highly by the global community (Larson and Shevchenko 2010:69-71). This approach requires substantial resources and may not be available to most states in international politics. As Larson and Shevchenko (2010) and Wohlforth (2009) note, social competition may also be limited by the extent to which very strong states dominate

international politics at any given time, making the strategies of social mobility and social creativity far more useful for most states in international politics.

The paucity of literature on status attribution has created nearly a theoretical vacuum with respect to the causal mechanisms through which states award status to each other (for one attempt to create a rough framework, see Volgy et al. 2013:30) regardless of the strategies some states may utilize to seek additional status for themselves. We do not seek to fill that vacuum here but we suggest one phenomenon that is likely to link status attribution to status seeking strategies and behaviors: in order for actors to make social comparisons and award status on that basis, they must have relatively clear information about other actors' performance on criteria being used to assess status. Where states engage in extensive intelligence and surveillance practices (for instance knowledge regarding economic and military capabilities), state performance is fairly clear. However, when the criterion is norm-compliance or a strategy of creativity, information on state performance needs to be clearly available before the community of states can award status consistent with its criteria for appropriate status ranking.

Fortunately, this requirement is not at issue for either resource transference or Olympic performance. They are quite comparable in terms of clear, publicly available information regarding state performance. Olympic performance carries with it a huge media circus every four years. While resource transference does not carry with it a similar scoreboard, institutional agents (OECD, EU, etc.) annually monitor, evaluate, and make public whether or not states transfer resources, the amounts they transfer, the quality of the transference, and its possible effects on recipients. Thus, information on state performance for both strategies is equally accessible and available for state actors making judgments on status rankings.

## *Status and Olympic Success*

The policy approach of seeking more status through Olympic competition—a strategy of social creativity—is relatively inexpensive for states compared to the risks involved with social competition (Rhomey and Early 2013). At least since Hitler’s infamous Berlin Olympics of 1936, and through the Cold War years, competition for Olympic medals has functioned for numerous states as a means of establishing and enhancing their status among the community of nations. However, it is not without substantial costs. China may have spent approximately \$40 billion to host the 2008 Olympics.<sup>6</sup> States seeking to compete at the highest levels of medal attainment will spend hundreds of millions of dollars preparing their athletes.

Available data on the actual costs for states involved with Olympic training are quite rare, and—as in the case of the U.S. where university athletic programs and independent sports federations absorb substantial costs—often fail to take into account indirect spending on athletes. The funding by the U.S. Olympic Committee (IOC) is but a very small share of the American financial commitment, although even that amount is not trivial at \$234 million for 2012. Britain may have spent between \$400 million (Anderson 2012) and a half billion dollars (Burns and Macaskill 2012) on its athletes for the 2012 Summer Olympiad. Hogan and Norton (2000) approximate the amount spent per medal by Australia between 1980 and 1996 to be roughly \$37 million (AUD) for each gold medal won, with medals in general costing \$8 million per medal. For the 2012 Summer Games, the cost of gold medals for Australia may have risen to \$48 million (Connor 2012, Johnston, Moncrief and Wilson 2012).

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<sup>6</sup> The cost of hosting the Olympics over the last 20 years has ranged from \$1.8 to \$40 billion dollars, averaging about \$15.2 billion per Olympics (see Zarnowski 1993, Rische 2011). Costs have risen dramatically since the Sydney Olympics of 2000.

These figures are all rough estimates for democratic states and they do not take into account indirect long-term investment in athletic training infrastructure. In less transparent political systems the costs are even more difficult to estimate; Eimer (2008) attributes to the U.S. IOC the estimate that China spent as much as \$400 million on Olympic training over the four years leading up to the Beijing Olympics. In purchasing power parity dollars, the sums spent by China on its athletes would far exceed the amounts reported by most states for the 2008 Olympics.

Nor are there any guarantees that investing in athletes will pay off. The U.S. invested \$7.1 million on its field hockey team and \$8.2 million on its triathlon efforts for the 2008 Olympics, and won no medals; its equestrian team cost \$27 million and netted one gold, one bronze, and one silver medal (Notte 2012). Australia's extensive investment in the 2012 Olympics led to a medal count 24 percent below its success in 2008. Nevertheless, going for the gold is clearly a less expensive (and less risky) strategy of social creativity to enhance or maintain status attribution than policies associated with social competition, such as developing nuclear weapons (O'Neill 2006), creating an electronic battlefield, or the acquisition and deployment of nuclear submarines (Li and Weuve 2010) and aircraft carriers (Shadbolt 2013).

#### *Resource Transference as a Norm and a Status Seeking Strategy*

There are numerous policy options available to foreign policy makers—in addition to successful Olympic competition—with which to seek to maintain or enhance status in international politics. Adhering to the global norm of resource transference through bilateral foreign aid commitments is one option, part of a cluster of policies consistent with strategies of

social mobility. Foreign aid policy, to the extent that it reflects widely accepted norms, should be rewarded with enhanced status recognition by the global community of states.

The norm of resource transference from richer to poorer states, primarily through bilateral and multilateral aid programs, ignited after World War II and escalated through the Cold War and its aftermath. While states predominantly provide foreign aid for numerous political and strategic reasons,<sup>7</sup> there has been a growing global consensus that aid provision is an appropriate and necessary activity for states that can afford to do so, albeit contestation over aspects of the norm (bilateral versus multilateral aid and the appropriate amount of aid) continue.

Following the Marshall Plan for Europe, a call emerged from non-governmental organizations—such as the World Council of Churches—for richer states to provide aid in order to avert “human disasters.” By 1964 the UN Conference on Trade and Development recommended that states “in a special position” should provide one percent of their gross national product in foreign aid,<sup>8</sup> a call which came to be advocated by the Group of 77 states. In response to these demands the World Bank’s president formed the Pearson Commission which recommended a similar, albeit smaller target; its recommendations were adopted by the UN General Assembly in 1970. The Organisation for Economic Co-operation and Development (OECD), representing much of the global North has also in principle accepted these recommendations; in practice most states have fallen short of the goal, although the OECD conducts periodic reviews of its Development Assistance Committee (DAC) members aid profiles to assess progress.<sup>9</sup> The acceptance of this norm both by donor and recipient states continues across the UN’s Millennium Development Goals, the WTO’s emphasis on the Doha

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<sup>7</sup> For selected examples, see Bueno de Mesquita and Smith 2007, 2009; Dreher, Nunnenkamp and Thiele 2008, and Kuziemko and Werker 2006.

<sup>8</sup> United Nations 1967: 22.

<sup>9</sup> See, for example, the OECD DAC Peer Reviews for: Portugal (2010), United States (2011), or Finland (2012).

Development Agenda, efforts to fashion a global response to climate change,<sup>10</sup> and support for states emerging from domestic conflicts (Collier and Hoeffler 2004).<sup>11</sup>

### *The Substitutability of Promoting Olympic Performance versus Resource Transfers*

How substitutable is the policy of providing foreign aid for the policy of state support for Olympic success in seeking status attribution? In comparing the two policies we focus on medal performance rather than the hosting of Olympics since the latter—given its enormous costs—is likely to be available to only a handful of states compared to the number of states that can and do compete for medals every four years. Additionally, and unlike foreign aid commitments, the hosting of the Olympics has a winner-take-all outcome that is not comparable to the variety of donors able to give foreign aid. Furthermore, we focus only on the Olympic summer games since—and with the exception of outliers such as the Jamaican bobsled team—the winter Olympics generate mostly competition from states located in geographic spaces with cold climates.

One salient difference between the two policies is that while the promotion of success in Olympic competition is a strategy that is primarily<sup>12</sup> aimed at the objective of status enhancement, foreign aid policies have a variety of functions other than seeking more status.<sup>13</sup> Yet, since states can utilize a variety of policies to address the same goal and as well use one

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<sup>10</sup> See “Cancún Summit: Rich countries accused over £30bn climate aid promise.” *The Guardian*, December 6, 2010. Accessed at 8/29/13, <http://www.theguardian.com/environment/2010/dec/07/cancun-summit-climate-aid-row>

<sup>11</sup> Apparently even newly emerging democracies in Europe have embraced foreign aid as a measure of their acceptance into the network of European states (Szent-Ivanyi and Tetenyi 2013).

<sup>12</sup> Although not solely: we assume that there is substantial domestic political benefit derived from achieving Olympic success and some domestic political costs from failure, depending on the degree of investments in the policy and the extent of enthusiasm in society about Olympic success.

<sup>13</sup> These include political and strategic uses of foreign aid (Bueno de Mesquita and Smith 2007), as well as humanitarian or disaster assistance (Linnerooth-Bayer et al. 2005), economic development (Burnside and Dollar 2000), and support for democratization (Knack 2004).

policy to address several goals (Morgan and Palmer 2000), states may view the provision of foreign aid as a substitutable tool for increasing status attribution.

A second difference between the two policies is that while Olympic success promotion is a social creativity strategy, the social mobility strategy of aid commitment is linked to the degree to which states accept a globally promoted norm and are rewarded for their efforts with additional status by the community of states. The conferral of status however is more likely to occur when there is consensus as opposed to contestation over aspects of the norm. While there is contestation over the method (multilateral versus bilateral aid) and amount of such resource transfers, substantial global consensus exists over the normative value placed on engaging in resource transfers. We expect a stronger relationship with status attribution when considering those aspects of the norm where consensus exists (whether or not resource transfers occur) than aspects where there is contestation about the norm (how much or what percentage of GDP to transfer).

Note however that we are not arguing that states primarily provide foreign aid for the purpose of maintaining or enhancing their status. Given the varied purposes associated with resource transfers, it is difficult to parse out the range of objectives sought by policy makers engaging in aid commitments. Our intention is to assess whether or not such foreign policies result in additional status attribution from the community of states, and therefore if states can effectively use foreign aid for this purpose. We seek to uncover the extent to which there is substantial policy substitutability and complementarity between the provision of such aid and investment in Olympic performance, in generating additional status for states.

### **Assessing Status Attribution, Foreign Aid and Olympic Success**

## *Defining and Measuring Status Attribution*

We define status attribution in international politics as overtly recognized membership of an entity in a group along with an overtly recognized hierarchical ranking within the group that conveys standing different from those not in the group or from those ranked differently (higher or lower) in the group.<sup>14</sup> The definition contains two primary components: group membership and relative ranking in the group. Regarding group membership, since we are focusing on the most inclusive of groups in international politics (the group of states), membership is typically not a salient consideration.<sup>15</sup> It is relative ranking within the group that is the more salient part of the status attribution definition.

We differentiate between the perceptual/social comparison dimension of status and the overt manifestation of status attribution. We do so, first, since the group of sovereign states is numerous and its membership heterogeneous; in order for rankings to matter to states there needs to be some public recognition of where a state stands. Private perceptions and social comparisons create far too much uncertainty regarding standing, making its consequences, including rights and responsibilities and the benefits that come with ranking (Sylvan et al. 1998) problematic. Second, there is likely to be a significant difference between private perceptions and social comparisons on one hand and overt recognition of states' status on the other. To the

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<sup>14</sup> While this definition is from a compilation of perspectives on status, due credit should go to Brodie (1996), Lake (2011), Sylvan et al. (1998), and Renshon (2013). Further, consistent with Dafoe et al., we differentiate between status and reputation, with the former consisting of “holding a particular social role in a hierarchy, based on either its positional nature or its social identity” (Dafoe et al. 2013:7).

<sup>15</sup> The early conflicts about group membership during the Cold War over the divided states, including China, Germany, Korea, and Vietnam have been resolved, and have been minimally contested since in the aftermath of the dissolution of the Soviet Union and Yugoslavia.

extent that there are political costs to states for publicly attributing status rankings to other states, the more salient phenomenon should be overt rather than private recognition of a state's status.<sup>16</sup>

In order to assess the overt manifestation of states' status rankings, we use the standard indicator consistent with nearly all<sup>17</sup> previous large-N based research (Singer and Small 1966, East 1972, Wallace 1973, Volgy and Mayhall 1995, Kinne 2014, Renshon 2013, Rhamey and Early 2013, Volgy et al. 2013) that has focused on the entire community of states: the number of embassies sent to the capital of a state. We concur with Kinne (2014:1) who notes that "states engage in [e]xtensive reliance on diplomatic missions as a source of prestige or status," using the missions they receive as a major measure of their own status achievement.

To minimize "noise" and distortion in the indicator, we 1) include only those diplomatic missions that contain high level staffing (ambassadorial level or higher); 2) exclude from the analysis microstates and states that neither send nor receive embassies;<sup>18</sup> and 3) create a percentage measure by dividing the number of embassies received by the total number of states in the system in order to be able to compare status attribution scores over time as the numbers of states in the system change.<sup>19</sup> We focus on the *level* of status attribution across five-year time periods rather than annual observations. The attribution of status is substantially path dependent

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<sup>16</sup> For instance, it may matter a great deal that Chinese policy makers believe that Russia has become a third-world oil producer (as one Chinese academic privately noted), but it is far more consequential if Chinese foreign policy makers publicly so indicate.

<sup>17</sup> For one fascinating exception, see Maoz 2011. For an extensive discussion of face validity of high level diplomatic contacts as a measure of status attribution, including "noise" in the measure, see Volgy et al. 2013.

<sup>18</sup> We exclude states with populations under 200,000 as of the year 2010.

<sup>19</sup> We create a percentage measure to compensate for changes in the number of states in the system and thus changes in opportunity to send embassies. Others have used a simple ranking system (e.g., East 1972, Volgy and Mayhall 1995) or change in the total count of numbers of embassies received (Rhamey and Early 2013). In one recent work the dependent variable was created using a network measure of centrality (Renshon 2013). We ran correlations between each of these variations and our dependent variable (including an in-degree centrality measure), and found high correlations between our measurement and the other options. Furthermore, when running the analysis using alternative measures, we find no substantial differences in results.

and changes slowly, and assessing its levels in five year time frames constitutes a more realistic assessment of relative rankings.

### *Approaches to Measuring Bilateral Aid Commitments*

We focus on bilateral foreign aid, and do so instead of multilateral assistance for a number of reasons, including the fact that multilateral aid contributions often require the consideration of multiple partners in deciding to provide aid. Bilateral foreign aid provision, on the other hand, is the product of a single state's foreign policy choices. Furthermore, the bulk of aid programs are bilateral, making up roughly 70 percent of all assistance programs according to OECD (2012:12) estimates.<sup>20</sup>

We generate data on states donating bilateral foreign aid through the AidData initiative of Brigham Young University, the College of William & Mary, and Development Gateway. AidData cooperates with the OECD and its DAC. While DAC's data are primarily focused on its committee members, AidData also integrates information from individual donor agencies gathered through outreach efforts to "emerging" donors, providing a more comprehensive mapping of bilateral donor assistance than through OECD.<sup>21</sup>

--Table 1 about here--

According to AidData's figures, there were 37 states in 2010<sup>22</sup> providing bilateral foreign aid, and meeting formal guidelines for foreign aid provision.<sup>23</sup> The numbers of foreign aid donors since the end of World War II have included as many as 48 states (Appendix A), making

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<sup>20</sup> If military aid and "multi-bilateral" or "non-core" aid provisions, earmarking transfers to specific states and regions in so-called multilateral aid programs, are excluded from both bilateral and multilateral contributions.

<sup>21</sup> AidData (2012).

<sup>22</sup> The global recession evidently had some impact on aid donation, since the number of bilateral donors averaged over 40 between 2006 and 2009.

<sup>23</sup> AidData (2012).

the number of donors roughly comparable to the number of states that win five or more medals at the summer Olympic Games.<sup>24</sup> The number of bilateral donors has more than doubled since 1975, and the list of new donors suggests that this policy option engages far more states than only those with large economies. The newcomers include states newly independent (or reconstructed after the end of the Cold War),<sup>25</sup> historically poorer states that have improved their economic positions<sup>26</sup> and/or live in neighborhoods where other states are bilateral aid providers.<sup>27</sup>

Table 1 underscores three other phenomena about new aid donors. First, and perhaps consistent with the emerged consensus around the norm of resource transference, nearly half of all donors begin to contribute after the end of the Cold War as bilateral aid appears now to be divorced from that era's bipolar alliances. Second, once states begin to commit aid, it is not a certainty that they will continue to do so annually; less than half of new donors provide aid continuously from the first year onward.

Third, and most obvious, the "cost" of being a donor is not inexpensive although the cost associated with becoming a donor varies enormously, reflecting both substantial differences in the size of economies and likely differences in the number and types of objectives on which foreign aid policies are focused. The average amount of aid committed by donors in 2010 was approximately \$2.2 billion (\$1.6 billion excluding U.S. bilateral assistance), although these

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<sup>24</sup> From 42 to 45 states have won five or more total medals in recent Olympic games (between 2000 and 2012), although the Olympic committee recognizes more "states" than does the United Nations. In 2012, states competed for over 962 medals, with 22 percent of those states winning 75 percent of available medals. The list of states medal recipients is available at <http://www.topendsports.com/events/summer/medal-tally/index.htm>.

<sup>25</sup> Czech Republic, Slovakia, Hungary, Estonia, and Latvia.

<sup>26</sup> Brazil, Chile, India, and South Africa.

<sup>27</sup> Cyprus, Greece, Ireland, Portugal, and Spain.

averages are highly skewed by a handful of donors that give very large amounts.<sup>28</sup> First time participation—and thus the price of membership into the club of donor nations—cost less than \$15 million for the majority of states that became new aid donors since 1975. As a first time donor, for instance, Hungary averaged as little as \$2.7 million over the first five years it became a donor state while committing aid to twelve different countries.

One simple way of observing the linkage between giving aid and status attribution is to create a binary variable of whether or not states engage in bilateral aid donations. This variable is closest to the aspect of the norm of resource transference over which there appears to be broad consensus in the global community. In addition to this variable, we create two other measures over which there is substantial contestation. First, we measure the percentage of GDP that donor states invest in their bilateral aid programs. Second, we search for a measure with which to observe the potential effects of the amount of state aid being committed while avoiding a large multicollinearity problem with the GDP of the state providing the aid.<sup>29</sup> The concern is not just methodological: once a decision is made to become an aid donor, how much a state is likely to invest in bilateral aid is in part a function of its economic capability,<sup>30</sup> and thus we expect substantial collinearity between amount of giving and the donor's GDP. Therefore, we create a variable that is based on under or overspending on bilateral aid, based on a state's GDP.<sup>31</sup>

### *Measuring Olympic Medal Performance*

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<sup>28</sup> Nearly half of foreign aid donors have spent \$60 million or less on bilateral aid annually.

<sup>29</sup> As we note below, the GDP of a state is a critical part of the baseline model for measuring status attribution.

<sup>30</sup> The correlation between aid donors' economic size (GDP) and how much bilateral aid states provide is 0.86. This correlation is so high that when we add the raw aid dollar amounts to the baseline model, even without the aid dummy, the amount of giving is not significant. Logging both aid and GDP produces the same insignificant results. When we add aid amounts by states to our baseline status attribution model with the aid dummy, controlling for GDP, the variable does not register as being significant (results available from authors).

<sup>31</sup> See Appendix B for measurement construction.

We measure Olympic performance consistent with the extant literature (Rhamey and Early 2013) on the topic: the total number of medals won by a state, divided by the total number of medals available for the specific summer Olympiad. Since Olympic performance should precede status attribution and we measure status attribution in five-year increments, we average percentage scores for states if more than one summer Olympiad occurs within the five-year period under consideration.<sup>32</sup>

### **Testing Policy Substitutability and Complementarity**

Since reliable data on bilateral aid commitments begin in 1973, the time-frame utilized is 1975 through 2010. To test the relative utility of bilateral aid commitments versus Olympic performance as pathways to status enhancement, we first construct a baseline model of status attribution with which to test the relative utility of the two policy options. Unlike large-N research conducted on interstate conflicts such as wars or militarized interstate disputes, there is a paucity of empirical work on status attribution for the community of states and no widely accepted baseline model exists in the literature. Two studies (Rhamey and Early 2013, Volgy et al. 2013), however, provide some guidance. These indicate that the size of a state's economy (GDP), its military capabilities (military spending), and a control for path dependency are salient factors in states' estimates of the status rankings of other states. In addition, one study adds a population size variable (Rhamey and Early 2013), while the other (Volgy et al. 2013) controls for the region in which states are nested, along with a dummy variable to identify whether or not status is being attributed during the Cold War.<sup>33</sup>

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<sup>32</sup> This is the case for the 1980, 1984, 2000 and 2004 Olympics.

<sup>33</sup> See Appendix B for variables, their construction and sources of data.

Since Volgy et al. (2013) find substantial multicollinearity between GDP and military spending,<sup>34</sup> we reconfigure the military spending variable to indicate the extent to which a state overspends or underspends on its military relative to the size of its GDP (see Appendix B). These variables are then integrated into one baseline model; they all appear to be significant in predicting the status ranking of states, with an adjusted  $R^2$  of 0.467 produced by the model (Table 2).

--Table 2 about here--

Next, we turn to assessing the relative effects of bilateral aid versus Olympic performance. We run six linear time-series regression models utilizing random effects with robust standard errors,<sup>35</sup> starting with the baseline model, and then alternative combinations: one with a dummy variable for whether or not a state is a donor, two measures of aid commitment, percent of total Olympic medals won, and the integration of being an aid donor with Olympic medal performance. The models are based on observations at five-year intervals and the key independent variables, along with the appropriate controls are lagged at five-year intervals, allowing a range of 1,014 to 1,018 observations across the six models.

The time lags reflect temporal considerations impacting the causal mechanisms that may be at work in status attribution. States cannot be expected to take note immediately of the status enhancement behavior of a state and make changes in their attribution of status by sending additional diplomatic missions. Therefore, we expect that states will recognize the status-seeking behavior when there is clear information available regarding either foreign aid

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<sup>34</sup> Unsurprisingly, the larger a state's economy the more it invests in its military capabilities; the correlation between GDP and military spending is 0.86.

<sup>35</sup> The model utilizes a time-series specification with clustering for each state in the dataset as well as random intercepts (In Stata, xtreg with random effects) along with accounting for time-related effects through the use of the counter and the Cold War dummy variable. An alternative, fixed effects model was found to produce similar results.

commitment or the winning of Olympic medals, and then respond with diplomatic contacts afterwards. We lag by five years with the understanding that creating additional diplomatic infrastructure is not accomplished quickly, or inexpensively.

Note the evidence we require in these models for the assertions made earlier. If policies are substitutable, then the Donor 1 model (state providing aid) in Table 2 should perform as well as the Medals model (Olympic performance). Evidence of complementarity exists if integrating both policy options in the same model (Donors and Medals in Table 2) continues to show that both remain significant and contribute to status attribution. If states receive additional status attribution by acceding to uncontested norms but not to contested ones, then measures of how much aid states given should not be significant (Donor models 2 and 3), once we control for aid giving.

As the Donor 1 model in Table 2 illustrates, the addition of whether or not a state is a bilateral donor results in a significant effect on status attribution, and improves the overall fit of the model from its baseline, with the adjusted  $R^2$  increasing from 0.467 to 0.516. Given our argument about contested versus uncontested norms, as expected, neither the inclusion of the amount of aid being given as a function of a state's GDP (Donor 2 model), nor the extent to which it overspends or underspends its GDP (Donor 3 model) have a significant impact on status attribution once we have accounted for whether or not a state is a bilateral aid donor.<sup>36</sup>

These results show some initial support for the linkage between status attribution and bilateral aid provision as a function of donors being recognized for acceding to the uncontested aspect of a global norm regarding resource transference between states. Yet an alternative

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<sup>36</sup> As we had expected, even when running these variables without the dummy donor variable, neither measure of aid amount is significant in the model.

possibility is that the conferral of additional status to first time aid donors is simply a function of reciprocating with diplomatic contacts on the part of aid recipients. This does not appear to be the case: we find that 84 percent of the diplomatic contacts received by first time donors five years after they begin to donate come from states that are *not* recipients of these donors' bilateral aid. Thus the process of status attribution does not appear to be driven by a "tit for tat" mentality but instead by a general recognition of this policy practice.<sup>37</sup>

The other question raised by these results is: why don't states make token bilateral contributions if the act of becoming a donor alone confers almost all of the additional status reflected in our empirical models? We suggest that this is part of the issue of foreign policy substitutability: while multiple policies may satisfy the same objective, it is also the case that one policy may address a number of objectives. In the case of bilateral aid, states vary in the amount they give in order to satisfy a variety of foreign policy objectives, of which seeking to enhance their status would be only one.<sup>38</sup>

Regarding the substitutability of policies, when Olympic medal performance is exchanged for bilateral aid donor in Table 2 (Medals model), we find effects similar to those in the Donor 1 model, with a slightly higher adjusted  $R^2$  of 0.527. The complementarity of the two strategies is illustrated in the last model (Donors and Medals) where aid giving and medal performance are combined with the baseline model. Both remain significant and the adjusted  $R^2$  increases to .563.

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<sup>37</sup> We lack any specific evidence about the motivations of non-recipients in responding to aid donors with additional diplomatic contacts. It is plausible that they respond to donors in hopes of becoming aid recipients (and we thank an anonymous reviewer for this suggestion). However, that would be consistent with a status attribution framework that defines increased state status as enhancing not only state soft power but as well expectations about that state's obligations.

<sup>38</sup> The extent to which this is also the case for investing in Olympic performance is a question we do not address, but we suspect that such investments could have limited secondary objectives and that these objectives are far more likely to be domestic in nature rather than oriented around foreign policy.

These findings provide some significant evidence that the two policies are substitutable and complementary. The simple provision of aid, controlling for other variables in the model, creates a five percent increase in the ratio of actual diplomatic contacts to potential diplomatic contacts received by a state. In 1975, this level of increase would mean the addition of approximately seven new ambassadors; in 2000, the increase would be approximately nine new ambassadors.

The results for Olympic medal performance indicate that a state increasing its medal count by one percent of the total medals available would result in a 1.4 percent increase in status. The average number of total medals across all of the Olympiads during our time frame is approximately 762 medals, ranging from a low of 600 to a high of 907. Thus, if a state were to increase its medal performance by an average of 7.6 medals, this would then result in the addition of approximately two new ambassadors in 1975 and approximately 2.5 new ambassadors in 2010. All other things being equal, in order to have the same effect on status attribution in 2010 with Olympic performance as with becoming a bilateral donor in 2005, a state would have to generate 26.5 medals in the 2008 Olympic Summer Games.

--Table 3 about here--

At first glance it appears that “going for the gold” creates less of an impact on status attribution than resource transference. Given that only eleven states have attained more than 26.5 medals since the end of the Cold War,<sup>39</sup> and only four<sup>40</sup> of those states were added to that group since the 1992 Olympiad (Table 3), such an outcome is highly unlikely today for all but a small

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<sup>39</sup> In the last summer Olympiad before the end of the Cold War (1988) only seven states won more than 26 medals, but on a smaller base of total medals available.

<sup>40</sup> Of those four only one—Ukraine—had not been a major medal winner historically. For instance, the UK ranked 8<sup>th</sup> in medals, while Japan and Italy were in the top 15 in the 1988 Olympics, the last one to be held before the end of the Cold War.

handful of states.<sup>41</sup> As the choice of becoming an aid donor appears to be far less difficult than winning 27 medals, the policy of becoming an aid donor is both substitutable for investing in Olympic performance and may be an easier strategy for generating substantial additional status.

Yet, there are two reasons why we are hesitant to indicate that going for the gold is less effective than the policy of resource transference. First, Rhamey and Early (2013) cover the entire Cold War era while data on foreign aid restricts us to start our analysis in 1975.<sup>42</sup> Thus, we cannot include in our analysis a significant part of an era of strong competition and conflict, representing a period where social contestation over status was quite severe. This is precisely the condition under which social creativity strategies may be particularly salient (Larson and Shevchenko 2010), and a strategy of social creativity (Olympic success) could be more productive than social mobilization strategies.<sup>43</sup> To the extent that the Cold War epitomized strong competition between East and West—including through the Olympic games—competing over medals undeniably reflected an important arena of status competition free of the risks associated with other types of competition. This caveat to our findings should not be taken lightly; it suggests that the relative value of substitutable status enhancement policies are likely impacted by the degree of polarization and perhaps as well by balance of power considerations in global politics (for a similar assessment regarding major powers, see Wohlforth 2009).<sup>44</sup>

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<sup>41</sup> This interpretation uses average values. If using the actual numbers for 2010, a state would need to earn 9 additional medals to obtain 2.5 additional ambassadors (the base number of total medals for the 2008 Summer Olympics was 907), meaning that the actual medal differential necessary to match aid provision would be 31.4 medals, a feat that has only been accomplished by states that are either global powers or regional powers and already endowed with substantial status attribution.

<sup>42</sup> There are additional research design differences between the two studies, made necessary by the requirement of comparing two policies in our study with different time frames, and to a dependent variable that is measured at five-year intervals.

<sup>43</sup> This would be the case since social mobilization strategies such as resource transfers depend on broadly uncontested norms and the early Cold War era is replete with contestation over most norms.

<sup>44</sup> SIT theorist suggest similar dynamics when they argue that the legitimacy of the status hierarchy impacts on the choice of status seeking strategies and, presumably, their success (Larson and Shevchenko 2010b).

Second, going for the gold may yield less status than resource transference but it may also be less of a financial burden for states. Ideally, we should assess the cost trade-offs between these approaches to status seeking, as rational policy makers would. Unfortunately, as we had noted earlier, estimating the actual costs of state support for Olympic performance is exceedingly difficult.<sup>45</sup> Apart from transparency issues, it is extremely problematic to assess the costs of numerous sub-strategies—and with varying price tags—for increasing medal counts. For instance, the costs of competing in table tennis are substantially different than competing in soccer, yet they are equally reflected in a state’s total medal count;<sup>46</sup> states can reduce their Olympic costs by specializing in less expensive sports.

Given these problems in estimating costs, we can only report a worst case scenario for the Olympic cost option, based on estimated costs for major powers, regional powers, and relatively wealthy democratic states, and competing in events that require extensive investments. Yet, even using the worst case, “going for the gold” appears to be less expensive<sup>47</sup> for states than engaging in resource transfers, and thus off-setting some of the status attribution advantages of bilateral aid provision as a status enhancement strategy. How much less expensive is difficult to estimate since foreign aid is also utilized for a variety of policy objectives in addition to seeking status. It is plausible that if we could create a proportional distribution of the costs for multiple objectives, we would find that foreign aid provision for obtaining more status may not be as expensive for

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<sup>45</sup> While some problems involving indirect costs exist with resource transference policies as well, including the development of delivery mechanisms, they are less expensive if aid distribution is primarily for its normative and symbolic value.

<sup>46</sup> It is of course quite plausible that winning a soccer medal generates more status than winning a medal in table tennis, but that is not the focus of the research here.

<sup>47</sup> Using publicly available data (e.g. Hefferman 2012) on investments in Olympic competition by states that disclose these amounts, we estimate the approximate cost of an additional medal to be between \$8 million to \$9 million and the annualized costs of an additional ambassador via the Olympic medal route would be roughly \$8 million. The median amount of aid issued by states is approximately \$762.5 million annually; for first time aid donors, the median amount is about \$6 million annually. Thus, adjusting the bilateral aid costs to account for the time frame in which we see the impact of foreign aid results in an estimate of \$3.5 million to \$544.5 million.

states<sup>48</sup> when costs for other objectives are removed from the calculation. Additionally, simply becoming an aid donor is a strategy far more available to states than the overall spending numbers indicate. As Table 1 illustrates, no fewer than thirteen new aid donors crossed the threshold of resource transference by spending about \$5 million or less annually. These low costs may have been possible because the policy intent was more restricted by these states than for states spending substantially larger sums. According to our calculations, Brazil's substantial investment in its athletes for the 2008 Olympics generated less status for itself than becoming an aid donor in 2005 for less than \$4 million. Yet, since the two policy options are complementary, Brazil was able to pursue both policies.

We note as well that the outcomes of both policies appear to be “sticky” and path dependent. On the Olympics side, of the 35 top medal states in 2012, there was only one new entrant (South Africa) from 2008 in this group. While there is some variation in relative medal success from one Olympics to the other,<sup>49</sup> the ranks of the successful appear to be fairly consistent over time, unless countries experience substantial and at times traumatic changes within their political systems. It is easier to become an aid donor. Yet, once states cross the threshold of becoming an aid donor, continuing to increase status with additional aid enhancements may have limited additional impact on their status attribution.

## **Conclusions**

Our analysis and the caveats raised around our results suggest several conclusions. First, Olympic competition (a social creativity based status enhancement strategy) and resource

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<sup>48</sup> Although not necessarily unrelated to states' wealth or the size of their economies: the contested norm of providing resources transfers consistent with some fixed percentage of a state's economy—far from strictly observed in practice—places some limits on the ability of states to make only token bilateral commitments.

<sup>49</sup> The single biggest jump in medals typically occurs when a state also hosts the Olympics (China in 2008 and the UK in 2012).

transfers through bilateral aid commitments (a social mobility based status enhancement strategy) involve foreign policies that produce significant additional status attribution for states, and appear to constitute substitutable policy options, albeit with some trade-offs. Becoming an aid donor can generate substantially more status and is more readily within the reach of policy makers than the extra medals required in Olympics competition to reach an equivalent impact. However, it appears that the costs of bilateral commitments may be significantly more expensive than the hunt for Olympic medals. A second trade-off involves risk: while less expensive, the quest for Olympic success is dependent not only on investment but actual outcomes in competition between athletes of various states, while bilateral aid provision is not dependent on the provision of aid by other states.

Second, these policy alternatives are clearly not mutually exclusive strategies, and as our analysis illustrates, they provide cumulative and complementary rather than contending effects on states' status rankings, and in fact a number of states appear to engage in both<sup>50</sup> policies. Policy makers could choose between the two strategies, but could also use both policy options to pursue status-based considerations.

Third, while we note statistically and substantively significant effects from both strategies, it is also clear that there is much path dependence in these patterns, both in terms of status attribution, and in the policies of promoting Olympic success and resource transfers.<sup>51</sup> While both policies have an effect on the baseline model, changes in status attribution are typically modest in the short run, and engineering substantial, large scale changes appears to be a

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<sup>50</sup> For instance, twenty two of the forty states that won five or more medals in the 2008 Olympics were also bilateral aid donors.

<sup>51</sup> We have not focused here on the domestic politics and the consequent constraints associated with becoming and remaining an aid donor, particularly in democratic political systems. For the complexity of public support for aid among donor states, see Bauhr, Charron, and Nasiritousi 2013.

difficult task for policy makers. Thus, a strategy using multiple policies that are complementary is likely to produce greater effects on status attribution and may be a preferable alternative for policy makers wishing to enhance more than incrementally their status rankings in international politics.

Finally, we suggest a salient point for future research on status attribution. Both this work and Ramey and Early's (2013) findings constitute strong starting points for systematic analyses of status seeking and status attribution. Yet, there are a variety of other social mobility and social creativity strategies that states can and do pursue to enhance or maintain the status that is attributed to them by the community of states. These range from acceding to a variety of norms (such as conformance with human rights practices or norms regarding the use and manufacture of chemical weapons) to social creativity strategies such as taking leadership positions on global warming and climate change. More theoretical work and empirical testing is needed to lay out the conditions under which various status seeking strategies may be impacted by changing international and domestic circumstances, and as well the effects that additional substitutable and complementary policies may have on status attribution. There is far more to be explained, and that will be the focus of our future endeavors.

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**Table 1: First Time Bilateral Aid Donors, Provision Frequency, and Amount of Aid Provided, 1975-2010.**

Country	Year of First Donation	Provision Frequency*	Average amount of aid provided in millions of US\$**
Portugal	1983	96	287
Spain	1988	100	1,120
Luxembourg	1989	50	138.4
Iceland	1990	81	4.9
Taiwan	1991	100	26.1
Czech Republic	1996	93	16.2
Estonia	2000	100	0.6
Ireland	2000	100	299
Brazil	2001	80	3.5
Israel***	2002	78	N/A
Chile	2002	100	0.3
Greece	2002	100	190
Hungary	2003	75	2.7
Slovakia	2004	43	2.4
Cyprus	2005	100	2.3
India	2005	100	928
Latvia	2005	100	0.5
South Africa	2005	83	11.5
Colombia	2006	80	2.1
South Korea	2006	100	41.8
Lithuania	2007	75	3
Poland***	2007	N/A	N/A
Qatar	2007	25	84.8

Romania	2007	75	1.7
Thailand	2007	100	4.7
Slovenia	2010	N/A	N/A****

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\* Provision frequency is the percentage of time a state provides aid.

\*\* Average amount over first five years of aid provision.

\*\*\* These countries are not in AidData 2.1. Discussions with AidData personnel indicate that in fact both countries are bilateral aid providers and have been excluded for reasons not to this analysis.

\*\*\*\*Slovenia's first year aid donation is estimated at \$3.6 million.

**Table 2: Bilateral Aid Provision, Olympic Performance, and Status Attribution.**

	Baseline	Donor 1	Donor 2	Donor 3	Medals	Donors & Medals
Provided Bilateral Aid <sub>t-5</sub>	-	0.0543** (0.0184)	0.0562** (0.0171)	0.0541** (0.0183)	-	0.0527** (0.0183)
Aid/GDP Ratio <sub>t-5</sub>	-	-	-1.293 (1.483)	-	-	-
Aid Performance <sub>t-5</sub>	-	-	-	-0.0399 (0.142)	-	-
Total Medal Performance <sub>t-5</sub>	-	-	-	-	0.0149*** (0.00403)	0.0144*** (0.00379)
GDP <sub>t-5</sub>	5.19e-05*** (1.32e-05)	5.10e-05*** (1.27e-05)	5.12e-05*** (1.28e-05)	5.11e-05*** (1.25e-05)	6.01e-05*** (1.13e-05)	5.81e-05*** (1.08e-05)
Military Performance <sub>t-5</sub>	0.459* (0.186)	0.446* (0.174)	0.447* (0.174)	0.445* (0.173)	0.683*** (0.139)	0.655*** (0.126)
Population <sub>t-5</sub>	3.63e-10*** (8.03e-11)	3.58e-10*** (9.35e-11)	3.57e-10*** (9.33e-11)	3.60e-10*** (9.52e-11)	2.70e-10*** (5.40e-11)	2.71e-10*** (6.08e-11)
Cold War	0.0490*** (0.00408)	0.0464*** (0.00428)	0.0462*** (0.00430)	0.0464*** (0.00429)	0.0483*** (0.00407)	0.0459*** (0.00427)
Time Counter	0.0147*** (0.00142)	0.0133*** (0.00139)	0.0132*** (0.00137)	0.0133*** (0.00140)	0.0144*** (0.00140)	0.0131*** (0.00138)
Europe*	0.123** (0.0437)	0.107* (0.0417)	0.107** (0.0417)	0.107* (0.0417)	0.107** (0.0413)	0.0921* (0.0397)
Middle East*	0.135** (0.0455)	0.128** (0.0439)	0.130** (0.0441)	0.128** (0.0439)	0.140** (0.0450)	0.133** (0.0437)
Constant	0.0368 (0.0336)	0.0449 (0.0324)	0.0457 (0.0323)	0.0450 (0.0325)	0.0349 (0.0330)	0.0426 (0.0320)
Observations	1018	1018	1018	1018	1014	1014
Adjusted R <sup>2</sup>	0.4668	0.5158	0.5153	0.5158	0.5265	0.5626
Akaike Criterion (AIC)**	-2896.58	-2929.49	-2928.96	-2927.54	-2919.78	-2950.66
Bayesian Criterion (BIC)**	-2822.70	-2850.68	-2845.23	-2843.80	-2841.04	-2866.99

Standard Errors in Parentheses

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ 

\* Regions that are not significant are not shown in the table.

\*\*Estimations of variable effects were initially completed using ordinary least squares. AIC and BIC values are generated using xtreg with maximum-likelihood estimation; results for variable effects using this specification are available from the authors upon request.

**Table 3: States with 27 or more Medals won During the Summer Olympic Games, 1992-2012 (Source: International Olympics Committee).\***

1992	1996	2000	Summer Olympiad 2004	2008	2012
Russia	US	US	US	US	US
US	Germany	Russia	China	Russia	China
Germany	Russia	China	Russia	UK	UK
China	China	Australia	Australia	Germany	Russia
Cuba	Australia	Germany	<b>Japan</b>	Australia	S. Korea
Hungary	France	France	Germany	S. Korea	Germany
France	<b>Italy</b>	Italy	France	Italy	France
S. Korea	S. Korea	Cuba	Italy	France	Italy
Australia		<b>UK</b>	S. Korea	<b>Ukraine</b>	Australia
		S. Korea	UK		Japan
			Cuba		
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Total Number of States with 27 or more Medals					
9	8	10	11	9	10
Total Medals Available					
815	842	927	927	958	962

\* States are listed in order of numbers of medals won. States appearing in bold indicates that they are new to the list compared to the 1992 Olympiad.

## Appendix A: Bilateral Aid Donors, And Year of First Donation.

Donor	Year of First Donation
Australia	Prior to 1980
Austria	Prior to 1980
Belgium	Prior to 1980
Brazil	2001
Canada	Prior to 1980
Chile	2002
Colombia	2006
Cyprus	2005
Czech Republic	1996
Denmark	Prior to 1980
Estonia	2000
Finland	Prior to 1980
France	Prior to 1980
Germany	Prior to 1980
Greece	2002
Hungary	2003
Iceland	1990
India	2005
Ireland	2000
Israel**	2002
Italy	Prior to 1980
Japan	Prior to 1980
South Korea	2006
Kuwait	Prior to 1980
Latvia	2005
Liechtenstein*	1981
Lithuania	2007
Luxembourg	1989
Monaco*	2006
Netherlands	Prior to 1980
New Zealand	Prior to 1980
Norway	Prior to 1980
Poland***	2007
Portugal	1983
Qatar	2007
Romania	2007
Saudi Arabia	Prior to 1980

Slovak Republic	2004
Slovenia	2010
South Africa	2005
Spain	1988
Sweden	Prior to 1980
Switzerland	Prior to 1980
Taiwan	1991
Thailand	2007
United Arab Emirates	Prior to 1980
United Kingdom	Prior to 1980
United States	Prior to 1980

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\* As microstates, excluded from the analysis.

\*\* Managers of the AidData data base indicated in conversation with the authors that Israel's exclusion from AidData 2.1 was by mistake; the financial amounts of the commitments is absent.

\*\*\* AidData 1.9 and 2.0 lists Poland as a bilateral aid donor while it is excluded in AidData 2.1. AidData managers indicate that Poland was excluded while AidData awaits additional information from the Polish government.

## APPENDIX B: Variable Descriptions

<i>Concept</i>	<i>Measurement</i>	<i>Source</i>
Status	Measured as the total number of embassies a state receives / all states in the system	COW Diplomatic contacts data and DIPCON 2.0 database (see <a href="http://www.u.arizona.edu/~volgy/data.html">http://www.u.arizona.edu/~volgy/data.html</a> )
Provided Bilateral Aid	Dummy variable indicating whether or not bilateral foreign aid was committed	AidData Project Research data set 2.1 see: <a href="http://www.aiddata.org/content/index/Research/research-datasets">http://www.aiddata.org/content/index/Research/research-datasets</a>
Aid/GDP ratio	Amount of aid committed annually divided by the state's GDP	Same as data on Aid and GDP
Aid Performance	Measured as a proportion of a state's GDP to total global GDP and then subtracting the ratio of a state's bilateral aid expenditure to global bilateral expenditure	Reconstructed from the same sources as for Bilateral Aid Provision and Economic Size.
Medal Performance	Measured as the total number of medals won in a given Summer Olympics / all medals awarded in said Summer Olympics	International Olympic Committee (IOC)
Economic Size	GDP	U.S. Department of Agriculture (USDA)
Military Performance	Measured by taking the proportion of a state's GDP to total global GDP and then subtracting the ratio of a state's military expenditures to global military expenditures	Data for 1975-1990 from ACDA; data from 1990-2010 from SIPRI
Population	Population size	World Bank estimates from 2010
Cold War-Era	Measured as a dummy variable with 1 = 1965-1990 and 0 = 1995-2010	
Time Counter	Time counter starting with 1 for 1975, 2 for 1980...	

Regions

Measured as a series of dummy variables separately identifying the regions of Europe, North America (including the Caribbean), South America, West Africa, Southern Africa, Central Asia, East Asia, South Asia, Oceania, Maghreb and the Middle East

For the rationale and source of classifications, see Cline et al. (2011)

## Appendix C: Summary Statistics.

Variables	Obs	Mean	Std. Dev.	Min	Max
Status	1275	.2407175	.1872971	.005848	.9827586
Provided Bilateral Aid $t_{-5}$	1098	.1502732	.3575019	0	1
Total Medal Performance $t_{-5}$	1094	.0062224	.0195996	0	.2045826
GDP $t_{-5}$	1064	192.3746	810.1021	.14	12623
Military Performance $t_{-5}$	1028	.000203	.020686	-.3079003	.1123989
Population $t_{-5}$	1076	32,900,000	119,000,000	130,028*	1,300,000,000
Cold War	1277	.4612373	.4986905	0	1
Time Counter	1277	7.678152	2.27028	1	11
Europe	1277	.2302271	.4211431	0	1
West Africa	1277	.1049334	.3065877	0	1
Sub-Saharan Africa	1277	.165231	.3715344	0	1
Middle East	1277	.0908379	.287491	0	1
East Asia	1277	.1174628	.3220971	0	1
South Asia	1277	.0234926	.1515211	0	1
South America	1277	.0743931	.2625124	0	1
North America	1277	.1041504	.3055752	0	1

\* Although this variable has minimum values below 200,000, we eliminated all microstates in the analysis that did not reach a minimum population level of 200,000 by the year 2010.